CALAPOOIA RIVER

WATERSHED ANALYSIS

PART I - RESOURCE ASSESSMENT REPORT

Weyerhaeuser

August 1998

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INTRODUCTION

This *Watershed Analysis Synthesis* brings together important points from each of the assessment reports contained in this document (Appendices A-G). These reports detail mass wasting (landslides), hillslope and road erosion, hydrology, riparian conditions, channel processes, water quality, fish resources and fish habitat in the Calapooia River Watershed Administrative Unit (WAU). Following this synthesis are *Causal Mechanism Reports*, which link forest management activities to potentially deleterious effects on fish habitat and water quality. Causal mechanism reports describe locations and specific triggering mechanisms, which may require tailored prescriptions.

Watershed Analysis Methods

The critical questions, guiding assumptions, and methods used in the assessment reports are detailed in the Standard Methodology for Conducting Watershed Analysis, Version 4.0 (Washington Forest Practices Board, 1997). In a few cases, methods were modified by the assessment team members to more appropriately address specific resource and assessment issues relevant to this watershed as well as to employ methods more recently developed. The Calapooia River WAU team members are listed in Table 1.

Table 1 The Calapooia River WAU watershed team.

Team member	Title	Responsibility
Karin Baitis	Geomorphologist	Stream Channel (E)
Jeffrey Clark	Washington Watershed Analysis Team Leader	Editor
John Heffner	Research Technician	Field support
Lillian Herger	Fish Biologist	Fish Habitat (F) and Water Quality (G)
Susan Madsen	Fluvial Geomorphologist	Surface Erosion (B)
Maryanne Reiter	Hydrologist and Riparian Specialist	Hydrology module (C), Riparian Function (D) and Water Quality (G)
Ted Turner	Geologist	Mass Wasting (A)
Jim Stark	Watershed Analysis Project Team Leader	Coordinator
Robin Lindly	Administrative Assistant	Administrative support

WATERSHED OVERVIEW

All watersheds have unique natural characteristics and land use histories, which provide a framework for interpreting the watershed's current condition and function. This overview is intended to provide the reader with a general understanding of those natural components and known human interactions that have affected the aquatic resources in the watershed.

Location and Ownership

The Calapooia River Watershed Administrative Unit (WAU) is located in the west-central Cascades mountain range of Oregon approximately 24 miles northeast of Springfield, Oregon (**Map 1**). Weyerhaeuser ownership accounts for 68.1 percent of the total watershed acreage. The remaining acreage is in federal and private ownership (**Map 2**, Table 2).

Table 2 Ownership distribution in the Calapooia River WAU.

Ownership	Acreage	Percentage of total
Weyerhaeuser	37,126	68.1
Willamette National Forest	5,900	10.8
Bureau of Land Management	1,633	3.0
Other private	9,822	18.0
Total	54,481	

Geology and Slope Stability

Regionally, the watershed lies at the western margin of the Western Cascades physiographic province (Orr et al., 1992). This province is primarily situated between the younger, snow covered peaks of the High Cascade range on its eastern flanks and the Willamette Valley on the west. The assessment area is underlain by volcanic rocks including basalt and andesite flows and volcaniclastics (primarily tuff which is volcanic ash that has been compressed into rock) that are roughly 10 to 30 million years old (**Map 3**). Basalt and andesite flows cap many of the ridges in the assessment area and form many of the steeper slopes. The underlying volcaniclastic unit, where it does not contain basalt flows or hard breccia, is weaker and underlies the gentler, lower elevation slopes over much of the assessment area. In this area are also found large, ancient landslides which probably occurred hundreds to thousands of years ago during major disturbance events (e.g., seismic activity).

The geomorphology of the WAU consists of the narrow alluvial and bedrock controlled valley of the upper Calapooia River (with associated terraces only where the valley widens); moderate to steep slopes of the Calapooia River tributaries; and occasional broad ridges of the northern and southern watershed boundaries which delineate the tops of geologically recent basalt and andesite flows (see **Map 3a**). Additionally, there are scattered igneous intrusions, which form portions of the ridges and peaks within the WAU.

Landslides

Approximately 600 landslides were inventoried from low elevation aerial photographs at roughly 10-year increments between 1949 and 1997. The highest occurrence of observed landslides were from the 1967 and 1996/1997 air photos (Figure 1). These periods coincided with major storms as well as intensified management activities in the WAU. The majority of the landslides are from steep, concave slopes, followed by steep planar slopes and bench edges (Figure 2). When these landslides become channelized, the steep and confined tributaries facilitate high debris flow occurrence as well as long debris flow runouts.

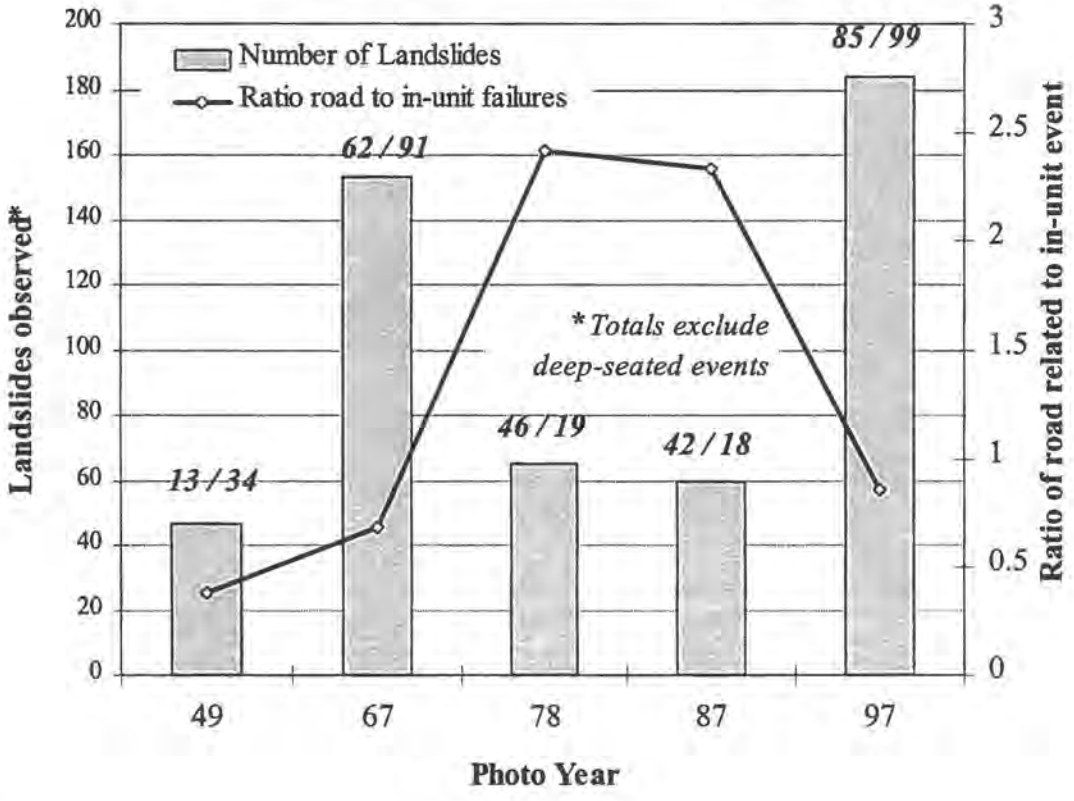


Figure 1 Landslide occurrence by photo year and land use association (road/non-road related ratio) in the Calapooia River WAU, 1949–1997

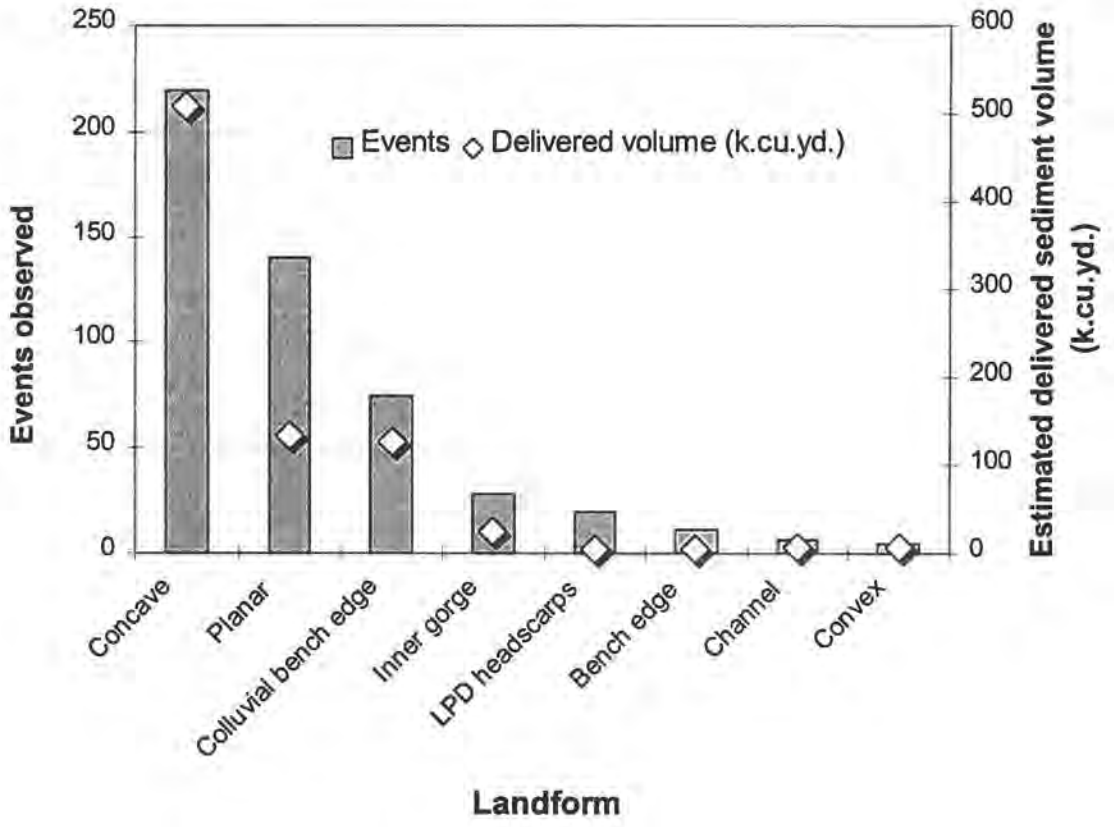


Figure 2 Comparison of estimated sediment volumes delivered by landslides (excluding LPD) from different landforms in the WAU.

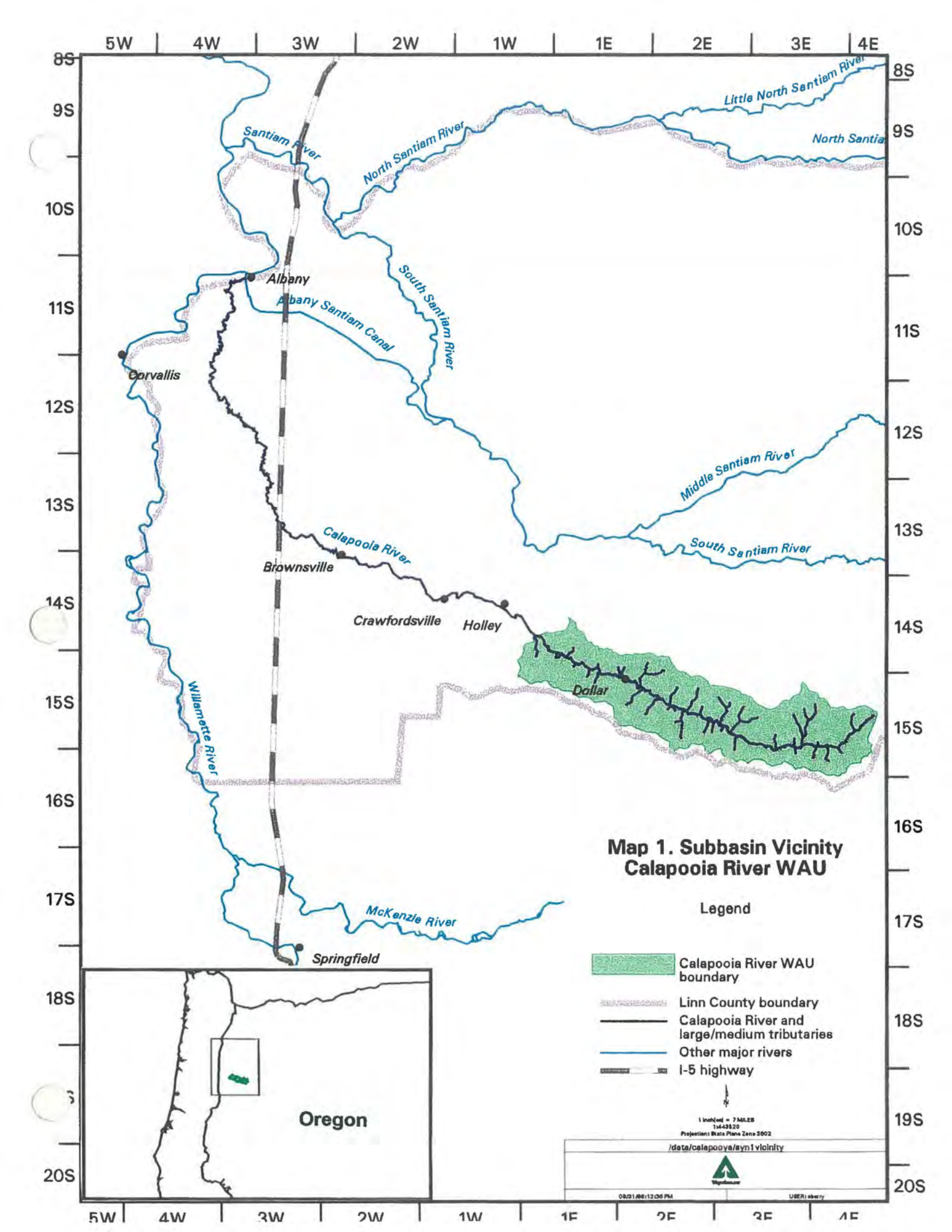
Management practices; particularly sidecast road construction across steep, concave landforms are one of the primary factors influencing landslides. Road–related events accounted for 49% of the inventory. Sidecast failures (including landings) were identified in 70% of the road–related failures, while cutbank failures accounted for 22% of the events.

The frequency of non–road–related failures exceeded road–related failures for all photo years except 1978 and 1987. This trend, which appears to be most strongly correlated to the timing of large hydrologic events during the period of record, suggest the following hypotheses:

- Road–related landslides may result from moderate as well as large storm events across different terrain. For example, while sidecast road failures occur more frequently during the largest storms, the rate of increase is much smaller than the rate of in–unit failures during large storms.

- Steep concave slopes fail at exponentially higher rates above some threshold storm event. The size of that event appears to have been reached in 1964 and 1996.

- The higher proportion of road–related to in–unit landslides in the 1978 and 1987 photos as compared to 1996 suggest that the high harvest and road construction rates during these


5W
4W
3W
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8S
9S
10S
11S
12S
13S
14S
15S
16S
17S
18S
19S
20S
Little North Santiam River
North Santia
Santiam River
North Santiam River
South Santiam River
Albany
Albany Santiam Canal
Corvallis
Middle Santiam River
South Santiam River
Calapooia River
Brownsville
Crawfordsville
Holley
Dollar
Willamette River
McKenzie River
Springfield
Oregon
Map 1. Subbasin Vicinity
Calapooia River WAU
Legend
Calapooia River WAU boundary
Linn County boundary
Calapooia River and large/medium tributaries
Other major rivers
I-5 highway
1 inch(es) = 7 MILES
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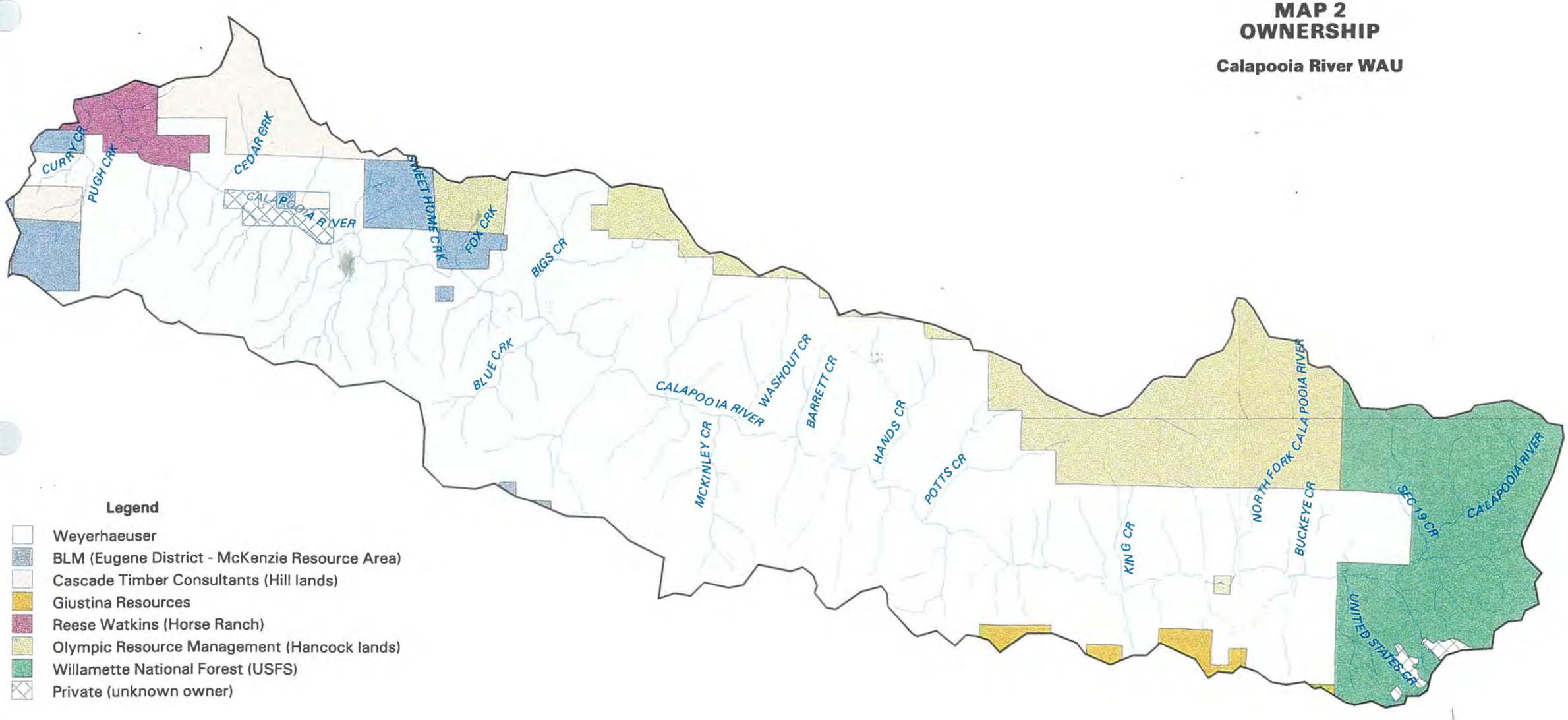
Projection: State Plane Zone 3602
/data/calapooya/syn1 vicinity

MAP 2
OWNERSHIP

Calapooia River WAU



Legend

- Weyerhaeuser
- BLM (Eugene District - McKenzie Resource Area)
- Cascade Timber Consultants (Hill lands)
- Giustina Resources
- Reese Watkins (Horse Ranch)
- Olympic Resource Management (Hancock lands)
- Willamette National Forest (USFS)
- Private (unknown owner)

N

1.0MI 0MI 1MI 2MI 3MI 4MI

1 : 90000

1 inch = 7500 feet

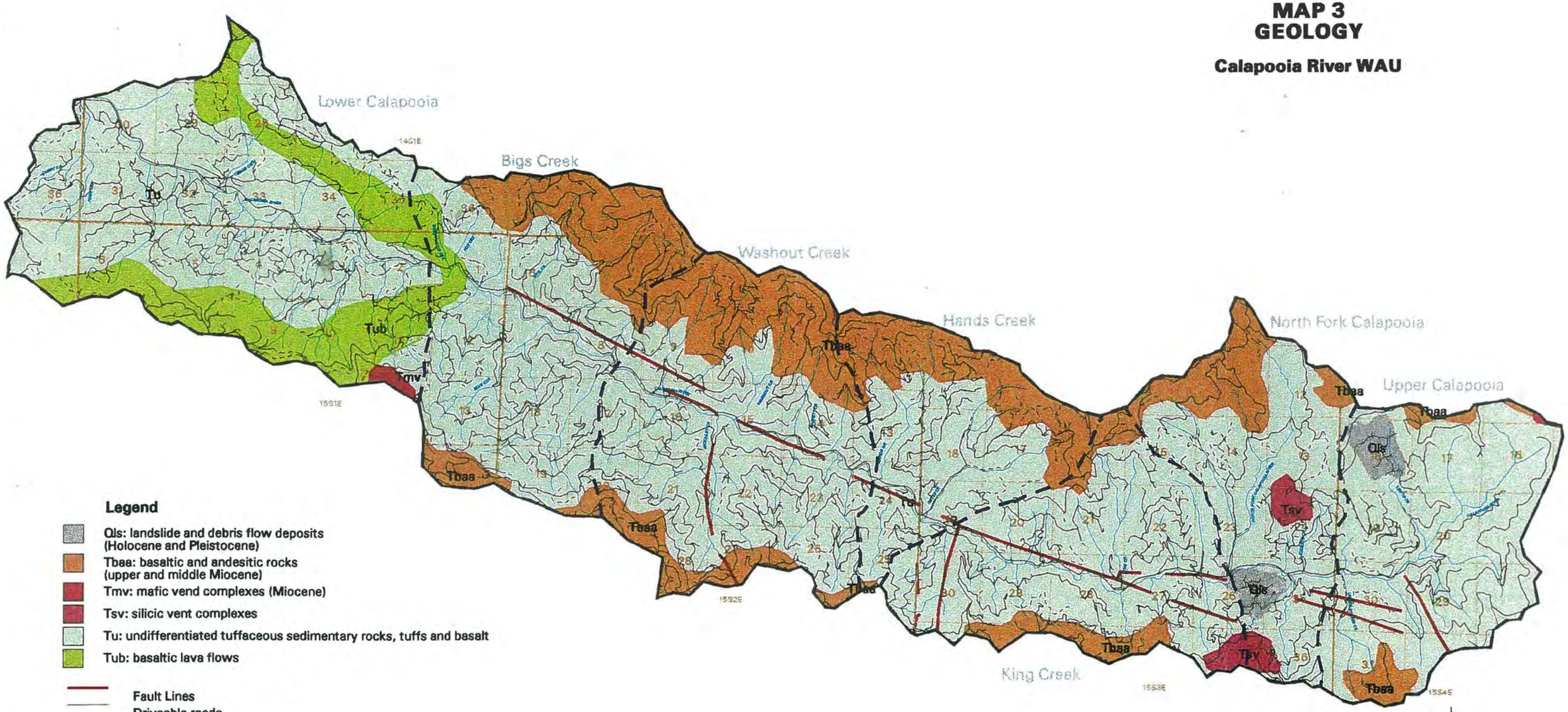
Map 2 Ownership

Weyerhaeuser

DATE: 08/31/98

MAP 3
GEOLOGY

Calapooia River WAU



Legend

- Qls: landslide and debris flow deposits (Holocene and Pleistocene)
- Tbaa: basaltic and andesitic rocks (upper and middle Miocene)
- Tmv: mafic vend complexes (Miocene)
- Tsv: silicic vent complexes
- Tu: undifferentiated tuffaceous sedimentary rocks, tuffs and basalt
- Tub: basaltic lava flows

- Fault Lines
- Driveable roads
- Abandoned/overgrown roads

1 : 90000

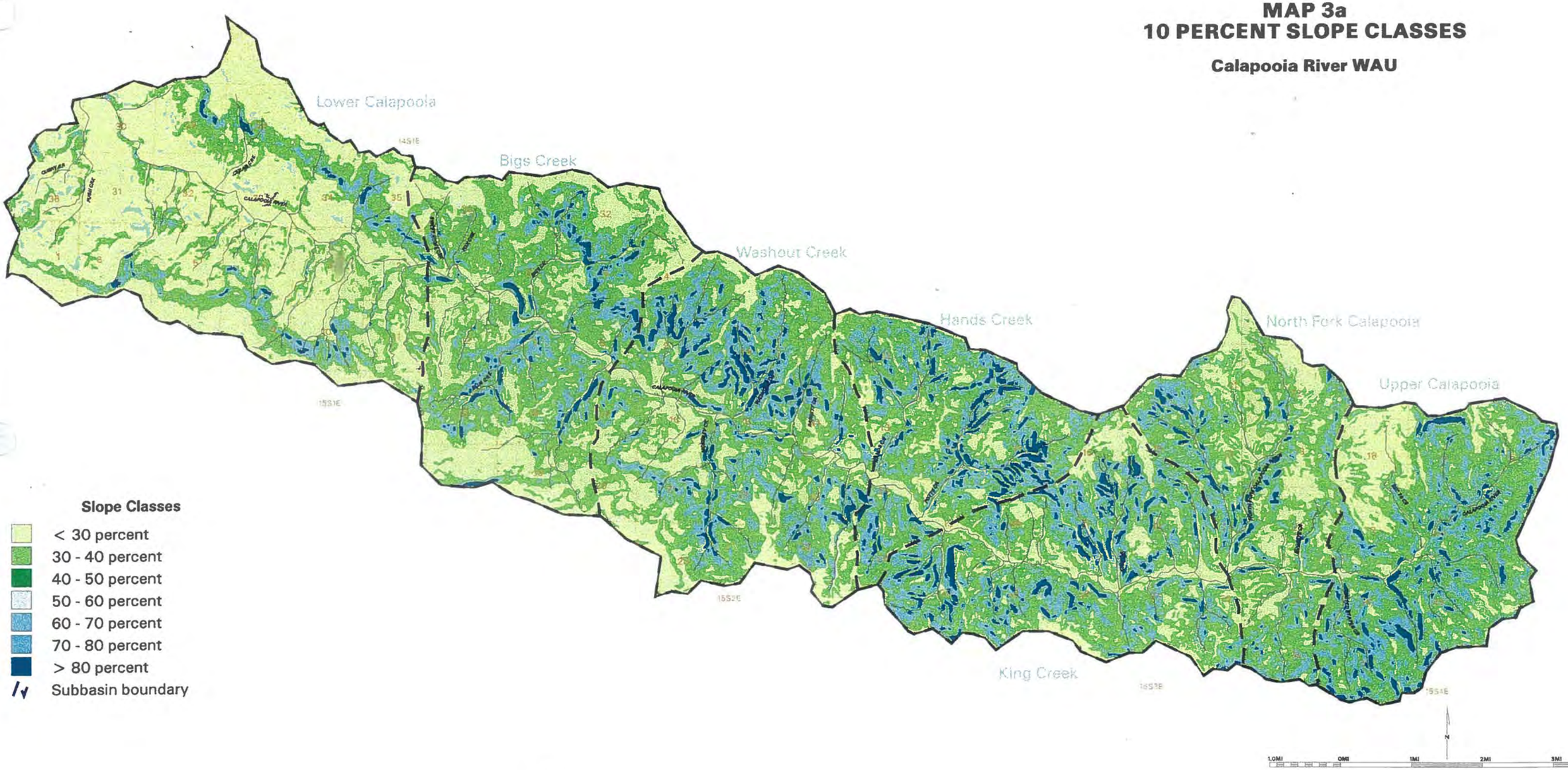
1 inch = 7500 feet

Geologic Base Map from USGS 1:500000

Map 3 Geology
Weyerhaeuser
DATE: 08/18/98

MAP 3a
10 PERCENT SLOPE CLASSES

Calapooia River WAU



Slope Classes

- < 30 percent
- 30 - 40 percent
- 40 - 50 percent
- 50 - 60 percent
- 60 - 70 percent
- 70 - 80 percent
- > 80 percent
- Subbasin boundary

1 : 90000

1 inch = 7500 feet

Map 3a 10 Percent Slope Classes

Weyerhaeuser

DATE: 08/31/98

The highest sediment volumes delivered to the stream network, and the highest landslide densities (normalized by area) were from the central portion of the watershed including the King Creek, Hands Creek, and Washout Creek subbasins. Most observed events from these basins occurred between 1987 and 1997, presumably from storms in 1996.

Soils and Erosion

Soils within the Calapooia River WAU range from moderately deep to deep (2-4.5 feet) and are typically well-drained which readily allows for infiltration of rainfall and snowmelt. The mineral soil is typically covered by a continuous layer of organic litter from 1 to 2 inches thick. The following table (Table 3) provides an overview of the soils in the WAU.

Table 3 General soil characters of the Calapooia River WAU (based on Landridge 1987).

General Location	Dominant Soil Group
Gentle sideslopes in lower watershed	Deep clay loams associated with earthflows
Upland Benches	Shallow upland silt loams
Headwater slopes	Shallow, rocky upland gravelly loams
Midslope areas	Midslope cobbly loams

The combination of soil type, slope and landform leads to differences in sediment yield and delivery rates. For the Calapooia River WAU, the estimated natural background sediment delivery rate from soil creep varied from 13.5 to 29.7 tons/mi^2 per year, averaging 22.5 tons/mi^2 per year for the entire basin

Land use practices influence the natural sediment delivery rate through changes in vegetative cover, routing of sediment and exposing mineral soil to vehicle traffic. The effects of land use practices on sediment production and delivery in the Calapooia River WAU are summarized below.

- Based on observations at seven units harvested within the past five years, surface erosion associated with timber harvest activities is rare, and delivery of sediment via hillslope surface erosion in the Calapooia River WAU is minimal under current management practices.

- Erosion of exposed surfaces of small, sporadic deep seated landslides can contribute large amounts of fine sediment if they intersect the channel network and remain unvegetated.

- Under existing traffic conditions, road surface erosion delivers an average of 11.6 tons of fine sediment per square mile of basin area per year to channels in the Calapooia River WAU. The contributions vary by subbasin, amounting to increases of 23 to 81 percent over the estimated background sediment yield. Sediment yield increases that exceed 50 percent are potentially detectable and may impact aquatic resources.

- The source of sediment delivered to streams from roads varies depending on their position. Erosion of road tread surfaces delivers the most sediment from stream adjacent roads. Under existing traffic conditions, unvegetated cutslope surfaces on mid-slope and ridge-top roads contribute the majority of the fine sediment.

- Gullies associated with logging roads can be a major source of fine sediment. Gullies most commonly originate where blocked stream crossing or ditch relief culverts divert flow onto road tread surfaces. Drainage structures on crowned or insloped roads where the road climbs on the approach and through the crossing have a high "diversion potential" (Weaver and Hagans 1994), and were observed to be the most important initiation mechanism of gully erosion in the Calapooia WAU.

Precipitation and Streamflow

The majority of precipitation falls as rain during the winter months, with snowfall generally occurring above 2,000 ft. The estimated zone where rain-on-snow is most likely occurs from 2,000-2,800 ft and composes approximately 26 percent of the watershed. The rain-on-snow zone coincides with the inherently steep and unstable ground, particularly in the headwaters of Hands, Washout and King Creeks, which have the highest number of landslides in the WAU.

Streamflow follows a similar pattern to precipitation with the highest average monthly flow occurring in December and lowest average monthly flow in August and September (Figure 3). The majority of peak flows (31%) occur in December, based on 55 annual records for the Calapooia River near Holley. The three largest floods on record for the Calapooia River near Holley include February 1996 (estimated) and December 1964 followed by the December 1945 event. Other large events (between a 10 and 25-year event) include water year 1961, 1956, 1972, 1954 and 1958.

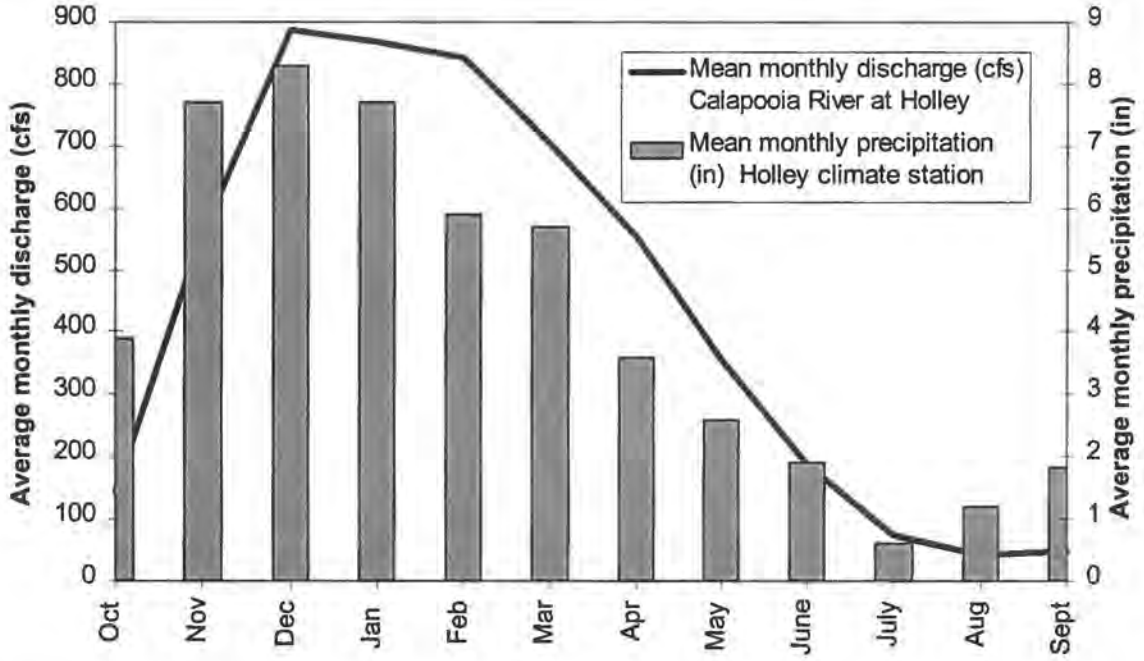


Figure 3 Average monthly precipitation (in) for the climate station and average monthly discharge (cfs) for the Calapooia River near Holley (USGS).

Riparian Areas and Wetlands

Riparian tree species composition, growth and stand density are influenced by several factors including moisture and light gradients, geomorphology, soils and patterns of disturbance. For example, red alder (*Alnus rubra*) generally occurs in disturbed sites, especially along stream channels (Franklin and Dyrness 1973). This is evident in the Calapooia River WAU where red alder occurs along stream channels and areas disturbed by debris torrents or past harvest. Major conifer species found in riparian areas of the Calapooia River WAU include western red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla)* and Douglas fir (*Psuedotsuga menziesii*). Other hardwood species besides red alder include big leaf maple (*Acer macrophyllum*). Currently, most of the riparian areas have small diameter conifer, hardwood and mixed stands resulting in an overall low near-term recruitment potential for large wood (64%). However, in the long-term, 77% of the riparian areas are projected to have moderate to high recruitment potential due to the presence of conifer species.

Wetlands are not very common in the WAU, composing only 0.15% of the area. Most wetlands are associated with flowing water and are found in areas ranging from low elevation stream-adjacent areas to higher elevation flatter upland areas. The highest concentration of wetlands is in the flatter bench area in the headwaters of McKinley and Blue Creeks on the southside of the Calapooia River drainage. Many wetlands are strongly influenced by forest roads. For example, wetlands in Township 15S Range 2E Section 19 have apparently formed in low gradient areas behind forest roads. Several wetlands in that area have been colonized by beaver (*Castor canadensis*) that have constructed dams across culverts and backed up water. These wetlands are typically small and most are classified as slope-type wetlands. Some wetlands are associated with large persistent deep-seated landslides (see Mass Wasting Module, Appendix A), which create wetlands known as sag ponds.

Streams

Steep, highly confined, high-energy mountain streams carve the Calapooia River watershed. Steps occasionally punctuate longitudinal profiles where channels cross more resistant bedrock and form cascading waterfalls. Landslides that turn into debris flows are naturally a dominant mechanism of erosion in the western Cascades, and route sediment and wood to downstream reaches. The mainstem channel has cut down and incised into the valley bottom so that it frequently is not connected to higher terraces. This localized entrenchment may have occurred as a result of the removal of large debris jams. By who how many years ago? BS

Coarse sediment and bedrock are the dominant substrates in most of the channels and boulders currently dominate pool formation in steeper channels. Small and large woody debris jams are important for storing sediment and forming pools. In the lower gradient mainstem, pools are mainly formed by scour. Due to a change in geology, fine sediment is a more common substrate in the lower end of the watershed where colluvial material from slumps and earthflows and fine-grained volcaniclastics occur.

Fish Species

The following is a summary of the fish species present within the watershed and their distribution.

Salmonid species

The following table (Table 4) lists the salmonid species (family Salmonidae) present in the Calapooia River WAU and a brief summary of their distribution. The watershed has 58.6 miles of fish-bearing waters. The approximated extent of distribution of each salmonid species is shown on **Map 4**.

Table 4 Salmonid species present in the watershed and a brief summary of their use of the WAU.

Species	Distribution in the watershed (mi)	Summary
Chinook salmon*	24.7	Chinook salmon occur in the mainstem Calapooia river with the primary spawning and rearing habitat in the reach between the town of Holley and the Treadwell Creek confluence.
Steelhead (winter)*	29.2	Winter steelhead use the mainstem as a migration corridor to spawning and rearing areas of the upper mainstem and its tributaries. Both Potts Creek and the North Fork Calapooia River are known spawning streams and it is likely that other larger tributaries may be used by steelhead.
Coastal cutthroat trout (resident)	58.7	Resident cutthroat trout are the most broadly distributed fish species as they are able to inhabit high gradient small streams. Also, cutthroat populations are present above barriers that prohibit anadromous fish use.
Whitefish	24.7	Whitefish are found in the mainstem. It is likely that they are distributed throughout the mainstem to the barrier below Treadwell Creek.

*proposed for threatened status under the endangered species act.

Residualized steelhead (rainbow trout) may be present in the WAU but distinct rainbow trout populations have not been documented.

Non-salmonid species

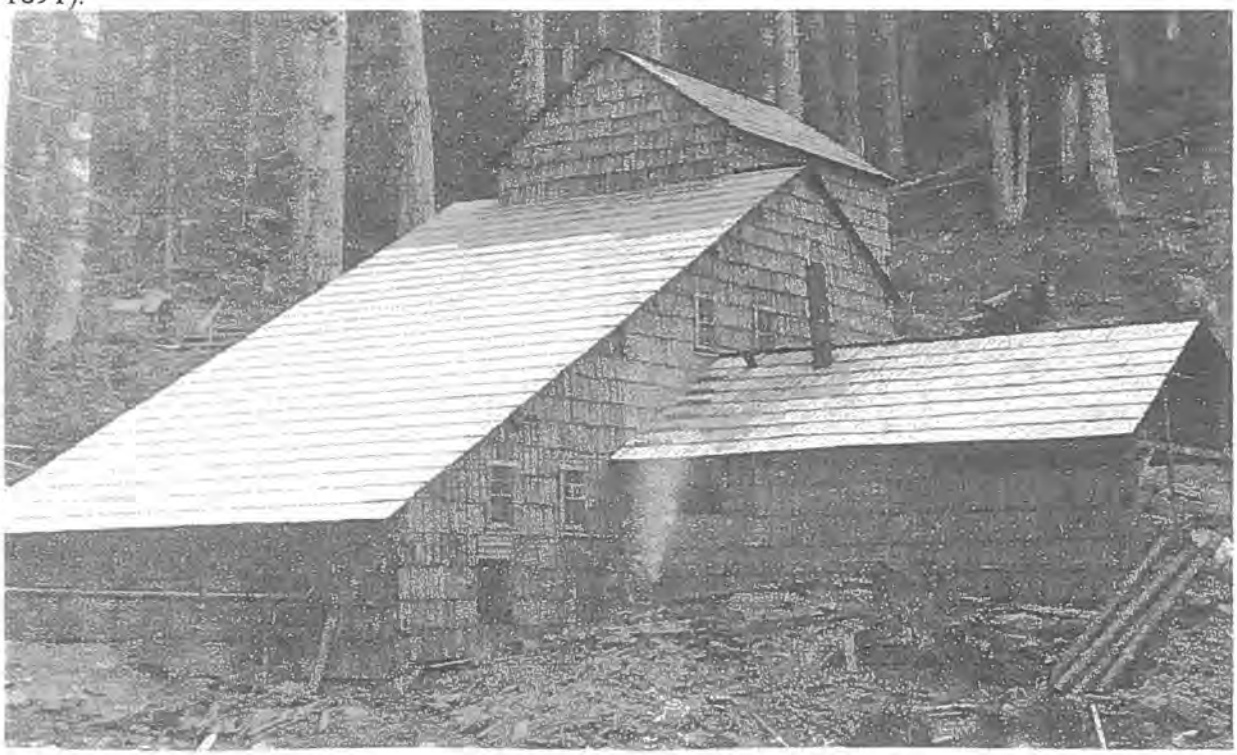
Presence of several native non-salmonid species has been verified in the lower portion of the WAU and other species are likely to be present. Also, many other fish species adapted to slower flows and warmer water temperatures inhabit the lower portions of the Calapooia River below the WAU boundary. Some of these species are non-native introductions. The following is a list of non-salmonid species present or likely to be present in the Calapooia River WAU (Sources: EPA unpublished data, Lee et al.1980, Markle et al. 1996).

- **Minnows** including speckled dace, longnose dace, northern squawfish, redside shiner
- **Suckers** largescale sucker
- **Sculpins** mottled sculpin, Paiute sculpin, shorthead sculpin, reticulate sculpin and torrent sculpin
- **Lampreys** pacific lamprey and western brook lamprey

Land Use History

The Holley area was a winter village site for the Calapooya division of the Kalapooian Family, whose descendants are at Grande Ronde and Siletz. Neighboring bands connected by rivers and trails. The Mollalla trail winds through the upper portion of the WAU and was a major huckleberry resource area where the Indians met for trading and ceremonies (Tony Farque, USFS, Archaeologist, pers. comm.).

In the late 1800s, early settlement below the watershed boundary consisted primarily of farming. The postmaster named the village after a shrub growing there, which he thought was Holly, but which must have been Oregon Grape. By the 1870s gold mining had opened up the headwaters of the Calapooia River (known as Gold Hill). Mineral claims included hard rock mining in the hillslopes and placer mining within the streams of the USFS boundary (Haberkorn, 1998, USFS, pers communication). Early transportation routes into the mines came from the south through the Blue River Mining District, but by 1891 a trail from Crawfordsville to the Calapooia Mines had been established along the mainstem of the Calapooia River (Surveyor Generals Office, 1891).



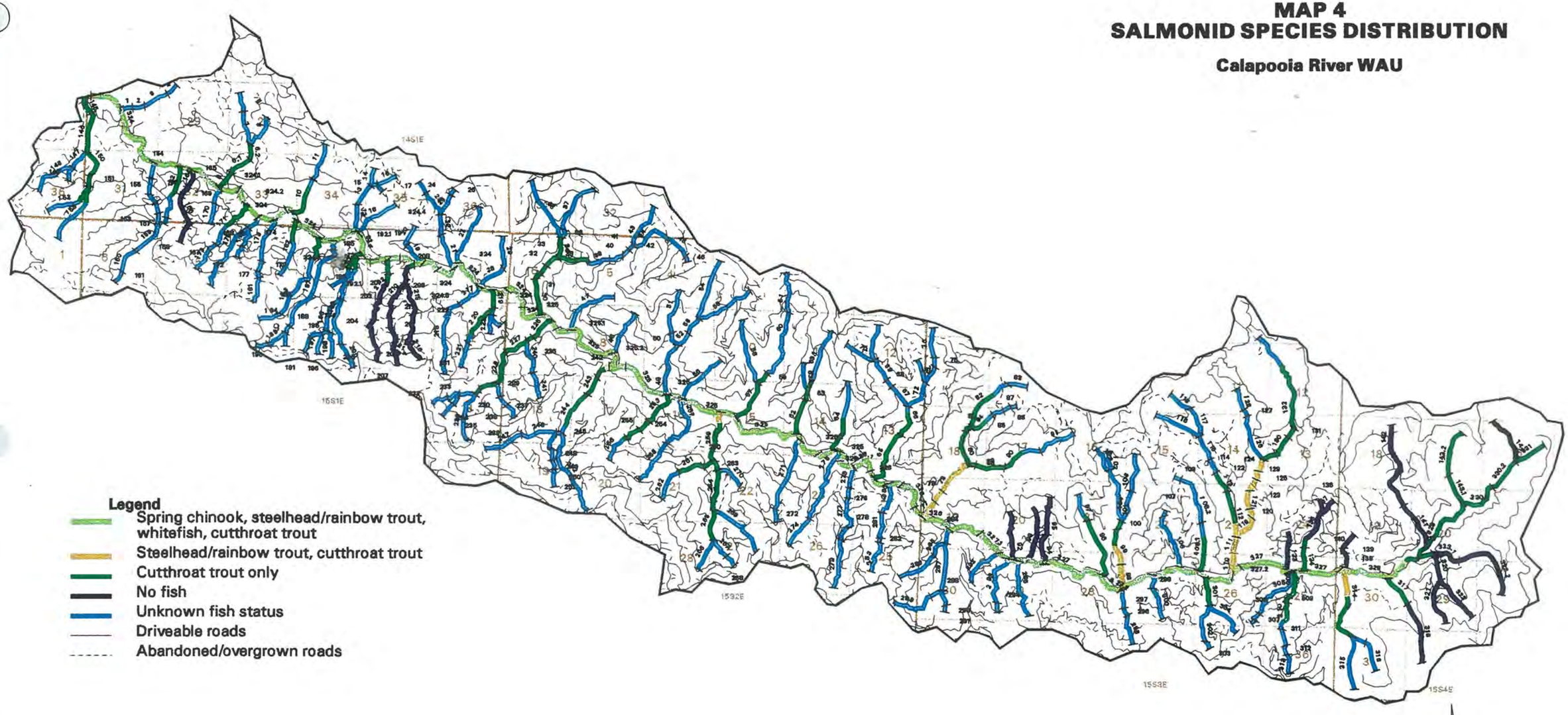
Photograph 1 Calapooia Mines, Gold Hill—Treadwell Creek (maybe). Photograph courtesy of Tom Philpott.

Logging and Splash Dams

In the 1850s James Norval Rice homesteaded upstream of Holley (but below our watershed lower boundary). Logging took place some time later with a team of bulls. A splash dam was constructed upstream of the sawmill on the Calapooia River. When the pond was full, the gates were opened and the logs went down river to the mill (Albany Democrat-Herald, March 7, 1997).

MAP 4
SALMONID SPECIES DISTRIBUTION

Calapooia River WAU



Legend

- Spring chinook, steelhead/rainbow trout, whitefish, cutthroat trout
- Steelhead/rainbow trout, cutthroat trout
- Cutthroat trout only
- No fish
- Unknown fish status
- Driveable roads
- Abandoned/overgrown roads

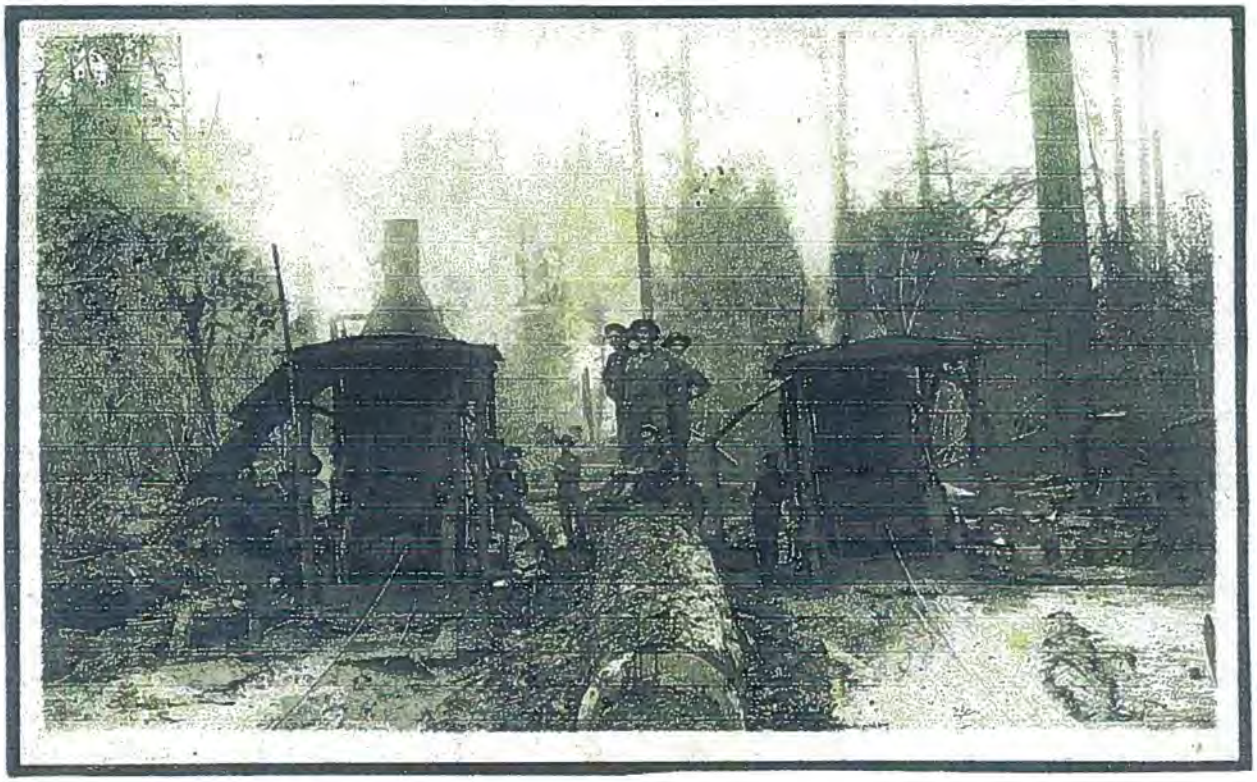
1.0MI 0MI 1MI 2MI 3MI 4MI

1 : 90000

1 inch = 7500 feet

Map 4 Salmonid Species Distribution
Weyerhaeuser
DATE: 08/18/98

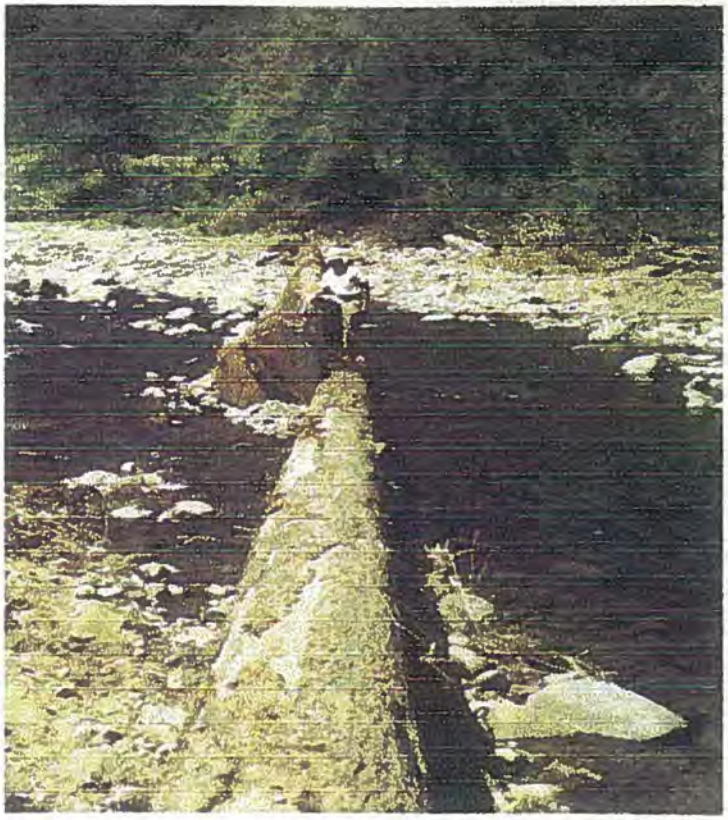
In 1906, the Thurston Brothers Lumber Company had a "River Camp" twelve miles up the Calapooia River from Crawfordsville (placing it just downstream of Big Creek). The camp was headquarters for the drive crew that drove the logs down the Calapooia to their mill at Crawfordsville (Repetto, 1970). Steam donkeys were used to bring the logs to the river and a large boom held the logs at the Thurston sawmill. Dynamite was used to blast boulders, hung up logs and dams built with dirt and logs. In the early 1900s there were several logging operations along the Calapooia River (Reece Watkins, pers comm., 1998).



Photograph 2 Steam Donkeys (Yarders) used by Thurston Lumber Company on the Calapooia River in the early 1900s. Photograph courtesy Tom Philpott.

The Dollar Steamship Lines moved from Mabel (Mohawk Valley) to the Calapooia River around the 1930s (Polley, pers comm., 1998). In 1929-30, a railroad line was built from Vale to what is known as Dollar Camp located downstream of Big Creek (Watkins, pers comm., 1998). Gilbert and Eaton Logging built a camp on King Creek sometime during the mid 1940s on the Calapooia River. By that time log trucks were being used to transport the logs out of the watershed (Gehrman, Rice, pers. comms., 1998). Weyerhaeuser bought the Dollar holdings in 1939 (Gehrman, pers. comm., 1989). Weyerhaeuser used a shear boom in the Calapooia River (Photograph 3) just above Big Creek (Atkinson, pers. comm. Weyco, 1998). A loader took logs captured by the shear boom out from the north bank (Gehrman, pers. comm., 1989). Major instream channel work was done on the mainstem by bulldozer to protect the mainline road in

the late 60s, at a spot between North Fork Calapooia Creek and King Creek (Atkinson, pers. comm., Weyco, 1998).



Photograph 3 Shear Boom (1960s) in the Calapooia River just upstream of Bigs Creek. Photograph courtesy Weyerhaeuser Company.

FISH HABITAT AND HABITAT CONCERNS

The Calapooia mainstem is characterized by a confined single-threaded channel dominated by bedrock, interspersed with more loosely confined cobble/boulder dominated sections. Anadromous fish en route to spawning areas use the deep pools (> 3 ft residual depth) formed in bedrock.

Reaches with accumulations of spawning-sized gravel are typically located downstream of constrictions. Although the location of these reaches is dispersed, significant spawning gravel patches are more common in the mainstem reach above Potts Creek. Spawning habitat is also available in Potts Creek and the North Fork Calapooia River.

Rearing areas adjacent to spawning habitat are not common. Bedrock pools in the thalweg are the primary summer rearing areas. These pools have little overhead cover and lateral complexity. The abundance of coarse substrate provides rearing area in riffles. Overwintering habitat is not abundant in the mainstem because of the moderate to high confinement, lack of side channel and off-channel areas, and high responsiveness to flow events. Also, channel complexity is generally low, contributing to low quantity of hydraulic refuge.

Resident habitat. In most of the smaller channels within the resident fish zone, there is evidence of catastrophic channel alteration due to debris torrents. The signature of recent (<10 year old) debris torrents is abundant coarse sediment, poor pool development, no lateral or overhead cover features, and lack of riparian shading. In streams where these events occurred in the past (>20 years) channels have recovered. Cobbles and boulders are forming pools, banks have become more stable providing cover and riparian alder corridors are shading the streams and contributing organic inputs. As with more recently torrented streams, LWD is very rare in these channels.

FISH HABITAT CONCERNS

The following (Table 5) is a summary of salmonid habitat concerns by life history phase. Areas of concern are summarized on **Map 5** in terms of land management related inputs, including fine sediment from mass wasting and surface erosion, low LWD recruitment and low riparian canopy.

Table 5 Habitat concerns by life history phase within the Calapooia River WAU.

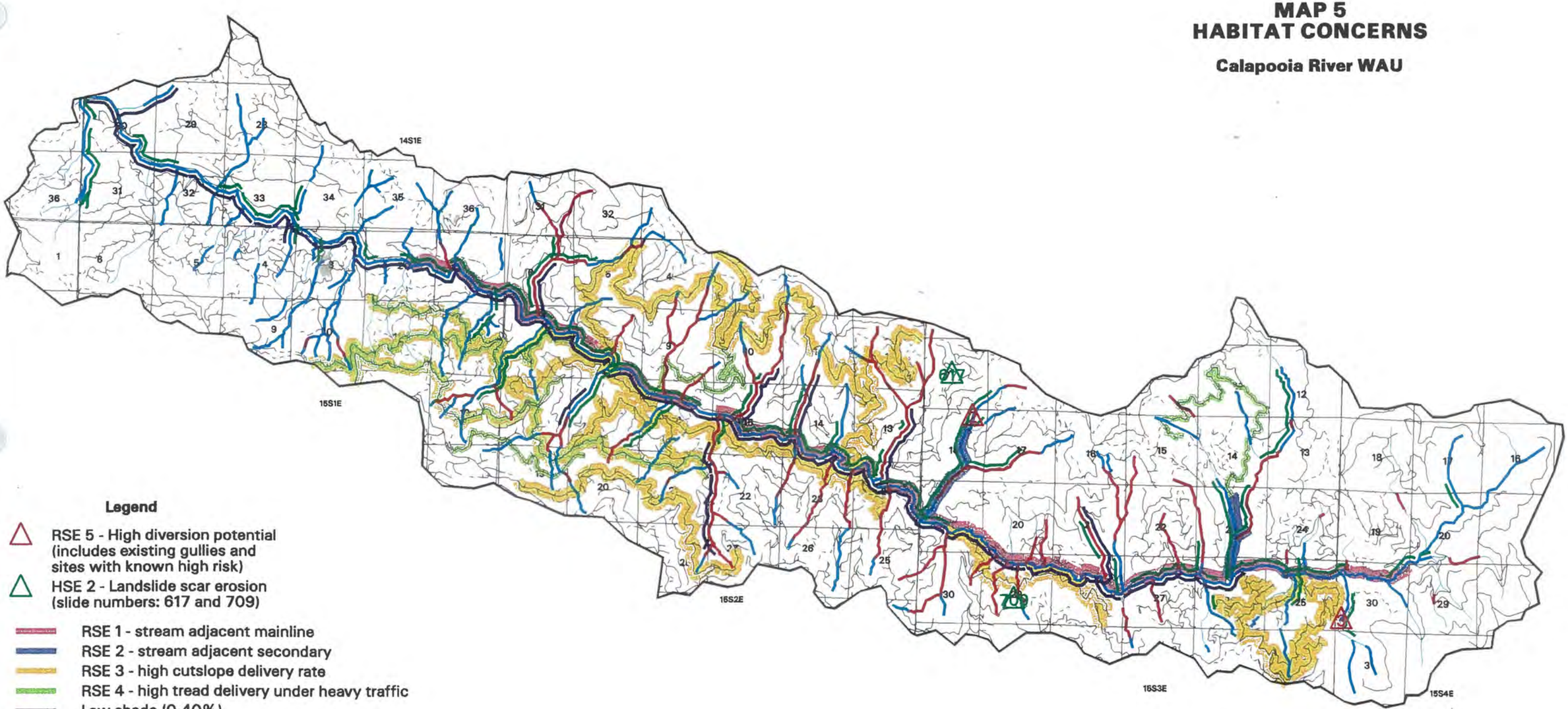
Habitat Characteristic	Habitat Issue
Upstream migration and instream movement	
Low flow barriers	Tributary reaches with large accumulations of sediment from debris torrents have subsurface flow in the summer which limits fish movement as well as rearing habitat.
Road crossing barriers	Six culverts are considered high priority for correction of fish passage hindrances.
Natural barriers	Seven isolated resident cutthroat trout populations were identified above impassable falls. These populations are vulnerable to catastrophic events.
Spawning and incubation	
Gravel availability	Sorted patches of gravel size substrate are rare, except in large pools. This is attributed to lack of LWD and to the abundance of newly deposited coarse sediment from debris torrents.
Fine sediment	In most of the WAU fine sediment accumulation is minor. GMU 3 has abundant fine sediment and has a high vulnerability to fine sediment accumulation.
Summer and Winter Rearing	
LWD	Low quantities of LWD were observed in most of the fish-bearing reaches. This contributes to low pool frequency, low pool depth, and lack of overhead cover.
Canopy	Past riparian harvest and debris torrents have reduced canopy cover in may reaches resulting in the likelihood of elevated water temperatures.
Off-channel areas and hydraulic refuge areas	The availability of low velocity microhabitat is reduced, due to the lack of large roughness elements in the form of LWD.
Turbidity	GMU 3 is likely to be turbid during storms due to naturally abundant fine sediment. Turbidity may be an issue in some locations receiving inputs from landslide scars.

Downstream fisheries issues

Salmonid habitat quality in the lower portion of the Calapooia River, below the watershed boundary, is adversely affected by several factors including low summer flows, high water temperatures, bank erosion, and barriers to movement. Agricultural and industrial water withdrawals result in decreased flows in the river, primarily in the summer. Removal of riparian vegetation for agricultural purposes results in increased summer water temperatures – a condition that is aggravated by lowered flows. Summer water temperatures are reported to commonly exceed 75°F in the lower Calapooia River (ODFW 1992). Other downstream impacts include removal of riparian vegetation resulting in bank erosion and decreased shading of the River.

MAP 5
HABITAT CONCERNS

Calapooia River WAU



Legend

- RSE 5 - High diversion potential (includes existing gullies and sites with known high risk)
- HSE 2 - Landslide scar erosion (slide numbers: 617 and 709)
- RSE 1 - stream adjacent mainline
- RSE 2 - stream adjacent secondary
- RSE 3 - high cutslope delivery rate
- RSE 4 - high tread delivery under heavy traffic
- Low shade (0-40%)
- Low LWD recruitment potential
- Fish bearing channels potentially receiving fine sediment input from mass wasting
- Debris torrents
- Fish bearing stream
- Non-fish bearing stream
- Driveable roads
- Abandoned/overgrown roads

1 : 90000

1 inch = 7500 feet

Map 5 Habitat Concerns
Weyerhaeuser
DATE: 08/31/98

Barriers to adult and juvenile salmonid movement from water diversion structures are a major habitat concern in the lower Calapooia River. These structures have been in place since the 1950s (Willis et al. 1960). In recent years this situation has been greatly improved by the screening of the Thompson mill ditch (W. Hunt, ODFW, Pers. Comm. 1998).

WATER QUALITY CONCERNS

The water quality of the lower Calapooia River is considered poor by the DEQ (Cude 1998) based on data collected at the mouth of the Calapooia River, which is approximately 46 river miles (RM) below the WAU boundary. Most of the water quality issues in the lower part of the river are related to the extensive agricultural usage in the lower 35 miles of the basin (Cude 1998). The Calapooia River is on the 303(d) list (DEQ 1996) for fecal coliform and temperature standard exceedences. The listing extends from the mouth of the Calapooia River near Albany to Brush Creek, which is approximately 6 miles below the WAU boundary

Water quality parameters such as dissolved oxygen, pH and nutrients are generally not impacted by forest land use . The main water quality parameter that has been impacted indirectly by forest practices is stream temperature, which is addressed in the riparian function assessment (Appendix D). Sediment is a potential concern where it is delivered to depressional closed wetlands. However, this type of wetland only composes a small percent of the total number of wetlands in the WAU (12%) . Sediment delivery to streams addressed in the fish (Appendix F) and channel (Appendix E) assessments.

CONCLUSIONS

The Calapooia River WAU recently experienced a large flood event in 1996, which caused numerous landslides. In fish-bearing tributary streams which experienced debris torrents, fish and fish habitat was impacted by both scour and deposition. In the mainstem of the Calapooia River, the flood event deposited gravel, cobbles and in some areas, wood.

In streams that experienced debris torrents stream-adjacent vegetation was often removed. As a result of the removal of riparian trees, stream temperatures in debris torrented channels have increased. Along the mainstem, stream shading has been reduced by past harvest practices and the presence of a stream-adjacent road, resulting in warm temperatures.

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CALAPOOIA RIVER

WATERSHED ANALYSIS

PART I -SECTION A
SYNTHESIS OF WATERSHED ANALYSIS

Weyerhaeuser

August 1998

Glossary of Terms

active channel The bed, banks, and floodplain of a stream subject to modifications by streamflows. Geometrically synonymous with the bankfull channel.

aggradation A disequilibrium stream channel process that raises the elevation of a reach of an active stream channel by depositing bedload.

alluvial Describing material, usually sediment, deposited by a stream or running water.

anadromous fishes Fish that spend the adult phase of their life cycle in salt water and move up fresh water streams and rivers to spawn.

andesite A dark to medium-colored, fine-grained extrusive rock. Rocks are generally hard and resistant to erosion but are often mixed with less resistant materials.

avulsion The process by which a channel changes course by a sudden diversion. The periodicity of avulsion is controlled by the rate of topographic change, fluctuations in discharge and occurrence of triggering events.

bankfull The cross-sectional elevation of the channel corresponding to the top of the floodplain.

basalt A dark-colored, fine-grained igneous (extrusive) rock. Rocks are generally hard and resistant to erosion but are often mixed with less resistant materials.

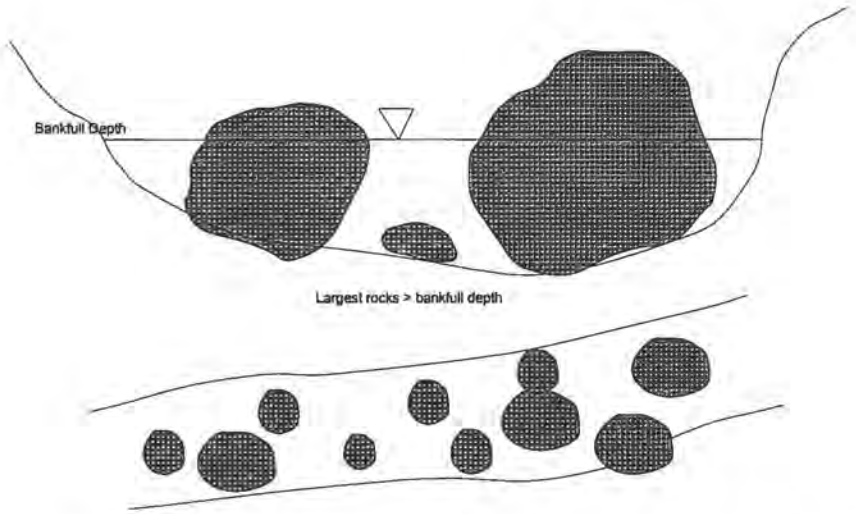
base level The elevation below which a reach of a stream cannot degrade its bed.

bed roughness The frictional resistance to flow in a river or stream system.

bedload mobility The material transported along the floor of a flowing fluid by rolling, sliding or saltation.

cascades A series of small closely spaced waterfalls or steep rapids (channel gradient usually 8-20%). Largest rock in the channel exceeds bankfull depth. Infrequent, small pools (<1 channel width per pool). Low in-channel storage of sediment (high transport relative to supply).

Illustration:



channel migration zone The area that streams have recently occupied (in the last few years or, less often, decades), and would reasonably be expected to occupy again in the near future.

colluvium A deposit of rock fragments and soil material accumulated within depressions or at the base of steep slopes as the result of gravitational action.

confinement The relative ratio of bankfull (active) channel width to valley width where the valley margins may be defined by hillslopes or terrace scarps. This ratio, when assessed in the context of stream gradient, provides a qualitative index of available shear stress as a function of water surface elevation in the channel.

Low confinement (LC) = VW > 4 CW
Moderate confinement (MC) = 2 CW < VW < 4 CW
Tight Confinement (TC) = VW < 2 CW.

Example: Channels with wide floodplains (LC) may shift laterally over the valley bottom, changing course or pattern in response to disturbance but channels confined by bedrock valley walls (TC) can only respond by bedrock modification or channel armoring

dam-break flood (DBF): A dam break flood (DBF) occurs when a natural constriction or dam in a stream channel fails and causes a downstream surge of water and debris caused by the sudden breaching of an impoundment in a stream channel; a form of debris torrent. These dams can be caused by rockfall into a channel, a small slope movement blocking a channel, the deposit of a debris flow, or a debris jam, beaver activity, or a number of other natural mechanisms, and can cause a flood up to two orders of magnitude larger than normal storm runoff floods. These mass wasting events are unusual in that they initiate in areas of generally low slopes, unlike most mass wasting

events. These extreme hyperconcentrated (water > sediment) floods can occur in 1st through 6th order valleys, in both natural and managed landscapes.

debris flood (debris-laden flood) A peak flow event comprised of large volumes of organic debris that can scour and erode the bed and banks of the stream. The woody material can be a component of the waning surge of an upstream debris flow. Distinguished from debris flows and dam break floods by the lack of viscous flow.

debris torrent (DT) Debris flow or dam-break flood, undifferentiated. The effects of debris flow and dam-break floods can appear superficially similar (particularly on air-photos), although the two processes differ in initiation, composition, and travel characteristics. This term is used when it is not possible to distinguish between the two, either because of poor resolution on air-photos or inconclusive evidence in the field.

deep-seated failure Landslide involving deep regolith, weathered rock, and/or bedrock, as well as surficial (pedogenic) soil. As used here, deep-seated landslides commonly include large (acres to hundreds of acres) slope features, associated with geologic materials and structures. In watershed analysis, they are divided into:

- **large-persistent deep-seated failures (LPD)** Commonly slump-earthflows involving large areas of hillside; found in natural and managed landscapes, recognizable over long periods of time, and almost always predate land use. These occur due to climatic changes (periods of high rainfall) or events such as strong earthquakes, geologic weakness, or channel incision. These large persistent deep seated slides appear to have been active at some time in the past, however, they do not appear to have moved on the large scale for many years, perhaps centuries.
- **small-sporadic deep-seated failures (SSD)** Commonly smaller slumps that can be triggered at irregular intervals (by storms or earth movement), and can weather to the point where they are indiscernible.

degradation A disequilibrium stream channel process that lowers the elevation of a reach of an active stream via incision.

dike Long, thin intrusive igneous rock units that cuts across the structure of adjacent rocks.

Illustration:

earthflow: Deep-seated landslide of broken soil and rock, dominated by slow movement (flow-like); produce linear areas of hummocky, disjointed terrain. Earthflow activity is favored in deep, cohesive soil, clay-rich bedrock, or slumped material, and is largely controlled by seasonal (or longer) fluctuations of pore-water pressure.

ephemeral stream A stream that flows only briefly in direct response to rainfall or snowmelt. Its streambed remains above the groundwater table.

extrusive A type of igneous rock that has been erupted onto the surface of the earth. Extrusive rocks include lava flows (which are often composed of basalt and andesite) and pyroclastic material such as volcanic ash.

floodplain The area immediately adjacent to the channel being constructed by the river in the present climate and flooded at high discharge. The level of the floodplain is commonly inferred to be the level of the bankfull stage and is commonly misinterpreted as being coincident with low stream terraces.

flotation load The portion of mobile particles, usually woody debris, in a stream that remain suspended in the water column due to low specific gravities relative to water. A type of suspended load.

geomorphic General shape or features of the landscape.

headwall A steep, wall-like cliff at the back of a hollow or hillslope depression. In reference to slope stability, the term refers to the stability of the entire hollow or depression.

hydrologic maturity Condition of a forest stand in which hydrologic processes operate as they do in a mature or old-growth forest. In particular, snow accumulation is typically lower in thick, dense forest (at middle and lower elevations) than in openings, due to interstorm melt of snow caught in the canopy; and snowmelt is slower, due to decreased wind-aided flux of sensible and latent heat.

intermittent stream A stream that flows during part of the year. Its water is derived from rainfall, snowmelt, or occasional groundwater discharge into the stream channel.

intrusive A type of igneous formed by the injection of magma (molten rock) into pre-existing rock.

iteroparous Capable of repeated reproduction (characteristic of most fishes)

landslide Any mass-movement process characterized by downslope transport of soil and rock, under gravitational forces, by sliding or deformation within a discrete failure zone. Also used to refer to the resultant landform. In common usage, can also include other forms of mass wasting not involving sliding (rockfall, etc.)

large woody debris (LWD) recruitment Large woody debris delivered by the fall of streamside trees, or delivery from upstream sources by stream transport.

longitudinal profile A topographic profile along a valley or stream

mafic Said of an igneous rock composed chiefly of dark, ferromagnesian minerals (iron and magnesium rich minerals).

mass wasting General term for dislodgment and downslope transport of soil and rock under direct gravitational forces (i.e., without major action of water, wind, or ice); mass movement. In watershed analysis, this class of erosion processes is divided into three categories: shallow-rapid landslides, deep-seated failures, and debris torrents.

migration Any mass movement from one habitat to another with characteristic regularity in time according to stages of life history.

peak flow event Maximum instantaneous stream discharge during runoff, commonly caused by an individual rainstorm, rain-on-snow, or spring snowmelt.

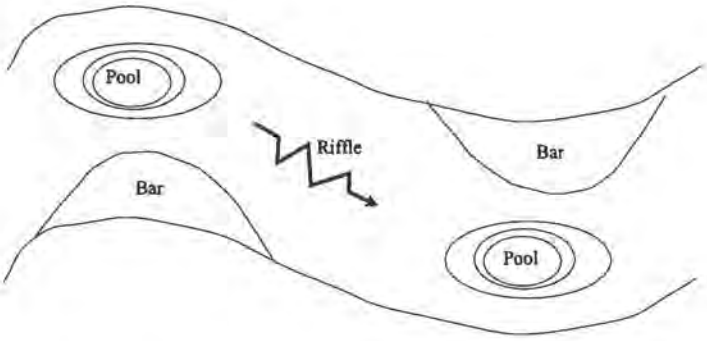
perennial stream A stream that flows continuously as a result of surface runoff and influx of groundwater.

piedmont A plain that slopes away from the base of a mountainous escarpment.

plane-bed channel A channel that lacks well-defined bedforms and are characterized by long stretches of relatively planar channel bed that may be punctuated by occasional channel spanning rapids. Channel gradient is commonly between 1 and 3%, and can have a wide range of confinement (LC to TC). Additions of large woody debris may provide sufficient flow convergence and divergence to cause pool development and transform the channel to a forced pool-riffle morphology. Rapid aggradation (sediment deposition) can change the channel to a braided morphology.

pool-riffle channel A channel with an undulating bed that defines a sequence of bars, pools and riffles. Channel gradient is commonly between 1 and 3%, and generally unconfined. Regular spacing of pools at 5-7 channel widths per pool. Maximum diameter of substrate much less than bankfull depth. Low relative transport capacity makes them particularly sensitive to changes in sediment supply and discharge.

Illustration:



potamodromous A type of fish migration which occurs wholly in freshwater.

Quaternary The second period of the Cenozoic era, following the Tertiary; also, the corresponding system of rocks. It began 1.6 million years ago and extends to the present.

Rain-on-snow zone Area (generally defined as an elevation zone) where it is common for snowpacks to be partially or completely melted during rainstorms several times during the winter.

riparian function Activity relating to the LWD recruitment and stream-shading functions provided by riparian vegetation.

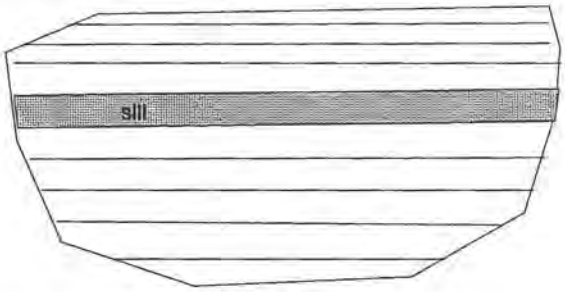
riparian zone Area surrounding a stream, in which ecosystem processes are within the influence of stream processes.

saltation The process of particle transport in stream channels via bouncing along the stream bed. Particle position thus alternates between suspension in the flow and short-term resting on the channel bed.
semelparous Capable of one reproduction (characteristic of salmon).

shallow-rapid landslide (SR): Landslide produced by failure of the soil mantle (typically to a depth of one or two meters, sometimes including some weathered bedrock), on a steep slope. The debris moves quickly (commonly building up and developing into a debris torrent), leaving an elongate, spoon-shaped scar. Shallow-rapid landslides not associated with roading, most often occur in convergent topography on steep slopes in areas where topography or bedrock structure concentrates drainage such as in swales or draws. The main factor contributing to the occurrence of these types of slides are slope, saturation of soil and loss of root strength. Forest practices can effect these factors and influence the occurrence of shallow-rapid landslides.

sill An igneous intrusion that parallels the planar structure of the surrounding rock (like a dike but dikes can bisect rock but a sill has to parallel the planes of the rock into which it is intruded).

Illustration:



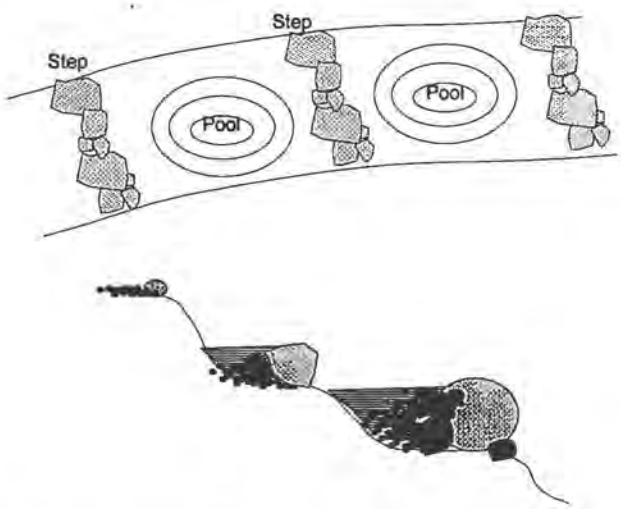
slump: Deep, rotational landslide, generally producing coherent movement (back-rotation) of blocks over a concave failure surface. Typically, slumps are triggered by increased pore-water pressure in mechanically weak materials (deep soil or clay-rich rock).

slump-earthflow: Landslide exhibiting characteristics of both slumps and earthflows: typically the upper part moves by slump (rotation of blocks), while the lower portion moves by flow (hummocky terrain).

snow-water equivalent (SWE) Amount of liquid water (expressed as depth) derived by melting a snowpack.

step-pool channel Channels characterized by large particles (boulders or woody debris) organized into discrete channel spanning accumulations that form a series of steps separating pools. Longitudinal gradients are typically 4 to 8 percent.

Illustration:



strath An extensive terrace-like remnant of a broad valley floor that has undergone dissection, e.g. a river terrace along a valley wall or incised bedrock.

stream power The power available to transport bedload. It consists of those variables (such as discharge and gradient) that, if increased, favor bedload transport and fluvial degradation.

stream terrace A relatively flat surface adjacent to a stream or river that represents an abandoned floodplain (low terraces are frequently confused with the floodplain). Terrace surfaces can rise one to tens of meters above the active channel bed.

Tertiary The first period of the Cenozoic era (after the Cretaceous of the Mesozoic era and before the Quaternary), thought to have covered the span of time between 65 million and 2 million years ago; also, the corresponding system of rocks.

toe The downslope edge of a landslide or slump.

CALAPOOIA RIVER

WATERSHED ANALYSIS

PART I -SECTION B
CAUSAL MECHANISM REPORTS/
PRESCRIPTIONS

Weyerhaeuser

August 1998

Causal Mechanism Report Summary

Mass Wasting Resource Sensitivity A1

Watershed	Upper Calapooia River Watershed Analysis Unit (WAU)
Resource sensitivity	Non road–related failures from steep, concave slopes
Situation summary	Non road–related shallow rapid landslides (SR), and debris flows (DF), in mass wasting map unit (MWMU) 1 deliver coarse and fine sediment directly to steep gradient channels and the lower gradient mainstem (see Appendix E – Stream Channel Assessment for GMU descriptions). The primary concerns for each public resource are provided below.
Fish habitat concerns	The primary concerns for fish habitat include: • Increased fine and coarse sediment deposition can result in pool filling and reduced cobble interstices used by holding and rearing fish. Fish-bearing reaches sensitive to this deposition are GMUs 1, 4, and 5. • Accumulation of fine sediment can also reduce the quality of spawning habitat in these same reaches. • Turbidity during and following storm-flow events temporarily degrade water quality and impact salmonid's ability to feed. • Debris torrent scour can result in loss of fish populations, where barriers isolate these populations. The scour process also reduces rearing and spawning habitat through the reduction of cover features and coarse substrate. In the deposition zone of debris torrents, very abundant accumulations of coarse sediment results in reduced pool habitat and can result in a sub-terranean flow condition that prevents use by fish.
Water supply concerns	There are no water supply concerns.

Continued on next page

Mass Wasting Resource Sensitivity A1, Continued

Public works concerns

There are no public works concerns.

Triggering mechanisms

The following factors lead to the generation and delivery of sediment from non road-related landslides in MWMU 1.

Natural characteristics:

- Steep concave slopes (>60% DEM), including headwalls and hollows, supported primarily by basalts and andesites that concentrate shallow ground water, which can destabilize slopes by increasing pore water pressure (includes ground water seeps).
- Occurrence of large storms, routing large quantities of shallow groundwater to unstable slopes.
- Shallow soils formed from weathered rock and colluvial material.

Contributing management-related characteristics:

- The majority of non road-related landslides for which applicable stand age data is available (from entire watershed), probably occurred within 20 years of harvest. This suggests that in many cases the slope stability was reduced by harvest, possibly associated with:
    - reduction in root strength (Burroughs and Thomas 1977; Krogstad 1996; Ziemer 1981); and/or
    - increases in shallow subsurface pore–water pressure following removal of vegetation during harvest.
- Whether root strength or ground water changes due to harvest is the more important factor affecting slope stability is not known—it will vary based on specific site conditions.
- 84 of 153 total in–unit failures (55%) from MWMU 1 were from concave landforms. Convergent topography concentrates water; therefore, landforms such as headwalls and bedrock hollows are most susceptible to changes in ground water from harvest activities.

Continued on next page

Mass Wasting Resource Sensitivity A1, Continued

Additional comments

Maps and Data

- Detailed information on these landslides is available from Form A1: Landslide Inventory and Form A2: Mass Wasting Map Unit descriptions (see Appendix A: Attachments).
- Map A2 delineates the mass wasting map units for this situation (MWMU 1). The specific areas of concern are subject to field verification.

Causal Mechanism Report Summary

Mass Wasting Resource Sensitivity A2

Watershed

Upper Calapooia River Watershed Analysis Unit (WAU)

Resource sensitivity

Fill failures on steep slopes

Situation summary

Landing and road–related shallow rapid landslides (SR), and debris flows (DF) in mass wasting map units (MWMU) 1, 2 and 7 deliver coarse and fine sediment directly to steep gradient channels and the lower gradient mainstem (see Appendix E – Stream Channel Assessment for GMU descriptions).

The primary concerns for each public resource are provided below.

Fish habitat concerns

The primary concerns for fish habitat include:

- Increased fine and coarse sediment deposition can result in pool filling and reduced cobble interstices used by holding and rearing fish. Fish-bearing reaches sensitive to this deposition are GMUs 1, 4, and 5.
- Accumulation of fine sediment can also reduce the quality of spawning habitat in these same reaches.
- Turbidity during and following storm-flow events temporarily degrade water quality and impact salmonid's ability to feed.
- Debris torrent scour can result in loss of fish populations, where barriers isolate these populations. The scour process also reduces rearing and spawning habitat through the reduction of cover features and coarse substrate. In the deposition zone of debris torrents, very abundant accumulations of coarse sediment results in reduced pool habitat and can result in a sub-terranean flow condition that prevents use by fish.

Water supply concerns

There are no water supply concerns.

Continued on next page

Mass Wasting Resource Sensitivity A2, Continued

Public works concerns

There are no public works concerns.

Triggering mechanisms

The following factors lead to the generation and delivery of sediment from landslides in MWMU 1, 2, and 7:

Natural characteristics:

- Steep concave slopes (>60% DEM), including headwalls and hollows, supported primarily by basalts and andesites (MWMU 1) and moderately steep to steep planar and concave slopes in basalts and andesites (MWMU 2) and weathered volcaniclastics (mostly within MWMU 7) that concentrate shallow ground water, which can destabilize slopes by increasing pore water pressure (includes ground water seeps).
- Occurrence of large storms, routing large quantities of shallow groundwater to unstable slopes.
- Soils formed from weathered volcaniclastics and colluvial material.

Contributing management-related characteristics:

Road-related landslides

- Example: 89 of the 139 total road–related failures (64%) from MWMU 1 were from concave landforms; 44 (32%) were from planar slopes.
- Landslides occur naturally in these units; however, landing fill and sidecast provide additional material that can become saturated and fail. While the slope and low shear strength of the colluvial material probably provides for the natural instability, road-related landslides may also be affected by inclusions of organic debris in sidecast material and inadequate road drainage.
- The road–related landslide densities are:

MWMU #1: 3.6 landslides per mile of road (includes inactive roads)
MWMU #2: 1.7 landslide per mile of road (includes inactive roads)
MWMU #7: 0.2 per mile of road (includes inactive roads)

Continued on next page

Mass Wasting Resource Sensitivity A2, Continued

Additional comments

Maps and Data

- Detailed information on these landslides is available from Form A1: Landslide Inventory and Form A2: Mass Wasting Map Unit descriptions (see Appendix A: Attachments).
- Map A2 delineates the mass wasting map units for this situation (MWMU 1, 2, and 7). The specific areas of concern are subject to field verification.

Causal Mechanism Report Summary

Mass Wasting Resource Sensitivity A3

Watershed	Upper Calapooia River Watershed Analysis Unit (WAU)
Resource sensitivity	Road construction in colluvial deposits (from LPD's and SSD's)
Situation summary	Road–related shallow rapid landslides (SR), debris flows (DF), and small sporadic deep-seated landslides (SSD) in mass wasting map unit (MWMU) 3 and 7 deliver sediment directly to or via steep gradient channels to the lower gradient mainstem (see Appendix E – Stream Channel Assessment for GMU descriptions). The primary concerns for each public resource are provided below.
Fish habitat concerns	The primary concerns for fish habitat include: • Increased fine and coarse sediment deposition can result in pool filling and reduced cobble interstices used by holding and rearing fish. Fish-bearing reaches sensitive to this deposition are GMUs 1, 4, and 5. • Accumulation of fine sediment can also reduce the quality of spawning habitat in these same reaches. • Turbidity during and following storm-flow events temporarily degrade water quality and impact salmonid's ability to feed. • Debris torrent scour can result in loss of fish populations, where barriers isolate these populations. The scour process also reduces rearing and spawning habitat through the reduction of cover features and coarse substrate. In the deposition zone of debris torrents, very abundant accumulations of coarse sediment results in reduced pool habitat and can result in a sub-terranean flow condition that prevents use by fish.
Water supply concerns	There are no water supply concerns.

Continued on next page

Mass Wasting Resource Sensitivity A3, Continued

Public works concerns

There are no public works concerns.

Triggering mechanisms

The following factors lead to the generation and delivery of sediment from road–related landslides in MWMU 3 and 7:

Natural characteristics:

- Sharp slope breaks at the margins of LPD's and other benchy terrain within MWMU 3 and 7.
- Occurrence of large storms, routing large quantities of shallow groundwater to unstable slopes.
- Creeping, clay rich soils in deeply weathered colluvial deposits, particularly those with low shear strength. These soils can perch shallow ground water and route groundwater to bench edges, resulting in increased pore water pressures and slope instability.

Contributing management-related characteristics:

Road-related landslides

- Twenty nine percent of landslides in MWMU 3 and 54% in MWMU 7 over the period of record were road–related. Several of these occurred within an inner gorge, created where a landslide toe impinges on a stream.
- Landslides occur naturally in this unit; however, landing fill and sidecast provide additional material that can become saturated and fail. While the slope and low shear strength of the colluvial material probably provides for the natural instability, road-related landslides may also be affected by inclusions of organic debris in sidecast material and inadequate road drainage.
- The road–related landslide densities are:
  - ◊ MWMU #3: 0.3 landslides per mile of road (includes inactive roads)
  - ◊ MWMU #7: 0.2 landslides per mile of road (includes inactive roads)

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Mass Wasting Resource Sensitivity A3, Continued

Additional comments

Maps and Data

- Detailed information on these landslides are available from Form A1: Landslide Inventory and Form A2: Mass Wasting Map Unit descriptions (see Appendix A: Attachments).
- Map A2 delineates the mass wasting map units for this situation (MWMU 3 and 7). The specific areas of concern are subject to field verification.

Causal Mechanism Report Summary

Mass Wasting Resource Sensitivity A4

Watershed

Upper Calapooia River Watershed Analysis Unit (WAU)

Resource sensitivity

Road and non–road related failures in inner gorges

Situation summary

Road and non road–related shallow rapid landslides (SR), and stream adjacent slumps within inner gorges in mass wasting map (MWMU) 4 deliver coarse and fine sediment directly to steep gradient channels and the lower gradient mainstem (see Appendix E – Stream Channel Assessment for GMU descriptions).

Because of the difficulty in identifying inner gorge landforms from maps and aerial photos, these features are not identified on Map A2: Mass Wasting Map Units. Training in field identification of inner gorges is to be provided during prescriptions.

Fish habitat concerns

The primary concerns for fish habitat include:

- Increased fine and coarse sediment deposition can result in pool filling and reduced cobble interstices used by holding and rearing fish. Fish-bearing reaches sensitive to this deposition are GMUs 1, 4, and 5.
- Accumulation of fine sediment can also reduce the quality of spawning habitat in these same reaches.
- Turbidity during and following storm-flow events temporarily degrade water quality and impact salmonid's ability to feed.
- Debris torrent scour can result in loss of fish populations, where barriers isolate these populations. The scour process also reduces rearing and spawning habitat through the reduction of cover features and coarse substrate. In the deposition zone of debris torrents, very abundant accumulations of coarse sediment results in reduced pool habitat and can result in a sub-terranean flow condition that prevents use by fish.

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Mass Wasting Resource Sensitivity A4, Continued

Water supply concerns

There are no water supply concerns.

Public works concerns

There are no public works concerns.

Triggering mechanisms

The following factors lead to the generation and delivery of sediment from road and non road-related landslides within inner gorges in MWMU 4.

Natural characteristics:

- Inner gorges are steep (>60%) stream–adjacent slopes below bench margins. They may be caused by a number of features, but are attributed in MWMU 4 to areas where the inner gorge is created by structural breaks in slope (e.g., bedrock benches), and where streams are incising through or around the toes of deep–seated landslide deposits.
- Sharp slope breaks at the margins of LPD's and other benchy terrain within MWMU 3 and 7.
- Occurrence of large storms, routing large quantities of shallow groundwater to unstable slopes.
- Creeping, clay rich soils in deeply weathered colluvial deposits, particularly those with low shear strength. These soils can perch shallow ground water and route groundwater to bench edges, resulting in increased pore water pressures and slope instability.

Contributing management-related characteristics:

<u>Road-related landslides</u>

- Nine of 31 (29%) inner gorge landslides were road–related.
- Landslides occur naturally in this unit; however, landing fill and sidecast provide additional material that can become saturated and fail. While the slope and low shear strength of the colluvial material provides for the natural instability, road-related landslides may also be affected by inclusions of organic debris in sidecast material and inadequate road drainage.

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Mass Wasting Resource Sensitivity A4, Continued

Additional comments

Maps and Data

- Detailed information on these landslides are available from Form A1: Landslide Inventory and Form A2: Mass Wasting Map Unit descriptions (see Appendix A: Attachments).
- Map A2 delineates the mass wasting map units for this situation (MWMU 4) The specific areas of concern are subject to field verification.
- Like all inner gorges, these features are not readily resolvable from topographic maps, therefore, they are not explicitly identified on Map A2: Mass Wasting Map Units.

Causal Mechanism Report Summary

Mass Wasting Resource Sensitivity A5

Watershed	Upper Calapooia River Watershed Analysis Unit (WAU)
Resource sensitivity	Road cutbank failures
Situation summary	Shallow rapid landslides (SRs) initiating from road cutbanks in Mass Wasting Map Units (MWMUs) 1, 2, 3, and 7 can impact fish habitat, damage downstream engineered structures, and impact water quality.
Fish habitat concerns	The primary concerns for fish habitat include: • Increased fine and coarse sediment deposition can result in pool filling and reduced cobble interstices used by holding and rearing fish. Fish-bearing reaches sensitive to this deposition are GMUs 1, 4, and 5. • Accumulation of fine sediment can also reduce the quality of spawning habitat in these same reaches. • Turbidity during and following storm-flow events temporarily degrade water quality and impact salmonid's ability to feed. • Debris torrent scour can result in loss of fish populations, where barriers isolate these populations. The scour process also reduces rearing and spawning habitat through the reduction of cover features and coarse substrate. In the deposition zone of debris torrents, very abundant accumulations of coarse sediment results in reduced pool habitat and can result in a sub-terranean flow condition that prevents use by fish.
Water supply concerns	There are no water supply concerns.
Public works concerns	There are no public works concerns.

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Mass Wasting Resource Sensitivity A5, Continued

Triggering mechanisms

The following factors lead to the generation and delivery of sediment from cut bank failure in MWMU 1, 2, 3, and 7:

Natural characteristics:

- Occurrence of large storms, routing large quantities of shallow groundwater to unstable slopes.

Contributing management-related characteristics:
Road cutbank failures are due to oversteepening of geologic materials and/or the removal of lateral support by the roadcut. Cutbank failures may occur in all geologic materials, but depend on site-specific conditions such as material type and strength, ground and surface water conditions, slope height, initial and modified slope angle, and other factors. Cutbank failures are most likely to occur where roadcuts are placed in relatively weak materials that are already at steep angles (such as tuffs or altered breccia), in weak materials, or in disturbed materials (such as landslide deposits or colluvium) at steep to moderate slopes. Areas of ground or surface water concentration are also more likely to fail.

Because delivery is typically limited to fines which are carried by the road ditch, the impact of road cutbank failures to fish habitat and water quality is probably small compared to other sources within the WAU; however, this could not be quantified during the assessment.

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Mass Wasting Resource Sensitivity A5, Continued

Additional comments

Maps and Data

- Detailed information on these landslides are available from Form A1: Landslide Inventory and Form A2: Mass Wasting Map Unit descriptions (see Appendix A: Attachments).
- Map A2 delineates the mass wasting map units for this situation (MWMU 1, 2, 3, and 7). The specific areas of concern are subject to field verification.

Causal Mechanism Report Summary

Mass Wasting Resource Sensitivity A6

Watershed

Upper Calapooia River Watershed Analysis Unit (WAU)

Resource sensitivity

Slope breaks and benches

Situation summary

Shallow rapid failures (SRs), debris torrents (DTs), and small sporadic deep seated landslides (SSDs) can be initiated at slope breaks and midslope benches in Mass Wasting Map Units (MWMUs) 3, 5 and 7 resulting in impacts to fish habitat, damage to downstream engineered structures, and impact to water quality.

Fish habitat concerns

The primary concerns for fish habitat include:

- Increased fine and coarse sediment deposition can result in pool filling and reduced cobble interstices used by holding and rearing fish. Fish-bearing reaches sensitive to this deposition are GMUs 1, 4, and 5.
- Accumulation of fine sediment can also reduce the quality of spawning habitat in these same reaches.
- Turbidity during and following storm-flow events temporarily degrade water quality and impact salmonid's ability to feed.
- Debris torrent scour can result in loss of fish populations, where barriers isolate these populations. The scour process also reduces rearing and spawning habitat through the reduction of cover features and coarse substrate. In the deposition zone of debris torrents, very abundant accumulations of coarse sediment results in reduced pool habitat and can result in a sub-terranean flow condition that prevents use by fish.

Water supply concerns

There are no water supply concerns.

Public works concerns

There are no public works concerns.

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Mass Wasting Resource Sensitivity A6, Continued

Triggering mechanisms

The following factors lead to the generation and delivery of sediment from road and non road-related landslides at bench edges in MWMU 3,5 and 7.

Natural characteristics:

- Sharp slope breaks at the margins of LPD's and other benchy terrain within MWMU 3, 5, and 7.
- Occurrence of large storms, routing large quantities of shallow groundwater to unstable slopes.
- Creeping, clay rich soils in deeply weathered colluvial deposits, particularly those with low shear strength. These soils can perch shallow ground water and route groundwater to bench edges, resulting in increased pore water pressures and slope instability.

Contributing management-related characteristics:

- Triggering mechanisms are of two types for benches and slope breaks, loading and removal of lateral support, and should be considered in the context of scale of the affected feature. Loading can be from activities, such as waste placement, while road cuts are the primary source of loss of lateral support. In general, the smaller the feature, the less the change in conditions necessary to create instability of the feature, i.e., a small feature can withstand less loading or removal of material than a large feature.

Additional comments

Maps and Data

- Detailed information on these landslides are available from Form A1: Landslide Inventory and Form A2: Mass Wasting Map Unit descriptions (see Appendix A: Attachments).
- Map A2 delineates the mass wasting map units for this situation (MWMU 3, 5, and 7). The specific areas of concern are subject to field verification.

Causal Mechanism Report Summary

Surface Erosion Sensitivity B1

Watershed	Calapooia River Watershed Administrative Unit (WAU)
Resource sensitivity	Ground-based harvest activities
Situation summary	Ground-based harvest activities that expose soil adjacent to small, incised channels or cross surface drainages (i.e. swales and ephemeral channels) in SEMU 1 can deliver silt and clay size material directly to GMUs 1 and 3 via overland flow. Deposition of fine sediment can result in filled pools and reduced cobble interstices used by holding and rearing fish. Accumulation of fine sediment can reduce the quality of spawning habitat. Turbidity during and following storm events may temporarily degrade water quality and impacts salmonids ability to feed.
Triggering mechanism	**Primary** Tractor piling of slash in the vicinity of ephemeral stream channels was observed to expose soils and divert surface flow out of ephemeral channels and across exposed soils on a small portion of Unit 3 in SEMU 1 (Map B3). **Secondary** Exposed soils were noted on the steep inner gorge areas of several weakly incised channels in Unit 3 (Map B3). Surface erosion of such sites can temporarily increase the delivery of fine sediment to stream channels. However, the effects are short term given the rapid recovery of surface vegetation. No exposed soils were observed in harvest units greater than 3 years old in this SEMU.

Causal Mechanism Report Summary

Surface Erosion Sensitivity B2

Watershed

Calapooia River Watershed Administrative Unit (WAU)

Resource sensitivity

Stream adjacent road; heavy use.

Situation summary

The Calapooia Mainline parallels the Calapooia River, and is located within 200 feet of the channel for most of its length (Map B6). The existing traffic use of this road is considered heavy. Heavy traffic can generate significant amounts of fine sediment, and the high tread delivery rate (64%) results in direct inputs of this material to GMU 1. Deposition of fine sediment can result in filled pools and reduced cobble interstices used by holding and rearing fish. Accumulation of fine sediment can reduce the quality of spawning habitat. Turbidity during and following storm events may temporarily degrade water quality and impacts salmonids ability to feed.

Triggering mechanism

Primary

Heavy use of the mainline by logging trucks, especially during wet weather, can generate moderate amounts of fine sediment. Since the road parallels the stream, is directly adjacent to or within 200 feet for much of its length (Map B6), and has a moderately high delivery rate relative to other channels segments, some of this sediment is delivered directly to the mainstem Calapooia River (GMU1).

Secondary

Sediment erosion and delivery are inversely proportional to the level of road maintenance. In May 1998, the road surface was severely potholed in some locations, indicating a general lack of maintenance.

Causal Mechanism Report Summary

Surface Erosion Sensitivity B3

Watershed

Calapooia River Watershed Administrative Unit (WAU)

Resource sensitivity

Stream adjacent roads; moderate use.

Situation summary

The 600 and 700 roads are located directly adjacent to Potts Creek and North Fork Calapooia River respectively. The existing traffic use of these roads is considered moderate. Heavy traffic can generate significant amounts of fine sediment that is delivered directly to GMU 4, and routed to GMU 1. Deposition of fine sediment can result in filled pools and reduced cobble interstices used by holding and rearing fish. Accumulation of fine sediment can reduce the quality of spawning habitat. Turbidity during and following storm events may temporarily degrade water quality and impacts salmonids ability to feed.

Triggering mechanism

Primary

The stream adjacent portions of the 600 and 700 roads have moderately high delivery rates (20 to 40 percent) due to their position (Map B6). While the current use rate is moderate, modeling indicates that heavy use by logging trucks, especially during wet weather, can result in the delivery of moderate amounts of fine sediment from these segments. Fine sediment is delivered directly to GMU 4 and routed downstream to GMU 1.

Secondary

Sediment erosion and delivery are inversely proportional to the level of road maintenance. The road surfaces were generally adequately maintained. However surface cover was thin and some rilling was noted on the 700 road.

Causal Mechanism Report Summary

Surface Erosion Sensitivity B4

Watershed	Calapooia River Watershed Administrative Unit (WAU)
Resource sensitivity	High, exposed cutslopes on roads
Situation summary	Erosion from high, exposed cutslopes on the 2400, 2700, 3000, 3030, 3350 and 3400 roads contributes moderate amounts of fine sediment to GMUs 3, 4 and 5 (Map B6). Fine sediment delivered to these GMUs is routed to GMU 1. Deposition of fine sediment can result in filled pools and reduced cobble interstices used by holding and rearing fish. Accumulation of fine sediment can reduce the quality of spawning habitat. Turbidity during and following storm events may temporarily degrade water quality and impacts salmonids ability to feed.
Triggering mechanism	Erosion of exposed cutslopes in SEMUs 1,3 and 4 delivers fine sediment to inboard ditches that route material directly to stream channels at road crossings. The spacing of ditch relief culverts that would drain runoff to forested slopes exceeded the recommended spacing at numerous sites, particularly on roads that had not received recent major repairs.

Causal Mechanism Report Summary

Surface Erosion Sensitivity B5

Watershed

Calapooia River Watershed Administrative Unit (WAU)

Resource sensitivity

Road tread delivery

Situation summary

Model results indicate that tread surface erosion resulting from high traffic on the 700, 2400, 2600, 3000, and 3100 roads could contribute high amounts of fine sediment to GMUs 3, 4, and 5 (Map B6). Fine sediment delivered to these GMUs is routed to GMU 1. Deposition of fine sediment can result in filled pools and reduced cobble interstices used by holding and rearing fish. Accumulation of fine sediment can reduce the quality of spawning habitat. Turbidity during and following storm events may temporarily degrade water quality and impacts salmonids ability to feed.

Triggering mechanism

Primary

Heavy use by logging trucks, especially during wet weather, can generate significant amounts of fine sediment. Delivery rates on these roads are moderate (15 to 39%), and surface materials are generally thin. Road treads deliver fine sediment to inboard ditches that route material directly to stream channels at road crossings. The spacing of ditch relief culverts that would drain runoff to forested slopes exceeded the recommended spacing at numerous sites.

Secondary

Sediment erosion and delivery are inversely proportional to the level of road maintenance. The road surfaces were generally adequately maintained. A few gullies that extended to stream channels were noted on the 3000, and more likely exist at sites not encountered during the field reconnaissance.

Causal Mechanism Report Summary

Surface Erosion Sensitivity B6

Watershed

Calapooia River Watershed Administrative Unit (WAU)

Resource sensitivity

Road washouts at stream crossings.

Situation summary

Road washouts at stream crossing sites with high diversion potential delivered large amounts of fine sediment directly to GMU5, and routed the material downstream to GMUs 1 and 5. Deposition of fine sediment can result in filled pools and reduced cobble interstices used by holding and rearing fish. Accumulation of fine sediment can reduce the quality of spawning habitat. Turbidity during and following storm events may temporarily degrade water quality and impact salmonids ability to feed. Sites with existing gullies or observed high diversion potential are depicted on Map B6.

Triggering mechanism

Primary

Culvert blockage that form during high flow events (e.g. 675 road) or because of inadequate maintenance of abandoned roads (e.g. Potts Creek spur) can divert streamflow down roads causing catastrophic gullying. This type of failure is most common on insloped or crowned roads at crossing sites with a high diversion potential. Sites with high diversion potential were observed in all GMUs.

Secondary

Small cutslope failures can block ditch relief culverts. Blocked relief culverts with a high diversion potential can divert water down the inboard ditch or tread surface resulting in catastrophic gullying and potentially mass wasting. Few instances of this type of failure were observed in the Calapooia WAU. However, numerous ditch relief culverts with high diversion potential were noted in all GMUs.

Causal Mechanism Report Summary

Surface Erosion Sensitivity B7

Watershed

Calapooia River Watershed Administrative Unit (WAU)

Resource sensitivity

Landslide scars

Situation summary

MWMU 3 includes several chronically active small sporadic deep-seated landslides (Map A1). Modeling of sheet and rill erosion on exposed MWMU 3 landslide scars indicates that a single large landslide (#709, Map A1) may increase annual fine sediment yields by more than 100%. Fine sediment is delivered directly to stream channels in GMU 5 by overland flow during heavy rainstorms, then routed to GMU 1. Deposition of fine sediment can result in filled pools and reduced cobble interstices used by holding and rearing fish. Accumulation of fine sediment can reduce the quality of spawning habitat. Turbidity during and following storm events may temporarily degrade water quality and impacts salmonids ability to feed.

Triggering mechanisms

Primary

Landslide 709 was reactivated in 1997, exposing soil material over an area of approximately 2.5 acres. The steep slope, erodible soil and proximity to the stream channel allow eroded material to enter a small, steep mountain channel (GMU 4) that quickly routes fine sediment to GMU 1.

Causal Mechanism Report Summary

Riparian Resource Sensitivity D1

Watershed	Calapooia River Watershed Administrative Unit (WAU).
Resource sensitivity	Current high large woody debris recruitment potential (dense riparian stands of medium to large-diameter conifers and mixed conifers and hardwoods).
Situation summary	Medium and large-diameter conifer and mixed conifer and hardwood riparian stands are currently of a size sufficient to contribute large wood to channels. LWD can alter stream beds by sorting and storing gravel, increasing pool depth and frequency, and creating cover for anadromous and resident fish species. In many stream reaches adjacent to these stands, in-channel wood loadings are currently low to moderate. Thus, in-channel wood of a size and quantity to affect channel morphology and physical features of fish habitat may be limited.
Triggering mechanism	Currently, dense stands of large-diameter conifer and mixed conifer and hardwood riparian areas are considered to have high LWD recruitment potential. However, harvest of too many conifers or hardwoods of a size suitable to function in adjacent stream channels may diminish the future supply of functional LWD. In addition, harvest of trees greater than 11 in (28 cm) dbh along streams with bankfull widths wider than 8 ft (2.4 m) may diminish the future supply of functional pieces of LWD that wider channels require (see Table D4 in the Riparian Function Assessment for minimum size for functional pieces based on average bankfull width). If wood of a suitable size and amount is not delivered to the stream channel, further loss of pools, spawning habitat and cover is possible.
Additional comments	See the green line on Map CMD1 for the extent of causal mechanism D1 in the WAU. Channel sensitivity to gains and losses of woody debris is variable throughout the watershed. The following table (Table CMD1) presents the percent of each GMU in Resource Sensitivity D1. Further descriptions of the GMUs and the reasons for their sensitivity to changes in wood loadings can be found in Appendix D and Appendix E.

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Riparian Resource Sensitivity D1, Continued

Table CMD1. Percent of each GMU in Resource Sensitivity D1.

Channel Sensitivity to Wood	Name of GMU	GMU Number	Miles (both sides of stream) of GMU in Resource Sensitivity D1	Percent of GMU in Resource Sensitivity D1
High	Hummocky Earthflow Hillslopes	3	1.4	15.2
	Low Gradient Narrow Valley Floor	4	0.9	13.4
Moderate to High	Steep Mountains (based on local gradient)	5	4.0	9.1
Moderate*	Calapooia River Mainstem	1	8.8	17.3

*Though the channel is only moderately sensitive to wood, fish habitat (cover) sensitivity is high for this GMU.

Causal Mechanism Report Summary

Riparian Resource Sensitivity D2

Watershed

Calapooia River Watershed Administrative Unit (WAU).

Resource sensitivity

Hardwood-dominated stands.

Situation summary

Some stream-adjacent stands are dominated by hardwoods (mainly red alder) as a result of past management practices. The existence of conifers prior to management can be inferred from historical air photos as well as the presence of conifer stumps within some of the hardwood stands. In general, hardwoods, especially red alder, are often too small and do not persist within stream channels. Large diameter wood is required to sort and store gravel, increase pool depth and frequency, and create cover for anadromous and resident fish species. In many stream reaches adjacent to these stands, in-channel wood loadings are currently low to moderate. Thus, wood of a size and quantity to affect channel morphology and physical features of fish habitat may be limited. In some reaches, functional in-channel LWD is currently present, but over time this will decay or be transported out of the system from high flow events. The adjacent hardwood dominated riparian areas in these reaches are not able to provide a source of persistent in-channel wood.

Triggering mechanism

Past forest practices have removed extensive amounts of stream-adjacent conifers throughout the WAU. The resulting hardwood-dominated stands have only low to moderate near-term recruitment potential and generally do not provide long-term channel stability that coniferous LWD can provide. In addition, harvest of trees greater than 11 in (28 cm) dbh along streams with bankfull widths wider than 8 ft (2.4 m) may diminish the future supply of functional pieces of LWD that these channels require (see Table D4 in the Riparian Function Assessment for minimum size for functional pieces based on average bankfull width). If wood of a suitable size and amount is not delivered to the stream channel, further loss of pools, spawning habitat and cover is possible.

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Riparian Resource Sensitivity D2, Continued

Additional comments

See the blue line on Map CMD1 for the extent of causal mechanism D2 in the WAU.

The following table (Table CMD2) presents the percent of each GMU in Resource Sensitivity D2. Further descriptions of the GMUs and the reasons for their sensitivity to changes in wood loadings can be found in Appendix D and Appendix E.

Table CMD2. Percent of each GMU in Resource Sensitivity D2.

Channel Sensitivity to Wood	Name of GMU	GMU Number	Miles (both sides of stream) of GMU in Resource Sensitivity D2	Percent of GMU in Resource Sensitivity D2
High	Hummocky Earthflow Hillslopes	3	2.9	31.5
	Low Gradient Narrow Valley Floor	4	2.1	31.3
Moderate to High	Steep Mountains (based on local gradient)	5	2.5	5.7
Moderate*	Calapooia River Mainstem	1	12.3	24.1

*Though the channel is only moderately sensitive to wood, fish habitat (cover) sensitivity is high for this GMU.

Causal Mechanism Report Summary

Riparian Resource Sensitivity D3

Watershed

Calapooia River Watershed Administrative Unit (WAU).

Resource sensitivity

Small-diameter mixed and conifer-dominated riparian stands.

Situation summary

Some riparian areas are dominated by small-diameter conifer and mixed conifer and hardwood stands, which are not of a size to contribute functional pieces of large wood to stream channels. LWD can alter stream beds by sorting and storing gravel, increasing pool depth and frequency, and creating cover for anadromous and resident fish species. In many stream reaches adjacent to these stands, in-channel wood loadings are currently low to moderate. Thus, wood of a size and quantity to affect channel morphology and physical features of fish habitat may be limited.

The small-diameter conifer stands could conceivably provide recruitable wood within 100 years, depending on riparian condition and management practices. Mixed stands may take longer than 100 years to get medium to large-diameter conifers due to light and nutrient competition from hardwoods and shrubs.

Triggering mechanism

Several mixed stands originated due to natural conditions as well as riparian harvest. Small-diameter conifer stands largely exist as a result of regeneration after past timber harvest in riparian areas. In addition, future harvest of trees greater than 11 in (28 cm) dbh along streams with bankfull widths wider than 8 ft (2.4 m) may diminish the supply of functional pieces of LWD that these channels require (see Table D4 in the Riparian Function Assessment for minimum size for functional pieces based on average bankfull width). If wood of a suitable size and amount is not delivered to the stream channel, further loss of pools, spawning habitat and cover is possible.

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Riparian Resource Sensitivity D3, Continued

Additional comments

See the red line on Map CMD1 for the extent of causal mechanism D3 in the WAU.

The following table presents the percent of each GMU in Resource Sensitivity D3. Further descriptions of the GMUs and the reasons for their sensitivity to changes in wood loadings can be found in Appendix D and Appendix E.

Table CMD3. Percent of each GMU in Resource Sensitivity D3.

Channel Sensitivity to Wood	Name of GMU	GMU Number	Miles (both sides of stream) of GMU in Resource Sensitivity D3	Percent of GMU in Resource Sensitivity D3
High	Hummocky Earthflow Hillslopes	3	1.9	20.7
	Low Gradient Narrow Valley Floor	4	1.8	26.9
Moderate to High	Steep Mountains (based on local gradient)	5	32.9	74.8
Moderate*	Calapooia River Mainstem	1	12.5	24.5

*Though the channel is only moderately sensitive to wood, fish habitat (cover) sensitivity is high for this GMU.

Causal Mechanism Report Summary

Riparian Resource Sensitivity D4

Watershed	Calapooia River Watershed Administrative Unit (WAU).
Resource sensitivity	Sparse conifer and mixed stands.
Situation summary	Conifer and mixed riparian stands that are considered "sparse" lack sufficient sources of recruitable wood due to timber harvest and/or roads. In many stream reaches adjacent to these stands, in-channel wood loadings are currently low to moderate. Thus wood of a size and quantity to affect channel morphology and therefore, physical fish habitat may be limited. Since stand density is low, an adequate supply of wood is currently lacking. Where a road is causing a stand to be sparse, recruitment potential will continue to be low into the future. LWD can alter stream beds by sorting and storing gravel, increasing pool depth and frequency, and creating cover for anadromous and resident fish species.
Triggering mechanism	These stands have low to moderate near-term recruitment potential due to sparse occupancy of the site as a result of timber harvest and roads. In addition, harvest of trees greater than 11 in (28 cm) dbh along streams with bankfull widths wider than 8 ft (2.4 m) may diminish the future supply of functional pieces of LWD that these channels require (see Table D4 in the Riparian Function Assessment for minimum size for functional pieces based on average bankfull width). If wood of a suitable size and amount is not delivered to the stream channel, further loss of pools, spawning habitat and cover is possible..
Additional comments	See the yellow line on Map CMD1 for the extent of causal mechanism D4 in the WAU. The following table (Table CMD4) presents the percent of each GMU in Resource Sensitivity D4. Further descriptions of the GMUs and the reasons for their sensitivity to changes in wood loadings can be found in Appendix D and Appendix E.

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Riparian Resource Sensitivity D4, Continued

Table CMD4. Percent of each GMU in Resource Sensitivity D4.

Channel Sensitivity to Wood	Name of GMU	GMU Number	Miles (both sides of stream) of GMU in Resource Sensitivity D4	Percent of GMU in Resource Sensitivity D4
High	Hummocky Earthflow Hillslopes	3	3.0	32.6
	Low Gradient Narrow Valley Floor	4	1.9	28.4
Moderate to High	Steep Mountains (based on local gradient)	5	4.7	10.7
Moderate*	Calapooia River Mainstem	1	17.4	34.1

*Though the channel is only moderately sensitive to wood, fish habitat (cover) sensitivity is high for this GMU.

Causal Mechanism Report Summary

Riparian Resource Sensitivity Shade 1

Watershed	Calapooia River Watershed Administrative Unit (WAU).
Resource sensitivity	Low riparian shade along fish-bearing streams and along the lower 1,000 ft of non-fishing bearing streams contributing more than 20% of the flow to a fish-bearing stream.
Situation summary	Riparian shade from stream-adjacent trees has been reduced by timber harvest and road construction along the mainstem of the Calapooia River. Debris torrents have reduced shade along tributary streams. Adverse effects on fish feeding, growth and survival could be caused by minor increases in stream temperatures.
Triggering mechanism	Timber harvest and road construction have reduced shading along portions of the Calapooia River. Channelized landslides, potentially as a result of forest practices, has reduced shading levels in tributary reaches including McKinley Creek, Hand Creek and Washout Creek.

Causal Mechanism Report Summary

Fish Habitat Sensitivity F1

Watershed

Calapooia River Watershed

Resource sensitivity

Culverts limiting fish passage.

Situation summary

Culverts that are impassable or partially passable to fish are located in the known fish-bearing stream network and in stream reaches that are potentially fish-bearing. The ability of salmonids to move within a watershed free of artificial barriers is important for several reasons:

- Fish must be able to access various habitat types. For example, spawning habitat may not be distributed throughout a system and fish may need to move up or down stream to access these areas.
- Fish must also be able to move to adjust to changing habitat conditions such as temperature, food availability or catastrophic events.
- Fish may access different portions of the watershed that are seasonally available. For example, the ability of fish to access intermittent streams or upstream areas that are perhaps marginal habitat in summer, but important during higher flow periods. Likewise, during declining flows, fish may need access to mainstream reaches.

On a larger scale, entire populations can be impacted by artificial barriers. Barriers can reduce or eliminate the continuity of stream networks that are important to genetic interaction. This can cause population fragmentation, decreasing gene flow and genetic integrity, and ultimately the persistence of populations.

Triggering mechanisms

Impassable and partially passable road culverts hinder fish movement.

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Fish Habitat Sensitivity F1, Continued

Locations

See Map F2 of the Fish Habitat Module (Appendix F) for locations of the culverts of concern, and Table 1 (below) for details. Additional information is provided in the Fish Habitat Module.

Continued on next page

Table 1. Fish passage status of culverts checked in the Calapooia River WAU. Priority codes assigned as follows: 1) High priority--within fish-bearing zone (based on field sampling or ODF stream type map. 2) Moderate priority--require more verification of fish-bearing status above culvert. Currently have unknown status above culvert or have known fish below. Includes culverts with non-permanent natural hindrances to movement (i.e., debris jams). 3) Low priority--have a natural barrier to movement (i.e., waterfall) or no fish below. FIRS fish-bearing status/stream size: unk=unknown, SF=small fish, MF=medium fish, NF=no fish, asterisk indicates if the reach was sampled for fish. Outcome of sampling is given in the fish sampling column. Passage Status column codes are I=impassable and P=passable. Asterisk indicates other barriers are in close proximity to the culvert (see explanation in last column).

Priority code	ID	Seg.#	Road #	Stream name	FIRS status	fish sampling	Pass. Status	struct. Type	Pool dpth(m)	Pool lgth (m)	outlet drop (m)	strct. Grad.(%)	upstr. Grad.(%)	dwnstr. Grad. (%)	Hydr. Control (m)	Explanation
1	1	38	3040	trib. To Biggs	unk*	fish above	I	RCP	1.5	4	3	5	12	18	0.3	3m drop
1	6	81	600	Potts Cr.(west fork)	MF*	Fish in trib. (seg.84)	I (res.)	RCP	1	4	0.6	11	10	7	0	Drop
1	9	98	3370	King Cr.	MF		I (res.)	RCP	2	7	0.3	8	10	9	0	Drop/gradient
1	11	309	3400	noname trib. South side	MF		I	RCP	0	0	0.9	7.5	7	15	0.3	Drop
1	27	134	3000	Buckeye Cr.	MF*	fish above	I (res.)	RCP	0.45	3.5	0.8	5	8.5	16	0.1	outlet drop
1	29	308	3400	noname trib. South side	MF		I (res.)	RCP	--	--	0.3	--	--	--	--	outlet drop
2	10	126	3300	North Fork Trib.	Unk*	none above	I*	RCP	1.5	4	1	5	8	--	0.6	Drop, jam below
2	14	155	102b	noname trib. South side	unk*	none above	I	RCP	0.75	3	0.9	7	15	11	0.1	drop/bent in center
2	16	--	3830	noname trib. South side	unk*	none above/yes below	I (res.)	RCP	0.8	1.5	1.3	7	5	5	0.2	drop to rocks
2	17	192	3830	noname trib. South side	unk*	none above/yes below	I (res.)	RCP	0.4	3.5	2.5	--	5	14	0.2	drop
2	21	36	3040	Biggs Cr. Upper	unk*	none above/yes below	I (res.)	RCP	0.55	2.3	1.3	--	12	12	0.8	drop to rocks
2	23	228	3000	Blue Cr.	MF		I*	RCP	--	--	1	>5	8	20	0.6	outlet drop, downstream debris deposit

Table 1 continued. Fish passage status of culverts checked in the Calapooia River WAU. Priority codes assigned as follows: 1) High priority--within fish-bearing zone (based on field sampling or ODF stream type map. 2) Moderate priority--require more verification of fish-bearing status above culvert. Currently have unknown status above culvert or have known fish below. Includes culverts with non-permanent natural hindrances to movement (i.e., debris jams). 3) Low priority--have a natural barrier to movement (i.e., waterfall) or no fish below. FIRS fish-bearing status/stream size: unk=unknown, SF=small fish, MF=medium fish,, NF=no fish, asterisk indicates if the reach was sampled for fish. Outcome of sampling is given in the fish sampling column. Passage Status column codes are I=impassable and P=passable. Asterisk indicates other barriers are in close proximity to the culvert (see explanation in last column).

Priority code	ID	Seg.#	Road #	Stream name	FIRS status	fish sampling	Pass. Status	struct. Type	Pool dpth(m)	Pool lgth (m)	outlet drop (m)	strct. Grad.(%)	upstr. Grad.(%)	dwnstr. Grad. (%)	Hydr. Control (m)	Explanation
2	25	271	3030	trib. east of Mckinley	unk		I (res.)	RCP	0.3	2	2.5	8	26	17	0.1	outlet drop/steep gradient below
3	2	39	3060	trib. To Biggs	unk*	none above	I*	RCP	--	--	2	5	--	--	0.4	drop, debris jam
3	3	49	3100	noname trib. North side	unk*	none below	I	RCP	2	5	0.7	14	15	14	0.25	grad./drop
3	4	49	3000	noname trib. North side	unk*	none above	I*	RCP	0.3	1.7	0.5	6	12	20.	0.4	drop, 3m falls below
3	12	133	3000	noname trib. North side	NF*	none	I	RCP	0	0	1	3	12	30	0.25	Drop
3	13	284	3351	noname trib. South side	unk*	none above	I*	RCP	0	0	0	9	13	40	0.2	bedrock falls below
3	19	218	3020	noname trib. South side	unk*	none below	I (res.)	RCP	--	--	4	--	--	20	--	drop
3	22	253	3030	trib. West of Mckinley	MF		I*	RCP	0.15	0.9	0.4	5	8.5	20	0.15	outlet drop, steep cascade downstream
3	31	56	1300	trib. W. of Washout	unk*	dry in 1997	I (res.)*	RCP	--	--	3	--	--	--	--	outlet drop, dry sum. 97
3	32	138	3100	Trib. E. of Buckeye Cr.	NF		I (res.)	RCP	--	--	1	--	--	--	--	outlet drop
3	33	63	3190	Barrett Cr.	SF		I*	RCP	--	--	--	--	--	--	--	Drop, falls 30m above rd,steps below
--	5	64	main	noname trib. North side	unk		P*	RCP	0	0	0	12	17	47	0.1	bedrock falls below
--	7	96	3000	noname trib. North side	SF		P	SCP	0	0	0	--	--	--	--	
--	8	98	3000	King Cr.	MF		P	RCP	0.3	0	0	--	--	--	0.3	
--	15	252	2600	noname trib. South side	unk*	none above	P*	RCP	0.6	0.5	0	12	17	34	0.1	series of falls below
--	18	187	3830	noname trib. South side	unk*	none above	P	RCP	0.35	1.3	0	7	9	10	0.1	bent in center
--	20	220	3020	noname trib. South side	unk*	none below	P	RCP	0.25	1.5	0	5	18	10	0.25	bent in center
--	24	259	3030	McKinley	MF*	none above	P	SCP	0	0	0	5	4	<8	0	--
--	26	134	3500	Buckeye Cr.	M/SF		P	RCP	0.35	1.5	0.2	5	4	--	0.2	--
--	28	242	3030	Trib. East of Blue Cr.	MF		P	RCP	--	--	--	--	--	--	--	--
--	30	112	700	North Fork Trib.	NF*	fish above	P	RCP	--	--	--	--	--	--	--	

Fish Habitat Sensitivity F1, Continued

Comments

Based on likely fish distribution (Fish Habitat Module, Appendix F), most of these culverts occur in the resident fish use zone affecting mostly cutthroat trout (resident). Steelhead and coho movement may be hindered by some culverts (Table 1).

Although a comprehensive survey of culvert passability has not been conducted in the WAU, the amount of overlap in the culverts identified in the three available data sets indicates that most culvert barriers have been identified.

Currently the extent of known fish-bearing waters is incomplete. When the entire fish-bearing network is known, it is likely that more culverts hindering the movement of resident salmonids will be found.

The following characteristics should be considered when prioritizing road culvert or fish passage improvement:

- species that may be impacted
- type of blockage (partial or complete)
- length of habitat that is rendered inaccessible (length of Type 3 stream above each culvert is shown in Table F1).

CALAPOOIA RIVER WAU

WATERSHED ANALYSIS

PART II—MODULE REPORTS

Weyerhaeuser

August 1998

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Calapooia River Watershed Analysis
Mass Wasting Assessment

Ted Turner
Weyerhaeuser Company

August 1998

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ABSTRACT

Primary sediment sources in the Calapooia River watershed are mass wasting (this study), surface erosion from roads, (see Appendix B—Surface Erosion Assessment) and natural background sources. Sediment derived from hillslope and streambank erosion (see Appendix E—Stream Channel Assessment) is inferred to be a small component of total sediment delivered to the stream system (see Appendix B and E; Surface Erosion and Stream Channel Assessments). Surface erosion from landslide scars is discussed in Appendix B — Surface Erosion.

Approximately 600 landslides were inventoried from low elevation aerial photographs from flights in 1949, 1967, 1978, 1987, 1996, and 1997. The highest occurrence of observed landslides were from the 1967 and 1996/1997 air photos. These periods coincided with major storms as well as intensified management activities in the WAU.

Excluding large deep–seated landslides, road–related events accounted for 49% of the inventory. Sidecast failures (including landings) were identified in 70% of the road–related failures, while cutbank failures accounted for 22% of the events. The frequency of non–road–related failures exceeded road–related failures for all photo years except 1978 and 1987.

The highest sediment volumes delivered to the stream network, and the highest landslide densities (normalized by area) were from the central portion of the watershed including the King Creek, Hands Creek, and Washout Creek subbasins. Most observed events from these basins occurred between 1987 and 1997, presumably from storms in 1996, and initiated from young (<20 yrs.) stands. The large sediment production from these basins was a result of numerous debris flows, initiated from the steep, concave headwaters, with scour tracks as long as a mile or more. High relative landslide frequencies were also observed across all subbasins in the 1967 photos.

The primary factors influencing landslide occurrence and sediment delivery to the stream network are:

- Management practices; particularly sidecast road and landing construction across steep, concave landforms.
- A high density of steep and confined mainstem tributaries drained by unstable headwaters that facilitate high debris flow occurrence as well as long debris flow runouts.
- Bench edges that occur within basalt and andesite flows along the north and south ridgelines and midslope bench edges in colluvial material that are concentrated in the Tu formation. Of the two landform types, colluvial bench edges are the most unstable.
- Local geomorphology and landform type; the most inherently unstable landforms are steep concave slopes (e.g., headwalls and bedrock hollows) followed by steep planar slopes and inner gorges. These landforms can be sensitive to decreases in rooting strength from harvest and/or increases in shallow pore water pressure.

METHODS

Methods of data collection and analysis used in this assessment are consistent with State of Washington Forest Practices Board Standard Methodology for Conducting Watershed Analysis, version 4.0 (WFPB, 1997).

Landslide Inventory

An inventory of landslides, identified from low elevation aerial photographs, establishes the primary database for this assessment. Aerial photographs were selected based on availability, coverage and by the temporal spacing of the photos relative to potential disturbance periods or events (e.g., large storm events, harvest activity, and road building). Landslide scars and debris flow tracks, for example, become less distinguishable with time due to green–up. Therefore, it is important to constrain the time interval between photo sets to approximately 10 years or less if possible. Photo years used in this inventory are listed in Table A1.

I performed photo interpretation of the 1949–1997 photo series. Photo derived data for large landslides (greater than 750 yd^2), observed in 1996 photos between the eastern headwaters and Bigs Creek to the west, were collected by Jim Ward (Geologist, Weyerhaeuser Co.) Approximately 60 landslides that occurred during a large storm in February, 1996, were observed and measured in the field by John Heffner, Weyerhaeuser Company.

Landslides are described in the inventory by a standardized set of attributes (see inventory and data dictionary provided in Attachment A1). Landslides identified in the field, but which could not be observed from air photos, have not been included in the inventory. All field measured landslides were used to aid interpretation of threshold or critical slope angles for generation of Mass Wasting Map Units (discussed later in this report) and to aid understanding of dominant trigger mechanisms.

Areas of exposed bedrock or raw soil with photo dimensions less than approximately 0.25 to 1 mm^2 (172 yd^2 actual size on 1:12,000 scale photos), and that exhibited little to no translation, were not inventoried (e.g., ground disturbance from yarding probably accounts for most of the observed features with these characteristics). This is approximately the minimum landslide size I can resolve, from open ground, on 1:12,000 scale photographs. The exceptions were smaller, shallow rapid landslides that routed downslope and turned into debris flows (resulting in a much larger landslide). Numerous other factors influence the ability to resolve landslides on aerial photos, including photo quality (original vs. photocopy, color spectrum, film speed, slope aspect affecting shadows, etc.) and, perhaps most importantly, the degree of canopy cover.

Table A1 Aerial photo series selected for the landslide inventory.

Photo year	Photographic Scales	Coverage
1949	≈ 1:14,000	Partial to no stereoscopic view in T15SR4E (Forest Service ownership)
1967	≈ 1:14,000	Entire watershed except portions of Forest Service ownership
1978	≈ 1:14,000	Entire watershed except portions of Forest Service ownership
1987	≈ 1:14,000	Entire watershed except portions of Forest Service ownership.
1996	≈ 1:14,000	Eastern headwaters to Bigs Creek; flown in March (high shadows and partial snow coverage)
1997	≈ 1:12,000	Entire watershed except portions of Forest Service ownership
Assorted	variable	Partial coverage of Forest Service land in T15SR4E

Landslide Types

Landslides are categorized as shallow (involve only the soil mantle) or deep–seated (involve soils and underlying bedrock). They are further distinguished as shallow, rapid (SR); debris flows (DF); small, sporadic deep-seated (SSD); and large, persistent, deep-seated landslides (LPD). Detailed definitions of these terms can be found in the Glossary. Good descriptions of landslide processes and common triggering mechanisms in forested, montane environments of western Oregon can be found in Ketcheson (1978), Amaranthus et al. (1985), Swanson et al., (1987), Benda (1990), and Benda and Cundy (1990).

Shallow landslides are rapid, translational failures usually associated with large storms (Swanson et al. 1987) and can vary in depth depending on their origin. Landslides that occur in forested stands or harvest units typically do not exceed the depth of roots, while sidecast failures are typically deeper. Shallow, rapid landslides (SR) can develop into debris flows when their mass becomes sufficiently saturated to become a viscous flow of water, soil, rock and organic debris. Debris flows commonly form when shallow landslides move into steep, highly confined stream channels.

Deep–seated landslides are generally slow or sporadic mass movements; larger and deeper than shallow slides, potentially covering acres of the landscape. The depth of these slides can be in excess of 10 feet (3.3 m), depending on unconsolidated or weathered material depth. These slides are generally inactive, but can be remobilized by undercutting of midslopes and toeslopes.

Field Reconnaissance

Field reconnaissance and data collections were conducted in June, 1998. The field effort focused on locating, describing, and measuring physical characteristics of recent landslides, primarily those observed in 1997 aerial photos. Other recent landslides, inferred to have occurred within the previous year (and therefore not captured on photos), were mapped and described at the discretion of the field observer while enroute to other landslides. Approximately 60 of the 600 photo inventoried landslides were field visited (10%).

Sediment production estimates from each landslide are based on a combination of measured and estimated values of landslide size and percentage of material delivered to the drainage network. Landslide depths and debris flow track scour, for example, are difficult to estimate from photos. Therefore field measurements were frequently used to calibrate volume estimates; examples are detailed in Table A2 below. While this method of estimating volumes has limitations, it can provide a general sediment delivery estimate (within an order of magnitude) for use in relative comparisons between background sediment, landslide sediment and surface erosion.

Table A2 Examples of measurements used in calculating sediment production from landslides.

Landslide parameter	Estimate used in sediment volume calculations
Depth of shallow, rapid failures:	1 yd
Depth of SSD's:	3 yd
Length of debris flow scour:	variable; estimated individually from aerial photos.
Debris flows delivering to streams at very high junction angles	90% delivery
Debris flow scour volume per yard of track:	6 cubic yards*

* *Determined using average track scour volume from 133 landslides observed in 1996 photos.*

Other Data Sources

Data, map products, and interpretations of local geology were compiled from various sources. These are summarized in Table A3.

Table A3 Data sources used in this assessment.

Data	Source	Author or Reference
Geology	• Geologic Map of Oregon (from GIS database)	Walker and Macleod (1991)
	• Geologic Formations of Western Oregon	Beaulieu (1971)
	• Geology of Oregon	Orr et al., (1992)
Landslides	• Landslide inventory (air photo based)	Turner (this report)
Topography	• Weyerhaeuser Willamette Timberlands Digital Elevation Model (DEM)	From USGS 7.5' topography; as modeled by ArcInfo TopoGrid software
Hydrologic history	• Upper Calapooia River WAU: Hydrologic Change Assessment	See Appendix C, this volume
Soils	• Weyerhaeuser Willamette Timberlands GIS	Han (1994)
Slope stability	• Four SHAL–STAB (model for the topographic influence on shallow landslide initiation) iterations using 10 meter Digital Elevation Model (DEM)	Montgomery and Dietrich (1994)

PHYSIOGRAPHY AND GEOLOGY

Regionally, the watershed lies at the western margin of the Western Cascades physiographic province (Orr et al., 1992). This province is primarily situated between the younger, snow covered peaks of the High Cascade range on its eastern flanks and the Willamette Valley on the west. The Western Cascades province is characterized by a rugged topography with irregular ridges and deep narrow valleys. It is composed chiefly of thick accumulations of highly weathered, Tertiary–age (1.6 to 66 million years b.p.) lava, volcanic ash, and volcanogenic sediments eroded off the older Western Cascade volcanoes.

The geology of the watershed, as mapped by Walker and MacLeod (1991), is delineated in **Map SA1**. Most of the midslope regions and mainstem valley are underlain by undifferentiated Tertiary age volcanics rocks with highly variable material strengths (see Tu formation). This heterogeneous mix of volcanically derived lithologies includes tuffs, tuffaceous sedimentary rocks, and extrusive flow rocks such as andesite and basalt. Young basalt and andesite flows (Tbaa formation) form the rim rock that caps the northern and southern uplands of the watershed (e.g., see geographic landmarks such as Chandler Mountain, Farmers Butte, and Chimney Rock). Descriptions of geologic units, in stratigraphic order (youngest at top), are detailed in Table A4.

There has been little regional structural deformation of the Tertiary and Quaternary stratigraphy. Most lithologic units are gently dipped and no active faults are known, though several fault traces are inferred by Walker and MacLeod (1991). These fault traces parallel the mainstem valley and the largest tributaries suggesting a history of strong structural control on the development of basin morphometry.

Table A4 Descriptions of primary formations and lithologic units in the Upper Calapooia River WAU (modified after Walker and Duncan, 1989; Hoover, 1959; and Walker and McLeod, 1991).

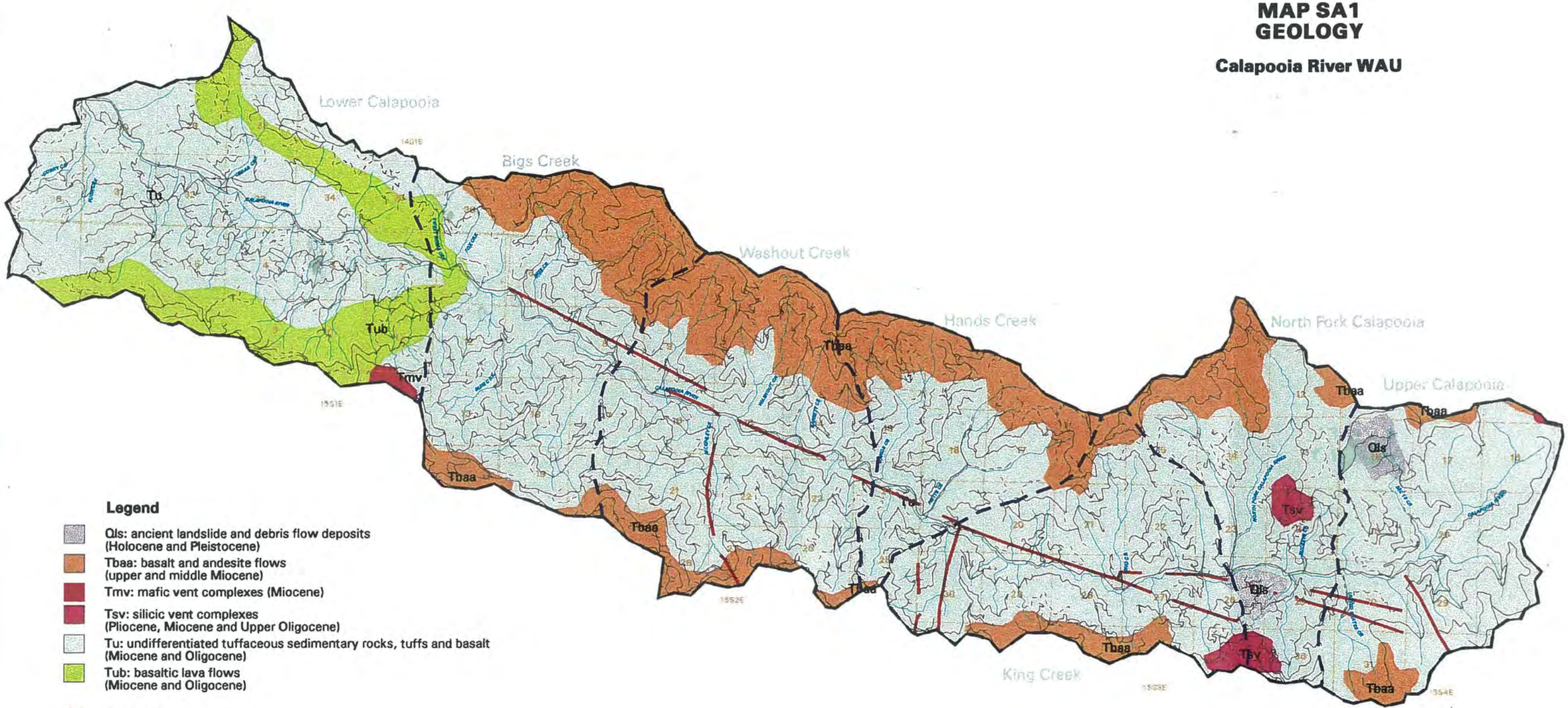
Map Symbol	Geologic Unit	Description
Quaternary Period (1.6 Ma to present)		
Qal	Alluvium	Moderately sorted cobble gravel along rivers to poorly sorted gravelly sand on small tributary fans. Includes post–glacial terrace gravels that are perched above modern floodplain surfaces.
Qls	Ancient landslide deposits	Ancient landslide and debris flow deposits containing unstratified mixtures of fragments of adjacent bedrock. Largest slides and debris flows occur where thick sections of basalt and andesite flows overlie clayey tuffaceous rocks.
Tertiary Period (66 to 1.6 Ma)		
Tsv	Silicic vent complexes	Large, rhyolitic to dacitic vent areas that commonly includes multiple intrusions and much associated silicic eruptive breccia and erosional debris and some flows.
Tmv	Mafic vent complexes	Intrusive plugs and dike swarms and related near–vent flows, breccias, cinders, and agglutinate of basaltic andesite, basalt, and andesite; commonly in the form of eroded piles of red, iron–stained thin flows, cinders, and agglutinate cut by mafic intrusions.
Tbaa	Basaltic and andesitic rocks	Lava flows and flow breccia; includes interbedded volcaniclastic and epiclastic rocks mostly of andesitic composition. Age 17 Ma to about 10 Ma.
Tu	Undifferentiated volcanics	Tuffaceous sedimentary rocks, basalt flows, and tuffs which are undivided. Includes extensive ash–flow and air–fall tuffs, abundant lapilli tuff and tuff breccia, andesitic mudflow (lahar) deposits, massive to fine–bedded fine to coarse grained tuffaceous sedimentary rocks and volcanic conglomerates. Deposited approximately 32 to 17 million years b.p.
Tub	Basaltic lava flows	Basaltic and basaltic andesite lava flows and breccia.

The geomorphology of the WAU consists of the narrow alluvial and bedrock controlled valley of the upper Calapooia River (with associated terraces only where the valley widens); moderate to steep slopes of the Calapooia River tributaries; and occasional broad ridges of the eastern and southern watershed boundaries which delineate the tops of geologically recent basalt and andesite flows (see **Map SA2**: Slope Classes). Additionally, there are scattered igneous intrusions, which form portions of the ridges and peaks within the WAU.

The steep, highly dissected, generally dendritic drainage of the central and eastern headwaters is occasionally disrupted by large, deep–seated earthflows and slumps of Quaternary age (1.6 Ma. to present). These features, termed large, persistent, deep–seated landslides (LPD's) in this report, also dominate the western margin of the watershed where flat–lying, resistant flow rocks (basalt and andesite) overlie weaker, older, and more deeply weathered volcaniclastics. Complex slump and earthflow features have formed in this area, perhaps as a result of focused ground water discharge and lateral transport along the contact between the relatively resistant, but highly fractured basalts and the impermeable units comprising the less competent litholigic units below. These deep–seated landslide features probably occurred hundreds to thousands of years ago during major disturbance events (e.g., seismic activity).

MAP SA1
GEOLOGY

Calapooia River WAU



Legend

- Qls: ancient landslide and debris flow deposits (Holocene and Pleistocene)
- Tbaa: basalt and andesite flows (upper and middle Miocene)
- Tmv: mafic vent complexes (Miocene)
- Tsv: silicic vent complexes (Pliocene, Miocene and Upper Oligocene)
- Tu: undifferentiated tuffaceous sedimentary rocks, tuffs and basalt (Miocene and Oligocene)
- Tub: basaltic lava flows (Miocene and Oligocene)

- Fault Lines
- Driveable roads
- Abandoned/overgrown roads
- Subbasin boundary

Geologic Base Map from USGS 1:500000 (Walker and MacLeod, 1991)

1.0MI 0MI 1MI 2MI 3MI 4MI

1 : 90000

1 inch = 7500 feet

Map SA1 Geology

Weyerhaeuser

DATE: 08/24/98

ANALYSIS AND RESULTS

Landslide Inventory

The landslide inventory originally identified approximately 600 landslides, including deep–seated features, for the period of record (1949 to 1997) (**Map A1**). Several landslides were subsequently excluded from the data set used in the analysis. Reasons for exclusion included electronic omission of some data fields during GIS queries and removal of the most questionable features identified from photos, particularly those that could not be verified from field surveys. The final analysis utilized a data set of 548 landslides (includes deep–seated features).

Landslide occurrence and the ratio of road to non road-related failures are detailed in Figure A1. The greatest number of landslides occurred between 1949 and 1967 and the period between 1987 and 1997. The greatest proportion of road related failures occurred between 1967 and 1987.

Shallow, rapid landslides and debris flows are by far the most common types of landslides in the WAU. Combined, they account for 91% of the inventory (Figure A2). The road network has contributed 49% of the observable landslides, excluding LPD's.

The total length of channels impacted by debris torrent scour over the period of record was 44.6 miles (stream reaches impacted by multiple debris flows are counted once). Nineteen miles of scour occurred in fish bearing streams (24% of fish–bearing network, which includes fish, bearing and potential fish–bearing classification. See Appendix F for fish use designations and definitions).

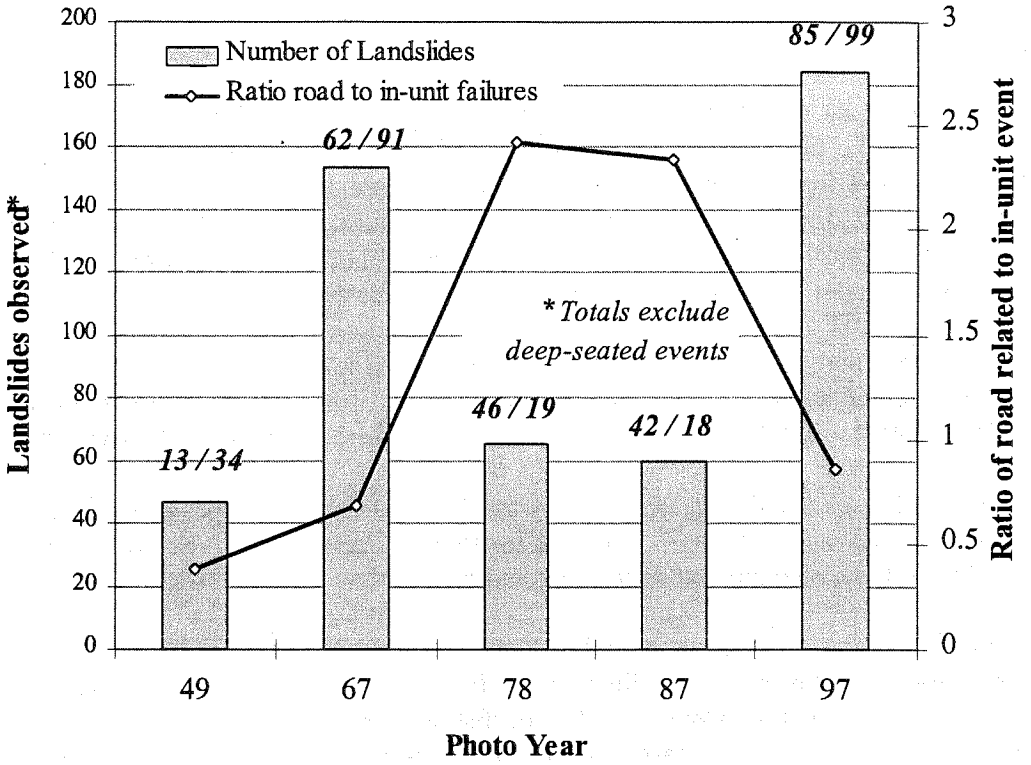
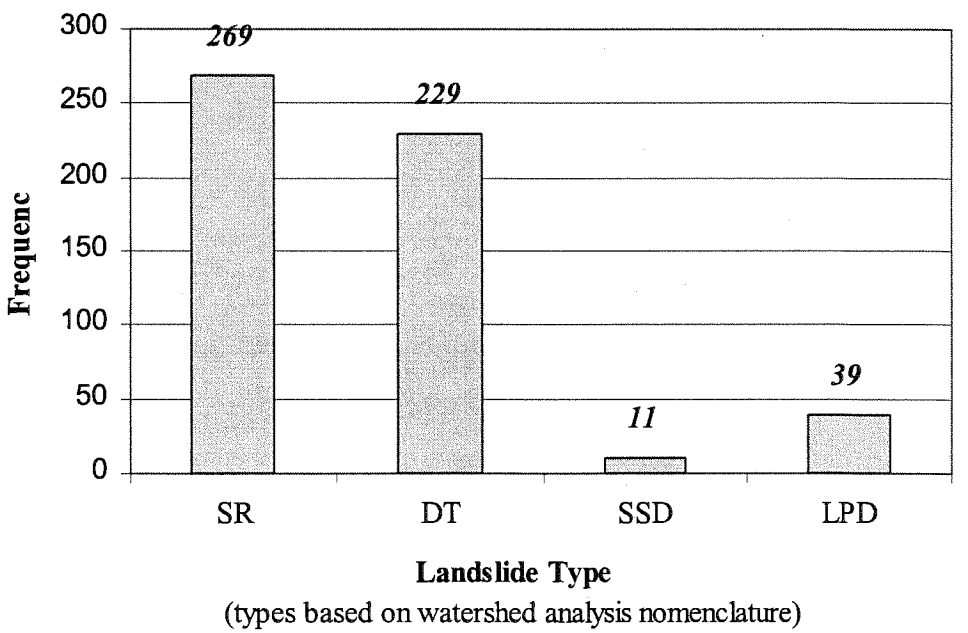


Figure A1 Landslide occurrence by photo year and land use association (road/non-road related ratio) in the Calapooia River WAU, 1949–1997

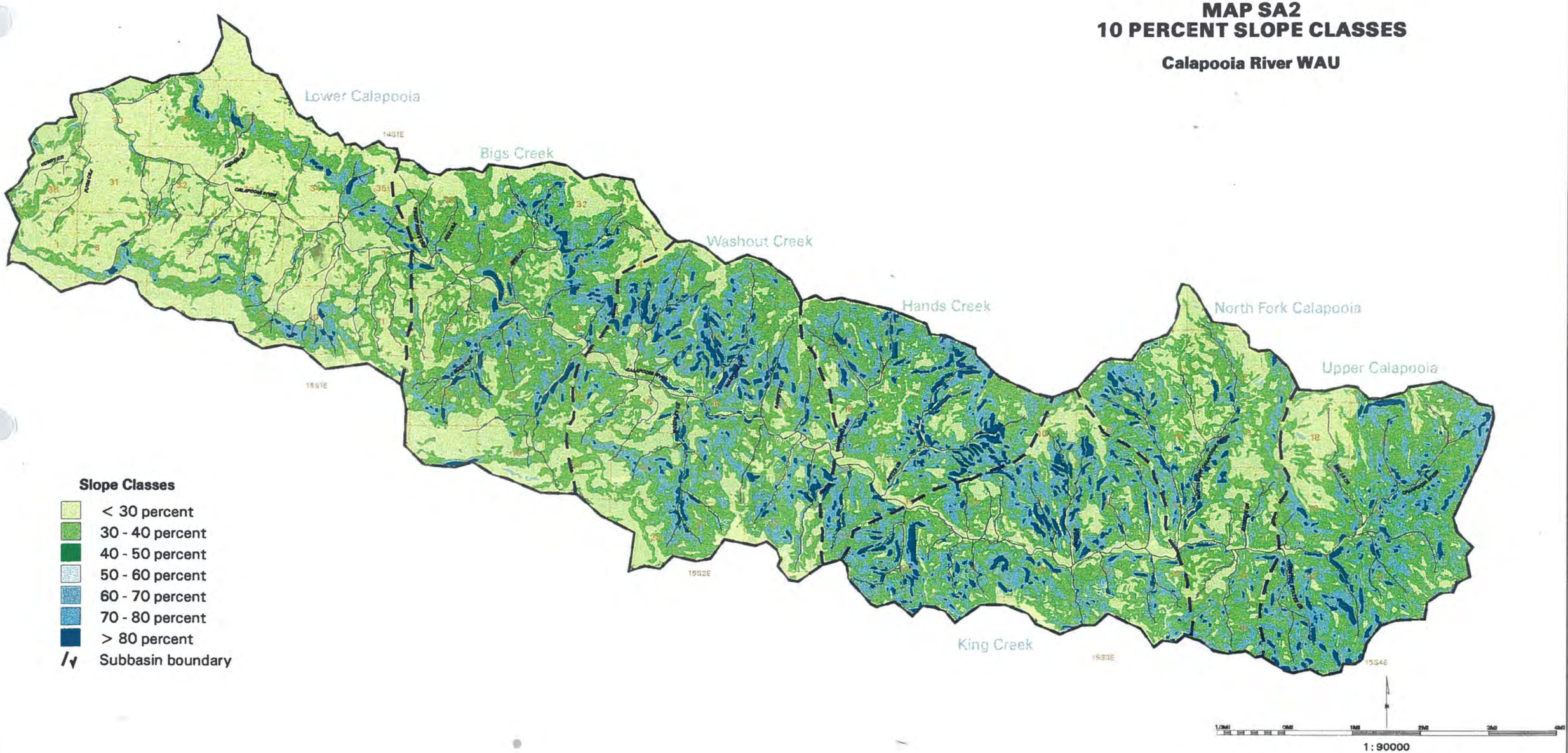


(types based on watershed analysis nomenclature)

Figure A2 Occurrence by landslide type.

MAP SA2
10 PERCENT SLOPE CLASSES

Calapooia River WAU



Slope Classes

- < 30 percent
- 30 - 40 percent
- 40 - 50 percent
- 50 - 60 percent
- 60 - 70 percent
- 70 - 80 percent
- > 80 percent
- Subbasin boundary

1 : 90000

1 inch = 7500 feet

Map SA2 10 Percent Slope Classes

Weyerhaeuser

DATE: 08/21/98

MAP A1
LANDSLIDE INVENTORY

Calapooia River WAU

Lower Calapooia

Bigs Creek

Washout Creek

Hands Creek

North Fork Calapooia

Upper Calapooia

King Creek

14S1E

15S1E

15S2E

15S3E

15S4E

Legend

- Large, deep-seated landslide (LPD), deposit
- Large, deep-seated landslide (LPD), source
- Small, sporadic, deep-seated landslide
- Shallow rapid slide
- Debris flow or torrent
- Subbasin boundary

1 : 90000

1 inch = 7500 feet

Map A1 Landslide Inventory

Weyerhaeuser

DATE: 08/24/98

The observed landslides generated approximately 1,191 k.cu.yd. of sediment (excluding LPD's but including events that occur within them). An estimated 67% (818 k.cu.yd.) of this sediment was delivered to streams, virtually all from shallow, rapid landslides and debris flows. Several of these types of failures occur from, and are concentrated on, the headscarps, deposits, and toes of LPD's. LPD's may also show evidence of local reactivation and displacement (e.g., cracks and displacements observed on roads).

Spatially, landslides have been most abundant in the central headwaters within the Washout Creek, Hands Creek and King Creek subbasins. The estimated delivered sediment volume per area data (Figure A3) do not parallel the landslide densities for several subbasins because upland landslides can be arrested by benches and other, more gentle ground, before reaching the stream network.

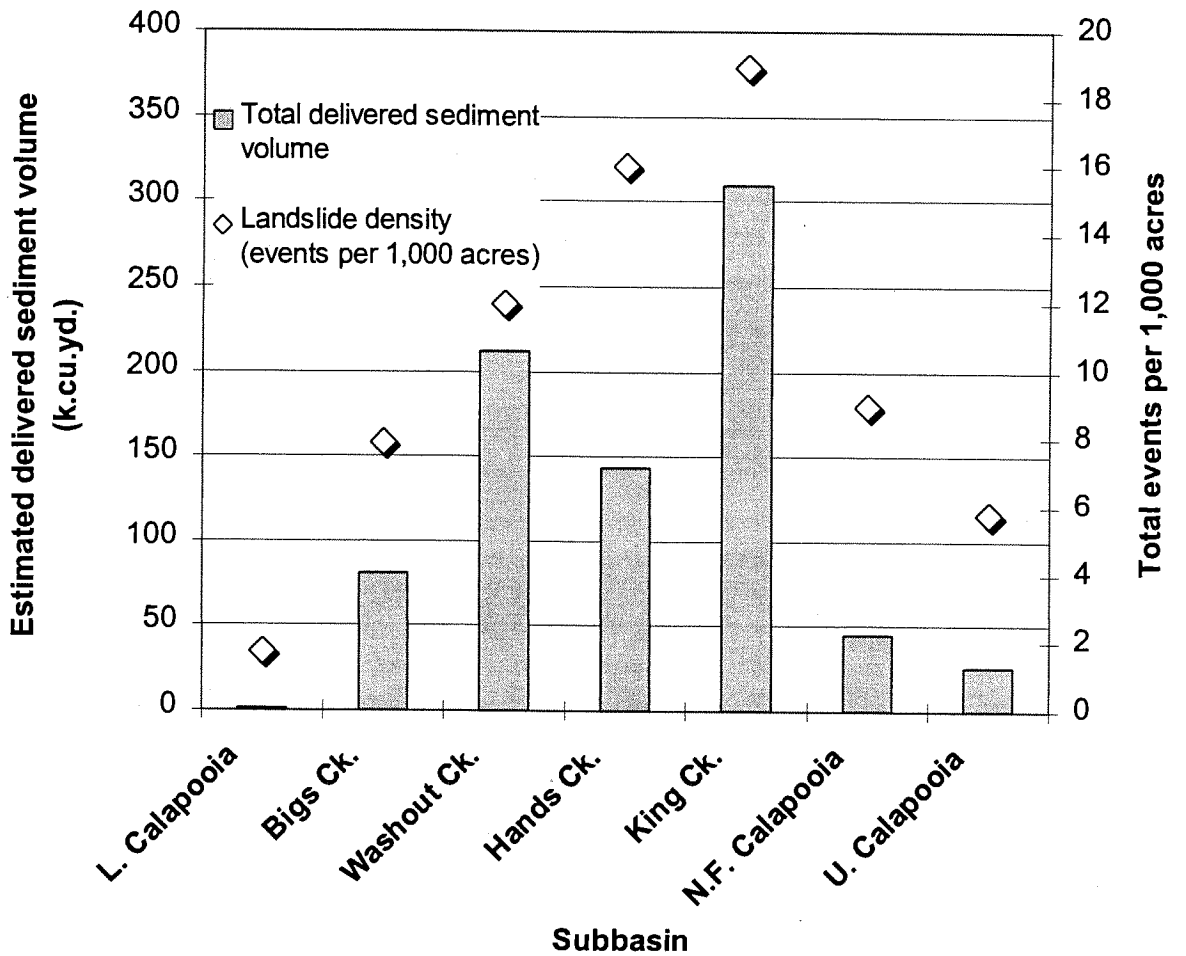


Figure A3 Landslide density (number per 1000 acres) and estimated volume of sediment delivered to the stream network per area (k.cu.yd.) by subbasin.

Geology and Landform Associations

The resistant volcanic lithologies in the watershed (i.e., basalt and andesite) are broadly similar in their strength characteristics and their influence on local geomorphic processes, therefore, landslide occurrence can be predicted most readily by topographic changes (e.g., slope) and landform characteristics (e.g., concave versus convex slopes). The volcanic breccias, tuffs, and tuffaceous sediments (e.g., Tu formation), however, are weaker and less uniform in their geo–mechanical properties. Therefore, landslide prediction or hazard rating is more difficult for landforms developed in these materials.

As expected, the greatest incidence of landslides is from steep slopes, particularly those that are convergent. Of 59 field measured slopes at landslide initiation sites, 90% had slopes greater than 65%. The distribution of slopes by landform type is detailed in Table A5. Slopes at initiation sites for non–field measured landslides were generated using the DEM, but the algorithm did not reliably identify slope gradient when compared with the field measured gradients. DEM generated slopes at landslide initiation sites are incorporated into the landslide inventory data (see Form A1, column AE: Forms and Attachments) but are not considered useful for this analysis.

Table A5 Field measured slopes at initiation sites of common landform types.

	LANDFORM TYPE	
	Concave	Planar
Number sampled	37	18
Slope range	48–90%	64–85%
Average slope	**74%**	**73%**

A large number of all landslides inventoried (43%) and most of the estimated delivered sediment volume (62%) occurred from convergent landforms identified as headscarps, headwalls, or bedrock hollows (Figure A5). Convergent topography concentrates subsurface water, thereby increasing soil pore water pressures. Concave slopes can also collect noncohesive, weathered material relatively rapidly via colluvial processes such as creep. The combination of weak material (colluvium and/or weathered parent material), concentrated groundwater, and the inherently steep slopes associated with these features can induce instability.

Slope failures from planar slopes and inner gorges also occurred, but at lower frequencies than failures from convergent areas. They were observed in the field and on photos to occur on very steep slopes (mostly >70%). Additional inner gorge landslides are inferred to have occurred due to the abundance of steep, highly confined stream channels prevalent in the WAU. However, streamside slumps and inner gorge features are inherently difficult to detect in air photos, especially where dense riparian vegetation exists. For example, several small, deep–seated streamside slumps were observed in Hands Creek, however, these features were not recognizable when an attempt was made to locate them in the aerial photos.

Fewer failures were observed from LPD headscarps (probably due to low total area of this feature); ridge noses and other convex landforms (commonly assumed to be relatively stable features); and LPD benches (except at the toes of these features).

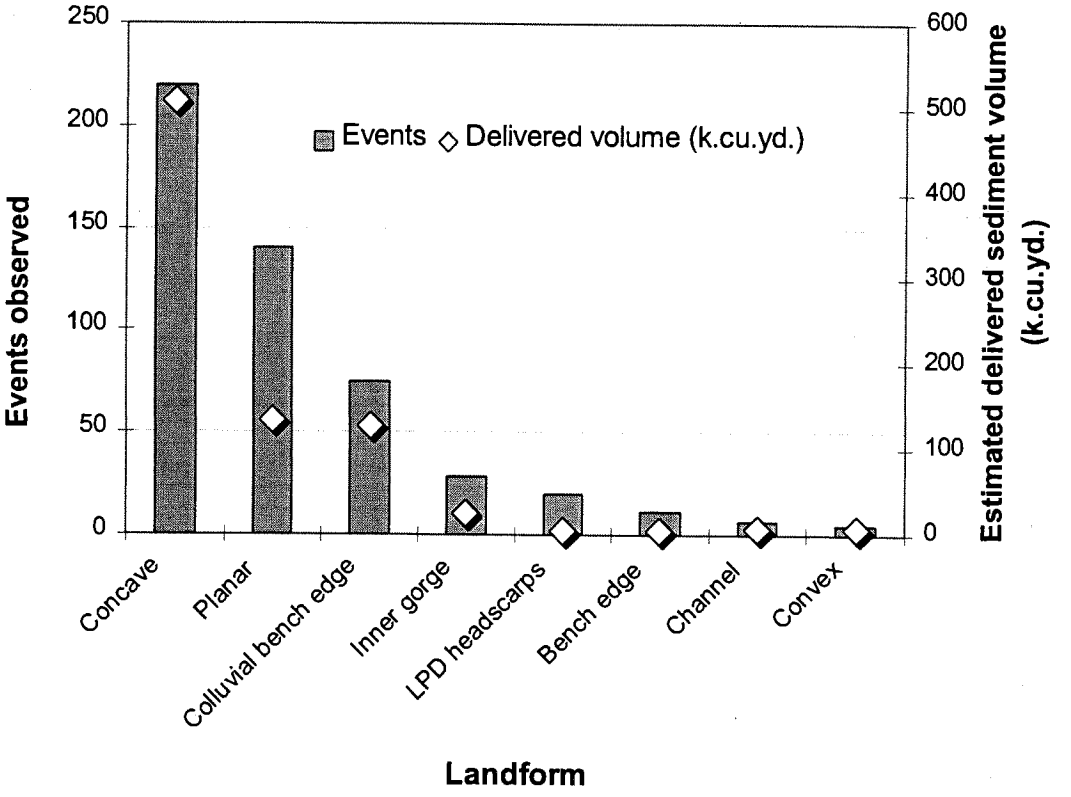


Figure A4 Comparison of estimated sediment volumes delivered by landslides (excluding LPD) from different landforms in the WAU.

Management Associations

Road Related Landslides

Sidecast failures, including those associated with landing margins, are the most frequent road associated landslides, delivering an estimated 40% of the total volume of sediment delivered by all landslides over the period of record (Figure A6) and 64% of road failures. Sidecast material placed on steep slopes during road and landing construction oversteepens and loads the slope, resulting in decreased stability. Dry ravel and creep of cutbank soil was observed in the field in a few locations. These situations may have contributed to the diversion of road drainage across the road tread and into sidecast deposits, thereby increasing pore–water pressures in the material, though such conditions are not directly observable from air photos.

Cutbank failures occur primarily where unstable slopes are undercut and oversteepened, or where increased pore water pressures are created by cutbank seeps (not increased by construction of the road, but can be common where water is perched above clay lenses within colluvium). Stream crossing failures were rare. These may have been triggered by debris blocking culverts or as a result of undersized culverts.

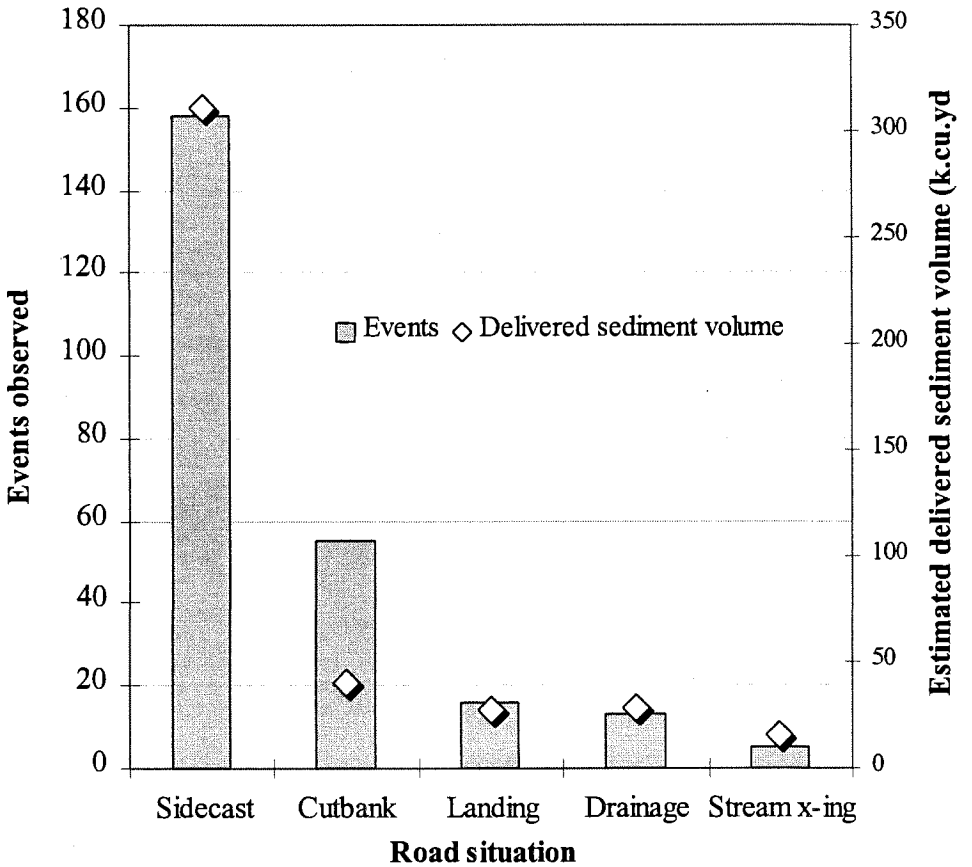


Figure A5 Comparison of the relative landslide contributions of specific road situations.

Landslide Association with Major Storms

Large storms are known to be a major trigger of landslides in the Oregon Coast Range. This is particularly true when large precipitation events are accompanied by high antecedent soil moisture and high stream flows. The largest precipitation events in the WAU over the period of record occurred in 1964 and 1996. The high landslide frequencies observed in the 1967 and 1996/1997 aerial photos are presumed to have been triggered by these hydrologic events. Conversely, low relative landslide occurrence between the 1967 and 1996 photo years is inferred to be primarily a result of a lack of threshold–exceeding storms in the period, rather than decrease in potential management related causes, such as decreased road building or harvest.

The influence of large hydrologic events on landslide initiation and the pattern of road–related to in–unit landslides observed over the period of record (see Figure A1) suggest the following hypotheses:

1. Road–related landslides may result from moderate as well as large hydrologic events and across a more diverse suite of hydro–geomorphic conditions. For example, while sidecast road failures occur more frequently during the largest storms, the rate of increase is much smaller than the rate of in–unit failures during large storms.

2. Steep concave slopes fail at exponentially higher rates above some threshold storm event. The size of that event appears to have been reached in 1964 and 1996.
3. The higher proportion of road–related to in–unit landslides in the 1978 and 1987 photos as compared to 1996 suggest that the high harvest and road construction rates during these periods, prior to improved road construction methods in recent years, may have influenced the rate of road failure.

Sediment Delivery Over Space and Time

Estimated sediment volumes delivered to the stream network from each subbasin are summarized by photo year in Figure A8.

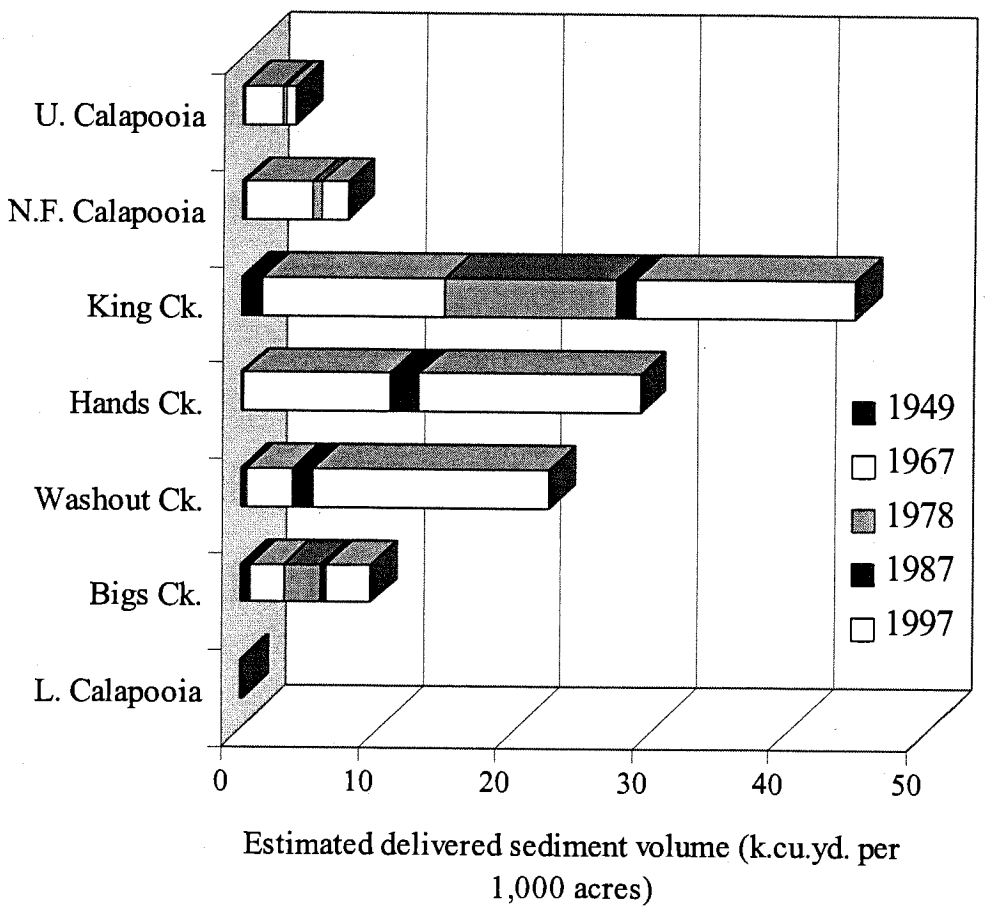


Figure A6 History of delivered sediment volume from landslides in each subbasin.

The highest sediment production (delivered volumes, normalized by area of subbasin, over time) are from the King Creek, Hands Creek, and Washout Creek subbasins. Debris flows account for most of the delivered sediment here. The runouts are long and numerous, therefore calculated delivery volumes were high. Stand age was, for the most part, young across all three basins.

Numerous events occurred in these basins during the February 1996 storm. Unlike Washout Creek and Hands Creek subbasins, the King Creek subbasin generated much sediment in the period between 1967 and 1978. One of the areas of greatest instability in the watershed is in King Creek where upland benches drain into the very steep, concave headwaters.

Mass Wasting Map Units

The landslide inventory data and observations made during the field reconnaissance were used in conjunction with the topography (landforms and slope) and geology to divide the WAU into areas inferred to have similar slope stability characteristics and sensitivities to forest practices. This stratification is defined by the following summary of Mass Wasting Map Units (Table A5). The MWMU's are shown in **Map A2**. Detailed descriptions of the MWMU's are included as Form A2. Landslide densities and percentages of the WAU in each MWMU are illustrated in Figure A10.

Table A6 Summary of Mass Wasting Map Unit (MWMU) characteristics.

	MASS WASTING MAP UNITS						
	1	2	3	4	5	6	7
Slope type	STEEP, CONCAVE	STEEP, PLANAR	IRREGULAR	STEEP w/BREAK IN SLOPE	GENTLE	GENTLE	VARIABLE
Landform examples	Headwalls, hollows, headscarps	Sideslopes	Deep–seated landslide deposits	Inner gorge	Structural benches, ridgetops	River terraces, alluvial fans, active floodplain	Pediments, earthflows, smooth and hummocky slopes.
Geology	Volcanics; primarily basalt and andesite flows and competent volcaniclastics	Volcanics; primarily basalt and andesite flows and competent volcaniclastics	Volcaniclastics, breccias, and tuffs.	Includes bedrock or colluvial parent materials	Basalt and andesite flows	Quaternary alluvium	Volcaniclasti cs, breccias, and tuffs.
Slope	>50% (DEM)	<70% (DEM)	<30% (DEM)	>70% (DEM)	<30% (DEM)	<30%	variable
Area (acres)	6,905	1.690	2,613	Not mapped	5,798	1,221	36,253
Area (% of WAU)	12.7%	3.1%	4.8%	—	10.6%	2.2%	66.5%
Landslide density (road)	3.6 per mile of road	1.7 per mile of road	0.3 per mile of road	—	0.02 per mile of road	0.06 per mile of road	0.2 per mile of road
Landslide density (non road)	22.2 per 1,000 acres	5.3 per 1,000 acres	7.7 per 1,000 acres	—	0.2 per 1,000 acres	0.8 per 1,000 acres	2.1 per 1,000 acres
Delivery potential	High (70% delivered)	Moderate (48% delivered)	High (86% delivered)	—	Low (0% delivered)	Low (0% delivered)	High (63% delivered)
Mass wasting potential	High for harvest High for roads	High for roads Moderate for harvest	Moderate for roads*; Moderate for harvest	High	High for roads Low for harvest	Low	Moderate for roads Low for harvest

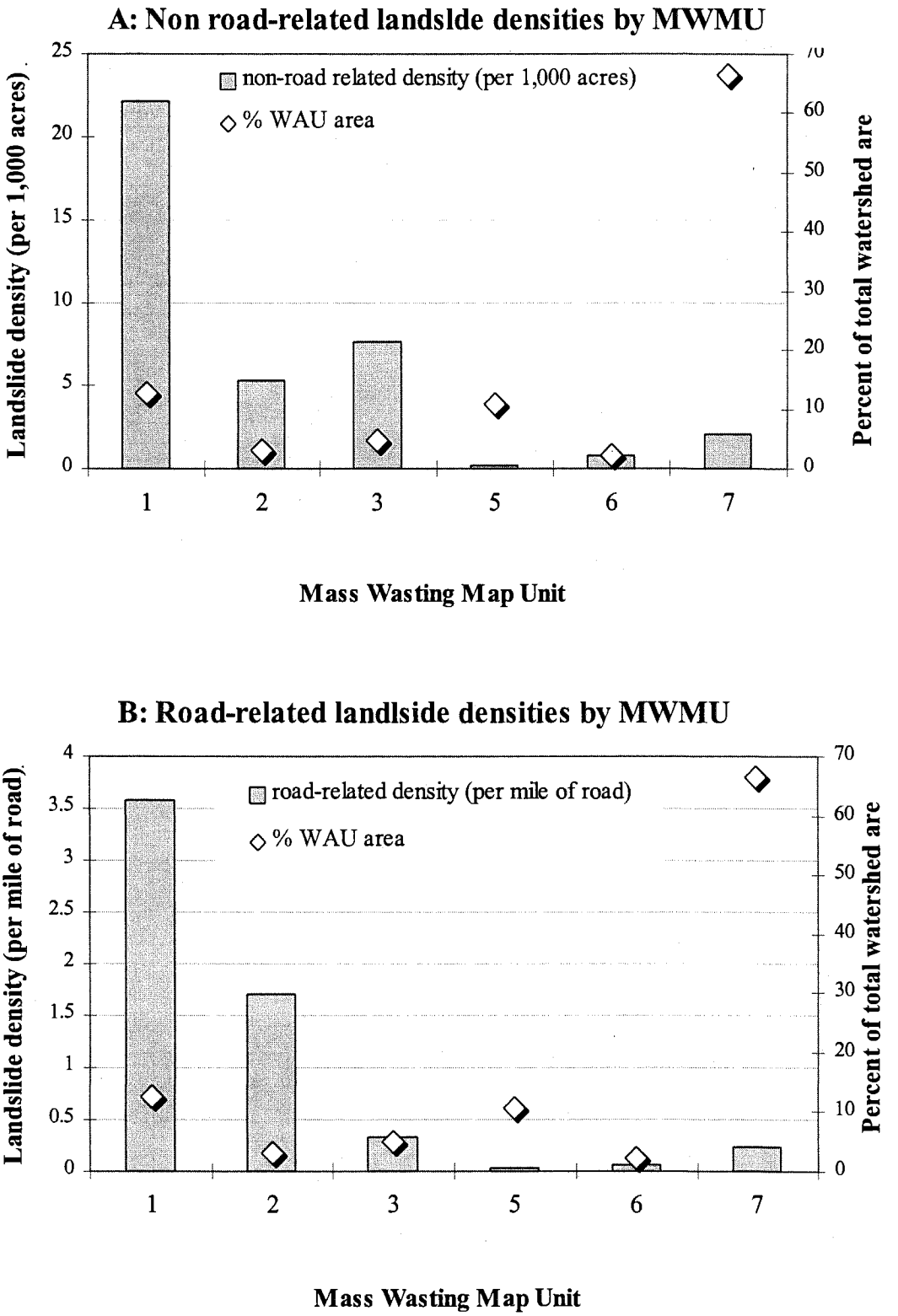
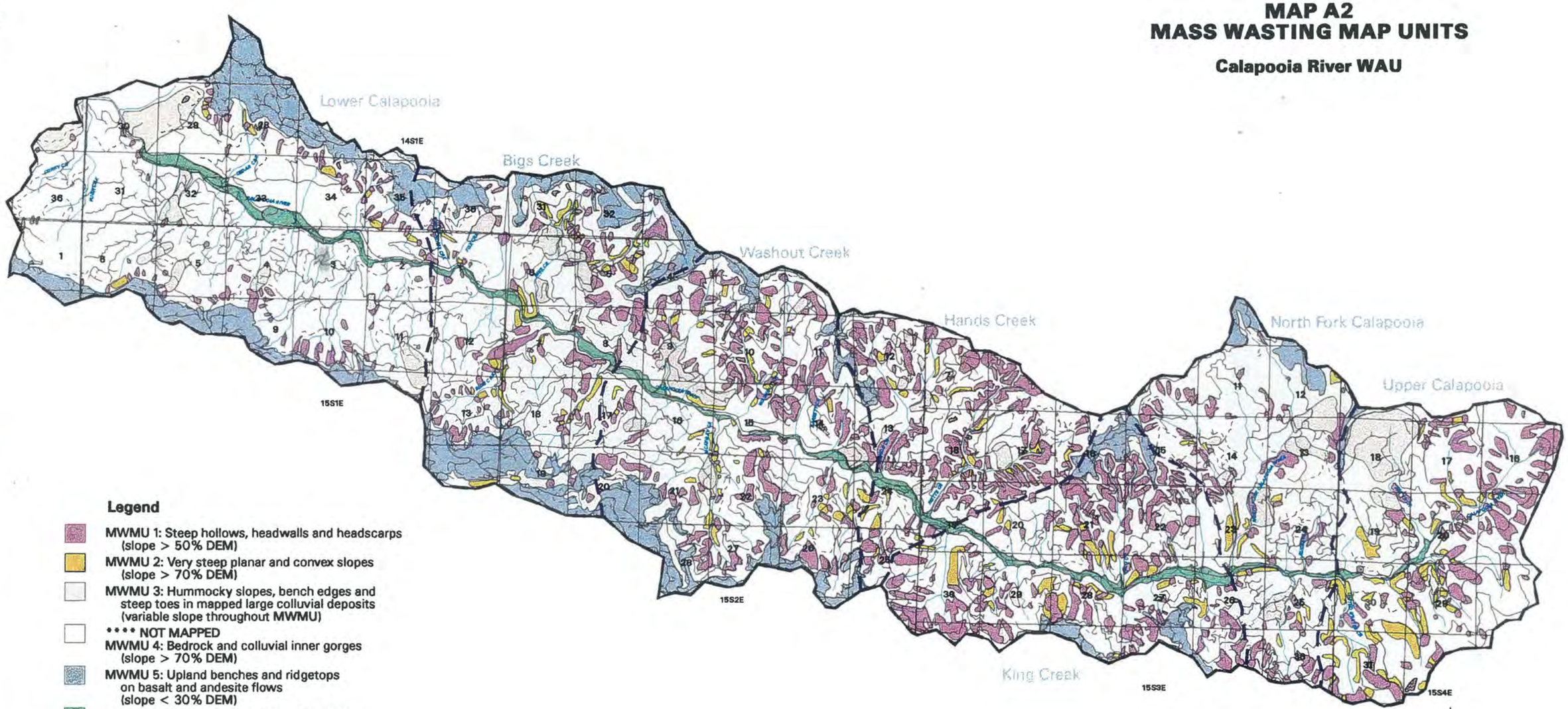


Figure A7 Landslide densities for non-road (A) and road–related failures (B) and percentage of total WAU area by mass wasting map unit.

MAP A2
MASS WASTING MAP UNITS

Calapooia River WAU



Legend

- MWMU 1: Steep hollows, headwalls and headscarps (slope > 50% DEM)
- MWMU 2: Very steep planar and convex slopes (slope > 70% DEM)
- MWMU 3: Hummocky slopes, bench edges and steep toes in mapped large colluvial deposits (variable slope throughout MWMU)
- **** NOT MAPPED
- MWMU 4: Bedrock and colluvial inner gorges (slope > 70% DEM)
- MWMU 5: Upland benches and ridgetops on basalt and andesite flows (slope < 30% DEM)
- MWMU 6: Calapooia River valley floodplain, alluvial fans, and stream terraces (slope < 30% DEM)
- MWMU 7: Gentle to moderate gradiend: smooth and hummocky slopes in variable lithologies. Includes undifferentiated benches and deep-seated landslides.

1:90000

1 inch = 7500 feet

Map A2 Mass Wasting Map Units

Weyerhaeuser

DATE: 08/24/98

CONFIDENCE IN WORK PRODUCTS

Landslide Inventory

A primary goal of the inventory is to document as many of the landslides to have occurred over the period of record as possible. However, some events are likely missed because they can not be resolved from air photos or observed in the field. The number missed from a photo inventory can be highly variable due to such factors as canopy closure, photo scale and quality, and landslide size. An unpublished, internal study comparing a field–based versus an air photo–based inventory (Hogervorst, 1995) suggested that, for the area studied, up to 3 landslides were missed in mature timber for every one identified from 1:12,000 scale photos.

Confidence in the landslide inventory is high. Though numerous landslides may have been missed due to small size, poor photo quality, and canopy cover, the aerial photos covered all geomorphic and geologic areas and under various stand ages and conditions. The data set for this watershed is also very large, the largest of any to date in Oregon.

Like all landslide types, LPD's have unique characteristics of morphology, material composition, type of movement, and trigger mechanisms; those identified in this assessment should be treated as hypothesized features. Some of them may be misidentified while others are unmapped.

Mass Wasting Map Units

Confidence in MWMUs is moderate to high. Confidence in unit descriptions and trigger mechanisms is relatively high. However, extrapolation of units to areas not field checked may incorporate error due to the inability to resolve some of the natural variations in the landscape. There is always some degree of error inherent with remotely sensed data.

Landslide Sediment Volumes

Confidence in volume estimates is moderate. The reported volumes are estimates based on limited field data. There are also limitations in the assumptions (see summary of assumptions used in volume calculations in *Attachments*) used to measure landslide size, such as the assumption of a rectilinear geometry, which is known to be false, yet is an appropriate way to rapidly assess sediment volume production.

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ATTACHMENT A1

Form A2: Mass Wasting Map Unit Descriptions

1. Steep holllows, headwalls, and headscarps 1
2. Very steep planar and convex slopes..... 5
3. Hummocky slopes, bench edges, and steep toes in mapped LPD's 8
4. Bedrock and colluvial inner gorges..... 11
5. Upland benches and ridgetops on basalt and andesite flows 14
6. Calapooia River valley floodplain, alluvial fans, and stream terraces.... 18
7. Gentle to moderate gradient; smooth and hummocky slopes in variable lithologies. Includes undifferentiated benches and deep–seated landslides.....

Landslide Inventory Data Dictionary

Landslide Inventory

Form A-2: Mass Wasting Map Unit 1 Description

MWMU number

1 (Upper Calapooia River WAU).

Description

Steep hollows, headwalls, and headscarps (all lithologies).

Materials

Geologic materials include basalt and andesite flows, volcanic tuffs, breccias, and other volcaniclastics.

Landform

Convergent slopes with ridge to stream–adjacent positions. There are several areas of gentle or benchy ground below these slopes (e.g. MWMU 3 and 7) that could help slow or arrest landslide propagation.

Slope

Mostly ≥50% (from DEM). Field-measured slopes are commonly steeper (>70%) than those determined from the DEM.

Total area

6,905 acres (28 km^2); 12.7% of total area of the WAU.

MW processes

Mass wasting in MWMU 1 for the period of record (1946–1995) consists of:

Landslide Type	Number within MWMU	Estimated Total Volume of Delivered Sediment (k.cu.yd.)	Percentage of Total Volume Delivered by Landslides in the WAU
SR	138	40.2	4.9%
DF	151	484.4	59.1%
SSD	0	8.1	1.0%
Total	**289**	**532.7**	**65.0%**

Non-road-related landslide density

153 non road–related landslides were identified over the photo record representing 22.2 per 1,000 acres.

Continued on next page

Form A-2: Mass Wasting Map Unit 1 Description, Continued

Road-related landslide density	139 road–related landslides were identified over the photo record representing 3.6 landslides per mile of road.
Forest practices sensitivity	• High sensitivity to sidecast road construction and inadequate road drainage. • High sensitivity to harvest.
Mass wasting potential	• High for roading. • High for harvest.
Delivery potential	High; 70% of the landslides identified in this MWMU for the period of record delivered sediment to the stream system.
Delivery criteria used	Percent of landslides that delivered sediment as identified in the landslide inventory (0–30% = low; 30-50% = moderate; 50–100% = high).
Mass wasting and delivery potential rating	• High for roads. • High for harvest.
Triggering mechanisms	The following factors lead to the generation and delivery of sediment from landslides in MWMU 1: **Natural characteristics:** • Steep slopes, supported by shallow soils formed primarily over weathered and fractured basalt and andesite flows and competent volcaniclastics. • Mostly concave slopes in hollows and headwall areas that can concentrate ground water, increasing pore–water pressure and destabilizing slopes. • Occurrence of large storms, routing large quantities of shallow groundwater to unstable slopes.

Continued on next page

Form A-2: Mass Wasting Map Unit 1 Description, Continued

Triggering mechanisms (continued)

Contributing management-related characteristics:

Road-related landslides

- Road-related failures are primarily the result of loading sidecast material on steep slopes (98 of 139 [71%] of road–related failures initiated on road sidecast; no failures identified from landing margins). While the slope steepness is likely the dominant influence of instability (the sidecast material overweights and oversteepens slopes), organic debris in sidecast material and inadequate road drainage are also contributing factors.
- In some cases, diversion of road drainage may have exacerbated the instability by increasing the concentration of shallow ground water.
- 25 of 139 (18%) road–related landslides were triggered in cutbanks that may have been oversteepened by slope undercutting.

Non–road–related landslides

Many non road–related landslides (GIS data still pending), for which applicable stand age data is available (from entire watershed), probably occurred within 20 years of harvest. This suggests that in many cases the slope stability was reduced by harvest, possibly associated with:

- reduction in root strength (Burroughs and Thomas 1977; Krogstad 1996; Ziemer 1981); and/or
- increases in shallow subsurface pore–water pressure following removal of vegetation during harvest.

Confidence

High. Many landslides initiated in steep, concave slopes and many were triggered by management activities (e.g., sidecast road construction). Sidecast/drainage failures were identified during field reconnaissance. However, it is difficult to observe the influence of root strength on slope stability in the field. The root strength argument is based on the current literature.

Exact delineation of the most unstable slopes within the mapped area of this MWMU is subject to field verification.

Comments

See Map A2 for locations of MWMU 1.

Form A-2: Mass Wasting Map Unit 2 Description

MWMU number

2 (Upper Calapooia River WAU).

Description

Very steep planar and convex slopes.

Materials

Geologic materials are primarily basalt and andesite flows, welded tuffaceous units, and other competent volcaniclastics.

Landform

Primarily includes ridge noses and steep side slopes.

Slope

Mostly >70% (DEM). Field-measured slopes can commonly be steeper (>80%) than those determined from the DEM.

Total area

1,690 acres (6.8 km^2); 3.1% of total area of the WAU.

MW processes

Mass wasting in MWMU 2 for the period of record (1949–1997) consists of:

Landslide Type	Number within MWMU	Estimated Total Volume of Delivered Sediment (k.cu.yd.)	Percentage of Total Volume Delivered by Landslides in the WAU
SR	16	5.7	0.7%
DF	5	27.4	3.3%
SSD	0	0	0%
Total	**21**	**33.1**	**4.0%**

Non-road-related landslide density

9 non-road–related landslides identified over the photo record (1949–1997), representing 5.3 per 1,000 acres.

Form A-2: Mass Wasting Map Unit 2 Description, Continued

Road-related landslide density	12 road–related landslides identified over the record (1949–1997), representing 1.7 landslides per mile of road.
Forest practices sensitivity	• High sensitivity to roading. • Moderate sensitivity to harvest.
Mass wasting potential	• High for roading. • Moderate for harvest.
Delivery potential	Moderate. 48% of the landslides identified in this MWMU for the period of record delivered sediment to the stream system.
Delivery criteria used	Field and photo observations of proximity, visible sediment, and routes of delivery (0–30% = low; 30-50% = moderate; 50–100% = high).
Mass wasting and delivery potential rating	• High for roads. • Moderate for harvest.
Triggering mechanisms	The following factors lead to the generation and delivery of sediment from landslides in MWMU 2: **Natural characteristics:** • Occurrence of large storms, routing large quantities of shallow groundwater to unstable slopes. • Shallow soils formed on resistant, cohesive materials. • Oversteepened slopes in weak, unconsolidated material.

Continued on next page

Form A-2: Mass Wasting Map Unit 2 Description; Continued

Triggering mechanisms (continued)

Contributing management-related characteristics:

Road-related landslides

Three out of 12 road–related landslides in this unit were cutbank associated; 9 were from sidecast, and 1 was a landing failure.

Non-road-related landslides

Many non road–related landslides (GIS data still pending), for which applicable stand age data is available (from entire watershed), probably occurred within 20 years of harvest. This suggests that in many cases the slope stability was reduced by harvest, possibly associated with:

- reduction in root strength (Burroughs and Thomas, 1977; Krogstad, 1996; and Ziemer, 1981); and/or
- increases in shallow subsurface pore–water pressure following removal of vegetation during harvest.

Confidence

High. Many landslides initiated in steep, planar slopes and many were triggered by management activities (e.g., sidecast road construction). Sidecast/drainage failures were identified during field reconnaissance. However, it is difficult to observe the influence of root strength on slope stability in the field. The root strength argument is based on the current literature.

Comments

See Map A2 for locations of MWMU 2.

Form A-2: Mass Wasting Map Unit 3 Description

MWMU number

3 (Upper Calapooia River WAU)

Description

Hummocky slopes, bench edges, and steep toes within mapped LPD's

Materials

Geologic materials include primarily volcanic breccias, tuffs within colluvial material.

Landform

Deep–seated landslide deposits.

Slope

Variable, but generally less than 50% except at margins.

Total area

2,613 acres (10.6 km^2); 4.8% of total area of the WAU.

MW processes

Mass wasting in MWMU 3 for the period of record (1949–1997) consists of:

Landslide Type	Number within MWMU	Estimated Total Volume of Delivered Sediment (k.cu.yd.)	Percentage of Total Volume Delivered by Landslides in the WAU
SR	21	17.7	2.2%
DF	4	7.3	0.9%
SSD	3	3.4	0.4%
Total	**28**	**28.4**	**3.5%**

Non-road-related landslide density

20 non-road–related landslides identified over the photo record (1949–1997), representing 707 per 1,000 acres.

Continued on next page

Form A-2: Mass Wasting Map Unit 3 Description, Continued

Road-related landslide density	8 road–related landslides identified over the photo record (1949–1997), representing 0.3 landslides per mile of road.
Forest practices sensitivity	• Moderate sensitivity to roading. • Moderate sensitivity to harvest.
Mass wasting potential	• Moderate for roads. • Moderate for harvest.
Delivery potential	High; 86% of the landslides identified in this MWMU for the period of record delivered sediment to the stream system.
Delivery criteria used	Field and photo observations of proximity, visible sediment, and routes of delivery (0–30% = low; 30-50% = moderate; 50–100% = high).
Hazard potential rating	• Moderate for roads. • Moderate for harvest.
Triggering mechanisms	The following factors lead to the generation and delivery of sediment from landslides in MWMU 3: **Natural characteristics:** • Gentle to moderate slopes in deeply weathered colluvium in deep–seated landslide deposits. • Steep slopes and slope breaks along the toes of these deposits and where the toes impinge on stream, creating inner gorge conditions • Occurrence of large storms, routing large quantities of shallow groundwater to unstable slopes.

Continued on next page

Form A-2: Mass Wasting Map Unit 3 Description, Continued

Triggering mechanisms (continued)

Contributing management-related characteristics:

Road-related landslides

- Three of the 8 road–related landslides in MWMU 3 (38%) initiated on road–sidecast material on steep slopes. The sidecast material overweights and oversteepens slopes.
- Three of the 8 road–related landslides were triggered in cutbanks that may have been oversteepened by slope undercutting.
- One landslide each were attributed to landings and pirated road drainage.

Non-road-related landslides

Many non road–related landslides (GIS data still pending), for which applicable stand age data is available (from entire watershed), probably occurred within 20 years of harvest. This suggests that in many cases the slope stability was reduced by harvest, possibly associated with:

- reduction in root strength (Burroughs and Thomas 1977; Krogstad 1996; Ziemer 1981); and/or
- increases in shallow subsurface pore–water pressure following removal of vegetation during harvest.

Confidence

Moderate. Deep–seated landslide deposits are inherently unstable areas, however, the mapped LPD's are hypothesized features; field verification is therefore suggested.

Comments

See Map A2 for locations of MWMU 3.

Form A-2: Mass Wasting Map Unit 4 Description

MWMU number	4 (Upper Calapooia River WAU).
Description	Bedrock and colluvial inner gorges.
Materials	Can occur in all lithologies present in the watershed, but are likely to be more common in weakly competent ltihologies (tuffs, breccias, etc.) and within deep–seated landslide deposits.
Landform	Inner gorges with well defined slope breaks and with sideslopes generally greater than 70% gradient.
Slope	Mostly ≥60% (DEM). Field-measured slopes are commonly steeper than those determined from the DEM.
Total area	Unmapped
MW processes	Data not available.

Continued on next page

Form A-2: Mass Wasting Map Unit 4 Description, Continued

Forest practices sensitivity	• Inferred moderate to high for all operations near or at the slope break within qualifying units (e.g., those with steep sideslopes)
Mass wasting potential	• Moderate to high for roads. • Inferred high for harvest.
Delivery potential	High; based on close association with stream channels.
Delivery criteria used	N/A
Mass wasting and delivery potential rating	• High for roads. • High for harvest.
Triggering mechanisms	The following factors lead to the generation and delivery of sediment from landslides in MWMU 4: **Natural characteristics:** • Well defined break in slope at the top of the inner gorge which can be sensitive to routing of water and to root strength (particularly true for bedrock inner gorges) • Very steep stream adjacent slopes.

Continued on next page

Form A-2: Mass Wasting Map Unit 4 Description, Continued

Triggering mechanisms (continued)

- Occurrence of large storms, routing large quantities of shallow groundwater to unstable slopes.
- Close proximity to channels, allowing high deliverability of landslide sediment.

Contributing management-related characteristics:

Road-related landslides

- Eleven of the 28 road–related landslides were identified as inner gorge failures; 5 initiated on road sidecast material on steep slopes. Three failures initiated at stream crossings. The sidecast material overweights and oversteepens slopes. While the slope steepness is likely the dominant influence of instability, organic debris in sidecast material and inadequate road drainage are also contributing factors.
- Two failures were triggered in cutbanks.

Non-road-related landslides

Twenty non-road-related landslides were identified as initiating within an inner gorge. Many non road–related landslides (GIS data still pending), for which applicable stand age data is available (from entire watershed), probably occurred within 20 years of harvest. This suggests that in many cases the slope stability was reduced by harvest, possibly associated with:

- reduction in root strength (Burroughs and Thomas 1977; Krogstad 1996; Ziemer 1981); and/or
- increases in shallow subsurface pore–water pressure following removal of vegetation during harvest.

Confidence

Moderate. Exact delineation of inner gorge landforms is subject to field verification.

Form A-2: Mass Wasting Map Unit 5 Description

MWMU number

5 (Upper Calapooia River WAU).

Description

Upland benches and ridgetops on basalt and andesite flows.

Materials

Geologic materials primarily include basalt and andesite flows.

Landform

Gently sloped ridgetops and ridgetop benches.

Slope

<30% (DEM). Field-measured slopes are commonly steeper than those determined from the DEM.

Total area

5,798 acres (10.6 km^2); 23.5% of total area of the WAU (known).

MW processes

Mass wasting in MWMU 5 for the period of record (1949–1997) consists of:

Landslide Type	Number within MWMU	Estimated Total Volume of Delivered Sediment (k.cu.yd.)	Percentage of Total Volume Delivered by Landslides in the WAU
SR	1	0	0%
DF	1	0	0%
SSD	1	0	0%
Total	**3**	**0**	**0%**

Non-road-related landslide density

1 non road–related landslide identified over the photo record (1949–1997), representing 0.2 per 1,000 acres.

Continued on next page

Form A-2: Mass Wasting Map Unit 5 Description, Continued

Road-related landslide density	2 road–related landslides identified over the photo record (1949–1997), representing 0.2 landslides per mile of road.
Forest practices sensitivity	• Low sensitivity to roading. • Low sensitivity to harvest.
Mass wasting potential	• Low for roading. • Low for harvest.
Delivery potential	Low. Zero percent of the landslides identified in this MWMU for the period of record delivered sediment to the stream system.
Delivery criteria used	Field and photo observations of proximity, visible sediment, and routes of delivery (0–50% = low; 50–100% = high).
Hazard potential rating	• Low for roading. • Low for harvest.

Continued on next page

Form A-2: Mass Wasting Map Unit 5 Description, Continued

Confidence High. This MWMU covers a considerable area and harvest patterns allowed for generally good visibility on air photos over the period of record.

Comments See Map A2 for locations of MWMU 5.

Form A-2: Mass Wasting Map Unit 6 Description

MWMU number

6 (Upper Calapooia River WAU).

Description

Calapooia River Valley floodplain, alluvial fans, and stream terraces.

Materials

Quaternary alluvium

Landform

Fluvial terraces, alluvial fans, and possibly pediments.

Slope

Gentle to flat terrace treads with steep (estimated >50%; none measured) terrace risers.

Total area

1,222 acres (4.9 km^2); 2.2% of total area of the WAU.

MW processes

Mass wasting in MWMU 6 for the period of record (1949–1997) consists of:

Landslide Type	Number within MWMU	Estimated Total Volume of Delivered Sediment (m^3)	Percentage of Total Volume Delivered by Landslides in the WAU
DF	1	0	0%
SR	0	0	0%
SSD	0	0	0%
Total	**1**	**0**	**0%**

Non-road-related landslide density

0 non road–related landslides were identified over the photo record (1949–1997).

Road-related density

1 road–related landslides were identified over the photo record (1949–1997).

Continued on next page

Form A-2: Mass Wasting Map Unit 6 Description, Continued

Forest practices sensitivity	• Low sensitivity to roading. • Low sensitivity to harvest.
Mass wasting potential	• Low for roading. • Low for harvest.
Delivery potential	Low
Mass wasting and delivery potential rating	• Low for roading. • Low for harvest.
Confidence	High
Comments	See Map A2 for locations of MWMU 6.

Form A-2: Mass Wasting Map Unit 7 Description

MWMU number

7 (Upper Calapooia River WAU).

Description

Gentle to moderate gradient; smooth and hummocky slopes in variable lithologies. Includes undifferentiated benches and deep–seated landslides

Materials

All lithologies present in the watershed.

Landform

Variable

Slope

Variable, but generally less than 50%

Total area

36,253 acres (146.7 km^2); 66.5% of total area of the WAU.

MW processes

Mass wasting in MWMU 6 for the period of record (1949–1997) consists of:

Landslide Type	Number within MWMU	Estimated Total Volume of Delivered Sediment (m^3)	Percentage of Total Volume Delivered by Landslides in the WAU
SR	89	32.5	4.0%
DF	64	176	21.5%
SSD	5	014.4	1.8%
Total	**158**	**222.9**	**27.3%**

Non-road-related landslide density

75 non road–related landslides were identified over the photo record (1949–1997).

Road-related density

83 road–related landslides were identified over the photo record (1949–1997).

Continued on next page

Form A-2: Mass Wasting Map Unit 7 Description, Continued

Forest practices sensitivity	• Moderate sensitivity to roading. • Moderate sensitivity to harvest.
Mass wasting potential	• Moderate for roading. • Low to moderate for harvest.
Delivery potential	Low
Mass wasting and delivery potential rating	• Low for roading. • Low for harvest.
Confidence	High
Comments	See Map A2 for locations of MWMU 7.

APPENDIX B

Upper Calapooia River Watershed Analysis
Surface Erosion Assessment

Susan Madsen
Beak Consultants Incorporated

August 1998

APPENDIX B

Upper Calapooia River Watershed Analysis
Surface Erosion Assessment

Susan Madsen
Beak Consultants Incorporated

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METHODS

The assessment of surface erosion for the Upper Calapooia Watershed Administrative Unit (WAU) was performed following the methodology of the Surface Erosion Module of the Washington Forest Practices Board Standard Methodology for Conducting Watershed Analysis, Version 4.0 (WFPB, 1997). The analysis focused on two general sources of surface erosion: 1) hillslope surface erosion, including harvest units and landslide scars; and 2) logging roads.

Hillslope Surface Erosion

The potential for surface erosion was evaluated using data obtained from the Natural Resources Conservation Service (NRCS) Soil Survey for Linn County (Langridge, 1987) and the United States Forest Service (USFS) Soil Resource Inventory (SRI; Willamette National Forest, 1994). Surface Erosion Map Units (SEMUs) were constructed based on the soil type, parent material, texture, depth and fine material content of the soil. Although "erosion hazard" ratings are provided by both the NRCS soil survey and SRI, such ratings have proven ineffective at predicting the actual surface erosion from logging in other WAUs. For this reason, the SEMUs are used for the erosion potential assessment. Differences in the characteristics listed above influence the amount and type of material delivered to stream channels via overland flow as well as the production of sediment from forest road surfaces. The extent of surface erosion has been found to be more a function of the nature and proximity of harvest and site preparation activities to surface drainage ways, and for this assessment is evaluated primarily through field inspection at a sample of recent land use sites distributed throughout the SEMUs.

The natural background sediment delivery rate was estimated using the soil creep methodology (WFPB, 1997). The WAU was subdivided into seven subbasins **(Map B1)** to allow comparisons of sediment contributions and land use impacts at various points along the stream network. The minimum drainage area required for channel initiation was approximated for each subbasin based on field observations. Geographical Information Systems (GIS) was then used to delineate the stream network and calculate the total stream length within each subasin based on the minimum contributing area. Soil depth, bulk density and coarse material content was approximated using average values associated with the most extensive dominant soil group in each subbasin. The accuracy of the estimated background delivery rate was evaluated through a comparison with average annual suspended sediment yields observed in nearby basins. Calculations and detailed information on the physical characteristics used to estimate background sediment yield is provided in Attachment B1.

Logging and related activity comprise the dominant land use in the Upper Calapooia WAU and were the primary focus of this analysis. Three levels of inspection were used to identify surface erosion: 1) inspection of aerial photographs; 2) reconnaissance from driving by; and 3) field inspection of recently harvested units. The location of timber harvest that occurred during the last five to six years was compiled from ownership records and vegetation age maps **(Map B3).** Field data sheets from the hillslope surface erosion inspections are provided in Attachment B2.

Based on the mass wasting photo inventory, some landslide scars may take as much as ten years or more to re-vegetate (Appendix A). Numerous large landslides occurred in 1996, therefore, surface erosion from landslide scars was perceived to be a potentially important source of fine sediment.

Sediment delivery from landslides scars was evaluated using a procedure based on the Universal Soil Loss Equation (USLE) that is designed specifically for forest lands (Dissmeyer and Foster, 1984). The surface area, cover, slope and delivery of a subset of recent landslide scars was obtained as part of the landslide inventory (Appendix A). These landslide scars were subdivided by mass wasting map unit (MWMU) and SEMU, and the sediment delivery from each scar was assessed using the USLE-based procedure. These data were used to generate an estimate of the average sediment yield per acre of landslide scar in each MWMU/SEMU combination.

Annual landslide scar sediment yield estimates for each subbasin were developed by extrapolating the estimated landslide scar sediment yield rate to the total acreage of unvegetated landslide scars in each subbasin. For the purpose of this evaluation, it is assumed that all scars delivering sediment to stream channels via mass wasting deliver an equivalent proportion of sediment generated via surface erosion. Attachment B3 contains a description of all co-effcients used to develop estimates of the landslide scar erosion rate, and the complete landslide scar erosion calculation spreadsheets.

Non-forestry land uses, including rural residential and light grazing occur in limited areas along the valley bottom in the westernmost portion of the WAU. Because of the limited area involved the impacts of non-forestry activities were not investigated.

Road Surface Erosion

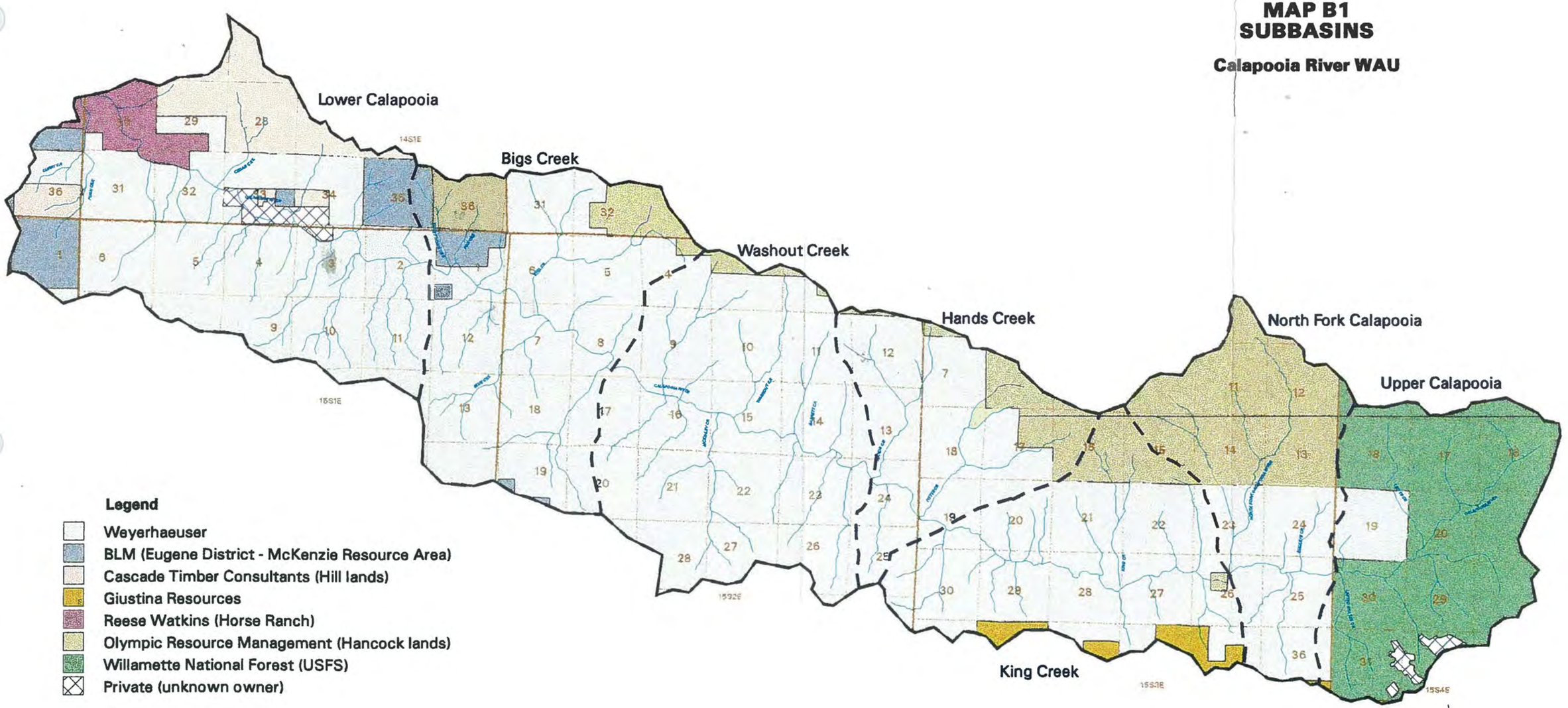
Two general sources of road sediment delivery were assessed. Sediment delivery resulting from traffic use and runoff from exposed road surfaces was evaluated using a modified version of the standard road erosion model provided in the Manual (WFPB, 1997). The numerous refinements and modifications of the model are described in Attachment B4.

In addition, fluvial erosion and gullying resulting from erosion of fill below unprotected culvert outfalls or diversion of streamflow down road surfaces and inboard ditches was quantified based on the field observations. The length, average width and average depth of each gully encountered was measured and used to calculate the approximate volume of material that had been eroded at each site. The total eroded volume was modified based on the average proportion of coarse soil material for the SEMU in which the gully occurred in, to better reflect the contribution of fine sediment.

A complete inventory of the driveable road network was conducted by Weyerhaueser in May 1997. Site specific data on traffic rates, surface material, cover, road configuration and delivery was collected for over 2900 road segments. This data was spot checked by the Surface Erosion Analyst in May 1998.

MAP B1
SUBBASINS

Calapooia River WAU



Legend

- Weyerhaeuser
- BLM (Eugene District - McKenzie Resource Area)
- Cascade Timber Consultants (Hill lands)
- Giustina Resources
- Reese Watkins (Horse Ranch)
- Olympic Resource Management (Hancock lands)
- Willamette National Forest (USFS)
- Private (unknown owner)

1:90000

1 inch = 7500 feet

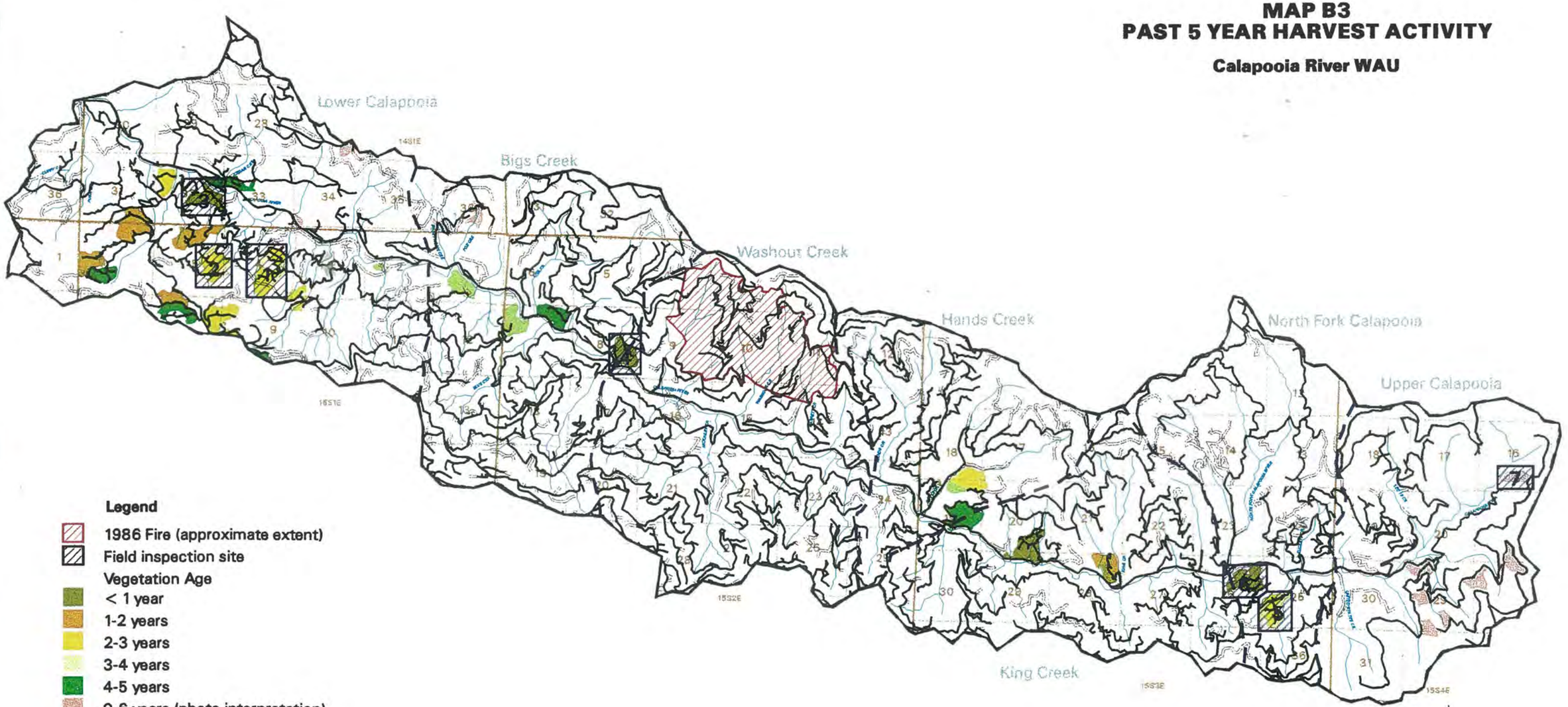
Map B1 Subbasins

Weyerhaeuser

DATE: 08/18/98

MAP B3
PAST 5 YEAR HARVEST ACTIVITY

Calapooia River WAU



Legend

- 1986 Fire (approximate extent)
- Field inspection site

Vegetation Age

- < 1 year
- 1-2 years
- 2-3 years
- 3-4 years
- 4-5 years
- 0-6 years (photo interpretation)

- Driveable roads
- Abandoned/overgrown roads

1:90000

1 inch = 7500 feet

Map B3 Past 5 Year Harvest Activity
Weyerhaeuser
DATE: 08/18/98

For moderate to heavily used roads, traffic is frequently a major determinant of sediment production (Reid and Dunne, 1984). Sediment delivery was modeled for both existing use and under a scenario in which all mainline and primary/secondary roads were assumed to have high use to assess the influence of traffic rate on sediment production in the Calapooia River WAU. Complete inventory data and road sediment delivery calculations are provided in Attachment B5 Road hazard ratings were developed by comparing road sediment contributions from surface erosion and gullying to natural background sediment delivery rates. In subbasins with moderate or high hazard ratings, the model output was examined in detail to identify the specific road segments and characteristics responsible for producing the majority of the sediment.

Turbidity Sampling

Because suspended sediment is usually the primary source of sediment in forest streams in the Pacific Northwest, turbidity can be used as a surrogate for suspended sediment concentrations (MacDonald et al., 1991). Turbidity samples were collected throughout the WAU, and at four sites on the Calapooia River downstream of the WAU to assess conclusions relative to sediment contributions from various management activities and natural background rates. Water samples were collected during a rain event on 29 May 1998.

ANALYSIS AND RESULTS

Overview of Native Soils and Soil Erosion Potential

The combined NRCS soil survey and Soil Resource Inventory (SRI) delineates over 30 detailed soil units, often differentiated by fairly subtle distinctions. Soils within the WAU range from moderately deep to deep (2 - 4.5 ft; 0.6 - 1.4m) and are typically well drained, readily allowing infiltration of rainfall and snowmelt inputs. The mineral soil is normally covered with a continous layer of organic duff and litter 1 to 2 in (2.5-5 cm) thick, except where removed by land clearing (roadcuts, agricultural areas, construction) or intense fires. Soils in the Calapooia WAU were divided into five SEMUs **(Map B2)**.

SEMU 1 is located in the western-most portion of the WAU. This map unit contains soils derived from sedimentary or tuffaceous parent materials formed on ancient earthflows. Soils in SEMU 1 are generally deeper than 3.3 ft (1 m), with a high clay content (up to 30%), and contain little coarse material. Because of the gentle slopes and high clay content (high soil cohesion), the erosion potential is low except on short, steep slopes immediately adjacent to incised stream channels. SEMU 1 generally corresponds to the Honeygrove-Peavine-Apt NRCS map unit.

SEMU 2 consists primarily of soils of the Harrington series associated with basalt outcrops. These soils are moderately-deep (<0.9m; 3 ft) gravelly loams, containing 30 to 50 percent gravel and cobbles. The erosion potential is moderate

SEMU 3 is the most extensive soil group in the WAU. SEMU 3 occupies valley sideslopes and frequently old slump areas along the Calapooia mainstem. Soils are predominantly cobbly loams of the Kinney series, formed from volcanic ash mixed with colluvium derived from tuffaceous rocks. Depths may exceed 3.2 feet (1 m). The coarse material content is approximately 30 percent. The erosion potential is moderate to high on steep, stream adjacent sideslopes and inner gorges.

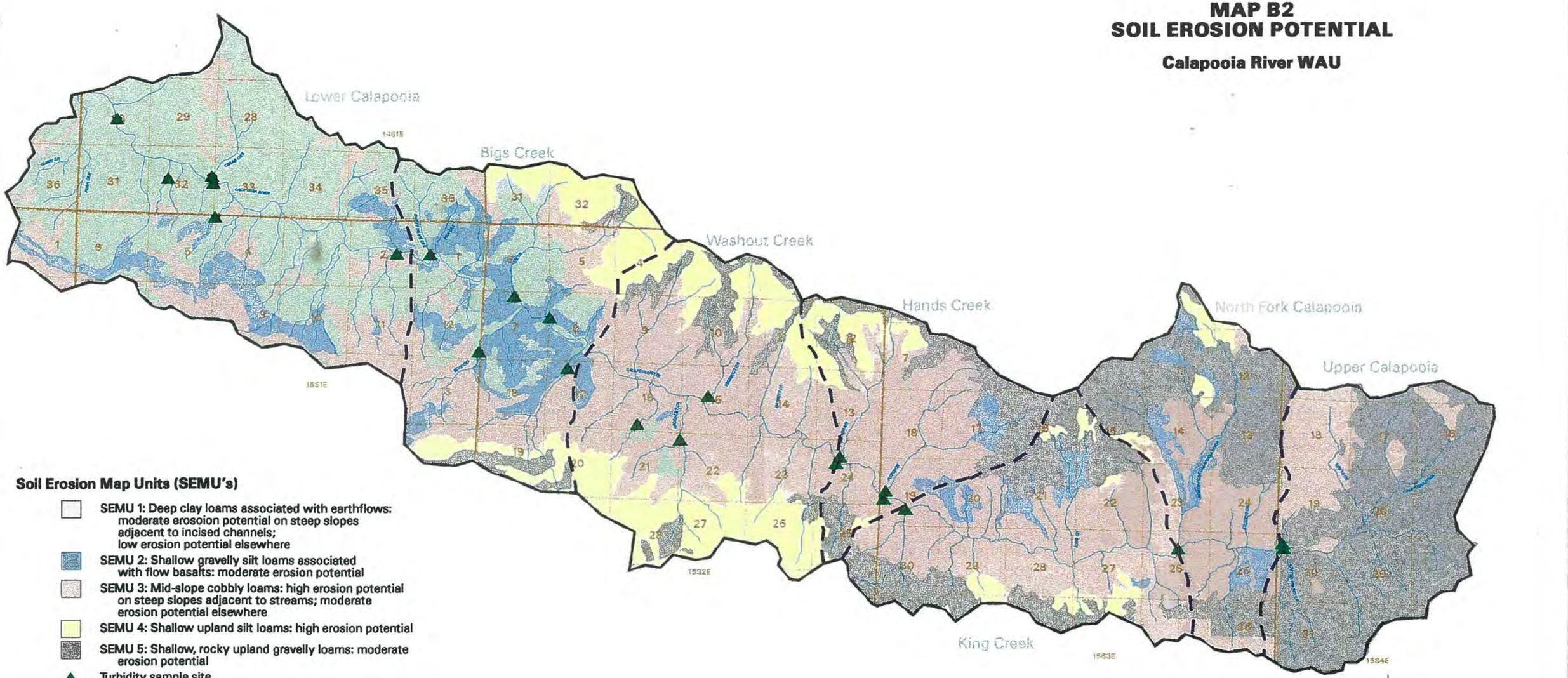
SEMUs 4 and 5 occupy ridgetops along the WAU drainage divide. Both are moderately-deep silt loams formed from colluvium derived from igneous rock. These two map units are differentiated primarily by the coarse material content of the soil. SEMU 4, in the middle of the WAU, is dominated by soils of the Keel series, with less than 10 percent coarse material content, and a high erosion potential. SEMU 5 is dominated by soils of the Hummington series and SRI unit 201, and contains up to 50 percent coarse fragments. The erosion potential for SEMU 5 is moderate.

Natural Background Sediment Delivery

The natural background sediment delivery rate varied by subbasin from 13.5 to 29.7 tons/mi^2 per year (5.7-12.6 tonnes/km^2/yr), averaging 22.5 tons/mi^2 per year (9.6 tonnes/km^2) for the entire basin (Table B1). Background sediment production is highest in the Lower Calapooia subbasin where soils are deep and contain little coarse material. Despite the relatively gentle slopes, the creep rate on the old earthflow topography is presumed to at least equal the rate in other subbasins. Background sediment production is lowest in the Upper Calapooia subbasin where soils are thin and coarse.

MAP B2
SOIL EROSION POTENTIAL

Calapooia River WAU



Soil Erosion Map Units (SEMU's)

- SEMU 1: Deep clay loams associated with earthflows: moderate erosoion potential on steep slopes adjacent to incised channels; low erosion potential elsewhere
- SEMU 2: Shallow gravelly silt loams associated with flow basalts: moderate erosion potential
- SEMU 3: Mid-slope cobbly loams: high erosion potential on steep slopes adjacent to streams; moderate erosion potential elsewhere
- SEMU 4: Shallow upland silt loams: high erosion potential
- SEMU 5: Shallow, rocky upland gravelly loams: moderate erosion potential
- ▲ Turbidity sample site

1 : 90000

1 inch = 7500 feet

Map B2 Soil Erosion Potential
Weyerhaeuser
DATE: 08/18/98

Table B1 Physical characteristics and estimated natural background sediment delivery rate for subbasins in the Calapooia River WAU.

Subbasin	Drainage Area (mi^2)	Channel length (mi)	Mean soil depth (ft)	Soil Creep rate (in/yr)	Estimated Background Sediment Delivery ($tons/mi^2/yr$)
Lower Calapooia	18.8	61	4.0	0.08	29.8
Bigs Creek	13.4	47	3.7	0.08	28.8
Washout Creek	14.7	48	3.3	0.08	20.3
Hands Creek	7.7	24	4.0	0.08	19.8
King Creek	10.8	37	3.3	0.08	18.6
N. F. Calapooia	9.1	32	3.3	0.08	18.9
Upper Calapooia	10.5	36	3.0	0.08	13.5
Total	85.0	285			22.5

Annual sediment yields reported for several tributaries of the Bull Run River in north central Oregon ranged from 22 to 72 $tons/mi^2$ per year (USGS, 1998). Estimated sediment yields for the Calapooia River WAU are generally within this range, although higher elevation subbasins with thin, coarse soils produce slightly less sediment. Total suspended sediment yields are expected to be higher than estimated inputs from soil creep developed for this assessment, because streams also receive sediment inputs from other processes such as mass wasting that contribute substantial amounts of sediment (Appendix A), but were not assessed as part of the background sediment production estimate.

Hillslope Surface Erosion and Sediment Delivery

Contributing Land Use Activities

The location and age of units harvested within the past five years are depicted on Map B3. Units harvested on the Weyerhaueser ownership between 1993 and 1998 are classified according to age. Recent harvest units located on other ownerships were identified using vegetation age class maps. Areas with vegetation in the 0-6 year age class are assumed to have been harvested since 1992. Most forestry activities involve clearcut harvest of second-growth timber utilizing ground based and/or cable logging methods. Site preparation is generally limited to mechanical, with some piling and burning. Harvest units on the USFS ownership in the eastern part of the basin appear to have been broadcast burned.

Seven recent harvest units were inspected in the field (Table B2; Map B3). Four of the field inspection sites are predominantly within SEMU 1, and logged using a combination of ground-based and cable systems. Based on observations at Site 3, initial soil disturbance associated with logging in this SEMU is minimal. However, some delivery of sediment via overland flow was observed where yarding or site preparation activities have exposed patches of soil immediately adjacent to surface drainage ways. Revegetation in SEMU 1 is rapid, as evidenced by the absence of exposed soil in units older than one year, thus sediment contributions from this source are expected to be minimal.

Table B2 Summary of observations at surface erosion field inspection sites in the Calapooia WAU, May 1998.

						Surface Cover (%)			Evidence of:	
Site #	**SEMU**	**Year cut**	**Harvest method[1]**	**Site Prep**	**Slope**	**Mineral Soil**	**Slash/ duff**	**Veg**	**Surface flow**	**Sed. Delivery**
1	1,2,3	1995	GB/C	spot burn	<30	0	40	90	No	No
2	1,2,3	1995	GB/C	spot burn	<30	<5	30	90	No	No
3	1	1997	GB	pile/ spot burn	<20	10	30	75	Yes	Yes
4	1,2	1997	C	none	30-60	10	30	75	No	No
5	3	1995	C	spot burn	20-60	<5	20	90	No	No
6	3	1997	C	spot burn	40-60	20	60	20	Yes	No
7	5	1996	C	Broad cast burn	>60	15	55	30	Yes	No

GB=Ground-based C=Cable

Two field inspection sites were located within SEMU 3 (Table B2). Both sites were logged using cable yarding systems and then spot burned. At site 6, which was harvested in 1997, soils were exposed on approximately 20 percent of the harvest unit, and there was some evidence of surface flow where ditch relief culverts delivered road-runoff onto side slopes. Concentrated flows quickly dispersed and infiltrated on hillslopes, and no delivery to stream channels was observed.

The final field inspection site was located on the USFS ownership at the eastern end of the WAU (Table B2; Map B3) in SEMU 5. Inspection site 7 had been cable yarded and broadcast burned. Skid trail surfaces were armored with gravel, indicating that overland flow and surface erosion had occurred. However, because skid trails were oriented obliquely to the slope, no delivery of fine sediment to the stream network was observed.

No recent harvest has occurred in SEMU 4, therefore the potential for surface erosion in this map unit was assessed using aerial photographs. In 1986, a major fire occurred and extensive areas of bare soil were observed on the 1987 aerial photos. Surface erosion reportedly increased following the fire, requiring more frequent ditch cleaning (Proctor, pers. comm. 1998). In 1998 slopes had revegetated and no areas of ongoing erosion were observed.

Landslide Scar Erosion

A number of unvegetated landslide scars dating from the 1996 storm event and several scars from earlier mass wasting episodes up to ten years of age were identified as a potential source of fine sediment due to post-failure surface erosion. Estimated landslide scar erosion rates varied by SEMU and MWMU, and ranged from approximately 19 to over 87 tons per acre per year under bare soil conditions (Table B3). Increasing surface soil cover on the slide scars to 30 percent reduces the estimated annual seiment yield rate by approximately 70 percent.

Table B3 Summary of estimated landslide scar surface erosion rates for selected MWMU and SEMU in the Calapooia WAU.

MWMU	SEMU	Number of sites	Estimated average annual soil loss with 0% surface cover (tons/ac)	Estimated average annual soil loss with 30% surface cover (tons/ac)
1	1	1	54.0	16.2
	2	4	32.6	9.8
	3	23	23.4	9.8
	4	8	44.7	13.4
	5	11	18.9	5.7
2	1	1	50.6	15.2
	2	1	27.1	8.1
	4	2	45.2	13.6
3	3	2	86.5	25.6
7	1	4	76.2	22.9
	3	26	30.9	9.3
	4	4	81.5	24.5
	5	4	31.9	9.6

Extrapolating these landslide scar erosion rates to unvegetated landslide scars less than ten years old identified in the complete mass wasting landslide inventory suggests that this source of erosion contributes from 1.6 to 300 tons of sediment per year for the subbasins identified in the Calapooia WAU (Table B4).

Table B4 Estimated total annual landslide scar erosion by subbasin in the Calapooia WAU.

Subbasin	Estimated total landslide scar sediment yield (tons/mi^2/yr)	Increase over estimated natural background sediment yield (%)
Lower Calapooia	1.8	6
Bigs Creek	4.6	16
Washout Creek	9.7	48
Hands Creek	8.6	43
King Creek	26.4	142
N. F. Calapooia	No slides identified	–
Upper Calapooia	0.2	1
Total	6.9	31

Only the King Creek subbasin had an increase in sediment production greater than 50 percent, the increase required to cause a detectable response. The estimated landslide scare erosion in the King Creek subbasin was 142 percent of the background rate. This high increase resulted from surface erosion on the exposed portions of two large landslides in MWMU 3. These were the only recent MWMU 3 landslides identified in the landslide inventory, yet they accounted for over 40 percent of the total estimated landslide scare erosion.

Conclusions and Hazard Ratings

The field inspections, drive-by reconnaissance and air photo analysis all indicate that surface erosion associated with timber harvest activities is limited and that delivery of sediment via hillslope surface erosion in the Calapooia River WAU is minimal under current management practices. Erosion can result when soils are exposed immediately adjacent to surface drainageways. Although erosion observed from this situation was limited, because of the high erosion potential on steep, stream adjacent slopes and the high proportion of fine materials, the hazard of significant contributions is considered moderate in SEMUs 1, 3 and 4.

No sediment delivery was observed at field inspection sites in SEMUs 2 and 5. The high proportion of coarse fragments leads to rapid armoring of exposed soil surfaces, and field observations suggest that normal logging practices conducted in accordance with existing state regulations is adequate to prevent widespread surface erosion impacts. This supports the assignment of a low hazard rating for contemporary forestry activities within SEMUs 2 and 5

.

The landslide scar erosion modeling indicates that surface erosion of unvegetated MWMU 3 can contribute over 100 percent of the natural backgournd sediment yield. Landslide scars in this MWMU are rare but often large an dchronically active. These landslides are therefore considered to have a high surface erosion hazard.

Road Surface Erosion

The Calapooia River WAU contains an extensive network of logging roads **(Map B5)**. The primary access route is the USFS maintained 2820 road which parallels the mainstem Calapooia River for most of its length. The first six miles of this road are paved. Other important access routes include the Mohawk Mainline along the southwest edge of the WAU and the Giustina mainline to the southeast.

There are approximately 645 total miles of road in the Calapooia River WAU, resulting in an average road density of 7.6 miles/mile^2. Road densities are generally high (>5.0 mi/mi^2), except for the Upper Calapooia subbasin (Table B5). Approximately 20 percent of the roads in the basin are mapped as abandoned. Abandoned roads mapped for this assessment include both roads that have been "put to bed" in accordance with ODF regulations as well as roads that are currently inaccessible due to washouts. The majority of abandoned roads visited no longer appear to contribute sediment via surface flow. However, in at least two instances, large gullies had formed due to fluvial erosion at plugged stream crossings on abandoned roads.

Table B5 Road density by subbasin in the Calapooia River WAU.

Subbasin	Drainage Area (mi^2)	Active Road Density (mi/mi^2)	Total Road Density including active and abandoned (mi/mi^2)
Lower Calapooia	18.8	4.3	6.1
Bigs Creek	13.4	5.4	6.7
Washout Creek	14.7	6.4	7.3
Hands Creek	7.7	4.9	6.6
King Creek	10.8	5.6	6.4
N.F. Calapooia	9.1	4.3	5.8
Upper Calapooia	10.5	3.7	4.2
Total	85.0	6.2	7.6

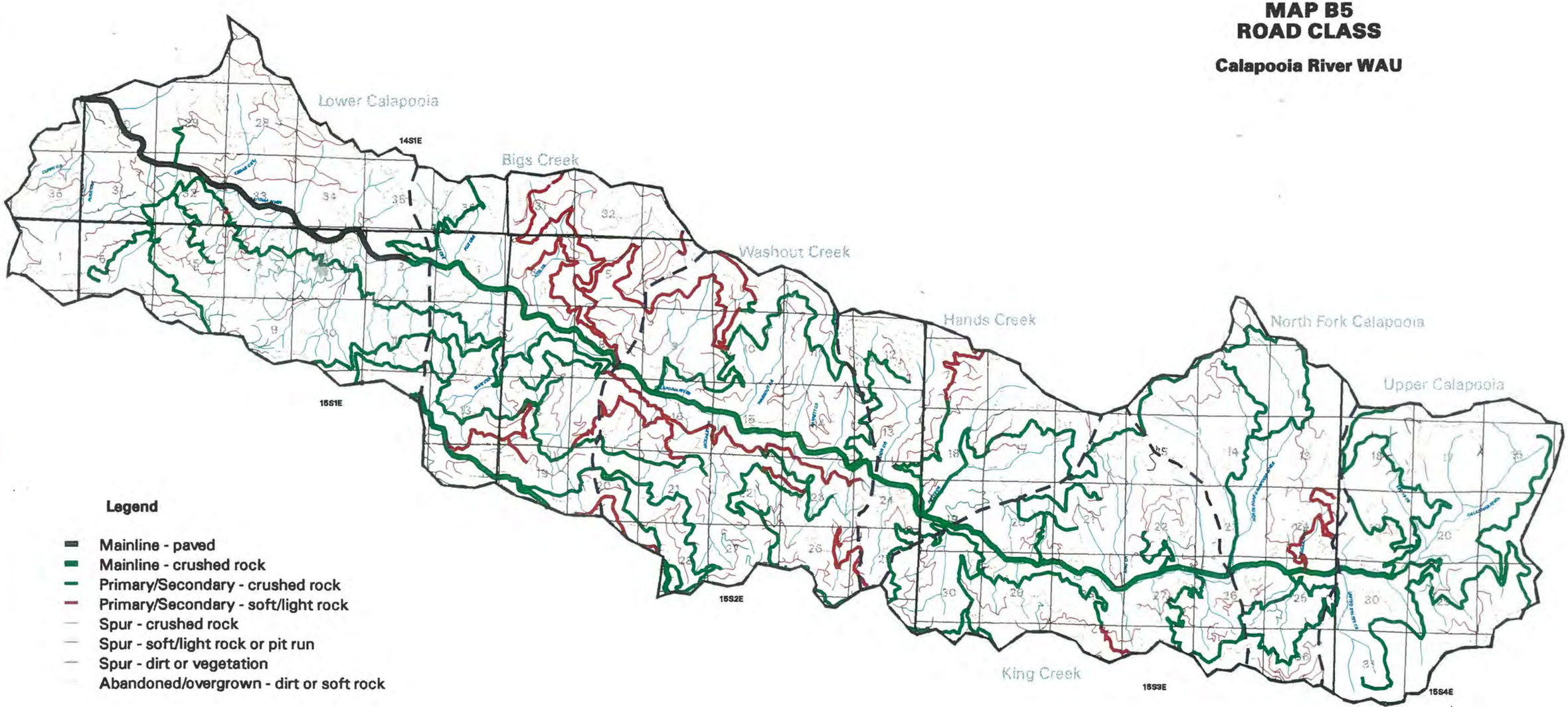
Evaluation of Road Surface Erosion

A complete field inventory of all driveable roads in the Calapooia River WAU was conducted to improve the estimates of sediment yield generated by the model. The majority of roads have rock surfaces and receive light to moderate use (Map B5). In general, roads are well maintained and in good condition. However, the Calapooia mainline, which parallels the river and is frequently within 200 feet of the channel, is severely potholed in places. This road also recieves the heaviest traffic.

Under existing traffic conditions, road surface erosion delivers an estimated 986 tons (1085 metric tonnes) of sediment per year to channels in the Calapooia River WAU. The contributions vary by subbasin, amounting to increases of 23 to 81 percent over the estimated background sediment yield (Table B6). Sediment yield increases of this magnitude are potentially detectable and may impact aquatic resources.

MAP B5
ROAD CLASS

Calapooia River WAU



Legend

- Mainline - paved
- Mainline - crushed rock
- Primary/Secondary - crushed rock
- Primary/Secondary - soft/light rock
- Spur - crushed rock
- Spur - soft/light rock or pit run
- Spur - dirt or vegetation
- Abandoned/overgrown - dirt or soft rock

1:90000

1 inch = 7500 feet

Map B5 Road Class
Weyerhaeuser
DATE: 08/18/98

Figure B1 Sediment contributions by road prism component for driveable, non-stream adjacent roads in the Calapooia River WAU.

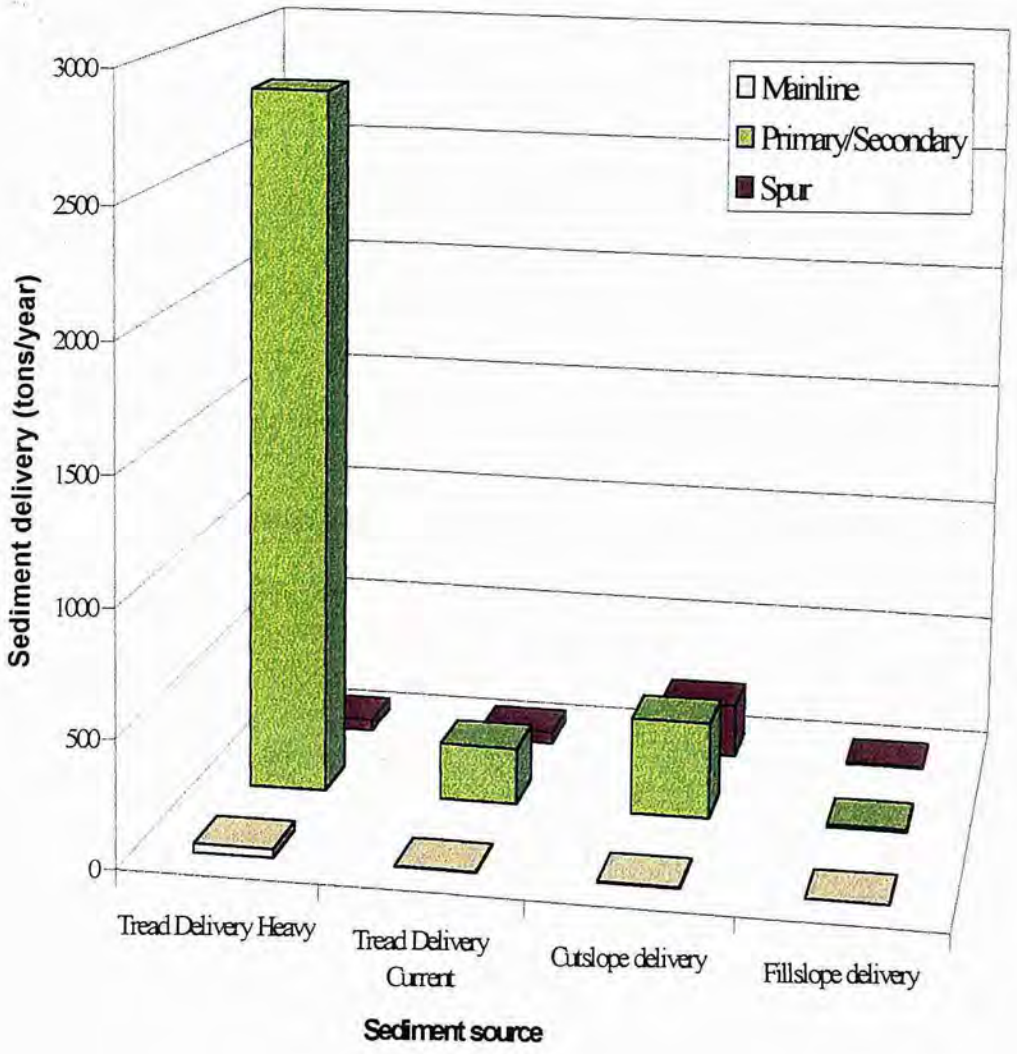


Table B6 Estimated annual background and road-related sediment inputs in the Calapooia River WAU.

Subbasin	Natural Background sediment yield (tons/mi²/yr)	Road Surface Input Rate (tons/ mi²/yr)	Road Erosion Hazard Rating	Increase over background (%)	Observed Gully Inputs (tons/mi²/ yr)[1]	Increase over background (%)	Gully Haza Rating
Lower Calapooia	29.8	6.9	Low	23%	ND[2]	ND[2]	
Bigs Creek	28.8	19.0	Mod	66%	26.5	92%	Mod
Washout Creek	20.3	16.3	Mod	81%	ND[2]	ND[2]	
Hands Creek	19.8	11.7	Mod	59%	111.6	564%	High
King Creek	18.6	12.2	Mod	66%	ND[2]	ND[2]	
N. F. Calapooia	18.9	9.3	Low	49%	ND[2]	ND[2]	
Upper Calapooia	13.5	5.1	Low	38%	46.0	341%	High
Total	22.5	11.6	Mod	52%	1697	52%	High

[1] Assumes all sediment entered in one yer.
[2]ND=No data; no gullies were identified and measured during field reconnaissance.

The source of sediment delivered to streams from roads varied depending on their position. Erosion of road tread surfaces on the stream adjacent portions of the Calapooia mainline, 600 and 700 roads have the highest rate of sediment delivery. On mid-slope and ridge-top roads under existing conditions, unvegetated cutslope surfaces contribute the majority (67%) of the fine sediment (Figure B1). Despite the high traffic rate, mainline roads other than USFS 2820 (the Calapooia mainline) contributed only small amounts of sediment because of their ridgetop position and limited extent (Map B5).

Under the high traffic use scenario, mainline, primary and secondary roads in the basin are assumed to experience heavy traffic. Under this scenario, tread surfaces contribute over 80 percent of the total road sediment yield (Figure B1). Cut and fillslope delivery are unchanged from existing conditions. The model indicates that high traffic rates could result in substantially higher sediment yields than either background or existing conditions (Figure B2), with increases ranging from 63 to almost 350 percent. While this scenario is unlikely to occur under current operations, the modeling facilitates an evaluation of potential impacts and development of road hazard calls.

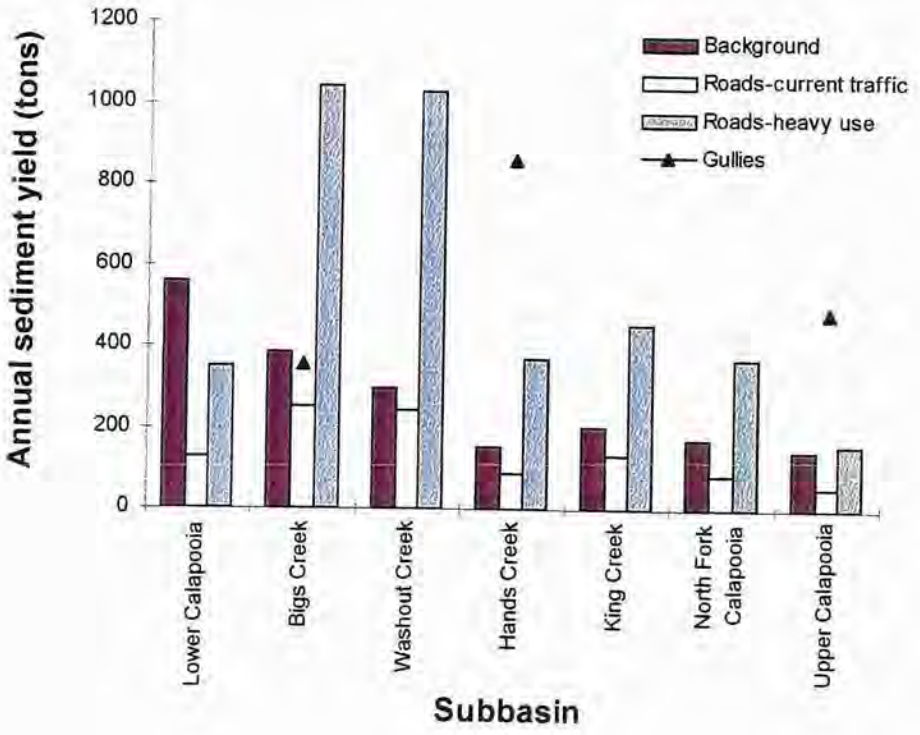


Figure B2 Comparison of annual road related sediment inputs with estimated natural background sediment yield, Calapooia River WAU.

Gully Erosion

A second major sediment source associated with construction of logging roads in mountainous terrain is the creation of gullies. Sediment budget studies in the Pacific Northwest indicate that gully erosion may account for up to 68 percent of the total sediment input, including that generated by mass wasting (Kelsey et al, 1981). Gullies most commonly originate where overlong inboard ditchlines release flow onto erodible fill or hillslopes, or where blocked stream crossing or ditch relief culverts divert flow onto road tread surfaces. Drainage structures on crowned or insloped roads where the road climbs on the approach and through the crossing have a high "diversion potential" (Weaver and Hagans, 1994).

A number of gullies were noted in the Calapooia WAU, particularly in the Bigs, Washout and Hands Creek subbasins. Gullies identified during reconnaissance surveys by the Surface Erosion Analyst delivered a total of approximately 1697 tons of sediment to streams in the Calapooia WAU. At sites encountered on abandoned roads, sediment delivery may have occurred over a number of years. However, there was also evidence of gully erosion at numerous other sites that had been rapidly repaired. Because this survey is incomplete and because delivery volumes could not be generated at sites that had been repaired, the actual magnitude of fine sediment contributions from gully erosion probably exceeds the observed contribution. Evidence from the gullies encountered suggests that fine sediment contributions from this source may far exceed annual background sediment inputs (Figure B2).

Road Erosion Hazard Ratings

The hazard ratings for road-related erosion in the Calapooia River WAU were developed by comparing road inputs to natural background sediment delivery. Sediment inputs from road surface erosion under current traffic rates were less than 100 percent in all cases, leading to the assignment of low to moderate hazard ratings. Further analysis of sediment inputs for individual road segments under both existing conditions and the high traffic scenario identified specific roads with relatively high input rates, and was used to distinguish the portion of the road (i.e. tread, cuslope or fill slope) generating the majority of the sediment. Road Segment Erosion units (RSEs) were developed to account for the different input processes, and are presented on Map B6.

Road Segment Erosion unit 1 consists of portions of the Calapooia mainline located within 200 feet of the channel in all subbasins. Tread surface erosion from this road accounted for 10 to 20 percent of the total sediment delivery in each subbasin. The high traffic rate and proximity to the stream are responsible for the relatively high rate of sediment delivery.

Road Segment Erosion unit 2 includes the stream adjacent portions of the 600 and 700 roads along Potts Creek and the North Fork Calapooia respectively. These older roads were located within 50 feet of the stream channel for much of their length, and had high sediment delivery rates from the tread and cutslopes. In addition, sections of both of these roads are level with or below the current stream elevation, and thus have a high diversion potential.

Road Segment Erosion unit 3 consists of road systems that were identified as having high sediment input rates from cutslopes under existing conditions. The majority of the road systems with high cutbank inputs were located in SEMU 3, and were particularly common in the Bigs and Washout Creek subbasins where steep slopes result in high, steep cutbanks **(Map B6)**.

Road Segment Erosion unit 4 includes roads that had high rates of tread surface sediment yield under the heavy use model scenario (Map B6). Sediment delivery rates on roads identified as having a high erosion hazard under this scenario ranged from 11.4 to 23.7 tons per mile. Examination of the data suggest that these high erosion rates were due to high delivery on the 2400, 2600 and 3000 road systems, where from 27 to 39 percent of the road surface runoff was routed directly to a stream channel. On the 700 and 3100 roads, delivery rates were much lower, thus the high sediment yields are suspected to be a function of thinner, more erodible surfacing in these cases.

Road Segment Erosion unit 5 includes existing gullies encountered during field reconnaissance as well as sites noted to have a high diversion potential. Specific conditions at mapped sites are described in Attachment B6. Since the reconnaissance survey did not cover the complete road network it is likely that numerous other sites that belong in RSE unit 5 exist within the WAU. Existing gullies included in RSE unit 4 delivered sediment amounting to over 500 percent of the annual background yield within an individual subbasin (Table B6), and thus both existing gullies and sites with a high diversion potential are considered to have a high hazard.

Log culverts encountered during the inventory are also depicted on Map B6. Because of their age and generally poor condition, log culverts have a high risk of collapse that can lead to either diversion and gully erosion as at RSE unit 4 Site 2 or mass wasting (Appendix A).

TURBIDITY SAMPLING

Turbidity was analyzed for a total of 26 water samples collected within or directly downstream of the Calapooia WAU during a single storm event (Table B7). Turbidity values were low, ranging from 1.5 to 15.5 NTU. A recent review concluded that the ability of salmonid fishes to find and capture food is impaired at turbidities in the range of 25 to 70 NTU (Lloyd et al, 1987).

Table B7 Summary of turbidity values measured in and immediately downstream of the Calapooia WAU between 0930 and 1630 on 29 May 1998.

Stream Name	Site #	Turbidity (NTU)	Stream Name	Site #	Turbidity (NTU)
Unnamed Trib	1	1.0	Calapooia River above Blue and Bigs Creeks	14	1.8
United States Creek	2	1.0	Bigs Creek	15	4.6
Upper Calapooia River	3	1.5	Sweet Home Creek	16	15.5
N.F. Calapooia	4	2.0	Calapooia River below 3700 road junction	17	2.1
Calapooia River above Potts Creek	5	1.1	Calapooia River above Cedar Creek	18	3.3
Potts Creek	6	1.5	Cedar Creek	19	16.0
Calapooia River above Hands Creek	7	1.3	Unnamed Trib	20	3.8
Hands Creek	8	1.9	Unnamed Trib	21	5.6
Washout Creek	9	2.5	Calapooia River below Highway Bridge	22	3.8
McKinley Creek	10	1.3	Calapooia River near McClun Wayside[1]	23	3.4
Unnamed Trib	11	1.4	Calapooia River above 228 bridge at Holley[1]	24	7
Unnamed Trib	12	9.3	Calapooia River at Crawfordsville[1]	25	9
Blue Creek	13	4.3	Calapooia River at Brownsville[1]	26	12.6

[1]Sample site located outside of Calapooia River WAU.

Sample site locations within the Calapooia WAU are depicted on Map B2. Turbidity in tributary streams varied from 1 NTU to 16 NTUs. The spatial variability of turbidity values observed in the tributary streams on 29 May 1998 is probably much lower than the temporal variability of turbidity throughout the WAU. Activities observed within the various subbasins immediately before and after the sampling, such as Placer mining, or major road maintenance, could be responsible for the variation between tributaries. However, there is no data available to confirm this hypothesis.

Turbidity in the mainstem Calapooia River generally increased moving downstream. While the contribution of agricultural activities within the WAU was not assessed, it is interesting to note that the highest mainstem turbidities were observed downstream of the WAU, where the Calapooia River enters a wide valley bottom, and agricultural and grazing become the dominant landuse.

CONFIDENCE IN WORK PRODUCTS

Hillslope Erosion

Confidence in the estimates of background erosion generated using the soil creep model are moderate. Although estimated rates were within the range of suspended sediment yields measured in nearby basins, the soil creep model does not incorporate estimates of fine sediment delivered via mass wasting or bank erosion, and involves the use of numerous assumptions and simplifications (e.g. soil depth, drainage network length, creep rate).

Confidence in watershed-scale conclusions related to recent logging operations is high. No evidence of significant hillslope erosion was observed in the WAU, either on recent aerial photographs or during the field inspections of recently harvested units. In several cases, field inspections were conducted during heavy rainfall when soils were probably near saturation and erosion would be most active.

Confidence in the landslide scar erosion values are moderate. A model specifically developed for forested lands was applied, and k-factor values were modified by SEMU. However, only a small subset of slides was used to develop the average erosion rates, and for some MWMU/SEMU combinations the sample size consisted of only one or two slides. Few of the slides were visited in the field to validate cover and delivery calls.

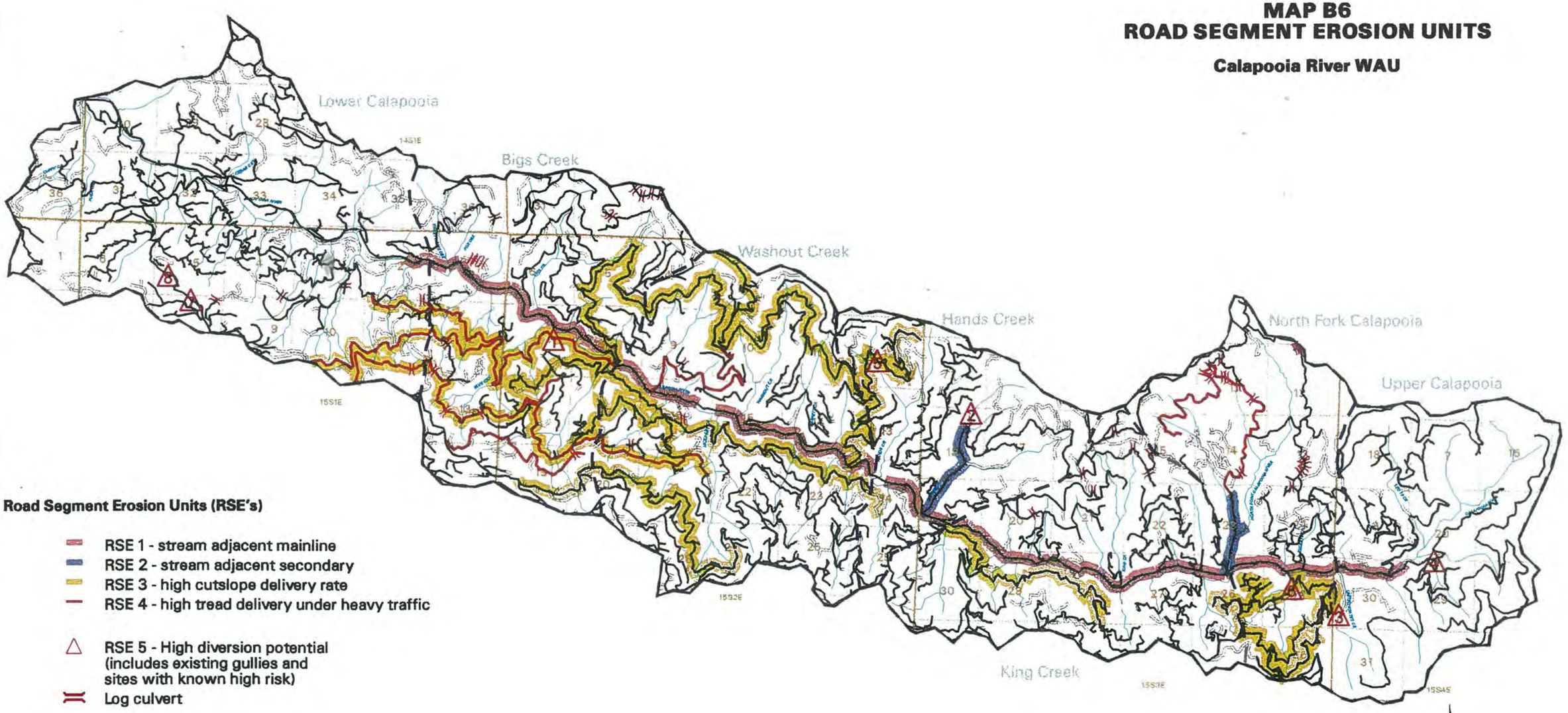
Road Erosion

The description of road surface conditions and delivery percentages are considered to be quite accurate due to the complete coverage of the road inventory and general agreement with road condition descriptions at sites field checked by the Surface Erosion Analyst. The model was refined by calibrating the traffic co-efficiants with data from a similar basin and by using subbasin specific soils data. However, hazard ratings depend on the accuracy of both road and background input rates, neither of which have been validated by field sampling within the WAU, thus the overall confidence is only fair.

Confidence in the gully hazard rating and ability to indentify sites with a high diversion potential is high. Measured gullies occurred at sites with high diversion potential, and generally contributed substantially more than 100 percent of the estimated annual background sediment. However, confidence in the map of sites within RSE unit 4 is low, because information on diversion potential and existing gullies was not collected as part of the complete road inventory, so more sites probably exist within the WAU.

MAP B6
ROAD SEGMENT EROSION UNITS

Calapooia River WAU



Road Segment Erosion Units (RSE's)

- RSE 1 - stream adjacent mainline
- RSE 2 - stream adjacent secondary
- RSE 3 - high cutslope delivery rate
- RSE 4 - high tread delivery under heavy traffic
- △ RSE 5 - High diversion potential (includes existing gullies and sites with known high risk)
- Log culvert
- Driveable roads
- Abandoned/overgrown roads

1 : 90000

1 inch = 7500 feet

Map B6 Road Segment Erosion Units

Weyerhaeuser

DATE: 08/18/98

REFERENCES

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ATTACHMENT B1

CALCULATION OF NATURAL BACKGROUND SEDIMENT YIELD

ESTIMATED NATURAL BACKGROUND SEDIMENT PRODUCTION

FILE: d:\r2_swm\projects\calapooia\report\attb2.xls
DATE: 6/14/98
PROJ. CALAPOOIA WATERSHED ANALYSIS
BY: Sue Madsen, Beak Consultants

Subbasin	Drainage area (mi^2)	Channel length m	Dominant Soil Type	Avg Soil Depth m	Creep Rate (m/yr)	Bulk Density	Coarse material fraction	Background Sediment Yield (metric tonnes/yr)	Background Sediment Yield (tons/yr)	Background rate (metric tonnes/mi^2/yr)
Lower Calapooia	18.8	98,165	Peavine	1.2	0.002	1.2	10%	509	560	29.8
Bigs Creek	13.4	75,635	Peavine /Kinney	1.2	0.002	1.2	20%	351	387	28.8
Washout Creek	14.7	77,244	Kinney/Keel	1.0	0.002	1.1	20%	272	299	20.3
Hands Creek	7.7	38,622	Kinney/Keel	1.0	0.002	1.1	20%	138	152	19.8
King Creek	10.8	59,543	Kinney /Hummington	1.2	0.002	1.0	36%	183	201	18.6
N.F. Calapooia	9.1	51,496	Hummington/Kinney	1.2	0.002	1.0	36%	156	172	18.9
Upper Calapooia	10.5	57,934	Hummington	1.0	0.002	1.0	45%	129	142	13.5

Notes:

Background rate (tonnes/yr)=(Length x 2) x Depth x Creep Rate x Bulk Density x (1-% Coarse)

Channel lengths were calculated based on an average contributing area of 20 acres for the Lower Calapooia subbasin, and 10 acres for for all other subbasins.

Data on soil properties was obtained from the NRCS Soil Survey of Linn County (Landridge 1987)

ATTACHMENT B2

HILLSLOPE EROSION FIELD DATA SHEETS

SURFACE EROSION FIELD FORM

WAU: CALAPOOIA
Subbasin: LOWER CALAPOOIA
Surveyor: SWM
Date: 5/18/98
Location: OFF ROAD 3831B - SITE #1 T15S R1E, NE¼ S4
Landform: ANCIENT DEEP SEATED SLIDE, MMMU?
Parent Material: TUFFACEOUS COLLUVIUM, EARTHFLOW
SEMU: 1 - DEADING SOILS COMPLEX

Activity: (Tractor Harvest) Highlead Harvest Fire Grazing ORV Other Undisturbed

Site Prep: (Broadcast Burn) Mechanical None Other — MAYBE SPOT BURN? NO EVIDENCE OF PILES, TOO PATCHY FOR BROADCAST

Date: AGE = 2-3 YRS

Evidence of Surface Erosion? Yes (No)

Type of Erosion: Sheetwash Rill Gully Other

% of Area Affected: < 1% EXPOSED SOIL

Depth: N/A

Size of Material: FINE SILT/CLAY

Slope: < 30% (%)

Delivered to Channel? Yes (No)

Comments:

WALK UP EASTERN EDGE ALONG CHANNEL (PHOTO 9, 10). SIDESLOPE TO CHANNEL < 30%. LITTLE BARE GROUND W/IN UNIT, & NO EVIDENCE OF DELIVERY TO STREAM. SOILS FINE TEXTURE, VERY ERODIBLE. EXPOSED ON ROAD CUTS (PHOTO 11); SED MOVING THROUGH DITCH. SHOULD PROBABLY CAREFULLY SEED ALL EXPOSED AREAS IN THIS SEMU. MATERIAL HAS BEEN DELIVERED VIA DITCH LINES TO SMALL EMPHEMERAL CHANNEL IN CENTER OF UNIT, BUT DOES NOT REACH PERENNIAL STREAM FROM THERE. (AND WILL NOT). DIFFICULT TO DETERMINE HARVEST METHOD, AS THERE ARE NO DISCERNABLE SKID TRAILS. PROBABLY TRACTOR, BASED ON SLOPES

AA - STEVE CAFFERATA
(GROUND BASED)

SURFACE EROSION FIELD FORM

WAU: CAPPOIA
Subbasin: LOWER CAL
Surveyor: SWM
Date: 5/18/98
Location: UNIT 2a SITE #2 - E½ OF SECTION 5 T15S R1E
Landform: OLD DEEPSEATED
Parent Material: EARTH FLOW, TUFFACEOUS BR. SOIL VERY DEEP
SEMU: /

Activity: Tractor Harvest? CONFIRM; NO EVIDENCE, BUT ESTIMATE BASED ON SLOPE | Highlead Harvest w/SOME CABLE | Fire | Grazing | ORV | Other | Undisturbed

Site Prep: Broadcast Burn | Mechanical | None | Other

GROUND BASED ACCORDING TO CAPPCRATA 6/18/98 SWM

Date: AGE 2-3 YRS

Evidence of Surface Erosion? Yes | No

Type of Erosion: Sheetwash | Rill | Gully | Other | NA

% of Area Affected: <5

Depth:

Size of Material: FINESILT/CLAY

Slope: 30-50 (%)

Delivered to Channel? Yes | No

Comments:

WALK UP SMALL STREAM IN CENTER OF UNIT - NO BUFFER [illegible] TO 15
LITTLE OR NO EXPOSED SURFACE, EVEN WHERE SLOPES ARE LOCALLY
STEEP (30-50%). RODENT ACTIVITY PRIMARY CAUSE, SURPRISED
NO PROTECTION ON THIS STREAM - NEW SINCE HARVEST?
SITE PREP BY BURNING, THOUGH APPEARS PATCHY; NO EVIDENCE OF PILING OR
TRACTOR ACTIVITIES. STEEPER PORTIONS APPEAR TO HAVE BEEN CABLED

SURFACE EROSION FIELD FORM

WAU: CALAPOOIA
Subbasin: LOWER CAL
Surveyor: SLM
Date: 5/20/98
Location: 14S 1E S32 E½ - SITE #3
Landform: OLD DEEP-SEATED EARTHFLOW
Parent Material: SILT/CLAY LOAM SOILS, DEEP, TUFFACEOUS SEDIMENTARY
SEMU: 1

Activity: (Tractor Harvest) Highlead Harvest Fire Grazing ORV (Other) Undisturbed
GROUND BASED (CAFFERATA 6/18/98)

Site Prep: Broadcast Burn (Mechanical) None (Other) PILE + BURN

Date: AGE < 1 YR

Evidence of Surface Erosion? (Yes) No

Type of Erosion: (Sheetwash) Rill Gully Other

% of Area Affected: 10%

Depth: N/A

Size of Material: SILT

Slope: VARIABLE < 30 (%)

Delivered to Channel? (Yes) No

Comments:

UNIT APPEARS TO HAVE BEEN LOGGED W/ RUBBER TIRE SKIDDER, THEN PILED + BURNED. FAIRLY HIGH AMOUNT OF MINERAL SOIL EXPOSED (40-70%) PARTICULARLY IN LOWER WEST CORNER BELOW ROAD. SEDIMENT IS DELIVERED TO CHANNEL ONLY WHERE AREAS NEAR EPHEMERAL STREAMS ARE EXPOSED (W/IN ~ 25'). EQUIPMENT HAS DEPOSITED MATERIAL IN FLOW PATHS IN SOME CASES, CAUSING WATER TO FLOW ACROSS EXPOSED SOIL OR CUT THROUGH DEPOSIT. SEE PHOTOS. UPPER PORTION OF UNIT HAS BEEN CABLE LOGGED, W/ NO PILING OR EVIDENCE OF TRACTOR ACTIVITY

SURFACE EROSION FIELD FORM

WAU: CALAPOOIA
Subbasin: BIGS / WASHOUT
Surveyor: SWM
Date: 5/18/98
Location: SITE #4
Landform: STEEP MT SIDESLOPE TO ALMOST INNER GORGE ALONG 300 ROAD
Parent Material: VOLCANOCLASTIC
SEMU: 3 (SOME 2)

Activity: Tractor Harvest ~~Highlead Harvest~~ CABLE Fire Grazing ORV Other Undisturbed

Site Prep: Broadcast Burn Mechanical (None) Other

Date: < 1 YR OLD

Evidence of Surface Erosion? (Yes) No

Type of Erosion: (Sheetwash) (Rill) Gully Other

% of Area Affected: MUCH OF AREA BELOW 3000N ROAD (~40-50%), BUT LITTLE OF OVERALL UNIT.

Depth: ~~GULLIES~~ RILLS 6-10" DEEP FROM CONCENTRATED ROAD RUNOFF

Size of Material: SILT / SM. GRAVEL

Slope: 42 (%)

Delivered to Channel? (Yes) No

Comments:

CUT TO CHANNEL BELOW ROAD 3000N. SURF ERO OF FILL SLOPE (PHOTO 16)
GULLIES ON STEEP CUT SLOPE, SUB EROSION + HIGH DP. (PHOTO 17)
GULLIES BELOW PERCHED CULVERTS (2m x 2m) - PHOTO 18 WHERE CULVERTS Q ONTO HILLSIDE (SLOPE > 70%). SIGNIFICANT EROSION, EVEN OF UNDISTURBED BANK (PHOTO 20).

ENTERED UNIT FROM 3060 ROAD - NO EVIDENCE OF SURFACE FLOW. APPEARS TO HAVE BEEN CABLE HARVESTED + IS QUITE STEEP, BUT NO WELL DEFINED SKID TRAILS. DOESN'T APPEAR TO HAVE HAD ANY SITE PREP TO DATE

SURFACE EROSION FIELD FORM

WAU: CALAPOOIA
Subbasin: N.F. CAL
Surveyor: SWM
Date: 5/14/96
Location: T15S 3E SEC 25 NW – SITE # 5
Landform: ANCIENT DEEP SEATED?
Parent Material: VOLCANIC LASTIC; ASH?
SEMU: 3

Activity: (Tractor Harvest) (Highlead Harvest CABLE) Fire Grazing ORV Other Undisturbed

Site Prep: Broadcast Burn Mechanical None (Other)? NO EVIDENCE OF BURN, OR PILES MAY BE SOME KIND OF MECHANICAL OR HAND TREATMENT

Date: AGE 2-3 YRS

Evidence of Surface Erosion? Yes (No)

Type of Erosion: Sheetwash Rill Gully Other

% of Area Affected: <5%

Depth: N/A

Size of Material: N/A

Slope: VARIABLE (%)

Delivered to Channel? Yes (No)

Comments:
~~TRACED~~ WALKED EASTERN BOUNDARY ALONG STREAM. ONLY POTENTIAL SED SOURCE IS HIGH EXPOSED BANK NEAR LOWER LANDING (PHOTO A-2 1,2). SITE IS W/IN 200 FT OF STREAM, + SLOPES DOWN TOWARD IT. NO EVIDENCE OF EXTENSIVE DELIVERY HOWEVER. NO BARE AREAS ON SIDESLOPE EVEN WHERE THEY EXCEED 80%. NO DELIVERY THRU RMZ ALSO WALKED DOWN SMALL UNBUFFERED STREAM IN CENTER OF UNIT. NO EXPOSED AREAS OR EVIDENCE OF DE-STABILIZED BANKS

SURFACE EROSION FIELD FORM

WAU: CALAPOOIA
Subbasin: N.F. CAL
Surveyor: SWM
Date: 5/19/94
Location: T15SR3E S26 NE - SITE # 6
Landform: VALLEY SIDESLOPE; DEEPSEATED?
Parent Material: ASH? VOLCANICLASTIC - SOILS RED, DEEP, HIGH SILT/CLAY
SEMU: 3

Activity: Tractor Harvest | (Highlead Harvest) LOOKS LIKE CABLE UNIT | Fire | Grazing | ORV | Other | Undisturbed

Site Prep: (Broadcast Burn) SPOT | Mechanical | None | Other | ?

Date: < 1 YR

Evidence of Surface Erosion? (Yes) | No

Type of Erosion: (Sheetwash) | Rill | Gully | Other

% of Area Affected: 20 (INCLUDING CUT BANKS)

Depth: DIFFICULT TO DETERMINE

Size of Material: SILT

Slope: VARIABLE (%)

Delivered to Channel? (Yes) | No
TO EPHEMERAL, NON-FISH BEARING

Comments:

RECENTLY HARVESTED + BURNED UNIT. BURN PATCHY, BUT HAS EXPOSED SOIL IN SOME PLACES. NUMEROUS CUT BANKS + BURNED AREAS CONTRIBUTE FINES TO EPHEMERAL CHANNELS. MATERIAL WILL EVENTUALLY GET TO STREAM. POTENTIAL SOLUTIONS. SEED CUTBANKS IN THIS P.M. ASAP. WATCH TO MAKE SURE GREEN UP OCCURS QUICKLY. AS NOTED IN OTHER UNITS, THERE ARE SOME STEEP DITCHES W/ HIGH POTENTIAL FOR DIVERSION. OF PARTICULAR CONCERN HERE W/ ABUNDANT SM. SLASH + MOBILE SEDIMENT. THAT COULD BLOCK CULVERTS LEADING TO GULLY EROSION

SURFACE EROSION FIELD FORM

WAU: CALAPOOIA
Subbasin: UPPER CAL
Surveyor: SWM
Date: 5/19/98
Location: USFS CC OFF 520 RD - MILE ~~##~~ 2.4 - SITE # 7
Landform: STEEP MT SIDESLOPE (STRAIGHT)
Parent Material: IGNEOUS - BASALT / ~~ANDESITE~~ COLLUVIUM
SEMU: 5

Activity: Tractor Harvest ~~Highlead Harvest~~ CABLE YARD ? Fire Grazing ORV (Other) Undisturbed

Site Prep: (Broadcast Burn) Mechanical None Other

Date: ? ✓ w/USFS : 46 YRS OLD (SWM / [illegible])

Evidence of Surface Erosion? (Yes) No

Type of Erosion: (Sheetwash) Rill Gully Other

% of Area Affected: 15

Depth: < 2cm

Size of Material: SILT / SAND

Slope: > 70 (%)

Delivered to Channel? NO Yes No

Comments:

BURN HAS EXPOSED ~ 40-50 % MINERAL SOIL. CABLE SKID TRAILS ARE ALSO VISIBLE (PHOTO 28). SOME EVIDENCE THAT SHEETWASH EROSION HAS OCCURRED (ARMORING OF EXPOSED AREAS), HOWEVER SKID TRAILS SHOW NO EVIDENCE OF GULLY DEVELOPMENT, + NO BUILD UP OF EXCESS FINES WAS OBSERVED IN CHANNEL AT BOTTOM OF UNIT (PHOTO 29). NO CURRENT FLOW. YARDING TRACKS ARE OBLIQUE TO HILLSLOPE + DO NOT CROSS CHANNELS

ATTACHMENT B3

LANDSLIDE SCAR EROSION MODELING

Landslide Scar Erosion Modeling Notes

Landslide scar erosion was calculated using a version of the Universal Soils Loss Equation (USLE) modified for use on forested sites (Dissmeyer and Foster 1984). The procedure uses the following equation to predict surface and rill erosion:

Soil Loss (tons/acre)=RKLSCP

R= rainfall erosivity index. Values for the R factor were obtained from the RUSLE computer program (SWCS 1992).

K=soil erodibility index. Values for the K factor corresponding to the dominant soil type in each SEMU were obtained from the Soil Survey of Linn County Area (Landridge 1987).

LS=hillslope length/slope factor. Values for the LS factor were obtained from the RUSLE computer program (SWCS 1992) by plugging in the landslide scar length and slope as measured in the field.

C=Cropping Management factor. Values for the C factor were obtained frm Dissmeyer and Foster (1984). Landslide cover was assumed to be zero based on field and air photo evaluation. Surface erosion under surface cover of 30% grass was also modeled to investigate the value of seeding slide scars.

P=erosion control practice factor. Values for the P factor were obtained frm Dissmeyer and Foster (1984). It was assumed that no erosion control practices (e.g. terracing) were applied to the slide scars.

Field data was obtained for 39 slide scars that delivered sediment to streams. Average values of the LS and proportion of sediment delivered to the channel for each combination of MWMU/SEMU were calculated from the field data. These average values were applied to the remainder of slides identified in the landslide inventory to estimate the total annual sediment delivery from landslide scar erosion for each subbasin. The mass wasting inventory revealed that slides in the Calapooia River WAU often do not quickly revegetate (Appendix A). However, because surface armoring may reduce surface erosion even in the absence of vegetation, only new slides identified on the 1997 photo set were assumed to deliver sediment.

Slide #	SUBBASIN	MWMU	SEMU	COVER (%)	R	K	SLOPE (%)	LS	C (0%Cover)	C (30%Cover)	P	SOIL LOSS WITH NO COVER (tons/ac/yr)	SOIL LOSS WITH 30% COVER (tons/ac/yr)	SCAR AREA (acres)	% DEL	SEDIMENT YIELD WITH NO COVER (tons/yr)	SEDIMENT YIELD WITH 30% COVER (tons/yr)
364	Bigs Cr	1	2		55	0.15		7.8	0.45	0.135	1	28.96	8.69	0.01	79	0.20	0.06
399	Bigs Cr	1	2		55	0.15		7.8	0.45	0.135	1	28.96	8.69	0.04	79	0.81	0.24
362	Bigs Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.04	79	0.65	0.20
397	Bigs Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.85	79	15.63	4.69
401	Bigs Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.28	79	5.21	1.56
406	Bigs Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.07	79	1.30	0.39
410	Bigs Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.21	79	3.91	1.17
367	Bigs Cr	1	4		55	0.25		7.8	0.45	0.135	1	48.26	14.48	0.04	79	1.36	0.41
375	Bigs Cr	2	1		55	0.28		7.3	0.45	0.135	1	50.59	15.18	0.07	100	3.60	1.08
373	Bigs Cr	7	1		55	0.28		11	0.45	0.135	1	76.23	22.87	0.07	87	4.72	1.42
363	Bigs Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.04	87	1.01	0.30
366	Bigs Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.01	87	0.25	0.08
398	Bigs Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.07	87	2.02	0.61
400	Bigs Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.21	87	6.07	1.82
402	Bigs Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.04	87	1.01	0.30
407	Bigs Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.14	87	4.05	1.21
408	Bigs Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.21	87	6.07	1.82
409	Bigs Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.07	87	2.02	0.61
411	Bigs Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.02	87	0.51	0.15
365	Bigs Cr	7	4		55	0.25		11	0.45	0.135	1	68.06	20.42	0.01	87	0.53	0.16
686	Hands Cr	1	3	<30	55	0.12	80	13.3	0.45	0.135	1	39.50	11.85	0.35	10	1.37	0.41
379	Hands Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.07	79	1.30	0.39
690	Hands Cr	1	5	<30	55	0.1	78	5.8	0.45	0.135	1	14.36	4.31	0.11	80	1.23	0.37
380	Hands Cr	1	5		55	0.1		7.8	0.45	0.135	1	19.31	5.79	0.07	79	1.09	0.33
413	Hands Cr	1	5		55	0.1		7.8	0.45	0.135	1	19.31	5.79	0.16	79	2.44	0.73
377	Hands Cr	3	3		55	0.12		29.1	0.45	0.135	1	86.43	25.93	0.21	90	16.61	4.98
378	Hands Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.11	87	3.03	0.91
688	Hands Cr	7	5	<30	55	0.1	78	16	0.45	0.135	1	39.60	11.88	0.37	70	10.28	3.08
691	Hands Cr	7	5	<30	55	0.1	75	18.4	0.45	0.135	1	45.54	13.66	0.59	100	27.01	8.10
696	Hands Cr	7	5	<30	55	0.1	70	6.2	0.45	0.135	1	15.35	4.60	0.04	100	0.58	0.17
381	Hands Cr	7	5		55	0.1		11	0.45	0.135	1	27.23	8.17	0.04	87	0.84	0.25
675	King Cr	1	2	<30	55	0.15	75	11.7	0.45	0.135	1	43.44	13.03	0.17	90	6.76	2.03
666	King Cr	1	3	<30	55	0.12	70	14	0.45	0.135	1	41.58	12.47	0.22	20	1.85	0.55
680	King Cr	1	3	<30	55	0.12	65	10.4	0.45	0.135	1	30.89	9.27	0.03	100	1.01	0.30
708	King Cr	1	3	<30	55	0.12	80	2.3	0.45	0.135	1	6.83	2.05	0.01	90	0.04	0.01
716	King Cr	1	3	<30	55	0.12	89	9.9	0.45	0.135	1	29.40	8.82	0.11	90	2.83	0.85
717	King Cr	1	3	<30	55	0.12	88	6	0.45	0.135	1	17.82	5.35	0.06	80	0.79	0.24
383	King Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.04	79	0.65	0.20
392	King Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.14	79	2.61	0.78
393	King Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.02	79	0.33	0.10
394	King Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.11	79	1.95	0.59
395	King Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.14	79	2.61	0.78
385	King Cr	1	4		55	0.25		7.8	0.45	0.135	1	48.26	14.48	0.04	79	1.36	0.41
667	King Cr	1	5	<30	55	0.1	74	11.6	0.45	0.135	1	28.71	8.61	0.07	100	1.99	0.60
672	King Cr	1	5	<30	55	0.1	82	13.4	0.45	0.135	1	33.17	9.95	0.15	80	3.93	1.18
673	King Cr	1	5	<30	55	0.1	86	5.3	0.45	0.135	1	13.12	3.94	0.03	100	0.38	0.11
382	King Cr	1	5		55	0.1		7.8	0.45	0.135	1	19.31	5.79	0.01	79	0.14	0.04
709	King Cr	3	3	<30	55	0.12	82	29.13	0.45	0.135	1	86.52	25.95	2.97	90	230.91	69.27
669	King Cr	7	3	<30	55	0.12	78	11	0.45	0.135	1	32.67	9.80	0.09	100	3.10	0.93

Slide #	SUBBASIN	MWMU	SEMU	COVER (%)	R	K	SLOPE (%)	LS	C (0%Cover)	C (30%Cover)	P	SOIL LOSS WITH NO COVER (tons/ac/yr)	SOIL LOSS WITH 30% COVER (tons/ac/yr)	SCAR AREA (acres)	% DEL	SEDIMENT YIELD WITH NO COVER (tons/yr)	SEDIMENT YIELD WITH 30% COVER (tons/yr)
674	King Cr	7	3	<30	55	0.12	70	5.6	0.45	0.135	1	16.63	4.99	0.09	100	1.54	0.46
701	King Cr	7	3	<30	55	0.12	85	17	0.45	0.135	1	50.49	15.15	0.22	90	9.93	2.98
711	King Cr	7	3	<30	55	0.12	68	2.2	0.45	0.135	1	6.53	1.96	0.01	100	0.06	0.02
714	King Cr	7	3	<30	55	0.12	70	10.5	0.45	0.135	1	31.19	9.36	0.19	80	4.74	1.42
715	King Cr	7	3	<30	55	0.12	79	10.1	0.45	0.135	1	30.00	9.00	0.19	100	5.59	1.68
384	King Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.01	87	0.25	0.08
371	Lower Calapooia	1	1		55	0.28		7.8	0.45	0.135	1	54.05	16.22	0.14	79	6.08	1.82
414	Lower Calapooia	1	2		55	0.15		7.8	0.45	0.135	1	28.96	8.69	0.02	79	0.41	0.12
361	Lower Calapooia	2	2		55	0.15		7.3	0.45	0.135	1	27.10	8.13	0.04	100	0.96	0.29
360	Lower Calapooia	7	1		55	0.28		11	0.45	0.135	1	76.23	22.87	0.04	87	2.36	0.71
370	Lower Calapooia	7	1		55	0.28		11	0.45	0.135	1	76.23	22.87	0.02	87	1.18	0.35
372	Lower Calapooia	7	1		55	0.28		11	0.45	0.135	1	76.23	22.87	0.32	87	21.24	6.37
387	Upper Calapooia	1	5		55	0.1		7.8	0.45	0.135	1	19.31	5.79	0.04	79	0.54	0.16
386	Upper Calapooia	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.04	87	1.01	0.30
636	Washout Cr	1	3	<10	55	0.12	76	5.1	0.45	0.135	1	15.15	4.54	0.02	100	0.29	0.09
640	Washout Cr	1	3	<10	55	0.12	70	7.7	0.45	0.135	1	22.87	6.86	0.04	100	0.87	0.26
651	Washout Cr	1	3	<30	55	0.12	74	3.3	0.45	0.135	1	9.80	2.94	0.01	70	0.05	0.02
396	Washout Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.14	79	2.61	0.78
403	Washout Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.13	79	2.44	0.73
405	Washout Cr	1	3		55	0.12		7.8	0.45	0.135	1	23.17	6.95	0.11	79	1.95	0.59
606	Washout Cr	1	4	<30	55	0.25	68	5.5	0.45	0.135	1	34.03	10.21	0.13	20	0.88	0.26
607	Washout Cr	1	4	<30	55	0.25	55	5.2	0.45	0.135	1	32.18	9.65	0.03	100	1.02	0.31
612	Washout Cr	1	4	<30	55	0.25	72	6.3	0.45	0.135	1	38.98	11.69	0.06	90	2.06	0.62
720	Washout Cr	1	4	<30	55	0.25	75	4.7	0.45	0.135	1	29.08	8.72	0.03	100	0.86	0.26
730	Washout Cr	1	4	<30	55	0.25	70	12.7	0.45	0.135	1	78.58	23.57	0.44	70	24.47	7.34
390	Washout Cr	1	4		55	0.25		7.8	0.45	0.135	1	48.26	14.48	0.04	79	1.36	0.41
610	Washout Cr	1	5	<30	55	0.1	49	3	0.45	0.135	1	7.43	2.23	0.02	90	0.12	0.04
615	Washout Cr	1	5	<30	55	0.1	88	9.5	0.45	0.135	1	23.51	7.05	0.06	80	1.21	0.36
634	Washout Cr	1	5	<30	55	0.1	86	4.3	0.45	0.135	1	10.64	3.19	0.02	70	0.13	0.04
731	Washout Cr	2	4	<30	55	0.25	75	7.3	0.45	0.135	1	45.17	13.55	0.03	100	1.56	0.47
635	Washout Cr	7	3	<30	55	0.12	77	8	0.45	0.135	1	23.76	7.13	0.04	80	0.72	0.22
638	Washout Cr	7	3	<30	55	0.12	80	6.1	0.45	0.135	1	18.12	5.44	0.05	100	0.86	0.26
725	Washout Cr	7	3	<30	55	0.12	66	2.9	0.45	0.135	1	8.61	2.58	0.01	100	0.09	0.03
726	Washout Cr	7	3	<30	55	0.12	70	20.5	0.45	0.135	1	60.89	18.27	0.74	10	4.49	1.35
388	Washout Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.14	87	4.05	1.21
389	Washout Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.04	87	1.01	0.30
391	Washout Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.14	87	4.05	1.21
404	Washout Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.07	87	2.02	0.61
412	Washout Cr	7	3		55	0.12		11	0.45	0.135	1	32.67	9.80	0.01	87	0.25	0.08
718	Washout Cr	7	4	<30	55	0.25	72	17.5	0.45	0.135	1	108.28	32.48	0.47	100	51.22	15.37
724	Washout Cr	7	4	<30	55	0.25	77	13.2	0.45	0.135	1	81.68	24.50	0.51	70	29.39	8.82
368	Washout Cr	7	4		55	0.25		11	0.45	0.135	1	68.06	20.42	0.04	87	2.11	0.63

ATTACHMENT B4

DEVIATIONS FROM STANDARD METHODOLOGY

1) The surface erosion assessment included an evaluation of landslide scar erosion conducted using a procedure based on Universal Soil Loss Equation (USLE) developed specifically for forested lands (Dissmeyer and Foster 1984).

2) Input data for the road surface erosion model was based on a complete inventory of the driveable road network in the Calapooia WAU performed in May 1997.

3) Separate calculations of sediment yields were performed for the cutslope, tread and fillslope portions of each segment. These separate estimates allowed an evaluation of the primary sediment production and delivery process (i.e. raw cutbanks delivering to inboard ditches; sediment piping through tread surfaces; ravel from bare fill slopes).

4) Traffic factors were modified based on the results of a calibration of calculated sediment yield estimates with field studies that measured actual sediment fluxes from road surfaces, in combination with specific traffic rates (Clark 1986).

5) The effects of traffic yield on sediment were assessed for both current conditions and under heavy use. This allows an assessment of the relative sensitivity of various road segments to traffic, and facilitates identification of segments that would most benefit from major upgrades prior to the resumption of logging activity.

6) The amount of fine sediment that could be supplied via piping of underlying soil materials through road tread and ballast surfaces was modified by subtracting the average proportion of coarse material contained in the dominant soil type for each SEMU.

7) The potential magnitude of gully erosion associated with flow diversions at stream crossings or outflow of overlong ditch lines onto unarmoured fill slopes was approximated by calculating the total volume of sediment eroded at gully sites (lengthxwidthxdepth) encountered during field reconnaissance, minus the coarse material portion of the dominant soil in the SEMU occupied by the gully.

ATTACHMENT B5

ROAD INVENTORY DATA AND SEDIMENT YIELD CALCULATIONS

Attachment 35. Road fine sediment yield - inventory.

Road fine sediment yield calculations

FILE: 22320\CALRDERO.XLS
DATE: 5/17/98
PROJ. CALAPOOIA WATERSHED ANALYSIS
BY: Sue Madsen, Beak Consultants

Parent rock		Erosion Factor (kg/m2)	Ground Cover	Ground Cover Factor
Mica schist, volcanic ash, highly wx sedimentary, 0-2 year old road.	1	25.00	0%	1.00
Mica schist, volcanic ash, highly wx sedimentary, >2 year old road.	2	13.50	10%	0.77
quartzite, coarse-grained granite, 0-2 year old road.	3	25.00	20%	0.63
quartzite, coarse-grained granite, >2 year old road.	4	7.00	30%	0.53
Fine-grained granite, moderately wx rock, sedimentary rocks, 0-2 year old road.	5	13.50	50%	0.37
Fine-grained granite, moderately wx rock, sedimentary rocks, >2 year old road.	6	7.00	80%	0.18
Competent granite, basalt, metamorphic rocks, relatively unweathered rocks, 0-2 year old road.	7	4.50		
Competent granite, basalt, metamorphic rocks, relatively unweathered rocks, >2 year old road.	8	2.20		

Surfacing	Surface Factor
1	1.00
2	1.00
5	0.20
6	0.75
7	0.00

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1	Lower Calapooia	MAINLINE	5.4	5.7	0.27	S	442.6	6.4	21	1.8	6	1.8	6	4452	100	100	7	90%	25%	25%	50%	1	6	N	5%	Y	1	N
2	Lower Calapooia	MAINLINE	5.7	5.8	0.08	S	120.7	6.4	21	1.8	8	1.8	6	1214	100	100	7	90%	100%	100%	100%	1	6	N	1%	N	1	Y
3	Lower Calapooia	MAINLINE	5.8	5.9	0.10	S	160.9	6.4	21	1.8	6	1.8	6	1619	100	100	7	90%	50%	0%	100%	1	6	N	0%	N	1	N
4	Lower Calapooia	MAINLINE	5.9	5.9	0.05	S	80.5	6.4	21	1.8	6	1.8	6	809	100	100	7	90%	100%	100%	100%	1	6	N	1%	Y	1	Y
5	Lower Calapooia	MAINLINE	5.9	6.0	0.10	S	160.9	6.4	21	2.4	8	1.8	6	1717	100	100	7	90%	75%	100%	50%	1	6	N	1%	Y	1	Y
6	Lower Calapooia	MAINLINE	6.0	6.2	0.20	M	321.9	6.4	21	2.4	8	1.8	6	3434	100	100	7	90%	10%	10%	0%	1	6	N	2%	Y	1	N
7	Lower Calapooia	MAINLINE	6.2	6.2	0.02	M	40.2	6.4	21	1.8	6	2.4	8	429	100	100	7	90%	100%	100%	50%	1	6	N	1%	N	1	Y
8	Lower Calapooia	MAINLINE	6.2	6.4	0.18	M	281.6	6.4	21	2.4	8	1.8	6	3005	80	100	7	90%	50%	100%	0%	1	6	N	1%	Y	1	Y
9	Lower Calapooia	MAINLINE	6.4	6.5	0.13	M	201.2	6.4	21	2.4	8	2.4	8	2269	100	100	7	90%	0%	0%	0%	1	6	N	0%	N	1	N
10	Lower Calapooia	MAINLINE	6.5	6.7	0.18	M	281.6	6.4	21	2.4	8	1.8	6	3005	100	100	7	90%	0%	0%	0%	1	6	N	0%	N	1	N
11	Lower Calapooia	MAINLINE	6.7	6.8	0.10	M	160.9	6.4	21	1.8	6	2.4	8	1717	100	100	7	90%	50%	100%	0%	1	6	N	1%	N	1	Y
12	Lower Calapooia	MAINLINE	6.8	6.9	0.08	S	120.7	6.4	21	1.8	6	1.8	6	1214	100	100	7	90%	100%	100%	100%	1	6	N	1%	N	1	Y
13	Lower Calapooia	MAINLINE	6.9	7.4	0.53	S	844.9	6.4	21	2.4	8	2.4	8	9529	100	100	7	90%	50%	10%	50%	1	6	N	1%	Y	1	Y
14	Lower Calapooia	MAINLINE	7.4	7.6	0.15	S	241.4	6.4	21	3.0	10	3.0	10	3017	100	100	7	90%	100%	100%	100%	1	6	N	1%	N	1	Y
15	Lower Calapooia	MAINLINE	7.6	7.8	0.28	S	442.6	6.4	21	2.4	8	3.7	12	5531	100	100	7	90%	100%	100%	100%	1	6	N	1%	Y	1	N
16	Lower Calapooia	MAINLINE	7.8	7.9	0.02	S	40.2	6.4	21	1.8	6	2.4	8	429	100	100	7	90%	100%	100%	100%	1	6	N	1%	Y	1	N
17	Lower Calapooia	MAINLINE	7.9	8.0	0.15	S	241.4	6.4	21	4.6	15	1.6	6	3090	100	100	7	90%	100%	100%	100%	1	6	N	1%	N	1	Y
18	Lower Calapooia	MAINLINE	8.0	8.1	0.05	S	80.5	6.4	21	5.5	18	3.7	12	1251	80	100	7	90%	100%	100%	100%	1	6	N	1%	N	1	Y
19	Lower Calapooia	MAINLINE	8.1	8.1	0.05	S	80.5	6.4	21	3.0	10	2.4	8	957	100	100	7	90%	100%	100%	100%	1	6	N	1%	N	1	Y
20	Lower Calapooia	MAINLINE	8.1	8.2	0.08	S	120.7	6.4	21	2.4	8	1.8	6	1288	100	100	7	90%	75%	100%	50%	1	6	N	1%	N	1	Y
21	Lower Calapooia	MAINLINE	6.2	8.4	0.17	M	281.6	6.4	21	3.0	10	3.7	12	3691	100	100	7	90%	50%	100%	0%	1	6	N	1%	Y	1	Y
22	Lower Calapooia	MAINLINE	8.4	8.6	0.20	M	321.9	6.4	21	3.7	12	2.4	8	4022	100	100	7	90%	0%	0%	0%	1	6	N	0%	Y	1	N
23	Lower Calapooia	MAINLINE	8.6	8.6	0.05	S	80.5	6.4	21	4.6	15	3.7	12	1177	100	100	7	90%	100%	100%	100%	1	6	N	1%	Y	1	N
24	Lower Calapooia	MAINLINE	8.6	8.9	0.25	S	402.3	6.4	21	3.7	12	3.7	12	5519	100	80	7	90%	100%	100%	100%	1	6	N	1%	Y	1	Y
25	Lower Calapooia	MAINLINE	8.9	9.0	0.15	S	241.4	6.4	21	2.4	8	1.8	6	2575	100	100	7	90%	100%	100%	100%	1	6	N	1%	Y	1	N
26	Lower Calapooia	MAINLINE	0.0	0.2	0.15	S	241.4	6.1	20	1.8	6	1.2	4	2207	100	100	5	90%	100%	100%	100%	1	6	N	100%	Y	1	Y
27	Lower Calapooia	MAINLINE	0.2	0.4	0.25	S	402.3	6.1	20	3.7	12	1.2	4	4415	100	100	5	90%	100%	100%	100%	1	6	N	100%	Y	1	N
181	Lower Calapooia	100	0.0	0.1	0.10	M	160.9	4.9	16	4.6	15	4.6	15	2256	100	100	5	90%	100%	100%	50%	2	6	N	100%	N	1	Y
182	Lower Calapooia	100	0.1	0.2	0.08	M	120.7	4.9	16	1.8	6	1.8	6	1030	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
183	Lower Calapooia	100	0.2	0.3	0.13	M	201.2	5.5	18	3.7	12	3.0	10	2453	80	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
184	Lower Calapooia	100	0.3	0.4	0.08	S	120.7	5.5	18	3.7	12	3.0	10	1472	90	100	5	90%	50%	50%	50%	2	6	N	50%	Y	1	N
185	Lower Calapooia	100	0.4	0.6	0.18	M	281.6	4.9	16	3.7	12	2.4	8	3090	90	100	5	90%	50%	100%	10%	2	6	N	100%	N	1	Y
186	Lower Calapooia	100	0.6	0.8	0.20	S	321.9	4.9	16	3.7	12	3.0	10	3728	100	100	5	90%	50%	0%	50%	2	6	N	0%	Y	1	N
187	Lower Calapooia	100	0.8	0.9	0.15	S	241.4	4.9	16	3.7	12	3.0	10	2796	100	100	5	90%	50%	0%	100%	2	6	N	0%	N	1	N
188	Lower Calapooia	100	0.9	1.0	0.13	M	201.2	4.9	16	1.8	6	1.8	6	1717	100	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
189	Lower Calapooia	100	1.0	1.1	0.08	M	120.7	4.9	16	1.8	6	1.2	4	957	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Road fine sediment yield calculations

		Road Use Type	Road Use Code	Traffic Factor
FILE:	22320\CALRDERO.XLS			
DATE:	5/17/98	Mainline	1	5
PROJ.	CALAPOOIA WATERSHED ANALYSIS	Primary/Secondary	2	0.4
BY:	Sue Madsen, Beak Consultants	Spur	4	0.1

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1	Lower Calapooia	MAINLINE	17.85	5.10	5.10	0.00	0.92	0.92	0.00	0.23	0.46	0.00	0.00	0.69	0.69	0.15	1.56	0.76	2.75	143	386
2	Lower Calapooia	MAINLINE	4.87	1.39	1.39	0.00	0.25	0.25	0.00	0.25	0.25	0.00	0.00	0.50	0.50	0.41	4.15	0.55	7.34		
3	Lower Calapooia	MAINLINE	6.49	1.85	1.85	0.00	0.33	0.33	0.00	0.00	0.33	0.00	0.00	0.33	0.33	0.21	2.07	0.37	3.67		
4	Lower Calapooia	MAINLINE	3.24	0.93	0.93	0.00	0.17	0.17	0.00	0.17	0.17	0.00	0.00	0.33	0.33	0.41	4.15	0.37	7.34		
5	Lower Calapooia	MAINLINE	8.49	2.47	1.85	0.00	0.45	0.33	0.00	0.45	0.17	0.00	0.00	0.61	0.81	0.36	3.80	0.67	6.73		
6	Lower Calapooia	MAINLINE	12.98	4.94	3.71	0.00	0.89	0.67	0.00	0.09	0.00	0.00	0.00	0.09	0.09	0.03	0.28	0.10	0.49		
7	Lower Calapooia	MAINLINE	1.62	0.48	0.62	0.00	0.08	0.11	0.00	0.08	0.06	0.00	0.00	0.14	0.14	0.32	3.46	0.15	6.12		
8	Lower Calapooia	MAINLINE	11.36	4.33	3.24	0.00	0.78	0.58	0.00	0.78	0.00	0.00	0.00	0.78	0.78	0.26	2.77	0.86	4.89		
9	Lower Calapooia	MAINLINE	8.11	3.09	3.09	0.00	0.56	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
10	Lower Calapooia	MAINLINE	11.36	4.33	3.24	0.00	0.78	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
11	Lower Calapooia	MAINLINE	6.49	1.85	2.47	0.00	0.33	0.45	0.00	0.33	0.00	0.00	0.00	0.33	0.33	0.19	2.07	0.37	3.67		
12	Lower Calapooia	MAINLINE	4.87	1.39	1.39	0.00	0.25	0.25	0.00	0.25	0.25	0.00	0.00	0.50	0.50	0.41	4.15	0.55	7.34		
13	Lower Calapooia	MAINLINE	34.07	12.98	12.98	0.00	2.34	2.34	0.00	0.23	1.17	0.00	0.00	1.40	1.40	0.15	1.66	1.54	2.94		
14	Lower Calapooia	MAINLINE	9.73	4.64	4.64	0.00	0.83	0.83	0.00	0.83	0.83	0.00	0.00	1.67	1.67	0.55	6.91	1.84	12.24		
15	Lower Calapooia	MAINLINE	17.85	6.80	10.20	0.00	1.22	1.84	0.00	1.22	1.84	0.00	0.00	3.06	3.06	0.55	6.91	3.37	12.24		
16	Lower Calapooia	MAINLINE	1.62	0.46	0.62	0.00	0.08	0.11	0.00	0.08	0.11	0.00	0.00	0.19	0.19	0.45	4.84	0.21	8.57		
17	Lower Calapooia	MAINLINE	9.73	6.95	2.78	0.00	1.25	0.50	0.00	1.25	0.50	0.00	0.00	1.75	1.75	0.57	7.26	1.93	12.85		
18	Lower Calapooia	MAINLINE	3.24	2.78	1.85	0.00	0.50	0.33	0.00	0.50	0.33	0.00	0.00	0.83	0.83	0.67	10.37	0.92	18.36		
19	Lower Calapooia	MAINLINE	3.24	1.55	1.24	0.00	0.28	0.22	0.00	0.28	0.22	0.00	0.00	0.50	0.50	0.52	6.22	0.55	11.01		
20	Lower Calapooia	MAINLINE	4.87	1.85	1.39	0.00	0.33	0.25	0.00	0.33	0.13	0.00	0.00	0.46	0.46	0.36	3.80	0.50	6.73		
21	Lower Calapooia	MAINLINE	11.36	5.41	6.49	0.00	0.97	1.17	0.00	0.97	0.00	0.00	0.00	0.97	0.97	0.26	3.46	1.07	6.12		
22	Lower Calapooia	MAINLINE	12.98	7.42	4.94	0.00	1.34	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
23	Lower Calapooia	MAINLINE	3.24	2.32	1.85	0.00	0.42	0.33	0.00	0.42	0.33	0.00	0.00	0.75	0.75	0.64	9.33	0.83	16.52		
24	Lower Calapooia	MAINLINE	16.22	9.27	9.27	0.00	1.67	1.67	0.00	1.67	1.87	0.00	0.00	3.34	3.34	0.60	8.30	3.67	14.68		
25	Lower Calapooia	MAINLINE	9.73	3.71	2.78	0.00	0.67	0.50	0.00	0.67	0.50	0.00	0.00	1.17	1.17	0.45	4.84	1.28	8.57		
26	Lower Calapooia	MAINLINE	9.27	2.78	1.85	1.85	0.50	0.33	1.85	0.50	0.33	0.74	9.27	1.58	10.11	0.71	6.53	1.73	11.56		
27	Lower Calapooia	MAINLINE	15.45	9.27	3.09	3.09	1.67	0.56	3.09	1.67	0.56	1.24	15.45	3.46	17.68	0.78	8.60	3.81	15.23		
181	Lower Calapooia	100	4.94	4.64	4.64	0.99	0.83	0.83	0.99	0.83	0.42	0.40	4.94	1.65	6.20	0.73	10.24	1.81	18.12		
182	Lower Calapooia	100	3.71	1.39	1.39	0.74	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
183	Lower Calapooia	100	6.95	4.64	3.88	1.39	0.83	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
184	Lower Calapooia	100	4.17	2.78	2.32	0.83	0.50	0.42	0.42	0.25	0.21	0.17	2.09	0.63	2.54	0.43	5.18	0.69	9.18		
185	Lower Calapooia	100	8.65	6.49	4.33	1.73	1.17	0.78	0.87	1.17	0.08	0.35	4.33	1.59	5.57	0.52	5.65	1.75	10.01		
186	Lower Calapooia	100	9.89	7.42	6.18	1.98	1.34	1.11	0.99	0.00	0.56	0.40	4.94	0.95	5.50	0.26	2.96	1.05	5.23		
187	Lower Calapooia	100	7.42	5.56	4.64	1.48	1.00	0.83	0.74	0.00	0.83	0.30	3.71	1.13	4.54	0.40	4.69	1.24	8.29		
188	Lower Calapooia	100	6.18	2.32	2.32	1.24	0.42	0.42	0.62	0.42	0.00	0.25	3.09	0.66	3.51	0.39	3.30	0.73	5.85		
189	Lower Calapooia	100	3.71	1.39	0.93	0.74	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
190	Lower Calapooia	100	1.1	1.2	0.10	M	160.9	4.9	16	3.7	12	1.8	6	1668	90	100	5	90%	50%	100%	0%	2	6	N	100%	N		1 Y
191	Lower Calapooia	100	1.2	1.3	0.10	M	160.9	4.9	16	4.6	15	1.8	6	1815	90	100	5	47%	0%	0%	0%	2	6	N	0%	Y		1 N
192	Lower Calapooia	100	1.3	1.4	0.13	S	201.2	4.9	16	3.7	12	3.0	10	2330	80	100	5	47%	50%	100%	0%	2	6	N	100%	Y		1 Y
193	Lower Calapooia	100	1.4	1.6	0.20	M	321.9	4.9	16	4.6	15	2.4	8	3826	90	100	5	47%	50%	100%	0%	2	6	N	100%	Y		1 Y
194	Lower Calapooia	100	1.6	1.8	0.15	M	241.4	4.9	16	6.1	20	3.7	12	3532	90	100	5	47%	0%	0%	0%	2	6	N	0%	Y		1 N
195	Lower Calapooia	100	1.8	1.9	0.13	S	201.2	4.9	16	3.7	12	3.0	10	2330	90	100	5	47%	50%	50%	50%	2	6	N	50%	Y		1 N
196	Lower Calapooia	100	1.9	2.0	0.10	S	160.9	4.9	16	3.7	12	3.0	10	1864	100	100	5	47%	25%	0%	50%	2	6	N	0%	Y		1 N
197	Lower Calapooia	100	2.0	2.1	0.05	S	80.5	4.9	16	4.6	15	3.7	12	1055	100	100	5	47%	75%	100%	50%	2	6	N	100%	N		1 Y
198	Lower Calapooia	100	2.1	2.2	0.15	M	241.4	4.9	16	4.6	15	3.0	10	3017	90	100	5	47%	50%	100%	0%	2	6	N	100%	Y		1 N
199	Lower Calapooia	100	2.2	2.4	0.15	M	241.4	4.9	16	3.7	12	2.4	8	2649	80	100	5	47%	0%	0%	0%	2	6	N	0%	Y		1 N
200	Lower Calapooia	100	2.4	2.4	0.05	M	80.5	4.3	14	3.0	10	2.4	8	785	100	100	5	47%	50%	100%	0%	2	6	N	100%	Y		1 N
201	Lower Calapooia	100	2.4	2.5	0.10	M	160.9	4.3	14	3.7	12	3.7	12	1864	100	100	5	47%	50%	100%	0%	2	6	N	100%	Y		1 Y
202	Lower Calapooia	100	2.5	2.7	0.18	M	281.6	4.3	14	3.7	12	2.4	8	2919	100	100	5	47%	50%	100%	0%	2	6	N	100%	Y		1 Y
203	Lower Calapooia	100	2.7	2.8	0.13	M	201.2	4.3	14	6.1	20	4.6	15	3005	100	100	5	47%	0%	0%	0%	2	6	N	0%	Y		1 N
204	Lower Calapooia	100	2.8	2.9	0.10	M	160.9	4.3	14	3.7	12	3.7	12	1864	100	100	5	47%	0%	25%	0%	2	6	N	100%	Y		2 Y
205	Lower Calapooia	100	2.9	3.0	0.13	M	201.2	4.3	14	4.6	15	3.0	10	2391	100	100	5	47%	0%	0%	0%	2	6	N	0%	Y		2 N
206	Lower Calapooia	100	3.0	3.1	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	100	100	5	47%	50%	100%	0%	2	6	N	100%	N		1 Y
207	Lower Calapooia	100	3.1	3.2	0.10	M	160.9	4.3	14	1.8	6	1.8	6	1275	100	100	5	47%	0%	0%	0%	2	6	N	0%	Y		1 N
208	Lower Calapooia	100	3.2	3.3	0.07	M	120.7	4.3	14	6.1	20	3.7	12	1692	80	90	5	47%	50%	100%	0%	2	6	N	100%	N		1 Y
209	Lower Calapooia	100	3.3	3.4	0.08	M	120.7	4.3	14	7.6	25	4.6	15	1987	80	100	5	47%	25%	50%	0%	2	6	N	50%	Y		1 N
210	Lower Calapooia	100	3.4	3.4	0.07	M	120.7	4.3	14	6.1	20	3.7	12	1692	70	100	5	47%	0%	0%	0%	2	6	N	0%	Y		1 N
211	Lower Calapooia	100	3.4	3.5	0.10	M	160.9	4.3	14	4.6	15	3.7	12	2011	80	100	5	47%	0%	0%	0%	2	6	N	0%	Y		1 N
212	Lower Calapooia	100	3.5	3.6	0.10	M	160.9	4.3	14	6.1	20	4.6	15	2404	90	100	5	47%	50%	100%	0%	2	6	N	100%	N		1 Y
213	Lower Calapooia	100	3.6	3.7	0.05	M	80.5	4.3	14	4.6	15	3.7	12	1006	100	100	5	47%	50%	100%	0%	2	6	N	100%	Y		1 Y
214	Lower Calapooia	100	3.7	3.8	0.08	M	120.7	4.3	14	4.6	15	3.0	10	1435	100	100	5	47%	0%	0%	0%	2	6	N	0%	Y		1 N
215	Lower Calapooia	100	3.8	3.9	0.10	S	160.9	4.3	14	3.7	12	4.6	15	2011	80	100	5	47%	50%	50%	50%	2	6	N	50%	Y		1 N
216	Lower Calapooia	100	3.9	3.9	0.05	S	60.5	4.3	14	3.7	12	3.7	12	932	100	100	5	70%	75%	100%	50%	2	6	N	100%	Y		1 N
217	Lower Calapooia	100	3.9	3.9	0.02	S	40.2	4.3	14	2.4	8	1.8	6	343	100	100	5	70%	50%	50%	50%	2	6	N	50%	Y		1 N
218	Lower Calapooia	100	3.9	4.0	0.03	S	40.2	4.3	14	3.0	10	1.8	6	368	100	100	5	70%	75%	100%	50%	2	6	N	100%	Y		1 N
219	Lower Calapooia	100	4.0	4.0	0.05	S	80.5	4.3	14	3.7	12	1.2	4	736	100	100	5	70%	75%	100%	50%	2	6	N	100%	N		1 Y
220	Lower Calapooia	100	4.0	4.1	0.10	S	160.9	4.3	14	3.7	12	3.7	12	1864	100	100	5	70%	75%	100%	75%	2	6	N	100%	Y		1 N
221	Lower Calapooia	100	4.1	4.3	0.15	M	241.4	4.3	14	1.8	6	1.8	6	1913	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
222	Lower Calapooia	100	0.0	0.1	0.08	R	120.7	3.7	12	2.4	8	1.8	6	957	100	100	5	70%	0%	0%	0%	4	6	N	0%	Y		1 N
223	Lower Calapooia	100	0.1	0.2	0.06	R	120.7	3.7	12	3.0	10	3.0	10	1177	100	100	5	70%	0%	0%	0%	4	6	N	0%	Y		1 N
224	Lower Calapooia	100	0.2	0.2	0.05	R	60.5	3.7	12	3.0	10	2.4	8	736	100	100	5	70%	0%	0%	0%	4	6	N	0%	Y		1 N
225	Lower Calapooia	108A	0.0	0.1	0.05	R	80.5	3.7	12	1.8	6	1.8	6	589	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
226	Lower Calapooia	108A	0.1	0.2	0.18	R	281.6	3.7	12	3.7	12	3.0	10	2919	80	50	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
227	Lower Calapooia	105	0.0	0.1	0.05	M	80.5	3.7	12	1.8	6	1.8	6	589	100	100	4	70%	100%	100%	100%	4	6	N	100%	Y		1 Y
228	Lower Calapooia	105	0.1	0.2	0.15	M	241.4	3.7	12	2.4	8	1.8	6	1913	50	80	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
229	Lower Calapooia	105	0.2	0.5	0.28	R	442.6	3.7	12	2.4	8	1.8	6	3507	50	50	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
230	Lower Calapooia	105	0.5	0.6	0.13	R	201.2	3.7	12	2.4	8	1.8	6	1594	40	50	4	70%	50%	100%	0%	4	6	N	100%	Y		1 N
231	Lower Calapooia	105-B	0.0	0.1	0.08	R	120.7	3.7	12	1.8	6	1.8	6	883	50	50	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
232	Lower Calapooia	105-A	0.0	0.2	0.20	S	321.9	3.7	12	3.0	10	3.7	12	3336	80	100	4	70%	50%	0%	50%	4	6	N	0%	N		2 N
233	Lower Calapooia	105-A	0.2	0.4	0.20	M	321.9	3.7	12	3.7	12	3.0	10	3336	100	100	4	70%	0%	0%	0%	4	6	N	0%	N		2 N
234	Lower Calapooia	106	0.0	0.1	0.10	M	160.9	4.3	14	3.7	12	3.0	10	1766	50	70	5	70%	75%	100%	75%	4	6	N	100%	N		1 Y
235	Lower Calapooia	106	0.1	0.3	0.20	M	321.9	4.3	14	2.4	8	1.8	6	2747	100	100	5	70%	0%	0%	0%	4	6	N	0%	Y		1 N
236	Lower Calapooia	106	0.3	0.4	0.10	M	160.9	4.3	14	1.8	6	1.6	6	1275	100	100	5	70%	50%	100%	25%	4	6	N	100%	N		1 Y
237	Lower Calapooia	106	0.4	1.0	0.58	M	925.4	3.7	12	1.8	6	1.8	6	6769	90	100	5	70%	0%	0%	0%	4	6	N	0%	Y		1 N
238	Lower Calapooia	106-C	0.0	0.1	0.13	M	201.2	3.7	12	1.6	6	1.8	6	1472	50	80	5	70%	50%	100%	0%	4	6	N	100%	Y		1 Y
239	Lower Calapooia	106-C	0.1	0.2	0.10	M	160.9	3.7	12	1.8	6	1.8	6	1177	80	100	5	70%	0%	0%	0%	4	6	N	0%	Y		1 N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
190	Lower Calapooia	100	4.94	3.71	1.85	0.99	0.67	0.33	0.49	0.67	0.00	0.20	2.47	0.87	3.14	0.52	5.38	0.95	9.52		
191	Lower Calapooia	100	2.58	2.42	0.97	0.52	0.44	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
192	Lower Calapooia	100	3.23	2.42	2.02	0.65	0.44	0.36	0.32	0.44	0.00	0.13	1.61	0.56	2.05	0.24	2.81	0.62	4.97		
193	Lower Calapooia	100	5.16	4.84	2.58	1.03	0.87	0.46	0.52	0.87	0.00	0.21	2.58	1.08	3.45	0.28	3.35	1.19	5.93		
194	Lower Calapooia	100	3.87	4.84	2.90	0.77	0.87	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
195	Lower Calapooia	100	3.23	2.42	2.02	0.65	0.44	0.36	0.32	0.22	0.18	0.13	1.61	0.53	2.01	0.23	2.63	0.58	4.65		
196	Lower Calapooia	100	2.58	1.94	1.61	0.52	0.35	0.29	0.13	0.00	0.15	0.05	0.65	0.20	0.79	0.11	1.22	0.22	2.17		
197	Lower Calapooia	100	1.29	1.21	0.97	0.26	0.22	0.17	0.19	0.22	0.09	0.08	0.97	0.38	1.27	0.36	4.75	0.42	8.41		
198	Lower Calapooia	100	3.87	3.63	2.42	0.77	0.65	0.44	0.39	0.65	0.00	0.15	1.94	0.81	2.59	0.27	3.35	0.89	5.93		
199	Lower Calapooia	100	3.87	2.90	1.94	0.77	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
200	Lower Calapooia	100	1.13	0.81	0.65	0.23	0.15	0.12	0.11	0.15	0.00	0.05	0.56	0.19	0.71	0.24	2.37	0.21	4.19		
201	Lower Calapooia	100	2.26	1.94	1.94	0.45	0.35	0.35	0.23	0.35	0.00	0.09	1.13	0.44	1.48	0.24	2.73	0.48	4.83		
202	Lower Calapooia	100	3.95	3.39	2.26	0.79	0.61	0.41	0.40	0.61	0.00	0.16	1.98	0.77	2.59	0.26	2.73	0.85	4.83		
203	Lower Calapooia	100	2.82	4.03	3.03	0.56	0.73	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
204	Lower Calapooia	100	2.26	1.94	1.94	0.45	0.35	0.35	0.00	0.09	0.00	0.00	0.00	0.09	0.09	0.05	0.54	0.10	0.96		
205	Lower Calapooia	100	2.82	3.03	2.02	0.56	0.54	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
206	Lower Calapooia	100	1.69	1.45	0.73	0.34	0.26	0.13	0.17	0.26	0.00	0.07	0.65	0.33	1.11	0.28	2.73	0.36	4.63		
207	Lower Calapooia	100	2.26	0.97	0.97	0.45	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
208	Lower Calapooia	100	1.69	2.42	1.45	0.34	0.44	0.26	0.17	0.44	0.00	0.07	0.85	0.50	1.28	0.30	4.17	0.55	7.38		
209	Lower Calapooia	100	1.69	3.03	1.82	0.34	0.54	0.33	0.08	0.27	0.00	0.03	0.42	0.31	0.70	0.15	2.54	0.34	4.49		
210	Lower Calapooia	100	1.69	2.42	1.45	0.34	0.44	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
211	Lower Calapooia	100	2.26	2.42	1.94	0.45	0.44	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
212	Lower Calapooia	100	2.26	3.23	2.42	0.45	0.58	0.44	0.23	0.58	0.00	0.09	1.13	0.67	1.71	0.28	4.17	0.74	7.38		
213	Lower Calapooia	100	1.13	1.21	0.97	0.23	0.22	0.17	0.11	0.22	0.00	0.05	0.56	0.26	0.76	0.26	3.27	0.29	5.79		
214	Lower Calapooia	100	1.69	1.82	1.21	0.34	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
215	Lower Calapooia	100	2.26	1.94	2.42	0.45	0.35	0.44	0.23	0.17	0.22	0.09	1.13	0.48	1.52	0.24	3.00	0.53	5.31		
216	Lower Calapooia	100	1.66	1.44	1.44	0.34	0.26	0.26	0.25	0.26	0.13	0.10	1.26	0.49	1.65	0.53	6.09	0.54	10.79		
217	Lower Calapooia	100	0.84	0.48	0.36	0.17	0.09	0.06	0.08	0.04	0.03	0.03	0.42	0.11	0.50	0.32	2.72	0.12	4.81		
218	Lower Calapooia	100	0.84	0.60	0.36	0.17	0.11	0.06	0.13	0.11	0.03	0.05	0.63	0.19	0.77	0.52	4.75	0.21	8.41		
219	Lower Calapooia	100	1.66	1.44	0.48	0.34	0.26	0.09	0.25	0.26	0.04	0.10	1.26	0.40	1.56	0.55	5.02	0.44	8.88		
220	Lower Calapooia	100	3.37	2.88	2.88	0.67	0.52	0.52	0.50	0.52	0.39	0.20	2.52	1.11	3.43	0.60	6.90	1.22	12.21		
221	Lower Calapooia	100	5.05	2.16	2.16	1.01	0.39	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
222	Lower Calapooia	100	2.16	1.44	1.08	0.43	0.26	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
223	Lower Calapooia	100	2.16	1.80	1.80	0.43	0.32	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
224	Lower Calapooia	100	1.44	1.20	0.96	0.29	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
225	Lower Calapooia	108A	1.44	0.72	0.72	1.44	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
226	Lower Calapooia	108A	5.05	5.05	4.21	5.05	0.91	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
227	Lower Calapooia	105	1.44	0.72	0.72	1.44	0.13	0.13	1.44	0.13	0.13	0.14	0.14	0.40	0.40	0.69	5.02	0.44	6.88		
228	Lower Calapooia	105	4.33	2.88	2.16	4.33	0.52	0.39	2.16	0.52	0.00	0.22	0.22	0.74	0.74	0.38	3.05	0.81	5.39		
229	Lower Calapooia	105	7.93	5.29	3.97	7.93	0.95	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
230	Lower Calapooia	105	3.61	2.40	1.80	3.61	0.43	0.32	1.60	0.43	0.00	0.18	0.18	0.61	0.61	0.38	3.05	0.67	5.39		
231	Lower Calapooia	105-B	2.16	1.08	1.08	2.16	0.19	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
232	Lower Calapooia	105-A	5.77	4.81	5.77	5.77	0.87	1.04	2.88	0.00	0.52	0.29	0.29	0.81	0.81	0.24	2.51	0.89	4.44		
233	Lower Calapooia	105-A	5.77	5.77	4.81	5.77	1.04	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
234	Lower Calapooia	106	3.37	2.88	2.40	0.67	0.52	0.43	0.50	0.52	0.32	0.05	0.05	0.89	0.89	0.51	5.56	0.98	9.84		
235	Lower Calapooia	106	6.73	3.85	2.88	1.35	0.69	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
236	Lower Calapooia	106	3.37	1.44	1.44	0.67	0.26	0.26	0.34	0.26	0.06	0.03	0.03	0.36	0.36	0.28	2.23	0.39	3.94		
237	Lower Calapooia	106	16.59	8.29	8.29	3.32	1.49	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
238	Lower Calapooia	106-C	3.61	1.80	1.80	0.72	0.32	0.32	0.36	0.32	0.00	0.04	0.04	0.36	0.36	0.25	1.79	0.40	3.17		
239	Lower Calapooia	106-C	2.88	1.44	1.44	0.58	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac 85. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a five stream culvert?
240	Lower Calapooia	106-C	0.2	0.3	0.05	M	80.5	3.7	12	1.8	6	1.8	6	589	90	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
241	Lower Calapooia	106-C	0.3	0.4	0.13	M	201.2	3.7	12	1.8	6	1.2	4	1349	90	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
242	Lower Calapooia	106-A	0.0	0.2	0.15	M	241.4	4.3	14	1.8	6	1.8	6	1913	80	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
243	Lower Calapooia	106-A	0.2	0.3	0.10	M	160.9	3.7	12	1.6	6	1.8	6	1177	100	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
244	Lower Calapooia	106-A	0.3	0.3	0.08	M	120.7	3.7	12	2.4	8	1.8	6	957	90	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
245	Lower Calapooia	106-A	0.3	0.4	0.10	M	160.9	3.0	10	1.6	6	1.8	6	1079	100	100	4	70%	100%	100%	100%	4	6	N	100%	N	1	Y
246	Lower Calapooia	106-A	0.4	0.5	0.05	M	80.5	3.0	10	1.8	6	1.8	6	540	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
247	Lower Calapooia	106-A	0.5	0.6	0.10	M	160.9	3.0	10	1.8	6	1.8	6	1079	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
248	Lower Calapooia	106-A-1	0.0	0.1	0.08	M	120.7	3.0	10	1.2	4	1.2	4	662	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
249	Lower Calapooia	170	0.0	0.1	0.08	M	120.7	3.0	10	3.0	10	1.8	6	957	90	100	4	47%	0%	0%	0%	4	6	N	0%	Y	2	N
250	Lower Calapooia	170	0.1	0.3	0.18	M	281.6	3.0	10	3.7	12	2.4	8	2575	40	100	4	47%	0%	0%	0%	4	6	N	0%	Y	5	N
251	Lower Calapooia	170	0.3	0.4	0.15	M	241.4	3.0	10	1.8	6	1.8	6	1619	80	100	4	47%	50%	100%	0%	4	6	N	100%	N	1	Y
252	Lower Calapooia	171	0.0	0.1	0.08	M	120.7	3.0	10	1.8	6	1.8	6	809	100	100	4	47%	50%	100%	0%	4	6	N	100%	Y	1	Y
253	Lower Calapooia	171	0.1	0.2	0.08	M	120.7	3.0	10	1.2	4	1.2	4	662	100	100	4	47%	0%	0%	0%	4	6	N	0%	Y	1	N
254	Lower Calapooia	150	0.0	0.0	0.03	M	40.2	3.7	12	1.8	6	1.8	6	294	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
255	Lower Calapooia	150	0.0	0.1	0.03	M	40.2	3.7	12	2.4	8	1.8	6	319	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
256	Lower Calapooia	150	0.1	0.1	0.08	M	120.7	3.7	12	1.8	6	1.8	6	883	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
257	Lower Calapooia	150	0.1	0.3	0.15	M	241.4	3.7	12	2.4	8	1.8	6	1913	50	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
258	Lower Calapooia	150	0.3	0.4	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	20	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
259	Lower Calapooia	150	0.4	0.4	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	90	100	4	90%	25%	50%	0%	4	6	N	50%	Y	1	N
260	Lower Calapooia	150	0.4	0.5	0.03	M	40.2	3.7	12	3.0	10	1.8	6	343	100	100	4	47%	50%	100%	100%	4	6	N	100%	N	1	Y
261	Lower Calapooia	150	0.5	0.5	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	30	100	4	47%	50%	100%	0%	4	6	N	100%	Y	1	N
262	Lower Calapooia	150	0.5	0.7	0.20	M	321.9	3.7	12	2.4	8	2.4	8	2747	70	100	4	47%	50%	100%	0%	4	6	N	100%	N	1	Y
263	Lower Calapooia	150	0.7	0.8	0.05	M	80.5	3.7	12	1.8	6	1.2	4	540	100	100	4	47%	0%	0%	0%	4	6	N	0%	Y	1	N
264	Lower Calapooia	150	0.8	0.8	0.05	M	80.5	3.7	12	1.8	6	1.8	6	589	100	100	4	47%	25%	50%	0%	4	6	N	50%	Y	1	N
265	Lower Calapooia	150	0.8	0.8	0.02	M	40.2	3.7	12	2.4	8	1.2	4	294	80	100	4	90%	50%	100%	50%	4	6	N	100%	N	1	Y
266	Lower Calapooia	150	0.8	0.9	0.08	M	120.7	3.7	12	2.4	8	1.8	6	957	20	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
267	Lower Calapooia	150	0.9	1.0	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	20	100	5	90%	50%	100%	0%	4	6	N	100%	Y	1	Y
268	Lower Calapooia	150	1.0	1.0	0.02	M	40.2	3.7	12	1.8	6	1.8	6	294	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
269	Lower Calapooia	150	1.0	1.1	0.06	M	88.5	3.7	12	1.8	6	1.8	6	648	80	80	5	90%	75%	100%	50%	4	6	N	100%	Y	1	N
270	Lower Calapooia	150	1.1	1.1	0.04	S	72.4	3.7	12	2.4	8	1.8	6	574	80	80	5	90%	100%	100%	100%	4	6	N	100%	N	1	Y
271	Lower Calapooia	150	1.1	1.2	0.08	M	120.7	3.7	12	1.8	6	1.2	4	809	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
272	Lower Calapooia	150	1.2	1.3	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	50	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
273	Lower Calapooia	150	1.3	1.3	0.05	M	80.5	3.7	12	1.8	6	1.8	6	589	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
274	Lower Calapooia	150	1.3	1.3	0.02	M	40.2	3.7	12	3.0	10	1.8	6	343	60	80	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
275	Lower Calapooia	154	0.0	0.1	0.10	R	160.9	3.7	12	2.4	8	1.2	4	1177	80	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
276	Lower Calapooia	152	0.0	0.1	0.10	R	160.9	3.7	12	1.2	4	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
277	Lower Calapooia	151	0.0	0.2	0.20	R	321.9	3.7	12	0.9	3	0.9	3	1766	100	100	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
278	Lower Calapooia	104	0.0	0.1	0.10	M	160.9	4.3	14	3.7	12	3.0	10	1766	80	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
279	Lower Calapooia	104	0.1	0.2	0.10	M	160.9	4.3	14	3.7	12	2.4	8	1668	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
280	Lower Calapooia	104	0.2	0.5	0.30	M	482.8	4.3	14	4.6	15	3.0	10	5739	80	90	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
281	Lower Calapooia	104	0.5	0.6	0.13	M	201.2	4.3	14	3.7	12	2.4	8	2085	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
282	Lower Calapooia	104	0.6	0.8	0.13	M	201.2	4.3	14	3.7	12	3.0	10	2207	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
283	Lower Calapooia	104	0.8	0.9	0.10	M	160.9	4.3	14	2.4	8	1.8	6	1374	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
284	Lower Calapooia	104	0.9	1.0	0.15	M	241.4	4.3	14	2.4	8	2.4	8	2207	80	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
285	Lower Calapooia	104	1.0	1.4	0.35	M	563.3	4.3	14	3.7	12	2.4	8	5837	50	80	5	90%	0%	0%	0%	2	6	N	0%	N	1	N
286	Lower Calapooia	104	1.4	1.4	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	70	60	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
287	Lower Calapooia	104	1.4	1.6	0.15	M	241.4	3.7	12	3.0	10	2.4	8	2207	80	80	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
288	Lower Calapooia	104	1.6	1.7	0.15	M	241.4	3.7	12	1.8	6	1.2	4	1619	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
289	Lower Calapooia	104	1.7	1.8	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DelivenyMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Trafficheavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
240	Lower Calapooia	106-C	1.44	0.72	0.72	0.29	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
241	Lower Calapooia	106-C	3.61	1.80	1.20	0.72	0.32	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
242	Lower Calapooia	106-A	5.05	2.16	2.16	1.01	0.39	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
243	Lower Calapooia	106-A	2.88	1.44	1.44	0.58	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
244	Lower Calapooia	106-A	2.16	1.44	1.08	0.43	0.26	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
245	Lower Calapooia	106-A	2.40	1.44	1.44	2.40	0.26	0.26	2.40	0.26	0.26	0.24	0.24	0.78	0.78	0.70	4.72	0.84	8.35		
246	Lower Calapooia	106-A	1.20	0.72	0.72	1.20	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
247	Lower Calapooia	106-A	2.40	1.44	1.44	2.40	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
248	Lower Calapooia	106-A-1	1.80	0.72	0.72	1.80	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
249	Lower Calapooia	170	1.21	1.21	0.73	1.21	0.22	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
250	Lower Calapooia	170	2.82	3.39	2.26	2.82	0.61	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
251	Lower Calapooia	170	2.42	1.45	1.45	2.42	0.26	0.26	1.21	0.26	0.00	0.12	0.12	0.38	0.38	0.24	1.58	0.42	2.80		
252	Lower Calapooia	171	1.21	0.73	0.73	1.21	0.13	0.13	0.61	0.13	0.00	0.06	0.06	0.19	0.19	0.24	1.58	0.21	2.80		
253	Lower Calapooia	171	1.21	0.48	0.48	1.21	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
254	Lower Calapooia	150	0.93	0.46	0.46	0.19	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
255	Lower Calapooia	150	0.93	0.62	0.46	0.19	0.11	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
256	Lower Calapooia	150	2.78	1.39	1.39	0.56	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
257	Lower Calapooia	150	5.56	3.71	2.78	1.11	0.67	0.50	0.56	0.67	0.00	0.06	0.06	0.72	0.72	0.38	3.00	0.80	5.30		
258	Lower Calapooia	150	3.71	3.09	1.85	3.71	0.56	0.33	1.85	0.56	0.00	0.19	0.19	0.74	0.74	0.54	4.61	0.82	8.16		
259	Lower Calapooia	150	1.85	1.24	0.93	1.85	0.22	0.17	0.46	0.11	0.00	0.05	0.05	0.16	0.16	0.25	1.98	0.17	3.47		
260	Lower Calapooia	150	0.48	0.40	0.24	0.48	0.07	0.04	0.24	0.07	0.04	0.02	0.02	0.14	0.14	0.41	3.49	0.15	6.18		
261	Lower Calapooia	150	0.97	0.65	0.48	0.97	0.12	0.09	0.48	0.12	0.00	0.05	0.05	0.16	0.16	0.26	2.05	0.18	3.62		
262	Lower Calapooia	150	3.87	2.58	2.58	3.87	0.46	0.46	1.94	0.46	0.00	0.19	0.19	0.66	0.66	0.24	2.05	0.72	3.62		
263	Lower Calapooia	150	0.97	0.48	0.32	0.97	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
264	Lower Calapooia	150	0.97	0.48	0.48	0.97	0.09	0.09	0.24	0.04	0.00	0.02	0.02	0.07	0.07	0.12	0.84	0.07	1.49		
265	Lower Calapooia	150	0.93	0.62	0.31	0.93	0.11	0.06	0.46	0.11	0.03	0.05	0.05	0.19	0.19	0.63	4.61	0.20	8.16		
266	Lower Calapooia	150	2.78	1.85	1.39	0.56	0.33	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
267	Lower Calapooia	150	3.71	2.47	1.85	0.74	0.45	0.33	0.37	0.45	0.00	0.04	0.04	0.48	0.48	0.38	3.00	0.53	5.30		
268	Lower Calapooia	150	0.93	0.46	0.46	0.19	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
269	Lower Calapooia	150	2.04	1.02	1.02	0.41	0.18	0.18	0.31	0.18	0.09	0.03	0.03	0.31	0.31	0.47	3.46	0.34	6.12		
270	Lower Calapooia	150	1.67	1.11	0.83	0.33	0.20	0.15	0.33	0.20	0.15	0.03	0.03	0.38	0.38	0.67	5.30	0.42	9.38		
271	Lower Calapooia	150	2.78	1.39	0.93	0.56	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
272	Lower Calapooia	150	1.85	1.24	0.93	0.37	0.22	0.17	0.19	0.22	0.00	0.02	0.02	0.24	0.24	0.38	3.00	0.27	5.30		
273	Lower Calapooia	150	1.85	0.93	0.93	0.37	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
274	Lower Calapooia	150	0.93	0.77	0.46	0.19	0.14	0.08	0.09	0.14	0.00	0.01	0.01	0.15	0.15	0.48	3.69	0.16	6.53		
275	Lower Calapooia	154	3.71	2.47	1.24	3.71	0.45	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
276	Lower Calapooia	152	3.71	1.24	1.24	3.71	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
277	Lower Calapooia	151	7.42	1.85	1.85	1.48	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
278	Lower Calapooia	104	4.33	3.71	3.09	0.87	0.67	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
279	Lower Calapooia	104	4.33	3.71	2.47	0.87	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
280	Lower Calapooia	104	12.98	13.91	9.27	2.60	2.50	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
281	Lower Calapooia	104	5.41	4.64	3.09	1.08	0.83	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
282	Lower Calapooia	104	5.41	4.64	3.86	1.08	0.83	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
283	Lower Calapooia	104	4.33	2.47	1.85	0.87	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
284	Lower Calapooia	104	6.49	3.71	3.71	1.30	0.67	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
285	Lower Calapooia	104	15.14	12.98	8.65	3.03	2.34	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
286	Lower Calapooia	104	1.85	1.85	1.24	0.37	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
287	Lower Calapooia	104	5.56	4.64	3.71	1.11	0.83	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
288	Lower Calapooia	104	5.56	2.78	1.85	1.11	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
289	Lower Calapooia	104	4.64	3.09	2.32	0.93	0.56	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attachment 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
290	Lower Calapooia	104-G	0.0	0.2	0.20	M	321.9	3.0	10	2.4	8	1.8	6	2355	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
291	Lower Calapooia	104-F	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
292	Lower Calapooia	104-D	0.0	0.1	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	60	60	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
293	Lower Calapooia	104-D	0.1	0.2	0.10	M	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
294	Lower Calapooia	104-D	0.2	0.2	0.06	M	120.7	3.7	12	3.0	10	1.8	6	1030	30	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
295	Lower Calapooia	104-D	0.2	0.3	0.08	M	120.7	3.7	12	2.4	8	1.8	6	957	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
296	Lower Calapooia	104-D	0.3	0.5	0.16	M	261.6	3.7	12	3.7	12	1.8	6	2575	20	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
297	Lower Calapooia	104-D	0.5	0.5	0.03	M	40.2	3.7	12	3.7	12	2.4	8	392	20	60	5	90%	25%	50%	0%	4	6	N	50%	Y	1	N
298	Lower Calapooia	104-D	0.5	0.6	0.10	M	160.9	3.7	12	3.7	12	2.4	6	1570	20	60	5	90%	50%	100%	25%	4	6	N	100%	N	1	Y
299	Lower Calapooia	104-D	0.6	0.7	0.05	M	80.5	3.7	12	3.0	10	1.6	6	687	20	80	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
300	Lower Calapooia	104-D	0.7	0.7	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	60	60	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
301	Lower Calapooia	104-D	0.7	0.6	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	40	60	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
302	Lower Calapooia	104-D	0.8	0.8	0.05	M	80.5	3.7	12	3.0	10	1.8	6	687	40	60	5	90%	75%	100%	50%	4	6	N	100%	N	1	Y
303	Lower Calapooia	104-D-2	0.0	0.1	0.08	M	120.7	3.7	12	2.4	8	1.8	6	957	80	100	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
304	Lower Calapooia	104-A	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	80	80	4	90%	50%	50%	50%	5	6	N	50%	Y	1	N
305	Lower Calapooia	103	0.0	0.0	0.03	M	40.2	4.3	14	2.4	8	1.8	6	343	90	90	5	90%	100%	100%	100%	4	6	N	100%	N	1	Y
306	Lower Calapooia	103	0.0	0.1	0.08	M	120.7	3.7	12	6.1	20	3.7	12	1619	90	100	5	90%	50%	100%	0%	4	6	N	100%	Y	1	N
307	Lower Calapooia	103	0.1	0.2	0.10	M	160.9	3.7	12	5.5	18	3.7	12	2060	90	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
308	Lower Calapooia	103	0.2	0.2	0.03	M	40.2	3.7	12	3.0	10	2.4	6	366	90	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
309	Lower Calapooia	103	0.2	0.3	0.03	M	40.2	3.7	12	2.4	8	2.4	8	343	100	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
310	Lower Calapooia	103	0.3	0.3	0.05	M	80.5	3.7	12	2.4	8	1.8	6	636	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
311	Lower Calapooia	103	0.3	0.6	0.25	M	402.3	3.7	12	2.4	8	1.2	4	2943	60	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
312	Lower Calapooia	103	0.6	0.7	0.13	M	201.2	3.7	12	1.8	6	1.2	4	1349	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
313	Lower Calapooia	103	0.7	0.7	0.05	M	80.5	3.7	12	1.8	6	1.2	4	540	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
314	Lower Calapooia	103-C	0.0	0.1	0.10	M	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
315	Lower Calapooia	103-C	0.1	0.3	0.20	M	321.9	3.0	10	1.8	6	1.2	4	1962	100	100	1	90%	0%	0%	0%	4	6	N	0%	Y	5	N
316	Lower Calapooia	103-B	0.0	0.1	0.05	M	80.5	3.7	12	2.4	8	1.2	4	569	100	100	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
317	Lower Calapooia	103-B	0.1	0.2	0.15	M	241.4	3.7	12	3.0	10	1.8	6	2060	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
318	Lower Calapooia	103-B	0.2	0.4	0.15	M	241.4	3.7	12	2.4	8	1.8	6	1913	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
319	Lower Calapooia	103-B	0.4	0.4	0.05	M	60.5	3.7	12	1.8	6	1.2	4	540	100	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
320	Lower Calapooia	103-B	0.4	0.5	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
321	Lower Calapooia	103-B	0.5	0.8	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	60	100	1	90%	0%	0%	0%	4	6	N	0%	N	5	N
322	Lower Calapooia	103-A	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	2.4	6	1570	50	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
323	Lower Calapooia	103-A	0.1	0.2	0.10	M	160.9	3.7	12	3.7	12	2.4	6	1570	50	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
324	Lower Calapooia	103-A	0.2	0.5	0.30	M	482.8	3.7	12	3.7	12	1.8	6	4415	60	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
325	Lower Calapooia	103-A	0.5	0.6	0.10	M	160.9	3.7	12	1.8	6	1.8	6	1177	100	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
326	Lower Calapooia	103-A	0.6	0.7	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
327	Lower Calapooia	103-A	0.7	0.9	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	60	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
328	Lower Calapooia	103-A	0.9	0.9	0.08	M	120.7	3.7	12	1.6	6	1.2	4	809	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
329	Lower Calapooia	3997	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	90	90	5	90%	50%	100%	0%	4	6	N	100%	Y	5	N
330	Lower Calapooia	3997	0.1	0.3	0.20	S	321.9	3.0	10	1.2	4	1.2	4	1766	100	100	5	90%	50%	100%	0%	4	6	N	100%	N	5	Y
331	Lower Calapooia	3997	0.3	0.5	0.20	M	321.9	3.0	10	1.2	4	1.2	4	1766	90	90	5	90%	0%	0%	0%	4	6	N	0%	Y	5	N
332	Lower Calapooia	3995	0.0	0.2	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	100	100	6	90%	0%	0%	0%	4	6	N	0%	Y	1	N
333	Lower Calapooia	3995	0.2	0.3	0.15	M	241.4	3.7	12	2.4	8	1.8	6	1913	100	100	6	90%	0%	0%	0%	4	6	N	0%	Y	1	N
334	Lower Calapooia	3995	0.3	0.4	0.08	M	120.7	3.7	12	1.8	6	1.2	4	809	100	100	6	90%	0%	0%	0%	4	6	N	0%	N	1	N
335	Lower Calapooia	3994	0.0	0.1	0.06	M	120.7	3.7	12	1.8	6	1.2	4	809	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
336	Lower Calapooia	3994	0.1	0.2	0.13	M	201.2	3.7	12	2.4	6	1.8	6	1594	60	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
337	Lower Calapooia	3994	0.2	0.3	0.13	M	201.2	3.7	12	1.6	6	1.2	4	1349	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
338	Lower Calapooia	3994	0.3	0.6	0.23	M	362.1	3.7	12	1.8	6	1.2	4	2428	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
339	Lower Calapooia	3994	0.6	0.6	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	50	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
290	Lower Calapooia	104-G	6.16	4.94	3.71	1.24	0.89	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
291	Lower Calapooia	104-F	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
292	Lower Calapooia	104-D	1.85	1.24	0.93	0.37	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
293	Lower Calapooia	104-D	3.71	1.85	1.24	0.74	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
294	Lower Calapooia	104-D	2.78	2.32	1.39	0.56	0.42	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
295	Lower Calapooia	104-D	2.78	1.85	1.39	0.56	0.33	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
296	Lower Calapooia	104-D	6.49	6.49	3.24	1.30	1.17	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
297	Lower Calapooia	104-D	0.93	0.93	0.62	0.19	0.17	0.11	0.05	0.08	0.00	0.00	0.00	0.09	0.09	0.22	2.19	0.10	3.88		
298	Lower Calapooia	104-D	3.71	3.71	2.47	0.74	0.67	0.45	0.37	0.67	0.11	0.04	0.04	0.82	0.82	0.52	5.07	0.90	8.97		
299	Lower Calapooia	104-D	1.85	1.55	0.93	0.37	0.28	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
300	Lower Calapooia	104-D	1.85	1.24	0.93	0.37	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
301	Lower Calapooia	104-D	1.85	1.24	0.93	0.37	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
302	Lower Calapooia	104-D	1.85	1.55	0.93	0.37	0.28	0.17	0.28	0.28	0.08	0.03	0.03	0.39	0.39	0.57	4.84	0.43	8.57		
303	Lower Calapooia	104-D-2	2.78	1.85	1.39	0.56	0.33	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
304	Lower Calapooia	104-A	3.71	3.71	2.47	3.71	0.67	0.45	1.85	0.33	0.22	0.19	0.19	0.74	0.74	0.47	4.61	0.82	8.16		
305	Lower Calapooia	103	1.08	0.62	0.46	0.22	0.11	0.08	0.22	0.11	0.08	0.02	0.02	0.22	0.22	0.63	5.38	0.24	9.52		
306	Lower Calapooia	103	2.78	4.64	2.78	0.56	0.83	0.50	0.28	0.83	0.00	0.03	0.03	0.86	0.86	0.53	7.14	0.95	12.65		
307	Lower Calapooia	103	3.71	5.56	3.71	0.74	1.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
308	Lower Calapooia	103	0.93	0.77	0.62	0.19	0.14	0.11	0.09	0.14	0.00	0.01	0.01	0.15	0.15	0.40	3.69	0.16	6.53		
309	Lower Calapooia	103	0.93	0.62	0.62	0.19	0.11	0.11	0.09	0.11	0.00	0.01	0.01	0.12	0.12	0.35	3.00	0.13	5.30		
310	Lower Calapooia	103	1.85	1.24	0.93	0.37	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
311	Lower Calapooia	103	9.27	6.18	3.09	1.85	1.11	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
312	Lower Calapooia	103	4.64	2.32	1.55	0.93	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
313	Lower Calapooia	103	1.85	0.93	0.62	0.37	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
314	Lower Calapooia	103-C	3.71	1.85	1.24	0.74	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
315	Lower Calapooia	103-C	6.18	3.71	2.47	6.18	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
316	Lower Calapooia	103-B	1.85	1.24	0.62	0.37	0.22	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
317	Lower Calapooia	103-B	5.56	4.64	2.78	1.11	0.83	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
318	Lower Calapooia	103-B	5.56	3.71	2.78	1.11	0.67	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
319	Lower Calapooia	103-B	1.85	0.93	0.62	0.37	0.17	0.11	0.19	0.17	0.00	0.02	0.02	0.19	0.19	0.34	2.30	0.20	4.08		
320	Lower Calapooia	103-B	1.85	1.24	0.93	0.37	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
321	Lower Calapooia	103-B	3.09	3.09	1.85	3.09	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
322	Lower Calapooia	103-A	3.71	3.71	2.47	0.74	0.67	0.45	0.37	0.67	0.00	0.04	0.04	0.70	0.70	0.45	4.38	0.78	7.75		
323	Lower Calapooia	103-A	3.71	3.71	2.47	0.74	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
324	Lower Calapooia	103-A	11.13	11.13	5.56	2.23	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
325	Lower Calapooia	103-A	3.71	1.85	1.85	0.74	0.33	0.33	0.37	0.33	0.00	0.04	0.04	0.37	0.37	0.32	2.30	0.41	4.08		
326	Lower Calapooia	103-A	3.71	4.64	2.47	0.74	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
327	Lower Calapooia	103-A	5.56	5.56	2.78	1.11	1.00	0.50	0.56	1.00	0.00	0.06	0.06	1.06	1.06	0.48	4.38	1.16	7.75		
328	Lower Calapooia	103-A	2.78	1.39	0.93	0.56	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
329	Lower Calapooia	3997	3.09	1.85	1.24	0.62	0.33	0.22	0.31	0.33	0.00	0.03	0.03	0.36	0.36	0.37	2.27	0.40	4.01		
330	Lower Calapooia	3997	6.18	2.47	2.47	1.24	0.45	0.45	0.62	0.45	0.00	0.06	0.06	0.51	0.51	0.29	1.57	0.56	2.79		
331	Lower Calapooia	3997	6.18	2.47	2.47	1.24	0.45	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
332	Lower Calapooia	3995	5.56	5.56	2.78	4.17	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
333	Lower Calapooia	3995	5.56	3.71	2.78	4.17	0.67	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
334	Lower Calapooia	3995	2.78	1.39	0.93	2.09	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
335	Lower Calapooia	3994	2.78	1.39	0.93	0.56	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
336	Lower Calapooia	3994	4.64	3.09	2.32	0.93	0.56	0.42	0.46	0.56	0.00	0.05	0.05	0.60	0.60	0.38	3.00	0.66	5.30		
337	Lower Calapooia	3994	4.64	2.32	1.55	0.93	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
338	Lower Calapooia	3994	8.34	4.17	2.78	1.67	0.75	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
339	Lower Calapooia	3994	2.78	3.48	1.85	0.56	0.63	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
340	Lower Calapooia	3994	0.6	0.8	0.13	M	201.2	3.7	12	3.7	12	2.4	8	1962	70	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
341	Lower Calapooia	3994-C	0.0	0.0	0.03	M	40.2	3.7	12	1.8	6	1.2	4	270	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
342	Lower Calapooia	3994-B	0.0	0.2	0.20	M	321.9	3.7	12	1.8	6	1.2	4	2158	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
343	Lower Calapooia	3991	0.0	0.1	0.10	R	160.9	3.7	12	3.0	10	1.8	8	1374	80	100	5	90%	0%	0%	0%	4	8	N	0%	Y	1	N
344	Lower Calapooia	3991	0.1	0.3	0.20	R	321.9	3.7	12	2.4	8	1.2	4	2355	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
345	Lower Calapooia	3991	0.3	0.8	0.28	R	442.6	3.7	12	3.7	12	2.4	8	4317	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
346	Lower Calapooia	3991-C	0.0	0.1	0.08	R	120.7	3.0	10	1.2	4	1.2	4	662	100	100	6	90%	0%	0%	0%	4	8	N	0%	N	1	N
347	Lower Calapooia	3991-B	0.0	0.1	0.10	R	160.9	3.7	12	2.4	8	1.6	6	1275	80	100	5	90%	0%	0%	0%	4	8	N	0%	N	1	N
348	Lower Calapooia	3990	0.0	0.2	0.20	M	321.9	4.3	14	4.6	15	3.7	12	4022	70	100	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
349	Lower Calapooia	3990	0.2	0.3	0.10	M	160.9	4.3	14	3.7	12	2.4	8	1668	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
350	Lower Calapooia	3990	0.3	0.4	0.08	M	120.7	4.3	14	3.7	12	2.4	8	1251	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
351	Lower Calapooia	3990	0.4	0.5	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	90	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
352	Lower Calapooia	3990	0.5	0.6	0.10	M	160.9	4.3	14	2.4	8	1.8	6	1374	100	100	5	90%	25%	50%	0%	2	6	N	50%	Y	1	N
353	Lower Calapooia	3990	0.6	0.8	0.20	M	321.9	3.7	12	3.0	10	1.8	6	2747	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
354	Lower Calapooia	3990	0.8	0.9	0.13	M	201.2	3.7	12	3.0	10	1.8	6	1717	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
355	Lower Calapooia	3990	0.9	1.0	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
356	Lower Calapooia	3990	1.0	1.2	0.15	M	241.4	3.7	12	3.0	10	2.4	8	2207	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
357	Lower Calapooia	3990	1.2	1.2	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
358	Lower Calapooia	3990	1.2	1.4	0.18	M	281.6	3.7	12	4.6	15	2.4	8	3005	50	100	5	90%	25%	50%	0%	2	6	N	50%	Y	1	N
359	Lower Calapooia	3990	1.4	1.4	0.01	S	16.1	3.7	12	3.7	12	2.4	8	157	100	100	5	90%	100%	100%	100%	2	6	N	100%	N	1	Y
360	Lower Calapooia	3990	1.4	1.5	0.12	M	185.1	3.7	12	3.7	12	1.8	6	1692	80	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
361	Lower Calapooia	3990	1.5	1.7	0.20	M	321.9	3.7	12	2.4	8	1.6	6	2551	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
362	Lower Calapooia	3990	1.7	1.8	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
363	Lower Calapooia	3990	1.8	1.9	0.08	M	120.7	3.7	12	2.4	8	1.6	6	957	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
364	Lower Calapooia	3990	1.9	2.0	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	100	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
365	Lower Calapooia	3990	2.0	2.1	0.10	M	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	5	90%	50%	100%	0%	2	6	N	100%	Y	1	Y
366	Lower Calapooia	3990	2.1	2.1	0.08	M	120.7	3.7	12	1.8	6	1.6	6	883	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
367	Lower Calapooia	3990	2.1	2.4	0.30	M	482.8	3.7	12	1.8	6	1.2	4	3238	100	100	6	90%	0%	0%	0%	4	6	N	0%	Y	1	N
368	Lower Calapooia	103-D	0.0	0.1	0.08	M	120.7	3.7	12	1.8	6	1.2	4	809	100	100	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
369	Lower Calapooia	103-D	0.1	0.2	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	60	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
370	Lower Calapooia	103-D	0.2	0.3	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
371	Lower Calapooia	103-D	0.3	0.4	0.03	M	40.2	3.7	12	2.4	8	1.8	6	319	90	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
372	Lower Calapooia	103-E	0.0	0.2	0.23	M	362.1	3.7	12	1.8	6	1.2	4	2428	90	100	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
373	Lower Calapooia	102-B	0.0	0.1	0.08	M	120.7	4.3	14	2.4	8	1.8	6	1030	90	100	5	90%	50%	100%	0%	4	6	N	100%	Y	1	N
374	Lower Calapooia	102-B	0.1	0.2	0.10	M	160.9	4.3	14	2.4	8	1.8	6	1374	60	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
375	Lower Calapooia	102-B	0.2	0.2	0.05	M	80.5	4.3	14	2.4	8	1.8	6	687	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
376	Lower Calapooia	102-B	0.2	0.3	0.05	M	80.5	4.3	14	2.4	8	1.6	6	687	60	80	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
377	Lower Calapooia	102-B	0.3	0.3	0.05	M	80.5	4.3	14	4.6	15	3.7	12	1006	20	50	5	90%	100%	100%	100%	4	6	N	100%	N	1	Y
378	Lower Calapooia	102-B	0.3	0.4	0.08	M	120.7	4.3	14	3.7	12	2.4	8	1251	20	50	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
379	Lower Calapooia	102-B	0.4	0.5	0.10	M	160.9	4.3	14	3.7	12	2.4	8	1668	20	80	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
380	Lower Calapooia	102-B	0.5	0.6	0.10	M	160.9	4.3	14	3.0	10	1.8	6	1472	50	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
381	Lower Calapooia	102-B	0.6	0.7	0.08	M	120.7	4.3	14	3.0	10	2.4	8	1177	20	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
382	Lower Calapooia	102-B	0.7	0.7	0.04	M	64.4	3.7	12	3.7	12	1.8	6	589	10	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
383	Lower Calapooia	102-B	0.7	0.8	0.09	M	136.8	3.7	12	2.4	8	1.8	6	1084	40	100	5	90%	50%	100%	0%	4	6	N	100%	Y	1	Y
384	Lower Calapooia	102-B	0.8	0.9	0.10	M	160.9	4.3	14	1.8	6	1.2	4	1177	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
385	Lower Calapooia	102-B	0.9	1.0	0.10	M	160.9	3.0	10	3.7	12	2.4	8	1472	50	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
386	Lower Calapooia	102-B	1.0	1.1	0.10	M	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
387	Lower Calapooia	102-B-2	0.0	0.1	0.10	R	160.9	3.7	12	1.8	6	1.2	4	1079	80	80	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
388	Lower Calapooia	102-B-1	0.0	0.2	0.15	M	241.4	4.3	14	1.8	6	1.8	6	1913	60	60	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
389	Lower Calapooia	102-B-1	0.2	0.2	0.08	M	120.7	4.3	14	1.8	6	1.8	6	957	40	80	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
340	Lower Calapooia	3994	4.64	4.64	3.09	0.93	0.83	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
341	Lower Calapooia	3994-C	0.93	0.46	0.31	0.19	0.08	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
342	Lower Calapooia	3994-B	7.42	3.71	2.47	1.48	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
343	Lower Calapooia	3991	3.71	3.09	1.85	0.74	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
344	Lower Calapooia	3991	7.42	4.94	2.47	1.48	0.89	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
345	Lower Calapooia	3991	10.20	10.20	6.80	2.04	1.84	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
346	Lower Calapooia	3991-C	2.32	0.93	0.93	1.74	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
347	Lower Calapooia	3991-B	3.71	2.47	1.85	0.74	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
348	Lower Calapooia	3990	8.65	9.27	7.42	1.73	1.67	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
349	Lower Calapooia	3990	4.33	3.71	2.47	0.87	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
350	Lower Calapooia	3990	3.24	2.78	1.85	0.65	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
351	Lower Calapooia	3990	3.24	2.78	1.39	0.65	0.50	0.25	0.32	0.50	0.00	0.13	1.62	0.63	2.12	0.54	5.22	0.69	9.25		
352	Lower Calapooia	3990	4.33	2.47	1.85	0.87	0.45	0.33	0.22	0.22	0.00	0.09	1.08	0.31	1.30	0.23	1.92	0.34	3.40		
353	Lower Calapooia	3990	7.42	6.18	3.71	1.48	1.11	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
354	Lower Calapooia	3990	4.64	3.86	2.32	0.93	0.70	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
355	Lower Calapooia	3990	4.64	3.09	2.32	0.93	0.56	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
356	Lower Calapooia	3990	5.56	4.64	3.71	1.11	0.83	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
357	Lower Calapooia	3990	1.85	1.85	1.24	0.37	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
358	Lower Calapooia	3990	6.49	8.11	4.33	1.30	1.46	0.78	0.32	0.73	0.00	0.13	1.62	0.86	2.35	0.29	3.05	0.95	5.40		
359	Lower Calapooia	3990	0.37	0.37	0.25	0.07	0.07	0.04	0.07	0.07	0.04	0.03	0.37	0.14	0.48	0.90	8.76	0.16	15.50		
360	Lower Calapooia	3990	4.26	4.26	2.13	0.85	0.77	0.38	0.43	0.77	0.00	0.17	2.13	0.94	2.90	0.55	5.07	1.03	8.97		
361	Lower Calapooia	3990	7.42	4.94	3.71	1.48	0.89	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
362	Lower Calapooia	3990	4.64	3.09	2.32	0.93	0.56	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
363	Lower Calapooia	3990	2.78	1.85	1.39	0.56	0.33	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
364	Lower Calapooia	3990	1.85	1.24	0.93	0.37	0.22	0.17	0.19	0.22	0.00	0.07	0.93	0.30	1.15	0.47	3.69	0.33	6.53		
365	Lower Calapooia	3990	3.71	1.85	1.24	0.74	0.33	0.22	0.37	0.33	0.00	0.15	1.85	0.48	2.19	0.45	3.00	0.53	5.30		
366	Lower Calapooia	3990	2.78	1.39	1.39	0.56	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
367	Lower Calapooia	3990	11.13	5.56	3.71	8.34	1.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
368	Lower Calapooia	103-D	2.78	1.39	0.93	0.56	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
369	Lower Calapooia	103-D	4.64	3.09	2.32	0.93	0.56	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
370	Lower Calapooia	103-D	4.64	3.09	2.32	0.93	0.56	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
371	Lower Calapooia	103-D	0.93	0.62	0.46	0.19	0.11	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
372	Lower Calapooia	103-E	8.34	4.17	2.78	1.67	0.75	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
373	Lower Calapooia	102-B	3.24	1.85	1.39	0.65	0.33	0.25	0.32	0.33	0.00	0.03	0.03	0.37	0.37	0.36	3.03	0.40	5.37		
374	Lower Calapooia	102-B	4.33	2.47	1.85	0.87	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
375	Lower Calapooia	102-B	2.16	1.24	0.93	0.43	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
376	Lower Calapooia	102-B	2.16	1.24	0.93	0.43	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
377	Lower Calapooia	102-B	2.16	2.32	1.85	0.43	0.42	0.33	0.43	0.42	0.33	0.04	0.04	0.79	0.79	0.79	9.87	0.87	17.47		
378	Lower Calapooia	102-B	3.24	2.78	1.85	0.65	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
379	Lower Calapooia	102-B	4.33	3.71	2.47	0.87	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
380	Lower Calapooia	102-B	4.33	3.09	1.85	0.87	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
381	Lower Calapooia	102-B	3.24	2.32	1.85	0.65	0.42	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
382	Lower Calapooia	102-B	1.48	1.48	0.74	0.30	0.27	0.13	0.15	0.27	0.00	0.01	0.01	0.28	0.28	0.48	4.38	0.31	7.75		
383	Lower Calapooia	102-B	3.15	2.10	1.58	0.63	0.38	0.28	0.32	0.38	0.00	0.03	0.03	0.41	0.41	0.38	3.00	0.45	5.30		
384	Lower Calapooia	102-B	4.33	1.85	1.24	0.87	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
385	Lower Calapooia	102-B	3.09	3.71	2.47	0.62	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
386	Lower Calapooia	102-B	3.71	1.85	1.24	0.74	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
387	Lower Calapooia	102-B-2	3.71	1.85	1.24	0.74	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
388	Lower Calapooia	102-B-1	6.49	2.78	2.78	1.30	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
389	Lower Calapooia	102-B-1	3.24	1.39	1.39	0.65	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attachment 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
390	Lower Calapooia	102-B-1	0.2	0.3	0.10	M	160.9	4.3	14	2.4	8	1.8	6	1374	70	90	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
391	Lower Calapooia	102-B-1	0.3	0.4	0.03	M	40.2	4.3	14	1.8	6	1.8	6	319	80	80	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
392	Lower Calapooia	102-B-1	0.4	0.4	0.05	M	80.5	4.3	14	1.8	6	1.2	4	589	50	100	5	90%	50%	100%	0%	4	6	N	100%	Y	1	Y
393	Lower Calapooia	102-B-1	0.4	0.5	0.13	M	201.2	4.3	14	1.8	6	1.8	6	1594	20	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
394	Lower Calapooia	102-B-1	0.5	0.7	0.13	M	201.2	4.3	14	2.4	8	1.8	6	1717	50	100	5	90%	50%	100%	0%	4	6	N	100%	Y	1	N
395	Lower Calapooia	102-B-1a	0.0	0.1	0.08	M	120.7	3.7	12	1.8	6	1.2	4	809	40	100	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
396	Lower Calapooia	102	0.0	0.0	0.03	M	40.2	4.3	14	2.4	8	1.8	6	343	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
397	Lower Calapooia	102	0.0	0.2	0.15	M	241.4	4.3	14	2.4	8	1.8	6	2060	50	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
398	Lower Calapooia	102	0.2	0.3	0.13	S	201.2	4.3	14	2.4	8	1.8	6	1717	60	80	5	90%	85%	100%	60%	2	6	N	100%	N	1	Y
399	Lower Calapooia	102	0.3	0.6	0.28	M	442.6	4.3	14	2.4	8	1.8	6	3777	80	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
400	Lower Calapooia	102	0.6	1.0	0.38	M	603.5	4.3	14	2.4	8	1.2	4	4783	70	90	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
401	Lower Calapooia	102	1.0	1.1	0.13	M	201.2	4.3	14	3.7	12	2.4	8	2085	20	100	5	90%	50%	100%	0%	2	6	N	100%	Y	1	N
402	Lower Calapooia	102	1.1	1.1	0.03	M	40.2	4.3	14	3.7	12	1.8	6	392	60	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
403	Lower Calapooia	102	1.1	1.2	0.05	M	80.5	4.3	14	2.4	8	1.2	4	638	40	80	5	90%	75%	100%	50%	2	6	N	100%	N	1	Y
404	Lower Calapooia	102	1.2	1.3	0.13	M	201.2	4.3	14	3.0	10	1.2	4	1717	60	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
405	Lower Calapooia	102	1.3	1.3	0.05	M	80.5	4.3	14	3.7	12	1.8	6	785	20	50	5	90%	25%	50%	0%	2	6	N	50%	Y	1	N
406	Lower Calapooia	102	1.4	1.4	0.02	M	40.2	4.3	14	3.7	12	3.0	10	441	20	50	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
407	Lower Calapooia	102	1.4	1.6	0.20	M	321.9	3.7	12	3.0	10	2.4	8	2943	40	80	5	47%	0%	0%	0%	2	6	N	0%	Y	1	N
408	Lower Calapooia	102	1.6	1.7	0.10	M	160.9	3.7	12	3.0	10	2.4	8	1472	20	80	5	47%	0%	0%	0%	2	6	N	0%	Y	1	N
409	Lower Calapooia	102	1.7	1.7	0.03	M	40.2	3.7	12	3.0	10	1.2	4	319	30	90	5	47%	50%	100%	50%	2	6	N	100%	N	1	Y
410	Lower Calapooia	102	1.7	1.8	0.08	M	120.7	3.7	12	2.4	8	1.8	6	957	50	80	5	47%	100%	100%	100%	2	6	N	100%	N	1	Y
411	Lower Calapooia	102	1.8	1.9	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	60	80	5	47%	25%	50%	0%	2	6	N	50%	Y	1	N
412	Lower Calapooia	102	1.9	1.9	0.08	M	120.7	3.7	12	2.4	8	1.8	6	957	40	60	5	47%	50%	100%	50%	2	6	N	100%	N	1	Y
413	Lower Calapooia	102-F	0.0	0.1	0.10	R	160.9	3.7	12	3.7	12	2.4	8	1570	10	80	5	47%	0%	0%	0%	4	6	N	0%	Y	1	N
414	Lower Calapooia	102-D	0.0	0.1	0.05	M	80.5	3.7	12	2.4	8	1.6	6	638	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
415	Lower Calapooia	102-D	0.1	0.1	0.03	M	40.2	3.7	12	1.8	6	1.8	6	294	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
416	Lower Calapooia	102-D	0.1	0.1	0.03	M	40.2	3.7	12	1.8	6	1.2	4	270	50	50	5	90%	100%	100%	100%	4	6	N	100%	N	1	Y
417	Lower Calapooia	102-C	0.0	0.1	0.10	R	160.9	3.7	12	1.2	4	1.2	4	981	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
418	Lower Calapooia	102-A	0.0	0.1	0.05	M	80.5	3.7	12	1.8	6	1.2	4	540	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
419	Lower Calapooia	102-A	0.1	0.2	0.15	M	241.4	3.7	12	1.8	6	1.8	6	1766	50	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
420	Lower Calapooia	102-A	0.2	0.3	0.10	M	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	5	90%	25%	50%	0%	4	6	N	50%	Y	1	N
421	Lower Calapooia	102-A	0.3	0.4	0.10	M	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
422	Lower Calapooia	101	0.0	0.2	0.20	M	321.9	3.0	10	1.8	6	1.2	4	1962	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
423	Lower Calapooia	100 SPUR	0.0	0.3	0.30	M	482.8	3.0	10	2.4	8	1.5	5	3385	50	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
424	Lower Calapooia	100 SPUR-	0.0	0.1	0.05	M	80.5	3.0	10	1.8	6	1.2	4	491	100	100	6	90%	0%	0%	0%	4	6	N	0%	N	1	N
425	Lower Calapooia	3800	0.0	0.0	0.03	S	40.2	4.3	14	2.4	8	1.2	4	319	100	100	5	90%	75%	100%	50%	2	6	N	100%	N	1	Y
426	Lower Calapooia	3800	0.0	0.1	0.03	S	40.2	4.3	14	3.0	10	1.8	6	368	100	100	5	90%	25%	50%	0%	2	6	N	50%	Y	1	N
427	Lower Calapooia	3800	0.1	0.1	0.05	M	80.5	4.3	14	4.6	15	2.4	8	907	70	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
428	Lower Calapooia	3800	0.1	0.2	0.08	M	120.7	4.3	14	3.7	12	2.4	8	1251	80	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
429	Lower Calapooia	3800	0.2	0.2	0.01	M	16.1	4.3	14	3.7	12	1.8	6	157	80	100	5	90%	100%	100%	100%	2	6	N	100%	N	1	Y
430	Lower Calapooia	3800	0.2	0.3	0.07	M	104.6	4.3	14	4.6	15	2.4	8	1180	80	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
431	Lower Calapooia	3800	0.3	0.4	0.10	M	160.9	4.3	14	2.4	8	1.8	6	1374	80	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
432	Lower Calapooia	3800	0.4	0.5	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	100	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
433	Lower Calapooia	3800	0.5	0.6	0.10	M	160.9	4.3	14	3.0	10	2.4	8	1570	80	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
434	Lower Calapooia	3800	0.6	0.6	0.08	M	120.7	4.3	14	3.0	10	1.8	6	1104	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
435	Lower Calapooia	3800	0.6	0.7	0.08	M	120.7	4.3	14	1.8	6	1.2	4	883	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
436	Lower Calapooia	3800	0.7	0.9	0.15	M	241.4	4.3	14	3.7	12	1.8	6	2355	20	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
437	Lower Calapooia	3800	0.9	0.9	0.05	S	80.5	4.3	14	3.7	12	1.8	6	785	30	100	5	90%	75%	100%	50%	2	6	N	100%	N	1	Y
438	Lower Calapooia	3800	0.9	1.0	0.10	S	160.9	3.7	12	4.6	15	2.4	8	1717	30	100	5	90%	75%	100%	50%	2	6	N	100%	N	1	Y
439	Lower Calapooia	3800	1.0	1.2	0.15	M	241.4	3.7	12	2.4	8	1.8	6	1913	70	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from FillslopeDeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
390	Lower Calapooia	102-B-1	4.33	2.47	1.85	0.87	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
391	Lower Calapooia	102-B-1	1.08	0.46	0.46	0.22	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
392	Lower Calapooia	102-B-1	2.16	0.93	0.62	0.43	0.17	0.11	0.22	0.17	0.00	0.02	0.02	0.19	0.19	0.32	2.34	0.21	4.15		
393	Lower Calapooia	102-B-1	5.41	2.32	2.32	1.08	0.42	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
394	Lower Calapooia	102-B-1	5.41	3.09	2.32	1.08	0.56	0.42	0.54	0.56	0.00	0.05	0.05	0.61	0.61	0.36	3.03	0.67	5.37		
395	Lower Calapooia	102-B-1a	2.78	1.39	0.93	0.56	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
396	Lower Calapooia	102	1.08	0.62	0.46	0.22	0.11	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
397	Lower Calapooia	102	6.49	3.71	2.78	1.30	0.67	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
398	Lower Calapooia	102	5.41	3.09	2.32	1.08	0.56	0.42	0.92	0.56	0.25	0.37	4.60	1.17	5.40	0.68	5.84	1.29	10.33		
399	Lower Calapooia	102	11.90	6.80	5.10	2.38	1.22	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
400	Lower Calapooia	102	16.22	9.27	4.64	3.24	1.67	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
401	Lower Calapooia	102	5.41	4.64	3.09	1.08	0.83	0.56	0.54	0.83	0.00	0.22	2.70	1.05	3.54	0.50	5.22	1.16	9.25		
402	Lower Calapooia	102	1.08	0.93	0.46	0.22	0.17	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
403	Lower Calapooia	102	2.16	1.24	0.62	0.43	0.22	0.11	0.32	0.22	0.06	0.13	1.62	0.41	1.90	0.64	5.07	0.45	8.97		
404	Lower Calapooia	102	5.41	3.86	1.55	1.08	0.70	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
405	Lower Calapooia	102	2.16	1.85	0.93	0.43	0.33	0.17	0.11	0.17	0.00	0.04	0.54	0.21	0.71	0.27	2.61	0.23	4.62		
406	Lower Calapooia	102	1.08	0.93	0.77	0.22	0.17	0.14	0.11	0.17	0.00	0.04	0.54	0.21	0.71	0.48	5.22	0.23	9.25		
407	Lower Calapooia	102	3.87	3.23	2.58	0.77	0.58	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
408	Lower Calapooia	102	1.94	1.61	1.29	0.39	0.29	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
409	Lower Calapooia	102	0.48	0.40	0.16	0.10	0.07	0.03	0.05	0.07	0.01	0.02	0.24	0.11	0.33	0.33	2.65	0.12	4.69		
410	Lower Calapooia	102	1.45	0.97	0.73	0.29	0.17	0.13	0.29	0.17	0.13	0.12	1.45	0.42	1.76	0.44	3.49	0.46	6.18		
411	Lower Calapooia	102	0.97	0.65	0.48	0.19	0.12	0.09	0.05	0.06	0.00	0.02	0.24	0.08	0.30	0.12	0.96	0.09	1.70		
412	Lower Calapooia	102	1.45	0.97	0.73	0.29	0.17	0.13	0.15	0.17	0.07	0.06	0.73	0.30	0.97	0.31	2.47	0.33	4.37		
413	Lower Calapooia	102-F	1.94	1.94	1.29	0.39	0.35	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
414	Lower Calapooia	102-D	1.85	1.24	0.93	0.37	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
415	Lower Calapooia	102-D	0.93	0.46	0.46	0.19	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
416	Lower Calapooia	102-D	0.93	0.46	0.31	0.19	0.08	0.06	0.19	0.08	0.06	0.02	0.02	0.16	0.16	0.58	3.92	0.17	6.93		
417	Lower Calapooia	102-C	3.71	1.24	1.24	0.74	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
418	Lower Calapooia	102-A	1.85	0.93	0.62	0.37	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
419	Lower Calapooia	102-A	5.56	2.78	2.78	1.11	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
420	Lower Calapooia	102-A	3.71	1.85	1.24	0.74	0.33	0.22	0.19	0.17	0.00	0.02	0.02	0.19	0.19	0.17	1.15	0.20	2.04		
421	Lower Calapooia	102-A	3.71	1.85	1.24	0.74	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
422	Lower Calapooia	101	6.18	3.71	2.47	1.24	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
423	Lower Calapooia	100 SPUR	9.27	7.42	4.64	9.27	1.34	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
424	Lower Calapooia	100 SPUR-	1.55	0.93	0.62	1.16	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
425	Lower Calapooia	3800	1.08	0.62	0.31	0.22	0.11	0.06	0.16	0.11	0.03	0.06	0.81	0.20	0.95	0.64	5.07	0.22	8.97		
426	Lower Calapooia	3800	1.08	0.77	0.46	0.22	0.14	0.08	0.05	0.07	0.00	0.02	0.27	0.09	0.34	0.25	2.27	0.10	4.01		
427	Lower Calapooia	3800	2.16	2.32	1.24	0.43	0.42	0.22	0.22	0.42	0.00	0.09	1.08	0.50	1.50	0.56	6.26	0.55	11.08		
428	Lower Calapooia	3800	3.24	2.78	1.85	0.65	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
429	Lower Calapooia	3800	0.43	0.37	0.19	0.09	0.07	0.03	0.09	0.07	0.03	0.03	0.43	0.13	0.53	0.86	8.37	0.15	14.82		
430	Lower Calapooia	3800	2.81	3.01	1.61	0.56	0.54	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
431	Lower Calapooia	3800	4.33	2.47	1.85	0.87	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
432	Lower Calapooia	3800	4.33	4.64	2.47	0.87	0.83	0.45	0.43	0.83	0.00	0.17	2.16	1.01	3.00	0.56	6.26	1.11	11.08		
433	Lower Calapooia	3800	4.33	3.09	2.47	0.87	0.56	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
434	Lower Calapooia	3800	3.24	2.32	1.39	0.65	0.42	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
435	Lower Calapooia	3800	3.24	1.39	0.93	0.65	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
436	Lower Calapooia	3800	6.49	5.56	2.78	1.30	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
437	Lower Calapooia	3800	2.16	1.85	0.93	0.43	0.33	0.17	0.32	0.33	0.08	0.13	1.62	0.55	2.04	0.70	6.80	0.60	12.03		
438	Lower Calapooia	3800	3.71	4.64	2.47	0.74	0.83	0.45	0.56	0.83	0.22	0.22	2.78	1.28	3.84	0.75	7.95	1.41	14.07		
439	Lower Calapooia	3800	5.56	3.71	2.78	1.11	0.67	0.50	0.56	0.67	0.00	0.22	2.78	0.89	3.45	0.47	3.69	0.98	6.53		

Attac 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
440	Lower Calapooia	3800	1.2	1.4	0.20	M	321.9	4.3	14	2.4	8	1.2	4	2551	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
441	Lower Calapooia	3800	1.4	1.5	0.10	M	160.9	4.3	14	3.0	10	1.8	6	1472	50	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
442	Lower Calapooia	3800	1.5	1.6	0.10	M	160.9	4.3	14	1.8	6	1.8	6	1275	80	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
443	Lower Calapooia	3800	1.6	1.6	0.08	M	120.7	4.3	14	2.4	8	1.8	6	1030	80	100	5	90%	25%	50%	0%	2	6	N	100%	N	2	Y
444	Lower Calapooia	3800	1.6	1.7	0.08	M	120.7	4.3	14	1.8	6	1.2	4	683	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
445	Lower Calapooia	3800	1.7	1.8	0.10	M	160.9	4.3	14	3.7	12	1.8	6	1570	80	100	5	47%	50%	100%	0%	2	6	N	100%	N	1	Y
446	Lower Calapooia	3800	1.8	1.9	0.05	M	80.5	4.3	14	5.5	18	2.4	8	981	20	100	5	47%	0%	0%	0%	2	6	N	0%	Y	1	N
447	Lower Calapooia	3800	1.9	2.0	0.15	M	241.4	4.3	14	3.7	12	2.4	8	2502	20	100	5	47%	0%	0%	0%	2	6	N	0%	Y	1	N
448	Lower Calapooia	3800	2.0	2.1	0.10	S	160.9	4.3	14	4.6	15	1.8	6	1717	100	100	5	47%	75%	100%	50%	2	6	N	100%	N	1	Y
449	Lower Calapooia	3800	2.1	2.2	0.10	M	160.9	4.3	14	3.7	12	1.8	6	1570	50	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
450	Lower Calapooia	3800	2.2	2.5	0.25	M	402.3	4.3	14	1.8	6	1.2	4	2943	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
451	Lower Calapooia	3800	2.5	2.6	0.13	M	201.2	4.3	14	1.8	6	1.2	4	1472	90	100	5	90%	50%	100%	0%	2	6	N	100%	Y	1	Y
452	Lower Calapooia	3800	2.6	2.8	0.02	M	40.2	4.3	14	1.8	6	1.2	4	294	100	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
453	Lower Calapooia	3800	2.6	2.7	0.05	M	80.5	4.3	14	1.8	6	1.8	6	638	90	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
454	Lower Calapooia	3800	2.7	2.7	0.05	M	80.5	4.3	14	2.4	8	1.2	4	638	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
455	Lower Calapooia	3800	2.7	2.8	0.13	M	201.2	4.3	14	3.0	10	1.8	6	1840	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
456	Lower Calapooia	3800	2.8	3.0	0.15	M	241.4	4.3	14	3.0	10	1.8	6	2207	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
457	Lower Calapooia	3800	3.0	3.1	0.07	M	120.7	4.3	14	3.0	10	1.8	6	1104	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
458	Lower Calapooia	3800	3.1	3.2	0.13	M	201.2	4.3	14	5.5	18	3.0	10	2575	20	100	5	90%	50%	50%	50%	2	6	N	100%	N	2	Y
459	Lower Calapooia	3800	3.2	3.4	0.20	M	321.9	4.3	14	2.4	8	1.2	4	2551	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
460	Lower Calapooia	3800	3.4	3.5	0.08	M	120.7	4.3	14	4.6	15	1.8	6	1288	60	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
461	Lower Calapooia	3800	3.5	3.5	0.02	S	40.2	4.3	14	1.2	4	1.8	6	294	100	100	5	90%	100%	100%	100%	2	6	N	100%	N	1	Y
462	Lower Calapooia	3800	3.5	3.5	0.02	M	40.2	4.3	14	4.6	15	3.0	10	478	80	80	5	90%	100%	100%	100%	2	6	N	100%	N	1	Y
463	Lower Calapooia	3800	3.5	3.9	0.35	M	563.3	4.3	14	2.4	8	1.2	4	4464	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
464	Lower Calapooia	3800	3.9	4.0	0.10	M	160.9	4.3	14	3.7	12	1.8	6	1570	80	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
465	Lower Calapooia	3800	4.0	4.0	0.08	M	120.7	4.3	14	3.0	10	1.8	6	1104	100	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
466	Lower Calapooia	3800	4.0	4.1	0.05	S	80.5	4.3	14	2.4	8	1.2	4	638	100	100	5	90%	75%	100%	50%	2	6	N	100%	Y	1	N
467	Lower Calapooia	3800	4.1	4.1	0.05	S	80.5	3.7	12	3.7	12	1.8	6	736	80	100	5	90%	50%	50%	50%	2	6	N	50%	Y	1	N
468	Lower Calapooia	3800	4.1	4.3	0.18	M	281.6	4.3	14	3.7	12	2.4	8	2919	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
469	Lower Calapooia	3800	4.3	4.4	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	100	100	4	90%	25%	50%	0%	4	6	N	100%	Y	2	Y
470	Lower Calapooia	3800	4.4	4.6	0.18	M	281.8	4.3	14	3.7	12	2.4	8	2919	100	100	4	90%	25%	50%	0%	4	6	N	100%	Y	2	Y
471	Lower Calapooia	3800	4.6	4.6	0.05	M	80.5	4.3	14	4.6	15	1.8	6	858	100	100	4	90%	25%	25%	0%	4	6	N	100%	Y	2	Y
472	Lower Calapooia	3800	4.6	4.7	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	100	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
473	Lower Calapooia	3800	4.7	5.0	0.25	M	402.3	3.7	12	3.7	12	2.4	8	3924	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
474	Lower Calapooia	3800	5.0	5.1	0.10	S	160.9	3.7	12	3.0	10	1.8	6	1374	100	100	4	90%	50%	50%	25%	4	6	N	50%	N	1	N
475	Lower Calapooia	3820	0.0	0.2	0.20	M	321.9	4.3	14	3.7	12	1.8	6	3139	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	2	N
476	Lower Calapooia	3820	0.2	0.6	0.38	M	603.5	4.3	14	2.4	8	1.8	6	5151	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
477	Lower Calapooia	3820	0.6	0.8	0.18	M	281.6	4.3	14	3.7	12	1.8	6	2747	90	100	4	90%	0%	0%	0%	2	6	N	0%	Y	2	N
478	Lower Calapooia	3820	0.8	0.9	0.15	M	241.4	3.7	12	3.7	12	1.2	4	2060	100	100	1	90%	0%	0%	0%	4	6	N	0%	N	1	N
479	Lower Calapooia	3820	0.9	1.0	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	1	90%	50%	100%	0%	4	6	N	100%	N	1	Y
480	Lower Calapooia	3820	1.0	1.2	0.20	M	321.9	3.7	12	3.7	12	1.8	6	2943	100	100	1	90%	0%	0%	0%	4	6	N	0%	N	1	N
481	Lower Calapooia	3820	1.2	1.2	0.03	S	40.2	3.7	12	4.6	15	2.4	8	429	100	100	1	90%	75%	100%	50%	4	6	N	100%	N	1	Y
482	Lower Calapooia	3820	1.2	1.3	0.05	S	80.5	3.7	12	3.0	10	2.4	8	736	100	100	1	90%	75%	100%	50%	4	6	N	100%	Y	1	N
483	Lower Calapooia	3830	0.0	0.2	0.20	R	321.9	3.7	12	1.8	6	1.2	4	2158	100	100	4	90%	50%	100%	0%	4	6	N	50%	N	5	N
484	Lower Calapooia	3830	0.2	0.5	0.28	S	442.6	3.7	12	1.8	6	1.2	4	2968	100	100	4	90%	75%	100%	50%	4	6	N	50%	Y	5	N
485	Lower Calapooia	3830	0.5	0.5	0.03	R	40.2	3.7	12	1.8	6	1.8	6	294	100	100	4	90%	50%	100%	0%	4	6	N	100%	Y	1	N
486	Lower Calapooia	3830	0.5	0.6	0.10	R	160.9	3.7	12	1.8	6	1.8	6	1177	100	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
487	Lower Calapooia	3830	0.6	0.9	0.25	M	402.3	3.7	12	2.4	8	1.2	4	2943	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
488	Lower Calapooia	3830	0.9	1.1	0.25	S	402.3	3.7	12	1.8	6	1.8	6	2943	100	100	4	90%	75%	100%	50%	4	6	N	100%	Y	1	N
489	Lower Calapooia	3830	1.1	1.1	0.02	S	40.2	3.7	12	1.8	6	1.8	6	294	80	80	4	90%	100%	100%	100%	4	6	N	100%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
440	Lower Calapooia	3800	8.65	4.94	2.47	1.73	0.89	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
441	Lower Calapooia	3800	4.33	3.09	1.85	0.87	0.56	0.33	0.43	0.56	0.00	0.17	2.16	0.73	2.72	0.50	4.53	0.80	8.02		
442	Lower Calapooia	3800	4.33	1.85	1.85	0.87	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
443	Lower Calapooia	3800	3.24	1.85	1.39	0.65	0.33	0.25	0.18	0.17	0.00	0.06	0.81	0.23	0.98	0.23	1.92	0.25	3.40		
444	Lower Calapooia	3800	3.24	1.39	0.93	0.65	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
445	Lower Calapooia	3800	2.26	1.94	0.97	0.45	0.35	0.17	0.23	0.35	0.00	0.09	1.13	0.44	1.48	0.28	2.73	0.48	4.83		
446	Lower Calapooia	3800	1.13	1.45	0.65	0.23	0.26	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
447	Lower Calapooia	3800	3.39	2.90	1.94	0.68	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
448	Lower Calapooia	3800	2.26	2.42	0.97	0.45	0.44	0.17	0.34	0.44	0.09	0.14	1.69	0.66	2.22	0.38	4.09	0.72	7.24		
449	Lower Calapooia	3800	4.33	3.71	1.85	0.87	0.67	0.33	0.43	0.67	0.00	0.17	2.16	0.84	2.83	0.54	5.22	0.92	9.25		
450	Lower Calapooia	3800	10.82	4.64	3.09	2.16	0.83	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
451	Lower Calapooia	3800	5.41	2.32	1.55	1.08	0.42	0.28	0.54	0.42	0.00	0.22	2.70	0.63	3.12	0.43	3.15	0.70	5.57		
452	Lower Calapooia	3800	1.08	0.46	0.31	0.22	0.08	0.06	0.11	0.08	0.00	0.04	0.54	0.13	0.62	0.43	3.15	0.14	5.57		
453	Lower Calapooia	3800	2.16	0.93	0.93	0.43	0.17	0.17	0.22	0.17	0.00	0.09	1.08	0.25	1.25	0.40	3.15	0.28	5.57		
454	Lower Calapooia	3800	2.16	1.24	0.62	0.43	0.22	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
455	Lower Calapooia	3800	5.41	3.86	2.32	1.08	0.70	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
456	Lower Calapooia	3800	6.49	4.64	2.78	1.30	0.83	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
457	Lower Calapooia	3800	3.24	2.32	1.39	0.65	0.42	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
458	Lower Calapooia	3800	5.41	6.95	3.86	1.08	1.25	0.70	0.54	0.63	0.35	0.22	2.70	1.19	3.68	0.46	5.91	1.31	10.47		
459	Lower Calapooia	3800	8.65	4.94	2.47	1.73	0.89	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
460	Lower Calapooia	3800	3.24	3.48	1.39	0.65	0.63	0.25	0.32	0.63	0.00	0.13	1.62	0.76	2.25	0.59	6.26	0.83	11.08		
461	Lower Calapooia	3800	1.08	0.31	0.46	0.22	0.06	0.08	0.22	0.06	0.08	0.09	1.08	0.23	1.22	0.77	5.61	0.25	9.93		
462	Lower Calapooia	3800	1.08	1.16	0.77	0.22	0.21	0.14	0.22	0.21	0.14	0.09	1.08	0.43	1.43	0.91	10.79	0.48	19.10		
463	Lower Calapooia	3800	15.14	6.65	4.33	3.03	1.56	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
464	Lower Calapooia	3800	4.33	3.71	1.85	0.87	0.67	0.33	0.43	0.67	0.00	0.17	2.16	0.84	2.83	0.54	5.22	0.92	9.25		
465	Lower Calapooia	3800	3.24	2.32	1.39	0.65	0.42	0.25	0.32	0.42	0.00	0.13	1.62	0.55	2.04	0.50	4.53	0.60	8.02		
466	Lower Calapooia	3800	2.16	1.24	0.62	0.43	0.22	0.11	0.32	0.22	0.06	0.13	1.62	0.41	1.90	0.64	5.07	0.45	8.97		
467	Lower Calapooia	3800	1.85	1.85	0.93	0.37	0.33	0.17	0.19	0.17	0.08	0.07	0.93	0.32	1.18	0.44	4.03	0.36	7.14		
468	Lower Calapooia	3800	7.57	6.49	4.33	7.57	1.17	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
469	Lower Calapooia	3800	4.33	4.64	2.47	4.33	0.83	0.45	1.08	0.42	0.00	0.11	0.11	0.53	0.53	0.29	3.26	0.58	5.78		
470	Lower Calapooia	3800	7.57	6.49	4.33	7.57	1.17	0.78	1.89	0.58	0.00	0.19	0.19	0.77	0.77	0.26	2.75	0.85	4.86		
471	Lower Calapooia	3800	2.16	2.32	0.93	2.16	0.42	0.17	0.54	0.10	0.00	0.05	0.05	0.18	0.16	0.18	1.97	0.17	3.48		
472	Lower Calapooia	3800	3.24	2.78	1.39	3.24	0.50	0.25	1.82	0.50	0.00	0.16	0.16	0.66	0.66	0.56	5.49	0.73	9.72		
473	Lower Calapooia	3800	9.27	9.27	6.18	9.27	1.67	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
474	Lower Calapooia	3800	3.71	3.09	1.85	3.71	0.56	0.33	1.85	0.28	0.08	0.19	0.19	0.55	0.55	0.40	3.40	0.60	8.02		
475	Lower Calapooia	3820	8.65	7.42	3.71	8.65	1.34	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
476	Lower Calapooia	3620	16.22	9.27	6.95	16.22	1.67	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
477	Lower Calapooia	3820	7.57	6.49	3.24	7.57	1.17	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
478	Lower Calapooia	3820	5.56	5.56	1.85	5.56	1.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
479	Lower Calapooia	3820	3.71	3.71	1.85	3.71	0.67	0.33	1.85	0.67	0.00	0.19	0.19	0.85	0.85	0.58	5.30	0.94	9.38		
480	Lower Calapooia	3820	7.42	7.42	3.71	7.42	1.34	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
481	Lower Calapooia	3820	0.93	1.16	0.62	0.93	0.21	0.11	0.70	0.21	0.06	0.07	0.07	0.33	0.33	0.78	8.30	0.37	14.68		
482	Lower Calapooia	3820	1.85	1.55	1.24	1.85	0.28	0.22	1.39	0.28	0.11	0.14	0.14	0.53	0.53	0.72	6.57	0.58	11.63		
483	Lower Calapooia	3830	7.42	3.71	2.47	7.42	0.67	0.45	3.71	0.67	0.00	0.37	0.37	1.04	1.04	0.48	3.23	1.14	5.71		
484	Lower Calapooia	3830	10.20	5.10	3.40	10.20	0.92	0.61	7.65	0.92	0.31	0.76	0.76	1.99	1.99	0.67	4.49	2.19	7.95		
485	Lower Calapooia	3830	0.93	0.46	0.46	0.93	0.08	0.08	0.46	0.08	0.00	0.05	0.05	0.13	0.13	0.44	3.23	0.14	5.71		
486	Lower Calapooia	3830	3.71	1.85	1.85	3.71	0.33	0.33	1.85	0.33	0.00	0.19	0.19	0.52	0.52	0.44	3.23	0.57	5.71		
487	Lower Calapooia	3830	9.27	6.18	3.09	9.27	1.11	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
488	Lower Calapooia	3830	9.27	4.64	4.64	9.27	0.83	0.83	6.95	0.63	0.42	0.70	0.70	1.95	1.95	0.66	4.84	2.14	8.57		
489	Lower Calapooia	3830	0.93	0.46	0.46	0.93	0.08	0.08	0.93	0.08	0.08	0.09	0.09	0.26	0.26	0.88	6.45	0.29	11.42		

Attac[illegible]35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
490	Lower Calapooia	3833	0.0	0.1	0.08	M	120.7	3.7	12	1.8	6	1.2	4	809	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
491	Lower Calapooia	3833	0.1	0.1	0.03	S	40.2	3.7	12	1.8	6	1.8	6	294	60	60	4	90%	100%	100%	100%	4	6	N	100%	Y	1	N
492	Lower Calapooia	3833	0.1	0.2	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	100	100	4	90%	100%	100%	0%	4	6	N	100%	N	5	Y
493	Lower Calapooia	3833	0.2	0.4	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	90	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
494	Lower Calapooia	3833	0.4	0.4	0.05	M	80.5	3.7	12	3.7	12	1.8	6	736	60	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
495	Lower Calapooia	3833	0.4	0.5	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	60	80	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
496	Lower Calapooia	3833	0.5	0.6	0.10	M	160.9	3.7	12	7.6	25	3.7	12	2404	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
497	Lower Calapooia	3833	0.6	0.7	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	90	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
498	Lower Calapooia	3833	0.7	0.7	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	70	80	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
499	Lower Calapooia	3833	0.7	0.8	0.05	M	80.5	3.7	12	3.7	12	1.8	6	736	90	100	5	90%	50%	100%	0%	4	6	N	100%	Y	1	Y
500	Lower Calapooia	3833	0.8	0.8	0.05	M	80.5	2.7	9	3.0	10	1.2	4	564	100	100	1	90%	100%	100%	0%	8	6	N	100%	N	5	Y
501	Lower Calapooia	3833	0.8	0.9	0.08	M	120.7	2.7	9	3.7	12	1.8	6	993	100	100	1	90%	0%	0%	0%	8	6	N	0%	N	2	N
502	Lower Calapooia	3833-C	0.0	0.1	0.10	R	160.9	3.7	12	1.2	4	1.2	4	981	40	40	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
503	Lower Calapooia	3833-B	0.0	0.4	0.43	R	684.0	3.7	12	1.8	6	1.8	6	5004	50	50	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
504	Lower Calapooia	3833-B	0.4	0.5	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	100	100	5	47%	0%	0%	0%	4	6	N	0%	Y	1	N
505	Lower Calapooia	3833-B	0.5	0.6	0.05	M	80.5	3.7	12	4.6	15	1.8	6	809	20	90	5	47%	50%	100%	0%	4	6	N	100%	N	1	Y
506	Lower Calapooia	3833-B	0.6	0.6	0.03	S	40.2	3.7	12	6.1	20	2.4	8	491	10	80	5	47%	100%	100%	100%	4	6	N	100%	Y	1	N
507	Lower Calapooia	3833-B	0.6	0.7	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	10	90	5	47%	50%	100%	0%	4	6	N	100%	N	1	Y
508	Lower Calapooia	3833-B	0.7	1.0	0.30	M	482.8	3.7	12	4.6	15	2.4	8	5151	10	90	5	47%	0%	0%	0%	4	6	N	0%	Y	1	N
509	Lower Calapooia	3832	0.0	0.0	0.03	M	40.2	3.0	10	1.8	6	1.8	6	270	100	100	6	90%	100%	100%	100%	4	6	N	100%	N	1	Y
510	Lower Calapooia	3832	0.0	0.1	0.05	M	80.5	3.0	10	1.8	6	1.2	4	491	100	100	6	90%	25%	0%	0%	4	6	N	50%	Y	1	N
511	Lower Calapooia	3830-A	0.0	0.1	0.05	M	80.5	3.7	12	1.8	6	1.2	4	540	100	100	1	90%	0%	0%	0%	4	6	N	0%	Y	1	N
512	Lower Calapooia	3830-A	0.1	0.1	0.05	M	80.5	3.7	12	1.8	6	1.2	4	540	100	100	1	90%	0%	0%	0%	4	6	N	0%	Y	1	N
513	Lower Calapooia	3831-A	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	50	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
514	Lower Calapooia	3831-A	0.1	0.2	0.10	R	160.9	3.7	12	1.8	6	1.8	6	1177	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
515	Lower Calapooia	3831-B	0.0	0.1	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	80	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
516	Lower Calapooia	3831-C	0.0	0.1	0.05	M	80.5	3.7	12	1.8	6	1.2	4	540	100	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
517	Lower Calapooia	3831-C	0.1	0.3	0.25	M	402.3	2.7	9	1.8	6	1.8	6	2575	100	100	1	90%	0%	0%	0%	8	6	N	0%	Y	5	N
518	Lower Calapooia	3831-D	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
519	Lower Calapooia	3831-E	0.0	0.1	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	80	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
520	Lower Calapooia	3831-E	0.1	0.2	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
521	Lower Calapooia	3831-F	0.0	0.1	0.05	M	80.5	3.0	10	2.4	8	1.2	4	540	60	100	1	90%	0%	0%	0%	4	6	N	0%	Y	1	N
522	Lower Calapooia	3831-F	0.1	0.1	0.05	M	80.5	3.0	10	1.8	6	1.8	6	540	80	100	1	90%	0%	0%	0%	4	6	N	0%	Y	1	N
523	Lower Calapooia	3831-G	0.0	0.1	0.08	M	120.7	4.3	14	1.2	4	1.2	4	809	60	60	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
524	Lower Calapooia	3831-G	0.1	0.7	0.60	M	965.6	4.3	14	3.0	10	1.8	6	8830	20	70	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
525	Lower Calapooia	3831-G	0.7	0.9	0.23	M	362.1	4.3	14	2.4	8	1.8	6	3090	20	80	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
526	Lower Calapooia	3831-G	0.9	1.0	0.10	M	160.9	4.3	14	2.4	8	1.8	6	1374	50	80	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
527	Lower Calapooia	3831-G	1.0	1.1	0.05	M	80.5	4.3	14	1.8	6	1.2	4	589	50	80	5	90%	25%	50%	0%	4	6	N	50%	Y	1	N
528	Lower Calapooia	3831-G-2	0.0	0.2	0.15	M	241.4	3.7	12	2.4	8	1.8	6	1913	50	80	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
529	Lower Calapooia	3831-G-1	0.0	0.1	0.13	M	201.2	3.7	12	1.8	6	1.2	4	1349	50	90	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
530	Lower Calapooia	3831-H	0.0	0.3	0.25	M	402.3	4.3	14	2.4	8	1.8	6	3434	50	80	5	47%	0%	0%	0%	4	6	N	0%	Y	1	N
531	Lower Calapooia	3831-H	0.3	0.3	0.03	M	40.2	3.7	12	1.8	6	1.2	4	270	100	100	5	47%	50%	100%	0%	4	6	N	100%	Y	1	N
532	Lower Calapooia	3831-H	0.3	0.4	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	80	100	5	47%	0%	0%	0%	4	6	N	0%	Y	1	N
533	Lower Calapooia	3831-H	0.4	0.6	0.15	M	241.4	3.7	12	2.4	8	1.8	6	1913	80	100	5	47%	50%	100%	0%	4	6	N	100%	Y	1	Y
534	Lower Calapooia	3831-H	0.6	0.6	0.08	M	120.7	3.7	12	1.8	6	1.2	4	809	80	100	5	47%	25%	50%	0%	4	6	N	50%	Y	1	N
535	Lower Calapooia	3831-H-2	0.0	0.0	0.03	M	40.2	3.7	12	3.7	12	1.8	6	368	40	80	5	47%	0%	0%	0%	4	6	N	0%	Y	1	N
536	Lower Calapooia	3831-H-2	0.0	0.1	0.08	M	120.7	3.7	12	1.8	6	1.8	6	883	80	100	5	47%	0%	0%	0%	4	6	N	0%	Y	1	N
537	Lower Calapooia	3831-H-2	0.1	0.2	0.08	M	120.7	3.7	12	1.8	6	1.8	6	883	80	80	5	47%	0%	0%	0%	4	6	N	0%	Y	1	N
538	Lower Calapooia	3831-H-1	0.0	0.1	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	50	100	5	47%	50%	100%	0%	4	6	N	100%	N	1	Y
539	Lower Calapooia	3831-H-1	0.1	0.2	0.05	M	80.5	3.7	12	1.8	6	1.2	4	540	80	100	5	47%	0%	0%	0%	4	6	N	0%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
490	Lower Calapooia	3833	2.78	1.39	0.93	2.78	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
491	Lower Calapooia	3833	0.93	0.46	0.46	0.93	0.08	0.08	0.93	0.08	0.08	0.09	0.09	0.26	0.26	0.88	6.45	0.29	11.42		
492	Lower Calapooia	3833	4.64	3.09	2.32	4.64	0.56	0.42	4.64	0.56	0.00	0.46	0.46	1.02	1.02	0.64	5.07	1.12	8.97		
493	Lower Calapooia	3833	4.64	5.79	3.09	4.64	1.04	0.56	2.32	1.04	0.00	0.23	0.23	1.27	1.27	0.59	6.34	1.40	11.22		
494	Lower Calapooia	3833	1.85	1.85	0.93	0.37	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
495	Lower Calapooia	3833	3.71	4.64	2.47	0.74	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
496	Lower Calapooia	3833	3.71	7.73	3.71	0.74	1.39	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
497	Lower Calapooia	3833	1.85	2.32	1.24	0.37	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
498	Lower Calapooia	3833	2.78	2.76	1.85	0.56	0.50	0.33	0.28	0.50	0.00	0.03	0.03	0.53	0.53	0.45	4.38	0.58	7.75		
499	Lower Calapooia	3833	1.85	1.85	0.93	0.37	0.33	0.17	0.19	0.33	0.00	0.02	0.02	0.35	0.35	0.46	4.38	0.39	7.75		
500	Lower Calapooia	3833	1.39	1.55	0.62	1.39	0.28	0.11	1.39	0.28	0.00	0.14	0.14	0.42	0.42	0.74	5.18	0.46	9.18		
501	Lower Calapooia	3833	2.09	2.78	1.39	2.09	0.50	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
502	Lower Calapooia	3833-C	3.71	1.24	1.24	3.71	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
503	Lower Calapooia	3833-B	15.76	7.88	7.88	3.15	1.42	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
504	Lower Calapooia	3833-B	1.94	1.29	0.97	0.39	0.23	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
505	Lower Calapooia	3833-B	0.97	1.21	0.48	0.19	0.22	0.09	0.10	0.22	0.00	0.01	0.01	0.23	0.23	0.28	2.83	0.25	5.01		
506	Lower Calapooia	3833-B	0.48	0.81	0.32	0.10	0.15	0.06	0.10	0.15	0.06	0.01	0.01	0.21	0.21	0.43	5.29	0.23	9.37		
507	Lower Calapooia	3833-B	1.94	2.42	1.29	0.39	0.44	0.23	0.19	0.44	0.00	0.02	0.02	0.46	0.46	0.27	2.83	0.50	5.01		
508	Lower Calapooia	3833-B	5.81	7.26	3.87	1.16	1.31	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
509	Lower Calapooia	3832	0.77	0.46	0.46	0.58	0.08	0.08	0.58	0.08	0.08	0.06	0.06	0.22	0.22	0.83	5.59	0.25	9.89		
510	Lower Calapooia	3832	1.55	0.93	0.62	1.16	0.17	0.11	0.29	0.00	0.00	0.03	0.03	0.03	0.03	0.06	0.36	0.03	0.64		
511	Lower Calapooia	3830-A	1.85	0.93	0.62	1.85	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
512	Lower Calapooia	3830-A	1.85	0.93	0.62	1.85	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
513	Lower Calapooia	3831-A	3.71	3.71	1.85	3.71	0.67	0.33	1.85	0.67	0.00	0.19	0.19	0.85	0.85	0.58	5.30	0.94	9.38		
514	Lower Calapooia	3831-A	3.71	1.85	1.85	3.71	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
515	Lower Calapooia	3831-B	3.71	2.47	1.85	3.71	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
516	Lower Calapooia	3831-C	1.85	0.93	0.62	1.85	0.17	0.11	0.93	0.17	0.00	0.09	0.09	0.26	0.26	0.48	3.23	0.29	5.71		
517	Lower Calapooia	3831-C	6.95	4.64	4.64	6.95	0.83	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
518	Lower Calapooia	3831-D	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
519	Lower Calapooia	3831-E	3.09	3.09	1.85	3.09	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
520	Lower Calapooia	3831-E	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
521	Lower Calapooia	3831-F	1.55	1.24	0.62	1.55	0.22	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
522	Lower Calapooia	3831-F	1.55	0.93	0.93	1.55	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
523	Lower Calapooia	3831-G	3.24	0.93	0.93	0.65	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
524	Lower Calapooia	3831-G	25.96	18.54	11.13	5.19	3.34	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
525	Lower Calapooia	3831-G	9.73	5.56	4.17	1.95	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
526	Lower Calapooia	3831-G	4.33	2.47	1.85	0.87	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
527	Lower Calapooia	3831-G	2.16	0.93	0.62	0.43	0.17	0.11	0.11	0.08	0.00	0.01	0.01	0.09	0.09	0.16	1.17	0.10	2.07		
528	Lower Calapooia	3831-G-2	5.56	3.71	2.78	1.11	0.67	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
529	Lower Calapooia	3831-G-1	4.64	2.32	1.55	0.93	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
530	Lower Calapooia	3831-H	5.65	3.23	2.42	1.13	0.58	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
531	Lower Calapooia	3831-H	0.48	0.24	0.16	0.10	0.04	0.03	0.05	0.04	0.00	0.00	0.00	0.05	0.05	0.18	1.20	0.05	2.13		
532	Lower Calapooia	3831-H	2.42	1.61	1.21	0.48	0.29	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
533	Lower Calapooia	3831-H	2.90	1.94	1.45	0.58	0.35	0.26	0.29	0.35	0.00	0.03	0.03	0.38	0.38	0.20	1.56	0.42	2.77		
534	Lower Calapooia	3831-H	1.45	0.73	0.48	0.29	0.13	0.09	0.07	0.07	0.00	0.01	0.01	0.07	0.07	0.09	0.60	0.08	1.07		
535	Lower Calapooia	3831-H-2	0.48	0.48	0.24	0.10	0.09	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
536	Lower Calapooia	3831-H-2	1.45	0.73	0.73	0.29	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
537	Lower Calapooia	3831-H-2	1.45	0.73	0.73	0.29	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
538	Lower Calapooia	3831-H-1	1.94	1.29	0.97	0.39	0.23	0.17	0.19	0.23	0.00	0.02	0.02	0.25	0.25	0.20	1.56	0.28	2.77		
539	Lower Calapooia	3831-H-1	0.97	0.48	0.32	0.19	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length In miles	Road Position	Length In meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
540	Lower Calapooia	3831-I	0.0	0.1	0.10	R	160.9	3.7	12	1.2	4	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
541	Lower Calapooia	3831-I	0.1	0.2	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
542	Lower Calapooia	3831-I	0.2	0.3	0.08	M	120.7	3.7	12	3.7	12	1.2	4	1030	50	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
543	Lower Calapooia	3831-I	0.3	0.5	0.20	M	321.9	3.7	12	1.8	6	1.2	4	2158	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
544	Lower Calapooia	3831-J	0.0	0.1	0.08	M	120.7	4.3	14	1.8	6	1.8	6	957	40	60	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
545	Lower Calapooia	3831-J	0.1	0.3	0.25	M	402.3	4.3	14	1.8	6	1.2	4	2943	80	90	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
546	Lower Calapooia	3831-J	0.3	0.4	0.06	M	96.6	3.7	12	2.4	8	1.2	4	706	70	90	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
547	Lower Calapooia	3831-J	0.4	0.5	0.07	M	104.6	3.7	12	3.7	12	1.8	6	957	50	80	5	90%	50%	100%	0%	4	6	N	100%	Y	1	Y
548	Lower Calapooia	3831-J	0.5	0.5	0.08	M	120.7	3.7	12	2.4	8	1.8	6	957	60	80	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
549	Lower Calapooia	3831-J	0.5	0.6	0.10	S	160.9	3.7	12	2.4	8	1.8	6	1275	50	80	5	90%	50%	0%	50%	4	6	N	50%	Y	1	N
550	Lower Calapooia	3831-J	0.6	0.7	0.03	S	40.2	3.7	12	2.4	8	1.8	6	319	50	60	5	90%	100%	100%	100%	4	6	N	100%	N	1	Y
551	Lower Calapooia	3831-J	0.7	0.7	0.08	M	120.7	3.7	12	2.4	8	1.2	4	883	50	80	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
552	Lower Calapooia	3831-J-1	0.0	0.0	0.03	M	40.2	3.7	12	1.8	6	1.2	4	270	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
553	Lower Calapooia	3831-J-1	0.0	0.1	0.03	M	40.2	3.7	12	2.4	8	1.8	6	319	40	60	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
554	Lower Calapooia	3831-J-1	0.1	0.1	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	20	80	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
555	Lower Calapooia	3801	0.0	0.1	0.10	M	160.9	4.3	14	1.8	6	1.2	4	1177	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
556	Lower Calapooia	3801	0.1	0.4	0.30	R	482.8	4.9	16	1.2	4	1.2	4	3532	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
557	Lower Calapooia	3801	0.4	0.6	0.20	R	321.9	4.3	14	3.0	10	1.8	6	2943	50	80	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
558	Lower Calapooia	3601	0.6	0.7	0.05	M	80.5	4.3	14	1.8	6	1.2	4	589	80	100	5	90%	50%	100%	0%	4	6	N	100%	Y	1	Y
559	Lower Calapooia	3802	0.0	0.2	0.15	M	241.4	3.7	12	1.8	6	1.2	4	1619	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
601	Lower Calapooia	3000	5.4	5.4	0.08	M	120.7	6.1	20	4.6	15	3.7	12	1729	60	80	5	70%	50%	100%	10%	2	6	N	100%	N	1	Y
602	Lower Calapooia	3000	5.4	5.5	0.05	M	80.5	6.1	20	3.7	12	3.7	12	1079	100	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
603	Lower Calapooia	3000	5.5	5.6	0.10	M	160.9	6.7	22	3.7	12	3.0	10	2158	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
604	Lower Calapooia	3000	5.6	5.7	0.13	M	201.2	6.7	22	9.1	30	4.6	15	4108	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
605	Lower Calapooia	3000	5.7	5.9	0.20	M	321.9	7.3	24	2.4	8	1.8	6	3728	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
606	Lower Calapooia	3000	5.9	6.0	0.13	M	201.2	6.7	22	3.7	12	2.4	8	2575	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
607	Lower Calapooia	3000	6.0	6.1	0.05	S	80.5	6.7	22	3.7	12	2.4	8	1030	100	100	5	70%	60%	100%	10%	2	6	N	100%	Y	1	Y
608	Lower Calapooia	3000	6.1	6.4	0.33	M	523.0	7.3	24	4.6	15	3.0	10	7812	80	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
609	Lower Calapooia	3000	6.4	6.5	0.13	M	201.2	7.3	24	2.4	8	1.8	6	2330	100	100	5	70%	50%	0%	0%	2	6	N	100%	N	1	Y
610	Lower Calapooia	3000	6.5	7.0	0.43	M	684.0	7.3	24	7.6	25	4.6	15	13343	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
611	Lower Calapooia	3000	7.0	7.2	0.25	M	402.3	6.7	22	7.6	25	3.7	12	7235	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
612	Lower Calapooia	3000	7.2	7.3	0.05	S	80.5	6.1	20	12.2	40	3.7	12	1766	90	100	5	70%	60%	100%	10%	2	6	N	100%	N	1	Y
613	Lower Calapooia	3000	7.3	7.5	0.20	M	321.9	6.7	22	6.1	20	3.7	12	5298	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
614	Lower Calapooia	3000	7.5	7.7	0.25	M	402.3	7.3	24	4.6	15	3.7	12	6254	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
615	Lower Calapooia	3000	7.7	8.0	0.30	M	482.8	7.3	24	4.6	15	3.7	12	7505	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
616	Lower Calapooia	3001	0.0	0.1	0.10	R	160.9	3.0	10	1.8	6	1.2	4	981	80	80	1	70%	0%	0%	0%	4	6	N	0%	N	5	N
826	Lower Calapooia	3020	1.6	1.8	0.18	M	281.6	3.7	12	3.7	12	3.0	10	2919	90	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
827	Lower Calapooia	3020	1.8	1.8	0.02	M	40.2	3.7	12	1.8	6	3.0	10	343	100	100	4	90%	100%	100%	100%	2	6	N	100%	N	1	Y
828	Lower Calapooia	3020	1.6	1.9	0.08	M	120.7	3.7	12	2.4	8	1.8	6	957	100	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
829	Lower Calapooia	3020	1.9	2.0	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	100	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
830	Lower Calapooia	3020	2.0	2.1	0.10	M	160.9	4.3	14	3.0	10	1.8	6	1472	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
831	Lower Calapooia	3020	2.1	2.2	0.15	M	241.4	3.7	12	4.6	15	3.0	10	2722	100	100	4	90%	50%	100%	0%	2	6	N	100%	Y	1	Y
832	Lower Calapooia	3020	2.2	2.3	0.07	M	120.7	3.7	12	5.5	18	3.0	10	1472	100	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
833	Lower Calapooia	3020	2.3	2.3	0.03	M	40.2	3.7	12	3.7	12	2.4	8	392	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
834	Lower Calapooia	3020	2.3	2.4	0.07	M	120.7	3.7	12	3.7	12	3.0	10	1251	100	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
835	Lower Calapooia	3020	2.4	2.5	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	100	100	4	90%	50%	100%	0%	2	6	N	100%	Y	1	Y
836	Lower Calapooia	3020	2.5	2.6	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
837	Lower Calapooia	3020	2.6	2.7	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	100	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
838	Lower Calapooia	3020	2.7	2.8	0.13	M	201.2	3.7	12	3.7	12	2.4	8	1962	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
842	Lower Calapooia	3025	0.5	0.6	0.05	M	80.5	3.0	10	2.4	8	1.2	4	540	100	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from FillslopeDeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
540	Lower Calapooia	3831-I	3.71	1.24	1.24	3.71	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
541	Lower Calapooia	3831-I	3.71	3.09	1.85	3.71	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
542	Lower Calapooia	3831-I	2.78	2.78	0.93	2.78	0.50	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
543	Lower Calapooia	3831-I	7.42	3.71	2.47	7.42	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
544	Lower Calapooia	3831-J	3.24	1.39	1.39	0.65	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
545	Lower Calapooia	3831-J	10.82	4.64	3.09	2.16	0.83	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
546	Lower Calapooia	3831-J	2.23	1.48	0.74	0.45	0.27	0.13	0.22	0.27	0.00	0.02	0.02	0.29	0.29	0.41	3.00	0.32	5.30		
547	Lower Calapooia	3831-J	2.41	2.41	1.21	0.48	0.43	0.22	0.24	0.43	0.00	0.02	0.02	0.46	0.46	0.48	4.38	0.50	7.75		
548	Lower Calapooia	3831-J	2.78	1.85	1.39	0.56	0.33	0.25	0.28	0.33	0.00	0.03	0.03	0.36	0.36	0.38	3.00	0.40	5.30		
549	Lower Calapooia	3831-J	3.71	2.47	1.85	0.74	0.45	0.33	0.37	0.00	0.17	0.04	0.04	0.20	0.20	0.16	1.27	0.22	2.24		
550	Lower Calapooia	3831-J	0.93	0.62	0.46	0.19	0.11	0.08	0.19	0.11	0.08	0.02	0.02	0.21	0.21	0.67	5.30	0.23	9.38		
551	Lower Calapooia	3831-J	2.78	1.85	0.93	0.56	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
552	Lower Calapooia	3831-J-1	0.93	0.46	0.31	0.19	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
553	Lower Calapooia	3831-J-1	0.93	0.62	0.46	0.19	0.11	0.08	0.09	0.11	0.00	0.01	0.01	0.12	0.12	0.38	3.00	0.13	5.30		
554	Lower Calapooia	3831-J-1	1.85	1.85	1.24	0.37	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
555	Lower Calapooia	3801	4.33	1.85	1.24	0.87	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
556	Lower Calapooia	3801	14.83	3.71	3.71	2.97	0.67	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
557	Lower Calapooia	3801	8.65	6.18	3.71	1.73	1.11	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
558	Lower Calapooia	3801	2.16	0.93	0.62	0.43	0.17	0.11	0.22	0.17	0.00	0.02	0.02	0.19	0.19	0.32	2.34	0.21	4.15		
559	Lower Calapooia	3802	5.56	2.78	1.85	1.11	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
601	Lower Calapooia	3000	3.61	2.70	2.16	0.72	0.49	0.39	0.36	0.49	0.04	0.14	1.80	0.67	2.33	0.39	5.55	0.74	9.82		
602	Lower Calapooia	3000	2.40	1.44	1.44	0.48	0.26	0.26	0.24	0.26	0.00	0.10	1.20	0.36	1.46	0.33	4.42	0.39	7.83		
603	Lower Calapooia	3000	5.29	2.88	2.40	1.06	0.52	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
604	Lower Calapooia	3000	6.61	9.01	4.51	1.32	1.62	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
605	Lower Calapooia	3000	11.54	3.85	2.88	2.31	0.69	0.52	1.15	0.69	0.00	0.46	5.77	1.15	6.46	0.31	3.58	1.27	6.35		
606	Lower Calapooia	3000	6.61	3.61	2.40	1.32	0.65	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
607	Lower Calapooia	3000	2.64	1.44	0.96	0.53	0.26	0.17	0.32	0.26	0.02	0.13	1.59	0.40	1.86	0.39	5.02	0.44	8.88		
608	Lower Calapooia	3000	18.75	11.72	7.81	3.75	2.11	1.41	1.87	2.11	0.00	0.75	9.37	2.86	11.48	0.37	5.47	3.15	9.68		
609	Lower Calapooia	3000	7.21	2.40	1.80	1.44	0.43	0.32	0.72	0.00	0.00	0.29	3.61	0.29	3.61	0.12	1.43	0.32	2.54		
610	Lower Calapooia	3000	24.52	25.54	15.32	4.90	4.60	2.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
611	Lower Calapooia	3000	13.22	15.02	7.21	2.64	2.70	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
612	Lower Calapooia	3000	2.40	4.81	1.44	0.48	0.87	0.26	0.29	0.87	0.03	0.12	1.44	1.01	2.33	0.57	12.51	1.11	22.14		
613	Lower Calapooia	3000	10.58	9.61	5.77	2.12	1.73	1.04	1.06	1.73	0.00	0.42	5.29	2.15	7.02	0.41	6.69	2.37	11.84		
614	Lower Calapooia	3000	14.42	9.01	7.21	2.88	1.62	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
615	Lower Calapooia	3000	17.31	10.82	8.65	3.46	1.95	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
616	Lower Calapooia	3001	2.40	1.44	0.96	2.40	0.26	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
826	Lower Calapooia	3020	6.49	6.49	5.41	6.49	1.17	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
827	Lower Calapooia	3020	0.93	0.46	0.77	0.93	0.08	0.14	0.93	0.08	0.14	0.37	4.64	0.59	4.86	1.73	14.75	0.65	26.11		
828	Lower Calapooia	3020	2.78	1.85	1.39	2.78	0.33	0.25	1.39	0.33	0.00	0.56	6.95	0.89	7.29	0.93	7.37	0.98	13.05		
829	Lower Calapooia	3020	2.78	2.78	1.85	2.78	0.50	0.33	1.39	0.50	0.00	0.56	6.95	1.06	7.45	0.90	8.76	1.16	15.50		
830	Lower Calapooia	3020	4.33	3.09	1.85	4.33	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
831	Lower Calapooia	3020	5.56	6.95	4.64	5.56	1.25	0.83	2.78	1.25	0.00	1.11	13.91	2.36	15.16	0.87	9.79	2.60	17.34		
832	Lower Calapooia	3020	2.78	4.17	2.32	2.78	0.75	0.42	1.39	0.75	0.00	0.56	6.95	1.31	7.70	0.89	10.83	1.44	19.17		
833	Lower Calapooia	3020	0.93	0.93	0.62	0.93	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
834	Lower Calapooia	3020	2.78	2.78	2.32	2.78	0.50	0.42	1.39	0.50	0.00	0.56	6.95	1.06	7.45	0.84	8.76	1.16	15.50		
635	Lower Calapooia	3020	3.71	4.64	2.47	3.71	0.83	0.45	1.85	0.83	0.00	0.74	9.27	1.58	10.11	0.92	9.79	1.73	17.34		
836	Lower Calapooia	3020	2.78	2.78	1.39	2.78	0.50	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
837	Lower Calapooia	3020	4.33	4.64	2.47	4.33	0.83	0.45	2.16	0.83	0.00	0.87	10.82	1.70	11.65	0.94	10.56	1.87	18.70		
838	Lower Calapooia	3020	4.64	4.64	3.09	4.64	0.83	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
842	Lower Calapooia	3025	1.55	1.24	0.62	1.55	0.22	0.11	0.77	0.22	0.00	0.08	0.08	0.30	0.30	0.56	3.73	0.33	6.59		

Attac[illegible]35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
843	Lower Calapooia	3025	0.6	0.6	0.05	M	80.5	3.0	10	3.7	12	1.8	6	687	100	100	6	90%	50%	100%	0%	4	6	N	100%	N	1	Y
855	Lower Calapooia	2400	0.0	0.1	0.10	M	160.9	5.5	18	3.7	12	1.8	6	1766	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
856	Lower Calapooia	2400	0.1	0.2	0.10	M	160.9	5.5	18	3.0	10	1.2	4	1570	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
857	Lower Calapooia	2400	0.2	0.2	0.03	M	40.2	5.5	18	3.7	12	1.8	6	441	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
858	Lower Calapooia	2400	0.2	0.9	0.68	M	1086.3	4.9	16	4.6	15	2.4	8	12913	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
859	Lower Calapooia	2400	0.9	1.0	0.10	M	160.9	4.9	16	6.1	20	2.4	8	2158	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
860	Lower Calapooia	2400	1.0	1.4	0.40	M	643.7	4.9	16	3.7	12	1.8	6	6671	90	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
861	Lower Calapooia	2400	1.4	1.5	0.13	M	201.2	4.9	16	4.6	15	2.4	8	2391	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
862	Lower Calapooia	2400	1.5	1.7	0.13	M	201.2	4.9	16	3.7	12	1.8	6	2085	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
863	Lower Calapooia	2400	1.7	1.7	0.05	M	80.5	4.9	16	3.7	12	1.8	6	834	100	100	5	70%	5%	10%	0%	2	6	N	10%	Y	1	N
864	Lower Calapooia	2400	1.7	1.9	0.15	M	241.4	4.9	16	3.0	10	1.8	6	2355	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1621	Lower Calapooia	3901	0.0	0.1	0.13	S	201.2	3.0	10	1.8	6	1.6	6	1349	100	100	5	90%	50%	0%	100%	2	6	N	100%	N	1	Y
1622	Lower Calapooia	3901	0.1	0.3	0.13	M	201.2	3.0	10	1.8	6	1.8	6	1349	100	100	5	90%	50%	100%	50%	2	6	N	100%	N	1	Y
1623	Lower Calapooia	3901	0.3	0.5	0.23	M	362.1	3.0	10	0.6	2	0.6	2	1545	100	100	5	90%	0%	0%	0%	2	6	N	0%	N	1	N
1624	Lower Calapooia	3901	0.5	0.7	0.18	M	281.6	3.0	10	1.8	6	1.2	4	1717	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1625	Lower Calapooia	3901	0.7	0.9	0.20	M	321.9	3.0	10	2.4	8	1.8	6	2355	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1626	Lower Calapooia	3901	0.9	1.0	0.15	M	241.4	3.0	10	2.4	8	1.8	6	1766	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1627	Lower Calapooia	3901	1.0	1.2	0.20	M	321.9	3.0	10	3.0	10	1.8	6	2551	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1628	Lower Calapooia	3901	1.2	1.4	0.15	M	241.4	3.0	10	3.7	12	1.8	6	2060	100	100	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
1629	Lower Calapooia	3901	1.4	1.4	0.05	M	80.5	3.0	10	3.7	12	1.8	6	687	90	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1630	Lower Calapooia	3901	1.4	1.5	0.08	M	120.7	3.0	10	4.6	15	2.4	8	1214	60	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1631	Lower Calapooia	3901	1.5	1.7	0.18	M	281.6	3.0	10	3.7	12	2.4	8	2575	80	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1632	Lower Calapooia	3901	1.7	1.7	0.05	M	80.5	3.0	10	3.7	12	2.4	8	736	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1633	Lower Calapooia	3901	1.7	1.9	0.23	M	362.1	3.0	10	4.6	15	2.4	8	3642	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1634	Lower Calapooia	3901-C	0.0	0.2	0.20	M	321.9	2.7	9	2.4	8	1.8	6	2256	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	2	N
1635	Lower Calapooia	3901-B	0.0	0.2	0.20	M	321.9	3.0	10	3.7	12	1.8	6	2747	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1636	Lower Calapooia	3901-B	0.2	0.3	0.08	M	120.7	3.0	10	4.6	15	1.8	6	1141	100	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1637	Lower Calapooia	3901-B	0.3	0.6	0.30	M	482.8	3.0	10	3.7	12	1.8	6	4121	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1638	Lower Calapooia	3901-B	0.6	0.7	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1639	Lower Calapooia	3901-A	0.0	0.2	0.20	M	321.9	3.0	10	1.8	6	1.2	4	1962	100	100	6	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1640	Lower Calapooia	3905	0.0	0.2	0.23	M	362.1	3.7	12	1.2	4	1.2	4	2207	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1641	Lower Calapooia	3905	0.2	0.5	0.25	M	402.3	3.7	12	3.0	10	1.8	6	3434	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1642	Lower Calapooia	3905	0.5	0.6	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	100	100	4	90%	50%	100%	0%	4	6	N	100%	Y	1	Y
1643	Lower Calapooia	3905	0.6	0.9	0.30	M	482.6	3.0	10	3.0	10	1.8	6	3826	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1644	Lower Calapooia	3905	0.9	1.1	0.20	M	321.9	3.0	10	3.7	12	1.8	6	2747	100	100	4	90%	0%	10%	0%	4	6	N	100%	Y	5	N
1645	Lower Calapooia	3905	1.1	1.2	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	5	N
1646	Lower Calapooia	3905-A	0.0	0.2	0.15	R	241.4	3.0	10	1.8	6	1.2	4	1472	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1647	Lower Calapooia	3900	0.0	0.1	0.10	S	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	5	90%	5%	0%	10%	4	6	N	0%	N	1	N
1648	Lower Calapooia	3900	0.1	0.5	0.40	M	643.7	3.7	12	2.4	8	1.2	4	4709	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1649	Lower Calapooia	3900	0.5	0.6	0.08	M	120.7	3.7	12	1.8	6	1.8	6	883	80	100	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
1650	Lower Calapooia	3900	0.575	0.75	0.18	M	281.6386	3.66	12	2.438	8	1.829	6	2232	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1651	Lower Calapooia	3900	0.8	0.8	0.08	M	120.7	3.7	12	3.0	10	1.8	6	1030	90	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1652	Lower Calapooia	3900	0.6	1.2	0.38	M	603.5	3.7	12	2.4	8	1.8	6	4783	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1653	Lower Calapooia	3900	1.2	1.3	0.13	M	201.2	3.7	12	1.8	6	1.8	6	1472	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1654	Lower Calapooia	3900	1.3	1.5	0.15	M	241.4	3.7	12	2.4	8	1.8	6	1913	100	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1655	Lower Calapooia	3900	1.5	1.6	0.13	M	201.2	3.7	12	3.0	10	1.8	6	1717	100	100	5	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1656	Lower Calapooia	3900	1.6	1.7	0.10	M	160.9	3.7	12	2.4	8	1.2	4	1177	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1657	Lower Calapooia	3900	1.7	1.9	0.18	M	281.6	3.7	12	3.0	10	1.8	6	2404	100	100	5	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1658	Lower Calapooia	3900	1.9	2.0	0.10	M	160.9	3.7	12	6.1	20	2.4	8	1962	80	100	5	90%	10%	100%	0%	4	6	N	100%	N	2	Y
1659	Lower Calapooia	3900	2.0	2.3	0.26	M	442.6	3.0	10	5.5	18	3.0	10	5126	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	2	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total 'current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
843	Lower Calapooia	3025	1.55	1.85	0.93	1.16	0.33	0.17	0.58	0.33	0.00	0.06	0.06	0.39	0.39	0.57	4.87	0.43	8.62		
855	Lower Calapooia	2400	4.33	2.88	1.44	0.87	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
856	Lower Calapooia	2400	4.33	2.40	0.96	0.87	0.43	0.17	0.43	0.43	0.00	0.17	2.16	0.81	2.60	0.39	3.76	0.67	6.66		
857	Lower Calapooia	2400	1.08	0.72	0.36	0.22	0.13	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
858	Lower Calapooia	2400	25.96	24.34	12.98	5.19	4.38	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
859	Lower Calapooia	2400	3.85	4.81	1.92	0.77	0.87	0.35	0.38	0.87	0.00	0.15	1.92	1.02	2.79	0.47	6.33	1.12	11.21		
860	Lower Calapooia	2400	15.38	11.54	5.77	3.08	2.08	1.04	1.54	2.08	0.00	0.62	7.69	2.69	9.77	0.40	4.18	2.96	7.40		
861	Lower Calapooia	2400	4.81	4.51	2.40	0.96	0.81	0.43	0.48	0.81	0.00	0.19	2.40	1.00	3.21	0.42	4.99	1.10	8.83		
862	Lower Calapooia	2400	4.81	3.61	1.80	0.96	0.65	0.32	0.48	0.65	0.00	0.19	2.40	0.84	3.05	0.40	4.18	0.93	7.40		
863	Lower Calapooia	2400	1.92	1.44	0.72	0.38	0.26	0.13	0.02	0.03	0.00	0.01	0.10	0.03	0.12	0.04	0.42	0.04	0.74		
864	Lower Calapooia	2400	5.77	3.61	2.16	1.15	0.65	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1621	Lower Calapooia	3901	3.86	2.32	2.32	0.77	0.42	0.42	0.39	0.00	0.42	0.15	1.93	0.57	2.35	0.42	2.84	0.63	5.03		
1622	Lower Calapooia	3901	3.86	2.32	2.32	0.77	0.42	0.42	0.39	0.42	0.21	0.15	1.93	0.78	2.56	0.58	3.68	0.86	6.87		
1623	Lower Calapooia	3901	6.95	1.39	1.39	1.39	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1624	Lower Calapooia	3901	5.41	3.24	2.16	1.08	0.56	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1625	Lower Calapooia	3901	6.18	4.94	3.71	1.24	0.89	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1626	Lower Calapooia	3901	4.64	3.71	2.78	0.93	0.67	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1627	Lower Calapooia	3901	6.18	6.18	3.71	1.24	1.11	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1628	Lower Calapooia	3901	4.64	5.56	2.78	0.93	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1629	Lower Calapooia	3901	1.55	1.65	0.93	0.31	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1630	Lower Calapooia	3901	2.32	3.48	1.85	0.46	0.83	0.33	0.23	0.83	0.00	0.02	0.02	0.65	0.65	0.53	5.38	0.71	9.52		
1631	Lower Calapooia	3901	5.41	6.49	4.33	1.08	1.17	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1632	Lower Calapooia	3901	1.55	1.85	1.24	1.55	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1633	Lower Calapooia	3901	6.95	10.43	5.56	6.95	1.68	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1634	Lower Calapooia	3901-C	5.56	4.94	3.71	5.56	0.89	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1635	Lower Calapooia	3901-B	6.18	7.42	3.71	1.24	1.34	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1636	Lower Calapooia	3901-B	2.32	3.48	1.39	0.46	0.83	0.25	0.23	0.83	0.00	0.02	0.02	0.65	0.65	0.57	5.36	0.71	9.52		
1637	Lower Calapooia	3901-B	9.27	11.13	5.56	1.85	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1638	Lower Calapooia	3901-B	3.09	2.47	1.85	0.62	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1639	Lower Calapooia	3901-A	6.18	3.71	2.47	4.64	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1640	Lower Calapooia	3905	8.34	2.78	2.78	8.34	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1641	Lower Calapooia	3905	9.27	7.73	4.64	9.27	1.39	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1642	Lower Calapooia	3905	4.64	3.09	2.32	4.64	0.56	0.42	2.32	0.56	0.00	0.23	0.23	0.79	0.79	0.49	3.92	0.87	6.93		
1643	Lower Calapooia	3905	9.27	9.27	5.56	9.27	1.67	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1644	Lower Calapooia	3905	6.18	7.42	3.71	6.18	1.34	0.67	0.00	0.13	0.00	0.00	0.00	0.13	0.13	0.05	0.41	0.15	0.73		
1645	Lower Calapooia	3905	3.09	2.47	1.85	3.09	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1646	Lower Calapooia	3905-A	4.64	2.78	1.85	4.64	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1647	Lower Calapooia	3900	3.71	1.85	1.24	0.74	0.33	0.22	0.04	0.00	0.02	0.00	0.00	0.03	0.03	0.02	0.16	0.03	0.29		
1648	Lower Calapooia	3900	14.83	9.89	4.94	2.97	1.78	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1649	Lower Calapooia	3900	2.78	1.39	1.39	0.56	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1650	Lower Calapooia	3900	6.49	4.33	3.24	1.30	0.78	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1651	Lower Calapooia	3900	2.78	2.32	1.39	0.56	0.42	0.25	0.28	0.42	0.00	0.03	0.03	0.45	0.45	0.43	3.69	0.49	6.53		
1652	Lower Calapooia	3900	13.91	9.27	6.95	2.78	1.67	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1653	Lower Calapooia	3900	4.64	2.32	2.32	0.93	0.42	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1654	Lower Calapooia	3900	5.56	3.71	2.78	1.11	0.67	0.50	0.56	0.67	0.00	0.06	0.06	0.72	0.72	0.38	3.00	0.80	5.30		
1655	Lower Calapooia	3900	4.64	3.86	2.32	0.93	0.70	0.42	0.46	0.70	0.00	0.05	0.05	0.74	0.74	0.43	3.69	0.82	6.53		
1656	Lower Calapooia	3900	3.71	2.47	1.24	0.74	0.45	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1657	Lower Calapooia	3900	6.49	5.41	3.24	1.30	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1658	Lower Calapooia	3900	3.71	6.18	2.47	0.74	1.11	0.45	0.07	1.11	0.00	0.01	0.01	1.12	1.12	0.57	6.96	1.23	12.32		
1659	Lower Calapooia	3900	8.50	15.30	8.50	8.50	2.75	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attachment 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1660	Lower Calapooia	3960-A	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.8	6	1079	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1661	Lower Calapooia	3960	0.0	0.6	0.55	M	885.1	3.0	10	3.7	12	2.4	8	8094	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1662	Lower Calapooia	3960	0.6	0.8	0.20	M	321.9	3.0	10	3.7	12	1.8	6	2747	80	100	4	90%	50%	100%	0%	4	6	N	100%	Y	1	Y
1663	Lower Calapooia	3960	0.8	0.9	0.10	M	160.9	3.0	10	3.7	12	2.4	8	1472	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1664	Lower Calapooia	3960	0.9	0.9	0.05	M	80.5	3.0	10	3.0	10	1.8	6	638	90	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1665	Lower Calapooia	3960	0.9	1.1	0.20	M	321.9	3.0	10	3.7	12	1.8	6	2747	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	2	N
1666	Lower Calapooia	3960	1.1	1.3	0.15	M	241.4	3.0	10	2.4	8	1.8	6	1766	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1667	Lower Calapooia	3960	1.3	1.4	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1668	Lower Calapooia	3961	0.0	0.1	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1669	Lower Calapooia	3930	0.0	0.2	0.20	M	321.9	3.0	10	2.4	8	1.8	6	2355	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1670	Lower Calapooia	3980	0.0	0.1	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	4	90%	5%	10%	0%	4	6	N	10%	Y	1	N
1671	Lower Calapooia	3980	0.1	0.2	0.13	M	201.2	3.0	10	4.6	15	2.4	8	2023	60	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1672	Lower Calapooia	3980	0.2	0.5	0.28	M	442.6	3.0	10	3.0	10	2.4	8	3777	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1673	Lower Calapooia	3981	0.0	0.1	0.10	M	160.9	3.0	10	2.4	8	1.2	4	1079	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1674	Lower Calapooia	3981	0.1	0.3	0.15	M	241.4	2.4	8	2.4	8	1.8	6	1619	100	100	1	90%	0%	0%	0%	8	6	N	0%	N	5	N
1675	Lower Calapooia	3750	0.0	0.4	0.43	M	684.0	3.0	10	3.0	10	1.8	6	5420	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	5	N
1676	Lower Calapooia	3750	0.4	0.5	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	100	100	4	90%	10%	100%	0%	4	6	N	100%	N	5	Y
1677	Lower Calapooia	3750	0.5	0.6	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	80	100	5	90%	0%	0%	0%	4	6	N	0%	N	5	N
1678	Lower Calapooia	3750	0.6	0.7	0.10	S	160.9	3.7	12	3.7	12	2.4	8	1570	80	100	5	90%	100%	100%	0%	4	6	N	100%	N	5	Y
1679	Lower Calapooia	3750	0.7	0.8	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	80	100	5	47%	100%	100%	0%	4	6	N	100%	N	5	Y
1680	Lower Calapooia	3700 Y GA	0.0	0.2	0.15	M	241.4	4.3	14	4.6	15	2.4	8	2722	100	100	4	47%	50%	100%	0%	2	6	N	100%	N	1	Y
1681	Lower Calapooia	3700 Y GA	0.2	0.2	0.05	M	80.5	4.3	14	4.6	15	2.4	8	907	100	100	4	47%	5%	10%	0%	2	6	N	10%	Y	1	N
1682	Lower Calapooia	3700 Y GA	0.2	0.3	0.08	M	120.7	4.3	14	3.7	12	2.4	8	1251	100	100	4	47%	50%	100%	0%	2	6	N	100%	N	1	Y
1683	Lower Calapooia	3700 Y GA	0.3	1.7	1.40	M	2253.1	3.7	12	4.6	15	2.4	8	24036	100	100	4	47%	0%	0%	0%	2	6	N	0%	Y	1	N
841b	Lower Calapooia	3025	0.0	0.5	0.50	M	804.7	3.0	10	3.7	12	1.8	6	0	100	100	6	90%	0%	0%	0%	4	6	N	0%	Y	1	N
28	Bigs Creek	MAINLINE	0.4	0.6	0.20	M	321.9	6.1	20	5.5	18	3.7	12	4905	100	100	5	90%	5%	5%	0%	1	6	N	10%	Y	1	N
29	Bigs Creek	MAINLINE	0.6	0.7	0.10	M	160.9	5.5	18	7.6	25	6.1	20	3090	100	100	5	90%	0%	0%	0%	1	6	N	0%	Y	1	N
30	Bigs Creek	MAINLINE	0.7	0.7	0.01	S	16.1	6.4	21	1.8	6	1.8	6	162	100	100	5	90%	100%	100%	100%	1	6	N	100%	N	1	Y
31	Bigs Creek	MAINLINE	0.7	0.8	0.10	S	160.9	5.5	18	6.1	20	5.5	18	2747	100	100	5	90%	50%	50%	50%	1	6	N	50%	Y	1	N
32	Bigs Creek	MAINLINE	0.8	0.9	0.08	S	120.7	5.5	18	4.6	15	5.5	18	1876	100	100	5	90%	75%	100%	50%	1	6	N	100%	N	1	Y
33	Bigs Creek	MAINLINE	0.9	0.9	0.05	S	80.5	5.5	18	2.4	8	1.8	6	785	100	100	5	90%	100%	100%	100%	1	6	N	100%	Y	1	N
34	Bigs Creek	MAINLINE	0.9	1.0	0.08	S	120.7	6.1	20	2.4	8	1.8	6	1251	100	100	5	90%	75%	100%	50%	1	6	N	100%	Y	1	N
35	Bigs Creek	MAINLINE	1.0	1.2	0.18	S	281.6	6.1	20	1.8	6	1.8	6	2747	100	100	5	90%	100%	100%	100%	1	6	N	100%	Y	1	N
36	Bigs Creek	MAINLINE	1.2	1.4	0.23	S	362.1	6.1	20	2.4	8	1.8	6	3753	100	100	5	90%	25%	0%	50%	1	6	N	0%	N	1	N
37	Bigs Creek	MAINLINE	1.4	1.5	0.08	M	120.7	6.1	20	1.8	6	1.2	4	1104	100	100	5	90%	50%	100%	0%	1	6	N	100%	N	1	Y
38	Bigs Creek	MAINLINE	1.5	1.6	0.13	M	201.2	6.1	20	4.6	15	2.4	8	2637	100	100	5	90%	25%	25%	0%	1	6	N	50%	Y	1	N
39	Bigs Creek	MAINLINE	1.6	1.7	0.10	M	160.9	6.1	20	3.7	12	1.8	6	1864	100	100	5	90%	0%	0%	0%	1	6	N	0%	Y	1	N
40	Bigs Creek	MAINLINE	1.7	1.8	0.10	S	160.9	6.1	20	2.4	8	1.8	6	1668	100	100	5	90%	100%	100%	100%	1	6	N	100%	Y	1	N
41	Bigs Creek	MAINLINE	1.8	1.9	0.05	S	80.5	6.1	20	2.4	8	1.8	6	834	100	100	5	90%	100%	100%	100%	1	6	N	100%	Y	1	N
42	Bigs Creek	MAINLINE	1.9	2.0	0.15	S	241.4	6.1	20	2.4	8	2.4	8	2649	100	100	5	90%	100%	100%	100%	1	6	N	100%	Y	1	N
43	Bigs Creek	MAINLINE	2.0	2.2	0.15	S	241.4	5.5	18	3.7	12	3.0	10	2943	100	100	5	47%	100%	100%	100%	1	6	N	100%	Y	1	N
44	Bigs Creek	MAINLINE	2.2	2.4	0.20	S	321.9	5.5	18	4.6	15	2.4	8	4022	100	100	5	47%	75%	100%	50%	1	6	N	100%	Y	1	N
45	Bigs Creek	MAINLINE	2.4	2.6	0.23	S	362.1	5.5	18	3.0	10	1.8	6	3753	100	100	5	47%	100%	100%	100%	1	6	N	100%	Y	1	N
46	Bigs Creek	MAINLINE	2.6	2.6	0.00	S	8.0	6.4	21	1.8	6	1.8	6	81	100	100	5	47%	100%	100%	100%	1	6	N	100%	N	1	Y
47	Bigs Creek	MAINLINE	2.6	2.7	0.13	S	201.2	5.5	18	3.0	10	3.0	10	2330	100	100	5	47%	100%	100%	100%	1	6	N	100%	Y	1	N
48	Bigs Creek	MAINLINE	2.7	2.8	0.05	S	80.5	5.5	18	3.7	12	3.7	12	1030	100	100	5	47%	100%	100%	100%	1	6	N	100%	N	1	Y
49	Bigs Creek	MAINLINE	2.8	3.0	0.25	S	402.3	7.3	24	1.8	6	1.2	4	4170	100	100	5	47%	33%	50%	25%	1	6	N	100%	Y	1	N
50	Bigs Creek	MAINLINE	3.0	3.1	0.10	S	160.9	6.1	20	1.8	6	1.8	6	1570	100	100	5	47%	100%	100%	100%	1	6	N	100%	Y	1	N
51	Bigs Creek	MAINLINE	3.1	3.2	0.07	S	120.7	6.1	20	3.7	12	2.4	8	1472	100	100	5	47%	100%	100%	100%	1	6	N	100%	N	1	Y
52	Bigs Creek	MAINLINE	3.2	3.4	0.18	S	281.6	5.5	18	3.7	12	3.7	12	3605	100	100	5	47%	100%	100%	100%	1	6	N	100%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1660	Lower Calapooia	3960-A	3.09	1.85	1.85	3.09	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1661	Lower Calapooia	3960	17.00	20.40	13.60	17.00	3.67	2.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1662	Lower Calapooia	3960	6.18	7.42	3.71	6.18	1.34	0.67	3.09	1.34	0.00	0.31	0.31	1.64	1.64	0.60	5.11	1.81	9.04		
1663	Lower Calapooia	3960	3.09	3.71	2.47	3.09	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1664	Lower Calapooia	3960	1.55	1.55	0.93	1.55	0.28	0.17	0.77	0.28	0.00	0.08	0.08	0.36	0.36	0.56	4.42	0.39	7.82		
1665	Lower Calapooia	3960	6.18	7.42	3.71	6.18	1.34	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1666	Lower Calapooia	3960	4.64	3.71	2.78	4.64	0.67	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1667	Lower Calapooia	3960	3.09	2.47	1.85	3.09	0.45	0.33	1.55	0.45	0.00	0.15	0.15	0.60	0.60	0.51	3.73	0.66	6.59		
1668	Lower Calapooia	3961	3.09	2.47	1.85	3.09	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1669	Lower Calapooia	3930	6.18	4.94	3.71	6.18	0.89	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1670	Lower Calapooia	3980	3.09	2.47	1.85	3.09	0.45	0.33	0.15	0.04	0.00	0.02	0.02	0.06	0.06	0.05	0.37	0.07	0.66		
1671	Lower Calapooia	3980	3.86	5.79	3.09	3.86	1.04	0.56	1.93	1.04	0.00	0.19	0.19	1.24	1.24	0.61	6.14	1.36	10.88		
1672	Lower Calapooia	3980	8.50	8.50	6.80	8.50	1.53	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1673	Lower Calapooia	3981	3.09	2.47	1.24	3.09	0.45	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1674	Lower Calapooia	3981	3.71	3.71	2.78	3.71	0.67	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1675	Lower Calapooia	3750	13.13	13.13	7.88	13.13	2.36	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1676	Lower Calapooia	3750	3.09	3.09	1.85	3.09	0.56	0.33	0.31	0.56	0.00	0.03	0.03	0.59	0.59	0.46	3.65	0.65	6.46		
1677	Lower Calapooia	3750	2.78	3.48	1.85	0.56	0.63	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1678	Lower Calapooia	3750	3.71	3.71	2.47	0.74	0.67	0.45	0.74	0.67	0.00	0.07	0.07	0.74	0.74	0.47	4.61	0.82	8.16		
1679	Lower Calapooia	3750	1.94	2.42	1.61	0.39	0.44	0.29	0.39	0.44	0.00	0.04	0.04	0.47	0.47	0.26	2.95	0.52	5.22		
1680	Lower Calapooia	3700 Y GA	3.39	3.63	1.94	3.39	0.65	0.35	1.69	0.65	0.00	0.68	8.47	1.33	9.13	0.49	5.52	1.46	9.76		
1681	Lower Calapooia	3700 Y GA	1.13	1.21	0.65	1.13	0.22	0.12	0.06	0.02	0.00	0.02	0.28	0.04	0.30	0.05	0.55	0.05	0.98		
1682	Lower Calapooia	3700 Y GA	1.69	1.45	0.97	1.69	0.26	0.17	0.85	0.26	0.00	0.34	4.24	0.60	4.50	0.48	4.97	0.66	8.80		
1683	Lower Calapooia	3700 Y GA	27.11	33.89	18.08	27.11	6.10	3.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
841b	Lower Calapooia	3025	15.45	18.54	9.27	11.59	3.34	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
28	Bigs Creek	MAINLINE	12.36	11.13	7.42	2.47	2.00	1.34	0.12	0.10	0.00	0.05	0.62	0.15	0.72	0.03	0.46	0.16	0.82	265	1148
29	Bigs Creek	MAINLINE	5.56	7.73	6.18	1.11	1.39	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
30	Bigs Creek	MAINLINE	0.65	0.19	0.19	0.13	0.03	0.03	0.13	0.03	0.03	0.05	0.65	0.12	0.72	0.73	7.37	0.13	13.05		
31	Bigs Creek	MAINLINE	5.56	6.18	5.56	1.11	1.11	1.00	0.56	0.56	0.50	0.22	2.78	1.28	3.84	0.47	7.95	1.41	14.07		
32	Bigs Creek	MAINLINE	4.17	3.48	4.17	0.83	0.63	0.75	0.63	0.63	0.38	0.25	3.13	1.25	4.13	0.67	10.37	1.38	18.36		
33	Bigs Creek	MAINLINE	2.78	1.24	0.93	0.56	0.22	0.17	0.56	0.22	0.17	0.22	2.78	0.61	3.17	0.78	7.60	0.67	13.46		
34	Bigs Creek	MAINLINE	4.64	1.85	1.39	0.93	0.33	0.25	0.70	0.33	0.13	0.28	3.48	0.74	3.94	0.59	6.11	0.81	10.81		
35	Bigs Creek	MAINLINE	10.82	3.24	3.24	2.16	0.58	0.58	2.16	0.58	0.58	0.87	10.82	2.03	11.98	0.74	7.22	2.24	12.78		
36	Bigs Creek	MAINLINE	13.91	5.56	4.17	2.78	1.00	0.75	0.70	0.00	0.38	0.28	3.48	0.65	3.85	0.17	1.81	0.72	3.20		
37	Bigs Creek	MAINLINE	4.64	1.39	0.93	0.93	0.25	0.17	0.46	0.25	0.00	0.19	2.32	0.44	2.57	0.39	3.61	0.48	6.39		
38	Bigs Creek	MAINLINE	7.73	5.79	3.09	1.55	1.04	0.56	0.39	0.26	0.00	0.15	1.93	0.42	2.19	0.16	2.06	0.46	3.65		
39	Bigs Creek	MAINLINE	6.18	3.71	1.85	1.24	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
40	Bigs Creek	MAINLINE	6.18	2.47	1.85	1.24	0.45	0.33	1.24	0.45	0.33	0.49	6.18	1.27	6.96	0.76	7.91	1.40	14.00		
41	Bigs Creek	MAINLINE	3.09	1.24	0.93	0.62	0.22	0.17	0.62	0.22	0.17	0.25	3.09	0.64	3.48	0.76	7.91	0.70	14.00		
42	Bigs Creek	MAINLINE	9.27	3.71	3.71	1.85	0.67	0.67	1.85	0.67	0.67	0.74	9.27	2.08	10.61	0.78	8.60	2.28	15.23		
43	Bigs Creek	MAINLINE	4.36	2.90	2.42	0.87	0.52	0.44	0.87	0.52	0.44	0.35	4.36	1.31	5.32	0.44	5.42	1.44	9.59		
44	Bigs Creek	MAINLINE	5.81	4.84	2.58	1.16	0.87	0.46	0.87	0.87	0.23	0.35	4.36	1.45	5.46	0.36	4.51	1.60	7.99		
45	Bigs Creek	MAINLINE	6.54	3.63	2.18	1.31	0.65	0.39	1.31	0.65	0.39	0.52	6.54	1.57	7.58	0.42	4.33	1.73	7.67		
46	Bigs Creek	MAINLINE	0.17	0.05	0.05	0.03	0.01	0.01	0.03	0.01	0.01	0.01	0.17	0.03	0.19	0.38	3.85	0.03	6.82		
47	Bigs Creek	MAINLINE	3.63	2.02	2.02	0.73	0.36	0.36	0.73	0.36	0.36	0.29	3.63	1.02	4.36	0.44	5.05	1.12	8.95		
48	Bigs Creek	MAINLINE	1.45	0.97	0.97	0.29	0.17	0.17	0.29	0.17	0.17	0.12	1.45	0.46	1.80	0.45	5.78	0.51	10.22		
49	Bigs Creek	MAINLINE	9.68	2.42	1.61	1.94	0.44	0.29	0.64	0.22	0.07	0.26	3.20	0.55	3.49	0.13	1.36	0.60	2.40		
50	Bigs Creek	MAINLINE	3.23	0.97	0.97	0.65	0.17	0.17	0.65	0.17	0.17	0.26	3.23	0.61	3.58	0.39	3.77	0.67	6.67		
51	Bigs Creek	MAINLINE	2.42	1.45	0.97	0.48	0.26	0.17	0.48	0.26	0.17	0.19	2.42	0.63	2.86	0.43	5.21	0.69	9.23		
52	Bigs Creek	MAINLINE	5.08	3.39	3.39	1.02	0.61	0.61	1.02	0.61	0.61	0.41	5.08	1.63	6.30	0.45	5.78	1.79	10.22		

Attac. 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
53	Bigs Creek	MAINLINE	3.4	3.4	0.01	S	16.1	5.5	18	4.3	14	3.7	12	216	100	100	5	47%	100%	100%	100%	1	6	N	100%	Y	1	N
54	Bigs Creek	MAINLINE	3.4	3.8	0.19	M	305.8	5.5	18	3.7	12	2.4	8	3542	100	100	5	47%	50%	100%	0%	1	6	N	100%	N	1	Y
55	Bigs Creek	MAINLINE	3.6	3.6	0.05	M	80.5	5.5	18	2.4	8	3.7	12	932	100	100	5	47%	50%	100%	0%	1	6	N	100%	N	1	Y
56	Bigs Creek	MAINLINE	3.6	3.7	0.07	M	120.7	5.5	18	2.4	8	2.4	8	1251	100	100	5	47%	0%	0%	0%	1	8	N	0%	Y	1	N
57	Bigs Creek	MAINLINE	3.7	3.8	0.15	M	241.4	5.5	18	1.2	4	1.6	6	2060	100	100	5	47%	0%	0%	0%	1	6	N	0%	Y	1	N
58	Bigs Creek	MAINLINE	3.8	4.0	0.15	S	241.4	4.9	16	7.6	25	3.7	12	3900	75	100	5	47%	100%	100%	100%	1	6	N	100%	Y	1	Y
59	Bigs Creek	MAINLINE	4.0	4.0	0.00	S	8.0	4.9	16	4.6	15	3.7	12	105	50	100	5	47%	100%	100%	100%	1	6	N	100%	N	1	Y
60	Bigs Creek	MAINLINE	4.0	4.2	0.17	S	273.6	6.1	20	1.8	6	1.8	6	2669	100	100	5	47%	100%	100%	100%	1	6	N	100%	Y	1	N
61	Bigs Creek	Mohawk ML	0.0	0.2	0.18	M	281.6	6.1	20	1.8	6	1.2	4	2575	100	100	5	90%	50%	100%	0%	1	6	N	100%	N	1	Y
62	Bigs Creek	Mohawk ML	0.2	0.3	0.13	M	201.2	6.1	20	2.4	8	1.8	6	2085	100	100	5	90%	0%	0%	0%	1	6	N	0%	Y	1	N
63	Bigs Creek	Mohawk ML	0.3	0.5	0.20	M	321.9	6.1	20	3.0	10	1.8	6	3532	100	100	5	90%	50%	100%	0%	1	8	N	100%	N	1	Y
64	Bigs Creek	Mohawk ML	0.5	0.6	0.10	M	160.9	6.1	20	3.0	10	1.8	6	1766	100	100	5	90%	0%	0%	0%	1	6	N	0%	Y	1	N
65	Bigs Creek	Mohawk ML	0.6	0.7	0.13	M	201.2	6.1	20	3.7	12	1.8	6	2330	100	100	5	90%	50%	100%	0%	1	6	N	100%	N	1	Y
66	Bigs Creek	Mohawk ML	0.7	0.9	0.13	M	201.2	6.1	20	3.0	10	1.8	6	2207	100	100	5	90%	0%	0%	0%	1	6	N	0%	Y	1	N
67	Bigs Creek	Mohawk ML	0.9	1.0	0.15	M	241.4	5.5	18	3.0	10	1.8	6	2502	100	100	5	90%	0%	0%	0%	1	6	N	0%	N	1	N
68	Bigs Creek	Mohawk ML	1.0	1.1	0.13	M	201.2	5.5	18	5.5	18	3.7	12	2943	90	100	5	90%	0%	0%	0%	1	6	N	0%	N	1	N
69	Bigs Creek	Mohawk ML	1.1	1.2	0.05	M	80.5	4.9	18	7.6	25	9.1	30	1741	50	50	5	90%	0%	0%	0%	1	6	N	0%	Y	1	N
70	Bigs Creek	Mohawk ML	1.2	1.9	0.73	M	1166.8	5.5	18	5.5	18	2.4	8	15648	90	100	5	90%	0%	0%	0%	1	6	N	0%	Y	1	N
71	Bigs Creek	Mohawk ML	1.9	2.1	0.20	R	321.9	5.5	18	2.4	8	1.8	6	3139	100	100	5	90%	0%	0%	0%	1	6	N	0%	N	1	N
560	Bigs Creek	3000	0.0	0.1	0.05	S	80.5	6.1	20	1.8	6	1.8	6	785	100	100	5	47%	100%	100%	100%	2	6	N	100%	N	1	Y
561	Bigs Creek	3000	0.1	0.2	0.10	M	160.9	7.3	24	7.6	25	3.0	10	2894	50	100	5	47%	50%	100%	0%	2	6	N	100%	N	1	Y
562	Bigs Creek	3000	0.2	0.4	0.25	M	402.3	7.3	24	9.1	30	4.6	15	8462	90	100	5	47%	0%	0%	0%	2	6	N	0%	Y	1	N
563	Bigs Creek	3000	0.4	0.5	0.09	M	136.8	7.3	24	7.6	25	4.6	15	2669	70	100	5	47%	50%	100%	0%	2	8	N	100%	N	1	Y
564	Bigs Creek	3000	0.5	0.7	0.17	M	265.5	7.3	24	15.2	50	6.1	20	7608	90	100	5	47%	50%	100%	0%	2	6	N	100%	N	1	Y
565	Bigs Creek	3000	0.7	0.8	0.18	M	281.6	7.3	24	9.1	30	6.1	20	6352	70	100	5	47%	50%	100%	0%	2	6	N	100%	N	1	Y
566	Bigs Creek	3000	0.8	0.9	0.08	M	120.7	7.3	24	7.6	25	4.6	15	2355	90	100	5	47%	50%	100%	0%	2	6	N	100%	N	1	Y
567	Bigs Creek	3000	0.9	0.9	0.03	M	40.2	7.3	24	4.6	15	3.7	12	625	100	100	5	47%	50%	100%	50%	2	6	N	100%	N	1	Y
568	Bigs Creek	3000	0.9	1.0	0.08	M	120.7	6.7	22	7.8	25	4.6	15	2281	90	100	5	47%	50%	100%	0%	2	6	N	100%	N	1	Y
569	Bigs Creek	3000	1.0	1.1	0.10	M	160.9	6.1	20	9.1	30	4.6	15	3189	90	100	5	47%	0%	0%	0%	2	6	N	0%	Y	1	N
570	Bigs Creek	3000	1.1	1.2	0.05	M	80.5	6.1	20	9.1	30	4.6	15	1594	50	100	5	47%	50%	100%	0%	2	6	N	100%	N	1	Y
571	Bigs Creek	3000	1.2	1.5	0.35	M	563.3	6.7	22	15.2	50	4.6	15	14937	60	100	5	47%	50%	100%	0%	2	6	N	100%	N	1	Y
572	Bigs Creek	3000	1.5	1.7	0.20	M	321.9	6.7	22	9.1	30	4.6	15	6573	80	100	5	47%	0%	0%	0%	2	8	N	0%	Y	1	N
573	Bigs Creek	3000	1.7	1.8	0.13	M	201.2	6.7	22	6.1	20	3.7	12	3311	80	100	5	47%	0%	0%	0%	2	6	N	0%	Y	2	N
574	Bigs Creek	3000	1.8	1.9	0.08	S	120.7	6.1	20	7.6	25	4.6	15	2207	90	100	5	47%	50%	100%	50%	2	6	N	100%	Y	1	N
575	Bigs Creek	3000	1.9	2.0	0.10	M	160.9	6.1	20	9.1	30	4.6	15	3189	90	100	5	47%	50%	100%	0%	2	6	N	100%	N	1	Y
576	Bigs Creek	3000	2.0	2.2	0.20	M	321.9	6.1	20	10.7	35	3.7	12	6573	80	100	5	47%	5%	10%	0%	2	6	N	10%	Y	1	N
577	Bigs Creek	3000	2.2	2.5	0.28	M	442.6	6.1	20	9.1	30	4.6	15	8768	40	100	5	47%	5%	10%	0%	2	6	N	10%	Y	1	N
578	Bigs Creek	3000	2.5	2.6	0.10	M	160.9	6.1	20	12.2	40	4.6	15	3679	80	90	5	47%	50%	100%	0%	2	6	N	100%	N	1	Y
579	Bigs Creek	3000	2.6	2.9	0.30	S	482.8	6.1	20	21.3	70	4.6	15	15452	60	100	5	47%	60%	100%	10%	2	6	N	100%	Y	1	Y
580	Bigs Creek	3000	2.9	2.9	0.05	S	80.5	6.1	20	6.1	20	3.7	12	1275	100	100	5	47%	100%	100%	100%	2	6	N	100%	N	1	Y
581	Bigs Creek	3000	2.9	3.1	0.13	S	201.2	6.1	20	9.1	30	4.6	15	3986	100	100	5	70%	60%	100%	10%	2	6	N	100%	N	1	Y
582	Bigs Creek	3000	3.1	3.2	0.15	M	241.4	6.1	20	6.1	20	3.7	12	3826	90	100	5	70%	5%	10%	0%	2	6	N	10%	Y	1	N
583	Bigs Creek	3000	3.2	3.4	0.18	M	281.6	6.1	20	6.1	20	3.7	12	4464	100	100	5	70%	100%	100%	0%	2	6	N	100%	N	1	Y
584	Bigs Creek	3000	3.4	3.4	0.05	M	80.5	6.1	20	6.1	20	3.0	10	1226	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
585	Bigs Creek	3000	3.4	3.5	0.08	M	120.7	6.1	20	7.6	25	3.7	12	2097	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
586	Bigs Creek	3000	3.5	3.7	0.20	M	321.9	5.5	18	6.1	20	3.0	10	4709	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	2	N
587	Bigs Creek	3000	3.7	4.0	0.25	M	402.3	6.1	20	3.7	12	2.4	8	4905	100	100	5	47%	0%	0%	0%	2	6	N	0%	Y	1	N
588	Bigs Creek	3000	4.0	4.0	0.05	M	80.5	6.1	20	4.6	15	2.4	8	1055	100	100	5	47%	0%	0%	0%	2	6	N	0%	Y	1	N
589	Bigs Creek	3000	4.0	4.2	0.16	M	281.6	6.1	20	6.1	20	3.7	12	4464	90	100	5	47%	0%	0%	0%	2	6	N	0%	Y	1	N
590	Bigs Creek	3000	4.2	4.4	0.23	M	362.1	6.1	20	7.6	25	3.7	12	6291	100	100	5	47%	50%	100%	0%	2	6	N	100%	N	1	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
53	Bigs Creek	MAINLINE	0.29	0.23	0.19	0.06	0.04	0.03	0.06	0.04	0.03	0.02	0.29	0.10	0.37	0.46	6.14	0.11	10.86		
54	Bigs Creek	MAINLINE	5.52	3.68	2.45	1.10	0.66	0.44	0.55	0.66	0.00	0.22	2.76	0.88	3.42	0.25	2.89	0.97	5.11		
55	Bigs Creek	MAINLINE	1.45	0.65	0.97	0.29	0.12	0.17	0.15	0.12	0.00	0.06	0.73	0.17	0.84	0.19	2.17	0.19	3.83		
56	Bigs Creek	MAINLINE	2.18	0.97	0.97	0.44	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
57	Bigs Creek	MAINLINE	4.36	0.97	1.45	0.87	0.17	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
58	Bigs Creek	MAINLINE	3.87	6.05	2.90	0.77	1.09	0.52	0.77	1.09	0.52	0.31	3.87	1.92	5.49	0.49	7.96	2.11	14.09		
59	Bigs Creek	MAINLINE	0.13	0.12	0.10	0.03	0.02	0.02	0.03	0.02	0.02	0.01	0.13	0.05	0.17	0.47	6.16	0.05	10.90		
60	Bigs Creek	MAINLINE	5.49	1.65	1.65	1.10	0.30	0.30	1.10	0.30	0.30	0.44	5.49	1.03	6.08	0.39	3.77	1.13	6.67		
61	Bigs Creek	Mohawk ML	10.82	3.24	2.16	2.16	0.58	0.39	1.08	0.58	0.00	0.43	5.41	1.02	5.99	0.39	3.61	1.12	6.39		
62	Bigs Creek	Mohawk ML	7.73	3.09	2.32	1.55	0.56	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
63	Bigs Creek	Mohawk ML	12.36	6.18	3.71	2.47	1.11	0.67	1.24	1.11	0.00	0.49	6.18	1.61	7.29	0.46	4.99	1.77	8.84		
64	Bigs Creek	Mohawk ML	8.18	3.09	1.85	1.24	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
65	Bigs Creek	Mohawk ML	7.73	4.64	2.32	1.55	0.83	0.42	0.77	0.83	0.00	0.31	3.86	1.14	4.70	0.49	5.68	1.26	10.06		
66	Bigs Creek	Mohawk ML	7.73	3.86	2.32	1.55	0.70	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
67	Bigs Creek	Mohawk ML	8.34	4.64	2.78	1.67	0.83	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
68	Bigs Creek	Mohawk ML	8.95	6.95	4.64	1.39	1.25	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
69	Bigs Creek	Mohawk ML	2.47	3.86	4.64	0.49	0.70	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
70	Bigs Creek	Mohawk ML	40.33	40.33	17.92	8.07	7.26	3.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
71	Bigs Creek	Mohawk ML	11.13	4.94	3.71	2.23	0.89	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
560	Bigs Creek	3000	1.61	0.48	0.48	0.32	0.09	0.09	0.32	0.09	0.09	0.13	1.61	0.30	1.79	0.39	3.77	0.33	6.67		
561	Bigs Creek	3000	3.87	4.03	1.61	0.77	0.73	0.29	0.39	0.73	0.00	0.15	1.94	0.88	2.66	0.30	5.48	0.97	9.69		
562	Bigs Creek	3000	9.68	12.10	6.05	1.94	2.18	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
563	Bigs Creek	3000	3.29	3.43	2.06	0.66	0.62	0.37	0.33	0.62	0.00	0.13	1.65	0.75	2.26	0.28	5.48	0.82	9.69		
584	Bigs Creek	3000	8.39	13.31	5.33	1.28	2.40	0.96	0.64	2.40	0.00	0.26	3.20	2.65	5.59	0.35	9.99	2.92	17.68		
565	Bigs Creek	3000	6.78	8.47	5.65	1.36	1.53	1.02	0.68	1.53	0.00	0.27	3.39	1.80	4.91	0.28	6.38	1.98	11.29		
566	Bigs Creek	3000	2.90	3.03	1.82	0.58	0.54	0.33	0.29	0.54	0.00	0.12	1.45	0.66	2.00	0.28	5.48	0.73	9.69		
567	Bigs Creek	3000	0.97	0.61	0.48	0.19	0.11	0.09	0.10	0.11	0.04	0.04	0.48	0.19	0.64	0.31	4.75	0.21	8.41		
568	Bigs Creek	3000	2.66	3.03	1.82	0.53	0.54	0.33	0.27	0.54	0.00	0.11	1.33	0.65	1.88	0.29	5.40	0.72	9.55		
569	Bigs Creek	3000	3.23	4.84	2.42	0.65	0.87	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
570	Bigs Creek	3000	1.61	2.42	1.21	0.32	0.44	0.22	0.16	0.44	0.00	0.06	0.81	0.50	1.24	0.31	6.22	0.55	11.01		
571	Bigs Creek	3000	12.43	28.24	8.47	2.49	5.08	1.53	1.24	5.08	0.00	0.50	6.21	5.58	11.30	0.37	9.91	6.14	17.54		
572	Bigs Creek	3000	7.10	9.68	4.84	1.42	1.74	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
573	Bigs Creek	3000	4.44	4.03	2.42	0.89	0.73	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
574	Bigs Creek	3000	2.42	3.03	1.82	0.48	0.54	0.33	0.24	0.54	0.16	0.10	1.21	0.80	1.92	0.36	6.67	0.89	11.80		
575	Bigs Creek	3000	3.23	4.84	2.42	0.65	0.87	0.44	0.32	0.87	0.00	0.13	1.61	1.00	2.49	0.31	6.22	1.10	11.01		
576	Bigs Creek	3000	6.46	11.30	3.87	1.29	2.03	0.70	0.06	0.20	0.00	0.03	0.32	0.23	0.53	0.03	0.71	0.25	1.26		
577	Bigs Creek	3000	8.88	13.31	6.66	1.78	2.40	1.20	0.09	0.24	0.00	0.04	0.44	0.28	0.68	0.03	0.62	0.30	1.10		
578	Bigs Creek	3000	3.23	6.46	2.42	0.65	1.16	0.44	0.32	1.16	0.00	0.13	1.61	1.29	2.78	0.35	8.02	1.42	14.20		
579	Bigs Creek	3000	9.68	33.89	7.26	1.94	6.10	1.31	1.16	6.10	0.13	0.46	5.81	6.70	12.04	0.43	13.87	7.37	24.55		
580	Bigs Creek	3000	1.61	1.61	0.97	0.32	0.29	0.17	0.32	0.29	0.17	0.13	1.61	0.59	2.08	0.47	7.38	0.65	13.07		
581	Bigs Creek	3000	6.01	9.01	4.51	1.20	1.62	0.81	0.72	1.62	0.08	0.29	3.81	1.99	5.31	0.50	9.90	2.19	17.53		
582	Bigs Creek	3000	7.21	7.21	4.33	1.44	1.30	0.78	0.07	0.13	0.00	0.03	0.36	0.16	0.49	0.04	0.66	0.17	1.16		
583	Bigs Creek	3000	8.41	8.41	5.05	1.68	1.51	0.91	1.68	1.51	0.00	0.67	8.41	2.19	9.93	0.49	7.77	2.41	13.75		
584	Bigs Creek	3000	2.40	2.40	1.20	0.48	0.43	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
585	Bigs Creek	3000	3.61	4.51	2.16	0.72	0.81	0.39	0.36	0.81	0.00	0.14	1.80	0.96	2.61	0.46	7.92	1.05	14.01		
586	Bigs Creek	3000	8.65	9.61	4.81	1.73	1.73	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
587	Bigs Creek	3000	8.07	4.84	3.23	1.61	0.87	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
588	Bigs Creek	3000	1.61	1.21	0.65	0.32	0.22	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
589	Bigs Creek	3000	5.65	5.65	3.39	1.13	1.02	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
590	Bigs Creek	3000	7.26	9.08	4.36	1.45	1.63	0.78	0.73	1.63	0.00	0.29	3.63	1.92	5.27	0.31	5.31	2.12	9.41		

Attachment 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
591	Bigs Creek	3000	4.4	4.4	0.02	S	40.2	6.1	20	6.1	20	3.7	12	638	100	100	5	47%	5%	10%	10%	2	6	N	10%	Y		1 N
592	Bigs Creek	3000	4.4	4.5	0.03	S	40.2	6.1	20	3.7	12	2.4	8	491	100	100	5	47%	100%	100%	100%	2	6	N	100%	N		1 Y
593	Bigs Creek	3000	4.5	4.5	0.02	S	40.2	6.1	20	3.7	12	3.0	10	515	100	100	5	47%	100%	100%	100%	2	6	N	100%	N		1 Y
594	Bigs Creek	3000	4.5	4.6	0.10	M	160.9	6.1	20	6.1	20	3.0	10	2453	100	100	5	47%	50%	100%	0%	2	6	N	100%	Y		1 Y
595	Bigs Creek	3000	4.6	4.8	0.20	M	321.9	6.1	20	7.6	25	3.7	12	5592	50	100	5	47%	50%	100%	0%	2	6	N	100%	N		1 Y
596	Bigs Creek	3000	4.8	4.9	0.15	M	241.4	7.3	24	3.0	10	2.4	8	3090	100	100	5	47%	0%	0%	0%	2	6	N	0%	Y		1 N
597	Bigs Creek	3000	4.9	5.0	0.03	S	40.2	7.3	24	3.7	12	2.4	8	540	100	100	5	47%	100%	100%	100%	2	6	N	100%	Y		1 N
598	Bigs Creek	3000	5.0	5.0	0.08	M	120.7	6.7	22	3.0	10	2.4	8	1472	60	100	5	47%	50%	100%	0%	2	6	N	100%	N		1 Y
599	Bigs Creek	3000	5.0	5.2	0.16	M	281.6	6.1	20	6.1	20	4.6	15	4721	100	100	5	47%	50%	100%	0%	2	6	N	100%	N		1 Y
600	Bigs Creek	3000	5.2	5.4	0.15	M	241.4	6.1	20	4.6	15	2.4	8	3164	80	100	5	47%	50%	100%	0%	2	6	N	100%	Y		1 N
617	Bigs Creek	3030	0.0	0.2	0.15	S	241.4	4.9	16	7.6	25	4.6	15	4121	90	80	5	70%	60%	100%	10%	2	6	N	100%	Y		1 N
618	Bigs Creek	3030	0.2	0.2	0.03	S	40.2	4.9	16	6.1	20	3.7	12	589	50	30	5	70%	60%	100%	10%	2	6	N	100%	Y		1 N
619	Bigs Creek	3030	0.2	0.3	0.13	M	201.2	4.9	16	6.1	20	3.7	12	2943	100	100	5	70%	25%	100%	0%	2	6	N	100%	N		2 Y
789	Bigs Creek	3031	0.0	0.0	0.03	S	40.2	3.7	12	4.6	15	4.6	15	515	90	60	5	47%	100%	100%	100%	2	6	N	100%	Y		1 N
790	Bigs Creek	3031	0.0	0.1	0.10	S	160.9	4.3	14	2.4	8	1.6	6	1374	100	100	4	47%	60%	100%	10%	2	6	N	100%	N		1 Y
791	Bigs Creek	3031	0.1	0.2	0.10	M	160.9	4.3	14	7.6	25	3.0	10	2404	100	100	4	47%	5%	10%	0%	2	6	N	10%	Y		2 N
792	Bigs Creek	3031	0.2	0.5	0.28	M	442.6	4.3	14	7.6	25	3.0	10	6610	70	100	4	47%	0%	0%	0%	2	6	N	0%	Y		2 N
793	Bigs Creek	3031	0.5	0.6	0.10	M	160.9	4.3	14	7.6	25	3.7	12	2502	80	100	4	47%	0%	0%	0%	2	6	N	0%	Y		2 N
794	Bigs Creek	3031	0.6	0.9	0.28	M	442.6	4.3	14	6.1	20	3.7	12	6205	90	100	4	47%	50%	100%	0%	2	6	N	100%	Y		1 N
795	Bigs Creek	3031	0.9	1.0	0.13	M	201.2	4.3	14	4.6	15	3.0	10	2391	100	100	4	47%	0%	0%	0%	2	6	N	0%	Y		1 N
796	Bigs Creek	3031	1.0	1.0	0.02	S	40.2	4.3	14	2.4	8	2.4	6	368	100	100	4	47%	60%	100%	10%	2	6	N	100%	N		1 Y
797	Bigs Creek	3031	1.0	1.1	0.08	M	120.7	4.3	14	1.8	6	1.8	6	957	100	100	4	47%	5%	10%	0%	2	6	N	10%	N		2 N
798	Bigs Creek	3031	1.1	1.5	0.38	M	603.5	3.7	12	7.6	25	3.0	10	8646	90	100	4	47%	0%	0%	0%	2	6	N	0%	Y		2 N
799	Bigs Creek	3031	1.5	1.7	0.23	M	362.1	3.7	12	4.6	15	3.0	10	4084	80	100	4	47%	0%	0%	0%	2	6	N	0%	Y		2 N
800	Bigs Creek	3031	1.7	1.8	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	100	100	6	47%	0%	0%	0%	2	6	N	0%	Y		2 N
801	Bigs Creek	3031	1.8	2.0	0.20	M	321.9	3.7	12	4.6	15	1.8	6	3238	80	100	4	47%	10%	20%	0%	2	6	N	100%	Y		2 Y
802	Bigs Creek	3031	2.0	2.2	0.15	M	241.4	3.7	12	4.6	15	2.4	8	2575	90	100	4	47%	10%	50%	0%	2	6	N	100%	N		2 Y
803	Bigs Creek	3031	2.2	2.3	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	100	100	4	47%	0%	0%	0%	2	6	N	0%	Y		1 N
804	Bigs Creek	3031	2.3	2.4	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	90	100	4	47%	10%	20%	0%	2	6	N	100%	Y		2 Y
805	Bigs Creek	3031	2.4	2.6	0.23	M	362.1	3.7	12	4.6	15	2.4	8	3863	50	100	4	47%	0%	0%	0%	4	6	N	0%	Y		2 N
806	Bigs Creek	3031	2.6	2.6	0.02	M	40.2	3.0	10	3.7	12	2.4	8	368	60	80	4	47%	100%	100%	100%	4	6	N	100%	N		5 Y
807	Bigs Creek	3031	2.6	2.9	0.30	M	482.8	3.0	10	2.4	8	1.8	6	3532	100	100	4	47%	0%	0%	0%	4	6	N	0%	Y		1 N
808	Bigs Creek	3031	2.9	2.9	0.02	M	40.2	3.0	10	2.4	8	1.6	6	294	100	100	1	47%	100%	100%	0%	8	6	N	100%	N		2 Y
809	Bigs Creek	3031	2.9	3.0	0.08	M	120.7	3.0	10	1.8	6	1.2	4	736	100	100	1	47%	0%	0%	0%	8	6	N	0%	N		5 N
810	Bigs Creek	3031-D	0.0	0.2	0.15	R	241.4	3.7	12	3.7	12	2.4	8	2355	80	100	4	47%	0%	0%	0%	4	6	N	0%	N		1 N
811	Bigs Creek	3031-C	0.0	0.4	0.40	M	643.7	2.7	9	3.7	12	2.4	8	5690	100	100	1	47%	0%	0%	0%	8	6	N	0%	Y		5 N
812	Bigs Creek	3031-B	0.0	0.2	0.20	M	321.9	3.7	12	5.5	18	2.4	8	3728	80	100	4	47%	0%	0%	0%	4	6	N	0%	Y		1 N
813	Bigs Creek	3020	0.0	0.1	0.10	M	160.9	4.3	14	3.7	12	1.8	6	1570	100	100	4	47%	0%	0%	0%	2	6	N	0%	Y		1 N
814	Bigs Creek	3020	0.1	0.3	0.18	M	281.6	4.3	14	3.7	12	3.0	10	3090	90	100	4	47%	0%	0%	0%	2	6	N	0%	Y		1 N
815	Bigs Creek	3020	0.3	0.4	0.15	M	241.4	4.3	14	4.6	15	3.0	10	2870	80	100	4	47%	0%	0%	0%	2	6	N	0%	Y		1 N
816	Bigs Creek	3020	0.4	0.6	0.15	M	241.4	4.3	14	4.6	15	3.0	10	2870	50	100	4	47%	50%	100%	0%	2	6	N	100%	N		1 Y
817	Bigs Creek	3020	0.6	0.6	0.05	M	80.5	4.3	14	3.7	12	2.4	8	834	90	100	4	47%	0%	0%	0%	2	6	N	0%	Y		1 N
818	Bigs Creek	3020	0.6	0.7	0.03	S	40.2	4.3	14	1.8	6	2.4	8	343	100	100	4	47%	100%	100%	100%	2	6	N	100%	N		1 Y
819	Bigs Creek	3020	0.7	0.8	0.15	M	241.4	4.3	14	4.6	15	2.4	8	2722	90	100	4	47%	100%	100%	0%	2	6	N	100%	N		1 Y
820	Bigs Creek	3020	0.8	1.0	0.20	M	321.9	4.3	14	4.6	15	3.0	10	3826	90	100	4	47%	50%	100%	0%	2	6	N	100%	N		1 Y
821	Bigs Creek	3020	1.0	1.2	0.15	M	241.4	4.3	14	6.1	20	3.7	12	3385	50	100	4	90%	0%	0%	0%	2	6	N	0%	Y		1 N
822	Bigs Creek	3020	1.2	1.2	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y		1 N
823	Bigs Creek	3020	1.2	1.3	0.05	M	80.5	4.3	14	3.7	12	2.4	8	834	100	100	4	90%	50%	100%	0%	2	6	N	100%	N		1 Y
824	Bigs Creek	3020	1.3	1.4	0.15	M	241.4	4.3	14	3.7	12	1.8	6	2355	100	100	4	90%	50%	100%	0%	2	6	N	100%	N		1 Y
825	Bigs Creek	3020	1.4	1.6	0.20	M	321.9	4.3	14	3.7	12	2.4	8	3336	100	100	4	90%	50%	100%	0%	2	6	N	100%	N		1 Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
591	Bigs Creek	3000	0.81	0.81	0.48	0.16	0.15	0.09	0.01	0.01	0.01	0.00	0.04	0.03	0.06	0.04	0.66	0.03	1.16		
592	Bigs Creek	3000	0.81	0.48	0.32	0.16	0.09	0.06	0.16	0.09	0.06	0.06	0.81	0.21	0.95	0.43	5.21	0.23	9.23		
593	Bigs Creek	3000	0.81	0.48	0.40	0.16	0.09	0.07	0.16	0.09	0.07	0.06	0.81	0.22	0.97	0.44	5.58	0.25	9.87		
594	Bigs Creek	3000	3.23	3.23	1.61	0.65	0.58	0.29	0.32	0.58	0.00	0.13	1.81	0.71	2.19	0.29	4.41	0.78	7.81		
595	Bigs Creek	3000	6.46	8.07	3.87	1.29	1.45	0.70	0.65	1.45	0.00	0.26	3.23	1.71	4.68	0.31	5.31	1.88	9.41		
596	Bigs Creek	3000	5.81	2.42	1.94	1.16	0.44	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
597	Bigs Creek	3000	0.97	0.48	0.32	0.19	0.09	0.06	0.19	0.09	0.06	0.08	0.97	0.22	1.11	0.41	5.54	0.24	9.80		
598	Bigs Creek	3000	2.66	1.21	0.97	0.53	0.22	0.17	0.27	0.22	0.00	0.11	1.33	0.32	1.55	0.22	2.69	0.36	4.76		
599	Bigs Creek	3000	5.65	5.65	4.24	1.13	1.02	0.76	0.56	1.02	0.00	0.23	2.82	1.24	3.84	0.26	4.41	1.37	7.81		
600	Bigs Creek	3000	4.84	3.63	1.94	0.97	0.65	0.35	0.48	0.65	0.00	0.19	2.42	0.85	3.07	0.27	3.51	0.93	6.21		
617	Bigs Creek	3030	5.77	9.01	5.41	1.15	1.62	0.97	0.69	1.62	0.10	0.28	3.46	2.00	5.18	0.48	8.27	2.20	14.64		
618	Bigs Creek	3030	0.96	1.20	0.72	0.19	0.22	0.13	0.12	0.22	0.01	0.05	0.58	0.28	0.81	0.47	6.85	0.30	12.12		
619	Bigs Creek	3030	4.81	6.01	3.61	0.96	1.08	0.65	0.24	1.08	0.00	0.10	1.20	1.18	2.28	0.40	5.85	1.30	10.36		
789	Bigs Creek	3031	0.48	0.61	0.61	0.10	0.11	0.11	0.10	0.11	0.11	0.04	0.48	0.26	0.70	0.50	6.38	0.28	11.29		
790	Bigs Creek	3031	2.26	1.29	0.97	2.26	0.23	0.17	1.36	0.23	0.02	0.54	6.78	0.79	7.03	0.58	4.92	0.87	8.71		
791	Bigs Creek	3031	2.26	4.03	1.61	2.26	0.73	0.29	0.11	0.07	0.00	0.05	0.56	0.12	0.64	0.05	0.73	0.13	1.30		
792	Bigs Creek	3031	6.21	11.10	4.44	6.21	2.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
793	Bigs Creek	3031	2.26	4.03	1.94	2.26	0.73	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
794	Bigs Creek	3031	6.21	8.88	5.33	6.21	1.60	0.96	3.11	1.60	0.00	1.24	15.53	2.84	17.13	0.46	6.42	3.12	11.36		
795	Bigs Creek	3031	2.82	3.03	2.02	2.82	0.54	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
796	Bigs Creek	3031	0.56	0.32	0.32	0.56	0.06	0.06	0.34	0.06	0.01	0.14	1.69	0.20	1.76	0.54	4.96	0.22	8.78		
797	Bigs Creek	3031	1.69	0.73	0.73	1.69	0.13	0.13	0.08	0.01	0.00	0.03	0.42	0.05	0.44	0.05	0.39	0.05	0.69		
798	Bigs Creek	3031	7.26	15.13	6.05	7.26	2.72	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
799	Bigs Creek	3031	4.36	5.45	3.63	4.36	0.98	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
800	Bigs Creek	3031	1.94	2.42	1.61	1.45	0.44	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
801	Bigs Creek	3031	3.87	4.84	1.94	3.87	0.87	0.35	0.39	0.17	0.00	0.15	1.94	0.33	2.11	0.10	1.02	0.36	1.81		
802	Bigs Creek	3031	2.90	3.63	1.94	2.90	0.65	0.35	0.29	0.33	0.00	0.12	1.45	0.44	1.78	0.17	1.84	0.49	3.25		
803	Bigs Creek	3031	1.94	3.23	1.61	1.94	0.58	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
804	Bigs Creek	3031	1.94	2.42	1.61	1.94	0.44	0.29	0.19	0.09	0.00	0.08	0.97	0.16	1.06	0.09	1.02	0.18	1.81		
805	Bigs Creek	3031	4.36	5.45	2.90	4.36	0.98	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
806	Bigs Creek	3031	0.40	0.48	0.32	0.40	0.09	0.06	0.40	0.09	0.06	0.04	0.04	0.19	0.19	0.50	4.61	0.20	8.17		
807	Bigs Creek	3031	4.84	3.87	2.90	4.84	0.70	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
808	Bigs Creek	3031	0.40	0.32	0.24	0.40	0.06	0.04	0.40	0.06	0.00	0.04	0.04	0.10	0.10	0.33	2.45	0.11	4.33		
809	Bigs Creek	3031	1.21	0.73	0.48	1.21	0.13	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
810	Bigs Creek	3031-D	2.90	2.90	1.94	2.90	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
811	Bigs Creek	3031-C	5.81	7.75	5.16	5.81	1.39	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
812	Bigs Creek	3031-B	3.87	5.81	2.58	3.87	1.05	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
813	Bigs Creek	3020	2.26	1.94	0.97	2.26	0.35	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
814	Bigs Creek	3020	3.95	3.39	2.82	3.95	0.61	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
815	Bigs Creek	3020	3.39	3.63	2.42	3.39	0.65	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
816	Bigs Creek	3020	3.39	3.63	2.42	3.39	0.65	0.44	1.69	0.65	0.00	0.68	8.47	1.33	9.13	0.46	5.52	1.46	9.76		
817	Bigs Creek	3020	1.13	0.97	0.65	1.13	0.17	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
818	Bigs Creek	3020	0.56	0.24	0.32	0.56	0.04	0.06	0.56	0.04	0.06	0.23	2.82	0.33	2.93	0.95	8.14	0.36	14.41		
819	Bigs Creek	3020	3.39	3.63	1.94	3.39	0.65	0.35	3.39	0.65	0.00	1.36	16.95	2.01	17.60	0.74	8.32	2.21	14.73		
820	Bigs Creek	3020	4.52	4.84	3.23	4.52	0.87	0.58	2.26	0.87	0.00	0.90	11.30	1.78	12.17	0.46	5.52	1.95	9.76		
821	Bigs Creek	3020	6.49	9.27	5.56	6.49	1.67	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
822	Bigs Creek	3020	3.24	2.78	1.39	3.24	0.50	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
823	Bigs Creek	3020	2.16	1.85	1.24	2.16	0.33	0.22	1.08	0.33	0.00	0.43	5.41	0.77	5.74	0.92	9.52	0.84	16.86		
824	Bigs Creek	3020	6.49	5.56	2.78	6.49	1.00	0.50	3.24	1.00	0.00	1.30	16.22	2.30	17.23	0.98	9.52	2.53	16.86		
825	Bigs Creek	3020	8.65	7.42	4.94	8.65	1.34	0.89	4.33	1.34	0.00	1.73	21.63	3.07	22.97	0.92	9.52	3.37	16.86		

Attac. 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
839	Bigs Creek	3025	0.0	0.1	0.10	M	160.9	3.7	12	1.2	4	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
840	Bigs Creek	3025	0.1	0.2	0.13	M	201.2	3.0	10	1.8	6	1.2	4	1226	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
844	Bigs Creek	1008	0.0	0.1	0.13	R	201.2	3.0	10	1.2	4	1.2	4	1104	100	100	6	90%	0%	0%	0%	4	6	N	0%	N	1	N
845	Bigs Creek	3021	0.0	0.1	0.13	M	201.2	4.3	14	3.7	12	1.8	6	1962	90	100	5	47%	0%	0%	0%	4	6	N	0%	Y	1	N
846	Bigs Creek	3021	0.1	0.2	0.05	M	80.5	4.3	14	3.7	12	1.8	6	785	100	100	5	47%	0%	0%	0%	4	6	N	0%	Y	1	N
847	Bigs Creek	3021	0.2	0.2	0.05	M	80.5	3.7	12	3.0	10	1.8	6	687	100	100	4	47%	0%	0%	0%	4	6	N	0%	Y	1	N
848	Bigs Creek	3021	0.2	0.4	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	100	100	4	47%	0%	0%	0%	4	6	N	0%	Y	1	N
849	Bigs Creek	3021	0.4	0.6	0.18	M	281.6	3.7	12	3.7	12	1.8	6	2575	60	100	4	47%	0%	0%	0%	4	6	N	0%	N	1	N
850	Bigs Creek	3021-B	0.0	0.1	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	40	90	4	47%	0%	0%	0%	4	6	Y	0%	Y	1	N
851	Bigs Creek	3021-A	0.0	0.2	0.18	R	281.8	3.7	12	1.8	6	1.2	4	1889	20	90	4	47%	0%	0%	0%	4	6	Y	0%	Y	1	N
852	Bigs Creek	3010	0.0	0.1	0.05	M	80.5	4.3	14	3.0	10	2.4	8	785	60	80	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
853	Bigs Creek	3010	0.1	0.2	0.15	M	241.4	4.3	14	3.0	10	1.8	6	2207	100	100	4	70%	10%	100%	0%	2	6	N	100%	N	2	Y
854	Bigs Creek	3010	0.2	0.7	0.50	R	804.7	4.3	14	3.0	10	1.8	6	7358	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
865	Bigs Creek	2400	1.9	2.1	0.23	M	362.1	4.3	14	3.7	12	2.4	8	3753	100	100	5	70%	5%	10%	0%	2	6	N	10%	Y	1	Y
866	Bigs Creek	2400	2.1	2.5	0.43	M	684.0	4.3	14	3.7	12	2.4	8	7088	90	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	N
867	Bigs Creek	2400	2.5	2.6	0.08	M	120.7	4.3	14	4.6	15	2.4	8	1361	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
868	Bigs Creek	2400	2.6	2.6	0.02	M	40.2	4.3	14	4.6	15	3.0	10	478	80	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	N
869	Bigs Creek	2400	2.6	2.7	0.10	M	160.9	4.3	14	6.1	20	3.0	10	2158	60	100	5	70%	50%	100%	10%	2	6	N	100%	N	1	Y
870	Bigs Creek	2400	2.7	2.8	0.07	M	120.7	4.3	14	7.6	25	4.6	15	1987	80	100	5	70%	50%	100%	10%	2	6	N	100%	N	1	Y
871	Bigs Creek	2400	2.8	2.9	0.15	M	241.4	4.3	14	9.1	30	4.6	15	4341	90	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
872	Bigs Creek	2400	2.9	3.0	0.08	M	120.7	4.3	14	7.6	25	4.6	15	1987	90	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
873	Bigs Creek	2400	3.0	3.2	0.15	M	241.4	4.3	14	6.1	20	3.7	12	3385	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
874	Bigs Creek	2400	3.2	3.3	0.18	S	281.6	4.3	14	9.1	30	4.6	15	5065	50	80	5	70%	60%	100%	10%	2	6	N	100%	N	1	Y
875	Bigs Creek	2400	3.3	3.4	0.10	M	160.9	4.3	14	6.1	20	3.7	12	2256	90	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
876	Bigs Creek	2400	3.4	3.5	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
877	Bigs Creek	2400	3.5	3.6	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
878	Bigs Creek	2400	3.6	3.7	0.07	M	120.7	4.3	14	6.1	20	3.7	12	1692	60	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	N
879	Bigs Creek	2400	3.7	3.9	0.23	M	362.1	4.3	14	7.6	25	3.7	12	5629	80	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	N
880	Bigs Creek	2400	3.9	3.9	0.02	M	40.2	4.3	14	3.7	12	1.8	6	392	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
881	Bigs Creek	2400	3.9	4.0	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
882	Bigs Creek	2400	4.0	4.0	0.03	M	40.2	4.3	14	5.5	18	2.4	8	491	90	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
883	Bigs Creek	2400	4.0	4.2	0.18	M	281.6	4.3	14	7.6	25	3.0	10	4206	60	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
884	Bigs Creek	2400	4.2	4.3	0.05	M	80.5	4.3	14	12.2	40	4.6	15	1692	90	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	N
885	Bigs Creek	2400	4.3	4.3	0.05	M	80.5	4.3	14	4.6	15	3.0	10	957	100	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
886	Bigs Creek	2400	4.3	4.4	0.05	M	80.5	4.3	14	4.6	15	3.0	10	957	100	100	5	70%	5%	10%	0%	2	6	N	10%	Y	1	N
887	Bigs Creek	2400	4.4	4.5	0.10	M	160.9	4.3	14	3.0	10	1.8	6	1472	100	100	4	47%	0%	0%	0%	2	6	N	0%	N	2	N
888	Bigs Creek	2400	4.5	4.6	0.15	M	241.4	4.3	14	3.7	12	1.8	6	2355	100	100	4	47%	0%	0%	0%	2	6	N	0%	N	1	N
889	Bigs Creek	2400	4.6	4.9	0.30	M	482.8	4.3	14	4.6	15	2.4	8	5445	90	100	4	47%	10%	100%	0%	2	6	N	100%	Y	2	Y
890	Bigs Creek	2400	4.9	5.0	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	90	100	4	47%	0%	0%	0%	2	6	N	0%	Y	1	N
891	Bigs Creek	2400	5.0	5.0	0.03	M	40.2	4.3	14	3.7	12	1.8	6	392	100	100	4	47%	50%	100%	0%	2	6	N	100%	N	1	Y
892	Bigs Creek	2400	5.0	5.1	0.10	M	160.9	4.3	14	3.7	12	2.4	8	1668	80	100	4	47%	0%	0%	0%	2	6	N	0%	Y	1	N
893	Bigs Creek	2400	5.1	5.2	0.05	M	80.5	4.3	14	4.6	15	2.4	8	907	90	100	4	47%	50%	100%	0%	2	6	N	100%	Y	1	Y
894	Bigs Creek	2400	5.2	5.3	0.08	M	120.7	4.3	14	6.1	20	3.0	10	1619	50	100	4	47%	50%	100%	0%	2	6	N	100%	Y	1	Y
895	Bigs Creek	2400	5.3	5.3	0.05	S	80.5	4.3	14	4.6	15	4.6	15	1079	80	100	4	47%	50%	100%	10%	2	6	N	100%	N	1	Y
896	Bigs Creek	2400	5.3	5.4	0.08	M	120.7	3.7	12	4.6	15	3.7	12	1435	90	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	N
897	Bigs Creek	2400	5.4	5.5	0.08	M	120.7	4.3	14	3.7	12	3.0	10	1324	90	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	N
898	Bigs Creek	2400	5.5	5.5	0.05	M	80.5	4.3	14	4.6	15	2.4	8	907	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
899	Bigs Creek	2400	5.5	5.7	0.20	M	321.9	4.3	14	4.6	15	3.0	10	3826	80	90	4	70%	50%	100%	0%	2	6	N	100%	Y	1	N
900	Bigs Creek	2400	5.7	5.8	0.10	M	160.9	4.3	14	3.7	12	1.8	6	1570	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
901	Bigs Creek	2400	5.8	5.9	0.08	M	120.7	4.3	14	1.8	6	1.8	6	957	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from FillslopeDeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
839	Bigs Creek	3025	3.71	1.24	1.24	3.71	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
840	Bigs Creek	3025	3.86	2.32	1.55	3.86	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
844	Bigs Creek	1008	3.86	1.55	1.55	2.90	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
845	Bigs Creek	3021	2.82	2.42	1.21	0.56	0.44	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
846	Bigs Creek	3021	1.13	0.97	0.48	0.23	0.17	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
847	Bigs Creek	3021	0.97	0.81	0.48	0.97	0.15	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
848	Bigs Creek	3021	2.90	2.90	1.45	2.90	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
849	Bigs Creek	3021	3.39	3.39	1.69	3.39	0.61	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
850	Bigs Creek	3021-B	2.42	1.61	1.21	2.42	0.29	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
851	Bigs Creek	3021-A	3.39	1.69	1.13	3.39	0.31	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
852	Bigs Creek	3010	1.68	1.20	0.96	1.68	0.22	0.17	0.84	0.22	0.00	0.34	4.21	0.55	4.42	0.70	6.87	0.61	12.16		
853	Bigs Creek	3010	5.05	3.61	2.16	5.05	0.85	0.39	0.50	0.65	0.00	0.20	2.52	0.85	3.17	0.39	3.52	0.94	6.24		
854	Bigs Creek	3010	18.83	12.02	7.21	16.83	2.16	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
865	Bigs Creek	2400	7.57	6.49	4.33	1.51	1.17	0.78	0.08	0.12	0.00	0.03	0.38	0.15	0.50	0.04	0.41	0.16	0.72		
866	Bigs Creek	2400	14.30	12.26	8.17	2.88	2.21	1.47	1.43	2.21	0.00	0.57	7.15	2.78	9.36	0.39	4.06	3.06	7.19		
867	Bigs Creek	2400	2.52	2.70	1.44	0.50	0.49	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
868	Bigs Creek	2400	0.84	0.90	0.60	0.17	0.18	0.11	0.08	0.16	0.00	0.03	0.42	0.20	0.58	0.41	4.87	0.22	8.62		
869	Bigs Creek	2400	3.37	4.81	2.40	0.67	0.87	0.43	0.34	0.87	0.04	0.13	1.68	1.04	2.59	0.48	6.48	1.15	11.47		
870	Bigs Creek	2400	2.52	4.51	2.70	0.50	0.81	0.49	0.25	0.81	0.05	0.10	1.26	0.96	2.12	0.48	7.96	1.06	14.09		
871	Bigs Creek	2400	5.05	10.82	5.41	1.01	1.95	0.97	0.50	1.95	0.00	0.20	2.52	2.15	4.47	0.49	8.90	2.36	15.76		
872	Bigs Creek	2400	2.52	4.51	2.70	0.50	0.81	0.49	0.25	0.81	0.00	0.10	1.26	0.91	2.07	0.46	7.56	1.00	13.38		
873	Bigs Creek	2400	5.05	7.21	4.33	1.01	1.30	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
874	Bigs Creek	2400	5.89	12.62	6.31	1.18	2.27	1.14	0.71	2.27	0.11	0.28	3.53	2.67	5.92	0.53	9.47	2.93	16.77		
875	Bigs Creek	2400	3.37	4.81	2.88	0.67	0.87	0.52	0.34	0.87	0.00	0.13	1.68	1.00	2.55	0.44	8.21	1.10	11.00		
876	Bigs Creek	2400	2.52	2.16	1.08	0.50	0.39	0.19	0.25	0.39	0.00	0.10	1.26	0.49	1.65	0.42	4.06	0.54	7.19		
877	Bigs Creek	2400	3.37	3.61	1.92	0.67	0.65	0.35	0.34	0.65	0.00	0.13	1.68	0.78	2.33	0.43	4.87	0.86	8.62		
878	Bigs Creek	2400	2.52	3.61	2.18	0.50	0.65	0.39	0.25	0.65	0.00	0.10	1.26	0.75	1.91	0.44	6.21	0.82	11.00		
879	Bigs Creek	2400	7.57	13.52	6.49	1.51	2.43	1.17	0.76	2.43	0.00	0.30	3.79	2.74	6.22	0.49	7.56	3.01	13.38		
880	Bigs Creek	2400	0.84	0.72	0.36	0.17	0.13	0.06	0.08	0.13	0.00	0.03	0.42	0.16	0.55	0.42	4.06	0.18	7.19		
881	Bigs Creek	2400	2.52	2.16	1.08	0.50	0.39	0.19	0.25	0.39	0.00	0.10	1.26	0.49	1.65	0.42	4.06	0.54	7.19		
882	Bigs Creek	2400	0.84	1.08	0.48	0.17	0.19	0.09	0.08	0.19	0.00	0.03	0.42	0.23	0.62	0.47	5.68	0.25	10.05		
883	Bigs Creek	2400	5.89	10.52	4.21	1.18	1.89	0.76	0.59	1.89	0.00	0.24	2.94	2.13	4.84	0.51	7.56	2.34	13.38		
884	Bigs Creek	2400	1.68	4.81	1.80	0.34	0.87	0.32	0.17	0.87	0.00	0.07	0.84	0.93	1.71	0.55	11.59	1.03	20.52		
885	Bigs Creek	2400	1.68	1.80	1.20	0.34	0.32	0.22	0.17	0.32	0.00	0.07	0.84	0.39	1.17	0.41	4.87	0.43	8.62		
886	Bigs Creek	2400	1.68	1.80	1.20	0.34	0.32	0.22	0.02	0.03	0.00	0.01	0.08	0.04	0.12	0.04	0.49	0.04	0.86		
887	Bigs Creek	2400	2.26	1.61	0.97	2.26	0.29	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
888	Bigs Creek	2400	3.39	2.90	1.45	3.39	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
889	Bigs Creek	2400	6.78	7.26	3.87	6.78	1.31	0.70	0.68	1.31	0.00	0.27	3.39	1.58	4.70	0.29	3.27	1.74	5.79		
890	Bigs Creek	2400	2.26	2.42	1.29	2.26	0.44	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
891	Bigs Creek	2400	0.56	0.48	0.24	0.56	0.09	0.04	0.28	0.09	0.00	0.11	1.41	0.20	1.50	0.51	4.97	0.22	8.80		
892	Bigs Creek	2400	2.26	1.94	1.29	2.26	0.35	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
893	Bigs Creek	2400	1.13	1.21	0.65	1.13	0.22	0.12	0.56	0.22	0.00	0.23	2.82	0.44	3.04	0.49	5.52	0.49	9.76		
894	Bigs Creek	2400	1.69	2.42	1.21	1.69	0.44	0.22	0.85	0.44	0.00	0.34	4.24	0.77	4.67	0.48	6.42	0.85	11.36		
895	Bigs Creek	2400	1.13	1.21	1.21	1.13	0.22	0.22	0.56	0.22	0.02	0.23	2.82	0.47	3.06	0.43	5.79	0.51	10.24		
896	Bigs Creek	2400	2.16	2.70	2.16	2.16	0.49	0.39	1.08	0.49	0.00	0.43	5.41	0.92	5.89	0.64	7.62	1.01	13.48		
897	Bigs Creek	2400	2.52	2.16	1.80	2.52	0.39	0.32	1.26	0.39	0.00	0.50	6.31	0.89	6.70	0.68	7.41	0.98	13.11		
898	Bigs Creek	2400	1.68	1.80	0.96	1.68	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
899	Bigs Creek	2400	6.73	7.21	4.81	6.73	1.30	0.87	3.37	1.30	0.00	1.35	16.83	2.64	18.12	0.69	8.21	2.91	14.54		
900	Bigs Creek	2400	3.37	2.88	1.44	3.37	0.52	0.26	1.68	0.52	0.00	0.87	8.41	1.19	8.93	0.76	7.41	1.31	13.11		
901	Bigs Creek	2400	2.52	1.08	1.08	2.52	0.19	0.19	1.26	0.19	0.00	0.50	6.31	0.70	6.50	0.73	5.79	0.77	10.26		

Attac 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
902	Bigs Creek	2400	5.9	6.0	0.10	M	160.9	4.3	14	5.5	18	3.0	10	2060	80	100	4	70%	50%	100%	0%	2	6	N	100%	N		1 Y
903	Bigs Creek	2400	6.0	6.1	0.08	M	120.7	4.3	14	6.1	20	3.0	10	1619	60	100	4	70%	50%	100%	0%	2	6	N	100%	N		1 Y
904	Bigs Creek	2400	6.1	6.1	0.05	M	80.5	4.3	14	4.6	15	3.0	10	957	80	100	4	70%	50%	100%	0%	2	6	N	100%	Y		1 Y
905	Bigs Creek	2400	6.1	6.2	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	90	100	4	70%	50%	100%	0%	2	6	N	100%	N		1 Y
906	Bigs Creek	2400	6.2	6.3	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y		1 N
907	Bigs Creek	2400	6.3	6.4	0.08	M	120.7	3.7	12	3.0	10	1.2	4	957	100	100	4	70%	50%	100%	0%	2	8	N	100%	N		1 Y
908	Bigs Creek	2400	6.4	6.4	0.03	M	40.2	3.7	12	3.7	12	1.8	6	368	100	100	4	70%	50%	100%	0%	2	6	N	100%	N		1 Y
909	Bigs Creek	2400	6.4	6.5	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y		1 N
910	Bigs Creek	2400	6.5	6.7	0.15	M	241.4	4.3	14	3.7	12	1.8	6	2355	100	100	4	70%	50%	100%	0%	2	6	N	100%	N		1 Y
911	Bigs Creek	2410	0.0	0.6	0.60	R	965.6	3.7	12	3.0	10	1.8	6	8241	100	100	4	70%	0%	0%	0%	4	6	N	0%	N		1 N
912	Bigs Creek	2415	0.0	0.0	0.03	M	40.2	3.0	10	3.0	10	1.8	6	319	100	100	4	70%	100%	100%	100%	4	6	N	100%	N		5 Y
913	Bigs Creek	2415	0.0	0.2	0.15	M	241.4	3.0	10	3.7	12	1.8	6	2060	100	100	4	70%	0%	0%	0%	4	6	N	0%	N		2 N
914	Bigs Creek	2416	0.0	0.1	0.08	M	120.7	3.0	10	4.6	15	2.4	8	1214	100	100	6	70%	50%	100%	0%	4	6	N	100%	N		1 Y
915	Bigs Creek	2416	0.1	0.1	0.03	M	40.2	3.0	10	2.4	8	1.8	6	294	100	100	6	70%	50%	100%	0%	4	6	N	100%	N		1 Y
916	Bigs Creek	2416	0.1	0.2	0.13	M	201.2	3.0	10	3.7	12	1.8	6	1717	90	100	6	70%	0%	0%	0%	4	6	N	0%	N		1 N
917	Bigs Creek	2417	0.0	0.1	0.08	R	120.7	3.7	12	3.7	12	3.0	10	1251	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y		2 N
918	Bigs Creek	2417	0.1	0.3	0.23	R	362.1	3.0	10	4.8	15	3.0	10	3863	90	100	4	70%	0%	0%	0%	4	6	N	0%	N		2 N
956	Bigs Creek	2435	0.0	0.1	0.08	M	120.7	3.7	12	3.0	10	1.8	6	1030	100	100	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
957	Bigs Creek	2435	0.1	0.1	0.05	M	80.5	3.7	12	3.0	10	1.8	6	687	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
958	Bigs Creek	2435	0.1	0.2	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	80	100	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
959	Bigs Creek	2435	0.2	0.3	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
960	Bigs Creek	2435	0.3	0.4	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	80	100	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
961	Bigs Creek	2435	0.4	0.4	0.08	M	120.7	3.7	12	4.6	15	1.8	6	1214	50	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
962	Bigs Creek	2435	0.4	0.5	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	60	100	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
963	Bigs Creek	2435	0.5	0.7	0.15	M	241.4	3.7	12	4.8	15	2.4	8	2575	70	100	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
964	Bigs Creek	2435	0.7	0.8	0.10	M	160.9	3.7	12	4.6	15	1.8	6	1619	80	100	4	70%	0%	0%	0%	4	8	N	0%	Y		1 N
965	Bigs Creek	2435	0.8	0.9	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	80	90	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
966	Bigs Creek	2435	0.9	1.0	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	90	100	4	70%	0%	0%	0%	4	6	N	0%	N		1 N
967	Bigs Creek	2435	1.0	1.1	0.13	M	201.2	3.7	12	3.7	12	2.4	8	1962	80	100	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
968	Bigs Creek	2435	1.1	1.2	0.10	M	160.9	3.0	10	4.6	15	3.7	12	1815	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
969	Bigs Creek	2435	1.2	1.2	0.05	M	80.5	3.0	10	4.6	15	3.0	10	858	50	100	4	70%	0%	0%	0%	4	6	N	0%	N		1 N
970	Bigs Creek	3033	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	80	100	4	70%	0%	0%	0%	4	8	N	0%	Y		1 N
971	Bigs Creek	3033	0.1	0.1	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	80	100	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
972	Bigs Creek	3033	0.1	0.3	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	40	100	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
973	Bigs Creek	3033	0.3	0.4	0.13	M	201.2	3.7	12	6.1	20	2.4	8	2453	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
974	Bigs Creek	3033	0.4	0.5	0.10	M	160.9	3.7	12	4.6	15	1.8	6	1619	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
982	Bigs Creek	2434	0.0	0.1	0.10	R	160.9	3.7	12	2.4	8	1.8	6	1275	90	100	4	70%	0%	0%	0%	4	6	N	0%	N		1 N
983	Bigs Creek	2431	0.0	0.3	0.30	R	482.8	3.0	10	1.2	4	1.2	4	2649	100	100	4	47%	0%	0%	0%	4	6	N	0%	N		1 N
984	Bigs Creek	2430	0.0	0.2	0.15	M	241.4	4.3	14	6.1	20	3.0	10	3238	90	100	4	47%	5%	10%	0%	2	6	N	10%	Y		1 N
985	Bigs Creek	2430	0.2	0.6	0.40	M	643.7	3.7	12	6.1	20	3.0	10	8241	90	100	4	47%	1%	2%	0%	2	6	N	10%	Y		2 N
986	Bigs Creek	2430	0.6	1.0	0.45	M	724.2	3.7	12	4.6	15	3.0	10	8167	100	100	4	47%	0%	0%	0%	2	6	N	0%	N		2 N
987	Bigs Creek	2430	1.0	1.1	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	100	100	4	47%	100%	100%	0%	4	6	N	100%	N		1 Y
988	Bigs Creek	2430	1.1	1.1	0.02	M	40.2	3.7	12	3.7	12	1.8	6	368	100	100	4	47%	5%	10%	0%	4	6	N	10%	Y		1 N
989	Bigs Creek	2430	1.1	1.2	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	100	100	4	47%	0%	0%	0%	4	6	N	0%	N		1 N
990	Bigs Creek	2430	1.2	1.2	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	90	100	4	47%	50%	100%	0%	4	6	N	100%	N		1 Y
991	Bigs Creek	2430	1.2	1.4	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	50	100	4	47%	0%	0%	0%	4	6	N	0%	Y		1 N
992	Bigs Creek	2430	1.4	1.4	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	80	100	4	47%	5%	10%	0%	4	6	N	10%	Y		1 N
993	Bigs Creek	2430	1.4	1.5	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	80	100	4	47%	25%	100%	0%	4	6	N	100%	N		2 Y
994	Bigs Creek	2430	1.5	1.6	0.10	M	160.9	3.7	12	9.1	30	3.7	12	2649	20	100	4	47%	25%	100%	0%	4	6	N	100%	Y		2 N
995	Bigs Creek	2430	1.6	1.9	0.30	M	482.8	3.7	12	6.1	20	3.0	10	6181	80	100	4	47%	0%	0%	0%	4	6	N	0%	N		2 N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
902	Bigs Creek	2400	3.37	4.33	2.40	3.37	0.78	0.43	1.68	0.78	0.00	0.67	8.41	1.45	9.19	0.70	9.02	1.60	15.97		
903	Bigs Creek	2400	2.52	3.61	1.80	2.52	0.65	0.32	1.26	0.65	0.00	0.50	6.31	1.15	6.96	0.71	9.56	1.27	16.92		
904	Bigs Creek	2400	1.68	1.80	1.20	1.68	0.32	0.22	0.84	0.32	0.00	0.34	4.21	0.66	4.53	0.69	8.21	0.73	14.54		
905	Bigs Creek	2400	2.16	2.70	1.44	2.16	0.49	0.26	1.08	0.49	0.00	0.43	5.41	0.92	5.89	0.71	7.62	1.01	13.48		
906	Bigs Creek	2400	3.61	4.51	2.40	3.61	0.81	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
907	Bigs Creek	2400	2.16	1.80	0.72	2.16	0.32	0.13	1.08	0.32	0.00	0.43	5.41	0.76	5.73	0.79	6.27	0.83	11.10		
908	Bigs Creek	2400	0.72	0.72	0.36	0.72	0.13	0.06	0.36	0.13	0.00	0.14	1.80	0.27	1.93	0.74	6.81	0.30	12.06		
909	Bigs Creek	2400	2.88	1.92	1.44	2.88	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
910	Bigs Creek	2400	5.05	4.33	2.16	5.05	0.78	0.39	2.52	0.78	0.00	1.01	12.62	1.79	13.40	0.76	7.41	1.97	13.11		
911	Bigs Creek	2410	17.31	14.42	8.65	17.31	2.60	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
912	Bigs Creek	2415	0.60	0.60	0.36	0.60	0.11	0.06	0.60	0.11	0.06	0.06	0.06	0.23	0.23	0.73	5.79	0.26	10.26		
913	Bigs Creek	2415	3.61	4.33	2.16	3.61	0.78	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
914	Bigs Creek	2416	1.80	2.70	1.44	1.35	0.49	0.26	0.68	0.49	0.00	0.07	0.07	0.55	0.55	0.46	4.59	0.61	8.13		
915	Bigs Creek	2416	0.60	0.48	0.36	0.45	0.09	0.06	0.23	0.09	0.00	0.02	0.02	0.11	0.11	0.37	2.71	0.12	4.80		
916	Bigs Creek	2416	3.00	3.61	1.80	2.25	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
917	Bigs Creek	2417	2.16	2.16	1.80	2.16	0.39	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
918	Bigs Creek	2417	5.41	8.11	5.41	5.41	1.46	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
956	Bigs Creek	2435	2.16	1.80	1.08	2.16	0.32	0.19	1.08	0.32	0.00	0.11	0.11	0.43	0.43	0.42	3.58	0.48	6.35		
957	Bigs Creek	2435	1.44	1.20	0.72	1.44	0.22	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
958	Bigs Creek	2435	1.44	1.44	0.96	1.44	0.26	0.17	0.72	0.26	0.00	0.07	0.07	0.33	0.33	0.42	4.12	0.36	7.30		
959	Bigs Creek	2435	2.16	2.70	1.80	2.16	0.49	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
960	Bigs Creek	2435	2.88	2.40	1.44	2.88	0.43	0.26	1.44	0.43	0.00	0.14	0.14	0.58	0.58	0.42	3.58	0.63	6.35		
961	Bigs Creek	2435	2.16	2.70	1.08	2.16	0.49	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
962	Bigs Creek	2435	2.88	4.81	2.40	2.88	0.87	0.43	1.44	0.87	0.00	0.14	0.14	1.01	1.01	0.49	6.27	1.11	11.10		
963	Bigs Creek	2435	4.33	5.41	2.88	4.33	0.97	0.52	2.16	0.97	0.00	0.22	0.22	1.19	1.19	0.46	4.93	1.31	8.72		
964	Bigs Creek	2435	2.88	3.61	1.44	2.88	0.65	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
965	Bigs Creek	2435	2.16	2.70	1.44	2.16	0.49	0.26	1.08	0.49	0.00	0.11	0.11	0.59	0.59	0.46	4.93	0.65	8.72		
966	Bigs Creek	2435	2.88	2.88	1.44	2.88	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
967	Bigs Creek	2435	3.61	3.61	2.40	3.61	0.65	0.43	1.80	0.65	0.00	0.18	0.18	0.83	0.83	0.42	4.12	0.91	7.30		
968	Bigs Creek	2435	2.40	3.61	2.88	2.40	0.65	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
969	Bigs Creek	2435	1.20	1.80	1.20	1.20	0.32	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
970	Bigs Creek	3033	2.88	2.86	1.92	2.88	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
971	Bigs Creek	3033	0.72	0.90	0.48	0.72	0.16	0.09	0.36	0.16	0.00	0.04	0.04	0.20	0.20	0.46	4.93	0.22	8.72		
972	Bigs Creek	3033	3.61	4.51	2.40	3.61	0.81	0.43	1.80	0.81	0.00	0.18	0.18	0.99	0.99	0.46	4.93	1.09	8.72		
973	Bigs Creek	3033	3.61	6.01	2.40	3.61	1.08	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
974	Bigs Creek	3033	2.88	3.61	1.44	2.88	0.65	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
982	Bigs Creek	2434	2.88	1.92	1.44	2.88	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
983	Bigs Creek	2431	4.84	1.94	1.94	4.84	0.35	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
984	Bigs Creek	2430	3.39	4.84	2.42	3.39	0.87	0.44	0.17	0.09	0.00	0.07	0.85	0.15	0.93	0.05	0.64	0.17	1.14		
985	Bigs Creek	2430	7.75	12.91	6.46	7.75	2.32	1.16	0.08	0.05	0.00	0.03	0.39	0.08	0.43	0.01	0.12	0.09	0.21		
986	Bigs Creek	2430	8.71	10.89	7.26	8.71	1.96	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
987	Bigs Creek	2430	0.97	0.97	0.65	0.97	0.17	0.12	0.97	0.17	0.00	0.10	0.10	0.27	0.27	0.35	3.37	0.30	5.96		
988	Bigs Creek	2430	0.48	0.48	0.24	0.48	0.09	0.04	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.03	0.28	0.01	0.49		
989	Bigs Creek	2430	2.42	3.03	1.61	2.42	0.54	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
990	Bigs Creek	2430	0.48	0.61	0.32	0.48	0.11	0.06	0.24	0.11	0.00	0.02	0.02	0.13	0.13	0.31	3.31	0.15	5.86		
991	Bigs Creek	2430	2.42	3.03	2.02	2.42	0.54	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
992	Bigs Creek	2430	0.97	1.21	0.65	0.97	0.22	0.12	0.05	0.02	0.00	0.00	0.00	0.03	0.03	0.03	0.33	0.03	0.59		
993	Bigs Creek	2430	2.42	3.03	2.02	2.42	0.54	0.36	0.61	0.54	0.00	0.06	0.06	0.61	0.61	0.27	3.01	0.67	5.33		
994	Bigs Creek	2430	1.94	4.84	1.94	1.94	0.87	0.35	0.48	0.87	0.00	0.05	0.05	0.92	0.92	0.35	5.72	1.01	10.12		
995	Bigs Creek	2430	5.81	9.68	4.84	5.81	1.74	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac 85. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
996	Bigs Creek	2430	1.9	2.0	0.05	M	80.5	3.7	12	7.6	25	2.4	8	1104	60	100	4	47%	0%	0%	0%	4	6	N	0%	Y	1	N
997	Bigs Creek	2432	0.0	0.1	0.10	M	160.9	3.7	12	3.0	10	2.4	8	1472	90	100	4	47%	0%	0%	0%	4	6	N	0%	Y	1	N
998	Bigs Creek	2432	0.1	0.2	0.10	M	160.9	3.7	12	2.4	8	2.4	8	1374	90	100	4	47%	0%	0%	0%	4	6	N	0%	N	1	N
999	Bigs Creek	2420	0.0	0.3	0.30	M	482.8	4.3	14	5.5	18	3.0	10	6181	90	100	4	47%	5%	10%	0%	2	6	N	10%	Y	1	N
1000	Bigs Creek	2420	0.3	0.8	0.45	R	724.2	4.3	14	3.7	12	2.4	8	7505	100	100	4	47%	0%	0%	0%	2	6	N	0%	N	1	N
1001	Bigs Creek	2420	0.8	1.0	0.25	R	402.3	3.0	10	1.8	6	1.8	6	2698	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
1002	Bigs Creek	2421	0.0	0.3	0.25	M	402.3	3.7	12	5.5	18	3.0	10	4905	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1003	Bigs Creek	2421	0.3	0.3	0.03	M	40.2	3.7	12	3.7	12	2.4	8	392	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1004	Bigs Creek	2421	0.3	0.3	0.03	M	40.2	3.7	12	3.0	10	2.4	8	368	100	100	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
1005	Bigs Creek	2421	0.3	0.4	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1006	Bigs Creek	2421	0.4	0.4	0.03	M	40.2	3.0	10	3.7	12	1.8	6	343	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1007	Bigs Creek	2421	0.4	0.5	0.08	M	120.7	3.0	10	3.0	10	1.8	6	957	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1008	Bigs Creek	2421	0.5	0.5	0.03	M	40.2	3.0	10	3.0	10	1.8	6	319	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1009	Bigs Creek	2421	0.5	0.6	0.05	M	80.5	3.7	12	3.0	10	1.8	6	687	100	100	4	70%	50%	100%	0%	5	6	N	100%	N	1	Y
1010	Bigs Creek	2421	0.6	0.7	0.13	M	201.2	3.7	12	3.0	10	1.8	6	1717	90	100	4	70%	0%	0%	0%	5	6	N	0%	N	1	N
1011	Bigs Creek	2422	0.0	0.2	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	100	100	4	47%	5%	10%	0%	4	6	N	10%	Y	1	N
1012	Bigs Creek	2422	0.2	0.2	0.05	M	80.5	3.7	12	1.8	6	1.2	4	540	100	100	4	47%	0%	0%	0%	4	6	N	0%	N	1	N
1013	Bigs Creek	2422	0.2	0.3	0.05	M	80.5	3.7	12	3.0	10	1.8	6	687	100	100	4	47%	50%	100%	0%	4	6	N	100%	N	1	Y
1014	Bigs Creek	2422	0.3	0.5	0.25	R	402.3	3.7	12	3.7	12	1.8	6	3679	100	100	4	47%	0%	0%	0%	4	6	N	0%	N	1	N
1036	Bigs Creek	2600	0.0	0.1	0.10	M	160.9	4.9	16	3.0	10	1.8	6	1570	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1037	Bigs Creek	2600	0.1	0.2	0.10	M	160.9	4.9	16	3.0	10	1.8	6	1570	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1038	Bigs Creek	2600	0.2	0.3	0.13	M	201.2	4.9	16	2.4	8	1.8	6	1840	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1039	Bigs Creek	2600	0.3	0.8	0.48	M	764.4	4.9	16	3.0	10	1.8	6	7456	90	100	4	70%	25%	50%	0%	2	6	N	100%	N	1	Y
1040	Bigs Creek	2600	0.8	1.1	0.33	M	523.0	4.3	14	3.7	12	1.8	6	5102	100	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
1041	Bigs Creek	2600	1.1	1.3	0.18	M	281.6	4.3	14	3.0	10	1.8	6	2575	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1042	Bigs Creek	2600	1.3	1.4	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	90	90	4	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
1043	Bigs Creek	2600	1.4	1.5	0.10	M	160.9	4.3	14	3.7	12	1.8	6	1570	90	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
1044	Bigs Creek	2600	1.5	1.7	0.18	M	281.6	4.3	14	3.0	10	1.8	6	2575	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1045	Bigs Creek	2600	1.7	1.8	0.13	S	201.2	4.3	14	3.7	12	1.8	6	1962	100	100	4	70%	60%	100%	10%	4	6	N	100%	Y	1	N
1046	Bigs Creek	2600	1.8	2.1	0.28	M	442.6	4.3	14	6.1	20	2.4	8	5666	50	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1047	Bigs Creek	2600	2.1	2.1	0.05	M	80.5	4.3	14	4.6	15	2.4	8	907	50	100	4	70%	10%	100%	0%	4	6	N	100%	N	2	Y
1048	Bigs Creek	2600	2.1	2.3	0.20	M	321.9	3.7	12	4.6	15	3.0	10	3630	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1049	Bigs Creek	2600	2.3	2.3	0.03	S	40.2	3.7	12	3.7	12	2.4	6	392	100	100	4	70%	10%	10%	10%	4	6	N	10%	Y	2	N
1050	Bigs Creek	2600	2.3	2.4	0.07	M	120.7	3.7	12	4.6	15	1.8	6	1214	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1051	Bigs Creek	2600	2.4	2.5	0.13	M	201.2	4.3	14	5.5	18	2.4	8	2453	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1052	Bigs Creek	2600	2.5	2.6	0.08	M	120.7	4.3	14	3.7	12	2.4	8	1251	80	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1053	Bigs Creek	2600	2.6	2.7	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1054	Bigs Creek	2600	2.7	2.9	0.18	M	281.6	3.7	12	4.6	15	2.4	8	3005	90	100	4	70%	25%	100%	0%	4	6	N	100%	N	2	Y
1055	Bigs Creek	2600SPUR	0.0	0.1	0.05	M	80.5	3.0	10	1.8	6	1.2	4	491	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1056	Bigs Creek	2600SPUR	0.1	0.1	0.05	M	80.5	3.0	10	1.8	6	1.8	6	540	100	100	4	70%	100%	100%	100%	4	6	N	100%	N	5	N
1057	Bigs Creek	2602	0.0	0.0	0.03	M	40.2	3.0	10	1.8	6	1.2	4	245	100	100	4	70%	50%	50%	50%	4	6	N	0%	N	5	N
1058	Bigs Creek	2602	0.0	0.1	0.08	M	120.7	3.0	10	1.8	6	1.2	4	736	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1059	Bigs Creek	2650	0.0	0.4	0.40	R	643.7	3.7	12	1.8	6	1.8	6	4709	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1059	Bigs Creek	2670	0.0	0.2	0.18	R	281.6	3.0	10	1.2	4	1.2	4	1545	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1060	Bigs Creek	2651	0.0	0.2	0.20	M	321.9	3.7	12	1.2	4	1.2	4	1962	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1060	Bigs Creek	2670-A	0.0	0.1	0.10	R	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1061	Bigs Creek	2690	0.0	0.2	0.18	M	281.6	3.0	10	3.0	10	1.8	6	2232	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1062	Bigs Creek	2690	0.2	0.4	0.23	M	362.1	3.0	10	2.4	8	1.2	4	2428	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1063	Bigs Creek	2695	0.0	0.4	0.38	M	603.5	3.0	10	3.7	12	1.8	6	5151	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1064	Bigs Creek	2700	0.0	0.1	0.10	M	160.9	4.3	14	3.0	10	1.8	6	1472	100	100	5	90%	50%	100%	0%	2	6	N	100%	Y	1	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
996	Bigs Creek	2430	0.97	2.02	0.65	0.97	0.36	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
997	Bigs Creek	2432	1.94	1.61	1.29	1.94	0.29	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
998	Bigs Creek	2432	1.94	1.29	1.29	1.94	0.23	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
999	Bigs Creek	2420	6.76	8.71	4.84	6.78	1.57	0.87	0.34	0.16	0.00	0.14	1.69	0.29	1.85	0.05	0.61	0.32	1.07		
1000	Bigs Creek	2420	10.17	8.71	5.81	10.17	1.57	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1001	Bigs Creek	2420	6.01	3.61	3.61	6.01	0.65	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1002	Bigs Creek	2421	7.21	10.82	6.01	7.21	1.95	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1003	Bigs Creek	2421	0.72	0.72	0.48	0.72	0.13	0.09	0.36	0.13	0.00	0.04	0.04	0.17	0.17	0.42	4.12	0.18	7.30		
1004	Bigs Creek	2421	0.72	0.60	0.48	0.72	0.11	0.09	0.04	0.01	0.00	0.00	0.00	0.01	0.01	0.04	0.36	0.02	0.63		
1005	Bigs Creek	2421	2.88	2.88	1.44	2.88	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1006	Bigs Creek	2421	0.60	0.72	0.36	0.60	0.13	0.06	0.30	0.13	0.00	0.03	0.03	0.16	0.16	0.47	3.97	0.18	7.03		
1007	Bigs Creek	2421	1.80	1.80	1.08	1.80	0.32	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1008	Bigs Creek	2421	0.60	0.60	0.36	0.60	0.11	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1009	Bigs Creek	2421	1.44	1.20	0.72	1.44	0.22	0.13	0.72	0.22	0.00	0.07	0.07	0.29	0.29	0.42	3.58	0.32	6.35		
1010	Bigs Creek	2421	3.61	3.00	1.80	3.61	0.54	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1011	Bigs Creek	2422	2.90	2.90	1.45	2.90	0.52	0.26	0.15	0.05	0.00	0.01	0.01	0.07	0.07	0.03	0.28	0.07	0.49		
1012	Bigs Creek	2422	0.97	0.48	0.32	0.97	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1013	Bigs Creek	2422	0.97	0.81	0.48	0.97	0.15	0.09	0.48	0.15	0.00	0.05	0.05	0.19	0.19	0.28	2.41	0.21	4.26		
1014	Bigs Creek	2422	4.84	4.84	2.42	4.84	0.87	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1036	Bigs Creek	2600	3.85	2.40	1.44	3.85	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1037	Bigs Creek	2600	3.85	2.40	1.44	3.85	0.43	0.26	1.92	0.43	0.00	0.77	9.61	1.20	10.05	0.77	7.47	1.32	13.22		
1038	Bigs Creek	2600	4.81	2.40	1.80	4.81	0.43	0.32	2.40	0.43	0.00	0.96	12.02	1.39	12.45	0.76	6.93	1.53	12.27		
1039	Bigs Creek	2600	18.27	11.42	6.85	18.27	2.06	1.23	4.57	1.03	0.00	1.83	22.83	2.85	23.86	0.38	3.73	3.14	6.61		
1040	Bigs Creek	2600	10.94	9.37	4.69	10.94	1.69	0.84	5.47	1.69	0.00	2.19	27.34	3.67	29.03	0.76	7.41	4.26	13.11		
1041	Bigs Creek	2600	5.89	4.21	2.52	5.89	0.76	0.45	2.94	0.76	0.00	1.18	14.72	1.93	15.48	0.75	8.87	2.13	12.16		
1042	Bigs Creek	2600	2.52	2.16	1.08	2.52	0.39	0.19	1.26	0.39	0.00	0.50	6.31	0.89	6.70	0.76	7.41	0.98	13.11		
1043	Bigs Creek	2600	3.37	2.88	1.44	3.37	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1044	Bigs Creek	2600	5.89	4.21	2.52	5.69	0.76	0.45	2.94	0.76	0.00	1.18	14.72	1.93	15.48	0.75	8.87	2.13	12.16		
1045	Bigs Creek	2600	4.21	3.61	1.80	4.21	0.65	0.32	2.52	0.65	0.03	0.25	0.25	0.93	0.93	0.48	4.64	1.03	8.22		
1046	Bigs Creek	2600	9.25	13.22	5.29	9.25	2.38	0.95	4.63	2.38	0.00	0.46	0.46	2.84	2.84	0.50	6.42	3.13	11.37		
1047	Bigs Creek	2600	1.68	1.80	0.96	1.68	0.32	0.17	0.17	0.32	0.00	0.02	0.02	0.34	0.34	0.38	4.24	0.38	7.51		
1048	Bigs Creek	2600	5.77	7.21	4.81	5.77	1.30	0.87	2.86	1.30	0.00	0.29	0.29	1.59	1.59	0.44	4.93	1.75	8.72		
1049	Bigs Creek	2600	0.72	0.72	0.48	0.72	0.13	0.09	0.07	0.01	0.01	0.01	0.01	0.03	0.03	0.07	0.72	0.03	1.27		
1050	Bigs Creek	2600	2.16	2.70	1.08	2.16	0.49	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1051	Bigs Creek	2600	4.21	5.41	2.40	4.21	0.97	0.43	2.10	0.97	0.00	0.21	0.21	1.18	1.18	0.48	5.88	1.30	10.42		
1052	Bigs Creek	2600	2.52	2.16	1.44	2.52	0.39	0.26	1.26	0.39	0.00	0.13	0.13	0.52	0.52	0.41	4.27	0.57	7.56		
1053	Bigs Creek	2600	3.61	3.61	1.80	3.61	0.65	0.32	1.80	0.65	0.00	0.18	0.18	0.83	0.83	0.45	4.12	0.91	7.30		
1054	Bigs Creek	2600	5.05	6.31	3.37	5.05	1.14	0.61	1.26	1.14	0.00	0.13	0.13	1.26	1.26	0.42	4.48	1.39	7.93		
1055	Bigs Creek	2600SPUR	1.20	0.72	0.48	1.20	0.13	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1056	Bigs Creek	2600SPUR	1.20	0.72	0.72	1.20	0.13	0.13	1.20	0.13	0.13	0.12	0.12	0.38	0.38	0.70	4.72	0.42	8.35		
1057	Bigs Creek	2602	0.60	0.36	0.24	0.60	0.06	0.04	0.30	0.03	0.02	0.03	0.03	0.08	0.08	0.34	2.09	0.09	3.70		
1058	Bigs Creek	2602	1.80	1.08	0.72	1.80	0.19	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1059	Bigs Creek	2650	14.83	7.42	7.42	14.83	1.34	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1059	Bigs Creek	2670	5.41	2.16	2.16	5.41	0.39	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1060	Bigs Creek	2651	7.42	2.47	2.47	7.42	0.45	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1060	Bigs Creek	2670-A	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1061	Bigs Creek	2690	5.41	5.41	3.24	5.41	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1062	Bigs Creek	2690	6.95	5.56	2.78	6.95	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1063	Bigs Creek	2695	11.59	13.91	6.95	11.59	2.50	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1064	Bigs Creek	2700	4.33	3.09	1.85	0.87	0.56	0.33	0.43	0.56	0.00	0.17	2.16	0.73	2.72	0.50	4.53	0.80	8.02		

Attac 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1065	Bigs Creek	2700	0.1	0.4	0.33	M	523.0	4.3	14	3.7	12	1.8	6	5102	100	100	5	90%	25%	100%	0%	2	6	N	100%	N		2 Y
1066	Bigs Creek	2700	0.4	0.6	0.20	M	321.9	4.3	14	3.7	12	1.8	6	3139	100	100	5	90%	50%	100%	0%	2	6	N	100%	N		1 Y
1067	Bigs Creek	2700	0.6	0.7	0.10	M	160.9	4.3	14	3.7	12	2.4	8	1668	100	100	5	90%	50%	100%	0%	2	6	N	100%	N		1 Y
1068	Bigs Creek	2700	0.7	0.9	0.13	M	201.2	4.3	14	4.6	15	2.4	8	2269	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y		1 N
1069	Bigs Creek	2700	0.9	1.0	0.10	M	160.9	4.3	14	4.6	15	3.0	10	1913	80	100	5	90%	0%	0%	0%	2	6	N	0%	Y		2 N
1070	Bigs Creek	2700	1.0	1.0	0.05	M	80.5	4.3	14	6.1	20	3.0	10	1079	50	100	5	90%	50%	100%	0%	2	6	N	100%	N		1 Y
1071	Bigs Creek	2700	1.0	1.1	0.08	M	120.7	4.3	14	4.6	15	2.4	8	1361	90	100	5	90%	50%	100%	0%	2	6	N	100%	Y		1 Y
1072	Bigs Creek	2700	1.1	1.1	0.05	M	80.5	4.3	14	3.7	12	1.8	6	765	90	100	5	90%	50%	100%	0%	2	6	N	100%	N		1 Y
1073	Bigs Creek	2700	1.1	1.5	0.33	M	523.0	4.3	14	2.4	8	1.8	6	4464	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y		1 N
1124	Bigs Creek	2728	0.0	0.2	0.20	M	321.9	3.0	10	1.8	6	1.2	4	1962	100	100	2	90%	0%	0%	0%	4	6	N	0%	N		5 N
1125	Bigs Creek	2727	0.0	0.1	0.13	M	201.2	3.0	10	1.8	6	1.2	4	1226	100	100	4	90%	50%	100%	0%	4	6	N	0%	N		1 N
1158	Bigs Creek	2732	0.4	0.5	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	N		5 N
1160	Bigs Creek	2900	0.0	0.7	0.68	R	1086.3	3.7	12	1.2	4	1.2	4	6622	100	100	4	90%	0%	0%	0%	2	6	N	0%	N		1 N
1684	Bigs Creek	3700 Y GA	1.7	1.8	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	100	100	4	90%	50%	100%	0%	2	6	N	100%	N		1 Y
1685	Bigs Creek	3700 Y GA	1.8	1.8	0.03	S	40.2	3.7	12	3.7	12	3.0	10	417	100	100	4	90%	100%	100%	100%	2	6	N	100%	N		2 Y
1686	Bigs Creek	3700 Y GA	1.8	1.9	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	100	100	4	90%	50%	100%	0%	2	6	N	100%	N		1 Y
1687	Bigs Creek	3700 Y GA	1.9	2.3	0.43	M	684.0	3.7	12	4.6	15	2.4	8	7297	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y		2 N
1688	Bigs Creek	3700 Y GA	2.3	2.6	0.25	M	402.3	3.7	12	3.7	12	2.4	8	3924	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y		1 N
1689	Bigs Creek	3700 Y GA	2.6	2.7	0.13	M	201.2	3.7	12	2.4	8	1.2	4	1472	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y		1 N
1690	Bigs Creek	3700 Y GA	2.7	2.8	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	100	100	4	90%	50%	100%	0%	2	6	N	100%	N		1 Y
1691	Bigs Creek	3700 Y GA	2.8	3.1	0.23	M	362.1	3.7	12	3.7	12	2.4	8	3532	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y		1 N
1692	Bigs Creek	3700 Y GA	3.1	3.1	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	100	100	4	90%	50%	100%	10%	2	6	N	100%	N		1 Y
1693	Bigs Creek	3700 Y GA	3.1	3.3	0.23	M	362.1	3.7	12	2.4	8	1.2	4	2649	90	100	4	90%	0%	0%	0%	2	6	N	0%	Y		1 N
1694	Bigs Creek	3700 Y GA	3.3	3.5	0.13	M	201.2	3.7	12	1.8	6	1.2	4	1349	100	100	4	90%	50%	100%	0%	2	6	N	100%	N		1 Y
1695	Bigs Creek	3700 Y GA	3.5	3.6	0.15	M	241.4	3.7	12	1.8	6	1.2	4	1619	80	80	4	90%	0%	0%	0%	2	6	N	0%	Y		1 N
1696	Bigs Creek	3780	0.0	0.3	0.25	M	402.3	2.4	8	3.0	10	1.8	6	2943	80	100	1	90%	0%	0%	0%	4	6	N	0%	Y		5 N
1697	Bigs Creek	3780	0.3	0.4	0.10	S	160.9	2.4	8	2.4	8	1.8	6	1079	60	100	1	90%	100%	100%	0%	4	6	N	100%	N		5 N
1698	Bigs Creek	3780	0.4	0.4	0.03	M	40.2	2.4	8	3.0	10	2.4	8	319	60	100	1	90%	100%	100%	0%	4	6	N	100%	N		5 Y
1699	Bigs Creek	3780	0.4	0.4	0.03	M	40.2	2.4	8	3.7	12	1.8	6	319	80	100	1	90%	0%	0%	0%	4	6	N	0%	Y		5 N
1700	Bigs Creek	3780	0.4	0.5	0.05	M	80.5	2.4	8	3.0	10	1.8	6	589	80	100	1	90%	10%	100%	0%	4	6	N	100%	N		5 Y
1701	Bigs Creek	3780	0.5	0.6	0.13	M	201.2	2.4	8	3.7	12	1.6	6	1594	90	100	1	90%	0%	0%	0%	4	6	N	0%	N		5 N
1702	Bigs Creek	3780	0.6	0.7	0.08	M	120.7	2.4	8	3.0	10	1.8	6	863	100	100	1	90%	100%	100%	0%	4	6	N	100%	N		5 Y
1703	Bigs Creek	3770	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	N		1 N
1704	Bigs Creek	3770	0.1	0.3	0.18	M	281.6	3.0	10	3.7	12	1.8	6	2404	100	100	4	90%	0%	0%	0%	4	6	N	0%	N		2 N
1705	Bigs Creek	3770	0.3	0.6	0.33	M	523.0	3.0	10	3.0	10	1.8	6	4145	100	100	4	90%	0%	0%	0%	4	6	N	0%	N		1 N
1706	Bigs Creek	3760	0.0	0.1	0.10	M	160.9	2.4	8	2.4	8	1.8	8	1079	100	100	1	90%	0%	0%	0%	4	6	N	0%	N		5 N
1707	Bigs Creek	14-1E-36.	0.0	0.1	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y		1 N
1708	Bigs Creek	14-1E-36.	0.1	0.2	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	80	100	5	90%	50%	100%	0%	2	6	N	100%	N		1 Y
1709	Bigs Creek	3702	0.0	0.3	0.30	M	482.6	3.0	10	1.8	6	1.8	6	3238	100	100	4	47%	0%	0%	0%	4	6	N	0%	N		2 N
1710	Bigs Creek	3702	0.3	0.5	0.20	M	321.9	3.0	10	3.7	12	1.8	6	2747	100	100	4	47%	0%	0%	0%	4	6	N	0%	N		2 N
1711	Bigs Creek	3702	0.5	0.7	0.15	M	241.4	3.0	10	3.7	12	2.4	8	2207	100	100	4	47%	0%	0%	0%	4	6	N	0%	Y		1 N
1712	Bigs Creek	3702	0.7	0.9	0.20	M	321.9	3.0	10	3.7	12	2.4	8	2943	90	100	4	47%	0%	0%	0%	4	6	N	0%	Y		1 N
1713	Bigs Creek	3000	0.0	0.2	0.18	M	281.6	5.5	18	6.1	20	3.0	10	4121	100	100	4	70%	50%	100%	0%	2	6	N	100%	Y		1 N
1714	Bigs Creek	3000	0.2	0.3	0.10	M	160.9	4.9	16	7.6	25	3.7	12	2600	100	100	4	70%	50%	100%	0%	2	6	N	100%	N		1 Y
1715	Bigs Creek	3000	0.3	0.4	0.08	S	120.7	4.9	16	9.1	30	4.6	15	2244	60	80	4	70%	60%	100%	10%	2	6	N	100%	N		1 Y
1716	Bigs Creek	3000	0.4	0.5	0.15	M	241.4	5.5	18	5.5	18	3.0	10	3385	90	100	4	70%	50%	100%	0%	2	6	N	100%	N		1 Y
1717	Bigs Creek	3000	0.5	0.7	0.15	M	241.4	5.5	18	3.7	12	2.4	8	2796	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y		1 N
1718	Bigs Creek	3000	0.7	0.7	0.05	M	80.5	4.9	16	3.7	12	2.4	8	883	100	100	4	70%	50%	100%	0%	2	6	N	100%	N		1 Y
1719	Bigs Creek	3000	0.7	0.9	0.23	M	362.1	4.9	16	6.1	20	3.0	10	5077	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y		2 N
1720	Bigs Creek	3000	0.9	1.2	0.23	M	362.1	4.9	16	4.6	15	2.4	8	4304	80	100	4	70%	10%	100%	0%	2	6	N	100%	N		2 Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1065	Bigs Creek	2700	14.06	12.05	6.03	2.81	2.17	1.08	0.70	2.17	0.00	0.28	3.52	2.45	5.68	0.48	4.69	2.70	8.29		
1066	Bigs Creek	2700	8.65	7.42	3.71	1.73	1.34	0.67	0.87	1.34	0.00	0.35	4.33	1.68	5.86	0.54	5.22	1.85	9.25		
1067	Bigs Creek	2700	4.33	3.71	2.47	0.87	0.67	0.45	0.43	0.67	0.00	0.17	2.16	0.84	2.83	0.50	5.22	0.92	9.25		
1068	Bigs Creek	2700	5.41	5.79	3.09	1.08	1.04	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1069	Bigs Creek	2700	4.33	4.64	3.09	0.87	0.83	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1070	Bigs Creek	2700	2.16	3.09	1.55	0.43	0.56	0.28	0.22	0.56	0.00	0.09	1.08	0.64	1.64	0.60	7.99	0.71	14.14		
1071	Bigs Creek	2700	3.24	3.48	1.85	0.65	0.63	0.33	0.32	0.63	0.00	0.13	1.62	0.76	2.25	0.56	6.26	0.83	11.08		
1072	Bigs Creek	2700	2.16	1.85	0.93	0.43	0.33	0.17	0.22	0.33	0.00	0.09	1.08	0.42	1.42	0.54	5.22	0.46	9.25		
1073	Bigs Creek	2700	14.06	8.04	6.03	2.81	1.45	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1124	Bigs Creek	2728	6.18	3.71	2.47	6.18	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1125	Bigs Creek	2727	3.86	2.32	1.55	3.86	0.42	0.28	1.93	0.42	0.00	0.19	0.19	0.61	0.61	0.50	3.03	0.67	5.37		
1158	Bigs Creek	2732	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1160	Bigs Creek	2900	25.03	8.34	8.34	25.03	1.50	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1684	Bigs Creek	3700 Y GA	3.71	3.71	2.47	3.71	0.67	0.45	1.85	0.67	0.00	0.74	9.27	1.41	9.94	0.90	8.76	1.55	15.50		
1685	Bigs Creek	3700 Y GA	0.93	0.93	0.77	0.93	0.17	0.14	0.93	0.17	0.14	0.37	4.64	0.68	4.94	1.62	16.82	0.74	29.78		
1686	Bigs Creek	3700 Y GA	3.71	4.64	3.09	3.71	0.83	0.56	1.85	0.83	0.00	0.74	9.27	1.58	10.11	0.87	9.79	1.73	17.34		
1687	Bigs Creek	3700 Y GA	15.76	19.70	10.51	15.76	3.55	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1688	Bigs Creek	3700 Y GA	9.27	9.27	6.18	9.27	1.67	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1689	Bigs Creek	3700 Y GA	4.64	3.09	1.55	4.64	0.56	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1690	Bigs Creek	3700 Y GA	4.64	4.64	2.32	4.64	0.83	0.42	2.32	0.83	0.00	0.93	11.59	1.76	12.42	0.96	8.76	1.94	15.50		
1691	Bigs Creek	3700 Y GA	8.34	8.34	5.56	8.34	1.50	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1692	Bigs Creek	3700 Y GA	1.85	1.85	1.24	1.85	0.33	0.22	0.93	0.33	0.02	0.37	4.64	0.73	4.99	0.93	9.03	0.80	15.99		
1693	Bigs Creek	3700 Y GA	8.34	5.56	2.78	8.34	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1694	Bigs Creek	3700 Y GA	4.64	2.32	1.55	4.64	0.42	0.28	2.32	0.42	0.00	0.93	11.59	1.34	12.01	1.00	6.68	1.48	11.83		
1695	Bigs Creek	3700 Y GA	5.56	2.78	1.85	5.56	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1696	Bigs Creek	3780	6.18	7.73	4.64	6.18	1.39	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1697	Bigs Creek	3780	2.47	2.47	1.85	2.47	0.45	0.33	2.47	0.45	0.00	0.25	0.25	0.69	0.69	0.64	4.30	0.76	7.61		
1698	Bigs Creek	3780	0.62	0.77	0.62	0.62	0.14	0.11	0.62	0.14	0.00	0.06	0.06	0.20	0.20	0.63	4.99	0.22	8.84		
1699	Bigs Creek	3780	0.62	0.93	0.46	0.62	0.17	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1700	Bigs Creek	3780	1.24	1.55	0.93	1.24	0.28	0.17	0.12	0.28	0.00	0.01	0.01	0.29	0.29	0.49	3.61	0.32	6.39		
1701	Bigs Creek	3780	3.09	4.64	2.32	3.09	0.83	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1702	Bigs Creek	3780	1.85	2.32	1.39	1.85	0.42	0.25	1.85	0.42	0.00	0.19	0.19	0.60	0.60	0.68	4.99	0.66	8.84		
1703	Bigs Creek	3770	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1704	Bigs Creek	3770	5.41	6.49	3.24	5.41	1.17	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1705	Bigs Creek	3770	10.04	10.04	6.03	10.04	1.81	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1706	Bigs Creek	3760	2.47	2.47	1.85	2.47	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1707	Bigs Creek	14-1E-36.	3.71	4.64	3.09	0.74	0.83	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1708	Bigs Creek	14-1E-36.	3.71	6.18	3.09	0.74	1.11	0.56	0.37	1.11	0.00	0.15	1.85	1.26	2.97	0.61	7.83	1.39	13.87		
1709	Bigs Creek	3702	4.84	2.90	2.90	4.84	0.52	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1710	Bigs Creek	3702	3.23	3.87	1.94	3.23	0.70	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1711	Bigs Creek	3702	2.42	2.90	1.94	2.42	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1712	Bigs Creek	3702	3.23	3.87	2.58	3.23	0.70	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1713	Bigs Creek	3000	7.57	8.41	4.21	7.57	1.51	0.76	3.79	1.51	0.00	1.51	18.93	3.03	20.44	0.74	10.75	3.33	19.04		
1714	Bigs Creek	3000	3.85	6.01	2.88	3.85	1.08	0.52	1.92	1.08	0.00	0.77	9.61	1.85	10.70	0.71	11.50	2.04	20.36		
1715	Bigs Creek	3000	2.88	5.41	2.70	2.88	0.97	0.49	1.73	0.97	0.05	0.69	8.65	1.71	9.68	0.76	14.20	1.89	25.14		
1716	Bigs Creek	3000	6.49	6.49	3.61	6.49	1.17	0.65	3.24	1.17	0.00	1.30	16.22	2.47	17.39	0.73	10.22	2.71	18.08		
1717	Bigs Creek	3000	6.49	4.33	2.88	6.49	0.78	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1718	Bigs Creek	3000	1.92	1.44	0.96	1.92	0.26	0.17	0.96	0.26	0.00	0.38	4.81	0.64	5.07	0.73	8.01	0.71	14.17		
1719	Bigs Creek	3000	8.65	10.82	5.41	8.65	1.95	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1720	Bigs Creek	3000	8.65	8.11	4.33	8.65	1.46	0.78	0.87	1.46	0.00	0.35	4.33	1.81	5.79	0.42	4.99	1.99	8.83		

Attac[illegible]35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1721	Bigs Creek	3000	1.2	1.4	0.25	M	402.3	4.9	16	6.1	20	3.0	10	5641	80	100	4	47%	0%	0%	0%	2	6	N	0%	Y	2	N
1722	Bigs Creek	3000	1.4	1.6	0.20	M	321.9	4.9	16	5.5	18	3.0	10	4317	100	100	4	47%	10%	100%	0%	2	6	N	100%	N	2	Y
1723	Bigs Creek	3000	1.6	1.7	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1724	Bigs Creek	3000	1.7	1.9	0.18	R	281.6	4.9	16	1.8	6	1.2	4	2232	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
1725	Bigs Creek	3000	1.9	2.2	0.30	M	482.8	4.3	14	6.1	20	3.0	10	6475	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1726	Bigs Creek	3000	2.2	2.3	0.13	M	201.2	4.3	14	4.6	15	3.0	10	2391	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1727	Bigs Creek	3000	2.3	2.4	0.13	M	201.2	4.3	14	4.6	15	2.4	8	2269	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1728	Bigs Creek	3000	2.4	2.5	0.08	M	120.7	4.3	14	6.1	20	3.0	10	1619	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1729	Bigs Creek	3000	2.5	2.7	0.20	S	321.9	3.7	12	7.6	25	3.7	12	4807	100	80	4	70%	60%	100%	10%	2	6	N	100%	N	1	Y
1730	Bigs Creek	3000	2.7	2.9	0.20	S	321.9	4.3	14	6.1	20	3.0	10	4317	100	100	4	70%	75%	100%	50%	2	6	N	100%	N	1	Y
1731	Bigs Creek	3000	2.9	3.0	0.10	M	160.9	4.3	14	6.1	20	3.7	12	2256	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	2	Y
1732	Bigs Creek	3000	3.0	3.1	0.05	S	80.5	4.3	14	6.1	20	3.0	10	1079	100	100	4	70%	75%	100%	50%	2	6	N	100%	N	1	Y
1733	Bigs Creek	3000	3.1	3.2	0.15	M	241.4	3.7	12	6.1	20	3.7	12	3238	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1734	Bigs Creek	3000	3.2	3.3	0.05	M	80.5	3.7	12	5.5	18	3.7	12	1030	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1735	Bigs Creek	3000	3.3	3.4	0.18	M	261.6	4.3	14	4.6	15	3.0	10	3346	80	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1736	Bigs Creek	3000	3.4	3.5	0.08	M	120.7	4.3	14	4.6	15	2.4	8	1361	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1737	Bigs Creek	3000	3.5	3.7	0.15	M	241.4	4.9	16	4.6	15	3.0	10	3017	100	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1738	Bigs Creek	3000	3.7	3.8	0.18	M	281.6	4.9	16	4.6	15	2.4	8	3348	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1739	Bigs Creek	3000	3.8	4.0	0.18	M	261.6	4.3	14	4.6	15	2.4	8	3176	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1740	Bigs Creek	3000	4.0	4.2	0.23	M	362.1	3.7	12	4.6	15	3.0	10	4084	90	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1741	Bigs Creek	3000	4.2	4.5	0.30	M	482.8	4.3	14	4.6	15	2.4	8	5445	90	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1798	Bigs Creek	3060	0.0	0.2	0.15	M	241.4	3.7	12	3.7	12	2.4	8	2355	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1809	Bigs Creek	3070	0.0	0.1	0.10	R	160.9	3.7	12	3.7	12	1.8	6	1472	60	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1810	Bigs Creek	3070	0.1	0.4	0.30	R	482.8	4.3	14	3.7	12	1.8	6	4709	90	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1811	Bigs Creek	3070	0.4	0.7	0.30	R	482.8	4.3	14	3.0	10	1.6	6	4415	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1812	Bigs Creek	3070	0.7	1.3	0.63	M	1005.9	3.0	10	3.7	12	1.8	6	8564	100	100	4	90%	0%	0%	0%	2	6	N	0%	N	5	N
1818	Bigs Creek	3075	0.0	0.1	0.13	R	201.2	3.0	10	1.6	6	1.2	4	1226	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1819	Bigs Creek	3073	0.0	0.2	0.18	R	281.6	3.7	12	2.4	8	1.8	6	2232	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1620	Bigs Creek	550	0.0	0.1	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	100	100	4	90%	0%	0%	0%	2	6	N	0%	N	1	N
1821	Bigs Creek	550	0.1	0.3	0.20	M	321.9	3.0	10	2.4	8	1.8	6	2355	100	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1822	Bigs Creek	550	0.3	0.4	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1823	Bigs Creek	550	0.4	0.6	0.20	M	321.9	3.7	12	3.0	10	1.8	6	2747	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1824	Bigs Creek	550	0.6	0.6	0.20	M	321.9	3.7	12	2.4	8	1.8	6	2551	100	100	4	90%	0%	0%	0%	2	6	N	0%	N	1	N
1825	Bigs Creek	551	0.0	0.2	0.18	M	281.6	3.0	10	3.0	10	1.8	6	2232	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1826	Bigs Creek	551	0.2	0.3	0.13	M	201.2	3.0	10	3.0	10	1.8	6	1594	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1827	Bigs Creek	551	0.3	0.4	0.10	M	160.9	2.7	9	3.0	10	1.6	6	1226	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	2	N
1828	Bigs Creek	551	0.4	0.5	0.06	M	120.7	2.7	9	3.0	10	1.8	6	920	100	100	4	90%	100%	100%	0%	4	6	N	100%	N	5	Y
1829	Bigs Creek	551	0.5	0.9	0.43	M	684.0	2.7	9	3.7	12	1.8	6	5629	100	100	6	90%	0%	0%	0%	4	6	N	0%	Y	2	N
1830	Bigs Creek	520	0.0	0.2	0.20	M	321.9	3.7	12	4.6	15	1.8	6	3238	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1831	Bigs Creek	520	0.2	0.3	0.05	M	80.5	3.7	12	3.0	10	1.8	6	687	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1832	Bigs Creek	520	0.3	0.4	0.13	M	201.2	3.7	12	2.4	8	1.2	4	1472	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1833	Bigs Creek	520	0.4	0.5	0.08	M	120.7	3.7	12	2.4	8	1.6	6	957	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1834	Bigs Creek	520	0.5	0.6	0.18	M	281.6	3.7	12	1.8	6	1.2	4	1869	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1835	Bigs Creek	520	0.6	0.6	0.18	M	281.6	3.7	12	2.4	8	1.6	6	2232	100	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1836	Bigs Creek	520	0.8	1.3	0.50	M	804.7	3.7	12	2.4	8	1.8	6	6377	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1837	Bigs Creek	520	1.3	1.3	0.02	M	40.2	3.7	12	3.7	12	1.6	6	368	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1838	Bigs Creek	520	1.3	1.5	0.15	M	241.4	3.7	12	4.6	15	2.4	8	2575	100	100	4	90%	10%	50%	0%	4	6	N	100%	N	2	Y
1839	Bigs Creek	520	1.5	1.7	0.18	M	261.6	3.0	10	4.6	15	2.4	8	2833	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	2	N
1840	Bigs Creek	521	0.0	0.2	0.20	M	321.9	3.0	10	2.4	8	1.8	6	2355	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1841	Bigs Creek	521	0.2	0.4	0.18	M	281.6	3.0	10	3.0	10	1.6	6	2232	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from FillslopeDeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1721	Bigs Creek	3000	6.46	8.07	4.03	6.46	1.45	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1722	Bigs Creek	3000	5.16	5.81	3.23	5.16	1.05	0.58	0.52	1.05	0.00	0.21	2.58	1.25	3.63	0.29	3.89	1.38	6.89		
1723	Bigs Creek	3000	3.37	3.61	1.92	3.37	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1724	Bigs Creek	3000	6.73	2.52	1.68	6.73	0.45	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1725	Bigs Creek	3000	10.10	14.42	7.21	10.10	2.60	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1726	Bigs Creek	3000	4.21	4.51	3.00	4.21	0.81	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1727	Bigs Creek	3000	4.21	4.51	2.40	4.21	0.81	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1728	Bigs Creek	3000	2.52	3.61	1.80	2.52	0.65	0.32	1.26	0.65	0.00	0.50	6.31	1.15	6.96	0.71	9.56	1.27	16.92		
1729	Bigs Creek	3000	5.77	12.02	5.77	5.77	2.16	1.04	3.46	2.16	0.10	1.38	17.31	3.65	19.57	0.76	11.34	4.02	20.08		
1730	Bigs Creek	3000	6.73	9.61	4.81	6.73	1.73	0.87	5.05	1.73	0.43	2.02	25.24	4.18	27.40	0.97	12.99	4.60	23.00		
1731	Bigs Creek	3000	3.37	4.81	2.88	3.37	0.87	0.52	1.68	0.87	0.00	0.67	8.41	1.54	9.28	0.68	9.56	1.69	16.92		
1732	Bigs Creek	3000	1.68	2.40	1.20	1.68	0.43	0.22	1.26	0.43	0.11	0.50	6.31	1.05	6.85	0.97	12.99	1.15	23.00		
1733	Bigs Creek	3000	4.33	7.21	4.33	4.33	1.30	0.78	2.16	1.30	0.00	0.87	10.82	2.16	12.11	0.67	8.96	2.38	15.86		
1734	Bigs Creek	3000	1.44	2.16	1.44	1.44	0.39	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1735	Bigs Creek	3000	5.89	6.31	4.21	5.89	1.14	0.76	2.94	1.14	0.00	1.18	14.72	2.31	15.86	0.69	8.21	2.54	14.54		
1736	Bigs Creek	3000	2.52	2.70	1.44	2.52	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1737	Bigs Creek	3000	7.42	6.95	4.64	7.42	1.25	0.83	3.71	1.25	0.00	1.48	18.54	2.74	19.79	0.91	11.33	3.01	20.06		
1738	Bigs Creek	3000	8.65	8.11	4.33	8.65	1.46	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1739	Bigs Creek	3000	7.57	8.11	4.33	7.57	1.46	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1740	Bigs Creek	3000	8.34	10.43	6.95	8.34	1.88	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1741	Bigs Creek	3000	12.98	13.91	7.42	12.98	2.50	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1798	Bigs Creek	3080	5.56	5.56	3.71	5.56	1.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1809	Bigs Creek	3070	3.71	3.71	1.85	3.71	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1810	Bigs Creek	3070	12.98	11.13	5.56	12.98	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1811	Bigs Creek	3070	12.98	9.27	5.56	12.98	1.67	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1812	Bigs Creek	3070	19.32	23.18	11.59	19.32	4.17	2.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1818	Bigs Creek	3075	3.86	2.32	1.55	3.86	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1819	Bigs Creek	3073	6.49	4.33	3.24	6.49	0.78	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1820	Bigs Creek	550	3.09	3.09	1.85	3.09	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1821	Bigs Creek	550	6.18	4.94	3.71	6.18	0.89	0.67	3.09	0.89	0.00	1.24	15.45	2.13	16.34	0.90	6.61	2.34	11.69		
1822	Bigs Creek	550	3.09	2.47	1.85	3.09	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1823	Bigs Creek	550	7.42	6.18	3.71	7.42	1.11	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1824	Bigs Creek	550	7.42	4.94	3.71	7.42	0.89	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1825	Bigs Creek	551	5.41	5.41	3.24	5.41	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1826	Bigs Creek	551	3.86	3.86	2.32	3.86	0.70	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1827	Bigs Creek	551	2.78	3.09	1.85	2.78	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1828	Bigs Creek	551	2.09	2.32	1.39	2.09	0.42	0.25	2.09	0.42	0.00	0.21	0.21	0.63	0.63	0.68	5.18	0.69	9.18		
1829	Bigs Creek	551	11.82	15.76	7.88	8.87	2.84	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1830	Bigs Creek	520	7.42	9.27	3.71	7.42	1.67	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	223	
1831	Bigs Creek	520	1.85	1.55	0.93	1.85	0.28	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1832	Bigs Creek	520	4.64	3.09	1.55	4.64	0.56	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1833	Bigs Creek	520	2.78	1.85	1.39	2.78	0.33	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1834	Bigs Creek	520	6.49	3.24	2.16	6.49	0.58	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1835	Bigs Creek	520	6.49	4.33	3.24	6.49	0.78	0.58	3.24	0.78	0.00	0.32	0.32	1.10	1.10	0.49	3.92	1.21	6.93		
1836	Bigs Creek	520	18.54	12.36	9.27	18.54	2.23	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1837	Bigs Creek	520	0.93	0.93	0.46	0.93	0.17	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1838	Bigs Creek	520	5.56	6.95	3.71	5.56	1.25	0.67	0.56	0.63	0.00	0.06	0.06	0.68	0.68	0.26	2.82	0.75	5.00		
1839	Bigs Creek	520	5.41	8.11	4.33	5.41	1.46	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1840	Bigs Creek	521	6.18	4.94	3.71	6.18	0.89	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1841	Bigs Creek	521	5.41	5.41	3.24	5.41	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac[illegible]35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1842	Bigs Creek	521	0.4	0.5	0.13	M	201.2	3.0	10	3.7	12	2.4	8	1840	60	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1843	Bigs Creek	552	0.0	0.3	0.25	M	402.3	3.0	10	3.0	10	1.8	6	3189	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	5	N
1844	Bigs Creek	552	0.3	0.5	0.20	M	321.9	2.7	9	1.8	6	1.2	4	1864	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	5	N
1845	Bigs Creek	3072	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1846	Bigs Creek	3072	0.1	0.2	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1847	Bigs Creek	3072	0.2	0.4	0.18	M	281.6	3.7	12	3.7	12	2.4	8	2747	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1848	Bigs Creek	3072	0.4	0.4	0.03	M	40.2	3.7	12	3.0	10	1.8	6	343	100	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1849	Bigs Creek	3072	0.4	0.5	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	50	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1850	Bigs Creek	3072	0.5	0.6	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	80	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1851	Bigs Creek	3072	0.6	0.7	0.08	M	120.7	3.7	12	4.6	15	2.4	6	1288	80	100	4	90%	50%	100%	0%	4	6	N	100%	Y	1	Y
1852	Bigs Creek	3072	0.7	0.8	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	70	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1853	Bigs Creek	3072-A	0.0	0.2	0.18	M	281.6	3.0	10	2.4	8	1.8	6	2060	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1854	Bigs Creek	3072-A	0.2	0.4	0.18	M	281.6	3.0	10	3.0	10	1.8	6	2232	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1855	Bigs Creek	3072-A	0.4	0.5	0.15	M	241.4	3.0	10	4.6	15	2.4	8	2428	80	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1856	Bigs Creek	3072-A	0.5	0.7	0.20	M	321.9	3.0	10	3.0	10	1.8	6	2551	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1857	Bigs Creek	3072-A-1	0.0	0.1	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1858	Bigs Creek	3071	0.0	0.2	0.15	M	241.4	3.0	10	3.0	10	1.8	6	1913	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1859	Bigs Creek	3050-A	0.0	0.1	0.08	M	120.7	3.7	12	6.1	20	1.8	6	1398	30	80	4	70%	100%	100%	50%	4	6	N	100%	N	5	Y
1860	Bigs Creek	3050-A	0.1	0.2	0.13	M	201.2	3.7	12	6.1	20	3.0	10	2575	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1861	Bigs Creek	3050-A	0.2	0.4	0.20	M	321.9	3.7	12	5.5	18	3.0	10	3924	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1862	Bigs Creek	3050-A	0.4	0.5	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1863	Bigs Creek	3050	0.0	0.1	0.13	M	201.2	4.9	16	4.6	15	2.4	8	2391	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1864	Bigs Creek	3050	0.1	0.3	0.18	M	281.6	4.3	14	4.6	15	2.4	8	3176	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1865	Bigs Creek	3050	0.3	0.4	0.10	M	160.9	4.3	14	3.7	12	2.4	8	1668	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1869	Bigs Creek	3050	1.4	1.5	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	90	100	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
1870	Bigs Creek	3050	1.5	1.5	0.02	S	40.2	3.7	12	6.1	20	3.7	12	540	80	90	4	70%	100%	100%	100%	4	6	N	100%	Y	1	N
1871	Bigs Creek	3050	1.5	1.6	0.10	M	160.9	3.7	12	7.6	25	3.0	10	2306	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1872	Bigs Creek	3050	1.6	1.8	0.18	M	281.6	3.7	12	6.1	20	3.7	12	3777	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1873	Bigs Creek	3050	1.8	2.0	0.20	M	321.9	3.0	10	4.6	15	3.0	10	3434	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1874	Bigs Creek	3055	0.0	0.1	0.08	M	120.7	3.0	10	6.1	20	3.7	12	1545	90	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	N
1875	Bigs Creek	3055	0.1	0.3	0.20	M	321.9	3.0	10	4.6	15	3.0	10	3434	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1878	Bigs Creek	3051	0.0	0.1	0.08	M	120.7	3.7	12	1.8	6	1.8	6	883	0	0	4	70%	0%	0%	0%	4	6	Y	0%	Y	1	N
1880	Bigs Creek	3060	0.0	0.2	0.20	M	321.9	4.3	14	3.7	12	1.8	6	3139	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1881	Bigs Creek	3060	0.2	0.4	0.23	M	362.1	4.3	14	3.0	10	1.8	6	3311	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1882	Bigs Creek	3060	0.4	0.5	0.05	M	80.5	4.3	14	3.7	12	1.8	6	785	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1883	Bigs Creek	3060	0.5	0.5	0.05	M	80.5	3.7	12	3.0	10	1.8	6	687	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1884	Bigs Creek	3060	0.5	0.7	0.18	M	281.6	3.7	12	3.7	12	2.4	8	2747	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1885	Bigs Creek	3060	0.7	0.9	0.18	M	281.6	3.7	12	7.6	25	3.0	10	4035	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1886	Bigs Creek	3060	0.9	1.0	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	100	100	4	70%	0%	10%	0%	2	6	N	10%	Y	2	N
1887	Bigs Creek	3060	1.0	1.2	0.23	M	362.1	3.7	12	6.1	20	3.0	10	4636	90	100	4	70%	50%	100%	10%	2	6	N	100%	N	1	Y
1888	Bigs Creek	3060	1.2	1.4	0.20	M	321.9	3.7	12	9.1	30	4.6	15	5592	90	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
1889	Bigs Creek	3060	1.4	1.5	0.08	M	120.7	3.7	12	7.6	25	3.7	12	1803	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1890	Bigs Creek	3060	1.5	1.7	0.18	M	281.6	3.7	12	6.1	20	3.0	10	3605	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	2	N
1891	Bigs Creek	3060	1.7	1.7	1.05	M	80.5	3.7	12	6.1	20	3.0	10	1030	100	100	4	70%	50%	100%	10%	2	6	N	100%	Y	1	N
1892	Bigs Creek	3060	1.7	1.8	0.10	M	160.9	3.7	12	7.6	25	3.7	12	2404	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	2	N
1893	Bigs Creek	3060	1.8	1.9	0.05	M	80.5	3.7	12	9.1	30	4.6	15	1398	80	90	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1894	Bigs Creek	3060	1.9	1.9	0.05	M	80.5	3.7	12	7.6	25	4.6	15	1275	80	100	1	70%	0%	0%	0%	2	6	N	0%	N	5	N
1895	Bigs Creek	3060	1.9	2.1	0.20	M	321.9	3.7	12	6.1	20	4.6	15	4611	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1896	Bigs Creek	3060	2.1	2.2	0.07	S	120.7	3.7	12	6.1	20	3.7	12	1619	80	100	4	70%	60%	100%	10%	2	6	N	100%	N	1	Y
1897	Bigs Creek	3060	2.2	2.2	0.03	S	40.2	3.7	12	6.1	20	4.6	15	576	90	100	4	70%	60%	100%	10%	2	6	N	100%	N	1	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1842	Bigs Creek	521	3.86	4.64	3.09	3.86	0.83	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1843	Bigs Creek	552	7.73	7.73	4.64	7.73	1.39	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1844	Bigs Creek	552	5.56	3.71	2.47	5.56	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1845	Bigs Creek	3072	3.71	3.71	1.85	3.71	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1846	Bigs Creek	3072	3.71	3.71	2.47	3.71	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1847	Bigs Creek	3072	6.49	6.49	4.33	6.49	1.17	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1848	Bigs Creek	3072	0.93	0.77	0.46	0.93	0.14	0.08	0.46	0.14	0.00	0.05	0.05	0.19	0.19	0.54	4.61	0.20	8.16		
1849	Bigs Creek	3072	4.64	5.79	3.09	4.64	1.04	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1850	Bigs Creek	3072	2.78	3.48	1.85	2.78	0.63	0.33	1.39	0.63	0.00	0.14	0.14	0.76	0.76	0.59	6.34	0.84	11.22		
1851	Bigs Creek	3072	2.78	3.48	1.85	2.78	0.63	0.33	1.39	0.63	0.00	0.14	0.14	0.76	0.76	0.59	6.34	0.84	11.22		
1852	Bigs Creek	3072	4.64	4.64	2.32	4.64	0.83	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1853	Bigs Creek	3072-A	5.41	4.33	3.24	5.41	0.78	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1854	Bigs Creek	3072-A	5.41	5.41	3.24	5.41	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1855	Bigs Creek	3072-A	4.64	6.95	3.71	4.64	1.25	0.67	2.32	1.25	0.00	0.23	0.23	1.48	1.48	0.61	6.14	1.63	10.88		
1856	Bigs Creek	3072-A	6.18	6.18	3.71	6.18	1.11	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1857	Bigs Creek	3072-A-1	3.09	2.47	1.85	3.09	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1858	Bigs Creek	3071	4.64	4.64	2.78	4.64	0.83	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1859	Bigs Creek	3050-A	2.16	3.61	1.08	2.16	0.65	0.19	2.16	0.65	0.10	0.22	0.22	0.96	0.96	0.69	7.98	1.06	14.12		
1860	Bigs Creek	3050-A	3.61	6.01	3.00	3.61	1.08	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1861	Bigs Creek	3050-A	5.77	8.65	4.81	5.77	1.58	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1862	Bigs Creek	3050-A	2.16	2.16	1.08	2.16	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1863	Bigs Creek	3050	4.81	4.51	2.40	4.81	0.81	0.43	2.40	0.81	0.00	0.24	0.24	1.05	1.05	0.44	5.23	1.16	9.25		
1864	Bigs Creek	3050	5.89	6.31	3.37	5.89	1.14	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1865	Bigs Creek	3050	3.37	2.88	1.92	3.37	0.52	0.35	1.68	0.52	0.00	0.17	0.17	0.69	0.69	0.41	4.27	0.76	7.56		
1869	Bigs Creek	3050	2.16	2.70	1.44	2.16	0.49	0.26	0.11	0.05	0.00	0.01	0.01	0.06	0.06	0.05	0.49	0.07	0.87		
1870	Bigs Creek	3050	0.72	1.20	0.72	0.72	0.22	0.13	0.72	0.22	0.13	0.07	0.07	0.42	0.42	0.78	10.40	0.46	18.40		
1871	Bigs Creek	3050	2.88	6.01	2.40	2.88	1.08	0.43	1.44	1.08	0.00	0.14	0.14	1.23	1.23	0.53	7.62	1.35	13.48		
1872	Bigs Creek	3050	5.05	8.41	5.05	5.05	1.51	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1873	Bigs Creek	3050	4.81	7.21	4.81	4.81	1.30	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1874	Bigs Creek	3055	1.80	3.61	2.16	1.80	0.65	0.39	0.90	0.65	0.00	0.09	0.09	0.74	0.74	0.48	6.12	0.81	10.84		
1875	Bigs Creek	3055	4.81	7.21	4.81	4.81	1.30	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1878	Bigs Creek	3051	2.16	1.08	1.08	2.16	1.08	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1880	Bigs Creek	3060	6.73	5.77	2.88	6.73	1.04	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1881	Bigs Creek	3060	7.57	5.41	3.24	7.57	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1882	Bigs Creek	3060	1.68	1.44	0.72	1.68	0.26	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1883	Bigs Creek	3060	1.44	1.20	0.72	1.44	0.22	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1884	Bigs Creek	3060	5.05	5.05	3.37	5.05	0.91	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1885	Bigs Creek	3060	5.05	10.52	4.21	5.05	1.89	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1886	Bigs Creek	3060	2.88	4.81	2.40	2.88	0.87	0.43	0.00	0.09	0.00	0.00	0.00	0.09	0.09	0.04	0.54	0.10	0.95		
1887	Bigs Creek	3060	6.49	10.82	5.41	6.49	1.95	0.97	3.24	1.95	0.10	1.30	16.22	3.34	18.27	0.72	9.23	3.68	16.34		
1888	Bigs Creek	3060	5.77	14.42	7.21	5.77	2.60	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1889	Bigs Creek	3060	2.16	4.51	2.16	2.16	0.81	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1890	Bigs Creek	3060	5.05	8.41	4.21	5.05	1.51	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1891	Bigs Creek	3060	1.44	2.40	1.20	1.44	0.43	0.22	0.72	0.43	0.02	0.29	3.61	0.74	4.06	0.72	9.23	0.82	16.34		
1892	Bigs Creek	3060	2.88	6.01	2.88	2.88	1.08	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1893	Bigs Creek	3060	1.44	3.61	1.80	1.44	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1894	Bigs Creek	3060	1.44	3.00	1.80	1.44	0.54	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1895	Bigs Creek	3060	5.77	9.61	7.21	5.77	1.73	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1896	Bigs Creek	3060	2.16	3.61	2.16	2.16	0.65	0.39	1.30	0.65	0.04	0.52	6.49	1.21	7.18	0.75	10.00	1.33	17.70		
1897	Bigs Creek	3060	0.72	1.20	0.90	0.72	0.22	0.16	0.43	0.22	0.02	0.17	2.16	0.41	2.40	0.70	10.08	0.45	17.85		

Attac... B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1898	Bigs Creek	3060	2.2	2.3	0.07	M	120.7	3.7	12	6.1	20	3.7	12	1819	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1899	Bigs Creek	3060	2.3	2.3	0.05	M	80.5	3.0	10	4.6	15	3.0	10	858	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1900	Bigs Creek	3060	2.3	2.6	0.28	M	442.6	3.7	12	6.1	20	3.7	12	5936	70	100	4	70%	10%	100%	0%	2	6	N	100%	N	2	Y
1901	Bigs Creek	3060	2.6	2.7	0.10	M	160.9	3.7	12	7.6	25	3.0	10	2306	80	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
1902	Bigs Creek	3060	2.7	2.8	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1903	Bigs Creek	3060	2.8	3.0	0.18	M	281.6	3.7	12	3.7	12	1.8	6	2575	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1904	Bigs Creek	3060	3.0	3.0	0.05	M	80.5	3.7	12	3.0	10	1.2	4	638	100	100	4	47%	5%	10%	0%	2	6	N	10%	Y	1	N
1905	Bigs Creek	3060	3.0	3.2	0.15	R	241.4	3.7	12	2.4	8	1.8	6	1913	100	100	4	47%	0%	0%	0%	2	6	N	0%	N	1	N
1906	Bigs Creek	3060	3.2	3.6	0.43	M	684.0	3.7	12	3.7	12	2.4	8	6671	60	100	4	47%	0%	0%	0%	2	6	N	0%	Y	1	N
1907	Bigs Creek	3060	3.6	3.9	0.30	M	482.8	3.0	10	5.5	18	3.7	12	5886	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1908	Bigs Creek	3060	3.9	4.1	0.20	M	321.9	3.0	10	4.6	15	2.4	8	3238	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1909	Bigs Creek	3060	4.1	4.2	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	5	N
1910	Bigs Creek	3060	4.2	4.4	0.23	M	362.1	3.7	12	4.6	15	3.0	10	4084	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1911	Bigs Creek	3060	4.4	4.8	0.40	R	643.7	3.0	10	2.4	8	1.8	6	4709	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1912	Bigs Creek	3060	4.8	5.4	0.52	R	844.9	2.7	9	1.8	6	1.2	4	4893	100	100	1	70%	0%	0%	0%	4	6	N	0%	N	5	N
1913	Bigs Creek	3067	0.0	0.5	0.45	M	724.2	3.0	10	3.0	10	1.8	6	5739	100	100	4	90%	0%	0%	0%	2	6	N	0%	N	1	N
1914	Bigs Creek	3067-A	0.0	0.1	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1915	Bigs Creek	3067-A	0.1	0.3	0.18	M	281.6	3.0	10	3.0	10	1.8	6	2232	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1916	Bigs Creek	3067-A	0.3	0.4	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1917	Bigs Creek	3067-A	0.4	0.5	0.08	M	120.7	2.7	9	1.8	6	1.2	4	699	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1918	Bigs Creek	3067-A	0.5	0.5	0.03	M	40.2	2.7	9	2.4	8	1.2	4	258	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	5	N
1919	Bigs Creek	3067-A	0.5	0.6	0.08	M	120.7	3.0	10	3.0	10	1.8	6	957	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1920	Bigs Creek	3067-A	0.6	0.6	0.05	M	80.5	3.0	10	2.4	8	1.8	6	589	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1921	Bigs Creek	3067-A	0.6	0.8	0.20	M	321.9	3.0	10	3.0	10	1.8	6	2551	90	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1922	Bigs Creek	3067-B	0.0	0.1	0.10	M	160.9	2.7	9	1.8	6	1.2	4	932	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	5	N
1923	Bigs Creek	3066	0.0	0.1	0.05	M	80.5	3.7	12	3.0	10	1.8	6	687	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1924	Bigs Creek	3066	0.1	0.6	0.53	M	844.9	3.0	10	3.0	10	1.8	6	6696	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1925	Bigs Creek	3066-A	0.0	0.3	0.33	M	523.0	3.0	10	3.7	12	1.8	6	4464	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1926	Bigs Creek	3065	0.0	0.1	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1927	Bigs Creek	3065	0.1	0.2	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	100	100	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
1928	Bigs Creek	3065	0.2	0.2	0.08	M	120.7	3.7	12	6.1	20	2.4	8	1472	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1929	Bigs Creek	3065	0.2	0.4	0.15	M	241.4	3.7	12	4.6	15	3.0	10	2722	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1930	Bigs Creek	3065	0.4	0.5	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1931	Bigs Creek	3065	0.5	0.6	0.28	M	442.6	3.7	12	3.7	12	1.8	6	4047	100	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1932	Bigs Creek	3065	0.8	0.9	0.10	M	160.9	3.7	12	2.4	8	1.2	4	1177	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1933	Bigs Creek	3065	0.9	1.1	0.20	M	321.9	3.7	12	4.6	15	2.4	8	3434	60	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1934	Bigs Creek	3065	1.1	1.3	0.18	M	281.6	3.7	12	3.0	10	1.8	6	2404	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1935	Bigs Creek	3065	1.3	1.3	0.03	M	40.2	3.7	12	3.0	10	1.8	8	343	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1936	Bigs Creek	3065	1.3	1.7	0.35	M	563.3	3.0	10	4.6	15	3.0	10	6009	80	100	4	70%	0%	0%	0%	4	8	N	0%	Y	2	N
1937	Bigs Creek	3065	1.7	1.9	0.20	M	321.9	3.7	12	5.5	18	3.0	10	3924	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1938	Bigs Creek	3064-C	0.0	0.1	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1939	Bigs Creek	3040	0.0	0.0	0.03	M	40.2	4.3	14	3.7	12	1.8	6	392	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1940	Bigs Creek	3040	0.0	0.1	0.03	M	40.2	4.3	14	3.7	12	1.8	6	392	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1941	Bigs Creek	3040	0.1	0.1	0.08	M	120.7	4.3	14	4.6	15	2.4	8	1361	60	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1942	Bigs Creek	3040	0.1	0.3	0.15	M	241.4	4.3	14	4.6	15	2.4	8	2722	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1943	Bigs Creek	3040	0.3	0.4	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	80	100	4	70%	10%	100%	0%	2	6	N	100%	N	2	Y
1944	Bigs Creek	3040	0.4	0.4	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1945	Bigs Creek	3040	0.4	0.7	0.25	M	402.3	3.7	12	5.5	18	3.0	10	4905	80	100	4	47%	0%	0%	0%	2	6	N	0%	Y	1	N
1946	Bigs Creek	3040	0.7	0.7	0.02	M	40.2	3.7	12	6.1	20	3.0	10	515	90	100	4	47%	5%	10%	0%	2	6	N	10%	Y	1	N
1947	Bigs Creek	3040	0.7	0.8	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	90	100	4	47%	50%	100%	0%	2	6	N	100%	N	1	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1898	Bigs Creek	3060	2.16	3.61	2.16	2.16	0.65	0.39	1.08	0.65	0.00	0.43	5.41	1.08	6.06	0.67	8.96	1.19	15.86		
1899	Bigs Creek	3060	1.20	1.80	1.20	1.20	0.32	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1900	Bigs Creek	3060	7.93	13.22	7.93	7.93	2.38	1.43	0.79	2.38	0.00	0.32	3.97	2.70	6.35	0.45	6.09	2.97	10.79		
1901	Bigs Creek	3060	2.88	8.01	2.40	2.88	1.08	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1902	Bigs Creek	3060	2.88	2.88	1.44	2.88	0.52	0.26	1.44	0.52	0.00	0.58	7.21	1.10	7.73	0.74	6.81	1.21	12.06		
1903	Bigs Creek	3060	5.05	5.05	2.52	5.05	0.91	0.45	2.52	0.91	0.00	1.01	12.62	1.92	13.53	0.74	8.81	2.11	12.06		
1904	Bigs Creek	3060	0.97	0.81	0.32	0.97	0.15	0.06	0.05	0.01	0.00	0.02	0.24	0.03	0.26	0.05	0.42	0.04	0.75		
1905	Bigs Creek	3060	2.90	1.94	1.45	2.90	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1906	Bigs Creek	3060	8.23	8.23	5.49	8.23	1.48	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1907	Bigs Creek	3060	7.21	12.98	8.65	7.21	2.34	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1908	Bigs Creek	3060	4.81	7.21	3.85	4.81	1.30	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1909	Bigs Creek	3060	2.88	2.88	1.92	2.88	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1910	Bigs Creek	3060	6.49	8.11	5.41	6.49	1.46	0.97	3.24	1.46	0.00	1.30	16.22	2.76	17.68	0.68	7.62	3.03	13.48		
1911	Bigs Creek	3060	12.36	9.89	7.42	12.36	1.78	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1912	Bigs Creek	3060	11.36	7.57	5.05	11.36	1.36	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1913	Bigs Creek	3067	13.91	13.91	8.34	13.91	2.50	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1914	Bigs Creek	3067-A	3.09	2.47	1.85	3.09	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1915	Bigs Creek	3067-A	5.41	5.41	3.24	5.41	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1916	Bigs Creek	3067-A	3.09	3.09	1.85	3.09	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1917	Bigs Creek	3067-A	2.09	1.39	0.93	2.09	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1918	Bigs Creek	3067-A	0.70	0.62	0.31	0.70	0.11	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1919	Bigs Creek	3067-A	2.32	2.32	1.39	2.32	0.42	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1920	Bigs Creek	3087-A	1.55	1.24	0.93	1.55	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1921	Bigs Creek	3067-A	6.18	6.18	3.71	6.18	1.11	0.67	3.09	1.11	0.00	0.31	0.31	1.42	1.42	0.56	4.42	1.56	7.82		
1922	Bigs Creek	3067-B	2.78	1.85	1.24	2.78	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1923	Bigs Creek	3066	1.44	1.20	0.72	1.44	0.22	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1924	Bigs Creek	3066	12.62	12.62	7.57	12.62	2.27	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1925	Bigs Creek	3066-A	7.81	9.37	4.69	7.81	1.69	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1926	Bigs Creek	3065	3.61	3.61	1.80	3.61	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1927	Bigs Creek	3065	0.72	0.90	0.48	0.72	0.16	0.09	0.04	0.02	0.00	0.00	0.00	0.02	0.02	0.05	0.49	0.02	0.87		
1928	Bigs Creek	3065	2.18	3.61	1.44	2.16	0.65	0.26	1.08	0.65	0.00	0.11	0.11	0.76	0.76	0.51	6.27	0.83	11.10		
1929	Bigs Creek	3065	5.56	6.95	4.64	5.56	1.25	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1930	Bigs Creek	3065	5.56	5.56	2.78	5.56	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1931	Bigs Creek	3065	10.20	10.20	5.10	10.20	1.84	0.92	5.10	1.84	0.00	0.51	0.51	2.35	2.35	0.58	5.30	2.58	9.38		
1932	Bigs Creek	3065	3.71	2.47	1.24	3.71	0.45	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1933	Bigs Creek	3065	5.77	7.21	3.85	5.77	1.30	0.69	2.88	1.30	0.00	0.29	0.29	1.59	1.59	0.46	4.93	1.75	8.72		
1934	Bigs Creek	3065	5.05	4.21	2.52	5.05	0.76	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1935	Bigs Creek	3065	0.72	0.60	0.36	0.72	0.11	0.06	0.36	0.11	0.00	0.04	0.04	0.14	0.14	0.42	3.58	0.16	6.35		
1936	Bigs Creek	3065	8.41	12.62	8.41	8.41	2.27	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1937	Bigs Creek	3065	5.77	8.65	4.81	5.77	1.56	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1938	Bigs Creek	3064-C	2.40	2.40	1.44	2.40	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1939	Bigs Creek	3040	0.84	0.72	0.36	0.84	0.13	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1940	Bigs Creek	3040	0.84	0.72	0.36	0.84	0.13	0.06	0.42	0.13	0.00	0.17	2.10	0.30	2.23	0.76	7.41	0.33	13.11		
1941	Bigs Creek	3040	2.52	2.70	1.44	2.52	0.49	0.26	1.26	0.49	0.00	0.50	6.31	0.99	6.80	0.73	8.21	1.09	14.54		
1942	Bigs Creek	3040	5.05	5.41	2.88	5.05	0.97	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1943	Bigs Creek	3040	3.37	3.61	1.92	3.37	0.65	0.35	0.34	0.65	0.00	0.13	1.68	0.78	2.33	0.43	4.87	0.86	8.62		
1944	Bigs Creek	3040	1.44	1.80	0.96	1.44	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1945	Bigs Creek	3040	4.84	7.26	4.03	4.84	1.31	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1946	Bigs Creek	3040	0.48	0.81	0.40	0.48	0.15	0.07	0.02	0.01	0.00	0.01	0.12	0.02	0.14	0.05	0.60	0.03	1.07		
1947	Bigs Creek	3040	1.94	2.42	1.29	1.94	0.44	0.23	0.97	0.44	0.00	0.39	4.84	0.82	5.28	0.48	5.11	0.91	9.05		

Attac[illegible] B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1948	Bigs Creek	3040	0.8	0.9	0.05	M	80.5	3.7	12	8.1	20	3.0	10	1030	60	100	4	47%	10%	50%	0%	2	6	N	100%	N	2	Y
1949	Bigs Creek	3040	0.9	1.2	0.38	M	611.5	3.7	12	4.6	15	2.4	8	2238	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1950	Bigs Creek	3040	1.2	1.6	0.38	M	603.5	3.7	12	4.6	15	3.0	10	6806	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1951	Bigs Creek	3040	1.6	1.7	0.13	M	201.2	3.7	12	5.5	18	3.0	10	2453	60	100	4	70%	50%	100%	0%	2	6	N	100%	N	2	Y
1952	Bigs Creek	3040	1.7	1.9	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1953	Bigs Creek	3040	1.9	1.9	0.02	M	40.2	3.7	12	5.5	18	2.4	8	466	80	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1954	Bigs Creek	3040	1.9	2.0	0.13	M	201.2	3.7	12	5.5	18	3.0	10	2453	90	100	4	70%	10%	100%	0%	2	6	N	100%	N	2	Y
1955	Bigs Creek	3040	2.0	2.1	0.13	M	201.2	3.7	12	6.1	20	3.0	10	2575	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1956	Bigs Creek	3040	2.1	2.2	0.05	M	80.5	3.7	12	4.6	15	3.0	10	907	100	100	4	70%	0%	10%	0%	2	6	N	10%	Y	2	N
1957	Bigs Creek	3040	2.2	2.2	0.03	M	40.2	3.7	12	6.1	20	3.0	10	515	100	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	N
1958	Bigs Creek	3040	2.2	2.4	0.20	M	321.9	3.7	12	4.6	15	3.0	10	3630	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1959	Bigs Creek	3040	2.4	2.4	0.02	M	40.2	3.7	12	4.6	15	2.4	8	429	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1960	Bigs Creek	3040	2.4	2.5	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1961	Bigs Creek	3040	2.5	2.7	0.18	M	281.6	3.7	12	6.1	20	3.0	10	3605	60	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
1962	Bigs Creek	3040	2.7	2.7	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1963	Bigs Creek	3040	2.7	2.8	0.05	M	80.5	3.7	12	5.5	18	3.0	10	981	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1964	Bigs Creek	3040	2.8	2.9	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1965	Bigs Creek	3040	2.9	2.9	0.02	S	40.2	3.7	12	3.7	12	2.4	8	392	100	100	4	70%	60%	100%	10%	2	6	N	100%	N	1	Y
1966	Bigs Creek	3040	2.9	3.0	0.08	S	120.7	3.7	12	3.7	12	2.4	8	1177	100	100	4	70%	20%	10%	10%	2	6	N	10%	Y	1	N
1967	Bigs Creek	3040	3.0	3.0	0.02	S	40.2	3.0	10	4.6	15	3.0	10	429	100	100	4	70%	60%	100%	10%	2	6	N	100%	N	1	Y
1968	Bigs Creek	3040	3.0	3.2	0.15	M	241.4	3.7	12	6.1	20	3.0	10	3090	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1969	Bigs Creek	3040	3.2	3.3	0.15	M	241.4	3.0	10	7.6	25	3.0	10	3311	60	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1970	Bigs Creek	3040	3.3	3.4	0.05	M	80.5	3.0	10	4.6	15	2.4	8	809	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1971	Bigs Creek	3040	3.4	3.4	0.02	M	40.2	3.0	10	5.5	18	3.0	10	466	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1972	Bigs Creek	3040	3.4	3.4	0.05	M	80.5	3.7	12	6.1	20	3.7	12	1079	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1973	Bigs Creek	3040	3.4	3.5	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1974	Bigs Creek	3040	3.5	3.7	0.18	M	281.6	3.7	12	4.6	15	3.0	10	3176	100	100	4	70%	10%	100%	0%	2	6	N	100%	N	2	Y
1975	Bigs Creek	3040	3.7	3.7	0.02	M	40.2	3.0	10	3.7	12	2.4	8	368	100	100	4	70%	100%	100%	0%	4	6	N	100%	N	3	Y
1976	Bigs Creek	3040	3.7	3.8	0.02	M	40.2	3.0	10	3.7	12	2.4	8	368	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1977	Bigs Creek	3040	3.8	4.0	0.25	M	402.3	3.7	12	3.7	12	2.4	8	3924	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1978	Bigs Creek	3040	4.0	4.1	0.13	M	201.2	3.0	10	3.7	12	2.4	8	1840	60	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1979	Bigs Creek	3049	0.0	0.1	0.05	M	80.5	3.0	10	3.7	12	2.4	8	736	100	100	4	47%	50%	100%	0%	4	6	N	100%	N	1	Y
1980	Bigs Creek	3049	0.1	0.2	0.13	M	201.2	3.0	10	3.0	10	1.8	6	1594	50	100	4	47%	0%	0%	0%	4	6	N	0%	Y	1	N
1981	Bigs Creek	3049	0.2	0.6	0.43	R	684.0	3.0	10	3.7	12	2.4	8	6254	60	100	4	47%	0%	0%	0%	4	6	N	0%	N	1	N
1982	Bigs Creek	3045	0.0	0.1	0.13	R	201.2	3.7	12	1.8	6	1.2	4	1349	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1983	Bigs Creek	3045	0.1	0.3	0.15	R	241.4	3.7	12	1.8	6	1.2	4	1619	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1984	Bigs Creek	3045	0.3	0.4	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1985	Bigs Creek	3045	0.4	0.5	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	N
1986	Bigs Creek	3045	0.5	0.7	0.23	M	362.1	3.0	10	4.6	15	2.4	8	3642	90	100	6	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1987	Bigs Creek	3043	0.0	0.1	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1988	Bigs Creek	3043	0.1	0.2	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1989	Bigs Creek	3043	0.2	0.4	0.18	M	281.6	3.7	12	3.7	12	1.8	6	2575	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1990	Bigs Creek	3043	0.4	0.5	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	80	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1991	Bigs Creek	3043	0.5	0.5	0.03	S	40.2	3.7	12	2.4	8	1.8	6	319	100	100	4	70%	100%	100%	100%	4	6	N	100%	N	1	Y
1992	Bigs Creek	3043	0.5	0.6	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1993	Bigs Creek	3043	0.6	0.7	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	60	100	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
1994	Bigs Creek	3043	0.7	0.8	0.08	M	120.7	3.7	12	4.6	15	1.8	6	1214	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1995	Bigs Creek	3042	0.0	0.1	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1996	Bigs Creek	3042	0.1	0.2	0.08	M	120.7	3.7	12	1.8	6	1.2	4	809	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1997	Bigs Creek	3042	0.2	0.3	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1948	Bigs Creek	3040	0.97	1.61	0.81	0.97	0.29	0.15	0.10	0.15	0.00	0.04	0.48	0.18	0.63	0.18	2.29	0.20	4.05		
1949	Bigs Creek	3040	10.96	13.70	7.31	10.96	2.47	1.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1950	Bigs Creek	3040	10.82	13.52	9.01	10.82	2.43	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1951	Bigs Creek	3040	3.61	5.41	3.00	3.61	0.97	0.54	1.80	0.97	0.00	0.72	9.01	1.69	9.99	0.69	8.42	1.86	14.91		
1952	Bigs Creek	3040	3.61	4.51	2.40	3.61	0.81	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1953	Bigs Creek	3040	0.72	1.08	0.48	0.72	0.19	0.09	0.36	0.19	0.00	0.14	1.80	0.34	2.00	0.73	8.42	0.37	14.91		
1954	Bigs Creek	3040	3.61	5.41	3.00	3.61	0.97	0.54	0.36	0.97	0.00	0.14	1.80	1.12	2.78	0.46	5.56	1.23	9.84		
1955	Bigs Creek	3040	3.61	6.01	3.00	3.61	1.08	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1956	Bigs Creek	3040	1.44	1.80	1.20	1.44	0.32	0.22	0.00	0.03	0.00	0.00	0.00	0.00	0.03	0.04	0.40	0.04	0.71		
1957	Bigs Creek	3040	0.72	1.20	0.60	0.72	0.22	0.11	0.36	0.22	0.00	0.14	1.80	0.36	2.02	0.70	8.96	0.40	15.86		
1958	Bigs Creek	3040	5.77	7.21	4.81	5.77	1.30	0.87	2.88	1.30	0.00	1.15	14.42	2.45	15.72	0.68	7.62	2.70	13.48		
1959	Bigs Creek	3040	0.72	0.90	0.48	0.72	0.16	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1960	Bigs Creek	3040	2.16	2.70	1.44	2.16	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1961	Bigs Creek	3040	5.05	8.41	4.21	5.05	1.51	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1962	Bigs Creek	3040	0.72	0.90	0.48	0.72	0.16	0.09	0.36	0.16	0.00	0.14	1.80	0.31	1.96	0.71	7.62	0.34	13.48		
1963	Bigs Creek	3040	1.44	2.16	1.20	1.44	0.39	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1964	Bigs Creek	3040	3.61	4.51	2.40	3.61	0.81	0.43	1.80	0.81	0.00	0.72	9.01	1.53	9.82	0.71	7.62	1.69	13.48		
1965	Bigs Creek	3040	0.72	0.72	0.48	0.72	0.13	0.09	0.43	0.13	0.01	0.17	2.16	0.31	2.30	0.79	7.74	0.34	13.71		
1966	Bigs Creek	3040	2.16	2.16	1.44	2.16	0.39	0.26	0.43	0.04	0.03	0.17	2.16	0.24	2.23	0.20	1.97	0.26	3.49		
1967	Bigs Creek	3040	0.60	0.90	0.60	0.60	0.16	0.11	0.36	0.16	0.01	0.14	1.80	0.32	1.98	0.74	7.89	0.35	13.96		
1968	Bigs Creek	3040	4.33	7.21	3.61	4.33	1.30	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1969	Bigs Creek	3040	3.61	9.01	3.61	3.61	1.62	0.65	1.80	1.62	0.00	0.72	9.01	2.34	10.64	0.71	9.71	2.58	17.19		
1970	Bigs Creek	3040	1.20	1.80	0.96	1.20	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1971	Bigs Creek	3040	0.60	1.08	0.60	0.60	0.19	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1972	Bigs Creek	3040	1.44	2.40	1.44	1.44	0.43	0.26	0.72	0.43	0.00	0.29	3.61	0.72	4.04	0.67	8.96	0.79	15.86		
1973	Bigs Creek	3040	2.88	4.81	2.40	2.88	0.87	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1974	Bigs Creek	3040	5.05	6.31	4.21	5.05	1.14	0.76	0.50	1.14	0.00	0.20	2.52	1.34	3.66	0.42	4.75	1.47	8.41		
1975	Bigs Creek	3040	0.60	0.72	0.48	0.60	0.13	0.09	0.60	0.13	0.00	0.06	0.06	0.19	0.19	0.52	4.72	0.21	8.35		
1976	Bigs Creek	3040	0.60	0.72	0.48	0.60	0.13	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1977	Bigs Creek	3040	7.21	7.21	4.81	7.21	1.30	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1978	Bigs Creek	3040	3.00	3.61	2.40	3.00	0.65	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1979	Bigs Creek	3049	0.81	0.97	0.65	0.81	0.17	0.12	0.40	0.17	0.00	0.04	0.04	0.21	0.21	0.29	2.67	0.24	4.72		
1980	Bigs Creek	3049	2.02	2.02	1.21	2.02	0.36	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1981	Bigs Creek	3049	6.86	8.23	5.49	6.86	1.48	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1982	Bigs Creek	3045	3.61	1.80	1.20	3.61	0.32	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1983	Bigs Creek	3045	4.33	2.16	1.44	4.33	0.39	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1984	Bigs Creek	3045	3.61	3.61	1.80	3.61	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1985	Bigs Creek	3045	2.88	2.88	1.44	2.88	0.52	0.26	1.44	0.52	0.00	0.14	0.14	0.66	0.66	0.45	4.12	0.73	7.30		
1986	Bigs Creek	3045	5.41	6.11	4.33	4.06	1.46	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1987	Bigs Creek	3043	2.88	2.40	1.44	2.88	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1988	Bigs Creek	3043	3.61	3.61	1.80	3.61	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1989	Bigs Creek	3043	5.05	5.05	2.52	5.05	0.91	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1990	Bigs Creek	3043	2.16	2.16	1.08	2.16	0.39	0.19	1.08	0.39	0.00	0.11	0.11	0.50	0.50	0.45	4.12	0.55	7.30		
1991	Bigs Creek	3043	0.72	0.48	0.36	0.72	0.09	0.06	0.72	0.09	0.06	0.07	0.07	0.22	0.22	0.70	5.56	0.25	9.84		
1992	Bigs Creek	3043	2.88	2.40	1.44	2.88	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1993	Bigs Creek	3043	2.88	2.88	1.44	2.88	0.52	0.26	0.14	0.05	0.00	0.01	0.01	0.07	0.07	0.05	0.41	0.07	0.73		
1994	Bigs Creek	3043	2.16	2.70	1.08	2.16	0.49	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1995	Bigs Creek	3042	2.88	2.40	1.44	2.88	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1996	Bigs Creek	3042	2.16	1.08	0.72	2.16	0.19	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1997	Bigs Creek	3042	2.40	2.40	1.44	2.40	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac___ B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1998	Bigs Creek	3042	0.3	0.3	0.05	M	80.5	3.0	10	3.7	12	1.8	6	687	80	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1999	Bigs Creek	3042	0.3	0.4	0.03	M	40.2	3.0	10	3.0	10	1.8	6	319	90	100	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
2000	Bigs Creek	3042	0.4	0.5	0.13	M	201.2	3.0	10	3.7	12	2.4	8	1840	80	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2001	Bigs Creek	3042	0.5	0.6	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1816a	Bigs Creek	3078	0.0	0.1	0.06	S	96.6	6.4	21	1.8	6	1.8	6	971	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1866a	Bigs Creek	3050	0.4	0.5	0.10	S	160.9	6.4	21	1.8	6	1.8	6	1619	90	80	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1868b	Bigs Creek	3050	1.1	1.4	0.33	S	523.0	6.4	21	1.8	6	1.8	6	5261	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
841a	Bigs Creek	3025	0.2	0.5	0.28	M	442.6	3.0	10	3.7	12	1.8	6	3777	100	100	6	90%	0%	0%	0%	4	6	N	0%	Y	1	N
61	Washout Creek	MAINLINE	4.2	4.2	0.04	S	64.4	5.5	18	3.7	12	2.4	8	746	90	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	Y
62	Washout Creek	MAINLINE	4.2	4.3	0.11	S	177.0	4.9	16	4.6	15	2.4	8	2104	90	80	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
63	Washout Creek	MAINLINE	4.3	4.4	0.10	S	160.9	5.5	18	1.8	6	1.8	6	1472	100	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
64	Washout Creek	MAINLINE	4.4	4.7	0.25	S	402.3	6.7	22	1.8	6	1.8	6	4170	100	100	5	70%	50%	50%	50%	1	6	N	100%	Y	1	Y
65	Washout Creek	MAINLINE	4.7	4.8	0.10	S	160.9	6.7	22	1.8	6	2.4	8	1766	100	100	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
66	Washout Creek	MAINLINE	4.8	4.9	0.15	S	241.4	7.3	24	1.8	6	1.8	6	2649	100	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
67	Washout Creek	MAINLINE	4.9	5.0	0.10	S	160.9	6.1	20	3.0	10	3.7	12	2060	100	100	5	70%	75%	100%	50%	1	6	N	100%	Y	1	N
68	Washout Creek	MAINLINE	5.0	5.1	0.10	S	160.9	5.5	18	3.7	12	3.0	10	1962	100	100	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
69	Washout Creek	MAINLINE	5.1	5.2	0.10	S	160.9	5.5	18	5.5	18	4.6	15	2502	75	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
70	Washout Creek	MAINLINE	5.2	5.3	0.05	S	80.5	5.5	18	3.0	10	3.7	12	981	100	100	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
71	Washout Creek	MAINLINE	5.3	5.3	0.05	S	80.5	6.1	20	2.4	8	1.8	6	834	100	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
72	Washout Creek	MAINLINE	5.3	5.4	0.13	S	201.2	6.1	20	3.0	10	3.7	12	2575	100	100	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
73	Washout Creek	MAINLINE	5.4	5.5	0.05	S	80.5	5.5	18	5.5	18	6.1	20	1374	90	90	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
74	Washout Creek	MAINLINE	5.5	5.6	0.10	S	160.9	5.5	18	9.1	30	6.1	20	3336	50	90	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
75	Washout Creek	MAINLINE	5.6	5.7	0.10	S	160.9	5.5	18	4.6	15	6.1	20	2600	90	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
76	Washout Creek	MAINLINE	5.7	5.9	0.18	S	281.6	6.1	20	3.7	12	3.7	12	3777	100	100	5	70%	12%	25%	0%	1	6	N	25%	Y	1	N
77	Washout Creek	MAINLINE	5.9	5.9	0.05	S	80.5	5.5	18	3.7	12	6.1	20	1226	100	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
78	Washout Creek	MAINLINE	5.9	5.9	0.02	S	40.2	5.5	18	5.5	18	6.1	20	687	75	90	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
79	Washout Creek	MAINLINE	5.9	6.0	0.08	S	120.7	5.5	18	9.1	30	7.6	25	2686	50	75	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
80	Washout Creek	MAINLINE	6.0	6.1	0.10	S	160.9	5.5	18	6.1	20	4.6	15	2600	80	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
81	Washout Creek	MAINLINE	6.1	6.1	0.03	S	40.2	6.1	20	3.7	12	1.8	6	466	100	100	5	70%	100%	100%	50%	1	6	N	100%	N	1	Y
82	Washout Creek	MAINLINE	6.1	6.3	0.15	S	241.4	6.1	20	4.6	15	2.4	8	3164	25	100	5	70%	75%	100%	50%	1	6	N	100%	N	1	Y
83	Washout Creek	MAINLINE	6.3	6.3	0.05	S	80.5	5.5	18	5.5	18	4.6	15	1251	80	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
84	Washout Creek	MAINLINE	6.3	6.5	0.18	S	281.6	6.1	20	3.7	12	3.7	12	3777	100	100	5	70%	75%	75%	50%	1	6	N	75%	Y	1	N
85	Washout Creek	MAINLINE	6.5	6.8	0.30	S	482.8	6.1	20	2.4	8	2.4	8	5298	100	100	5	70%	50%	50%	25%	1	6	N	50%	Y	1	N
86	Washout Creek	MAINLINE	6.8	6.9	0.10	S	160.9	5.5	18	1.8	6	4.6	15	1913	100	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
87	Washout Creek	MAINLINE	6.9	6.9	0.02	S	40.2	5.5	18	3.7	12	6.1	20	613	80	80	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
88	Washout Creek	MAINLINE	6.9	7.0	0.08	S	120.7	5.5	18	3.7	12	3.7	12	1545	100	100	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
89	Washout Creek	MAINLINE	7.0	7.2	0.20	S	321.9	5.5	18	3.7	12	2.4	8	3728	90	100	5	70%	12%	25%	25%	1	6	N	25%	Y	1	N
90	Washout Creek	MAINLINE	7.2	7.3	0.08	S	120.7	6.1	20	3.7	12	1.8	6	1398	90	25	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
91	Washout Creek	MAINLINE	7.3	7.4	0.10	S	160.9	6.1	20	4.6	15	3.7	12	2306	100	100	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
92	Washout Creek	MAINLINE	7.4	7.5	0.13	S	201.2	6.1	20	5.5	18	3.7	12	3066	90	100	5	70%	75%	100%	50%	1	6	N	100%	Y	1	N
93	Washout Creek	MAINLINE	7.5	7.7	0.18	S	281.6	5.5	18	2.4	8	1.8	6	2747	100	100	5	70%	50%	50%	50%	1	6	N	50%	Y	1	N
94	Washout Creek	MAINLINE	7.7	7.8	0.13	M	201.2	6.1	20	3.0	10	2.4	8	2330	100	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
95	Washout Creek	MAINLINE	7.8	8.0	0.15	M	241.4	6.1	20	3.0	10	2.4	8	2796	100	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
96	Washout Creek	MAINLINE	8.0	8.0	0.05	S	80.5	5.5	18	6.1	20	6.1	20	1423	50	50	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
97	Washout Creek	MAINLINE	8.0	8.1	0.10	S	160.9	5.5	18	6.1	20	3.7	12	2453	90	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
98	Washout Creek	MAINLINE	8.1	8.2	0.05	S	80.5	5.5	18	9.1	30	6.1	20	1668	50	90	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
99	Washout Creek	MAINLINE	8.2	8.2	0.05	S	80.5	5.5	18	6.1	20	6.1	20	1423	50	80	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
100	Washout Creek	MAINLINE	8.2	8.4	0.15	M	241.4	6.1	20	3.7	12	2.4	8	2943	100	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
101	Washout Creek	MAINLINE	8.4	8.5	0.15	S	241.4	6.1	20	2.4	8	1.8	6	2502	100	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
102	Washout Creek	MAINLINE	8.5	8.6	0.05	S	80.5	6.1	20	2.4	8	2.4	8	883	100	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from FillslopeDeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1998	Bigs Creek	3042	1.20	1.44	0.72	1.20	0.26	0.13	0.60	0.26	0.00	0.06	0.06	0.32	0.32	0.47	3.97	0.35	7.03		
1999	Bigs Creek	3042	0.60	0.60	0.36	0.60	0.11	0.06	0.03	0.01	0.00	0.00	0.00	0.01	0.01	0.04	0.34	0.02	0.61		
2000	Bigs Creek	3042	3.00	3.61	2.40	3.00	0.65	0.43	1.50	0.65	0.00	0.15	0.15	0.80	0.80	0.43	3.97	0.88	7.03		
2001	Bigs Creek	3042	3.61	3.61	1.80	3.61	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1816a	Bigs Creek	3078	3.89	1.11	1.11	3.89	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1866a	Bigs Creek	3050	5.05	1.44	1.44	5.05	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1868b	Bigs Creek	3050	16.40	4.69	4.69	16.40	0.84	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
841a	Bigs Creek	3025	8.50	10.20	5.10	6.37	1.84	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
61	Washout Creek	MAINLINE	1.73	1.15	0.77	0.35	0.21	0.14	0.35	0.21	0.14	0.14	1.73	0.48	2.08	0.65	7.53	0.53	13.33	264	1130
62	Washout Creek	MAINLINE	4.23	3.97	2.12	0.65	0.71	0.38	0.85	0.71	0.38	0.34	4.23	1.43	5.33	0.68	8.09	1.58	14.33		
63	Washout Creek	MAINLINE	4.33	1.44	1.44	0.87	0.26	0.26	0.87	0.26	0.26	0.35	4.33	0.87	4.85	0.59	5.36	0.95	9.52		
64	Washout Creek	MAINLINE	13.22	3.61	3.61	2.64	0.65	0.65	1.32	0.32	0.32	0.53	6.61	1.18	7.26	0.28	2.93	1.30	5.18		
85	Washout Creek	MAINLINE	5.29	1.44	1.92	1.06	0.28	0.35	1.08	0.26	0.35	0.42	5.29	1.03	5.89	0.58	6.39	1.13	11.32		
66	Washout Creek	MAINLINE	8.65	2.16	2.16	1.73	0.39	0.39	1.73	0.39	0.39	0.69	8.65	1.47	9.43	0.56	6.09	1.62	10.79		
67	Washout Creek	MAINLINE	4.81	2.40	2.88	0.96	0.43	0.52	0.72	0.43	0.28	0.29	3.81	0.98	4.30	0.48	6.09	1.08	10.79		
68	Washout Creek	MAINLINE	4.33	2.88	2.40	0.87	0.52	0.43	0.87	0.52	0.43	0.35	4.33	1.30	5.28	0.68	8.07	1.43	14.28		
69	Washout Creek	MAINLINE	4.33	4.33	3.61	0.87	0.78	0.65	0.87	0.78	0.65	0.35	4.33	1.77	5.75	0.71	11.02	1.95	19.51		
70	Washout Creek	MAINLINE	2.16	1.20	1.44	0.43	0.22	0.26	0.43	0.22	0.28	0.17	2.18	0.65	2.64	0.66	8.07	0.71	14.28		
71	Washout Creek	MAINLINE	2.40	0.96	0.72	0.48	0.17	0.13	0.48	0.17	0.13	0.19	2.40	0.50	2.71	0.59	6.15	0.54	10.89		
72	Washout Creek	MAINLINE	6.01	3.00	3.81	1.20	0.54	0.85	1.20	0.54	0.65	0.48	8.01	1.87	7.20	0.85	8.30	1.84	14.70		
73	Washout Creek	MAINLINE	2.16	2.16	2.40	0.43	0.39	0.43	0.43	0.39	0.43	0.17	2.16	1.00	2.99	0.72	12.37	1.09	21.89		
74	Washout Creek	MAINLINE	4.33	7.21	4.81	0.87	1.30	0.87	0.87	1.30	0.87	0.35	4.33	2.51	6.49	0.75	15.59	2.76	27.60		
75	Washout Creek	MAINLINE	4.33	3.61	4.81	0.87	0.65	0.87	0.87	0.65	0.87	0.35	4.33	1.86	5.84	0.72	11.56	2.05	20.48		
76	Washout Creek	MAINLINE	8.41	5.05	5.05	1.68	0.91	0.91	0.20	0.23	0.00	0.08	1.01	0.31	1.24	0.08	1.09	0.34	1.94		
77	Washout Creek	MAINLINE	2.16	1.44	2.40	0.43	0.26	0.43	0.43	0.26	0.43	0.17	2.16	0.87	2.86	0.71	10.75	0.95	19.04		
78	Washout Creek	MAINLINE	1.08	1.08	1.20	0.22	0.19	0.22	0.22	0.19	0.22	0.09	1.08	0.50	1.49	0.72	12.37	0.55	21.89		
79	Washout Creek	MAINLINE	3.24	5.41	4.51	0.65	0.97	0.81	0.65	0.97	0.81	0.26	3.24	2.04	5.03	0.76	16.94	2.25	29.98		
80	Washout Creek	MAINLINE	4.33	4.81	3.61	0.87	0.87	0.65	0.87	0.87	0.65	0.35	4.33	1.86	5.84	0.72	11.56	2.05	20.46		
81	Washout Creek	MAINLINE	1.20	0.72	0.36	0.24	0.13	0.06	0.24	0.13	0.03	0.10	1.20	0.26	1.36	0.55	6.42	0.28	11.37		
82	Washout Creek	MAINLINE	7.21	5.41	2.88	1.44	0.97	0.52	1.08	0.97	0.26	0.43	5.41	1.87	6.64	0.53	6.90	1.83	12.21		
83	Washout Creek	MAINLINE	2.16	2.16	1.80	0.43	0.39	0.32	0.43	0.39	0.32	0.17	2.16	0.89	2.88	0.71	11.02	0.98	19.51		
84	Washout Creek	MAINLINE	8.41	5.05	5.05	1.68	0.91	0.91	1.26	0.68	0.45	0.50	8.31	1.64	7.45	0.43	5.82	1.80	10.31		
85	Washout Creek	MAINLINE	14.42	5.77	5.77	2.88	1.04	1.04	1.44	0.52	0.26	0.58	7.21	1.36	7.99	0.26	2.81	1.49	4.97		
86	Washout Creek	MAINLINE	4.33	1.44	3.61	0.87	0.26	0.65	0.87	0.26	0.65	0.35	4.33	1.25	5.24	0.66	7.80	1.38	13.80		
87	Washout Creek	MAINLINE	1.08	0.72	1.20	0.22	0.13	0.22	0.22	0.13	0.22	0.09	1.08	0.43	1.43	0.71	10.75	0.48	19.04		
88	Washout Creek	MAINLINE	3.24	2.16	2.16	0.65	0.39	0.39	0.65	0.39	0.39	0.26	3.24	1.04	4.02	0.67	8.60	1.14	15.23		
89	Washout Creek	MAINLINE	8.65	5.77	3.85	1.73	1.04	0.69	0.21	0.26	0.17	0.08	1.04	0.52	1.47	0.14	1.60	0.57	2.84		
90	Washout Creek	MAINLINE	3.61	2.16	1.08	0.72	0.39	0.19	0.72	0.39	0.19	0.29	3.61	0.87	4.19	0.62	7.23	0.96	12.80		
91	Washout Creek	MAINLINE	4.81	3.61	2.88	0.96	0.65	0.52	0.96	0.65	0.52	0.38	4.81	1.55	5.98	0.67	9.65	1.71	17.08		
92	Washout Creek	MAINLINE	6.01	5.41	3.61	1.20	0.97	0.65	0.90	0.97	0.32	0.36	4.51	1.66	5.80	0.54	8.24	1.82	14.59		
93	Washout Creek	MAINLINE	7.57	3.37	2.52	1.51	0.61	0.45	0.76	0.30	0.23	0.30	3.79	0.83	4.32	0.30	2.96	0.92	5.23		
94	Washout Creek	MAINLINE	6.01	3.00	2.40	1.20	0.54	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
95	Washout Creek	MAINLINE	7.21	3.61	2.88	1.44	0.65	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
96	Washout Creek	MAINLINE	2.16	2.40	2.40	0.43	0.43	0.43	0.43	0.43	0.43	0.17	2.16	1.04	3.03	0.73	12.90	1.14	22.84		
97	Washout Creek	MAINLINE	4.33	4.81	2.88	0.87	0.87	0.52	0.87	0.87	0.52	0.35	4.33	1.73	5.71	0.71	10.75	1.90	19.04		
98	Washout Creek	MAINLINE	2.16	3.61	2.40	0.43	0.65	0.43	0.43	0.65	0.43	0.17	2.16	1.25	3.24	0.75	15.59	1.38	27.60		
99	Washout Creek	MAINLINE	2.16	2.40	2.40	0.43	0.43	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
100	Washout Creek	MAINLINE	7.21	4.33	2.88	1.44	0.78	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
101	Washout Creek	MAINLINE	7.21	2.88	2.16	1.44	0.52	0.39	1.44	0.52	0.39	0.58	7.21	1.49	8.12	0.59	6.15	1.63	10.89		
102	Washout Creek	MAINLINE	2.40	0.96	0.96	0.48	0.17	0.17	0.48	0.17	0.17	0.19	2.40	0.54	2.75	0.61	6.69	0.59	11.84		

Attaà B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
103	Washout Creek	MAINLINE	0.6	0.6	0.05	S	80.5	5.5	18	6.1	20	9.1	30	1668	90	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
104	Washout Creek	MAINLINE	0.6	0.7	0.08	S	120.7	5.5	18	18.3	60	9.1	30	3973	50	100	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
105	Washout Creek	MAINLINE	0.7	9.0	0.32	S	523.0	6.1	20	3.7	12	3.0	10	6696	100	100	5	70%	75%	100%	50%	1	6	N	100%	Y	1	N
620	Washout Creek	3030	0.3	0.4	0.10	M	160.9	4.9	16	4.6	15	3.0	10	2011	100	100	5	70%	0%	0%	0%	2	6	N	0%	N	1	N
621	Washout Creek	3030	0.4	0.6	0.20	M	321.9	4.9	16	4.6	15	2.4	8	3826	90	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
622	Washout Creek	3030	0.6	0.8	0.20	M	321.9	4.9	16	6.1	20	3.7	12	4709	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
623	Washout Creek	3030	0.8	0.9	0.08	M	120.7	4.9	16	9.1	30	4.6	15	2244	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
624	Washout Creek	3030	0.9	1.0	0.13	M	201.2	4.9	16	6.1	20	3.7	12	2943	60	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
625	Washout Creek	3030	1.0	1.1	0.10	M	160.9	4.9	16	4.6	15	3.0	10	2011	100	100	5	70%	50%	50%	0%	2	6	N	100%	Y	1	Y
626	Washout Creek	3030	1.1	1.2	0.08	M	120.7	4.9	16	4.6	15	3.0	10	1508	90	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
627	Washout Creek	3030	1.2	1.2	0.02	M	40.2	4.9	16	3.0	10	2.4	8	417	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
628	Washout Creek	3030	1.2	1.5	0.28	M	442.6	4.9	16	4.6	15	3.0	10	5531	70	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
629	Washout Creek	3030	1.5	1.5	0.02	M	40.2	4.9	16	3.7	12	2.4	8	441	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
630	Washout Creek	3030	1.5	1.6	0.05	M	80.5	4.9	16	3.7	12	1.8	6	834	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
631	Washout Creek	3030	1.6	1.6	0.08	M	120.7	4.9	16	4.6	15	2.4	8	1435	60	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
632	Washout Creek	3030	1.6	1.9	0.28	M	442.6	4.9	16	4.6	15	1.8	6	4991	80	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
633	Washout Creek	3030	1.9	1.9	0.03	M	40.2	4.9	16	3.0	10	1.8	6	392	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
634	Washout Creek	3030	1.9	2.0	0.05	S	80.5	4.9	16	3.0	10	1.8	6	785	80	100	5	70%	60%	100%	10%	2	6	N	100%	N	1	Y
635	Washout Creek	3030	2.0	2.0	0.02	S	40.2	4.9	16	3.7	12	1.8	6	417	100	100	5	70%	60%	100%	10%	2	6	N	100%	N	1	Y
636	Washout Creek	3030	2.0	2.0	0.02	S	40.2	4.9	16	2.4	8	1.8	6	368	100	100	5	70%	60%	100%	10%	2	6	N	100%	N	1	Y
637	Washout Creek	3030	2.0	2.2	0.15	M	241.4	4.9	16	4.6	15	1.8	6	2722	90	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
638	Washout Creek	3030	2.2	2.3	0.10	M	160.9	4.9	16	3.7	12	2.4	8	1766	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
639	Washout Creek	3030	2.3	2.5	0.18	M	281.6	4.3	14	4.6	15	1.8	6	3005	70	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
640	Washout Creek	3030	2.5	2.5	0.05	M	80.5	4.3	14	6.1	20	3.7	12	1128	30	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
641	Washout Creek	3030	2.5	2.6	0.05	S	80.5	4.3	14	4.6	15	3.0	10	957	100	100	5	70%	10%	10%	10%	2	6	N	10%	Y	1	N
642	Washout Creek	3030	2.6	2.7	0.10	S	160.9	4.3	14	3.7	12	3.7	12	1864	100	100	5	70%	60%	100%	10%	2	6	N	100%	N	1	Y
643	Washout Creek	3030	2.7	2.8	0.13	S	201.2	4.3	14	4.6	15	2.4	8	2269	70	100	5	70%	60%	100%	10%	2	6	N	100%	N	1	Y
644	Washout Creek	3030	2.8	2.9	0.10	S	160.9	4.3	14	6.1	20	3.7	12	2256	60	100	5	70%	50%	25%	50%	2	6	N	50%	N	1	N
645	Washout Creek	3030	2.9	3.0	0.15	M	241.4	4.3	14	6.1	20	3.0	10	3238	20	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
646	Washout Creek	3030	3.0	3.2	0.13	M	201.2	4.9	16	2.4	8	3.0	10	2085	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
647	Washout Creek	3030	3.2	3.3	0.18	M	281.6	4.3	14	3.7	12	2.4	8	2919	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
648	Washout Creek	3030	3.3	3.4	0.02	M	40.2	4.3	14	6.1	20	3.0	10	540	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
649	Washout Creek	3030	3.4	3.4	0.05	M	80.5	4.3	14	3.7	12	2.4	8	834	100	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
650	Washout Creek	3030	3.4	3.4	0.02	M	40.2	4.3	14	3.7	12	2.4	8	417	60	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
651	Washout Creek	3030	3.4	3.6	0.13	M	201.2	4.9	16	3.0	10	1.8	6	1962	100	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
652	Washout Creek	3030	3.6	3.6	0.05	M	80.5	4.9	16	3.7	12	1.8	6	834	100	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
653	Washout Creek	3030	3.6	3.7	0.05	M	80.5	4.9	16	4.6	15	2.4	8	957	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
654	Washout Creek	3030	3.7	3.9	0.20	M	321.9	4.3	14	4.6	15	3.0	10	3826	80	100	5	70%	5%	10%	0%	2	6	N	10%	Y	1	N
655	Washout Creek	3030	3.9	3.9	0.05	S	80.5	4.3	14	4.6	15	3.7	12	1006	80	100	5	70%	60%	100%	10%	2	6	N	100%	N	1	Y
656	Washout Creek	3030	3.9	4.0	0.05	M	80.5	4.3	14	6.1	20	3.7	12	1128	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
657	Washout Creek	3030	4.0	4.2	0.27	M	442.6	4.3	14	4.6	15	3.0	10	5261	80	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
658	Washout Creek	3030	4.2	4.3	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
659	Washout Creek	3030	4.3	4.5	0.18	M	281.6	4.3	14	4.6	15	2.4	8	3176	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
660	Washout Creek	3030	4.5	4.5	0.03	S	40.2	4.3	14	3.7	12	3.0	10	441	50	100	5	70%	60%	100%	10%	2	6	N	100%	Y	1	Y
661	Washout Creek	3030	4.5	4.6	0.05	M	80.5	4.9	16	9.1	30	3.7	12	1423	20	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
662	Washout Creek	3030	4.6	4.7	0.13	M	201.2	4.3	14	6.1	20	2.4	8	2575	40	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
663	Washout Creek	3030	4.7	4.8	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	80	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
664	Washout Creek	3030	4.8	4.8	0.02	M	40.2	4.3	14	4.6	15	1.8	6	429	90	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	N
665	Washout Creek	3030	4.8	5.0	0.20	M	321.9	4.3	14	4.6	15	2.4	8	3630	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
666	Washout Creek	3030	5.0	5.3	0.30	M	482.8	4.3	14	5.5	18	2.4	8	5886	80	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from FillslopeDeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
603	Washout Creek	MAINLINE	2.16	2.40	3.61	0.43	0.43	0.65	0.43	0.43	0.65	0.17	2.16	1.25	3.24	0.75	15.59	1.38	27.60		
604	Washout Creek	MAINLINE	3.24	10.82	5.41	0.65	1.95	0.97	0.65	1.95	0.97	0.26	3.24	3.18	6.17	0.80	26.35	3.50	46.64		
605	Washout Creek	MAINLINE	15.62	9.37	7.81	3.12	1.69	1.41	2.34	1.69	0.70	0.94	11.72	3.33	14.11	0.50	6.36	3.66	11.26		
620	Washout Creek	3030	3.85	3.61	2.40	0.77	0.65	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
621	Washout Creek	3030	7.69	7.21	3.85	1.54	1.30	0.69	0.77	1.30	0.00	0.31	3.85	1.61	5.14	0.42	4.99	1.77	8.83		
622	Washout Creek	3030	7.69	9.61	5.77	1.54	1.73	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
623	Washout Creek	3030	2.88	5.41	2.70	0.58	0.97	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
624	Washout Creek	3030	4.81	6.01	3.61	0.96	1.08	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
625	Washout Creek	3030	3.85	3.61	2.40	0.77	0.65	0.43	0.38	0.32	0.00	0.15	1.92	0.48	2.25	0.24	2.97	0.53	5.26		
626	Washout Creek	3030	2.88	2.70	1.80	0.56	0.49	0.32	0.29	0.49	0.00	0.12	1.44	0.60	1.93	0.40	4.99	0.66	8.83		
627	Washout Creek	3030	0.96	0.60	0.46	0.19	0.11	0.09	0.10	0.11	0.00	0.04	0.48	0.15	0.59	0.35	3.64	0.16	6.45		
628	Washout Creek	3030	10.58	9.92	6.61	2.12	1.78	1.19	1.06	1.78	0.00	0.42	5.29	2.21	7.07	0.40	4.99	2.43	8.83		
629	Washout Creek	3030	0.96	0.72	0.48	0.19	0.13	0.09	0.10	0.13	0.00	0.04	0.48	0.17	0.61	0.38	4.18	0.19	7.40		
630	Washout Creek	3030	1.92	1.44	0.72	0.38	0.26	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
631	Washout Creek	3030	2.88	2.70	1.44	0.58	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
632	Washout Creek	3030	10.58	9.92	3.97	2.12	1.78	0.71	1.06	1.78	0.00	0.42	5.29	2.21	7.07	0.44	4.99	2.43	8.83		
633	Washout Creek	3030	0.96	0.60	0.36	0.19	0.11	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
634	Washout Creek	3030	1.92	1.20	0.72	0.38	0.22	0.13	0.23	0.22	0.01	0.09	1.15	0.32	1.38	0.41	4.00	0.35	7.07		
635	Washout Creek	3030	0.96	0.72	0.36	0.19	0.13	0.06	0.12	0.13	0.01	0.05	0.58	0.16	0.71	0.44	4.53	0.20	8.03		
636	Washout Creek	3030	0.96	0.48	0.36	0.19	0.09	0.06	0.12	0.09	0.01	0.05	0.58	0.14	0.67	0.38	3.46	0.15	6.12		
637	Washout Creek	3030	5.77	5.41	2.16	1.15	0.97	0.39	0.58	0.97	0.00	0.23	2.88	1.20	3.86	0.44	4.99	1.32	8.83		
638	Washout Creek	3030	3.85	2.88	1.92	0.77	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
639	Washout Creek	3030	5.89	6.31	2.52	1.18	1.14	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
640	Washout Creek	3030	1.68	2.40	1.44	0.34	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
641	Washout Creek	3030	1.68	1.80	1.20	0.34	0.32	0.22	0.03	0.03	0.02	0.01	0.17	0.07	0.22	0.07	0.84	0.07	1.49		
642	Washout Creek	3030	3.37	2.88	2.88	0.67	0.52	0.52	0.40	0.52	0.05	0.16	2.02	0.73	2.59	0.39	4.55	0.81	8.06		
643	Washout Creek	3030	4.21	4.51	2.40	0.84	0.81	0.43	0.50	0.81	0.04	0.20	2.52	1.06	3.38	0.47	5.25	1.16	9.30		
644	Washout Creek	3030	3.37	4.81	2.88	0.67	0.87	0.52	0.34	0.22	0.26	0.13	1.68	0.61	2.46	0.27	3.79	0.67	6.72		
645	Washout Creek	3030	5.05	7.21	3.61	1.01	1.30	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
646	Washout Creek	3030	4.81	2.40	3.00	0.96	0.43	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
647	Washout Creek	3030	5.89	5.05	3.37	1.18	0.91	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
648	Washout Creek	3030	0.84	1.20	0.60	0.17	0.22	0.11	0.08	0.22	0.00	0.03	0.42	0.25	0.64	0.46	6.21	0.27	11.00		
649	Washout Creek	3030	1.68	1.44	0.96	0.34	0.26	0.17	0.17	0.26	0.00	0.07	0.84	0.33	1.10	0.39	4.06	0.36	7.49		
650	Washout Creek	3030	0.84	0.72	0.48	0.17	0.13	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
651	Washout Creek	3030	4.81	3.00	1.80	0.96	0.54	0.32	0.48	0.54	0.00	0.19	2.40	0.73	2.94	0.37	3.64	0.81	6.45		
652	Washout Creek	3030	1.92	1.44	0.72	0.38	0.26	0.13	0.19	0.26	0.00	0.08	0.96	0.34	1.22	0.40	4.18	0.37	7.40		
653	Washout Creek	3030	1.92	1.80	0.96	0.38	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
654	Washout Creek	3030	6.73	7.21	4.81	1.35	1.30	0.87	0.07	0.13	0.00	0.03	0.34	0.16	0.47	0.04	0.49	0.17	0.86		
655	Washout Creek	3030	1.68	1.80	1.44	0.34	0.32	0.26	0.20	0.32	0.03	0.08	1.01	0.43	1.36	0.43	5.36	0.47	9.49		
656	Washout Creek	3030	1.68	2.40	1.44	0.34	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
657	Washout Creek	3030	9.25	9.92	6.61	1.85	1.78	1.19	0.93	1.78	0.00	0.37	4.63	2.15	6.41	0.41	4.87	2.37	8.62		
658	Washout Creek	3030	2.52	2.16	1.08	0.50	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
659	Washout Creek	3030	5.89	6.31	3.37	1.18	1.14	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
660	Washout Creek	3030	0.84	0.72	0.60	0.17	0.13	0.11	0.10	0.13	0.01	0.04	0.50	0.18	0.65	0.41	4.50	0.20	7.96		
661	Washout Creek	3030	1.92	3.61	1.44	0.38	0.65	0.26	0.19	0.65	0.00	0.08	0.96	0.73	1.61	0.51	9.02	0.80	15.97		
662	Washout Creek	3030	4.21	6.01	2.40	0.84	1.08	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
663	Washout Creek	3030	3.37	3.61	1.92	0.67	0.65	0.35	0.34	0.65	0.00	0.13	1.68	0.78	2.33	0.43	4.87	0.86	8.62		
664	Washout Creek	3030	0.84	0.90	0.36	0.17	0.16	0.06	0.08	0.16	0.00	0.03	0.42	0.20	0.58	0.46	4.87	0.22	8.62		
665	Washout Creek	3030	6.73	7.21	3.85	1.35	1.30	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
666	Washout Creek	3030	10.10	12.98	5.77	2.02	2.34	1.04	1.01	2.34	0.00	0.40	5.05	2.74	7.38	0.47	5.68	3.01	10.05		

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
667	Washout Creek	3030	5.3	5.4	0.13	M	201.2	3.7	12	6.1	20	3.7	12	2698	40	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
668	Washout Creek	3030	5.4	5.6	0.18	M	281.6	3.7	12	4.6	15	3.0	10	3176	50	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
669	Washout Creek	3030	5.6	5.7	0.10	M	160.9	4.3	14	2.4	8	1.2	4	1275	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
670	Washout Creek	3030	5.7	5.9	0.20	M	321.9	4.3	14	6.1	20	2.4	8	4121	20	90	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
671	Washout Creek	3030	5.9	6.1	0.20	M	321.9	4.3	14	1.8	6	1.2	4	2355	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
672	Washout Creek	3030	6.1	6.3	0.18	M	281.6	4.3	14	4.6	15	2.4	8	3178	60	80	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
679	Washout Creek	3037	0.0	0.1	0.05	M	80.5	4.3	14	1.8	6	1.2	4	589	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
680	Washout Creek	3037	0.1	0.2	0.13	M	201.2	3.7	12	3.0	10	1.2	4	1594	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
682	Washout Creek	3036	0.0	0.1	0.10	M	160.9	4.3	14	4.6	15	3.0	10	1913	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
683	Washout Creek	3036	0.1	0.2	0.08	M	120.7	4.3	14	4.6	15	2.4	8	1361	60	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
684	Washout Creek	3036	0.2	0.4	0.23	M	362.1	4.3	14	6.1	20	2.4	8	4636	80	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
685	Washout Creek	3036	0.4	0.5	0.10	M	160.9	4.3	14	3.0	10	1.2	4	1374	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
686	Washout Creek	3038	0.5	0.6	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
687	Washout Creek	3036	0.6	0.6	0.05	M	80.5	4.3	14	1.8	6	1.2	4	589	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
688	Washout Creek	3036	0.6	0.7	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	10	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
689	Washout Creek	3036	0.7	1.0	0.25	M	402.3	4.3	14	5.5	18	3.0	10	5151	20	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
690	Washout Creek	3036	1.0	1.0	0.03	S	40.2	4.3	14	3.7	12	3.0	10	441	50	80	4	70%	100%	100%	100%	2	6	N	100%	N	1	Y
691	Washout Creek	3036	1.0	1.0	0.02	S	32.2	4.3	14	3.7	12	3.0	10	353	80	100	4	70%	60%	100%	10%	2	6	N	100%	Y	1	Y
692	Washout Creek	3036	1.0	1.0	0.01	M	8.0	4.3	14	3.0	10	2.4	8	78	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
693	Washout Creek	3036	1.0	1.0	0.02	M	40.2	4.3	14	3.7	12	1.8	6	392	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
694	Washout Creek	3036	1.0	1.1	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	100	10	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
695	Washout Creek	3036	1.1	1.4	0.28	M	442.8	4.3	14	3.7	12	2.4	8	4587	60	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
696	Washout Creek	3036	1.4	1.4	0.05	M	80.5	4.3	14	2.4	8	1.2	4	638	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
697	Washout Creek	3036	1.4	1.6	0.15	M	241.4	4.3	14	3.7	12	1.2	4	2207	20	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
698	Washout Creek	3038	1.6	1.6	0.05	M	80.5	4.3	14	2.4	8	1.8	6	687	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
699	Washout Creek	3036	1.6	1.7	0.08	M	120.7	4.3	14	1.8	6	1.2	4	883	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
700	Washout Creek	3036	1.7	1.8	0.05	M	80.5	4.3	14	2.4	8	3.0	10	785	80	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
701	Washout Creek	3036	1.8	1.9	0.15	M	241.4	4.3	14	4.6	15	2.4	8	2722	70	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
702	Washout Creek	3036	1.9	2.0	0.13	S	201.2	4.3	14	4.6	15	6.1	20	3005	40	20	4	70%	60%	100%	100%	2	6	N	100%	N	1	Y
703	Washout Creek	3036	2.0	2.1	0.10	M	160.9	4.3	14	9.1	30	4.6	15	2894	20	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	N
704	Washout Creek	3036	2.1	2.2	0.08	M	120.7	4.3	14	4.6	15	3.7	12	1508	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
705	Washout Creek	3036	2.2	2.4	0.18	M	281.6	3.7	12	6.1	20	3.0	10	3605	40	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
706	Washout Creek	3036	2.4	2.7	0.30	M	482.8	4.3	14	3.7	12	1.8	6	4709	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
707	Washout Creek	3036	2.7	2.9	0.18	M	281.8	4.3	14	4.6	15	2.4	8	3176	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
708	Washout Creek	3036	2.9	2.9	0.05	S	80.5	4.3	14	4.6	15	4.6	15	1079	90	90	5	70%	60%	100%	100%	4	6	N	100%	N	1	Y
709	Washout Creek	3036-C	0.0	0.2	0.15	M	241.4	4.3	14	3.0	10	3.7	12	2649	100	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
710	Washout Creek	3036-C	0.2	0.2	0.05	M	80.5	3.7	12	3.0	10	2.4	8	736	80	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
711	Washout Creek	3036-C	0.2	0.3	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	50	100	5	70%	0%	0%	0%	4	6	N	0%	N	1	N
712	Washout Creek	3036-D	0.0	0.1	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	60	100	4	70%	100%	100%	0%	4	6	N	100%	N	5	Y
713	Washout Creek	3036-D	0.1	0.1	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
714	Washout Creek	3036-D	0.1	0.2	0.05	M	80.5	3.7	12	3.0	10	1.8	6	687	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
715	Washout Creek	3036-D	0.2	0.4	0.20	M	321.9	3.7	12	3.7	12	1.8	6	2943	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
716	Washout Creek	3036-D	0.4	0.4	0.03	M	40.2	3.7	12	3.7	12	1.8	6	368	80	90	4	70%	50%	100%	0%	4	6	N	100%	Y	1	Y
717	Washout Creek	3036-A	0.0	0.2	0.18	R	281.6	4.3	14	1.2	4	1.2	4	1689	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
718	Washout Creek	3036-A	0.2	0.2	0.05	M	80.5	4.3	14	4.6	15	1.8	6	858	10	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
719	Washout Creek	3036-A	0.2	0.5	0.30	M	482.8	4.3	14	3.7	12	1.8	6	4709	60	90	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
720	Washout Creek	3036-A	0.5	0.6	0.08	M	120.7	4.3	14	6.1	20	3.0	10	1619	40	90	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
721	Washout Creek	3036-A	0.6	0.7	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	70	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
722	Washout Creek	3036-A	0.7	0.8	0.10	M	160.9	4.3	14	3.7	12	1.8	6	1570	60	100	4	70%	100%	100%	0%	2	6	N	100%	N	1	Y
723	Washout Creek	3036-A	0.8	0.9	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
667	Washout Creek	3030	3.61	6.01	3.61	3.61	1.08	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
668	Washout Creek	3030	5.05	6.31	4.21	5.05	1.14	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
669	Washout Creek	3030	3.37	1.92	0.96	3.37	0.35	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
670	Washout Creek	3030	6.73	9.61	3.85	6.73	1.73	0.69	3.37	1.73	0.00	0.34	0.34	2.07	2.07	0.50	6.42	2.27	11.37		
671	Washout Creek	3030	6.73	2.88	1.92	6.73	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
672	Washout Creek	3030	5.89	6.31	3.37	5.89	1.14	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
679	Washout Creek	3037	1.68	0.72	0.48	1.68	0.13	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
680	Washout Creek	3037	3.61	3.00	1.20	3.61	0.54	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
682	Washout Creek	3036	3.37	3.61	2.40	3.37	0.65	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
683	Washout Creek	3036	2.52	2.70	1.44	2.52	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
684	Washout Creek	3036	7.57	10.82	4.33	7.57	1.95	0.78	3.79	1.95	0.00	1.51	18.93	3.46	20.88	0.75	9.56	3.81	16.92		
685	Washout Creek	3036	3.37	2.40	0.96	3.37	0.43	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
686	Washout Creek	3036	2.52	2.16	1.08	2.52	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
687	Washout Creek	3036	1.68	0.72	0.48	1.68	0.13	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
688	Washout Creek	3036	2.52	2.16	1.08	2.52	0.39	0.19	1.26	0.39	0.00	0.50	6.31	0.89	6.70	0.76	7.41	0.98	13.11		
689	Washout Creek	3036	8.41	10.82	6.01	8.41	1.95	1.08	4.21	1.95	0.00	1.68	21.03	3.63	22.98	0.70	9.02	3.99	15.97		
690	Washout Creek	3036	0.84	0.72	0.60	0.84	0.13	0.11	0.84	0.13	0.11	0.34	4.21	0.57	4.44	1.30	14.28	0.63	25.28		
691	Washout Creek	3036	0.67	0.58	0.48	0.67	0.10	0.09	0.40	0.10	0.01	0.16	2.02	0.27	2.13	0.78	8.51	0.30	15.07		
692	Washout Creek	3036	0.17	0.12	0.10	0.17	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
693	Washout Creek	3036	0.84	0.72	0.36	0.84	0.13	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
694	Washout Creek	3036	2.52	2.16	1.08	2.52	0.39	0.19	1.26	0.39	0.00	0.50	6.31	0.89	6.70	0.76	7.41	0.98	13.11		
695	Washout Creek	3036	9.25	7.93	5.29	9.25	1.43	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
696	Washout Creek	3036	1.68	0.96	0.48	1.68	0.17	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
697	Washout Creek	3036	5.05	4.33	1.44	5.05	0.78	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
698	Washout Creek	3036	1.68	0.96	0.72	1.68	0.17	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
699	Washout Creek	3036	2.52	1.08	0.72	2.52	0.19	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
700	Washout Creek	3036	1.68	0.96	1.20	1.68	0.17	0.22	0.84	0.17	0.00	0.34	4.21	0.51	4.38	0.65	6.33	0.56	11.21		
701	Washout Creek	3036	5.05	5.41	2.88	5.05	0.97	0.52	2.52	0.97	0.00	1.01	12.62	1.98	13.59	0.73	8.21	2.18	14.54		
702	Washout Creek	3036	4.21	4.51	6.01	4.21	0.81	1.08	2.52	0.81	1.08	1.01	12.62	2.90	14.51	0.97	14.43	3.19	25.54		
703	Washout Creek	3036	3.37	7.21	3.61	3.37	1.30	0.65	1.68	1.30	0.00	0.67	8.41	1.97	9.71	0.68	12.25	2.17	21.68		
704	Washout Creek	3036	2.52	2.70	2.16	2.52	0.49	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
705	Washout Creek	3036	5.05	8.41	4.21	5.05	1.51	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
706	Washout Creek	3036	10.10	8.65	4.33	10.10	1.56	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
707	Washout Creek	3036	5.89	6.31	3.37	5.89	1.14	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
708	Washout Creek	3036	1.68	1.80	1.80	0.34	0.32	0.32	0.20	0.32	0.32	0.02	0.02	0.67	0.67	0.62	8.32	0.74	14.72		
709	Washout Creek	3036-C	5.05	3.61	4.33	1.01	0.65	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
710	Washout Creek	3036-C	1.44	1.20	0.96	0.29	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
711	Washout Creek	3036-C	2.16	2.70	1.80	0.43	0.49	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
712	Washout Creek	3036-D	2.88	3.61	2.40	2.88	0.65	0.43	2.88	0.65	0.00	0.29	0.29	0.94	0.94	0.52	5.82	1.03	10.31		
713	Washout Creek	3036-D	0.72	0.90	0.48	0.72	0.16	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
714	Washout Creek	3036-D	1.44	1.20	0.72	1.44	0.22	0.13	0.72	0.22	0.00	0.07	0.07	0.29	0.29	0.42	3.58	0.32	6.35		
715	Washout Creek	3036-D	5.77	5.77	2.88	5.77	1.04	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
716	Washout Creek	3036-D	0.72	0.72	0.36	0.72	0.13	0.06	0.36	0.13	0.00	0.04	0.04	0.17	0.17	0.45	4.12	0.18	7.30		
717	Washout Creek	3036-A	5.89	1.68	1.68	5.89	0.30	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
718	Washout Creek	3036-A	1.68	1.80	0.72	1.68	0.32	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
719	Washout Creek	3036-A	10.10	8.65	4.33	10.10	1.56	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
720	Washout Creek	3036-A	2.52	3.61	1.80	2.52	0.65	0.32	1.26	0.65	0.00	0.50	6.31	1.15	6.96	0.71	9.56	1.27	16.92		
721	Washout Creek	3036-A	3.37	3.61	1.92	3.37	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
722	Washout Creek	3036-A	3.37	2.88	1.44	3.37	0.52	0.26	3.37	0.52	0.00	1.35	16.83	1.87	17.34	1.19	11.59	2.05	20.52		
723	Washout Creek	3036-A	2.52	2.16	1.08	2.52	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attach B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
724	Washout Creek	3036-A	0.9	1.1	0.23	M	362.1	3.7	12	6.1	20	3.0	10	4636	50	80	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
725	Washout Creek	3036-A	1.1	1.2	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	80	80	4	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
726	Washout Creek	3036-A	1.2	1.3	0.10	M	160.9	4.3	14	3.7	12	3.0	10	1766	80	100	4	70%	10%	100%	0%	2	6	N	100%	Y	2	Y
727	Washout Creek	3036-A	1.3	1.5	0.18	M	281.6	4.3	14	4.6	15	3.0	10	3348	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
728	Washout Creek	3036-A	1.5	1.6	0.08	M	120.7	4.3	14	3.7	12	2.4	8	1251	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
729	Washout Creek	3036-A	1.6	1.7	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
730	Washout Creek	3036-A	1.7	1.7	0.01	M	16.1	4.3	14	3.0	10	2.4	8	157	90	100	4	70%	100%	100%	100%	2	6	N	100%	N	1	Y
731	Washout Creek	3036-A	1.7	1.9	0.22	M	346.0	4.3	14	4.6	15	2.4	8	3902	60	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
732	Washout Creek	3036-A	1.9	2.0	0.13	M	201.2	3.7	12	6.1	20	3.0	10	2575	50	80	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
733	Washout Creek	3036-A	2.0	2.3	0.23	M	362.1	4.3	14	4.6	15	2.4	8	4084	20	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
734	Washout Creek	3036-A	2.3	2.3	0.05	M	80.5	4.3	14	3.0	10	1.8	6	736	80	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
735	Washout Creek	3036-A	2.3	2.4	0.10	M	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
736	Washout Creek	3036-A	2.4	2.5	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	40	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
737	Washout Creek	3036-B	0.0	0.1	0.13	M	201.2	3.7	12	3.0	10	1.8	6	1717	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
738	Washout Creek	3036-B	0.1	0.2	0.08	M	120.7	3.0	10	4.6	15	3.0	10	1288	60	100	4	70%	10%	100%	0%	4	6	N	100%	N	2	Y
739	Washout Creek	3036-A-1	0.0	0.1	0.13	M	201.2	4.3	14	3.7	12	1.8	6	1962	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
740	Washout Creek	3036-A-1	0.1	0.2	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1477	70	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
741	Washout Creek	3036-A-1	0.2	0.3	0.13	M	201.2	4.3	14	3.0	10	1.2	4	1717	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
742	Washout Creek	3036-A-1	0.3	0.4	0.08	M	120.7	3.7	12	2.4	8	1.2	4	883	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
743	Washout Creek	3036-A-1	0.4	0.5	0.08	M	120.7	4.3	14	2.4	8	1.2	4	957	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
744	Washout Creek	3036-A-1	0.5	0.6	0.15	M	241.4	4.3	14	1.8	6	1.2	4	1766	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
745	Washout Creek	3036-A-1	0.6	0.8	0.18	M	281.6	3.7	12	3.0	10	1.2	4	2232	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	5	N
746	Washout Creek	3036-A-1	0.8	1.0	0.15	M	241.4	3.7	12	3.0	10	1.8	6	2060	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	5	N
747	Washout Creek	3036-S	0.0	0.1	0.10	M	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
748	Washout Creek	3035	0.0	0.3	0.28	M	442.6	3.7	12	3.0	10	1.2	4	3507	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
749	Washout Creek	3035	0.3	0.4	0.13	M	201.2	3.7	12	1.8	6	1.2	4	1349	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
750	Washout Creek	3035	0.4	0.6	0.20	M	321.9	3.7	12	2.4	8	1.2	4	2355	100	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	N
751	Washout Creek	3035	0.6	0.7	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
752	Washout Creek	3035	0.7	0.8	0.08	M	120.7	3.7	12	1.8	6	1.2	4	809	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
753	Washout Creek	3035	0.8	0.9	0.10	M	160.9	3.0	10	4.6	15	1.8	6	1521	50	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
754	Washout Creek	3035	0.9	0.9	0.03	M	40.2	3.0	10	3.7	12	1.8	6	343	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
755	Washout Creek	3030-D	0.0	0.1	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
756	Washout Creek	3032	0.0	0.1	0.05	M	80.5	3.0	10	3.7	12	1.8	6	687	100	100	6	70%	0%	0%	0%	4	6	N	0%	N	1	N
757	Washout Creek	3032	0.1	0.2	0.10	M	160.9	3.0	10	1.2	4	1.2	4	683	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
758	Washout Creek	3032	0.2	0.3	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	6	70%	0%	0%	0%	4	6	N	0%	N	1	N
759	Washout Creek	3032	0.3	0.3	0.05	M	80.5	3.0	10	3.7	12	1.8	6	687	100	100	6	70%	50%	100%	0%	4	6	N	100%	Y	1	Y
760	Washout Creek	3032	0.3	0.4	0.05	M	80.5	3.0	10	1.8	6	1.2	4	491	100	100	6	70%	100%	100%	100%	4	6	N	100%	N	5	Y
761	Washout Creek	3034	0.0	0.1	0.05	M	80.5	4.3	14	3.7	12	1.8	6	785	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
762	Washout Creek	3034	0.1	0.5	0.45	M	724.2	3.7	12	3.7	12	1.8	6	6622	60	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
763	Washout Creek	3034	0.5	0.6	0.05	M	80.5	3.7	12	2.4	8	1.8	6	636	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
764	Washout Creek	3034	0.6	0.7	0.15	M	241.4	3.7	12	3.7	12	2.4	8	2355	80	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
765	Washout Creek	3034	0.7	0.8	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
766	Washout Creek	3034	0.8	0.9	0.10	M	160.9	4.3	14	3.7	12	2.4	8	1668	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
767	Washout Creek	3034	0.9	1.0	0.10	M	160.9	4.3	14	2.4	8	1.8	6	1374	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
768	Washout Creek	3034	1.0	1.0	0.02	M	40.2	4.3	14	1.8	6	1.8	6	319	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
769	Washout Creek	3034-D	0.0	0.1	0.08	M	120.7	3.7	12	1.8	6	1.2	4	809	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
770	Washout Creek	3034-D	0.1	0.2	0.10	M	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
771	Washout Creek	3034-D	0.2	0.2	0.03	M	40.2	3.7	12	2.4	8	1.8	6	319	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
772	Washout Creek	3034-D	0.2	0.3	0.10	M	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
773	Washout Creek	3034-B	0.0	0.0	0.03	M	40.2	3.7	12	1.8	6	1.2	4	270	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
724	Washout Creek	3036-A	6.49	10.82	5.41	6.49	1.95	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
725	Washout Creek	3036-A	3.61	4.51	3.00	3.61	0.81	0.54	1.80	0.81	0.00	0.72	9.01	1.53	9.82	0.68	7.62	1.69	13.48		
726	Washout Creek	3036-A	3.37	2.88	2.40	3.37	0.52	0.43	0.34	0.52	0.00	0.13	1.68	0.65	2.20	0.37	4.06	0.72	7.19		
727	Washout Creek	3036-A	5.89	6.31	4.21	5.89	1.14	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
728	Washout Creek	3036-A	2.52	2.16	1.44	2.52	0.39	0.26	1.26	0.39	0.00	0.50	6.31	0.89	6.70	0.71	7.41	0.98	13.11		
729	Washout Creek	3036-A	2.88	3.81	1.92	2.88	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
730	Washout Creek	3036-A	0.34	0.24	0.19	0.34	0.04	0.03	0.34	0.04	0.03	0.13	1.68	0.21	1.76	1.35	13.20	0.23	23.37		
731	Washout Creek	3036-A	7.23	7.75	4.13	7.23	1.40	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
732	Washout Creek	3036-A	3.61	6.01	3.00	3.61	1.08	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
733	Washout Creek	3036-A	7.57	8.11	4.33	7.57	1.46	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
734	Washout Creek	3036-A	1.68	1.20	0.72	1.68	0.22	0.13	0.84	0.22	0.00	0.34	4.21	0.55	4.42	0.75	6.87	0.61	12.16		
735	Washout Creek	3036-A	2.88	1.44	0.96	2.88	0.26	0.17	1.44	0.26	0.00	0.14	0.14	0.40	0.40	0.37	2.51	0.44	4.44		
736	Washout Creek	3036-A	2.16	2.16	1.08	2.16	0.39	0.19	1.08	0.39	0.00	0.11	0.11	0.50	0.50	0.45	4.12	0.55	7.30		
737	Washout Creek	3036-B	3.61	3.00	1.80	3.61	0.54	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
738	Washout Creek	3036-B	1.80	2.70	1.80	1.80	0.49	0.32	0.18	0.49	0.00	0.02	0.02	0.50	0.50	0.39	4.18	0.56	7.40		
739	Washout Creek	3036-A-1	4.21	3.61	1.80	4.21	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
740	Washout Creek	3036-A-1	2.52	2.16	1.08	2.52	0.39	0.19	1.26	0.39	0.00	0.13	0.13	0.52	0.52	0.44	4.27	0.57	7.56		
741	Washout Creek	3036-A-1	4.21	3.00	1.20	4.21	0.54	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
742	Washout Creek	3036-A-1	2.16	1.44	0.72	2.16	0.26	0.13	1.08	0.26	0.00	0.11	0.11	0.37	0.37	0.42	3.05	0.40	5.39		
743	Washout Creek	3036-A-1	2.52	1.44	0.72	2.52	0.26	0.13	1.26	0.26	0.00	0.13	0.13	0.39	0.39	0.40	3.20	0.42	5.66		
744	Washout Creek	3036-A-1	5.05	2.16	1.44	5.05	0.39	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
745	Washout Creek	3036-A-1	5.05	4.21	1.68	5.05	0.76	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
746	Washout Creek	3036-A-1	4.33	3.61	2.16	4.33	0.65	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
747	Washout Creek	3036-S	2.68	1.44	0.96	2.88	0.26	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
748	Washout Creek	3035	7.93	6.61	2.64	7.93	1.19	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
749	Washout Creek	3035	3.61	1.80	1.20	3.61	0.32	0.22	1.80	0.32	0.00	0.18	0.18	0.50	0.50	0.37	2.51	0.56	4.44		
750	Washout Creek	3035	5.77	3.85	1.92	5.77	0.69	0.35	2.88	0.69	0.00	0.29	0.29	0.98	0.98	0.42	3.05	1.08	5.39		
751	Washout Creek	3035	2.88	2.88	1.44	2.88	0.52	0.26	1.44	0.52	0.00	0.14	0.14	0.66	0.66	0.45	4.12	0.73	7.30		
752	Washout Creek	3035	2.16	1.08	0.72	2.16	0.19	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
753	Washout Creek	3035	2.40	3.61	1.44	2.40	0.65	0.26	1.20	0.65	0.00	0.12	0.12	0.77	0.77	0.51	4.78	0.85	8.46		
754	Washout Creek	3035	0.60	0.72	0.36	0.60	0.13	0.06	0.30	0.13	0.00	0.03	0.03	0.16	0.16	0.47	3.97	0.18	7.03		
755	Washout Creek	3030-D	2.40	2.40	1.44	2.40	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
756	Washout Creek	3032	1.20	1.44	0.72	0.90	0.26	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
757	Washout Creek	3032	2.40	0.96	0.96	2.40	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
758	Washout Creek	3032	2.40	1.92	1.44	1.80	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
759	Washout Creek	3032	1.20	1.44	0.72	0.90	0.26	0.13	0.45	0.26	0.00	0.05	0.05	0.30	0.30	0.44	3.79	0.34	6.70		
760	Washout Creek	3032	1.20	0.72	0.48	0.90	0.13	0.09	0.90	0.13	0.09	0.09	0.09	0.31	0.31	0.62	3.81	0.34	6.74		
761	Washout Creek	3034	1.68	1.44	0.72	1.68	0.26	0.13	0.84	0.26	0.00	0.34	4.21	0.60	4.47	0.76	7.41	0.66	13.11		
762	Washout Creek	3034	12.98	12.98	6.49	12.98	2.34	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
763	Washout Creek	3034	1.44	0.96	0.72	1.44	0.17	0.13	0.72	0.17	0.00	0.29	3.61	0.46	3.78	0.72	5.74	0.51	10.15		
764	Washout Creek	3034	4.33	4.33	2.88	4.33	0.78	0.52	2.16	0.78	0.00	0.87	10.82	1.64	11.60	0.70	6.81	1.81	12.06		
765	Washout Creek	3034	2.88	2.88	1.44	2.88	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
766	Washout Creek	3034	3.37	2.88	1.92	3.37	0.52	0.35	1.68	0.52	0.00	0.67	8.41	1.19	8.93	0.71	7.41	1.31	13.11		
767	Washout Creek	3034	3.37	1.92	1.44	3.37	0.35	0.26	1.68	0.35	0.00	0.67	8.41	1.02	8.76	0.74	6.33	1.12	11.21		
768	Washout Creek	3034	0.84	0.36	0.36	0.84	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
769	Washout Creek	3034-D	2.16	1.08	0.72	2.16	0.19	0.13	1.08	0.19	0.00	0.11	0.11	0.30	0.30	0.37	2.51	0.33	4.44		
770	Washout Creek	3034-D	2.88	1.44	0.96	2.88	0.26	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
771	Washout Creek	3034-D	0.72	0.48	0.36	0.72	0.09	0.06	0.36	0.09	0.00	0.04	0.04	0.12	0.12	0.38	3.05	0.13	5.39		
772	Washout Creek	3034-D	2.88	1.44	0.96	2.88	0.26	0.17	1.44	0.26	0.00	0.14	0.14	0.40	0.40	0.37	2.51	0.44	4.44		
773	Washout Creek	3034-B	0.72	0.36	0.24	0.72	0.06	0.04	0.36	0.06	0.00	0.04	0.04	0.10	0.10	0.37	2.51	0.11	4.44		

Attac[illegible] B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
774	Washout Creek	3034-B	0.0	0.1	0.08	M	120.7	3.7	12	4.6	15	1.8	6	1214	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
775	Washout Creek	3034-B	0.1	0.2	0.08	M	120.7	3.7	12	4.6	15	1.8	6	1214	50	100	4	70%	5%	10%	0%	4	6	N	100%	N	2	Y
776	Washout Creek	3034-B	0.2	0.3	0.13	M	201.2	3.0	10	4.6	15	2.4	8	2023	40	100	4	70%	10%	10%	0%	4	6	N	100%	N	2	Y
777	Washout Creek	3034-B	0.3	0.4	0.08	M	120.7	3.0	10	3.7	12	1.8	6	1030	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
778	Washout Creek	3034-B	0.4	0.5	0.08	M	120.7	3.0	10	3.0	10	1.2	4	883	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
779	Washout Creek	3033	0.0	0.1	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
780	Washout Creek	3033	0.1	0.2	0.08	M	120.7	3.7	12	2.4	8	1.2	4	883	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
781	Washout Creek	3033	0.2	0.4	0.18	M	281.6	3.7	12	4.6	15	1.8	6	2833	50	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
782	Washout Creek	3033	0.4	0.4	0.05	M	80.5	3.0	10	4.6	15	2.4	8	809	60	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
783	Washout Creek	3033	0.4	0.5	0.05	M	80.5	3.7	12	4.6	15	1.8	6	809	50	100	4	70%	10%	10%	0%	4	6	N	100%	N	2	Y
784	Washout Creek	3033	0.5	0.8	0.30	M	482.8	3.7	12	4.6	15	2.4	8	5151	60	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
785	Washout Creek	3033	0.8	1.0	0.28	M	442.6	3.7	12	3.7	12	3.0	10	4587	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
786	Washout Creek	3033-A	0.0	0.2	0.20	M	321.9	3.0	10	4.6	15	3.7	12	3630	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	5	N
787	Washout Creek	3033-A	0.2	0.3	0.05	M	80.5	3.7	12	3.0	10	1.8	6	687	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
788	Washout Creek	3033-A	0.3	0.4	0.18	M	281.6	3.7	12	1.8	6	1.8	6	2060	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
911	Washout Creek	2400	6.7	6.7	0.05	M	80.5	4.3	14	3.0	10	1.8	6	736	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
912	Washout Creek	2400	6.7	6.8	0.10	M	160.9	4.3	14	3.0	10	1.8	6	1472	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
913	Washout Creek	2400	6.8	6.9	0.10	M	160.9	4.3	14	3.7	12	1.8	6	1570	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
914	Washout Creek	2400	6.9	7.0	0.05	M	80.5	4.3	14	3.0	10	1.8	6	736	100	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
915	Washout Creek	2400	7.0	7.0	0.05	M	80.5	4.3	14	3.0	10	1.2	4	687	90	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
916	Washout Creek	2400	7.0	7.1	0.08	M	120.7	3.7	12	7.6	25	2.4	8	1656	50	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
917	Washout Creek	2400	7.1	7.1	0.02	M	40.2	4.3	14	4.6	15	3.0	10	478	60	80	4	70%	50%	100%	10%	2	6	N	100%	Y	1	N
918	Washout Creek	2400	7.1	7.2	0.10	M	160.9	4.3	14	4.6	15	3.0	10	1913	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
919	Washout Creek	2400	7.2	7.3	0.05	M	80.5	4.3	14	4.6	15	2.4	8	907	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
920	Washout Creek	2400	7.3	7.6	0.30	M	482.8	4.3	14	3.0	10	1.8	6	4415	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
921	Washout Creek	2400	7.6	7.6	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
922	Washout Creek	2400	7.6	7.8	0.13	R	201.2	4.3	14	1.8	6	1.8	6	1594	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
923	Washout Creek	2400	7.8	7.8	0.03	M	40.2	3.7	12	1.8	6	1.8	6	294	100	100	4	70%	100%	100%	0%	2	6	N	100%	N	1	Y
924	Washout Creek	2400	7.8	7.9	0.10	M	160.9	3.7	12	2.4	8	1.2	4	1177	100	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	N
925	Washout Creek	2400	7.9	8.1	0.23	M	362.1	4.3	14	3.7	12	1.8	6	3532	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
926	Washout Creek	2400	8.1	8.3	0.20	M	321.9	3.7	12	2.4	8	1.2	4	2355	60	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
927	Washout Creek	2400	8.3	8.4	0.05	M	80.5	3.7	12	1.8	6	1.2	4	540	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
928	Washout Creek	2400	8.4	8.9	0.55	M	885.1	3.7	12	3.0	10	1.2	4	7015	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
929	Washout Creek	2400	8.9	9.0	0.10	M	160.9	3.0	10	3.0	10	1.2	4	1177	100	100	6	70%	0%	0%	0%	4	6	N	0%	N	1	N
930	Washout Creek	2460	0.0	0.4	0.40	M	643.7	3.7	12	3.0	10	1.8	6	5494	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
931	Washout Creek	2460	0.4	0.5	0.10	M	160.9	3.7	12	2.4	8	1.2	4	1177	100	100	4	70%	100%	100%	0%	4	6	N	100%	N	1	Y
932	Washout Creek	2460	0.5	0.6	0.08	M	120.7	3.7	12	7.6	25	3.0	10	1729	50	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
933	Washout Creek	2460	0.6	0.6	0.03	M	40.2	3.7	12	6.1	20	3.0	10	515	60	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
934	Washout Creek	2460	0.6	0.9	0.30	M	482.8	3.7	12	4.6	15	3.0	10	5445	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
935	Washout Creek	2460	0.9	1.2	0.30	M	482.8	3.0	10	4.6	15	3.7	12	5445	80	90	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
936	Washout Creek	2460	1.2	1.2	0.03	M	40.2	3.0	10	4.6	15	3.0	10	429	60	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
937	Washout Creek	2460	1.2	1.3	0.08	M	120.7	3.0	10	4.6	15	3.0	10	1288	50	90	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
938	Washout Creek	2460	1.3	1.4	0.08	M	120.7	3.0	10	3.7	12	3.0	10	1177	50	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
939	Washout Creek	2460	1.4	1.4	0.05	M	80.5	3.0	10	4.6	15	3.0	10	858	60	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
940	Washout Creek	2450	0.0	0.3	0.30	R	482.8	3.7	12	1.8	6	1.8	6	3532	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	5	N
941	Washout Creek	2452	0.0	0.1	0.10	M	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	6	70%	0%	0%	0%	4	6	N	0%	N	1	N
942	Washout Creek	2446	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
943	Washout Creek	2446	0.1	0.2	0.10	R	160.9	3.7	12	1.2	4	1.2	4	981	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
944	Washout Creek	2445	0.0	0.2	0.15	M	241.4	3.7	12	2.4	8	1.8	6	1913	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
945	Washout Creek	2445	0.2	0.2	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current/kg per square metre	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
774	Washout Creek	3034-B	2.16	2.70	1.08	2.16	0.49	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
775	Washout Creek	3034-B	2.16	2.70	1.08	2.16	0.49	0.19	0.11	0.05	0.00	0.01	0.01	0.06	0.06	0.05	0.49	0.07	0.87		
776	Washout Creek	3034-B	3.00	4.51	2.40	3.00	0.81	0.43	0.30	0.08	0.00	0.03	0.03	0.11	0.11	0.05	0.55	0.12	0.98		
777	Washout Creek	3034-B	1.80	2.16	1.08	1.80	0.39	0.19	0.90	0.39	0.00	0.09	0.09	0.48	0.48	0.47	3.97	0.53	7.03		
778	Washout Creek	3034-B	1.80	1.80	0.72	1.80	0.32	0.13	0.90	0.32	0.00	0.09	0.09	0.41	0.41	0.47	3.44	0.46	6.08		
779	Washout Creek	3033	2.88	2.40	1.44	2.88	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
780	Washout Creek	3033	2.16	1.44	0.72	2.16	0.28	0.13	1.08	0.26	0.00	0.11	0.11	0.37	0.37	0.42	3.05	0.40	5.39		
781	Washout Creek	3033	5.05	6.31	2.52	5.05	1.14	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
782	Washout Creek	3033	1.20	1.80	0.96	1.20	0.32	0.17	0.60	0.32	0.00	0.06	0.06	0.38	0.38	0.48	4.78	0.42	8.46		
783	Washout Creek	3033	1.44	1.80	0.72	1.44	0.32	0.13	0.14	0.03	0.00	0.01	0.01	0.05	0.05	0.06	0.58	0.05	1.03		
784	Washout Creek	3033	8.65	10.82	5.77	8.65	1.95	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
785	Washout Creek	3033	7.93	7.93	6.61	7.93	1.43	1.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
786	Washout Creek	3033-A	4.81	7.21	5.77	4.81	1.80	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
787	Washout Creek	3033-A	1.44	1.20	0.72	1.44	0.22	0.13	0.72	0.22	0.00	0.07	0.07	0.29	0.29	0.42	3.58	0.32	6.35		
788	Washout Creek	3033-A	5.05	2.52	2.52	5.05	0.45	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
911	Washout Creek	2400	1.68	1.20	0.72	1.68	0.22	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
912	Washout Creek	2400	3.37	2.40	1.44	3.37	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
913	Washout Creek	2400	3.37	2.88	1.44	3.37	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
914	Washout Creek	2400	1.68	1.20	0.72	1.68	0.22	0.13	0.84	0.22	0.00	0.34	4.21	0.55	4.42	0.75	6.87	0.61	12.16		
915	Washout Creek	2400	1.68	1.20	0.48	1.68	0.22	0.09	0.84	0.22	0.00	0.34	4.21	0.55	4.42	0.81	6.87	0.61	12.16		
916	Washout Creek	2400	2.16	4.51	1.44	2.16	0.81	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
917	Washout Creek	2400	0.84	0.90	0.60	0.84	0.16	0.11	0.42	0.16	0.01	0.17	2.10	0.34	2.28	0.71	5.48	0.38	15.02		
918	Washout Creek	2400	3.37	3.81	2.40	3.37	0.65	0.43	1.68	0.65	0.00	0.67	8.41	1.32	9.06	0.69	8.21	1.45	14.54		
919	Washout Creek	2400	1.68	1.80	0.96	1.68	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
920	Washout Creek	2400	10.10	7.21	4.33	10.10	1.30	0.78	5.05	1.30	0.00	2.02	25.24	3.32	26.54	0.75	6.87	3.65	12.16		
921	Washout Creek	2400	2.52	2.16	1.08	2.52	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
922	Washout Creek	2400	4.21	1.80	1.80	4.21	0.32	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
923	Washout Creek	2400	0.72	0.36	0.36	0.72	0.06	0.06	0.72	0.06	0.00	0.29	3.61	0.35	3.67	1.20	9.78	0.39	15.55		
924	Washout Creek	2400	2.88	1.92	0.96	2.88	0.35	0.17	1.44	0.35	0.00	0.58	7.21	0.92	7.56	0.78	5.74	1.02	10.15		
925	Washout Creek	2400	7.57	6.49	3.24	7.57	1.17	0.58	3.79	1.17	0.00	1.51	18.93	2.68	20.10	0.76	7.41	2.95	13.11		
926	Washout Creek	2400	5.77	3.85	1.92	5.77	0.69	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
927	Washout Creek	2400	1.44	0.72	0.48	1.44	0.13	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
928	Washout Creek	2400	15.86	13.22	5.29	15.86	2.38	0.95	7.93	2.38	0.00	0.79	0.79	3.17	3.17	0.45	3.58	3.49	6.35		
929	Washout Creek	2400	2.40	2.40	0.96	1.80	0.43	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
930	Washout Creek	2460	11.54	9.61	5.77	11.54	1.73	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
931	Washout Creek	2460	2.88	1.92	0.96	2.88	0.35	0.17	2.88	0.35	0.00	0.29	0.29	0.63	0.63	0.54	3.94	0.70	6.98		
932	Washout Creek	2460	2.16	4.51	1.80	2.16	0.81	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
933	Washout Creek	2460	0.72	1.20	0.60	0.72	0.22	0.11	0.36	0.22	0.00	0.04	0.04	0.25	0.25	0.49	6.27	0.28	11.10		
934	Washout Creek	2460	8.65	10.82	7.21	8.65	1.95	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
935	Washout Creek	2460	7.21	10.82	8.65	7.21	1.95	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
936	Washout Creek	2460	0.60	0.90	0.60	0.60	0.16	0.11	0.30	0.16	0.00	0.03	0.03	0.19	0.19	0.45	4.78	0.21	8.46		
937	Washout Creek	2460	1.80	2.70	1.80	1.80	0.49	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
938	Washout Creek	2460	1.80	2.16	1.80	1.80	0.39	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
939	Washout Creek	2460	1.20	1.80	1.20	1.20	0.32	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
940	Washout Creek	2450	8.65	4.33	4.33	8.65	0.78	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
941	Washout Creek	2452	2.88	1.44	0.96	2.16	0.26	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
942	Washout Creek	2446	2.88	2.88	1.44	2.88	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
943	Washout Creek	2446	2.88	0.96	0.96	2.88	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
944	Washout Creek	2445	4.33	2.88	2.16	4.33	0.52	0.39	2.16	0.52	0.00	0.22	0.22	0.74	0.74	0.38	3.05	0.81	5.39		
945	Washout Creek	2445	1.44	0.96	0.72	1.44	0.17	0.13	0.72	0.17	0.00	0.07	0.07	0.25	0.25	0.38	3.05	0.27	5.39		

Attach 85. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
946	Washout Creek	2445	0.2	0.3	0.13	M	201.2	3.7	12	3.0	10	1.8	6	1747	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
947	Washout Creek	2445-A	0.0	0.0	0.03	M	40.2	3.7	12	3.7	12	2.4	8	392	60	90	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
948	Washout Creek	2445-A	0.0	0.1	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	50	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
949	Washout Creek	2445-A	0.1	0.2	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
950	Washout Creek	2442	0.0	0.0	0.03	M	40.2	3.7	12	2.4	8	1.8	6	349	100	100	4	70%	50%	100%	10%	4	6	N	100%	N	1	Y
951	Washout Creek	2442	0.0	0.1	0.03	M	40.2	3.7	12	3.7	12	1.8	6	368	60	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
952	Washout Creek	2442	0.1	0.2	0.15	M	241.4	3.7	12	3.0	10	1.8	6	2060	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
953	Washout Creek	2440	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
954	Washout Creek	2440	0.1	0.6	0.50	R	804.7	3.7	12	3.0	10	1.8	6	6868	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
955	Washout Creek	2441	0.0	0.1	0.08	R	120.7	3.7	12	1.8	6	1.2	4	809	100	100	6	70%	0%	0%	0%	4	6	N	0%	N	1	N
975	Washout Creek	3033	0.5	0.8	0.28	R	442.6	3.7	12	2.4	8	1.8	6	3507	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
976	Washout Creek	3033	0.8	1.0	0.23	M	362.1	3.7	12	4.6	15	2.4	8	3863	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
977	Washout Creek	3033	1.0	1.0	0.03	S	40.2	3.7	12	3.7	12	2.4	8	392	100	100	4	70%	100%	100%	100%	4	6	N	100%	N	1	Y
978	Washout Creek	3033	1.0	1.0	0.02	M	40.2	3.7	12	3.7	12	2.4	8	392	100	100	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
979	Washout Creek	3033	1.0	1.1	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
980	Washout Creek	3033	1.1	1.2	0.08	M	120.7	3.7	12	9.1	30	4.6	15	2097	90	100	4	70%	0%	0%	0%	5	6	N	0%	Y	1	N
981	Washout Creek	3033	1.2	1.3	0.13	M	201.2	3.0	10	15.2	50	6.1	20	4905	80	90	4	70%	0%	0%	0%	5	6	N	0%	N	1	N
1074	Washout Creek	2700	1.5	1.7	0.20	M	321.9	4.3	14	2.4	8	1.8	6	2747	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1075	Washout Creek	2700	1.7	1.8	0.10	M	160.9	4.3	14	2.4	8	1.8	6	1374	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1076	Washout Creek	2700	1.8	1.8	0.08	M	120.7	4.3	14	3.0	10	1.8	6	1104	100	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
1077	Washout Creek	2700	1.8	1.9	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	100	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
1078	Washout Creek	2700	1.9	2.2	0.28	M	442.6	4.3	14	3.7	12	1.8	6	4317	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1079	Washout Creek	2700	2.2	2.3	0.10	M	160.9	4.3	14	3.0	10	1.8	6	1472	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1080	Washout Creek	2700	2.3	2.4	0.08	M	120.7	4.3	14	2.4	8	1.2	4	957	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1081	Washout Creek	2700	2.4	2.7	0.30	M	482.8	4.3	14	2.4	8	1.8	6	4121	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1082	Washout Creek	2700	2.7	2.7	0.08	M	120.7	4.3	14	3.0	10	1.8	6	1104	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1083	Washout Creek	2700	2.7	2.8	0.07	M	120.7	4.3	14	1.8	6	1.2	4	883	100	100	5	70%	0%	0%	0%	2	6	N	0%	N	1	N
1084	Washout Creek	2700	2.8	2.9	0.10	M	160.9	4.3	14	3.7	12	1.8	6	1570	60	90	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1085	Washout Creek	2700	2.9	2.9	0.02	S	40.2	4.3	14	3.0	10	2.4	8	392	100	100	5	70%	100%	100%	100%	2	6	N	100%	N	1	Y
1086	Washout Creek	2700	2.9	3.2	0.25	M	402.3	4.3	14	3.7	12	2.4	8	4170	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1087	Washout Creek	2700	3.2	3.3	0.13	M	201.2	3.7	12	6.1	20	3.0	10	2575	80	100	5	70%	5%	10%	0%	2	6	N	10%	Y	1	N
1088	Washout Creek	2700	3.3	3.4	0.05	M	80.5	3.0	10	6.1	20	4.6	15	1104	60	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1089	Washout Creek	2700	3.4	3.5	0.13	M	201.2	3.7	12	4.6	15	3.7	12	2391	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1090	Washout Creek	2700	3.5	3.7	0.20	M	321.9	3.0	10	6.1	20	4.6	15	4415	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1091	Washout Creek	2700	3.7	3.7	0.05	M	80.5	3.7	12	4.6	15	3.7	12	957	60	100	5	70%	0%	0%	0%	2	6	N	0%	N	1	N
1092	Washout Creek	2700	3.7	3.9	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1093	Washout Creek	2700	3.9	3.9	0.02	M	40.2	3.7	12	4.6	15	3.7	12	478	60	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1094	Washout Creek	2700	3.9	3.9	0.02	M	40.2	3.7	12	3.7	12	3.0	10	417	80	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1095	Washout Creek	2700	3.9	4.2	0.30	M	482.8	3.7	12	4.6	15	3.0	10	5445	80	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1096	Washout Creek	2700	4.2	4.4	0.20	M	321.9	4.3	14	5.5	18	3.7	12	4317	50	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1097	Washout Creek	2700	4.4	4.7	0.27	M	442.6	3.7	12	4.6	15	2.4	8	4721	80	100	5	90%	10%	100%	0%	2	6	N	100%	N	2	Y
1098	Washout Creek	2700	4.7	4.7	0.03	M	40.2	3.7	12	3.7	12	2.4	8	392	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1099	Washout Creek	2700	4.7	4.8	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	80	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1100	Washout Creek	2700	4.8	4.9	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	90	100	5	90%	0%	0%	0%	2	6	N	0%	N	1	N
1101	Washout Creek	2700	4.9	4.9	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	90	100	5	90%	0%	0%	0%	2	6	N	0%	Y	2	N
1102	Washout Creek	2700	4.9	5.0	0.05	M	80.5	3.7	12	3.0	10	2.4	8	736	90	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1103	Washout Creek	2700	5.0	5.0	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	100	100	5	90%	50%	100%	0%	2	6	N	100%	Y	1	N
1104	Washout Creek	2700	5.0	5.1	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	80	100	5	90%	10%	100%	0%	2	6	N	100%	N	2	Y
1105	Washout Creek	2700	5.1	5.3	0.15	M	241.4	3.0	10	7.6	25	3.7	12	3458	20	100	2	90%	0%	0%	0%	2	6	N	0%	Y	2	N
1106	Washout Creek	2700	5.3	5.3	0.03	M	40.2	3.7	12	3.7	12	2.4	8	392	50	100	5	90%	5%	10%	0%	2	6	N	10%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
946	Washout Creek	2445	3.61	3.00	1.80	3.61	0.54	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
947	Washout Creek	2445-A	0.72	0.72	0.48	0.72	0.13	0.09	0.36	0.13	0.00	0.04	0.04	0.17	0.17	0.42	4.12	0.18	7.30		
948	Washout Creek	2445-A	2.16	2.70	1.44	2.16	0.49	0.26	1.08	0.49	0.00	0.11	0.11	0.59	0.59	0.46	4.93	0.65	8.72		
949	Washout Creek	2445-A	2.88	1.92	1.44	2.88	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
950	Washout Creek	2442	0.72	0.48	0.36	0.72	0.09	0.06	0.36	0.09	0.01	0.04	0.04	0.13	0.13	0.40	3.21	0.14	5.66		
951	Washout Creek	2442	0.72	0.72	0.36	0.72	0.13	0.06	0.36	0.13	0.00	0.04	0.04	0.17	0.17	0.45	4.12	0.18	7.30		
952	Washout Creek	2442	4.33	3.61	2.16	4.33	0.65	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
953	Washout Creek	2440	2.88	2.88	1.44	2.88	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
954	Washout Creek	2440	14.42	12.02	7.21	14.42	2.16	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
955	Washout Creek	2441	2.16	1.08	0.72	1.62	0.19	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
975	Washout Creek	3033	7.93	5.29	3.97	7.93	0.95	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
976	Washout Creek	3033	6.49	8.11	4.33	6.49	1.46	0.78	3.24	1.46	0.00	0.32	0.32	1.78	1.78	0.46	4.93	1.96	6.72		
977	Washout Creek	3033	0.72	0.72	0.48	0.72	0.13	0.09	0.72	0.13	0.09	0.07	0.07	0.29	0.29	0.74	7.17	0.32	12.69		
978	Washout Creek	3033	0.72	0.72	0.48	0.72	0.13	0.09	0.04	0.01	0.00	0.00	0.00	0.02	0.02	0.04	0.41	0.02	0.73		
979	Washout Creek	3033	2.16	2.70	1.44	2.16	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
980	Washout Creek	3033	2.16	5.41	2.70	2.16	0.97	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
981	Washout Creek	3033	3.00	15.02	6.01	3.00	2.70	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1074	Washout Creek	2700	6.73	3.85	2.88	1.35	0.69	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1075	Washout Creek	2700	3.37	1.92	1.44	0.67	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1076	Washout Creek	2700	2.52	1.80	1.08	0.50	0.32	0.19	0.25	0.32	0.00	0.10	1.26	0.43	1.59	0.39	3.52	0.47	6.24		
1077	Washout Creek	2700	2.52	2.16	1.08	0.50	0.39	0.19	0.25	0.39	0.00	0.10	1.26	0.49	1.65	0.42	4.06	0.54	7.19		
1078	Washout Creek	2700	9.25	7.93	3.97	1.85	1.43	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1079	Washout Creek	2700	3.37	2.40	1.44	0.67	0.43	0.26	0.34	0.43	0.00	0.13	1.68	0.57	2.12	0.39	3.52	0.62	6.24		
1080	Washout Creek	2700	2.52	1.44	0.72	0.50	0.26	0.13	0.25	0.26	0.00	0.10	1.26	0.36	1.52	0.38	2.99	0.40	5.29		
1081	Washout Creek	2700	10.10	5.77	4.33	2.02	1.04	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1082	Washout Creek	2700	2.52	1.80	1.08	0.50	0.32	0.19	0.25	0.32	0.00	0.10	1.26	0.43	1.59	0.39	3.52	0.47	6.24		
1083	Washout Creek	2700	2.52	1.08	0.72	0.50	0.19	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1084	Washout Creek	2700	3.37	2.88	1.44	0.67	0.52	0.26	0.34	0.52	0.00	0.13	1.68	0.65	2.20	0.42	4.06	0.72	7.19		
1065	Washout Creek	2700	0.84	0.60	0.48	0.17	0.11	0.09	0.17	0.11	0.09	0.07	0.84	0.26	1.04	0.67	6.51	0.29	11.53		
1066	Washout Creek	2700	8.41	7.21	4.81	1.68	1.30	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1087	Washout Creek	2700	3.61	6.01	3.00	0.72	1.08	0.54	0.04	0.11	0.00	0.01	0.18	0.12	0.29	0.05	0.61	0.13	1.08		
1088	Washout Creek	2700	1.20	2.40	1.80	0.24	0.43	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1089	Washout Creek	2700	3.61	4.51	3.61	0.72	0.81	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1090	Washout Creek	2700	4.81	9.61	7.21	0.96	1.73	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1091	Washout Creek	2700	1.44	1.80	1.44	0.29	0.32	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1092	Washout Creek	2700	3.61	4.51	3.00	0.72	0.81	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1093	Washout Creek	2700	0.72	0.90	0.72	0.14	0.16	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1094	Washout Creek	2700	0.72	0.72	0.60	0.14	0.13	0.11	0.07	0.13	0.00	0.03	0.36	0.16	0.49	0.38	3.94	0.17	6.98		
1095	Washout Creek	2700	8.65	10.82	7.21	1.73	1.95	1.30	0.87	1.95	0.00	0.35	4.33	2.29	6.27	0.42	4.75	2.52	8.41		
1096	Washout Creek	2700	8.65	11.13	7.42	1.73	2.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1097	Washout Creek	2700	10.20	12.75	6.80	2.04	2.29	1.22	0.20	2.29	0.00	0.08	1.02	2.38	3.31	0.50	5.37	2.61	9.50		
1098	Washout Creek	2700	0.93	0.93	0.62	0.19	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1099	Washout Creek	2700	2.78	3.48	1.65	0.56	0.63	0.33	0.28	0.63	0.00	0.11	1.39	0.74	2.02	0.57	6.11	0.81	10.81		
1100	Washout Creek	2700	3.71	3.71	1.85	0.74	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1101	Washout Creek	2700	1.85	1.85	1.24	0.37	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1102	Washout Creek	2700	1.85	1.55	1.24	0.37	0.28	0.22	0.19	0.28	0.00	0.07	0.93	0.35	1.21	0.48	4.38	0.39	7.75		
1103	Washout Creek	2700	0.93	1.16	0.62	0.19	0.21	0.11	0.09	0.21	0.00	0.04	0.46	0.25	0.67	0.57	6.11	0.27	10.81		
1104	Washout Creek	2700	3.71	6.18	3.09	0.74	1.11	0.56	0.07	1.11	0.00	0.03	0.37	1.14	1.48	0.55	7.10	1.26	12.56		
1105	Washout Creek	2700	4.64	11.59	5.56	4.64	2.09	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1106	Washout Creek	2700	0.93	0.93	0.62	0.19	0.17	0.11	0.01	0.02	0.00	0.00	0.05	0.02	0.06	0.05	0.51	0.02	0.90		

Attachment 85. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1107	Washout Creek	2700	5.3	5.5	0.20	M	321.9	3.7	12	3.7	12	1.8	6	2943	60	100	5	90%	0%	0%	0%	4	6	N	0%	N	1	N
1108	Washout Creek	2700	5.5	5.5	0.03	M	40.2	3.7	12	4.6	15	3.0	10	454	60	100	5	90%	50%	100%	10%	4	6	N	100%	Y	1	N
1109	Washout Creek	2700	5.5	5.6	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	60	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1110	Washout Creek	2700	5.6	5.7	0.05	M	80.5	3.7	12	4.6	15	3.0	10	907	90	100	4	90%	50%	100%	0%	4	8	N	100%	N	1	Y
1111	Washout Creek	2700	5.7	5.8	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	60	100	4	90%	10%	100%	0%	4	6	N	100%	N	2	Y
1112	Washout Creek	2700	5.8	5.8	0.08	M	120.7	3.7	12	6.1	20	3.0	10	1545	50	80	4	90%	25%	100%	0%	4	6	N	100%	N	2	Y
1113	Washout Creek	2700	5.8	6.0	0.15	M	241.4	3.7	12	6.1	20	3.7	12	3238	20	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1114	Washout Creek	2700	6.0	6.0	0.03	M	40.2	3.7	12	4.6	15	3.0	10	454	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1115	Washout Creek	2700	6.0	6.1	0.10	R	160.9	3.7	12	3.7	12	1.8	6	1472	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1116	Washout Creek	2700	6.1	6.3	0.23	R	362.1	3.7	12	1.8	6	1.8	6	2649	40	80	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1117	Washout Creek	2700	6.3	6.7	0.38	M	603.5	3.7	12	3.7	12	2.4	8	5886	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1118	Washout Creek	2770	0.0	0.1	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	60	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1119	Washout Creek	2780	0.0	0.3	0.28	M	442.6	3.0	10	4.6	15	2.4	8	4452	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	2	N
1120	Washout Creek	2750	0.0	0.3	0.28	M	442.6	3.0	10	4.6	15	3.0	10	4721	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1121	Washout Creek	2744	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1122	Washout Creek	2743	0.0	0.2	0.20	R	321.9	3.0	10	1.8	6	1.2	4	1962	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1123	Washout Creek	2742	0.0	0.1	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1126	Washout Creek	2730	0.0	0.2	0.18	M	281.6	4.3	14	3.0	10	1.8	6	2575	100	100	4	90%	0%	0%	0%	2	6	N	0%	N	5	N
1127	Washout Creek	2730	0.2	0.6	0.38	M	603.5	4.3	14	4.6	15	2.4	8	6806	100	100	4	90%	25%	90%	0%	2	6	N	100%	Y	2	Y
1128	Washout Creek	2730	0.6	0.6	0.08	M	120.7	4.3	14	3.7	12	2.4	8	1251	100	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1129	Washout Creek	2730	0.6	0.7	0.10	M	160.9	4.3	14	3.0	10	1.8	6	1472	100	100	4	90%	0%	0%	0%	2	6	N	0%	N	2	N
1130	Washout Creek	2730	0.7	0.8	0.10	M	160.9	4.3	14	3.7	12	2.4	8	1668	90	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1131	Washout Creek	2730	0.8	0.9	0.10	M	160.9	4.3	14	3.0	10	1.8	6	1472	100	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1132	Washout Creek	2730	0.9	1.0	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	100	100	4	90%	10%	100%	0%	2	6	N	100%	N	2	Y
1133	Washout Creek	2730	1.0	1.2	0.15	M	241.4	3.7	12	3.7	12	2.4	8	2355	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	5	N
1134	Washout Creek	2730	1.2	1.2	0.08	M	120.7	4.3	14	2.4	8	1.2	4	957	100	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1135	Washout Creek	2730	1.2	1.3	0.05	M	80.5	4.3	14	1.8	6	1.2	4	589	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1136	Washout Creek	2730	1.3	1.4	0.15	M	241.4	3.7	12	2.4	8	1.2	4	1766	90	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1137	Washout Creek	2730	1.4	1.7	0.25	M	402.3	3.7	12	3.7	12	1.8	6	3679	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1138	Washout Creek	2730	1.7	2.2	0.50	R	804.7	3.7	12	2.4	8	1.2	4	5886	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1139	Washout Creek	2730	2.2	2.2	0.03	M	40.2	3.7	12	3.0	10	1.8	6	343	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1140	Washout Creek	2730	2.2	2.3	0.13	M	201.2	3.0	10	3.7	12	1.8	6	1717	80	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1141	Washout Creek	2730	2.3	2.5	0.20	M	321.9	3.0	10	3.7	12	2.4	8	2943	60	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1142	Washout Creek	2736	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1143	Washout Creek	2735	0.0	0.1	0.08	R	120.7	3.0	10	1.8	6	1.2	4	736	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1144	Washout Creek	2734	0.0	0.3	0.30	M	482.8	3.7	12	3.7	12	1.8	6	4415	80	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1145	Washout Creek	2734	0.3	0.4	0.13	M	201.2	3.7	12	1.8	6	1.2	4	1349	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1146	Washout Creek	2734	0.4	0.5	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	80	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1147	Washout Creek	2734	0.5	0.6	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1148	Washout Creek	2734	0.6	0.8	0.20	M	321.9	3.0	10	3.0	10	1.8	6	2551	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1149	Washout Creek	2734	0.8	0.9	0.05	M	80.5	3.0	10	3.7	12	1.8	6	687	100	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1150	Washout Creek	2734	0.9	0.9	0.03	M	40.2	3.0	10	3.0	10	1.8	6	349	100	100	4	90%	50%	100%	0%	4	6	N	100%	Y	1	Y
1151	Washout Creek	2734	0.9	0.9	0.03	M	40.2	3.0	10	3.0	10	1.8	6	349	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	2	N
1152	Washout Creek	2734	0.9	1.0	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	2	N
1153	Washout Creek	2734	1.0	1.1	0.08	M	120.7	3.0	10	1.8	6	1.2	4	736	90	100	4	90%	50%	0%	0%	4	6	N	100%	N	1	Y
1154	Washout Creek	2734	1.1	1.3	0.23	M	362.1	3.0	10	2.4	8	1.8	6	2649	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1155	Washout Creek	2732	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1156	Washout Creek	2732	0.1	0.3	0.28	M	362.1	3.7	12	1.2	4	1.2	4	2207	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1157	Washout Creek	2732	0.3	0.4	0.08	M	120.7	3.7	12	1.2	4	1.2	4	736	100	100	4	90%	50%	100%	0%	4	6	N	0%	Y	5	N
1159	Washout Creek	2732-A	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	100%	N	1	Y
																									0%	N	1	N

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from FillslopeDeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square metre	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1107	Washout Creek	2700	7.42	7.42	3.71	1.48	1.34	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1108	Washout Creek	2700	0.93	1.18	0.77	0.19	0.21	0.14	0.09	0.21	0.01	0.01	0.01	0.23	0.23	0.51	5.76	0.25	10.20		
1109	Washout Creek	2700	3.71	4.64	3.09	3.71	0.83	0.56	1.85	0.83	0.00	0.19	0.19	1.02	1.02	0.56	6.34	1.12	11.22		
1110	Washout Creek	2700	1.85	2.32	1.55	1.85	0.42	0.28	0.93	0.42	0.00	0.09	0.09	0.51	0.51	0.56	6.34	0.56	11.22		
1111	Washout Creek	2700	3.71	4.64	3.09	3.71	0.83	0.56	0.37	0.83	0.00	0.04	0.04	0.87	0.87	0.48	5.42	0.96	9.59		
1112	Washout Creek	2700	2.78	4.64	2.32	2.78	0.83	0.42	0.70	0.83	0.00	0.07	0.07	0.90	0.90	0.59	7.49	0.99	13.26		
1113	Washout Creek	2700	5.56	9.27	5.56	5.56	1.67	1.00	2.78	1.67	0.00	0.28	0.28	1.95	1.95	0.80	8.07	2.14	14.28		
1114	Washout Creek	2700	0.93	1.16	0.77	0.93	0.21	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1115	Washout Creek	2700	3.71	3.71	1.85	3.71	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1116	Washout Creek	2700	8.34	4.17	4.17	8.34	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1117	Washout Creek	2700	13.91	13.91	9.27	13.91	2.50	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1118	Washout Creek	2770	4.64	4.64	2.32	4.64	0.83	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1119	Washout Creek	2760	8.50	12.75	6.80	8.50	2.29	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1120	Washout Creek	2750	8.50	12.75	8.50	8.50	2.29	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1121	Washout Creek	2744	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1122	Washout Creek	2743	4.81	2.88	1.92	4.81	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1123	Washout Creek	2742	3.71	2.47	1.85	3.71	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1126	Washout Creek	2730	7.57	5.41	3.24	7.57	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1127	Washout Creek	2730	16.22	17.38	9.27	16.22	3.13	1.67	4.06	2.82	0.00	1.62	20.28	4.44	23.10	0.65	7.35	4.88	13.02		
1128	Washout Creek	2730	3.24	2.78	1.85	3.24	0.50	0.33	1.62	0.50	0.00	0.65	8.11	1.15	8.61	0.92	9.52	1.28	16.86		
1129	Washout Creek	2730	4.33	3.09	1.85	4.33	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1130	Washout Creek	2730	4.33	3.71	2.47	4.33	0.67	0.45	2.16	0.67	0.00	0.87	10.82	1.53	11.48	0.92	9.52	1.69	16.86		
1131	Washout Creek	2730	4.33	3.09	1.85	4.33	0.56	0.33	2.16	0.56	0.00	0.87	10.82	1.42	11.37	0.97	8.83	1.56	15.64		
1132	Washout Creek	2730	2.78	2.78	1.85	2.78	0.50	0.33	0.28	0.50	0.00	0.11	1.39	0.61	1.89	0.52	5.07	0.67	8.97		
1133	Washout Creek	2730	5.56	5.56	3.71	5.56	1.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1134	Washout Creek	2730	3.24	1.85	0.93	3.24	0.33	0.17	1.62	0.33	0.00	0.65	8.11	0.98	8.45	1.03	8.14	1.08	14.41		
1135	Washout Creek	2730	2.16	0.93	0.62	2.16	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1136	Washout Creek	2730	5.56	3.71	1.85	5.56	0.67	0.33	2.78	0.67	0.00	0.28	0.28	0.95	0.95	0.54	3.92	1.04	6.93		
1137	Washout Creek	2730	9.27	9.27	4.64	9.27	1.67	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1138	Washout Creek	2730	18.54	12.36	6.18	16.54	2.23	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1139	Washout Creek	2730	0.93	0.77	0.46	0.93	0.14	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1140	Washout Creek	2730	3.86	4.64	2.32	3.86	0.83	0.42	1.93	0.83	0.00	0.19	0.19	1.03	1.03	0.60	5.11	1.13	9.04		
1141	Washout Creek	2730	6.18	7.42	4.94	6.18	1.34	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1142	Washout Creek	2736	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1143	Washout Creek	2735	2.32	1.39	0.93	2.32	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1144	Washout Creek	2734	11.13	11.13	5.56	11.13	2.00	1.00	5.56	2.00	0.00	0.56	0.56	2.56	2.56	0.58	5.30	2.81	9.38		
1145	Washout Creek	2734	4.64	2.32	1.55	4.64	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1146	Washout Creek	2734	3.71	3.71	2.47	3.71	0.67	0.45	1.85	0.67	0.00	0.49	0.49	0.85	0.85	0.54	5.30	0.94	9.38		
1147	Washout Creek	2734	2.78	3.48	2.32	2.78	0.63	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1148	Washout Creek	2734	6.18	6.18	3.71	6.18	1.11	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1149	Washout Creek	2734	1.55	1.85	0.93	1.55	0.33	0.17	0.77	0.33	0.00	0.08	0.08	0.41	0.41	0.60	5.11	0.45	9.04		
1150	Washout Creek	2734	0.77	0.77	0.46	0.77	0.14	0.08	0.39	0.14	0.00	0.04	0.04	0.18	0.18	0.56	4.42	0.20	7.82		
1151	Washout Creek	2734	0.77	0.77	0.46	0.77	0.14	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1152	Washout Creek	2734	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1153	Washout Creek	2734	2.32	1.39	0.93	2.32	0.25	0.17	1.16	0.00	0.00	0.12	0.12	0.12	0.12	0.16	0.96	0.13	1.70		
1154	Washout Creek	2734	6.95	5.56	4.17	6.95	1.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1155	Washout Creek	2732	3.71	3.71	1.85	3.71	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1156	Washout Creek	2732	6.34	2.78	2.78	8.34	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1157	Washout Creek	2732	2.78	0.93	0.93	2.78	0.17	0.17	1.39	0.17	0.00	0.14	0.14	0.31	0.31	0.42	2.53	0.34	4.49		
1159	Washout Creek	2732-A	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac[illegible]35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1161	Washout Creek	2900	0.7	1.4	0.73	R	1166.8	3.7	12	2.4	8	1.8	6	9247	100	100	4	90%	0%	0%	0%	2	6	N	0%	N	1	N
1162	Washout Creek	2900	1.4	2.0	0.60	R	965.6	3.7	12	1.8	6	1.2	4	6475	100	100	4	90%	0%	0%	0%	2	6	N	0%	N	1	N
1163	Washout Creek	2900	2.0	2.3	0.30	R	482.8	3.7	12	1.8	6	1.2	4	3238	100	100	4	90%	0%	0%	0%	2	6	N	0%	N	5	N
1164	Washout Creek	2950	0.0	0.1	0.13	M	201.2	4.3	14	1.8	6	1.2	4	1472	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1165	Washout Creek	2950	0.1	0.4	0.28	M	442.6	4.3	14	1.2	4	1.2	4	2968	100	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1166	Washout Creek	2950	0.4	0.5	0.10	M	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	5	90%	100%	100%	0%	2	6	N	100%	N	5	Y
1167	Washout Creek	2950	0.5	0.7	0.15	M	241.4	3.7	12	2.4	8	1.2	4	1766	90	100	5	90%	0%	0%	0%	2	6	N	0%	N	1	N
1168	Washout Creek	2955	0.0	0.1	0.10	M	160.9	2.7	9	2.4	8	1.8	6	1128	80	100	1	90%	0%	0%	0%	4	6	N	0%	N	5	N
1169	Washout Creek	2953	0.0	0.1	0.05	R	80.5	3.7	12	0.6	2	0.6	2	392	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1170	Washout Creek	2952	0.0	0.1	0.10	R	160.9	3.0	10	1.2	4	0.6	2	785	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1171	Washout Creek	2951	0.0	0.2	0.15	R	241.4	3.0	10	1.2	4	1.2	4	1324	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1172	Washout Creek	2930	0.0	0.2	0.18	M	281.6	3.7	12	2.4	8	1.2	4	2060	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1173	Washout Creek	4000	0.0	0.5	0.50	M	804.7	7.3	24	2.4	8	1.8	6	9320	90	100	5	90%	50%	100%	0%	1	6	N	100%	N	1	Y
1174	Washout Creek	4000	0.5	0.9	0.40	M	643.7	7.3	24	3.7	12	3.7	12	9418	80	90	5	90%	0%	0%	0%	1	6	N	0%	N	1	N
1175	Washout Creek	4005	0.0	0.1	0.13	M	201.2	3.7	12	4.6	15	3.7	12	2391	80	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1176	Washout Creek	4005	0.2	0.3	0.13	M	201.2	3.7	12	4.6	15	3.7	12	2391	80	100	5	90%	0%	0%	0%	2	6	N	0%	Y	2	N
1177	Washout Creek	4005	0.3	0.4	0.13	M	201.2	3.7	12	3.7	12	3.0	10	2085	80	100	5	90%	50%	100%	0%	2	6	N	100%	Y	1	Y
1178	Washout Creek	4006	0.0	0.1	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	50	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1179	Washout Creek	4006	0.1	0.3	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1180	Washout Creek	4006	0.3	0.6	0.30	M	482.8	3.7	12	2.4	8	1.8	6	3826	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	2	N
1181	Washout Creek	4007	0.0	0.1	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	40	90	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1182	Washout Creek	4007	0.1	0.3	0.23	M	362.1	3.7	12	3.7	12	1.8	6	3311	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1183	Washout Creek	4007-A	0.0	0.2	0.23	R	362.1	3.7	12	1.8	6	1.2	4	2428	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1184	Washout Creek	4400	0.0	0.1	0.10	M	160.9	4.3	14	2.4	8	1.8	6	1374	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1185	Washout Creek	4400	0.1	0.2	0.10	M	160.9	4.3	14	1.8	6	1.8	6	1275	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1188	Washout Creek	4400	0.2	0.4	0.23	M	362.1	4.3	14	4.6	15	1.8	6	3863	50	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1187	Washout Creek	4400	0.4	0.8	0.38	R	603.5	4.3	14	3.7	12	1.8	6	5886	60	100	4	90%	0%	0%	0%	2	6	N	0%	N	1	N
1188	Washout Creek	4400	0.8	1.4	0.55	M	885.1	3.7	12	3.7	12	2.4	8	8634	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1189	Washout Creek	4400	1.4	1.5	0.15	M	241.4	3.7	12	3.0	10	1.8	6	2060	90	100	4	70%	10%	100%	0%	4	6	N	100%	Y	2	Y
1190	Washout Creek	4400	1.5	1.7	0.15	M	241.4	3.7	12	3.7	12	2.4	8	2355	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1191	Washout Creek	4440	0.0	0.1	0.08	R	120.7	3.7	12	2.4	8	1.8	6	957	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1192	Washout Creek	4420	0.0	0.1	0.08	M	120.7	3.7	12	3.0	10	1.8	6	1030	100	100	4	90%	10%	100%	0%	4	6	N	100%	Y	2	N
1193	Washout Creek	4420	0.1	0.1	0.05	S	80.5	3.7	12	3.7	12	2.4	8	785	80	100	4	90%	100%	100%	10%	4	6	N	100%	N	1	Y
1194	Washout Creek	4420	0.1	0.3	0.18	M	281.6	3.7	12	3.7	12	2.4	8	2747	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1195	Washout Creek	4415	0.0	0.2	0.20	R	321.9	3.0	10	1.8	6	1.2	4	1962	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1196	Washout Creek	4430	0.0	0.1	0.10	M	160.9	4.3	14	3.7	12	1.8	6	1570	80	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1197	Washout Creek	4430	0.1	0.3	0.20	R	321.9	4.3	14	3.0	10	2.4	8	3139	80	100	5	90%	0%	0%	0%	2	6	N	0%	N	1	N
1198	Washout Creek	4430	0.3	0.5	0.18	M	281.6	4.3	14	3.7	12	3.0	10	3090	60	90	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1199	Washout Creek	4430	0.5	0.5	0.05	M	80.5	4.3	14	3.7	12	2.4	8	834	50	100	5	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1200	Washout Creek	4430	0.5	0.6	0.08	M	120.7	4.3	14	3.0	10	2.4	8	1177	80	100	5	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1201	Washout Creek	4410	0.0	0.2	0.23	M	362.1	3.7	12	2.4	8	1.8	6	2870	100	100	4	90%	5%	10%	0%	4	6	N	10%	Y	1	N
1202	Washout Creek	4410	0.2	0.4	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1203	Washout Creek	4410	0.4	0.4	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	60	90	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1204	Washout Creek	4410	0.4	0.4	0.03	M	40.2	3.0	10	4.6	15	3.0	10	429	40	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1205	Washout Creek	4410	0.4	0.5	0.05	M	80.5	3.0	10	4.6	15	2.4	8	809	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1206	Washout Creek	4410	0.5	0.6	0.15	M	241.4	3.0	10	4.6	15	3.0	10	2575	80	100	4	90%	10%	100%	0%	4	6	N	100%	N	2	Y
1207	Washout Creek	4410	0.6	0.8	0.13	M	201.2	3.0	10	4.6	15	3.0	10	2146	80	100	4	90%	0%	10%	0%	4	6	N	100%	Y	2	Y
1208	Washout Creek	4410	0.8	0.8	0.08	M	120.7	3.0	10	4.6	15	3.0	10	1288	40	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1209	Washout Creek	4410	0.8	0.9	0.08	M	120.7	3.0	10	4.6	15	3.0	10	1288	60	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1210	Washout Creek	4410	0.9	1.0	0.10	M	160.9	3.0	10	4.6	15	3.0	10	1717	80	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1161	Washout Creek	2900	26.89	17.92	13.44	26.89	3.23	2.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1162	Washout Creek	2900	22.25	11.13	7.42	22.25	2.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1163	Washout Creek	2900	11.13	5.56	3.71	11.13	1.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1164	Washout Creek	2950	5.41	2.32	1.55	1.08	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1165	Washout Creek	2950	11.90	3.40	3.40	2.38	0.61	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1166	Washout Creek	2950	3.71	1.85	1.24	0.74	0.33	0.22	0.74	0.33	0.00	0.30	3.71	0.63	4.04	0.58	3.92	0.69	6.93		
1167	Washout Creek	2950	5.56	3.71	1.85	1.11	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1168	Washout Creek	2955	2.78	2.47	1.85	2.78	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1169	Washout Creek	2953	1.85	0.31	0.31	1.85	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1170	Washout Creek	2952	3.09	1.24	0.62	3.09	0.22	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1171	Washout Creek	2951	4.64	1.85	1.85	4.64	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1172	Washout Creek	2930	6.49	4.33	2.16	6.49	0.78	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1173	Washout Creek	4000	37.08	12.36	9.27	7.42	2.23	1.67	3.71	2.23	0.00	1.48	16.54	3.71	20.77	0.40	4.61	4.08	8.16		
1174	Washout Creek	4000	29.67	14.83	14.83	5.93	2.67	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1175	Washout Creek	4005	4.64	5.79	4.64	0.93	1.04	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1176	Washout Creek	4005	4.64	5.79	4.64	0.93	1.04	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1177	Washout Creek	4005	4.64	4.64	3.86	0.93	0.83	0.70	0.46	0.83	0.00	0.19	2.32	1.02	3.15	0.49	5.07	1.12	8.97		
1178	Washout Creek	4006	3.71	4.64	2.47	3.71	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1179	Washout Creek	4006	5.56	5.56	2.78	5.56	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1180	Washout Creek	4006	11.13	7.42	5.56	11.13	1.34	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1181	Washout Creek	4007	2.78	2.78	1.85	2.78	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1182	Washout Creek	4007	8.34	8.34	4.17	8.34	1.50	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1183	Washout Creek	4007-A	8.34	4.17	2.78	8.34	0.75	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1184	Washout Creek	4400	4.33	2.47	1.85	4.33	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1185	Washout Creek	4400	4.33	1.85	1.85	4.33	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1186	Washout Creek	4400	9.73	10.43	4.17	9.73	1.88	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1187	Washout Creek	4400	16.22	13.91	6.95	16.22	2.50	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1188	Washout Creek	4400	15.86	15.86	10.58	15.86	2.86	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1189	Washout Creek	4400	4.33	3.61	2.16	4.33	0.65	0.39	0.43	0.65	0.00	0.04	0.04	0.69	0.69	0.34	2.87	0.76	5.08		
1190	Washout Creek	4400	4.33	4.33	2.88	4.33	0.78	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1191	Washout Creek	4440	2.78	1.85	1.39	2.78	0.33	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1192	Washout Creek	4420	2.78	2.32	1.39	2.78	0.42	0.25	0.28	0.42	0.00	0.03	0.03	0.45	0.45	0.43	3.69	0.49	6.53		
1193	Washout Creek	4420	1.85	1.85	1.24	1.85	0.33	0.22	1.85	0.33	0.02	0.19	0.19	0.54	0.54	0.69	6.73	0.60	11.91		
1194	Washout Creek	4420	6.49	6.49	4.33	6.49	1.17	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1195	Washout Creek	4415	4.81	2.88	1.92	4.81	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1196	Washout Creek	4430	4.33	3.71	1.85	0.87	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1197	Washout Creek	4430	8.65	6.18	4.94	1.73	1.11	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1198	Washout Creek	4430	7.57	6.49	5.41	1.51	1.17	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1199	Washout Creek	4430	2.16	1.85	1.24	0.43	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1200	Washout Creek	4430	3.24	2.32	1.85	0.65	0.42	0.33	0.32	0.42	0.00	0.13	1.62	0.55	2.04	0.46	4.53	0.60	8.02		
1201	Washout Creek	4410	8.34	5.56	4.17	8.34	1.00	0.75	0.42	0.10	0.00	0.04	0.04	0.14	0.14	0.05	0.39	0.16	0.69		
1202	Washout Creek	4410	4.64	3.09	2.32	4.64	0.56	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1203	Washout Creek	4410	1.85	1.85	1.24	1.85	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1204	Washout Creek	4410	0.77	1.16	0.77	0.77	0.21	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1205	Washout Creek	4410	1.55	2.32	1.24	1.55	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1206	Washout Creek	4410	4.64	6.95	4.64	4.64	1.25	0.83	0.46	1.25	0.00	0.05	0.05	1.30	1.30	0.50	5.38	1.43	9.52		
1207	Washout Creek	4410	3.86	5.79	3.86	3.86	1.04	0.70	0.00	0.10	0.00	0.00	0.00	0.10	0.10	0.05	0.52	0.11	0.92		
1208	Washout Creek	4410	2.32	3.48	2.32	2.32	0.63	0.42	1.16	0.63	0.00	0.12	0.12	0.74	0.74	0.58	6.14	0.62	10.88		
1209	Washout Creek	4410	2.32	3.48	2.32	2.32	0.63	0.42	1.16	0.63	0.00	0.12	0.12	0.74	0.74	0.58	6.14	0.82	10.88		
1210	Washout Creek	4410	3.09	4.64	3.09	3.09	0.83	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1211	Washout Creek	4410-A	0.0	0.1	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1212	Washout Creek	4409	0.0	0.1	0.10	R	160.9	3.0	10	2.4	8	1.2	4	1079	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1213	Washout Creek	4407	0.0	0.2	0.18	R	281.6	3.7	12	2.4	8	1.8	6	2232	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1214	Washout Creek	4450	0.0	0.2	0.20	M	321.9	3.7	12	1.2	4	1.2	4	1962	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1215	Washout Creek	4450	0.2	0.3	0.13	M	201.2	3.7	12	1.8	6	1.2	4	1349	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1216	Washout Creek	4450	0.3	0.5	0.18	M	281.6	3.7	12	3.7	12	1.8	6	2575	80	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1217	Washout Creek	4451	0.0	0.1	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1218	Washout Creek	4450-A	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1586	Washout Creek	180	0.3	0.8	0.50	R	804.7	4.3	14	3.7	12	1.8	6	7849	90	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
1587	Washout Creek	180	0.8	0.9	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	90	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1588	Washout Creek	180	0.9	1.0	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1589	Washout Creek	180	1.0	1.0	0.03	M	40.2	4.3	14	4.6	15	2.4	8	454	60	100	4	90%	50%	100%	0%	2	6	N	100%	Y	1	Y
1590	Washout Creek	180	1.0	1.1	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	60	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1591	Washout Creek	180	1.1	1.3	0.15	M	241.4	3.7	12	6.1	20	3.0	10	3090	40	80	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1592	Washout Creek	180	1.3	1.3	0.08	M	120.7	3.7	12	7.6	25	3.0	10	1729	40	80	4	90%	5%	10%	0%	2	6	N	10%	N	2	N
1593	Washout Creek	180	1.3	1.5	0.13	M	201.2	4.3	14	4.6	15	1.8	6	2146	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1594	Washout Creek	180	1.5	1.8	0.35	R	563.3	3.7	12	3.7	12	1.8	6	5151	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1595	Washout Creek	180	1.8	2.0	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1596	Washout Creek	180	2.0	2.1	0.15	M	241.4	3.7	12	4.6	15	2.4	8	2575	60	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1597	Washout Creek	180	2.1	2.2	0.07	M	120.7	3.7	12	3.7	12	1.8	6	1104	60	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1598	Washout Creek	180	2.2	2.4	0.23	M	362.1	3.7	12	3.7	12	1.8	6	3311	80	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1599	Washout Creek	180	2.4	2.4	0.02	M	40.2	3.7	12	1.8	6	1.8	6	294	100	100	4	45%	50%	100%	0%	4	6	N	100%	Y	1	Y
1600	Washout Creek	180	2.4	2.5	0.03	M	40.2	3.7	12	1.2	4	1.2	4	245	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1601	Washout Creek	180	2.5	2.7	0.23	M	362.1	3.0	10	4.6	15	2.4	8	3642	40	100	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
1602	Washout Creek	180	2.7	2.7	0.03	M	40.2	3.7	12	4.6	15	3.0	10	454	60	80	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1603	Washout Creek	187	0.0	0.2	0.15	R	241.4	3.7	12	1.8	6	1.2	4	1619	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1604	Washout Creek	186	0.0	0.4	0.40	R	643.7	3.0	10	2.4	8	1.2	4	4317	90	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1605	Washout Creek	185-A	0.0	0.2	0.15	R	241.4	3.7	12	3.7	12	1.8	6	2207	90	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1606	Washout Creek	185	0.0	0.2	0.20	R	321.9	3.7	12	1.8	6	1.2	4	2158	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1610	Washout Creek	183	0.0	0.2	0.23	M	362.1	3.0	10	3.7	12	1.8	6	3090	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1611	Washout Creek	183	0.2	0.4	0.13	M	201.2	3.0	10	2.4	8	1.2	4	1349	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1612	Washout Creek	183	0.4	0.5	0.15	M	241.4	3.0	10	3.0	10	1.8	6	1913	80	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1616	Washout Creek	195	0.0	0.3	0.30	M	482.6	3.7	12	2.4	8	1.8	6	3626	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1617	Washout Creek	195	0.3	0.4	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	80	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1618	Washout Creek	195	0.4	0.5	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	80	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1619	Washout Creek	195-A	0.0	0.1	0.13	M	201.2	3.0	10	3.0	10	1.8	6	1594	60	100	4	90%	5%	10%	0%	4	6	N	10%	N	1	N
1620	Washout Creek	195-A	0.1	0.3	0.16	R	281.6	3.0	10	2.4	6	1.8	6	2060	80	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1742	Washout Creek	3000	4.5	4.8	0.27	M	442.6	3.7	12	5.5	18	3.0	10	5396	90	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1743	Washout Creek	3000	4.8	5.0	0.18	M	281.6	3.7	12	4.6	15	3.7	12	3348	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	2	N
1744	Washout Creek	3000	5.0	5.1	0.15	M	241.4	3.7	12	4.6	15	3.7	12	2870	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1745	Washout Creek	3000	5.1	5.2	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	100	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1746	Washout Creek	3000	5.2	5.3	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	60	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1747	Washout Creek	3000	5.3	5.3	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	90	100	4	90%	0%	0%	0%	2	6	N	0%	N	1	N
1748	Washout Creek	3000	5.3	5.5	0.18	M	281.6	3.7	12	4.6	15	3.0	10	3176	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1749	Washout Creek	3000	5.5	5.7	0.15	M	241.4	3.7	12	6.1	20	3.0	10	3090	100	100	4	90%	5%	10%	0%	2	6	N	10%	Y	1	N
1750	Washout Creek	3000	5.7	5.7	0.05	M	80.5	3.7	12	6.1	20	3.7	12	1079	80	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1751	Washout Creek	3000	5.7	5.7	0.02	M	40.2	3.7	12	6.1	20	3.7	12	540	70	90	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1752	Washout Creek	3000	5.7	5.9	0.15	M	241.4	3.7	12	6.1	20	3.7	12	3236	90	100	4	90%	5%	10%	0%	2	6	N	10%	Y	1	N
1753	Washout Creek	3000	5.9	5.9	0.03	M	40.2	3.7	12	9.1	30	4.6	15	699	80	100	4	90%	5%	10%	0%	2	6	N	10%	Y	1	N
1754	Washout Creek	3000	5.9	6.0	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1211	Washout Creek	4410-A	4.64	3.09	2.32	4.64	0.56	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1212	Washout Creek	4409	3.09	2.47	1.24	3.09	0.45	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1213	Washout Creek	4407	6.49	4.33	3.24	6.49	0.78	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1214	Washout Creek	4450	7.42	2.47	2.47	7.42	0.45	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1215	Washout Creek	4450	4.64	2.32	1.55	4.64	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1216	Washout Creek	4450	6.49	6.49	3.24	6.49	1.17	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1217	Washout Creek	4451	4.64	3.09	2.32	4.64	0.56	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1218	Washout Creek	4450-A	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1586	Washout Creek	180	10.82	9.27	4.64	10.82	1.67	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1587	Washout Creek	180	1.62	1.39	0.70	1.62	0.25	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1588	Washout Creek	180	4.33	4.64	2.47	4.33	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1589	Washout Creek	180	1.08	1.16	0.62	1.08	0.21	0.11	0.54	0.21	0.00	0.22	2.70	0.42	2.91	0.94	10.56	0.47	18.70		
1590	Washout Creek	180	4.33	4.64	2.47	4.33	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1591	Washout Creek	180	5.56	9.27	4.64	5.56	1.67	0.83	2.78	1.67	0.00	1.11	13.91	2.78	15.58	0.90	11.52	3.06	20.40		
1592	Washout Creek	180	2.78	5.79	2.32	2.78	1.04	0.42	0.14	0.10	0.00	0.06	0.70	0.16	0.80	0.09	1.32	0.18	2.35		
1593	Washout Creek	180	5.41	5.79	2.32	5.41	1.04	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1594	Washout Creek	180	12.98	12.98	6.49	12.98	2.34	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1595	Washout Creek	180	5.56	5.56	2.78	5.56	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1596	Washout Creek	180	5.56	6.95	3.71	5.56	1.25	0.67	2.78	1.25	0.00	0.28	0.28	1.53	1.53	0.59	6.34	1.68	11.22		
1597	Washout Creek	180	1.39	1.39	0.70	1.39	0.25	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1598	Washout Creek	180	4.17	4.17	2.09	4.17	0.75	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1599	Washout Creek	180	0.46	0.23	0.23	0.46	0.04	0.04	0.23	0.04	0.00	0.02	0.02	0.06	0.06	0.22	1.61	0.07	2.86		
1600	Washout Creek	180	0.46	0.15	0.15	0.46	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1601	Washout Creek	160	3.48	5.22	2.78	3.48	0.94	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1602	Washout Creek	180	0.46	0.58	0.39	0.46	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1603	Washout Creek	187	2.78	1.39	0.93	2.78	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1604	Washout Creek	186	6.18	4.94	2.47	6.18	0.89	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1605	Washout Creek	185-A	2.78	2.78	1.39	2.78	0.50	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1606	Washout Creek	185	7.42	3.71	2.47	7.42	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1610	Washout Creek	183	6.95	8.34	4.17	6.95	1.50	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1611	Washout Creek	163	3.86	3.09	1.55	3.86	0.56	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1612	Washout Creek	183	4.64	4.64	2.78	4.64	0.83	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1616	Washout Creek	195	11.13	7.42	5.56	11.13	1.34	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1617	Washout Creek	195	3.71	3.09	1.85	3.71	0.56	0.33	1.85	0.56	0.00	0.19	0.19	0.74	0.74	0.54	4.61	0.82	8.16		
1618	Washout Creek	195	4.64	4.64	2.32	4.64	0.83	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1619	Washout Creek	195-A	3.86	3.86	2.32	3.86	0.70	0.42	0.19	0.07	0.00	0.02	0.02	0.09	0.09	0.06	0.44	0.10	0.78		
1620	Washout Creek	195-A	5.41	4.33	3.24	5.41	0.78	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1742	Washout Creek	3000	10.20	15.30	8.50	10.20	2.75	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1743	Washout Creek	3000	6.49	8.11	6.49	6.49	1.46	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1744	Washout Creek	3000	5.56	6.95	5.56	5.56	1.25	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1745	Washout Creek	3000	2.78	2.78	1.85	2.78	0.50	0.33	1.39	0.50	0.00	0.56	6.95	1.06	7.45	0.90	8.76	1.16	15.50		
1746	Washout Creek	3000	2.78	2.78	1.39	2.78	0.50	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1747	Washout Creek	3000	1.65	1.85	1.24	1.85	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1748	Washout Creek	3000	6.49	6.11	5.41	6.49	1.46	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1749	Washout Creek	3000	5.56	9.27	4.64	5.56	1.67	0.83	0.28	0.17	0.00	0.11	1.39	0.28	1.56	0.09	1.15	0.31	2.04		
1750	Washout Creek	3000	1.85	3.09	1.85	1.85	0.56	0.33	0.93	0.56	0.00	0.37	4.64	0.93	5.19	0.86	11.52	1.02	20.40		
1751	Washout Creek	3000	0.93	1.55	0.93	0.93	0.28	0.17	0.46	0.28	0.00	0.19	2.32	0.46	2.60	0.86	11.52	0.51	20.40		
1752	Washout Creek	3000	5.56	9.27	5.56	5.56	1.67	1.00	0.28	0.17	0.00	0.11	1.39	0.28	1.56	0.09	1.15	0.31	2.04		
1753	Washout Creek	3000	0.93	2.32	1.16	0.93	0.42	0.21	0.05	0.04	0.00	0.02	0.23	0.06	0.27	0.09	1.50	0.07	2.65		
1754	Washout C[illegible]	3000	3.71	6.18	3.09	3.71	1.11	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac[illegible]85. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length In miles	Road Position	Length In meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1755	Washout Creek	3000	6.0	6.2	0.15	M	241.4	3.7	12	6.1	20	3.0	10	3090	80	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1756	Washout Creek	3000	6.2	6.2	0.07	M	120.7	4.3	14	3.7	12	2.4	8	1251	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1757	Washout Creek	3000	6.2	6.5	0.25	M	402.3	3.7	12	4.6	15	2.4	8	4292	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	2	N
1758	Washout Creek	3000	6.5	6.5	0.05	M	80.5	3.7	12	3.7	12	1.8	6	736	60	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1759	Washout Creek	3000	6.5	6.6	0.05	M	80.5	3.7	12	4.6	15	3.0	10	907	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1780	Washout Creek	3000	6.6	6.7	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	80	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
1781	Washout Creek	3000	6.7	6.8	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	60	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1782	Washout Creek	3000	6.8	7.0	0.15	M	241.4	3.7	12	5.5	18	3.0	10	2943	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1783	Washout Creek	3000	7.0	7.3	0.35	M	563.3	4.3	14	3.7	12	1.8	6	5494	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1784	Washout Creek	3000	7.3	7.7	0.40	R	643.7	4.3	14	3.7	12	2.4	8	6671	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1785	Washout Creek	3000	7.7	8.9	1.15	R	1850.8	3.7	12	3.7	12	2.4	8	18052	80	90	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1786	Washout Creek	3000	8.9	9.2	0.35	R	563.3	3.0	10	2.4	8	1.8	6	4121	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	5	N
1787	Washout Creek	3000	9.2	9.3	0.10	R	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
1788	Washout Creek	570	0.0	0.5	0.53	R	844.9	3.0	10	2.4	8	1.8	6	6181	100	100	4	90%	0%	0%	0%	2	6	N	0%	N	5	N
1789	Washout Creek	571	0.0	0.2	0.15	R	241.4	2.7	9	2.4	8	1.8	6	1692	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1790	Washout Creek	3099-C	0.0	0.3	0.30	R	482.8	3.0	10	2.4	8	1.8	6	3532	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1791	Washout Creek	3099	0.0	0.2	0.18	R	281.6	3.0	10	2.4	8	1.8	6	2060	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1792	Washout Creek	3098	0.0	0.1	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1793	Washout Creek	3097	0.0	0.1	0.13	M	201.2	3.7	12	3.7	12	2.4	8	1962	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1794	Washout Creek	3097	0.1	0.4	0.23	M	362.1	3.7	12	4.6	15	3.0	10	4064	60	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1795	Washout Creek	3097	0.4	0.4	0.05	M	80.5	3.0	10	3.7	12	2.4	8	736	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1796	Washout Creek	3097	0.4	0.5	0.13	M	201.2	3.0	10	4.6	15	2.4	8	2023	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1797	Washout Creek	3085	0.0	0.1	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1799	Washout Creek	3080	0.2	0.4	0.23	M	362.1	3.7	12	4.6	15	3.0	10	4084	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1800	Washout Creek	3080	0.4	0.5	0.13	M	201.2	3.7	12	5.5	18	3.0	10	2453	90	100	4	90%	5%	10%	0%	4	6	N	10%	Y	1	N
1801	Washout Creek	3080	0.5	0.6	0.10	M	160.9	3.7	12	5.5	18	3.7	12	2060	90	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
1802	Washout Creek	3080	0.6	0.7	0.05	M	80.5	3.7	12	6.1	20	3.7	12	1079	100	100	4	90%	50%	100%	0%	4	6	N	100%	Y	1	N
1803	Washout Creek	3080	0.7	0.8	0.18	M	281.6	3.0	10	4.6	15	3.0	10	3005	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1804	Washout Creek	3080	0.8	0.9	0.05	M	80.5	3.0	10	6.1	20	3.7	12	1030	90	90	4	90%	100%	100%	0%	4	6	N	100%	N	3	Y
1805	Washout Creek	3080	0.9	0.9	0.03	M	40.2	3.0	10	6.1	20	3.7	12	515	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1806	Washout Creek	3080	0.9	1.0	0.13	M	201.2	3.0	10	4.6	15	3.0	10	2146	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
1807	Washout Creek	3080	1.0	1.1	0.08	M	120.7	3.0	10	4.6	15	2.4	8	1214	80	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1808	Washout Creek	3081	0.0	0.1	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	80	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1813	Washout Creek	3076	0.0	0.2	0.20	R	321.9	3.0	10	2.4	8	1.8	6	2355	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1814	Washout Creek	3076	0.2	0.8	0.60	R	965.6	3.0	10	1.8	6	1.2	4	5886	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1815	Washout Creek	3078	0.0	0.1	0.10	R	160.9	2.7	9	2.4	8	1.8	6	1128	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1817	Washout Creek	3076	0.0	0.2	0.18	M	281.6	3.0	10	3.0	10	1.8	6	2232	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1867	Washout Creek	3050	0.6	0.8	0.20	M	321.9	4.3	14	4.6	15	2.4	8	3630	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1876	Washout Creek	3055	0.3	0.5	0.20	M	321.9	3.0	10	4.6	15	3.7	12	3630	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	3	N
1877	Washout Creek	3052	0.0	0.6	0.58	M	925.4	3.0	10	3.0	10	1.8	6	7334	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1879	Washout Creek	3051	0.1	0.3	0.18	M	281.6	3.7	12	1.8	6	1.2	4	1889	0	0	4	70%	0%	0%	0%	4	6	Y	0%	Y	1	N
2002	Washout Creek	3100	0.0	0.3	0.28	M	442.6	7.3	24	3.7	12	1.8	6	5666	100	100	4	70%	75%	100%	50%	2	6	N	100%	N	1	N
2003	Washout Creek	3100	0.3	0.4	0.15	M	241.4	5.5	18	3.7	12	1.8	6	2649	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2004	Washout Creek	3100	0.4	0.5	0.05	M	80.5	5.5	18	2.4	8	1.8	6	785	100	100	4	70%	5%	10%	0%	2	6	N	10%	Y	1	N
2005	Washout Creek	3100	0.5	0.6	0.10	M	160.9	5.5	18	4.6	15	2.4	8	2011	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2006	Washout Creek	3100	0.6	0.8	0.23	M	362.1	4.3	14	5.5	18	2.4	8	4415	80	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2007	Washout Creek	3100	0.8	0.9	0.05	M	80.5	4.3	14	4.6	15	2.4	8	907	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2008	Washout Creek	3100	0.9	0.9	0.08	M	120.7	4.3	14	9.1	30	3.0	10	1987	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2009	Washout Creek	3100	0.9	1.1	0.20	M	321.9	4.3	14	4.6	15	2.4	8	3630	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2010	Washout Creek	3100	1.1	1.2	0.05	M	80.5	4.3	14	6.1	20	2.4	8	1030	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square metre	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1755	Washout Creek	3000	5.56	9.27	4.64	5.56	1.67	0.83	2.78	1.67	0.00	1.11	13.91	2.78	15.58	0.90	11.52	3.06	20.40		
1756	Washout Creek	3000	3.24	2.78	1.85	3.24	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1757	Washout Creek	3000	9.27	11.59	6.48	9.27	2.09	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1758	Washout Creek	3000	1.85	1.85	0.93	1.85	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1759	Washout Creek	3000	1.85	2.32	1.55	1.85	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1760	Washout Creek	3000	3.71	4.64	3.09	3.71	0.83	0.56	1.85	0.83	0.00	0.74	9.27	1.58	10.11	0.87	9.79	1.73	17.34		
1761	Washout Creek	3000	4.64	5.79	3.09	4.64	1.04	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1762	Washout Creek	3000	5.56	8.34	4.64	5.56	1.50	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1763	Washout Creek	3000	15.14	12.98	6.49	15.14	2.34	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1764	Washout Creek	3000	13.46	11.54	7.69	13.46	2.08	1.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1765	Washout Creek	3000	42.65	42.65	28.43	42.65	7.68	5.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1766	Washout Creek	3000	10.82	8.65	6.49	10.82	1.56	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1767	Washout Creek	3000	3.09	2.47	1.85	3.09	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1768	Washout Creek	570	16.22	12.98	9.73	16.22	2.34	1.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1769	Washout Creek	571	4.17	3.71	2.78	4.17	0.67	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1790	Washout Creek	3099-C	9.27	7.42	5.56	9.27	1.34	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1791	Washout Creek	3099	5.41	4.33	3.24	5.41	0.78	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1792	Washout Creek	3098	3.09	3.09	1.85	3.09	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1793	Washout Creek	3097	4.64	4.64	3.09	4.64	0.83	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1794	Washout Creek	3097	8.34	10.43	6.95	8.34	1.88	1.25	4.17	1.88	0.00	0.42	0.42	2.29	2.29	0.56	6.34	2.52	11.22		
1795	Washout Creek	3097	1.55	1.85	1.24	1.55	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1796	Washout Creek	3097	3.86	5.79	3.09	3.86	1.04	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1797	Washout Creek	3085	3.09	3.09	1.85	3.09	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1799	Washout Creek	3080	8.34	10.43	6.95	8.34	1.88	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1800	Washout Creek	3080	4.64	6.95	3.86	4.64	1.25	0.70	0.23	0.13	0.00	0.02	0.02	0.15	0.15	0.06	0.74	0.16	1.31		
1801	Washout Creek	3080	3.71	5.56	3.71	3.71	1.00	0.67	1.85	1.00	0.00	0.19	0.19	1.19	1.19	0.58	7.37	1.31	13.05		
1802	Washout Creek	3080	1.85	3.09	1.85	1.85	0.56	0.33	0.93	0.56	0.00	0.09	0.09	0.65	0.65	0.60	8.07	0.71	14.28		
1803	Washout Creek	3080	5.41	8.11	5.41	5.41	1.46	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1804	Washout Creek	3080	1.55	3.09	1.85	1.55	0.56	0.33	1.55	0.56	0.00	0.15	0.15	0.71	0.71	0.69	8.83	0.78	15.64		
1805	Washout Creek	3080	0.77	1.55	0.93	0.77	0.28	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1806	Washout Creek	3080	3.86	5.79	3.86	3.86	1.04	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1807	Washout Creek	3080	2.32	3.48	1.85	2.32	0.63	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1808	Washout Creek	3081	3.71	3.09	1.85	3.71	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1813	Washout Creek	3076	6.48	4.94	3.71	6.48	0.89	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1814	Washout Creek	3076	18.54	11.13	7.42	18.54	2.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1815	Washout Creek	3078	2.78	2.47	1.85	2.78	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1817	Washout Creek	3076	5.41	5.41	3.24	5.41	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1867	Washout Creek	3050	6.73	7.21	3.85	6.73	1.30	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1876	Washout Creek	3055	4.81	7.21	5.77	4.81	1.30	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1877	Washout Creek	3052	13.82	13.82	8.29	13.82	2.49	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1879	Washout Creek	3051	5.05	2.52	1.68	5.05	2.52	1.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2002	Washout Creek	3100	15.86	7.93	3.97	15.86	1.43	0.71	11.90	1.43	0.36	4.76	59.49	6.54	61.27	1.16	14.79	7.20	26.17		
2003	Washout Creek	3100	6.49	4.33	2.16	6.49	0.78	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2004	Washout Creek	3100	2.16	0.96	0.72	2.16	0.17	0.13	0.11	0.02	0.00	0.04	0.54	0.06	0.56	0.08	0.75	0.07	1.33		
2005	Washout Creek	3100	4.33	3.61	1.92	4.33	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2006	Washout Creek	3100	7.57	9.73	4.33	7.57	1.75	0.78	3.79	1.75	0.00	1.51	18.93	3.27	20.68	0.74	9.02	3.59	15.97		
2007	Washout Creek	3100	1.68	1.80	0.96	1.68	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2008	Washout Creek	3100	2.52	5.41	1.80	2.52	0.97	0.32	1.26	0.97	0.00	0.50	6.31	1.48	7.28	0.74	12.25	1.63	21.68		
2009	Washout Creek	3100	6.73	7.21	3.85	6.73	1.30	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2010	Washout Creek	3100	1.68	2.40	0.96	1.68	0.43	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2011	Washout Creek	3100	1.2	1.3	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	100	100	4	70%	5%	10%	0%	2	6	N	10%	Y	1	N
2012	Washout Creek	3100	1.3	1.4	0.13	M	201.2	4.3	14	4.6	15	2.4	8	2269	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2013	Washout Creek	3100	1.4	1.4	0.02	S	40.2	4.3	14	6.1	20	2.4	8	515	80	100	4	70%	75%	100%	50%	2	6	N	100%	N	1	Y
2014	Washout Creek	3100	1.4	1.7	0.33	M	523.0	4.3	14	4.6	15	1.8	6	5580	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2015	Washout Creek	3100	1.7	1.9	0.20	M	321.9	4.3	14	5.5	18	2.4	8	3924	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2016	Washout Creek	3100	1.9	2.1	0.20	M	321.9	4.3	14	7.6	25	3.0	10	4807	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2017	Washout Creek	3100	2.1	2.3	0.15	M	241.4	4.3	14	5.5	18	3.0	10	3090	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2018	Washout Creek	3100	2.3	2.4	0.13	M	201.2	4.3	14	7.6	25	3.0	10	3005	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2019	Washout Creek	3100	2.4	2.6	0.20	R	321.9	3.7	12	6.1	20	3.0	10	4121	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2020	Washout Creek	3100	2.6	2.7	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2021	Washout Creek	3100	2.7	2.8	0.05	M	80.5	3.7	12	7.6	25	3.7	12	1202	100	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	N
2022	Washout Creek	3100	2.8	3.1	0.33	M	523.0	3.7	12	6.1	20	3.0	10	6696	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2023	Washout Creek	3100	3.1	3.5	0.43	R	684.0	4.3	14	4.6	15	3.0	10	8131	60	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2024	Washout Creek	3100	3.5	3.7	0.15	R	241.4	4.3	14	3.7	12	3.0	10	2649	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2025	Washout Creek	3130	0.0	0.1	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2026	Washout Creek	3130	0.1	0.2	0.13	M	201.2	3.0	10	6.1	20	3.0	10	2453	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2027	Washout Creek	3130	0.2	0.5	0.23	M	362.1	3.0	10	4.6	15	3.0	10	3863	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2028	Washout Creek	3120	0.0	0.3	0.30	M	462.6	2.7	9	4.6	15	3.0	10	5004	100	100	2	70%	0%	0%	0%	4	6	N	0%	N	5	N
2029	Washout Creek	3110	0.0	0.3	0.33	M	523.0	3.7	12	1.8	6	1.2	4	3507	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2030	Washout Creek	3110	0.3	0.5	0.15	M	241.4	3.7	12	3.0	10	1.6	6	2060	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2031	Washout Creek	3110	0.5	0.6	0.28	M	442.6	3.7	12	4.6	15	2.4	8	4721	100	100	4	70%	10%	100%	0%	4	6	N	100%	Y	2	N
2032	Washout Creek	3110	0.8	0.9	0.10	M	160.9	3.0	10	3.7	12	1.8	6	1374	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2033	Washout Creek	3110	0.9	0.9	0.08	M	120.7	3.0	10	2.4	8	1.8	6	883	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	5	N
2034	Washout Creek	3110	0.9	1.1	0.15	M	241.4	2.7	9	4.6	15	1.8	6	2207	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
2035	Washout Creek	3110-A	0.0	0.1	0.13	M	201.2	3.0	10	1.8	6	1.2	4	1226	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2036	Washout Creek	3110-B	0.0	0.1	0.05	M	80.5	3.0	10	1.2	4	1.2	4	441	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2037	Washout Creek	3109	0.0	0.1	0.08	M	120.7	3.7	12	2.4	8	1.8	6	957	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2038	Washout Creek	3109	0.1	0.2	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2039	Washout Creek	3109	0.2	0.4	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	90	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	N
2040	Washout Creek	3109	0.4	0.4	0.08	M	120.7	3.0	10	3.7	12	2.4	8	1104	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2041	Washout Creek	3109	0.4	0.7	0.28	M	442.6	3.0	10	2.4	8	1.8	6	3238	100	100	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
2042	Washout Creek	3107	0.0	0.2	0.20	M	321.9	3.0	10	2.4	8	1.8	6	2355	100	100	6	70%	0%	0%	0%	4	6	N	0%	N	1	N
2043	Washout Creek	3180	0.0	0.1	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	90	100	4	70%	75%	100%	0%	4	6	N	100%	Y	5	N
2044	Washout Creek	3180	0.1	0.4	0.30	M	482.8	3.7	12	4.6	15	2.4	8	5151	80	100	4	70%	0%	0%	0%	4	8	N	0%	Y	1	N
2045	Washout Creek	3180	0.4	0.5	0.10	R	160.9	3.7	12	2.4	8	1.8	6	1275	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2046	Washout Creek	3180	0.5	0.6	0.30	M	482.8	3.0	10	4.6	15	3.0	10	5151	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2047	Washout Creek	3180	0.8	1.0	0.15	M	241.4	3.0	10	6.1	20	3.0	10	2943	80	100	4	70%	100%	100%	0%	4	6	N	100%	N	5	Y
2048	Washout Creek	3180	1.0	1.1	0.15	M	241.4	3.7	12	3.0	10	1.8	6	2060	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2049	Washout Creek	3190	0.0	0.1	0.10	S	160.9	4.9	16	3.7	12	2.4	8	1766	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2050	Washout Creek	3190	0.1	0.3	0.15	M	241.4	4.9	16	5.5	18	3.0	10	3238	80	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	N
2051	Washout Creek	3190	0.3	0.4	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
2052	Washout Creek	3190	0.4	0.5	0.15	M	241.4	4.3	14	3.7	12	1.8	6	2355	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2053	Washout Creek	3190	0.5	0.7	0.15	M	241.4	4.3	14	4.6	15	2.4	6	2722	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
2054	Washout Creek	3190	0.7	0.9	0.25	M	402.3	4.3	14	3.0	10	1.6	6	3679	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2055	Washout Creek	3190	0.9	1.1	0.20	M	321.9	4.3	14	3.7	12	1.8	6	3139	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2056	Washout Creek	3190	1.1	1.2	0.10	M	160.9	4.3	14	6.1	20	3.0	10	2158	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2057	Washout Creek	3190	1.2	1.4	0.20	M	321.9	4.3	14	6.1	20	3.0	10	4317	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2058	Washout Creek	3190	1.4	1.7	0.28	M	442.6	3.7	12	3.7	12	1.8	6	4047	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2059	Washout Creek	3190	1.7	1.8	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2060	Washout Creek	3190	1.8	2.0	0.23	M	362.1	3.7	12	4.6	15	3.0	10	4084	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2011	Washout Creek	3100	2.52	2.16	1.08	2.52	0.39	0.19	0.13	0.04	0.00	0.05	0.63	0.09	0.67	0.08	0.74	0.10	1.31		
2012	Washout Creek	3100	4.21	4.51	2.40	4.21	0.81	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2013	Washout Creek	3100	0.84	1.20	0.48	0.84	0.22	0.09	0.63	0.22	0.04	0.25	3.15	0.51	3.41	0.99	12.72	0.56	22.53		
2014	Washout Creek	3100	10.94	11.72	4.69	10.94	2.11	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2015	Washout Creek	3100	6.73	8.65	3.85	6.73	1.56	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2016	Washout Creek	3100	6.73	12.02	4.81	6.73	2.16	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2017	Washout Creek	3100	5.05	6.49	3.61	5.05	1.17	0.65	2.52	1.17	0.00	1.01	12.62	2.18	13.79	0.70	9.02	2.40	15.97		
2018	Washout Creek	3100	4.21	7.51	3.00	4.21	1.35	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2019	Washout Creek	3100	5.77	9.61	4.81	5.77	1.73	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2020	Washout Creek	3100	2.88	3.61	2.40	2.88	0.65	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2021	Washout Creek	3100	1.44	3.00	1.44	1.44	0.54	0.26	0.72	0.54	0.00	0.29	3.61	0.83	4.15	0.69	10.31	0.91	18.24		
2022	Washout Creek	3100	9.37	15.62	7.81	9.37	2.81	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2023	Washout Creek	3100	14.30	15.32	10.22	14.30	2.76	1.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2024	Washout Creek	3100	5.05	4.33	3.61	5.05	0.78	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2025	Washout Creek	3100	2.88	4.81	2.40	2.88	0.87	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2026	Washout Creek	3100	3.00	6.01	3.00	3.00	1.08	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2027	Washout Creek	3100	5.41	8.11	5.41	5.41	1.46	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2028	Washout Creek	3120	6.49	10.82	7.21	6.49	1.95	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2029	Washout Creek	3110	9.37	4.69	3.12	9.37	0.84	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2030	Washout Creek	3110	4.33	3.61	2.16	4.33	0.65	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2031	Washout Creek	3110	7.93	9.92	5.29	7.93	1.78	0.95	0.79	1.78	0.00	0.08	0.08	1.86	1.86	0.39	4.21	2.05	7.46		
2032	Washout Creek	3110	2.40	2.88	1.44	2.40	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2033	Washout Creek	3110	1.80	1.44	1.08	1.80	0.26	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2034	Washout Creek	3110	3.24	5.41	2.16	3.24	0.97	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2035	Washout Creek	3110-A	3.00	1.80	1.20	3.00	0.32	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2036	Washout Creek	3110-B	1.20	0.48	0.48	1.20	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2037	Washout Creek	3109	2.16	1.44	1.08	2.16	0.26	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2038	Washout Creek	3109	4.33	4.33	2.16	4.33	0.78	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2039	Washout Creek	3109	3.61	4.51	2.40	3.61	0.81	0.43	1.80	0.81	0.00	0.18	0.18	0.99	0.99	0.46	4.93	1.09	8.72		
2040	Washout Creek	3109	1.80	2.16	1.44	1.80	0.39	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2041	Washout Creek	3109	6.61	5.29	3.97	6.81	0.95	0.71	0.33	0.10	0.00	0.03	0.03	0.13	0.13	0.04	0.29	0.14	0.51		
2042	Washout Creek	3107	4.81	3.85	2.88	3.61	0.69	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2043	Washout Creek	3180	3.37	3.61	1.92	3.37	0.65	0.35	2.52	0.65	0.00	0.25	0.25	0.90	0.90	0.50	5.60	0.99	9.91		
2044	Washout Creek	3180	8.65	10.82	5.77	8.65	1.95	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2045	Washout Creek	3180	2.88	1.92	1.44	2.88	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2046	Washout Creek	3180	7.21	10.82	7.21	7.21	1.95	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2047	Washout Creek	3180	3.61	7.21	3.61	3.61	1.30	0.65	3.61	1.30	0.00	0.36	0.36	1.66	1.66	0.56	6.87	1.82	12.16		
2048	Washout Creek	3180	4.33	3.61	2.16	4.33	0.65	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2049	Washout Creek	3190	3.85	2.88	1.92	3.85	0.52	0.35	1.92	0.52	0.00	0.77	9.61	1.29	10.13	0.73	8.01	1.42	14.17		
2050	Washout Creek	3190	5.77	6.49	3.61	5.77	1.17	0.65	2.88	1.17	0.00	1.15	14.42	2.32	15.59	0.72	9.62	2.55	17.03		
2051	Washout Creek	3190	3.37	3.61	1.92	3.37	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2052	Washout Creek	3190	5.05	4.33	2.16	5.05	0.78	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2053	Washout Creek	3190	5.05	5.41	2.88	5.05	0.97	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2054	Washout Creek	3190	8.41	6.01	3.61	8.41	1.08	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2055	Washout Creek	3190	6.73	5.77	2.88	6.73	1.04	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2056	Washout Creek	3190	3.37	4.81	2.40	3.37	0.87	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2057	Washout Creek	3190	6.73	9.61	4.81	6.73	1.73	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2058	Washout Creek	3190	7.93	7.93	3.97	7.93	1.43	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2059	Washout Creek	3190	2.88	4.81	2.40	2.88	0.87	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2060	Washout Creek	3190	6.49	8.11	5.41	6.49	1.46	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac[illegible]B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Percent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2061	Washout Creek	3190	2.0	2.2	0.18	M	281.6	3.7	12	4.6	15	2.4	8	3005	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2062	Washout Creek	3199	0.0	0.1	0.08	M	120.7	3.0	10	1.8	6	1.2	4	736	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2063	Washout Creek	3196	0.0	0.1	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2064	Washout Creek	3193	0.0	0.0	0.03	R	40.2	4.3	14	1.8	6	1.2	4	294	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2065	Washout Creek	3193	0.0	0.1	0.08	M	120.7	4.3	14	3.0	10	1.8	6	1104	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2066	Washout Creek	3193	0.1	0.3	0.20	M	321.9	3.7	12	7.6	25	3.0	10	4611	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2067	Washout Creek	3193	0.3	0.4	0.13	M	201.2	3.7	12	5.5	18	3.0	10	2453	60	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2068	Washout Creek	3193	0.4	0.5	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	100	100	4	70%	5%	10%	0%	2	6	N	10%	Y	1	N
2069	Washout Creek	3193	0.5	0.7	0.15	S	241.4	3.0	10	6.1	20	3.7	12	3090	100	100	4	70%	100%	100%	10%	2	6	N	100%	N	3	Y
2070	Washout Creek	3193	0.7	0.8	0.13	M	201.2	3.7	12	12.2	40	4.6	15	4108	80	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
2071	Washout Creek	3193	0.8	0.9	0.10	M	160.9	2.7	9	7.6	25	4.6	15	2404	80	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	N
2072	Washout Creek	3193	0.9	1.1	0.18	M	281.6	3.0	10	7.6	25	3.7	12	4035	90	100	4	70%	25%	100%	0%	2	6	N	100%	N	2	Y
2073	Washout Creek	3193	1.1	1.5	0.38	M	603.5	3.0	10	6.1	20	3.7	12	7726	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2074	Washout Creek	3193	1.5	1.8	0.33	M	523.0	3.0	10	4.6	15	3.0	10	5580	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2075	Washout Creek	3193	1.8	1.9	0.10	M	160.9	3.0	10	3.7	12	2.4	8	1472	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2076	Washout Creek	3193	1.9	2.0	0.13	M	201.2	3.0	10	6.1	20	3.0	10	2453	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2077	Washout Creek	3193	2.0	2.1	0.13	M	201.2	3.0	10	7.6	25	3.7	12	2882	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2078	Washout Creek	3193	2.1	2.3	0.20	M	321.9	2.7	9	6.1	20	3.7	12	4022	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2079	Washout Creek	3193	2.3	2.5	0.15	M	241.4	2.7	9	6.1	20	3.7	12	3017	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2080	Washout Creek	3193-C	0.0	0.1	0.10	M	160.9	3.0	10	4.6	15	3.0	10	1717	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2081	Washout Creek	3193-C	0.1	0.2	0.13	M	201.2	3.7	12	3.7	12	2.4	8	1962	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2082	Washout Creek	3193-C	0.2	0.3	0.08	M	120.7	3.0	10	4.6	15	3.0	10	1288	60	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
2083	Washout Creek	3192	0.0	0.1	0.08	M	120.7	3.0	10	1.8	6	1.2	4	736	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2084	Washout Creek	3192	0.1	0.2	0.08	M	120.7	3.0	10	3.0	10	1.8	6	957	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2085	Washout Creek	3200	0.0	0.1	0.08	M	120.7	4.3	14	4.6	15	2.4	8	1361	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2086	Washout Creek	3200	0.1	0.2	0.13	M	201.2	4.3	14	4.8	15	3.0	10	2391	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2087	Washout Creek	3200	0.2	0.3	0.08	M	120.7	4.3	14	3.0	10	1.8	6	1104	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2088	Washout Creek	3200	0.3	0.4	0.13	M	201.2	4.3	14	3.0	10	1.8	6	1840	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
2089	Washout Creek	3200	0.4	0.6	0.20	M	321.9	4.3	14	3.7	12	1.8	6	3139	100	100	4	70%	10%	100%	0%	2	6	N	100%	N	2	Y
2090	Washout Creek	3200	0.6	0.8	0.23	M	362.1	3.7	12	7.6	25	3.0	10	5187	80	100	4	70%	0%	0%	0%	2	6	N	0%	N	2	N
2091	Washout Creek	3200	0.8	0.9	0.08	M	120.7	3.7	12	7.6	25	3.7	12	1803	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2092	Washout Creek	3200	0.9	1.2	0.33	M	523.0	4.3	14	5.5	18	3.0	10	6696	80	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2094	Washout Creek	3200	1.5	1.8	0.33	M	523.0	3.7	12	4.6	15	2.4	8	5580	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2099	Washout Creek	3200	3.0	3.5	0.50	R	804.7	4.3	14	2.4	8	1.8	6	6868	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2100	Washout Creek	3200	3.5	3.8	0.30	R	482.8	3.7	12	3.7	12	2.4	8	4709	90	100	4	90%	0%	0%	0%	2	6	N	0%	N	1	N
2101	Washout Creek	3200	3.8	4.0	0.20	R	321.9	3.7	12	3.7	12	1.8	6	2943	80	100	4	90%	0%	0%	0%	2	6	N	0%	N	1	N
2102	Washout Creek	504-A	0.0	0.2	0.18	R	281.6	3.0	10	1.8	6	1.2	4	1717	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
2103	Washout Creek	3284	0.0	0.2	0.15	R	241.4	3.0	10	3.0	10	1.8	6	1913	80	100	4	90%	0%	0%	0%	4	6	N	0%	N	5	N
2116	Washout Creek	3281	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2117	Washout Creek	3281	0.1	0.5	0.40	M	643.7	3.7	12	3.7	12	2.4	8	6279	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2118	Washout Creek	3281	0.5	0.6	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2119	Washout Creek	3281	0.6	0.6	0.03	M	40.2	3.7	12	3.7	12	2.4	8	392	60	100	4	90%	50%	100%	0%	4	6	N	100%	Y	1	N
2120	Washout Creek	3281	0.6	0.7	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2121	Washout Creek	3281	0.7	0.8	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	80	100	4	90%	5%	10%	0%	4	6	N	10%	Y	1	N
2122	Washout Creek	3281	0.8	1.0	0.20	M	321.9	3.7	12	3.7	12	2.4	8	3139	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2123	Washout Creek	3281	1.0	1.1	0.10	M	160.9	3.0	10	4.6	15	2.4	8	1619	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2124	Washout Creek	3281	1.1	1.2	0.10	M	160.9	3.0	10	4.6	15	2.4	8	1619	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2125	Washout Creek	3281	1.2	1.3	0.10	M	160.9	3.0	10	5.5	18	3.0	10	1864	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	5	N
2126	Washout Creek	3281	1.3	1.3	0.02	M	40.2	3.0	10	4.6	15	2.4	8	405	80	100	4	90%	100%	100%	0%	4	6	N	100%	N	5	Y
2127	Washout Creek	3281	1.3	1.5	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	60	100	4	90%	100%	100%	0%	4	6	N	100%	N	5	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2061	Washout Creek	3190	5.05	6.31	3.37	5.05	1.14	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2062	Washout Creek	3199	1.80	1.08	0.72	1.80	0.19	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2063	Washout Creek	3196	2.40	1.92	1.44	2.40	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2064	Washout Creek	3193	0.84	0.36	0.24	0.84	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2065	Washout Creek	3193	2.52	1.80	1.08	2.52	0.32	0.19	1.26	0.32	0.00	0.50	6.31	0.83	6.63	0.75	6.87	0.91	12.16		
2066	Washout Creek	3193	5.77	12.02	4.81	5.77	2.16	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2067	Washout Creek	3193	3.61	5.41	3.00	3.61	0.97	0.54	1.80	0.97	0.00	0.72	9.01	1.69	9.99	0.69	8.42	1.86	14.91		
2068	Washout Creek	3193	2.88	4.81	2.40	2.88	0.87	0.43	0.14	0.09	0.00	0.06	0.72	0.14	0.81	0.07	0.90	0.16	1.59		
2069	Washout Creek	3193	3.61	7.21	4.33	3.61	1.30	0.78	3.61	1.30	0.08	1.44	18.03	2.82	19.40	0.91	11.67	3.10	20.66		
2070	Washout Creek	3193	3.61	12.02	4.51	3.61	2.16	0.81	1.80	2.16	0.00	0.72	9.01	2.88	11.18	0.70	14.34	3.17	25.38		
2071	Washout Creek	3193	2.16	6.01	3.61	2.16	1.08	0.65	1.08	1.08	0.00	0.43	5.41	1.51	6.49	0.63	9.41	1.67	16.66		
2072	Washout Creek	3193	4.21	10.52	5.05	4.21	1.89	0.91	1.05	1.89	0.00	0.42	5.26	2.31	7.15	0.57	8.21	2.54	14.54		
2073	Washout Creek	3193	9.01	18.03	10.82	9.01	3.24	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2074	Washout Creek	3193	7.81	11.72	7.81	7.81	2.11	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2075	Washout Creek	3193	2.40	2.88	1.92	2.40	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2076	Washout Creek	3193	3.00	6.01	3.00	3.00	1.08	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2077	Washout Creek	3193	3.00	7.51	3.61	3.00	1.35	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2078	Washout Creek	3193	4.33	9.61	5.77	4.33	1.73	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2079	Washout Creek	3193	3.24	7.21	4.33	3.24	1.30	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2080	Washout Creek	3193-C	2.40	3.61	2.40	2.40	0.65	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2081	Washout Creek	3193-C	3.61	3.61	2.40	3.61	0.65	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2082	Washout Creek	3193-C	2.32	3.48	2.32	2.32	0.63	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2083	Washout Creek	3192	1.80	1.08	0.72	1.80	0.19	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2084	Washout Creek	3192	1.80	1.80	1.08	1.80	0.32	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2085	Washout Creek	3200	2.52	2.70	1.44	0.50	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2086	Washout Creek	3200	4.21	4.51	3.00	0.84	0.81	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2087	Washout Creek	3200	2.52	1.80	1.08	2.52	0.32	0.19	1.26	0.32	0.00	0.50	6.31	0.83	6.63	0.75	6.87	0.91	12.16		
2088	Washout Creek	3200	4.21	3.00	1.80	4.21	0.54	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2089	Washout Creek	3200	6.73	5.77	2.88	6.73	1.04	0.52	0.67	1.04	0.00	0.27	3.37	1.31	4.40	0.42	4.06	1.44	7.19		
2090	Washout Creek	3200	6.49	13.52	5.41	6.49	2.43	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2091	Washout Creek	3200	2.16	4.51	2.16	2.16	0.81	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2092	Washout Creek	3200	10.94	14.06	7.81	10.94	2.53	1.41	5.47	2.53	0.00	2.19	27.34	4.72	29.87	0.70	9.02	5.19	15.97		
2094	Washout Creek	3200	9.37	11.72	6.25	9.37	2.11	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2099	Washout Creek	3200	21.63	12.36	9.27	21.63	2.23	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2100	Washout Creek	3200	11.13	11.13	7.42	11.13	2.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2101	Washout Creek	3200	7.42	7.42	3.71	7.42	1.34	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2102	Washout Creek	504-A	5.41	3.24	2.16	5.41	0.58	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2103	Washout Creek	3284	4.64	4.64	2.78	4.64	0.83	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2116	Washout Creek	3281	3.71	3.71	1.85	3.71	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2117	Washout Creek	3281	14.83	14.83	9.89	14.83	2.67	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2118	Washout Creek	3281	2.78	3.48	1.85	2.78	0.63	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2119	Washout Creek	3281	0.93	0.93	0.62	0.93	0.17	0.11	0.46	0.17	0.00	0.05	0.05	0.21	0.21	0.54	5.30	0.23	9.38		
2120	Washout Creek	3281	3.71	4.64	2.47	3.71	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2121	Washout Creek	3281	3.71	3.71	2.47	3.71	0.67	0.45	0.19	0.07	0.00	0.02	0.02	0.09	0.09	0.05	0.53	0.09	0.94		
2122	Washout Creek	3281	7.42	7.42	4.94	7.42	1.34	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2123	Washout Creek	3281	3.09	4.64	2.47	3.09	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2124	Washout Creek	3281	3.09	4.64	2.47	3.09	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2125	Washout Creek	3281	3.09	5.56	3.09	3.09	1.00	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2126	Washout Creek	3281	0.77	1.16	0.62	0.77	0.21	0.11	0.77	0.21	0.00	0.08	0.08	0.29	0.29	0.71	7.10	0.31	12.58		
2127	Washout C[illegible]k	3281	4.64	5.79	3.09	4.64	1.04	0.56	4.64	1.04	0.00	0.46	0.46	1.51	1.51	0.70	7.49	1.66	13.26		

Attac[illegible]85. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2128	Washout Creek	3281	1.5	1.5	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	5	N
2129	Washout Creek	3281	1.5	1.6	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	5	N
2131	Washout Creek	3270	0.0	0.4	0.40	M	643.7	4.3	14	4.6	15	3.0	10	7652	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2132	Washout Creek	3270	0.4	0.7	0.28	M	442.6	3.7	12	4.6	15	2.4	8	4721	90	100	4	90%	5%	10%	0%	2	6	N	10%	Y	1	N
2133	Washout Creek	3270	0.7	0.8	0.15	M	241.4	4.9	16	3.7	12	2.4	8	2649	100	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
2134	Washout Creek	3270	0.8	0.9	0.08	M	120.7	4.3	14	3.7	12	2.4	8	1251	100	100	4	90%	5%	10%	0%	2	6	N	10%	Y	1	N
2135	Washout Creek	3270	0.9	1.2	0.30	M	482.8	4.3	14	4.6	15	2.4	8	5445	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2136	Washout Creek	3270	1.2	1.4	0.18	M	281.6	4.3	14	3.7	12	2.4	8	2919	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2137	Washout Creek	3270	1.4	1.5	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2138	Washout Creek	3270	1.5	1.5	0.05	M	80.5	4.3	14	4.6	15	3.0	10	957	90	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2139	Washout Creek	3270	1.5	1.6	0.03	S	40.2	3.7	12	7.6	25	3.7	12	601	20	90	4	90%	60%	100%	10%	2	6	N	100%	Y	1	N
2140	Washout Creek	3270	1.6	1.6	0.02	S	40.2	3.7	12	4.6	15	3.7	12	478	20	90	4	90%	100%	100%	100%	2	6	N	100%	N	1	Y
2141	Washout Creek	3270	1.6	1.6	0.05	M	80.5	3.7	12	6.1	20	3.0	10	1030	40	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
2142	Washout Creek	3270	1.6	1.7	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	80	100	4	90%	5%	10%	0%	2	6	N	10%	Y	1	N
2143	Washout Creek	3270	1.7	1.9	0.15	M	241.4	3.7	12	4.6	15	3.0	10	2722	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2144	Washout Creek	3273	0.0	0.1	0.05	M	80.5	3.0	10	4.6	15	2.4	8	809	80	100	4	90%	5%	10%	0%	4	6	N	10%	Y	5	N
2145	Washout Creek	3273	0.1	0.1	0.05	M	80.5	2.4	8	3.7	12	2.4	8	687	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	2	N
2146	Washout Creek	3272	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2147	Washout Creek	3272	0.1	0.1	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2148	Washout Creek	3272	0.1	0.2	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2149	Washout Creek	3272	0.2	0.4	0.18	M	281.6	3.0	10	4.6	15	3.0	10	3005	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2150	Washout Creek	3272	0.4	0.4	0.03	M	40.2	3.7	12	4.6	15	3.0	10	454	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2151	Washout Creek	3272	0.4	1.0	0.63	R	1005.9	3.0	10	4.6	15	3.7	12	11344	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2152	Washout Creek	3271	0.0	0.2	0.15	R	241.4	4.3	14	1.2	4	1.2	4	1619	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
2155	Washout Creek	3250-B	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	2	N
2156	Washout Creek	3250-A	0.0	0.2	0.20	M	321.9	3.7	12	3.7	12	1.8	6	2943	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2157	Washout Creek	3250-A	0.2	0.5	0.28	M	442.6	3.7	12	4.6	15	2.4	8	4721	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	2	N
2158	Washout Creek	3250-A	0.5	0.7	0.25	M	402.3	3.0	10	3.7	12	2.4	8	3679	60	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
2159	Washout Creek	3250-A-1	0.0	0.1	0.10	M	160.9	3.7	12	3.0	10	2.4	8	1472	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2160	Washout Creek	3250-A-1	0.1	0.2	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	80	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
2161	Washout Creek	3277	0.0	0.1	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
2162	Washout Creek	3277	0.1	0.1	0.03	M	40.2	3.0	10	3.0	10	1.8	6	319	70	100	4	90%	0%	0%	0%	4	6	N	0%	Y	5	N
2163	Washout Creek	3277	0.1	0.2	0.10	M	160.9	3.0	10	4.6	15	2.4	8	1619	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	2	N
2164	Washout Creek	3276	0.0	0.3	0.28	M	442.6	3.7	12	4.6	15	3.0	10	4991	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2165	Washout Creek	3275	0.0	0.1	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2166	Washout Creek	3275	0.1	0.1	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	80	100	4	90%	50%	100%	0%	4	6	N	100%	Y	1	Y
2167	Washout Creek	3275	0.1	0.1	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2168	Washout Creek	3275	0.1	0.2	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	90	100	4	90%	50%	100%	0%	4	6	N	100%	Y	1	N
2169	Washout Creek	3275	0.2	0.2	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	100	100	4	90%	50%	100%	0%	4	6	N	100%	Y	1	N
2170	Washout Creek	3275	0.2	0.3	0.08	M	120.7	3.7	12	3.0	10	2.4	8	1104	60	100	4	90%	100%	100%	100%	4	6	N	100%	N	5	Y
2171	Washout Creek	3275	0.3	0.3	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2172	Washout Creek	3275	0.3	0.6	0.25	M	402.3	3.7	12	6.1	20	3.0	10	5151	50	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2173	Washout Creek	3275	0.6	0.6	0.03	S	40.2	3.0	10	7.6	25	4.6	15	613	40	80	4	90%	60%	100%	10%	4	6	N	100%	Y	1	N
2174	Washout Creek	3275	0.6	0.7	0.08	M	120.7	3.7	12	7.6	25	3.0	10	1729	10	60	4	90%	5%	10%	0%	4	6	N	10%	Y	1	N
2175	Washout Creek	3275	0.7	0.7	0.02	M	40.2	3.7	12	4.6	15	2.4	8	429	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2176	Washout Creek	3275	0.7	0.8	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	70	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2177	Washout Creek	3275	0.8	0.9	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	40	60	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2178	Washout Creek	3275	0.9	0.9	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	60	100	4	90%	0%	0%	0%	4	6	N	0%	N	2	N
2179	Washout Creek	3275	0.9	1.0	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	80	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
2180	Washout Creek	3275	1.0	1.1	0.06	M	120.7	3.7	12	4.6	15	2.4	8	1288	60	100	4	90%	0%	0%	0%	4	6	N	0%	N	2	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from FillslopeMetric DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2128	Washout Creek	3281	1.85	2.32	1.24	1.85	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2129	Washout Creek	3281	3.71	4.64	3.09	3.71	0.83	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2131	Washout Creek	3270	17.31	18.54	12.36	17.31	3.34	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2132	Washout Creek	3270	10.20	12.75	6.80	10.20	2.29	1.22	0.51	0.23	0.00	0.20	2.55	0.43	2.78	0.09	0.98	0.48	1.73		
2133	Washout Creek	3270	7.42	5.56	3.71	7.42	1.00	0.67	3.71	1.00	0.00	1.48	18.54	2.48	19.54	0.94	10.29	2.73	18.22		
2134	Washout Creek	3270	3.24	2.78	1.85	3.24	0.50	0.33	0.16	0.05	0.00	0.06	0.81	0.11	0.86	0.09	0.95	0.13	1.69		
2135	Washout Creek	3270	12.98	13.91	7.42	12.98	2.50	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2136	Washout Creek	3270	7.57	6.49	4.33	7.57	1.17	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2137	Washout Creek	3270	3.71	3.71	1.85	3.71	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2138	Washout Creek	3270	2.16	2.32	1.55	2.16	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2139	Washout Creek	3270	0.93	1.93	0.93	0.93	0.35	0.17	0.56	0.35	0.02	0.22	2.78	0.59	3.15	0.98	14.59	0.65	25.82		
2140	Washout Creek	3270	0.93	1.16	0.93	0.93	0.21	0.17	0.93	0.21	0.17	0.37	4.64	0.75	5.01	1.56	18.55	0.82	32.84		
2141	Washout Creek	3270	1.85	3.09	1.55	1.85	0.56	0.28	0.93	0.56	0.00	0.37	4.64	0.93	5.19	0.90	11.52	1.02	20.40		
2142	Washout Creek	3270	2.78	3.48	1.85	2.78	0.63	0.33	0.14	0.06	0.00	0.06	0.70	0.12	0.76	0.09	0.98	0.13	1.73		
2143	Washout Creek	3270	5.56	6.95	4.64	5.56	1.25	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2144	Washout Creek	3273	1.55	2.32	1.24	1.55	0.42	0.22	0.08	0.04	0.00	0.01	0.01	0.05	0.05	0.06	0.61	0.05	1.09		
2145	Washout Creek	3273	1.24	1.85	1.24	1.24	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2146	Washout Creek	3272	3.71	3.71	1.85	3.71	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2147	Washout Creek	3272	0.93	1.16	0.62	0.93	0.21	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2148	Washout Creek	3272	1.85	1.85	1.24	1.85	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2149	Washout Creek	3272	5.41	8.11	5.41	5.41	1.46	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2150	Washout Creek	3272	0.93	1.16	0.77	0.93	0.21	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2151	Washout Creek	3272	19.32	28.97	23.18	19.32	5.22	4.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2152	Washout Creek	3271	6.49	1.85	1.85	6.49	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2155	Washout Creek	3250-B	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2156	Washout Creek	3250-A	7.42	7.42	3.71	7.42	1.34	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2157	Washout Creek	3250-A	10.20	12.75	6.80	10.20	2.29	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2158	Washout Creek	3250-A	7.73	9.27	6.18	7.73	1.67	1.11	3.86	1.67	0.00	0.39	0.39	2.06	2.06	0.56	5.11	2.26	9.04		
2159	Washout Creek	3250-A-1	3.71	3.09	2.47	3.71	0.56	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2160	Washout Creek	3250-A-1	3.09	3.09	1.85	3.09	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2161	Washout Creek	3277	3.09	2.47	1.85	3.09	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2162	Washout Creek	3277	0.77	0.77	0.46	0.77	0.14	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2163	Washout Creek	3277	3.09	4.64	2.47	3.09	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2164	Washout Creek	3276	10.20	12.75	8.50	10.20	2.29	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2165	Washout Creek	3275	1.85	1.85	1.24	1.85	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2166	Washout Creek	3275	1.85	1.85	1.24	1.85	0.33	0.22	0.93	0.33	0.00	0.09	0.09	0.43	0.43	0.54	5.30	0.47	9.38		
2167	Washout Creek	3275	0.93	1.16	0.62	0.93	0.21	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2168	Washout Creek	3275	1.85	2.32	1.24	1.85	0.42	0.22	0.93	0.42	0.00	0.09	0.09	0.51	0.51	0.59	6.34	0.56	11.22		
2169	Washout Creek	3275	0.93	1.16	0.62	0.93	0.21	0.11	0.46	0.21	0.00	0.05	0.05	0.25	0.25	0.59	6.34	0.28	11.22		
2170	Washout Creek	3275	2.78	2.32	1.85	2.78	0.42	0.33	2.78	0.42	0.33	0.28	0.28	1.03	1.03	0.93	8.53	1.13	15.09		
2171	Washout Creek	3275	1.85	2.32	1.24	1.85	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2172	Washout Creek	3275	9.27	15.45	7.73	9.27	2.78	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2173	Washout Creek	3275	0.77	1.93	1.16	0.77	0.35	0.21	0.46	0.35	0.02	0.05	0.05	0.41	0.41	0.68	10.31	0.46	18.25		
2174	Washout Creek	3275	2.78	5.79	2.32	2.78	1.04	0.42	0.14	0.10	0.00	0.01	0.01	0.12	0.12	0.07	0.98	0.13	1.73		
2175	Washout Creek	3275	0.93	1.16	0.62	0.93	0.21	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2176	Washout Creek	3275	3.71	4.64	3.09	3.71	0.83	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2177	Washout Creek	3275	2.78	3.48	2.32	2.78	0.63	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2178	Washout Creek	3275	1.85	2.32	1.24	1.85	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2179	Washout Creek	3275	2.78	2.78	1.85	2.78	0.50	0.33	1.39	0.50	0.00	0.14	0.14	0.64	0.64	0.54	5.30	0.70	9.38		
2180	Washout Creek	3275	2.78	3.48	1.85	2.78	0.63	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2181	Washout Creek	3275-A	0.0	0.0	0.03	M	40.2	3.0	10	3.7	12	2.4	8	368	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	2	N
2182	Washout Creek	3275-A	0.0	0.1	0.10	M	160.9	3.0	10	3.7	12	3.0	10	1570	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	2	N
2183	Washout Creek	3270	1.9	1.9	0.08	M	120.7	4.3	14	4.6	15	1.8	6	1288	80	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
2184	Washout Creek	3270	1.9	2.0	0.08	M	120.7	3.7	12	10.7	35	4.8	15	2281	0	80	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2185	Washout Creek	3270	2.0	2.1	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	4	90%	50%	100%	0%	2	6	N	100%	Y	1	N
2186	Washout Creek	3270	2.1	2.2	0.13	M	201.2	3.7	12	9.1	30	3.0	10	3189	40	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
2187	Washout Creek	3270	2.2	2.3	0.10	M	160.9	3.7	12	12.2	40	3.0	10	3041	60	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2188	Washout Creek	3270	2.3	2.4	0.07	M	120.7	3.7	12	7.6	25	4.6	15	1913	70	80	4	90%	50%	100%	10%	2	6	N	100%	N	1	Y
2189	Washout Creek	3270	2.4	2.4	0.02	M	40.2	3.7	12	3.0	10	1.8	6	343	90	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2190	Washout Creek	3270	2.4	2.6	0.13	M	201.2	3.7	12	3.0	10	1.8	6	1717	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2191	Washout Creek	3270	2.6	2.7	0.15	M	241.4	4.3	14	3.7	12	1.8	6	2355	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2192	Washout Creek	3270	2.7	2.8	0.05	M	80.5	4.3	14	4.6	15	2.4	8	907	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2193	Washout Creek	3270	2.8	2.8	0.02	M	40.2	4.3	14	4.6	15	2.4	8	454	80	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
2194	Washout Creek	3270	2.8	2.8	0.02	M	40.2	3.7	12	6.1	20	3.0	10	515	60	100	4	90%	50%	100%	0%	2	6	N	100%	Y	1	N
2195	Washout Creek	3270	2.8	3.0	0.20	M	321.9	3.7	12	6.1	20	3.0	10	4121	20	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2196	Washout Creek	3270	3.0	3.3	0.28	M	442.6	3.7	12	3.7	12	2.4	8	4317	90	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2197	Washout Creek	3270	3.3	3.6	0.33	M	523.0	3.7	12	4.6	15	3.0	10	5899	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2198	Washout Creek	3270	3.6	3.8	0.20	M	321.9	3.0	10	4.6	15	3.0	10	3434	80	100	4	90%	50%	100%	0%	2	6	N	100%	Y	1	N
2199	Washout Creek	3270	3.8	3.9	0.08	M	120.7	3.7	12	6.1	20	3.0	10	1545	90	100	4	90%	50%	100%	0%	2	6	N	100%	Y	1	N
2200	Washout Creek	3270	3.9	4.3	0.38	M	603.5	3.7	12	4.6	15	2.4	8	6438	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	2	N
2244	Washout Creek	3230	0.0	0.1	0.13	M	201.2	3.7	12	3.0	10	1.8	6	1717	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2245	Washout Creek	3230	0.1	0.4	0.28	M	442.6	3.7	12	3.7	12	1.8	6	4047	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2246	Washout Creek	3230	0.4	0.5	0.08	M	120.7	3.7	12	2.4	8	1.8	6	957	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2247	Washout Creek	3230	0.5	0.5	0.03	M	40.2	3.7	12	2.4	8	1.8	6	319	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2248	Washout Creek	3230	0.5	0.6	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	100	100	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
1816b	Washout Creek	3077	0.1	0.1	0.07	S	104.6	6.4	21	1.8	6	1.8	6	1052	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1866b	Washout Creek	3050	0.5	0.6	0.10	S	180.9	6.4	21	1.8	6	1.8	6	1619	90	80	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1868a	Washout Creek	3050	0.8	1.1	0.30	S	482.8	6.4	21	1.8	6	1.8	6	4856	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
106	Hands Creek	MAINLINE	9.0	9.0	0.03	S	40.2	6.1	20	3.0	10	3.0	10	491	20	20	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
107	Hands Creek	MAINLINE	9.0	9.2	0.20	M	321.9	5.5	18	3.7	12	3.0	10	3924	50	50	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
108	Hands Creek	MAINLINE	9.2	9.3	0.08	S	120.7	5.5	18	3.0	10	2.4	8	1324	100	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
109	Hands Creek	MAINLINE	9.3	9.5	0.23	S	362.1	5.5	18	2.4	8	2.4	8	3753	100	100	5	70%	75%	100%	50%	1	6	N	100%	Y	1	N
110	Hands Creek	MAINLINE	9.5	9.6	0.07	S	120.7	5.5	18	3.7	12	3.7	12	1545	100	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
111	Hands Creek	MAINLINE	9.6	9.7	0.05	S	80.5	5.5	18	2.4	8	1.8	6	785	100	100	5	70%	75%	100%	50%	1	6	N	100%	N	1	Y
112	Hands Creek	MAINLINE	9.7	9.8	0.17	S	281.6	6.1	20	1.8	6	1.8	6	2747	100	100	5	70%	50%	50%	50%	1	6	N	100%	Y	1	N
113	Hands Creek	MAINLINE	9.8	10.0	0.18	M	281.6	6.1	20	1.2	4	1.2	4	2404	100	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
114	Hands Creek	MAINLINE	10.0	10.2	0.20	M	321.9	6.7	22	1.8	6	1.8	6	3336	100	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
115	Hands Creek	MAINLINE	10.2	10.4	0.18	M	281.6	6.7	22	1.8	6	2.4	8	3090	100	100	5	70%	0%	0%	0%	1	6	N	0%	N	1	N
116	Hands Creek	MAINLINE	10.4	10.5	0.13	M	201.2	6.1	20	2.4	8	2.4	8	2207	100	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
673	Hands Creek	3030	6.3	6.4	0.07	M	120.7	3.7	12	9.1	30	6.1	20	2281	20	50	2	70%	75%	100%	0%	4	6	N	100%	N	1	Y
674	Hands Creek	3030	6.4	6.4	0.08	M	120.7	3.7	12	6.1	20	3.7	12	1619	20	80	2	70%	50%	100%	0%	4	6	N	100%	N	1	Y
675	Hands Creek	3030	6.4	6.6	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
676	Hands Creek	3030	6.6	6.7	0.13	M	201.2	3.7	12	6.1	20	2.4	8	2453	50	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
677	Hands Creek	3030	6.7	6.8	0.10	S	160.9	3.7	12	9.1	30	6.1	20	3041	40	20	2	70%	100%	100%	100%	4	6	N	100%	N	5	Y
678	Hands Creek	3030	6.8	6.9	0.10	M	160.9	4.3	14	3.0	10	1.2	4	1374	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
681	Hands Creek	3037	0.2	0.3	0.13	M	201.2	3.7	12	3.7	12	1.2	4	1717	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1219	Hands Creek	3350	0.0	0.1	0.10	S	160.9	4.9	16	4.6	15	2.4	8	1913	50	80	5	70%	60%	100%	100%	2	6	N	100%	N	1	Y
1290	Hands Creek	3351	0.0	0.2	0.20	S	321.9	4.3	14	2.4	8	1.8	6	2747	100	100	5	45%	50%	100%	10%	2	6	N	100%	Y	1	N
1291	Hands Creek	3351	0.2	0.3	0.10	M	160.9	4.3	14	7.6	25	3.7	12	2502	80	100	5	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1292	Hands Creek	3351	0.3	0.4	0.05	M	80.5	4.3	14	7.6	25	3.7	12	1251	80	100	5	45%	50%	100%	0%	2	6	N	100%	Y	1	Y

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from Cutslope Metric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread Surface Metric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread Delivery Metric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope Delivery Metric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square mile	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2181	Washout Creek	3275-A	0.77	0.93	0.62	0.77	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2182	Washout Creek	3275-A	3.09	3.71	3.09	3.09	0.67	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2183	Washout Creek	3270	3.24	3.48	1.39	3.24	0.63	0.25	1.62	0.63	0.00	0.65	8.11	1.27	8.74	0.99	10.56	1.40	18.70		
2184	Washout Creek	3270	2.78	8.11	3.48	2.78	8.11	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2185	Washout Creek	3270	3.71	4.64	2.47	3.71	0.83	0.45	1.85	0.83	0.00	0.74	9.27	1.58	10.11	0.92	9.79	1.73	17.34		
2186	Washout Creek	3270	4.64	11.59	3.86	4.64	2.09	0.70	2.32	2.09	0.00	0.93	11.59	3.01	13.68	0.95	14.98	3.31	26.51		
2187	Washout Creek	3270	3.71	12.36	3.09	3.71	2.23	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2188	Washout Creek	3270	2.78	5.79	3.48	2.78	1.04	0.63	1.39	1.04	0.06	0.56	6.95	1.66	8.06	0.87	13.77	1.83	24.37		
2189	Washout Creek	3270	0.93	0.77	0.46	0.93	0.14	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2190	Washout Creek	3270	4.64	3.86	2.32	4.64	0.70	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2191	Washout Creek	3270	6.49	5.56	2.78	6.49	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2192	Washout Creek	3270	2.16	2.32	1.24	2.16	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2193	Washout Creek	3270	1.08	1.16	0.62	1.08	0.21	0.11	0.54	0.21	0.00	0.22	2.70	0.42	2.91	0.94	10.56	0.47	16.70		
2194	Washout Creek	3270	0.93	1.55	0.77	0.93	0.28	0.14	0.46	0.28	0.00	0.19	2.32	0.46	2.60	0.90	11.52	0.51	20.40		
2195	Washout Creek	3270	7.42	12.36	6.18	7.42	2.23	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2196	Washout Creek	3270	10.20	10.20	6.80	10.20	1.84	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2197	Washout Creek	3270	12.05	15.07	10.04	12.05	2.71	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2198	Washout Creek	3270	6.18	9.27	6.18	6.18	1.67	1.11	3.09	1.67	0.00	1.24	15.45	2.90	17.12	0.85	9.03	3.20	15.98		
2199	Washout Creek	3270	2.78	4.64	2.32	2.78	0.83	0.42	1.39	0.83	0.00	0.56	6.95	1.39	7.79	0.90	11.52	1.53	20.40		
2200	Washout Creek	3270	13.91	17.38	9.27	13.91	3.13	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2244	Washout Creek	3230	3.61	3.00	1.80	3.61	0.54	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2245	Washout Creek	3230	7.93	7.93	3.97	7.93	1.43	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2246	Washout Creek	3230	2.16	1.44	1.08	2.16	0.26	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2247	Washout Creek	3230	0.72	0.48	0.36	0.72	0.09	0.06	0.36	0.09	0.00	0.04	0.04	0.12	0.12	0.38	3.05	0.13	5.39		
2248	Washout Creek	3230	1.44	0.96	0.72	1.44	0.17	0.13	0.07	0.02	0.00	0.01	0.01	0.02	0.02	0.04	0.30	0.03	0.54		
1816b	Washout Creek	3077	4.22	1.21	1.21	4.22	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1866b	Washout Creek	3050	5.05	1.44	1.44	5.05	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1868a	Washout Creek	3050	15.14	4.33	4.33	15.14	0.78	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
106	Hands Creek	MAINLINE	1.20	0.60	0.60	0.24	0.11	0.11	0.24	0.11	0.11	0.10	1.20	0.31	1.42	0.64	7.77	0.34	13.75	99	405
107	Hands Creek	MAINLINE	6.65	5.77	4.81	1.73	1.04	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
108	Hands Creek	MAINLINE	3.24	1.80	1.44	0.65	0.32	0.26	0.65	0.32	0.26	0.26	3.24	0.84	3.83	0.64	6.99	0.93	12.37		
109	Hands Creek	MAINLINE	9.73	4.33	4.33	1.95	0.78	0.78	1.46	0.78	0.39	0.58	7.30	1.75	8.47	0.47	4.64	1.93	8.57		
110	Hands Creek	MAINLINE	3.24	2.16	2.16	0.65	0.39	0.39	0.65	0.39	0.39	0.26	3.24	1.04	4.02	0.67	8.60	1.14	15.23		
111	Hands Creek	MAINLINE	2.16	0.96	0.72	0.43	0.17	0.13	0.32	0.17	0.06	0.13	1.62	0.37	1.86	0.47	4.57	0.40	8.09		
112	Hands Creek	MAINLINE	8.41	2.52	2.52	1.68	0.45	0.45	0.84	0.23	0.23	0.34	4.21	0.79	4.66	0.29	2.81	0.87	4.97		
113	Hands Creek	MAINLINE	8.41	1.68	1.68	1.68	0.30	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
114	Hands Creek	MAINLINE	10.58	2.88	2.88	2.12	0.52	0.52	1.06	0.52	0.00	0.42	5.29	0.94	5.81	0.28	2.93	1.04	5.18		
115	Hands Creek	MAINLINE	9.25	2.52	3.37	1.85	0.45	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
116	Hands Creek	MAINLINE	6.01	2.40	2.40	1.20	0.43	0.43	1.20	0.43	0.43	0.48	6.01	1.35	6.87	0.61	6.69	1.48	11.84		
673	Hands Creek	3030	2.16	5.41	3.61	2.16	0.97	0.65	1.62	0.97	0.00	0.16	0.16	1.14	1.14	0.50	9.41	1.25	16.66		
674	Hands Creek	3030	2.16	3.61	2.16	2.16	0.65	0.39	1.08	0.65	0.00	0.11	0.11	0.76	0.76	0.47	6.27	0.83	11.10		
675	Hands Creek	3030	4.33	4.33	2.16	4.33	0.78	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
676	Hands Creek	3030	3.61	6.01	2.40	3.61	1.08	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
677	Hands Creek	3030	2.88	7.21	4.81	2.88	1.30	0.87	2.88	1.30	0.87	0.29	0.29	2.45	2.45	0.81	15.23	2.70	26.97		
678	Hands Creek	3030	3.37	2.40	0.96	3.37	0.43	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
681	Hands Creek	3037	3.61	3.61	1.20	3.61	0.65	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1219	Hands Creek	3350	3.85	3.61	1.92	0.77	0.65	0.35	0.46	0.65	0.35	0.18	2.31	1.18	3.30	0.62	7.33	1.30	12.98		
1280	Hands Creek	3351	4.33	2.47	1.85	0.87	0.45	0.33	0.43	0.45	0.03	0.17	2.16	0.65	2.64	0.24	2.02	0.72	3.58		
1291	Hands Creek	3351	2.16	3.86	1.85	0.43	0.70	0.33	0.22	0.70	0.00	0.09	1.08	0.78	1.78	0.31	4.86	0.86	8.60		
1292	Hands Creek	3351	1.08	1.93	0.93	0.22	0.35	0.17	0.11	0.35	0.00	0.04	0.54	0.39	0.89	0.31	4.86	0.43	8.60		

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1293	Hands Creek	3351	0.4	0.5	0.18	M	281.6	4.3	14	7.6	25	3.7	12	4378	50	100	5	45%	10%	100%	0%	2	6	N	100%	N	2	Y
1296	Hands Creek	3351	1.2	1.4	0.18	M	281.6	4.3	14	6.1	20	3.7	12	3949	80	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1297	Hands Creek	3351	1.4	1.4	0.02	M	40.2	4.3	14	4.6	15	3.0	10	478	90	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1298	Hands Creek	3351	1.4	1.5	0.08	M	120.7	3.7	12	7.6	25	3.7	12	1803	80	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1299	Hands Creek	3351	1.5	1.7	0.23	M	362.1	3.7	12	4.6	15	3.0	10	4084	80	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1300	Hands Creek	3351	1.7	1.8	0.15	R	241.4	4.3	14	2.4	8	1.8	6	2060	100	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
1301	Hands Creek	3351	1.8	2.8	0.95	R	1528.9	4.3	14	4.6	15	3.0	10	18175	80	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1302	Hands Creek	3351-E	0.0	0.3	0.28	M	442.6	3.7	12	4.6	15	3.0	10	4991	70	90	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1303	Hands Creek	3351-D	0.0	0.2	0.20	M	321.9	3.0	10	3.7	12	2.4	8	2943	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1304	Hands Creek	3351-C	0.0	0.2	0.15	M	241.4	3.0	10	4.6	15	3.0	10	2575	70	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1306	Hands Creek	3351-B	0.0	0.1	0.08	M	120.7	3.7	12	3.0	10	1.8	6	1030	100	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1307	Hands Creek	3351-B	0.1	0.2	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	100	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1308	Hands Creek	3351-B	0.2	0.3	0.08	M	120.7	3.0	10	6.1	20	3.7	12	1545	20	100	5	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1309	Hands Creek	3351-B	0.3	0.3	0.03	M	40.2	3.0	10	4.6	15	3.0	10	429	90	100	5	70%	50%	100%	0%	4	6	N	100%	Y	1	N
1310	Hands Creek	3351-B	0.3	0.4	0.05	M	80.5	3.0	10	4.6	15	3.0	10	858	90	100	5	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1311	Hands Creek	3351-B	0.4	0.6	0.25	M	402.3	3.0	10	6.1	20	3.7	12	5151	60	90	5	70%	10%	50%	0%	4	6	N	100%	N	2	Y
1312	Hands Creek	3351-B	0.6	0.8	0.15	M	241.4	3.0	10	4.6	15	3.0	10	2575	20	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1313	Hands Creek	3351-B	0.8	0.8	0.05	M	80.5	3.0	10	4.6	15	2.4	8	809	40	100	5	70%	5%	10%	0%	4	6	N	10%	Y	1	N
1314	Hands Creek	3351-B	0.8	0.9	0.10	M	160.9	3.0	10	7.6	25	3.0	10	2207	60	100	5	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1315	Hands Creek	3351-B	0.9	1.0	0.10	R	160.9	3.0	10	1.8	6	1.8	6	1079	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1585	Hands Creek	180	0.0	0.3	0.30	M	482.8	3.7	12	9.1	30	4.6	15	8388	70	100	4	90%	0%	0%	0%	2	6	N	0%	N	1	N
1607	Hands Creek	180-B	0.0	0.1	0.10	M	160.9	3.0	10	4.6	15	3.0	10	1717	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1608	Hands Creek	180-A	0.0	0.1	0.10	R	160.9	3.0	10	1.2	4	1.2	4	883	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1609	Hands Creek	180-A-1	0.0	0.1	0.10	M	160.9	3.0	10	4.6	15	1.8	6	1521	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
1613	Hands Creek	182	0.0	0.1	0.08	R	120.7	3.7	12	2.4	8	1.8	6	957	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1614	Hands Creek	182	0.1	0.3	0.25	M	402.3	3.0	10	6.1	20	1.8	6	4415	50	90	4	45%	0%	0%	0%	4	6	N	0%	N	2	N
1615	Hands Creek	181	0.0	0.2	0.20	R	321.9	3.7	12	3.7	12	1.8	6	2943	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
2093	Hands Creek	3200	1.2	1.5	0.25	R	402.3	4.3	14	3.0	10	1.8	6	3679	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
2095	Hands Creek	3200	1.8	1.9	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2096	Hands Creek	3200	1.9	2.0	0.15	M	241.4	4.3	14	6.1	20	3.0	10	3238	60	100	4	90%	5%	10%	0%	2	6	N	10%	Y	1	N
2097	Hands Creek	3200	2.0	2.3	0.28	M	442.6	4.3	14	4.6	15	2.4	8	4991	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2098	Hands Creek	3200	2.3	3.0	0.70	R	1126.6	4.3	14	1.8	6	1.2	4	8241	100	100	4	90%	0%	0%	0%	2	6	N	0%	N	1	N
2104	Hands Creek	3280	0.0	0.1	0.13	M	201.2	4.3	14	4.6	15	2.4	8	2269	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2105	Hands Creek	3280	0.1	0.3	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2106	Hands Creek	3280	0.3	0.5	0.25	M	402.3	3.7	12	4.6	15	2.4	8	4292	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2107	Hands Creek	3280	0.5	0.9	0.38	M	603.5	3.7	12	4.6	15	3.0	10	6806	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2108	Hands Creek	3280	0.9	1.2	0.28	M	442.6	3.0	10	6.1	20	3.0	10	5396	60	90	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2109	Hands Creek	3280	1.2	1.5	0.35	M	563.3	3.0	10	2.4	8	1.8	6	4121	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
2110	Hands Creek	3282	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2111	Hands Creek	3282	0.1	0.2	0.10	M	160.9	3.7	12	1.8	6	1.8	6	1177	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2112	Hands Creek	3282	0.2	0.3	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2113	Hands Creek	3282	0.3	0.3	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2114	Hands Creek	3282	0.3	0.4	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2115	Hands Creek	3282	0.4	0.5	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	60	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
2130	Hands Creek	3283	0.0	0.1	0.13	R	201.2	3.0	10	1.8	6	1.8	6	1349	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
2153	Hands Creek	3260	0.0	0.2	0.20	M	321.9	3.7	12	3.7	12	1.8	6	2943	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2154	Hands Creek	3260	0.2	0.3	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	80	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
2201	Hands Creek	3250	0.0	0.1	0.10	M	160.9	4.9	16	3.7	12	1.8	6	1668	90	100	4	90%	0%	0%	0%	2	6	N	0%	N	1	N
2202	Hands Creek	3250	0.1	0.2	0.08	M	120.7	4.9	16	3.0	10	1.8	6	1177	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2203	Hands Creek	3250	0.2	0.2	0.05	M	80.5	4.9	16	4.6	15	2.4	8	957	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub-Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1293	Hands Creek	3351	3.79	6.78	3.24	0.76	1.22	0.58	0.08	1.22	0.00	0.03	0.38	1.25	1.60	0.28	4.43	1.37	7.84		
1296	Hands Creek	3351	3.79	5.41	3.24	0.76	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1297	Hands Creek	3351	0.54	0.58	0.39	0.54	0.10	0.07	0.27	0.10	0.00	0.11	1.35	0.21	1.46	0.44	5.28	0.23	9.35		
1298	Hands Creek	3351	1.39	2.90	1.39	1.39	0.52	0.25	0.70	0.52	0.00	0.28	3.48	0.80	4.00	0.44	6.62	0.88	11.73		
1299	Hands Creek	3351	4.17	5.22	3.48	4.17	0.94	0.63	2.09	0.94	0.00	0.83	10.43	1.77	11.37	0.43	4.90	1.95	8.67		
1300	Hands Creek	3351	3.24	1.85	1.39	3.24	0.33	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1301	Hands Creek	3351	20.55	22.02	14.68	20.55	3.96	2.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1302	Hands Creek	3351-E	5.10	6.37	4.25	5.10	1.15	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1303	Hands Creek	3351-D	4.81	5.77	3.85	4.81	1.04	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1304	Hands Creek	3351-C	3.61	5.41	3.61	3.61	0.97	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1306	Hands Creek	3351-B	2.16	1.80	1.08	0.43	0.32	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1307	Hands Creek	3351-B	3.61	3.61	1.80	0.72	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1308	Hands Creek	3351-B	1.80	3.61	2.16	0.36	0.65	0.39	0.18	0.65	0.00	0.02	0.02	0.67	0.67	0.43	5.53	0.73	9.78		
1309	Hands Creek	3351-B	0.60	0.90	0.60	0.12	0.16	0.11	0.06	0.16	0.00	0.01	0.01	0.17	0.17	0.39	4.18	0.19	7.40		
1310	Hands Creek	3351-B	1.20	1.80	1.20	0.24	0.32	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1311	Hands Creek	3351-B	6.01	12.02	7.21	1.20	2.16	1.30	0.12	1.08	0.00	0.01	0.01	1.09	1.09	0.21	2.72	1.20	4.81		
1312	Hands Creek	3351-B	3.61	5.41	3.61	0.72	0.97	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1313	Hands Creek	3351-B	1.20	1.80	0.96	0.24	0.32	0.17	0.01	0.03	0.00	0.00	0.00	0.03	0.03	0.04	0.42	0.04	0.74		
1314	Hands Creek	3351-B	2.40	6.01	2.40	0.48	1.08	0.43	0.24	1.08	0.00	0.02	0.02	1.11	1.11	0.50	6.87	1.22	12.16		
1315	Hands Creek	3351-B	2.40	1.44	1.44	2.40	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1585	Hands Creek	180	11.13	27.81	13.91	11.13	5.01	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1607	Hands Creek	180-B	1.55	2.32	1.55	1.55	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1608	Hands Creek	180-A	3.09	1.24	1.24	3.09	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1609	Hands Creek	180-A-1	3.09	4.64	1.85	3.09	0.83	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1613	Hands Creek	182	1.39	0.93	0.70	1.39	0.17	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1614	Hands Creek	182	3.86	7.73	2.32	3.86	1.39	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1615	Hands Creek	181	7.42	7.42	3.71	7.42	1.34	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2093	Hands Creek	3200	8.41	6.01	3.61	8.41	1.08	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2095	Hands Creek	3200	2.16	2.70	1.80	2.16	0.49	0.32	1.08	0.49	0.00	0.43	5.41	0.92	5.89	0.68	7.62	1.01	13.48		
2096	Hands Creek	3200	6.49	9.27	4.64	6.49	1.67	0.83	0.32	0.17	0.00	0.13	1.62	0.30	1.79	0.09	1.23	0.33	2.18		
2097	Hands Creek	3200	11.90	12.75	6.80	11.90	2.29	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2098	Hands Creek	3200	30.29	12.98	8.65	30.29	2.34	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2104	Hands Creek	3280	5.41	5.79	3.09	5.41	1.04	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2105	Hands Creek	3280	5.56	5.56	2.78	5.56	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2106	Hands Creek	3280	9.27	11.59	6.18	9.27	2.09	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2107	Hands Creek	3280	13.91	17.38	11.59	13.91	3.13	2.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2108	Hands Creek	3280	8.50	17.00	8.50	8.50	3.06	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2109	Hands Creek	3280	10.82	8.65	6.49	10.82	1.56	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2110	Hands Creek	3282	3.71	3.71	1.85	3.71	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2111	Hands Creek	3282	3.71	1.85	1.85	3.71	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2112	Hands Creek	3282	2.78	2.78	1.85	2.78	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2113	Hands Creek	3282	1.85	1.24	0.93	1.85	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2114	Hands Creek	3282	3.71	3.71	1.85	3.71	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2115	Hands Creek	3282	2.78	2.78	1.85	2.78	0.50	0.33	1.39	0.50	0.00	0.14	0.14	0.64	0.64	0.54	5.30	0.70	9.38		
2130	Hands Creek	3283	3.86	2.32	2.32	3.86	0.42	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2153	Hands Creek	3260	7.42	7.42	3.71	7.42	1.34	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2154	Hands Creek	3260	4.33	4.64	2.47	4.33	0.83	0.45	2.16	0.83	0.00	0.22	0.22	1.05	1.05	0.58	6.58	1.16	11.56		
2201	Hands Creek	3250	4.94	3.71	1.85	4.94	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2202	Hands Creek	3250	3.71	2.32	1.39	3.71	0.42	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2203	Hands Creek	3250	2.47	2.32	1.24	2.47	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2204	Hands Creek	3250	0.2	0.4	0.18	M	281.6	4.9	16	3.7	12	2.4	8	3090	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2205	Hands Creek	3250	0.4	0.5	0.13	M	201.2	4.3	14	3.7	12	1.8	6	1962	70	100	4	90%	5%	10%	0%	2	6	N	10%	Y	1	N
2206	Hands Creek	3250	0.5	0.6	0.05	M	80.5	4.3	14	3.0	10	1.8	6	736	100	100	4	90%	5%	10%	0%	2	6	N	10%	Y	1	N
2207	Hands Creek	3250	0.6	0.6	0.05	M	80.5	4.3	14	3.7	12	1.8	6	785	60	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2208	Hands Creek	3250	0.6	0.7	0.10	M	160.9	4.3	14	6.1	20	3.0	10	2158	20	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
2209	Hands Creek	3250	0.7	0.9	0.18	M	281.6	3.7	12	6.1	20	3.0	10	3605	10	80	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
2210	Hands Creek	3250	0.9	0.9	0.03	M	40.2	3.7	12	3.7	12	2.4	8	392	80	100	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
2211	Hands Creek	3250	0.9	1.0	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2212	Hands Creek	3250	1.0	1.1	0.13	M	201.2	4.3	14	4.6	15	2.4	8	2269	60	100	4	90%	0%	0%	0%	2	6	N	0%	Y	2	N
2213	Hands Creek	3250	1.1	1.2	0.08	M	120.7	3.7	12	7.6	25	3.0	10	1729	50	90	4	90%	50%	100%	0%	2	6	N	100%	N	1	Y
2214	Hands Creek	3250	1.2	1.3	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2215	Hands Creek	3250	1.3	1.3	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2216	Hands Creek	3250	1.3	1.5	0.23	M	362.1	3.7	12	4.6	15	2.4	8	3863	80	100	4	90%	5%	10%	0%	2	6	N	10%	Y	1	N
2217	Hands Creek	3250	1.5	1.6	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	100	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2218	Hands Creek	3250	1.6	1.7	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	80	100	4	90%	0%	0%	0%	2	6	N	0%	Y	1	N
2219	Hands Creek	3250	1.7	2.1	0.40	R	643.7	3.7	12	5.5	18	3.7	12	8241	40	80	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2220	Hands Creek	3250	2.1	2.5	0.40	R	643.7	3.7	12	4.6	15	3.0	10	7260	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2221	Hands Creek	3250	2.5	2.6	0.10	R	160.9	3.7	12	2.4	8	1.8	6	1275	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
2222	Hands Creek	3250	2.6	2.7	0.10	M	160.9	3.0	10	4.6	15	3.0	10	1717	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2223	Hands Creek	3250	2.7	2.8	0.05	M	80.5	3.7	12	6.1	20	3.0	10	1030	50	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
2224	Hands Creek	3250	2.8	2.8	0.05	M	80.5	3.7	12	6.1	20	3.0	10	1030	40	100	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
2225	Hands Creek	3250	2.8	2.8	0.03	M	40.2	3.7	12	7.6	25	3.7	12	601	20	80	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2226	Hands Creek	3250	2.8	2.9	0.07	M	120.7	3.0	10	7.6	25	3.7	12	1729	60	90	4	90%	50%	100%	0%	4	6	N	100%	N	1	Y
2227	Hands Creek	3250	2.9	3.0	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2228	Hands Creek	3250	3.0	3.1	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2229	Hands Creek	3250	3.1	3.2	0.13	M	201.2	4.3	14	3.0	10	1.8	6	1840	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
2230	Hands Creek	3258	0.0	0.2	0.20	M	321.9	3.0	10	3.7	12	1.8	6	2747	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	5	N
2231	Hands Creek	3258-A	0.0	0.1	0.08	M	120.7	3.0	10	2.4	8	1.8	6	883	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2232	Hands Creek	3257	0.0	0.2	0.18	M	281.6	3.0	10	4.6	15	2.4	8	2833	80	90	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2233	Hands Creek	3257	0.2	0.2	0.05	M	80.5	3.0	10	4.6	15	2.4	8	809	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y	1	N
2234	Hands Creek	3257	0.2	0.3	0.08	M	120.7	3.0	10	4.6	15	2.4	8	1214	80	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
2235	Hands Creek	3256	0.0	0.2	0.23	M	362.1	3.0	10	4.6	15	2.4	8	3642	60	100	4	90%	0%	0%	0%	4	6	N	0%	N	2	N
2236	Hands Creek	3256-A	0.0	0.1	0.08	M	120.7	3.0	10	1.8	6	1.2	4	736	100	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
2237	Hands Creek	3255	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2238	Hands Creek	3251	0.0	0.1	0.13	M	201.2	3.0	10	3.0	10	1.8	6	1594	90	100	4	90%	0%	0%	0%	4	6	N	0%	N	1	N
2239	Hands Creek	3240	0.0	0.1	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	N
2240	Hands Creek	3240	0.1	0.2	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2241	Hands Creek	3240	0.2	0.3	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2242	Hands Creek	3240	0.3	0.6	0.30	M	482.8	3.0	10	5.5	18	2.4	8	5298	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
2243	Hands Creek	3240	0.6	0.7	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	100	100	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
2249	Hands Creek	3210	0.0	0.2	0.18	M	281.6	3.7	12	2.4	8	1.8	6	2232	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2250	Hands Creek	3210	0.2	0.3	0.13	M	201.2	3.7	12	3.0	10	1.8	6	1717	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2251	Hands Creek	3210	0.3	0.4	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2252	Hands Creek	3210	0.4	0.6	0.18	M	281.6	2.7	9	3.7	12	2.4	8	2489	90	100	2	70%	75%	75%	0%	4	6	N	100%	N	5	Y
2253	Hands Creek	3210-D	0.0	0.1	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2254	Hands Creek	3300	0.0	0.3	0.30	M	482.8	4.3	14	4.6	15	2.4	8	5445	60	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2255	Hands Creek	3300	0.3	0.4	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2256	Hands Creek	3300	0.4	0.5	0.10	M	160.9	4.3	14	3.7	12	1.2	4	1472	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2257	Hands Creek	3300	0.5	0.6	0.10	M	160.9	4.3	14	3.0	10	1.8	6	1472	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2258	Hands Creek	3300	0.6	0.7	0.13	M	201.2	4.3	14	6.1	20	3.0	10	2698	60	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2204	Hands Creek	3250	8.85	6.49	4.33	8.65	1.17	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2205	Hands Creek	3250	5.41	4.64	2.32	5.41	0.83	0.42	0.27	0.08	0.00	0.11	1.35	0.19	1.44	0.10	0.95	0.21	1.69		
2206	Hands Creek	3250	2.16	1.55	0.93	2.16	0.28	0.17	0.11	0.03	0.00	0.04	0.54	0.07	0.57	0.10	0.88	0.08	1.56		
2207	Hands Creek	3250	2.16	1.85	0.93	2.16	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2208	Hands Creek	3250	4.33	6.18	3.09	4.33	1.11	0.56	2.16	1.11	0.00	0.87	10.82	1.98	11.93	0.92	12.29	2.18	21.76		
2209	Hands Creek	3250	6.49	10.82	5.41	6.49	1.95	0.97	3.24	1.95	0.00	1.30	16.22	3.24	18.17	0.90	11.52	3.57	20.40		
2210	Hands Creek	3250	0.93	0.93	0.62	0.93	0.17	0.11	0.46	0.17	0.00	0.19	2.32	0.35	2.48	0.90	8.76	0.39	15.50		
2211	Hands Creek	3250	2.78	3.48	1.85	2.78	0.63	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2212	Hands Creek	3250	5.41	5.79	3.09	5.41	1.04	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2213	Hands Creek	3250	2.78	5.79	2.32	2.78	1.04	0.42	1.39	1.04	0.00	0.56	6.95	1.60	8.00	0.92	13.25	1.76	23.45		
2214	Hands Creek	3250	1.85	2.32	1.24	1.85	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2215	Hands Creek	3250	1.85	1.85	1.24	1.85	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2216	Hands Creek	3250	8.34	10.43	5.56	8.34	1.88	1.00	0.42	0.19	0.00	0.17	2.09	0.35	2.27	0.09	0.98	0.39	1.73		
2217	Hands Creek	3250	2.78	2.78	1.85	2.78	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2218	Hands Creek	3250	4.33	4.64	2.47	4.33	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2219	Hands Creek	3250	14.83	22.25	14.83	14.83	4.01	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2220	Hands Creek	3250	14.83	18.54	12.36	14.83	3.34	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2221	Hands Creek	3250	3.71	2.47	1.85	3.71	0.45	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2222	Hands Creek	3250	3.09	4.64	3.09	3.09	0.83	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2223	Hands Creek	3250	1.85	3.09	1.55	1.85	0.56	0.28	0.93	0.56	0.00	0.09	0.09	0.65	0.65	0.63	8.07	0.71	14.28		
2224	Hands Creek	3250	1.85	3.09	1.55	1.85	0.56	0.28	0.93	0.56	0.00	0.09	0.09	0.65	0.65	0.63	8.07	0.71	14.28		
2225	Hands Creek	3250	0.93	1.93	0.93	0.93	0.35	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2226	Hands Creek	3250	2.32	5.79	2.78	2.32	1.04	0.50	1.16	1.04	0.00	0.12	0.12	1.16	1.16	0.67	9.60	1.27	17.00		
2227	Hands Creek	3250	3.71	3.71	2.47	3.71	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2228	Hands Creek	3250	2.78	3.48	1.85	2.78	0.63	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2229	Hands Creek	3250	5.41	3.86	2.32	5.41	0.70	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2230	Hands Creek	3258	6.18	7.42	3.71	6.18	1.34	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2231	Hands Creek	3258-A	2.32	1.85	1.39	2.32	0.33	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2232	Hands Creek	3257	5.41	8.11	4.33	5.41	1.46	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2233	Hands Creek	3257	1.55	2.32	1.24	1.55	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2234	Hands Creek	3257	2.32	3.48	1.85	2.32	0.63	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2235	Hands Creek	3256	6.95	10.43	5.56	6.95	1.88	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2236	Hands Creek	3256-A	2.32	1.39	0.93	2.32	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2237	Hands Creek	3255	2.88	2.88	1.44	2.88	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2238	Hands Creek	3251	3.86	3.86	2.32	3.86	0.70	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2239	Hands Creek	3240	2.88	3.61	1.92	2.88	0.65	0.35	1.44	0.65	0.00	0.14	0.14	0.79	0.79	0.46	4.93	0.87	8.72		
2240	Hands Creek	3240	2.88	2.88	1.44	2.88	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2241	Hands Creek	3240	2.88	3.61	1.92	2.88	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2242	Hands Creek	3240	7.21	12.98	5.77	7.21	2.34	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2243	Hands Creek	3240	2.40	2.40	1.44	2.40	0.43	0.26	0.12	0.04	0.00	0.01	0.01	0.06	0.06	0.04	0.34	0.06	0.61		
2249	Hands Creek	3210	5.05	3.37	2.52	5.05	0.61	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2250	Hands Creek	3210	3.61	3.00	1.80	3.61	0.54	0.32	1.80	0.54	0.00	0.18	0.18	0.72	0.72	0.42	3.58	0.79	6.35		
2251	Hands Creek	3210	2.16	2.16	1.08	2.16	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2252	Hands Creek	3210	3.79	5.05	3.37	3.79	0.91	0.61	2.84	0.68	0.00	0.28	0.28	0.97	0.97	0.39	3.43	1.06	6.07		
2253	Hands Creek	3210-D	2.88	2.40	1.44	2.88	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2254	Hands Creek	3300	10.10	10.82	5.77	10.10	1.95	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2255	Hands Creek	3300	3.37	3.61	1.92	3.37	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2256	Hands Creek	3300	3.37	2.88	0.96	3.37	0.52	0.17	1.68	0.52	0.00	0.67	8.41	1.19	8.93	0.81	7.41	1.31	13.11		
2257	Hands Creek	3300	3.37	2.40	1.44	3.37	0.43	0.26	1.68	0.43	0.00	0.67	8.41	1.11	8.85	0.75	6.87	1.22	12.16		
2258	Hands Creek	3300	4.21	6.01	3.00	4.21	1.08	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac[illegible] B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2259	Hands Creek	3300	0.7	0.9	0.18	M	281.6	3.7	12	9.1	30	3.0	10	4464	80	100	4	70%	10%	100%	0%	2	6	N	100%	N		2 Y
2260	Hands Creek	3300	0.9	1.2	0.30	M	482.8	3.7	12	6.1	20	3.0	10	6181	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2261	Hands Creek	3300	1.2	1.4	0.20	M	321.9	3.7	12	6.1	20	3.0	10	4121	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2262	Hands Creek	3300	1.4	1.6	0.20	M	321.9	3.7	12	6.1	20	3.7	12	4317	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y		2 N
2263	Hands Creek	3300	1.6	1.7	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	4	70%	10%	100%	0%	2	6	N	100%	N		2 Y
2264	Hands Creek	3300	1.7	1.8	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	60	100	4	70%	0%	0%	0%	2	6	N	0%	Y		2 N
2265	Hands Creek	3300	1.8	1.9	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	60	100	4	70%	50%	100%	0%	2	6	N	100%	N		1 Y
2266	Hands Creek	3300	1.9	2.0	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	40	100	4	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2267	Hands Creek	3300	2.0	2.1	0.10	M	160.9	3.0	10	2.4	8	2.4	8	1275	80	80	4	70%	0%	0%	0%	2	6	N	0%	N		5 N
2268	Hands Creek	3300	2.1	2.8	0.68	R	1086.3	4.3	14	2.4	8	1.2	4	8609	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2269	Hands Creek	3300	2.8	3.3	0.48	R	764.4	3.7	12	7.6	25	4.6	15	12116	60	90	4	70%	0%	0%	0%	2	6	N	0%	N		1 N
2270	Hands Creek	3300	3.3	3.6	0.35	M	563.3	3.7	12	4.6	15	3.0	10	6352	80	90	4	70%	50%	100%	0%	2	6	N	100%	N		1 Y
2271	Hands Creek	3300	3.6	3.8	0.20	R	321.9	4.3	14	3.0	10	1.8	6	2943	80	100	4	90%	0%	0%	0%	2	6	N	0%	N		1 N
2272	Hands Creek	3300	3.8	3.9	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	90	4	90%	0%	0%	0%	4	6	N	0%	N		5 N
2273	Hands Creek	3300	3.9	4.0	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	100	100	4	90%	50%	100%	0%	4	6	N	100%	N		1 Y
2274	Hands Creek	3300	4.0	4.0	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	80	100	4	90%	0%	0%	0%	4	6	N	0%	N		1 N
2275	Hands Creek	3300	4.0	4.1	0.07	M	120.7	3.7	12	4.6	15	2.4	8	1288	80	100	4	90%	50%	100%	0%	4	6	N	100%	N		1 Y
2276	Hands Creek	3300	4.1	4.2	0.10	M	160.9	3.7	12	7.6	25	3.0	10	2306	40	90	4	90%	0%	0%	0%	4	6	N	0%	Y		5 N
2277	Hands Creek	3300	4.2	4.6	0.40	M	643.7	3.0	10	4.6	15	3.7	12	7260	80	90	4	90%	0%	0%	0%	4	6	N	0%	Y		1 N
2278	Hands Creek	3300	4.6	4.8	0.20	R	321.9	2.7	9	3.7	12	1.8	6	2649	80	100	2	90%	0%	0%	0%	4	6	N	0%	N		5 N
2279	Hands Creek	3338	0.0	0.2	0.18	M	281.6	3.0	10	3.7	12	2.4	8	2575	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y		1 N
2280	Hands Creek	3338	0.2	0.3	0.13	M	201.2	3.0	10	3.7	12	1.8	6	1717	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y		1 N
2281	Hands Creek	3337	0.0	0.1	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	60	100	4	90%	0%	0%	0%	4	6	N	0%	Y		1 N
2282	Hands Creek	3337	0.1	0.2	0.10	M	160.9	3.0	10	3.7	12	1.8	6	1374	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y		1 N
2283	Hands Creek	3336	0.0	0.1	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	80	100	4	90%	50%	100%	0%	4	6	N	100%	N		1 Y
2284	Hands Creek	3336	0.1	0.2	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y		1 N
2285	Hands Creek	3336	0.2	0.2	0.03	M	40.2	3.7	12	3.0	10	1.8	6	343	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y		1 N
2286	Hands Creek	3336	0.2	0.3	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	80	100	4	45%	5%	10%	0%	4	6	N	10%	Y		1 N
2287	Hands Creek	3336	0.3	0.3	0.03	M	40.2	3.7	12	3.7	12	1.8	6	368	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y		1 N
2288	Hands Creek	3336	0.3	0.5	0.15	M	241.4	3.0	10	3.0	10	1.8	6	1913	100	100	4	45%	0%	0%	0%	4	6	N	0%	N		1 N
2289	Hands Creek	3336-A	0.0	0.1	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y		1 N
2290	Hands Creek	3336-A	0.1	0.3	0.23	M	362.1	3.0	10	3.7	12	1.8	6	3090	90	100	4	90%	0%	0%	0%	4	6	N	0%	Y		2 N
2291	Hands Creek	3336-B	0.0	0.2	0.18	M	281.6	3.7	12	3.7	12	1.8	6	2575	90	100	4	45%	0%	0%	0%	4	6	N	0%	Y		1 N
2292	Hands Creek	3335	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	90	100	4	90%	0%	0%	0%	4	6	N	0%	N		1 N
2293	Hands Creek	3335	0.1	0.3	0.15	M	241.4	3.0	10	4.6	15	2.4	8	2428	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y		1 N
2294	Hands Creek	3335	0.3	0.3	0.08	M	120.7	3.0	10	3.7	12	2.4	8	1104	80	100	4	90%	0%	0%	0%	4	6	N	0%	Y		1 N
2295	Hands Creek	3335	0.3	0.4	0.03	M	40.2	3.0	10	4.6	15	2.4	8	405	40	60	4	90%	0%	0%	0%	4	6	N	0%	Y		1 N
2296	Hands Creek	3335	0.4	0.5	0.15	M	241.4	3.7	12	3.0	10	1.8	6	2060	100	100	4	90%	0%	0%	0%	4	6	N	0%	Y		1 N
2297	Hands Creek	3331	0.0	0.1	0.08	M	120.7	3.0	10	3.7	12	1.8	6	1030	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2298	Hands Creek	3331	0.1	0.1	0.03	M	40.2	3.0	10	3.7	12	1.8	6	343	80	100	4	70%	0%	0%	0%	4	6	N	0%	N		1 N
2299	Hands Creek	3330	0.0	0.3	0.30	M	482.8	3.7	12	3.7	12	1.8	6	4415	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2300	Hands Creek	3330	0.3	0.4	0.10	M	160.9	3.0	10	6.1	20	3.0	10	1962	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y		2 N
2301	Hands Creek	3330	0.4	0.5	0.13	M	201.2	3.0	10	4.6	15	3.0	10	2146	60	100	4	70%	50%	100%	0%	4	6	N	100%	Y		1 N
2302	Hands Creek	3330-A	0.0	0.4	0.38	M	603.5	3.7	12	3.7	12	2.4	8	5886	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2303	Hands Creek	3330-A	0.4	0.4	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	100	100	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
2304	Hands Creek	3330-A	0.4	0.6	0.18	M	281.6	3.7	12	2.4	8	1.2	4	2060	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2305	Hands Creek	3330-A	0.6	0.7	0.08	M	120.7	3.0	10	3.7	12	1.8	6	1030	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y		2 N
2306	Hands Creek	3330-A	0.7	0.7	0.05	M	80.5	2.7	9	4.6	15	2.4	8	785	80	100	4	70%	2%	10%	0%	4	6	N	10%	Y		2 N
2307	Hands Creek	3330-A	0.7	0.8	0.10	M	160.9	3.0	10	3.7	12	2.4	8	1472	80	100	4	70%	0%	0%	0%	4	6	N	0%	N		1 N
2308	Hands Creek	3320	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2259	Hands Creek	3300	5.05	12.62	4.21	5.05	2.27	0.76	0.50	2.27	0.00	0.20	2.52	2.47	4.80	0.55	8.78	2.72	15.55		
2260	Hands Creek	3300	8.65	14.42	7.21	8.65	2.60	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2261	Hands Creek	3300	5.77	9.61	4.81	5.77	1.73	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2262	Hands Creek	3300	5.77	9.61	5.77	5.77	1.73	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2263	Hands Creek	3300	2.88	3.61	1.92	2.88	0.65	0.35	0.29	0.65	0.00	0.12	1.44	0.76	2.09	0.45	4.75	0.84	8.41		
2264	Hands Creek	3300	2.88	3.61	1.92	2.88	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2265	Hands Creek	3300	2.16	2.16	1.44	2.16	0.39	0.26	1.08	0.39	0.00	0.43	5.41	0.82	5.80	0.70	6.81	0.90	12.06		
2266	Hands Creek	3300	3.61	4.51	2.40	3.61	0.81	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2267	Hands Creek	3300	2.40	1.92	1.92	2.40	0.35	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2268	Hands Creek	3300	22.71	12.98	6.49	22.71	2.34	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2269	Hands Creek	3300	13.70	28.54	17.13	13.70	5.14	3.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2270	Hands Creek	3300	10.10	12.62	8.41	10.10	2.27	1.51	5.05	2.27	0.00	2.02	25.24	4.29	27.51	0.68	7.62	4.72	13.48		
2271	Hands Creek	3300	8.65	6.18	3.71	8.65	1.11	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2272	Hands Creek	3300	3.71	4.64	2.47	3.71	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2273	Hands Creek	3300	2.78	2.78	1.39	2.78	0.50	0.25	1.39	0.50	0.00	0.14	0.14	0.64	0.64	0.58	5.30	0.70	9.38		
2274	Hands Creek	3300	1.85	2.32	1.24	1.85	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2275	Hands Creek	3300	2.78	3.48	1.85	2.78	0.63	0.33	1.39	0.63	0.00	0.14	0.14	0.76	0.76	0.59	6.34	0.84	11.22		
2276	Hands Creek	3300	3.71	7.73	3.09	3.71	1.39	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2277	Hands Creek	3300	12.36	18.54	14.83	12.36	3.34	2.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2278	Hands Creek	3300	5.56	7.42	3.71	5.56	1.34	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2279	Hands Creek	3338	5.41	6.49	4.33	5.41	1.17	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2280	Hands Creek	3338	3.86	4.64	2.32	3.86	0.83	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2281	Hands Creek	3337	4.64	5.79	3.09	4.64	1.04	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2282	Hands Creek	3337	3.09	3.71	1.85	3.09	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2283	Hands Creek	3336	2.78	2.78	1.85	2.78	0.50	0.33	1.39	0.50	0.00	0.14	0.14	0.64	0.64	0.54	5.30	0.70	9.38		
2284	Hands Creek	3336	3.71	4.64	2.47	3.71	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2285	Hands Creek	3336	0.46	0.39	0.23	0.46	0.07	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2286	Hands Creek	3336	1.39	1.74	0.93	1.39	0.31	0.17	0.07	0.03	0.00	0.01	0.01	0.04	0.04	0.03	0.32	0.04	0.56		
2287	Hands Creek	3336	0.46	0.46	0.23	0.46	0.08	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2288	Hands Creek	3336	2.32	2.32	1.39	2.32	0.42	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2289	Hands Creek	3336-A	1.55	1.24	0.93	1.55	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2290	Hands Creek	3336-A	6.95	8.34	4.17	6.95	1.50	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2291	Hands Creek	3336-B	3.24	3.24	1.62	3.24	0.58	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2292	Hands Creek	3335	3.71	3.71	2.47	3.71	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2293	Hands Creek	3335	4.64	6.95	3.71	4.64	1.25	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2294	Hands Creek	3335	2.32	2.78	1.85	2.32	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2295	Hands Creek	3335	0.77	1.16	0.62	0.77	0.21	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2296	Hands Creek	3335	5.56	4.64	2.78	5.56	0.83	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2297	Hands Creek	3331	1.80	2.16	1.08	1.80	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2298	Hands Creek	3331	0.60	0.72	0.36	0.60	0.13	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2299	Hands Creek	3330	8.65	8.65	4.33	6.65	1.56	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2300	Hands Creek	3330	2.40	4.81	2.40	2.40	0.87	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2301	Hands Creek	3330	3.00	4.51	3.00	3.00	0.61	0.54	1.50	0.81	0.00	0.15	0.15	0.96	0.96	0.45	4.78	1.06	8.46		
2302	Hands Creek	3330-A	10.82	10.82	7.21	10.82	1.95	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2303	Hands Creek	3330-A	0.72	0.90	0.48	0.72	0.16	0.09	0.36	0.16	0.00	0.04	0.04	0.20	0.20	0.46	4.93	0.22	8.72		
2304	Hands Creek	3330-A	5.05	3.37	1.68	5.05	0.61	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2305	Hands Creek	3330-A	1.80	2.16	1.08	1.80	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2306	Hands Creek	3330-A	1.08	1.80	0.96	1.08	0.32	0.17	0.02	0.03	0.00	0.00	0.00	0.03	0.03	0.04	0.43	0.04	0.76		
2307	Hands Creek	3330-A	2.40	2.88	1.92	2.40	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2308	Hands Creek	3320	2.88	2.88	1.92	2.88	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attach L B5. Road fine sediment yield - inventory.

Segment Number	Sub-Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2309	Hands Creek	3320	0.1	0.3	0.20	R	321.9	3.7	12	1.2	4	1.2	4	1962	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2310	Hands Creek	3320	0.3	0.6	0.30	R	482.8	3.0	10	4.6	15	2.4	8	4656	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
2311	Hands Creek	3328	0.0	0.1	0.10	R	160.9	3.0	10	2.4	8	1.8	6	1177	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2312	Hands Creek	3327	0.0	0.1	0.05	M	80.5	3.0	10	2.4	8	1.8	6	589	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2313	Hands Creek	3327	0.1	0.3	0.23	M	362.1	3.0	10	4.6	15	2.4	8	3642	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2314	Hands Creek	3327	0.3	0.3	0.05	M	80.5	3.0	10	7.6	25	2.4	8	1055	80	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2315	Hands Creek	3327	0.3	0.5	0.15	M	241.4	3.0	10	3.7	12	1.8	6	2060	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2316	Hands Creek	3327	0.5	0.6	0.13	M	201.2	3.0	10	3.7	12	1.8	6	1717	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2317	Hands Creek	3310	0.0	0.2	0.20	M	321.9	3.7	12	4.6	15	2.4	8	3434	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2318	Hands Creek	3310	0.2	0.3	0.08	M	120.7	3.7	12	9.1	30	4.6	15	2097	60	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2319	Hands Creek	3310	0.3	0.5	0.20	M	321.9	3.7	12	9.1	30	4.6	15	5592	80	90	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2320	Hands Creek	3310	0.5	0.6	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	60	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2321	Hands Creek	3310	0.6	0.6	0.08	M	120.7	3.0	10	4.6	15	3.0	10	1288	80	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2322	Hands Creek	3310	0.6	0.7	0.10	M	160.9	3.7	12	6.1	20	3.7	12	2158	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2323	Hands Creek	3310	0.7	0.8	0.08	M	120.7	3.0	10	6.1	20	3.0	10	1472	80	100	4	70%	20%	100%	0%	4	6	N	100%	N	2	Y
2324	Hands Creek	3310	0.8	0.9	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	60	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2325	Hands Creek	3310	0.9	0.9	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2326	Hands Creek	3310	0.9	1.0	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2327	Hands Creek	3310	1.0	1.2	0.20	M	321.9	3.7	12	6.1	20	3.7	12	4317	40	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2328	Hands Creek	3310	1.2	1.3	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2329	Hands Creek	3310	1.3	1.4	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2330	Hands Creek	3310-B	0.0	0.2	0.23	M	362.1	3.7	12	3.7	12	2.4	8	3532	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2331	Hands Creek	3310-B	0.2	0.4	0.15	M	241.4	3.0	10	7.6	25	3.7	12	3458	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2332	Hands Creek	3310-B	0.4	0.4	0.05	M	80.5	3.7	12	3.0	10	1.8	6	687	100	100	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
2333	Hands Creek	3310-A	0.0	0.2	0.18	M	281.6	3.0	10	3.7	12	1.8	6	2404	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2334	Hands Creek	3309	0.0	0.1	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2335	Hands Creek	3309	0.1	0.2	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2336	Hands Creek	3308	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	20	60	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2337	Hands Creek	3308	0.1	0.4	0.28	M	442.6	3.7	12	3.7	12	1.8	6	4047	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2338	Hands Creek	3308	0.4	0.6	0.25	R	402.3	3.7	12	2.4	8	1.2	4	2943	40	40	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2339	Hands Creek	3308-A	0.0	0.1	0.08	R	120.7	3.0	10	2.4	8	1.8	6	883	20	80	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2340	Hands Creek	600	0.0	0.2	0.20	S	321.9	3.7	12	4.6	15	2.4	8	3434	100	100	4	70%	60%	100%	10%	2	6	N	100%	Y	1	N
2341	Hands Creek	600	0.2	0.7	0.45	S	724.2	3.7	12	3.7	12	2.4	8	7064	100	100	4	70%	20%	10%	10%	2	6	N	10%	Y	1	N
2342	Hands Creek	600	0.7	0.8	0.18	S	281.6	3.7	12	4.6	15	2.4	8	3005	100	100	4	70%	60%	100%	10%	2	6	N	100%	Y	1	N
2343	Hands Creek	600	0.8	1.0	0.18	S	281.6	3.7	12	6.1	20	3.0	10	3605	100	100	4	70%	20%	100%	10%	2	6	N	100%	N	2	Y
2344	Hands Creek	600	1.0	1.2	0.20	S	321.9	3.7	12	7.6	25	3.0	10	4611	100	100	4	70%	20%	100%	10%	2	6	N	100%	Y	2	N
2345	Hands Creek	600	1.2	1.3	0.10	S	160.9	3.7	12	6.1	20	2.4	8	1962	100	100	4	70%	20%	100%	10%	2	6	N	100%	N	2	Y
2346	Hands Creek	600	1.3	1.4	0.13	S	201.2	3.7	12	4.6	15	2.4	8	2146	100	100	4	70%	20%	100%	10%	2	6	N	100%	N	2	Y
2347	Hands Creek	600	1.4	1.5	0.05	S	80.5	3.7	12	4.6	15	2.4	8	858	100	100	4	70%	60%	100%	10%	2	6	N	100%	N	1	Y
2348	Hands Creek	600	1.5	1.6	0.10	S	160.9	3.7	12	3.7	12	3.0	10	1668	100	100	4	70%	100%	100%	100%	2	6	N	100%	N	5	Y
2349	Hands Creek	600	1.6	1.7	0.13	M	201.2	3.7	12	9.1	30	4.6	15	3495	100	100	4	70%	10%	50%	0%	2	6	N	100%	N	2	Y
2350	Hands Creek	600	1.7	2.0	0.30	M	482.8	3.7	12	7.6	25	3.7	12	7211	100	100	4	70%	0%	100%	0%	2	6	N	100%	N	2	Y
2351	Hands Creek	600	2.0	2.6	0.55	M	885.1	3.7	12	4.6	15	2.4	8	9443	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2352	Hands Creek	600	2.6	2.8	0.28	M	442.6	3.7	12	4.6	15	3.0	10	4991	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	2	N
2353	Hands Creek	620	0.0	0.3	0.28	M	442.6	3.0	10	3.0	10	1.8	6	3507	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
2354	Hands Creek	615	0.0	0.1	0.05	M	80.5	3.0	10	3.0	10	1.8	6	638	100	100	6	70%	0%	0%	0%	4	6	N	0%	N	1	N
2355	Hands Creek	615	0.1	0.2	0.13	M	201.2	3.0	10	3.0	10	1.8	6	1584	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2356	Hands Creek	615	0.2	0.3	0.08	M	120.7	3.0	10	3.7	12	1.8	6	1030	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2357	Hands Creek	615	0.3	0.4	0.10	M	160.9	3.0	10	3.7	12	1.8	6	1374	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2358	Hands Creek	615	0.4	0.5	0.15	M	241.4	3.0	10	4.6	15	2.4	8	2428	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2309	Hands Creek	3320	5.77	1.92	1.92	5.77	0.35	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2310	Hands Creek	3320	7.21	10.82	5.77	7.21	1.95	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2311	Hands Creek	3328	2.40	1.92	1.44	2.40	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2312	Hands Creek	3327	1.20	0.96	0.72	1.20	0.17	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2313	Hands Creek	3327	5.41	8.11	4.33	5.41	1.46	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2314	Hands Creek	3327	1.20	3.00	0.96	1.20	0.54	0.17	0.60	0.54	0.00	0.06	0.06	0.60	0.60	0.57	7.47	0.66	13.22		
2315	Hands Creek	3327	3.61	4.33	2.16	3.61	0.78	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2316	Hands Creek	3327	3.00	3.61	1.80	3.00	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2317	Hands Creek	3310	5.77	7.21	3.85	5.77	1.30	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2318	Hands Creek	3310	2.16	5.41	2.70	2.16	0.97	0.49	1.08	0.97	0.00	0.11	0.11	1.08	1.08	0.52	8.96	1.19	15.86		
2319	Hands Creek	3310	5.77	14.42	7.21	5.77	2.60	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2320	Hands Creek	3310	2.16	2.70	1.44	2.16	0.49	0.26	1.08	0.49	0.00	0.11	0.11	0.59	0.59	0.46	4.93	0.65	8.72		
2321	Hands Creek	3310	1.80	2.70	1.80	1.80	0.49	0.32	0.90	0.49	0.00	0.09	0.09	0.58	0.58	0.45	4.78	0.63	8.46		
2322	Hands Creek	3310	2.88	4.81	2.88	2.88	0.87	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2323	Hands Creek	3310	1.80	3.61	1.80	1.80	0.65	0.32	0.36	0.65	0.00	0.04	0.04	0.69	0.69	0.47	5.68	0.75	10.05		
2324	Hands Creek	3310	2.16	2.70	1.80	2.16	0.49	0.32	1.08	0.49	0.00	0.11	0.11	0.59	0.59	0.44	4.93	0.65	8.72		
2325	Hands Creek	3310	1.44	0.96	0.72	1.44	0.17	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2326	Hands Creek	3310	2.16	2.16	1.08	2.16	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2327	Hands Creek	3310	5.77	9.61	5.77	5.77	1.73	1.04	2.88	1.73	0.00	0.29	0.29	2.02	2.02	0.47	6.27	2.22	11.10		
2328	Hands Creek	3310	2.88	2.88	1.44	2.88	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2329	Hands Creek	3310	2.88	2.88	1.44	2.88	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2330	Hands Creek	3310-B	6.49	6.49	4.33	6.49	1.17	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2331	Hands Creek	3310-B	3.61	9.01	4.33	3.61	1.62	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2332	Hands Creek	3310-B	1.44	1.20	0.72	1.44	0.22	0.13	0.07	0.02	0.00	0.01	0.01	0.03	0.03	0.04	0.36	0.03	0.63		
2333	Hands Creek	3310-A	4.21	5.05	2.52	4.21	0.91	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2334	Hands Creek	3309	2.16	2.16	1.08	2.16	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2335	Hands Creek	3309	3.61	3.61	1.80	3.61	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2336	Hands Creek	3308	2.88	2.88	1.92	2.88	0.52	0.35	1.44	0.52	0.00	0.14	0.14	0.66	0.66	0.42	4.12	0.73	7.30		
2337	Hands Creek	3308	7.93	7.93	3.97	7.93	1.43	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2338	Hands Creek	3308	7.21	4.81	2.40	7.21	0.87	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2339	Hands Creek	3308-A	1.80	1.44	1.08	1.80	0.26	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2340	Hands Creek	600	5.77	7.21	3.85	5.77	1.30	0.69	3.46	1.30	0.07	1.38	17.31	2.75	18.67	0.80	8.55	3.03	15.13		
2341	Hands Creek	600	12.98	12.98	8.65	12.98	2.34	1.56	2.60	0.23	0.16	1.04	12.98	1.43	13.37	0.20	1.97	1.57	3.49		
2342	Hands Creek	600	5.05	6.31	3.37	5.05	1.14	0.61	3.03	1.14	0.06	1.21	15.14	2.41	16.34	0.80	8.55	2.65	15.13		
2343	Hands Creek	600	5.05	8.41	4.21	5.05	1.51	0.76	1.01	1.51	0.08	0.40	5.05	1.99	6.64	0.55	7.08	2.19	12.53		
2344	Hands Creek	600	5.77	12.02	4.61	5.77	2.16	0.87	1.15	2.16	0.09	0.46	5.77	2.71	8.02	0.59	8.42	2.98	14.91		
2345	Hands Creek	600	2.88	4.81	1.92	2.88	0.87	0.35	0.58	0.87	0.03	0.23	2.88	1.13	3.78	0.58	7.03	1.24	12.44		
2346	Hands Creek	600	3.61	4.51	2.40	3.61	0.81	0.43	0.72	0.81	0.04	0.29	3.61	1.14	4.46	0.53	5.68	1.26	10.06		
2347	Hands Creek	600	1.44	1.80	0.96	1.44	0.32	0.17	0.87	0.32	0.02	0.35	4.33	0.69	4.67	0.80	8.55	0.76	15.13		
2348	Hands Creek	600	2.88	2.88	2.40	2.88	0.52	0.43	2.88	0.52	0.43	1.15	14.42	2.41	15.37	1.26	13.08	2.32	23.16		
2349	Hands Creek	600	3.61	9.01	4.51	3.61	1.62	0.81	0.36	0.81	0.00	0.14	1.80	0.96	2.61	0.27	4.75	1.05	8.41		
2350	Hands Creek	600	8.65	18.03	8.65	8.65	3.24	1.56	0.00	3.24	0.00	0.00	0.00	3.24	3.24	0.45	6.72	3.57	11.90		
2351	Hands Creek	600	15.86	19.83	10.58	15.86	3.57	1.90	7.93	3.57	0.00	3.17	39.66	6.74	43.23	0.71	7.62	7.42	13.48		
2352	Hands Creek	600	7.93	9.92	6.61	7.93	1.78	1.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2353	Hands Creek	620	6.61	6.61	3.97	6.61	1.19	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2354	Hands Creek	615	1.20	1.20	0.72	0.90	0.22	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2355	Hands Creek	615	3.00	3.00	1.80	3.00	0.54	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2356	Hands Creek	615	1.80	2.16	1.08	1.80	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2357	Hands Creek	615	2.40	2.88	1.44	2.40	0.52	0.26	1.20	0.52	0.00	0.12	0.12	0.64	0.64	0.47	3.97	0.70	7.03		
2358	Hands Creek	615	3.61	5.41	2.88	3.61	0.97	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac[illegible]5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Regent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2359	Hands Creek	615	0.5	0.6	0.13	M	201.2	2.7	9	4.6	15	2.4	8	1962	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	5	N
2360	Hands Creek	610	0.0	0.1	0.08	S	120.7	3.7	12	4.6	15	1.8	6	1214	100	100	4	70%	100%	100%	100%	4	6	N	100%	N	1	Y
2361	Hands Creek	610	0.1	0.2	0.13	M	201.2	3.7	12	2.4	8	1.2	4	1472	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2362	Hands Creek	610	0.2	0.3	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2363	Hands Creek	610	0.3	0.4	0.15	M	241.4	3.0	10	3.7	12	1.8	6	2060	100	100	4	70%	75%	100%	0%	4	6	N	100%	N	5	Y
2364	Hands Creek	610	0.4	0.5	0.05	M	80.5	3.0	10	3.7	12	1.8	6	687	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2365	Hands Creek	610	0.5	0.5	0.05	M	80.5	3.0	10	4.6	15	2.4	8	809	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2366	Hands Creek	610	0.5	0.6	0.08	M	120.7	3.0	10	3.7	12	1.8	6	1030	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2367	Hands Creek	610	0.6	0.6	0.05	M	80.5	3.0	10	3.7	12	1.8	6	687	100	100	4	70%	100%	100%	0%	4	6	N	100%	N	5	Y
2368	Hands Creek	610	0.6	0.7	0.08	M	120.7	2.7	9	4.6	15	2.4	8	1177	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	5	N
2369	Hands Creek	3340	0.0	0.1	0.10	M	160.9	4.3	14	3.7	12	1.8	6	1570	100	100	5	70%	0%	0%	0%	4	6	N	0%	N	1	N
2370	Hands Creek	3340	0.1	0.3	0.15	M	241.4	4.3	14	1.8	8	1.2	4	1766	100	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2371	Hands Creek	3340	0.3	0.6	0.35	M	563.3	4.3	14	3.7	12	2.4	8	5837	60	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2372	Hands Creek	3340	0.6	1.0	0.40	M	643.7	3.7	12	4.6	15	3.0	10	7260	60	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2373	Hands Creek	3340	1.0	1.3	0.25	M	402.3	3.7	12	4.6	15	3.0	10	4537	60	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2374	Hands Creek	3340	1.3	1.3	0.05	M	80.5	4.3	14	3.7	12	1.8	6	785	80	100	5	70%	5%	10%	0%	4	6	N	10%	Y	1	N
2375	Hands Creek	3340	1.3	1.5	0.23	M	362.1	3.7	12	3.0	10	1.8	6	3090	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2376	Hands Creek	3340	1.5	1.8	0.28	R	442.6	3.7	12	1.8	6	1.8	6	3238	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2921	Hands Creek	600	2.8	3.0	0.18	M	281.6	3.7	12	4.6	15	3.0	10	3176	80	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
2922	Hands Creek	600	3.0	3.3	0.25	M	402.3	3.7	12	4.6	15	3.0	10	4537	80	100	4	45%	0%	0%	0%	2	6	N	0%	Y	3	N
2923	Hands Creek	600	3.3	3.3	0.05	M	80.5	3.7	12	7.6	25	4.6	15	1275	60	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2924	Hands Creek	600	3.3	3.4	0.13	M	201.2	3.7	12	3.7	12	2.4	8	1962	100	100	4	45%	80%	100%	0%	2	6	N	100%	N	3	Y
2925	Hands Creek	600	3.4	3.7	0.25	M	402.3	3.7	12	3.7	12	1.8	6	3679	90	100	4	45%	5%	10%	0%	2	6	N	10%	Y	1	N
2926	Hands Creek	600	3.7	4.0	0.35	M	563.3	3.7	12	3.7	12	1.8	6	5151	90	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2927	Hands Creek	600	4.0	4.1	0.07	M	120.7	3.7	12	3.7	12	1.8	6	1104	40	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2928	Hands Creek	600	4.1	4.1	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	100	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2929	Hands Creek	600	4.1	4.3	0.18	M	281.6	3.7	12	4.6	15	1.8	6	2833	40	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2930	Hands Creek	600	4.3	4.7	0.38	M	603.5	3.7	12	4.6	15	3.0	10	6806	90	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2931	Hands Creek	600	4.7	4.9	0.23	M	362.1	3.7	12	3.7	12	2.4	8	3532	100	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2944	Hands Creek	670	0.0	0.2	0.20	M	321.9	3.0	10	1.8	6	1.2	4	1962	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	4	N
2945	Hands Creek	670	0.2	0.3	0.10	M	160.9	3.0	10	3.7	12	2.4	8	1472	60	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2946	Hands Creek	671	0.0	0.2	0.15	M	241.4	3.0	10	3.7	12	2.4	8	2207	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	2	N
1295b	Hands Creek	3351	0.9	1.2	0.24	S	378.2	6.4	21	1.8	6	1.8	6	3864	70	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2431b	Hands Creek	3365-G	0.4	0.5	0.13	S	209.2	6.4	21	1.8	6	1.8	6	2104	10	10	5	70%	0%	0%	0%	4	6	Y	0%	Y	1	N
117	King Creek	MAINLINE	10.5	10.5	0.03	M	40.2	6.1	20	1.8	6	1.8	6	392	100	100	5	70%	50%	100%	50%	1	6	N	100%	N	1	Y
118	King Creek	MAINLINE	10.5	10.6	0.10	M	160.9	6.1	20	1.2	4	1.8	6	1472	100	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
119	King Creek	MAINLINE	10.6	10.7	0.07	S	120.7	6.1	20	3.7	12	3.0	10	1545	100	100	5	70%	75%	100%	50%	1	6	N	100%	Y	1	Y
120	King Creek	MAINLINE	10.7	10.7	0.03	S	40.2	6.1	20	3.7	12	1.8	6	466	100	100	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
121	King Creek	MAINLINE	10.7	10.8	0.08	S	120.7	6.1	20	4.6	15	3.7	12	1729	75	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
122	King Creek	MAINLINE	10.8	10.9	0.07	S	120.7	6.1	20	6.1	20	3.7	12	1913	90	100	5	70%	75%	100%	50%	1	6	N	100%	N	1	Y
123	King Creek	MAINLINE	10.9	11.0	0.13	M	201.2	6.1	20	3.7	12	2.4	8	2453	100	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
124	King Creek	MAINLINE	11.0	11.2	0.23	M	362.1	6.1	20	2.4	8	1.8	6	3753	100	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
125	King Creek	MAINLINE	11.2	11.6	0.33	S	523.0	6.1	20	1.8	6	1.8	6	5102	100	100	5	70%	25%	25%	25%	1	6	N	100%	Y	1	N
126	King Creek	MAINLINE	11.6	11.6	0.05	M	80.5	6.1	20	1.8	6	2.4	8	834	100	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
127	King Creek	MAINLINE	11.6	11.8	0.15	M	241.4	6.1	20	1.2	4	1.8	6	2207	100	100	5	70%	25%	50%	0%	1	6	N	50%	Y	1	N
128	King Creek	MAINLINE	11.8	11.8	0.05	S	80.5	6.1	20	3.7	12	4.6	15	1153	100	100	5	70%	63%	100%	25%	1	6	N	100%	N	1	Y
129	King Creek	MAINLINE	11.8	12.1	0.30	S	482.8	5.5	18	7.6	25	6.1	20	9271	80	100	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
130	King Creek	MAINLINE	12.1	12.1	0.03	M	40.2	6.1	20	2.4	8	1.8	6	417	100	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
131	King Creek	MAINLINE	12.1	12.3	0.20	M	321.9	6.1	20	4.6	15	6.1	20	5396	100	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
132	King Creek	MAINLINE	12.3	12.4	0.08	M	120.7	5.5	18	4.6	15	4.6	15	1766	100	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from FillslopeDeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2359	Hands Creek	615	2.70	4.61	2.40	2.70	0.81	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2360	Hands Creek	610	2.16	2.70	1.08	2.16	0.49	0.19	2.16	0.49	0.19	0.22	0.22	0.90	0.90	0.74	7.44	0.99	13.17		
2361	Hands Creek	610	3.61	2.40	1.20	3.61	0.43	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2362	Hands Creek	610	1.44	0.96	0.72	1.44	0.17	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2363	Hands Creek	610	3.61	4.33	2.16	3.61	0.78	0.39	2.70	0.78	0.00	0.27	0.27	1.05	1.05	0.51	4.35	1.15	7.69		
2364	Hands Creek	610	1.20	1.44	0.72	1.20	0.26	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2365	Hands Creek	610	1.20	1.80	0.96	1.20	0.32	0.17	0.60	0.32	0.00	0.06	0.06	0.38	0.38	0.48	4.78	0.42	8.46		
2366	Hands Creek	610	1.80	2.16	1.08	1.80	0.39	0.19	0.90	0.39	0.00	0.09	0.09	0.48	0.48	0.47	3.97	0.53	7.03		
2367	Hands Creek	610	1.20	1.44	0.72	1.20	0.26	0.13	1.20	0.26	0.00	0.12	0.12	0.38	0.38	0.55	4.72	0.42	8.35		
2368	Hands Creek	610	1.62	2.70	1.44	1.62	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2369	Hands Creek	3340	3.37	2.88	1.44	0.67	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2370	Hands Creek	3340	5.05	2.16	1.44	1.01	0.39	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2371	Hands Creek	3340	11.78	10.10	6.73	2.36	1.82	1.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2372	Hands Creek	3340	11.54	14.42	9.61	2.31	2.60	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2373	Hands Creek	3340	7.21	9.01	6.01	1.44	1.62	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2374	Hands Creek	3340	1.68	1.44	0.72	0.34	0.26	0.13	0.02	0.03	0.00	0.00	0.00	0.03	0.03	0.04	0.34	0.03	0.61		
2375	Hands Creek	3340	6.49	5.41	3.24	6.49	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2376	Hands Creek	3340	7.93	3.97	3.97	7.93	0.71	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2921	Hands Creek	600	3.24	4.06	2.70	3.24	0.73	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2922	Hands Creek	600	4.64	5.79	3.86	4.64	1.04	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2923	Hands Creek	600	0.93	1.93	1.16	0.93	0.35	0.21	0.46	0.35	0.00	0.19	2.32	0.53	2.67	0.42	6.62	0.59	11.73		
2924	Hands Creek	600	2.32	2.32	1.55	2.32	0.42	0.28	1.85	0.42	0.00	0.74	9.27	1.16	9.69	0.59	5.76	1.27	10.20		
2925	Hands Creek	600	4.64	4.64	2.32	4.64	0.83	0.42	0.23	0.08	0.00	0.09	1.16	0.18	1.24	0.05	0.44	0.19	0.78		
2926	Hands Creek	600	6.49	6.49	3.24	6.49	1.17	0.58	3.24	1.17	0.00	1.30	16.22	2.47	17.39	0.48	4.38	2.71	7.75		
2927	Hands Creek	600	1.39	1.39	0.70	1.39	0.25	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2928	Hands Creek	600	0.46	0.58	0.31	0.46	0.10	0.06	0.23	0.10	0.00	0.09	1.16	0.20	1.26	0.46	4.90	0.22	8.67		
2929	Hands Creek	600	3.24	4.06	1.62	3.24	0.73	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2930	Hands Creek	600	6.95	8.69	5.79	6.95	1.56	1.04	3.48	1.56	0.00	1.39	17.38	2.96	18.95	0.43	4.90	3.25	8.67		
2931	Hands Creek	600	4.17	4.17	2.78	4.17	0.75	0.50	2.09	0.75	0.00	0.83	10.43	1.59	11.18	0.45	4.38	1.74	7.75		
2944	Hands Creek	670	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2945	Hands Creek	670	1.55	1.85	1.24	1.55	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2946	Hands Creek	671	2.32	2.78	1.85	2.32	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1295b	Hands Creek	3351	7.63	2.18	2.18	1.53	0.39	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2431b	Hands Creek	3365-G	6.56	1.87	1.87	1.31	0.34	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
117	King Creek	MAINLINE	1.20	0.36	0.36	0.24	0.06	0.06	0.12	0.06	0.03	0.05	0.60	0.15	0.70	0.37	3.61	0.16	6.40	145	497
118	King Creek	MAINLINE	4.81	0.96	1.44	0.96	0.17	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
119	King Creek	MAINLINE	3.61	2.16	1.80	0.72	0.39	0.32	0.54	0.39	0.16	0.22	2.70	0.77	3.26	0.50	6.36	0.84	11.26		
120	King Creek	MAINLINE	1.20	0.72	0.36	0.24	0.13	0.06	0.24	0.13	0.06	0.10	1.20	0.29	1.40	0.62	7.23	0.32	12.80		
121	King Creek	MAINLINE	3.61	2.70	2.16	0.72	0.49	0.39	0.72	0.49	0.39	0.29	3.61	1.16	4.48	0.67	9.65	1.28	17.08		
122	King Creek	MAINLINE	3.61	3.61	2.16	0.72	0.65	0.39	0.54	0.65	0.19	0.22	2.70	1.06	3.55	0.55	8.78	1.17	15.55		
123	King Creek	MAINLINE	6.01	3.61	2.40	1.20	0.65	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
124	King Creek	MAINLINE	10.82	4.33	3.24	2.16	0.78	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
125	King Creek	MAINLINE	15.62	4.69	4.69	3.12	0.84	0.84	0.78	0.21	0.21	0.31	3.91	0.73	4.33	0.14	1.40	0.81	2.49		
126	King Creek	MAINLINE	2.40	0.72	0.96	0.48	0.13	0.17	0.24	0.13	0.00	0.10	1.20	0.23	1.33	0.27	2.81	0.25	4.97		
127	King Creek	MAINLINE	7.21	1.44	2.16	1.44	0.26	0.39	0.38	0.13	0.00	0.14	1.80	0.27	1.93	0.12	1.14	0.30	2.01		
128	King Creek	MAINLINE	2.40	1.44	1.80	0.48	0.26	0.32	0.30	0.26	0.08	0.12	1.51	0.46	1.86	0.40	5.74	0.51	10.16		
129	King Creek	MAINLINE	12.98	18.03	14.42	2.60	3.24	2.60	2.60	3.24	2.60	1.04	12.98	6.88	18.82	0.74	14.25	7.57	25.22		
130	King Creek	MAINLINE	1.20	0.48	0.36	0.24	0.09	0.06	0.12	0.09	0.00	0.05	0.60	0.13	0.69	0.32	3.35	0.15	5.92		
131	King Creek	MAINLINE	9.61	7.21	9.61	1.92	1.30	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
132	King Creek	MAINLINE	3.24	2.70	2.70	0.65	0.49	0.49	0.32	0.49	0.00	0.13	1.62	0.62	2.41	0.35	5.11	0.68	9.04		

Attac. 25. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
133	King Creek	MAINLINE	12.4	12.5	0.07	S	120.7	5.5	18	3.7	12	4.6	15	1656	100	100	5	70%	75%	100%	50%	1	6	N	100%	Y	1	N
134	King Creek	MAINLINE	12.5	12.6	0.08	S	120.7	5.5	18	3.7	12	3.7	12	1545	100	100	5	70%	75%	100%	50%	1	6	N	100%	Y	1	Y
135	King Creek	MAINLINE	12.6	12.7	0.10	M	160.9	5.5	18	3.0	10	2.4	8	1766	100	100	5	70%	25%	50%	0%	1	6	N	50%	Y	1	N
136	King Creek	MAINLINE	12.7	12.8	0.10	M	160.9	5.5	18	4.6	15	4.6	15	2355	75	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
137	King Creek	MAINLINE	12.8	12.8	0.05	S	80.5	5.5	18	9.1	30	4.6	15	1545	90	100	5	70%	75%	100%	50%	1	6	N	100%	Y	1	Y
138	King Creek	MAINLINE	12.8	12.8	0.02	M	40.2	5.5	18	5.5	18	3.7	12	589	100	100	5	70%	50%	50%	50%	1	6	N	50%	Y	1	N
139	King Creek	MAINLINE	12.8	12.9	0.03	M	40.2	5.5	18	3.7	12	3.7	12	515	100	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
140	King Creek	MAINLINE	12.9	12.9	0.08	M	120.7	5.5	18	4.6	15	4.6	15	1766	100	100	5	70%	50%	100%	0%	1	6	N	100%	Y	1	Y
141	King Creek	MAINLINE	12.9	13.0	0.07	M	120.7	5.5	18	6.1	20	6.1	20	2134	90	100	5	70%	25%	50%	0%	1	6	N	50%	Y	1	Y
142	King Creek	MAINLINE	13.0	13.1	0.07	S	120.7	5.5	18	12.2	40	6.1	20	2870	25	75	5	70%	50%	0%	100%	1	6	N	0%	N	1	N
143	King Creek	MAINLINE	13.1	13.1	0.03	S	40.2	6.1	20	4.6	15	3.7	12	576	25	75	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
144	King Creek	MAINLINE	13.1	13.1	0.03	S	40.2	6.1	20	3.7	12	3.7	12	540	50	50	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
145	King Creek	MAINLINE	13.1	13.3	0.15	M	241.4	6.1	20	1.8	6	1.8	6	2355	100	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
146	King Creek	MAINLINE	13.3	13.3	0.00	S	8.0	6.1	20	2.4	8	1.8	6	83	50	100	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
147	King Creek	MAINLINE	13.3	13.6	0.35	S	555.2	6.1	20	4.6	15	2.4	8	7277	100	100	5	70%	62%	25%	50%	1	6	N	25%	Y	1	N
148	King Creek	MAINLINE	13.6	13.7	0.07	S	120.7	6.1	20	7.6	25	4.6	15	2207	90	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
149	King Creek	MAINLINE	13.7	13.8	0.10	S	160.9	6.1	20	7.6	25	3.7	12	2796	90	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	Y
150	King Creek	MAINLINE	13.8	14.0	0.15	S	241.4	5.5	18	6.1	20	3.0	10	3532	90	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	Y
151	King Creek	MAINLINE	14.0	14.0	0.08	M	120.7	6.1	20	3.7	12	2.4	8	1472	100	100	5	70%	25%	50%	0%	1	6	N	50%	Y	1	N
152	King Creek	MAINLINE	14.0	14.1	0.07	M	120.7	5.5	18	4.6	15	3.7	12	1656	100	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
153	King Creek	MAINLINE	14.1	14.2	0.10	M	160.9	5.5	18	3.7	12	3.7	12	2060	100	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
154	King Creek	MAINLINE	14.2	14.4	0.15	M	241.4	5.5	18	3.7	12	2.4	8	2796	100	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
155	King Creek	MAINLINE	14.4	14.4	0.01	S	16.1	5.5	18	3.7	12	3.0	10	196	80	80	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
156	King Creek	MAINLINE	14.4	14.6	0.24	M	386.2	5.5	18	2.4	8	2.4	8	4003	100	100	5	70%	50%	100%	0%	1	6	N	100%	Y	1	Y
157	King Creek	MAINLINE	14.6	14.7	0.08	S	120.7	5.5	18	1.8	6	2.4	8	1177	80	100	5	70%	50%	0%	100%	1	6	N	0%	N	1	N
158	King Creek	MAINLINE	14.7	14.7	0.02	M	40.2	5.5	18	2.4	8	3.0	10	441	100	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
159	King Creek	MAINLINE	14.7	15.2	0.45	M	724.2	5.5	18	1.8	6	1.8	6	6622	100	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
1220	King Creek	3350	0.1	0.2	0.10	S	160.9	4.3	14	9.1	30	4.6	15	2894	80	100	5	70%	60%	100%	10%	2	6	N	100%	N	1	Y
1221	King Creek	3350	0.2	0.4	0.23	M	362.1	4.3	14	4.6	15	3.0	10	4304	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1222	King Creek	3350	0.4	0.5	0.10	M	160.9	4.3	14	4.6	15	3.7	12	2011	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1223	King Creek	3350	0.5	0.8	0.25	M	402.3	4.3	14	6.1	20	3.7	12	5641	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1224	King Creek	3350	0.8	0.8	0.03	M	40.2	4.3	14	6.1	20	3.7	12	564	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1225	King Creek	3350	0.8	1.0	0.23	M	362.1	4.3	14	5.5	18	3.7	12	4856	60	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1226	King Creek	3350	1.0	1.1	0.05	M	80.5	4.3	14	4.6	15	3.0	10	957	50	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1227	King Creek	3350	1.1	1.2	0.08	M	120.7	4.3	14	4.6	15	2.4	8	1361	80	100	4	70%	2%	10%	0%	2	6	N	10%	Y	2	N
1228	King Creek	3350	1.2	1.3	0.13	M	201.2	4.3	14	4.6	15	3.0	10	2391	80	100	4	70%	25%	100%	10%	2	6	N	100%	N	2	Y
1229	King Creek	3350	1.3	1.3	0.03	M	40.2	4.3	14	7.6	25	3.0	10	601	60	100	4	70%	100%	100%	0%	2	6	N	100%	N	2	Y
1230	King Creek	3350	1.3	1.5	0.18	M	281.6	4.3	14	9.1	30	4.6	15	5065	60	80	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1231	King Creek	3350	1.5	1.7	0.20	M	321.9	4.3	14	7.6	25	3.7	12	5004	60	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1232	King Creek	3350	1.7	1.8	0.15	M	241.4	3.7	12	4.6	15	4.6	15	3090	40	100	4	70%	5%	10%	0%	2	6	N	10%	Y	1	N
1233	King Creek	3350	1.8	1.9	0.08	M	120.7	4.3	14	4.6	15	3.0	10	1435	60	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1234	King Creek	3350	1.9	2.0	0.08	M	120.7	3.7	12	6.1	20	3.7	12	1619	50	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1235	King Creek	3350	2.0	2.2	0.20	M	321.9	3.7	12	7.6	25	4.6	15	5102	80	90	4	70%	80%	100%	0%	2	6	N	100%	N	3	Y
1236	King Creek	3350	2.2	2.2	0.05	M	80.5	3.7	12	6.1	20	3.7	12	1079	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1237	King Creek	3350	2.2	2.4	0.18	M	281.6	3.7	12	4.6	15	3.0	10	3176	80	100	4	70%	10%	100%	0%	2	6	N	100%	N	2	Y
1238	King Creek	3350	2.4	2.5	0.08	M	120.7	4.3	14	3.7	12	2.4	8	1251	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1239	King Creek	3350	2.5	2.6	0.13	M	201.2	4.3	14	4.6	15	1.8	6	2146	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1240	King Creek	3350	2.6	2.7	0.13	M	201.2	4.3	14	3.7	12	1.8	6	1962	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1241	King Creek	3350	2.7	2.9	0.13	M	201.2	4.3	14	4.6	15	2.4	8	2269	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1242	King Creek	3350	2.9	3.0	0.18	M	281.6	3.7	12	7.6	25	3.0	10	4035	60	90	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DelliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DelliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
133	King Creek	MAINLINE	3.24	2.16	2.70	0.65	0.39	0.49	0.49	0.39	0.24	0.19	2.43	0.83	3.07	0.50	6.86	0.91	12.14		
134	King Creek	MAINLINE	3.24	2.16	2.16	0.65	0.39	0.39	0.49	0.39	0.19	0.19	2.43	0.78	3.02	0.50	6.45	0.86	11.42		
135	King Creek	MAINLINE	4.33	2.40	1.92	0.87	0.43	0.35	0.22	0.22	0.00	0.09	1.08	0.30	1.30	0.17	1.88	0.33	3.33		
136	King Creek	MAINLINE	4.33	3.61	3.61	0.87	0.65	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
137	King Creek	MAINLINE	2.16	3.61	1.80	0.43	0.65	0.32	0.32	0.65	0.16	0.13	1.62	0.94	2.43	0.61	11.69	1.04	20.70		
138	King Creek	MAINLINE	1.08	1.08	0.72	0.22	0.19	0.13	0.11	0.10	0.06	0.04	0.54	0.21	0.70	0.35	5.11	0.23	9.04		
139	King Creek	MAINLINE	1.08	0.72	0.72	0.22	0.13	0.13	0.11	0.13	0.00	0.04	0.54	0.17	0.67	0.34	4.30	0.19	7.61		
140	King Creek	MAINLINE	3.24	2.70	2.70	0.65	0.49	0.49	0.32	0.49	0.00	0.13	1.62	0.62	2.11	0.35	5.11	0.68	9.04		
141	King Creek	MAINLINE	3.24	3.61	3.61	0.65	0.65	0.65	0.16	0.32	0.00	0.06	0.81	0.39	1.14	0.18	3.23	0.43	5.71		
142	King Creek	MAINLINE	3.24	7.21	3.61	0.65	1.30	0.65	0.32	0.00	0.65	0.13	1.62	0.78	2.27	0.27	6.45	0.86	11.42		
143	King Creek	MAINLINE	1.20	0.90	0.72	0.24	0.16	0.13	0.24	0.16	0.13	0.10	1.20	0.39	1.49	0.67	9.65	0.43	17.08		
144	King Creek	MAINLINE	1.20	0.72	0.72	0.24	0.13	0.13	0.24	0.13	0.13	0.10	1.20	0.36	1.46	0.66	8.84	0.39	15.65		
145	King Creek	MAINLINE	7.21	2.16	2.16	1.44	0.39	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
146	King Creek	MAINLINE	0.24	0.10	0.07	0.05	0.02	0.01	0.05	0.02	0.01	0.02	0.24	0.05	0.27	0.59	6.15	0.05	10.89		
147	King Creek	MAINLINE	16.59	12.44	6.63	3.32	2.24	1.19	2.06	0.56	0.60	0.82	10.28	1.98	11.44	0.27	3.57	2.18	6.31		
148	King Creek	MAINLINE	3.61	4.51	2.70	0.72	0.81	0.49	0.72	0.81	0.49	0.29	3.61	1.59	4.90	0.72	13.14	1.75	23.27		
149	King Creek	MAINLINE	4.81	6.01	2.88	0.96	1.08	0.52	0.96	1.08	0.52	0.38	4.81	1.99	6.41	0.71	12.34	2.18	21.84		
150	King Creek	MAINLINE	6.49	7.21	3.61	1.30	1.30	0.65	1.30	1.30	0.65	0.52	6.49	2.47	8.44	0.70	10.22	2.71	18.08		
151	King Creek	MAINLINE	3.61	2.16	1.44	0.72	0.39	0.26	0.16	0.19	0.00	0.07	0.90	0.27	1.10	0.18	2.21	0.29	3.91		
152	King Creek	MAINLINE	3.24	2.70	2.16	0.65	0.49	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
153	King Creek	MAINLINE	4.33	2.88	2.88	0.87	0.52	0.52	0.43	0.52	0.00	0.17	2.16	0.69	2.68	0.34	4.30	0.76	7.61		
154	King Creek	MAINLINE	6.49	4.33	2.88	1.30	0.78	0.52	0.65	0.78	0.00	0.26	3.24	1.04	4.02	0.37	4.30	1.14	7.61		
155	King Creek	MAINLINE	0.43	0.29	0.24	0.09	0.05	0.04	0.09	0.05	0.04	0.03	0.43	0.13	0.53	0.66	8.07	0.14	14.28		
156	King Creek	MAINLINE	10.36	4.62	4.62	2.08	0.83	0.83	1.04	0.83	0.00	0.42	5.19	1.25	6.02	0.31	3.23	1.37	5.71		
157	King Creek	MAINLINE	3.24	1.06	1.44	0.65	0.19	0.26	0.32	0.00	0.26	0.13	1.62	0.39	1.88	0.33	3.23	0.43	5.71		
158	King Creek	MAINLINE	1.08	0.48	0.60	0.22	0.09	0.11	0.11	0.09	0.00	0.04	0.54	0.13	0.63	0.29	3.23	0.14	5.71		
159	King Creek	MAINLINE	19.47	6.49	6.49	3.89	1.17	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1220	King Creek	3350	3.37	7.21	3.61	0.67	1.30	0.65	0.40	1.30	0.06	0.16	2.02	1.52	3.38	0.53	9.47	1.68	16.77		
1221	King Creek	3350	7.57	8.11	5.41	7.57	1.46	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1222	King Creek	3350	3.37	3.61	2.88	3.37	0.65	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1223	King Creek	3350	8.41	12.02	7.21	8.41	2.16	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1224	King Creek	3350	0.84	1.20	0.72	0.84	0.22	0.13	0.42	0.22	0.00	0.17	2.10	0.38	2.32	0.68	9.56	0.42	16.92		
1225	King Creek	3350	7.57	9.73	6.49	7.57	1.75	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1226	King Creek	3350	1.68	1.60	1.20	1.68	0.32	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1227	King Creek	3350	2.52	2.70	1.44	2.52	0.49	0.26	0.05	0.05	0.00	0.02	0.25	0.07	0.30	0.05	0.57	0.06	1.01		
1228	King Creek	3350	4.21	4.51	3.00	4.21	0.81	0.54	1.05	0.81	0.05	0.42	5.26	1.29	6.12	0.54	6.39	1.41	11.32		
1229	King Creek	3350	0.84	1.50	0.60	0.84	0.27	0.11	0.84	0.27	0.00	0.34	4.21	0.61	4.48	1.01	15.08	0.67	26.70		
1230	King Creek	3350	5.89	12.62	6.31	5.89	2.27	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1231	King Creek	3350	6.73	12.02	5.77	6.73	2.16	1.04	3.37	2.16	0.00	1.35	16.83	3.51	18.99	0.70	10.90	3.86	19.30		
1232	King Creek	3350	4.33	5.41	5.41	4.33	0.97	0.97	0.22	0.10	0.00	0.09	1.08	0.18	1.18	0.06	0.76	0.20	1.35		
1233	King Creek	3350	2.52	2.70	1.80	2.52	0.49	0.32	1.26	0.49	0.00	0.50	6.31	0.99	6.80	0.69	8.21	1.09	14.54		
1234	King Creek	3350	2.16	3.61	2.16	2.16	0.65	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1235	King Creek	3350	5.77	12.02	7.21	5.77	2.16	1.30	4.62	2.16	0.00	1.85	23.08	4.01	25.24	0.79	12.46	4.41	22.05		
1236	King Creek	3350	1.44	2.40	1.44	1.44	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1237	King Creek	3350	5.05	6.31	4.21	5.05	1.14	0.76	0.50	1.14	0.00	0.20	2.52	1.34	3.66	0.42	4.75	1.47	8.41		
1238	King Creek	3350	2.52	2.16	1.44	2.52	0.39	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1239	King Creek	3350	4.21	4.51	1.80	4.21	0.81	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1240	King Creek	3350	4.21	3.61	1.80	4.21	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1241	King Creek	3350	4.21	4.51	2.40	4.21	0.61	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1242	King Creek	3350	5.05	10.52	4.21	5.05	1.69	0.76	2.52	1.89	0.00	1.01	12.62	2.90	14.51	0.72	10.31	3.19	18.24		

Attac 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1243	King Creek	3350	3.0	3.3	0.30	M	482.8	3.0	10	6.1	20	3.7	12	6181	60	90	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1244	King Creek	3350	3.3	3.6	0.28	S	442.6	3.7	12	7.6	25	4.6	15	7015	60	90	4	70%	60%	100%	10%	2	6	N	100%	N	1	Y
1245	King Creek	3350	3.6	3.9	0.25	M	402.3	3.0	10	9.1	30	6.1	20	7358	60	90	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1246	King Creek	3350	3.9	3.9	0.05	M	80.5	3.0	10	6.1	20	4.6	15	1104	60	90	4	70%	50%	100%	0%	2	6	N	100%	Y	1	N
1247	King Creek	3350	3.9	4.1	0.20	M	321.9	3.0	10	6.1	20	3.7	12	4121	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1248	King Creek	3350	4.1	4.7	0.60	M	965.6	3.7	12	6.1	20	3.7	12	12950	60	60	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1249	King Creek	3350	4.7	4.8	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	40	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1250	King Creek	3350	4.8	4.8	0.05	M	80.5	3.7	12	3.0	10	2.4	8	736	90	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1251	King Creek	3350	4.8	4.9	0.08	M	120.7	3.7	12	6.1	20	3.0	10	1545	60	100	4	45%	10%	100%	0%	4	6	N	100%	N	2	Y
1252	King Creek	3350	4.9	5.0	0.13	M	201.2	3.0	10	6.1	20	3.7	12	2575	40	100	4	45%	10%	50%	0%	4	6	N	100%	N	2	Y
1253	King Creek	3350	5.0	5.1	0.10	M	160.9	3.0	10	4.6	15	2.4	8	1619	50	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1254	King Creek	3350	5.1	5.2	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	60	100	4	45%	50%	100%	0%	4	6	N	100%	Y	1	N
1255	King Creek	3350	5.2	5.2	0.02	M	40.2	3.7	12	2.4	8	1.8	6	319	100	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1256	King Creek	3350	5.2	5.3	0.03	S	40.2	3.7	12	3.7	12	2.4	8	392	100	100	4	45%	50%	100%	100%	4	6	N	100%	N	1	Y
1257	King Creek	3350	5.3	5.4	0.15	M	241.4	3.7	12	2.4	8	1.8	6	1913	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
1258	King Creek	3350	5.4	5.4	0.02	M	40.2	3.7	12	3.7	12	2.4	8	392	90	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1259	King Creek	3350	5.4	5.5	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	40	90	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1260	King Creek	3350	5.5	5.6	0.07	M	120.7	3.7	12	7.6	25	3.7	12	1803	40	90	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
1261	King Creek	3350	5.6	5.7	0.10	M	160.9	3.7	12	6.1	20	3.7	12	2158	20	90	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1262	King Creek	3358	0.0	0.0	0.03	M	40.2	3.7	12	3.0	10	1.8	6	343	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
1263	King Creek	3358	0.0	0.1	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1264	King Creek	3356	0.0	0.0	0.03	M	40.2	3.7	12	1.8	6	1.2	4	270	100	100	4	70%	100%	100%	100%	4	6	N	0%	N	1	N
1265	King Creek	3356	0.0	0.3	0.28	M	442.6	3.0	10	4.6	15	2.4	8	4452	40	100	2	70%	0%	0%	0%	4	6	N	0%	N	2	N
1266	King Creek	3355	0.0	0.1	0.10	M	160.9	3.0	10	2.4	6	1.8	6	1177	100	100	4	70%	10%	10%	10%	4	6	N	0%	N	1	N
1267	King Creek	3352	0.0	0.1	0.05	M	80.5	4.3	14	1.8	6	1.6	6	638	100	100	4	70%	10%	25%	0%	2	6	N	0%	N	1	N
1268	King Creek	3352	0.1	0.2	0.18	M	281.6	4.3	14	8.1	20	3.7	12	3949	80	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
1269	King Creek	3352	0.2	0.3	0.03	M	40.2	4.3	14	3.0	10	1.8	6	368	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1270	King Creek	3352	0.3	0.3	0.05	M	80.5	3.7	12	3.7	12	1.8	6	736	80	100	4	70%	5%	10%	0%	2	6	N	10%	Y	1	N
1271	King Creek	3352	0.3	0.6	0.25	M	402.3	4.3	14	3.7	12	1.6	6	3924	100	100	4	70%	5%	10%	0%	2	6	N	10%	Y	1	N
1272	King Creek	3352	0.6	0.8	0.20	M	321.9	4.3	14	4.6	15	2.4	8	3630	70	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1273	King Creek	3352	0.8	1.0	0.25	R	402.3	4.3	14	2.4	8	1.8	6	3434	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
1274	King Creek	3352	1.0	1.3	0.33	M	523.0	3.7	12	6.1	20	3.7	12	7015	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1275	King Creek	3352	1.3	1.5	0.18	M	281.6	3.7	12	4.6	15	3.7	12	3348	20	90	4	70%	0%	0%	0%	4	6	N	0%	Y	3	N
1276	King Creek	3352	1.5	1.6	0.08	M	120.7	3.7	12	6.1	20	3.7	12	1619	80	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1277	King Creek	3352	1.6	1.7	0.13	M	201.2	3.0	10	6.1	20	3.7	12	2575	80	100	4	45%	10%	100%	0%	4	6	N	100%	N	2	Y
1278	King Creek	3352	1.7	1.8	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	40	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1279	King Creek	3352	1.8	1.9	0.06	M	120.7	3.7	12	4.6	15	3.0	10	1361	60	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1280	King Creek	3352	1.9	2.0	0.05	M	80.5	3.7	12	5.5	18	3.7	12	1030	50	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1281	King Creek	3352	2.0	2.2	0.25	M	402.3	3.7	12	6.1	20	3.7	12	5396	50	100	4	45%	25%	50%	0%	4	6	N	100%	N	2	Y
1282	King Creek	3352	2.2	2.3	0.13	M	201.2	3.7	12	6.1	20	3.7	12	2698	20	90	4	45%	50%	100%	0%	4	6	N	100%	Y	1	N
1283	King Creek	3352-D	0.0	0.2	0.20	R	321.9	4.9	16	7.6	25	3.7	12	5200	40	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1284	King Creek	3352-D	0.2	0.6	0.40	R	643.7	4.9	16	5.5	18	3.7	12	9026	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1285	King Creek	3352-C	0.0	0.3	0.25	M	402.3	3.0	10	3.7	12	2.4	8	3679	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1286	King Creek	3352-B	0.0	0.1	0.08	M	120.7	3.0	10	3.7	12	1.8	6	1030	100	100	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
1287	King Creek	3352-B	0.1	0.4	0.33	M	523.0	3.0	10	3.0	10	1.8	6	4145	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1288	King Creek	3352-B-1	0.0	0.1	0.13	M	201.2	3.0	10	2.4	8	1.2	4	1349	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1289	King Creek	3352-A	0.0	0.2	0.15	R	241.4	3.0	10	3.0	10	1.8	6	1913	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1294	King Creek	3351	0.5	0.7	0.18	M	281.6	4.3	14	6.1	20	3.7	12	3949	80	100	5	45%	10%	100%	0%	2	6	N	100%	Y	2	Y
1305	King Creek	3351-C	0.2	0.4	0.25	M	402.3	3.0	10	4.6	15	3.0	10	4292	60	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	Y
1316	King Creek	3351-A	0.0	0.1	0.06	M	120.7	3.7	12	4.6	15	3.7	12	1435	30	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1243	King Creek	3350	7.21	14.42	8.65	7.21	2.60	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1244	King Creek	3350	7.93	16.53	9.92	7.93	2.97	1.78	4.76	2.97	0.18	1.90	23.80	5.06	26.95	0.72	11.43	5.56	20.23		
1245	King Creek	3350	6.01	18.03	12.02	6.01	3.24	2.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1246	King Creek	3350	1.20	2.40	1.80	1.20	0.43	0.32	0.60	0.43	0.00	0.24	3.00	0.67	3.44	0.61	8.36	0.74	14.81		
1247	King Creek	3350	4.81	9.61	5.77	4.81	1.73	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1248	King Creek	3350	17.31	28.84	17.31	17.31	5.19	3.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1249	King Creek	3350	1.44	1.80	0.96	1.44	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1250	King Creek	3350	0.93	0.77	0.62	0.93	0.14	0.11	0.46	0.14	0.00	0.05	0.05	0.19	0.19	0.25	2.30	0.20	4.08		
1251	King Creek	3350	1.39	2.32	1.16	1.39	0.42	0.21	0.14	0.42	0.00	0.01	0.01	0.43	0.43	0.28	3.57	0.47	6.32		
1252	King Creek	3350	1.93	3.86	2.32	1.93	0.70	0.42	0.19	0.35	0.00	0.02	0.02	0.37	0.37	0.14	1.82	0.40	3.23		
1253	King Creek	3350	1.55	2.32	1.24	1.55	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1254	King Creek	3350	1.85	2.32	1.24	1.85	0.42	0.22	0.93	0.42	0.00	0.09	0.09	0.51	0.51	0.30	3.17	0.56	5.61		
1255	King Creek	3350	0.46	0.31	0.23	0.46	0.06	0.04	0.23	0.06	0.00	0.02	0.02	0.08	0.08	0.25	1.96	0.09	3.47		
1256	King Creek	3350	0.46	0.46	0.31	0.46	0.08	0.06	0.23	0.08	0.06	0.02	0.02	0.16	0.16	0.41	4.03	0.18	7.14		
1257	King Creek	3350	2.78	1.85	1.39	2.78	0.33	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1258	King Creek	3350	0.46	0.46	0.31	0.46	0.08	0.06	0.23	0.08	0.00	0.02	0.02	0.11	0.11	0.27	2.65	0.12	4.69		
1259	King Creek	3350	1.85	3.09	1.55	1.85	0.56	0.28	0.93	0.56	0.00	0.09	0.09	0.65	0.65	0.32	4.03	0.71	7.14		
1260	King Creek	3350	1.39	2.90	1.39	1.39	0.52	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1261	King Creek	3350	1.85	3.09	1.85	1.85	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1262	King Creek	3358	0.72	0.60	0.36	0.72	0.11	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1263	King Creek	3358	2.88	1.92	1.44	2.88	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1264	King Creek	3356	0.72	0.36	0.24	0.72	0.06	0.04	0.72	0.06	0.04	0.07	0.07	0.18	0.18	0.67	4.48	0.20	7.93		
1265	King Creek	3356	6.61	9.92	5.29	6.61	1.78	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1266	King Creek	3355	2.40	1.92	1.44	2.40	0.35	0.26	0.24	0.03	0.03	0.02	0.02	0.08	0.08	0.07	0.53	0.09	0.93		
1267	King Creek	3352	1.68	0.72	0.72	1.68	0.13	0.13	0.17	0.03	0.00	0.07	0.84	0.10	0.87	0.16	1.24	0.11	2.19		
1268	King Creek	3352	5.89	8.41	5.05	5.89	1.51	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1269	King Creek	3352	0.84	0.60	0.36	0.84	0.11	0.06	0.42	0.11	0.00	0.17	2.10	0.28	2.21	0.75	6.87	0.30	12.16		
1270	King Creek	3352	1.44	1.44	0.72	1.44	0.28	0.13	0.07	0.03	0.00	0.03	0.36	0.05	0.39	0.07	0.66	0.06	1.21		
1271	King Creek	3352	8.41	7.21	3.61	8.41	1.30	0.65	0.42	0.13	0.00	0.17	2.10	0.30	2.23	0.08	0.74	0.33	1.31		
1272	King Creek	3352	6.73	7.21	3.85	6.73	1.30	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1273	King Creek	3352	8.41	4.81	3.61	8.41	0.87	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1274	King Creek	3352	9.37	15.62	9.37	9.37	2.61	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1275	King Creek	3352	5.05	6.31	5.05	5.05	1.14	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1276	King Creek	3352	1.39	2.32	1.39	1.39	0.42	0.25	0.70	0.42	0.00	0.07	0.07	0.49	0.49	0.30	4.03	0.54	7.14		
1277	King Creek	3352	1.93	3.86	2.32	1.93	0.70	0.42	0.19	0.70	0.00	0.02	0.02	0.71	0.71	0.28	3.55	0.79	6.29		
1278	King Creek	3352	2.32	2.90	1.93	2.32	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1279	King Creek	3352	1.39	1.74	1.16	1.39	0.31	0.21	0.70	0.31	0.00	0.07	0.07	0.38	0.38	0.28	3.17	0.42	5.61		
1280	King Creek	3352	0.93	1.39	0.93	0.93	0.25	0.17	0.46	0.25	0.00	0.05	0.05	0.30	0.30	0.29	3.69	0.33	6.53		
1281	King Creek	3352	4.64	7.73	4.64	4.64	1.39	0.83	1.16	0.70	0.00	0.12	0.12	0.81	0.81	0.15	2.02	0.89	3.57		
1282	King Creek	3352	2.32	3.86	2.32	2.32	0.70	0.42	1.16	0.70	0.00	0.12	0.12	0.81	0.81	0.30	4.03	0.89	7.14		
1283	King Creek	3352-D	7.69	12.02	5.77	1.54	2.16	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1284	King Creek	3352-D	15.38	17.31	11.54	3.08	3.12	2.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1285	King Creek	3352-C	6.01	7.21	4.81	6.01	1.30	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1286	King Creek	3352-B	1.80	2.16	1.08	1.80	0.39	0.19	0.09	0.04	0.00	0.01	0.01	0.05	0.05	0.05	0.40	0.05	0.70		
1287	King Creek	3352-B	7.81	7.81	4.69	7.81	1.41	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1288	King Creek	3352-B-1	3.00	2.40	1.20	3.00	0.43	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1289	King Creek	3352-A	3.61	3.61	2.16	3.61	0.65	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1294	King Creek	3351	3.79	5.41	3.24	0.76	0.97	0.58	0.08	0.97	0.00	0.03	0.38	1.00	1.35	0.25	3.56	1.10	6.31		
1305	King Creek	3351-C	6.01	9.01	6.01	6.01	1.62	1.08	3.00	1.62	0.00	0.30	0.30	1.92	1.92	0.45	4.78	2.12	8.46		
1316	King Creek	3351-A	2.16	2.70	2.16	0.43	0.49	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac[illegible] B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1317	King Creek	3351-A	0.1	0.3	0.20	M	321.9	3.7	12	4.6	15	3.0	10	3630	80	100	5	70%	25%	100%	0%	4	6	N	100%	N	2	Y
1318	King Creek	3351-A	0.3	0.5	0.20	M	321.9	3.7	12	9.1	30	4.6	15	5592	80	90	5	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1319	King Creek	3351-A	0.5	0.7	0.18	M	281.6	3.7	12	9.1	30	4.6	15	4893	70	90	5	70%	100%	100%	0%	4	6	N	100%	N	5	Y
1320	King Creek	3351-A	0.7	1.1	0.45	M	724.2	3.7	12	6.1	20	3.0	10	9271	60	90	2	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1321	King Creek	3351-A	1.1	1.2	0.08	M	120.7	3.0	10	6.1	20	3.0	10	1472	80	100	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
1322	King Creek	3351-A	1.2	1.2	0.05	M	80.5	3.0	10	6.1	20	3.0	10	981	60	80	4	45%	10%	100%	0%	4	6	N	100%	N	2	Y
1323	King Creek	3351-A	1.2	1.3	0.08	M	120.7	3.0	10	4.6	15	3.0	10	1288	60	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1324	King Creek	3351-A	1.3	1.4	0.08	M	120.7	3.0	10	6.1	20	2.4	8	1398	60	100	4	45%	50%	100%	0%	4	6	N	100%	Y	1	N
1337	King Creek	3400	1.4	1.6	0.25	R	402.3	4.3	14	3.0	10	1.8	6	3679	70	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1338	King Creek	3400	1.6	1.9	0.25	R	402.3	4.3	14	2.4	8	1.8	8	3434	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1339	King Creek	3400	1.9	1.9	0.08	M	120.7	4.3	14	3.7	12	2.4	8	1251	100	100	5	45%	50%	100%	0%	2	6	N	100%	Y	1	N
1340	King Creek	3400	1.9	2.1	0.20	M	321.9	4.3	14	3.7	12	1.8	6	3139	100	100	5	45%	0%	0%	0%	2	6	N	0%	N	1	N
1341	King Creek	3400	2.1	2.3	0.18	M	281.6	3.7	12	4.6	15	2.4	8	3005	100	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1342	King Creek	3400	2.3	2.4	0.05	M	80.5	3.7	12	4.6	15	3.0	10	907	100	100	5	45%	100%	100%	0%	2	6	N	100%	Y	1	Y
1343	King Creek	3400	2.4	2.4	0.05	M	80.5	4.3	14	7.8	25	3.0	10	1202	50	100	5	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1344	King Creek	3400	2.4	2.5	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	100	100	5	45%	0%	0%	0%	2	6	N	0%	N	1	N
1345	King Creek	3400	2.5	2.7	0.20	M	321.9	4.3	14	4.6	15	2.4	8	3630	100	100	5	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1346	King Creek	3400	2.7	3.0	0.25	M	402.3	4.3	14	4.6	15	2.4	8	4537	100	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1347	King Creek	3450	0.0	0.1	0.10	M	160.9	3.0	10	3.7	12	1.8	6	1374	80	100	2	45%	100%	100%	0%	4	6	N	0%	N	5	N
1348	King Creek	70	0.0	0.1	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	80	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1349	King Creek	70	0.1	0.2	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1350	King Creek	70	0.2	0.4	0.23	M	362.1	3.7	12	3.7	12	1.8	6	3311	60	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1351	King Creek	70	0.4	0.5	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1352	King Creek	70	0.5	0.5	0.05	M	80.5	3.7	12	4.6	15	1.8	6	809	80	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1353	King Creek	70	0.5	0.6	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1354	King Creek	70	0.6	0.7	0.13	M	201.2	3.0	10	6.1	20	3.0	10	2453	50	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1355	King Creek	70	0.7	0.9	0.15	M	241.4	3.0	10	4.6	15	3.0	10	2575	80	100	4	70%	5%	10%	0%	4	6	N	10%	Y	2	N
1356	King Creek	70	0.9	1.0	0.10	M	160.9	3.0	10	4.6	15	2.4	8	1619	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1357	King Creek	71	0.0	0.1	0.10	M	160.9	3.0	10	3.7	12	1.8	6	1374	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1358	King Creek	71	0.1	0.2	0.10	M	160.9	3.0	10	3.7	12	3.0	10	1570	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1359	King Creek	3440	0.0	0.2	0.20	M	321.9	3.7	12	6.1	20	3.0	10	4121	90	100	4	45%	50%	100%	0%	2	6	N	0%	N	1	N
1417	King Creek	3420	0.2	0.4	0.18	M	281.6	3.7	12	7.6	25	3.0	10	4035	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1418	King Creek	3420	0.4	0.4	0.03	M	40.2	3.7	12	3.7	12	2.4	8	392	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1419	King Creek	3420	0.4	0.5	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1420	King Creek	3420	0.5	0.6	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1421	King Creek	3420	0.6	0.8	0.23	M	362.1	3.0	10	5.5	18	3.0	10	4194	50	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1422	King Creek	3420	0.8	0.9	0.08	M	120.7	3.0	10	9.1	30	3.7	12	1913	50	90	4	70%	0%	0%	0%	5	6	N	0%	N	2	N
1423	King Creek	3421	0.0	0.1	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	80	100	4	70%	25%	100%	0%	4	6	N	100%	N	2	Y
1424	King Creek	3421	0.1	0.2	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	60	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	Y
1425	King Creek	3421	0.2	0.3	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	50	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1456	King Creek	GCR 80	0.0	0.2	0.20	M	321.9	3.7	12	3.7	12	2.4	8	3139	100	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
1457	King Creek	GCR 80	0.2	0.3	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	4	45%	0%	0%	0%	2	6	N	0%	N	2	N
1458	King Creek	GCR 80	0.3	0.5	0.20	M	321.9	3.7	12	3.7	12	2.4	8	3139	100	100	4	45%	5%	10%	0%	2	6	N	10%	N	1	N
1459	King Creek	GCR 80	0.5	0.7	0.20	S	321.9	3.7	12	4.6	15	2.4	8	3434	90	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	N
1460	King Creek	GCR 80	0.7	0.9	0.20	M	321.9	4.3	14	4.6	15	3.0	10	3826	90	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1461	King Creek	GCR 80	0.9	1.0	0.10	M	160.9	4.3	14	4.6	15	1.8	6	1717	90	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
1462	King Creek	GCR 80	1.0	1.2	0.15	M	241.4	4.3	14	4.6	15	2.4	8	2722	40	100	4	45%	50%	100%	0%	2	6	N	100%	Y	1	Y
1463	King Creek	GCR 80	1.2	1.2	0.05	M	80.5	4.3	14	1.8	6	1.2	4	589	80	100	4	45%	60%	100%	10%	2	6	N	100%	N	1	Y
1464	King Creek	GCR 80	1.2	1.4	0.18	M	281.6	4.3	14	4.6	15	2.4	8	3176	40	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1465	King Creek	GCR 80	1.4	1.4	0.05	M	80.5	4.3	14	4.6	15	3.0	10	957	40	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1317	King Creek	3351-A	5.77	7.21	4.81	1.15	1.30	0.87	0.29	1.30	0.00	0.03	0.03	1.33	1.33	0.37	4.12	1.46	7.30		
1318	King Creek	3351-A	5.77	14.42	7.21	1.15	2.60	1.30	0.58	2.60	0.00	0.06	0.06	2.65	2.65	0.47	8.24	2.92	14.59		
1319	King Creek	3351-A	5.05	12.62	6.31	1.01	2.27	1.14	1.01	2.27	0.00	0.10	0.10	2.37	2.37	0.48	8.42	2.61	14.91		
1320	King Creek	3351-A	12.98	21.63	10.82	12.98	3.89	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1321	King Creek	3351-A	1.16	2.32	1.16	1.16	0.42	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1322	King Creek	3351-A	0.77	1.55	0.77	0.77	0.28	0.14	0.08	0.28	0.00	0.01	0.01	0.29	0.29	0.29	3.55	0.31	6.29		
1323	King Creek	3351-A	1.16	1.74	1.16	1.16	0.31	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1324	King Creek	3351-A	1.16	2.32	0.93	1.16	0.42	0.17	0.58	0.42	0.00	0.06	0.06	0.48	0.48	0.34	3.94	0.52	6.97		
1337	King Creek	3400	8.41	6.01	3.61	1.68	1.08	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1338	King Creek	3400	8.41	4.81	3.61	1.68	0.87	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1339	King Creek	3400	1.62	1.39	0.93	0.32	0.25	0.17	0.16	0.25	0.00	0.06	0.81	0.32	1.06	0.25	2.61	0.35	4.62		
1340	King Creek	3400	4.33	3.71	1.85	0.87	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1341	King Creek	3400	3.24	4.06	2.16	0.65	0.73	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1342	King Creek	3400	0.93	1.16	0.77	0.19	0.21	0.14	0.19	0.21	0.00	0.07	0.93	0.28	1.14	0.31	3.51	0.31	6.22		
1343	King Creek	3400	1.08	1.93	0.77	0.22	0.35	0.14	0.11	0.35	0.00	0.04	0.54	0.39	0.89	0.33	4.86	0.43	8.60		
1344	King Creek	3400	2.16	2.32	1.24	0.43	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1345	King Creek	3400	4.33	4.64	2.47	0.87	0.83	0.45	0.43	0.83	0.00	0.17	2.16	1.01	3.00	0.28	3.13	1.11	5.54		
1346	King Creek	3400	5.41	5.79	3.09	1.08	1.04	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1347	King Creek	3450	1.55	1.85	0.93	1.55	0.33	0.17	1.55	0.33	0.00	0.15	0.15	0.49	0.49	0.36	3.03	0.54	5.37		
1348	King Creek	70	1.39	1.39	0.70	1.39	0.25	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1349	King Creek	70	1.39	1.39	0.70	1.39	0.25	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1350	King Creek	70	4.17	4.17	2.09	4.17	0.75	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1351	King Creek	70	2.88	3.61	1.92	2.88	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1352	King Creek	70	1.44	1.80	0.72	1.44	0.32	0.13	0.72	0.32	0.00	0.07	0.07	0.40	0.40	0.49	4.93	0.44	8.72		
1353	King Creek	70	2.16	2.16	1.44	2.16	0.39	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1354	King Creek	70	3.00	6.01	3.00	3.00	1.08	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1355	King Creek	70	3.61	5.41	3.61	3.61	0.97	0.65	0.18	0.10	0.00	0.02	0.02	0.12	0.12	0.04	0.48	0.13	0.85		
1356	King Creek	70	2.40	3.61	1.92	2.40	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1357	King Creek	71	2.40	2.88	1.44	2.40	0.52	0.26	1.20	0.52	0.00	0.12	0.12	0.64	0.64	0.47	3.97	0.70	7.03		
1358	King Creek	71	2.40	2.88	2.40	2.40	0.52	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1359	King Creek	3440	3.71	6.18	3.09	3.71	1.11	0.56	1.85	1.11	0.00	0.74	9.27	1.85	10.38	0.45	5.76	2.04	10.20		
1417	King Creek	3420	5.05	10.52	4.21	5.05	1.89	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1418	King Creek	3420	0.72	0.72	0.48	0.72	0.13	0.09	0.36	0.13	0.00	0.04	0.04	0.17	0.17	0.42	4.12	0.18	7.30		
1419	King Creek	3420	1.44	1.44	0.96	1.44	0.26	0.17	0.72	0.26	0.00	0.07	0.07	0.33	0.33	0.42	4.12	0.36	7.30		
1420	King Creek	3420	2.16	2.16	1.44	2.16	0.39	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1421	King Creek	3420	5.41	9.73	5.41	5.41	1.75	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1422	King Creek	3420	1.80	5.41	2.16	1.80	0.97	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1423	King Creek	3421	1.44	1.80	0.96	1.44	0.32	0.17	0.36	0.32	0.00	0.04	0.04	0.36	0.36	0.42	4.48	0.40	7.93		
1424	King Creek	3421	4.33	4.33	2.16	4.33	0.78	0.39	2.16	0.78	0.00	0.22	0.22	1.00	1.00	0.45	4.12	1.09	7.30		
1425	King Creek	3421	2.88	2.40	1.44	2.88	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1456	King Creek	GCR 80	3.71	3.71	2.47	3.71	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1457	King Creek	GCR 80	1.85	1.85	0.93	1.85	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1458	King Creek	GCR 80	3.71	3.71	2.47	3.71	0.67	0.45	0.19	0.07	0.00	0.07	0.93	0.14	0.99	0.04	0.44	0.16	0.78		
1459	King Creek	GCR 80	3.71	4.64	2.47	3.71	0.83	0.45	1.85	0.83	0.00	0.74	9.27	1.58	10.11	0.46	4.90	1.73	8.67		
1460	King Creek	GCR 80	4.33	4.64	3.09	4.33	0.83	0.56	2.16	0.83	0.00	0.87	10.82	1.70	11.65	0.44	5.28	1.87	9.35		
1461	King Creek	GCR 80	2.16	2.32	0.93	2.16	0.42	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1462	King Creek	GCR 80	3.24	3.48	1.85	3.24	0.63	0.33	1.62	0.63	0.00	0.65	8.11	1.27	8.74	0.47	5.28	1.40	9.35		
1463	King Creek	GCR 80	1.08	0.46	0.31	1.08	0.08	0.06	0.65	0.06	0.01	0.26	3.24	0.35	3.33	0.59	4.33	0.38	7.67		
1464	King Creek	GCR 80	3.79	4.06	2.16	3.79	0.73	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1465	King Creek	GCR 80	1.08	1.16	0.77	1.08	0.21	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac. 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1466	King Creek	GCR 80	1.4	1.5	0.08	M	120.7	4.3	14	4.6	15	3.0	10	1435	40	100	4	45%	0%	50%	0%	2	6	N	10%	Y	2	N
1467	King Creek	GCR 80	1.5	1.6	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	60	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1468	King Creek	GCR 80	1.6	1.7	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	90	100	4	45%	5%	10%	0%	4	6	N	10%	Y	1	N
1469	King Creek	GCR 80	1.7	1.7	0.05	M	80.5	3.7	12	3.7	12	1.8	6	736	80	100	4	45%	5%	10%	0%	4	6	N	10%	Y	1	N
1470	King Creek	GCR 80	1.7	1.8	0.05	M	80.5	3.7	12	4.6	15	1.8	6	809	70	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1471	King Creek	GCR 80	1.8	1.8	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	70	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1472	King Creek	GCR 80	1.8	1.9	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1473	King Creek	GCR 80	1.9	2.0	0.10	M	160.9	3.7	12	5.5	18	3.0	10	1962	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1474	King Creek	GCR 80	2.0	2.1	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1475	King Creek	GCR 80	2.1	2.2	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	60	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
1476	King Creek	GCR 80	2.2	2.4	0.20	M	321.9	3.7	12	4.6	15	2.4	8	3434	40	100	4	70%	0%	0%	0%	4	6	N	0%	N	3	N
1477	King Creek	GCR 80	2.4	2.6	0.18	M	281.6	3.7	12	1.8	6	1.2	4	1889	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1478	King Creek	GCR 80	2.6	2.6	0.02	M	40.2	3.7	12	3.7	12	1.8	6	368	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1479	King Creek	GCR 80	2.6	2.7	0.07	M	120.7	3.7	12	4.6	15	2.4	8	1286	60	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1480	King Creek	GCR 60	2.7	2.7	0.03	M	40.2	3.0	10	4.6	15	3.0	10	429	20	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1481	King Creek	GCR 80	2.7	2.8	0.10	M	160.9	3.0	10	6.1	20	3.0	10	1962	40	90	4	70%	50%	100%	0%	4	6	N	100%	Y	1	Y
1482	King Creek	GCR 80	2.8	2.9	0.13	M	201.2	3.0	10	7.6	25	3.7	12	2882	40	80	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1483	King Creek	GCR 80	2.9	3.0	0.08	M	120.7	3.0	10	2.4	8	1.8	6	863	100	100	4	70%	10%	10%	10%	4	6	N	10%	N	1	N
1484	King Creek	80-C	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	60	100	1	70%	0%	0%	0%	4	6	N	0%	N	5	N
1485	King Creek	80-B	0.0	0.1	0.05	M	80.5	3.7	12	3.7	12	1.8	6	736	50	80	4	70%	0%	0%	0%	4	8	N	0%	N	1	N
1486	King Creek	83	0.0	0.1	0.10	M	160.9	3.0	10	2.4	8	1.2	4	1079	90	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1487	King Creek	83	0.1	0.3	0.18	M	281.6	3.0	10	5.5	18	3.0	10	3262	40	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
1488	King Creek	82	0.0	0.0	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1489	King Creek	82	0.0	0.1	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	50	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	N
1490	King Creek	82	0.1	0.2	0.03	S	40.2	3.7	12	6.1	20	3.0	10	515	40	100	4	70%	60%	100%	10%	4	6	N	100%	Y	1	Y
1491	King Creek	82	0.2	0.2	0.08	S	120.7	3.7	12	6.1	20	3.0	10	1545	10	60	4	70%	60%	100%	10%	4	6	N	100%	N	1	Y
1492	King Creek	82	0.2	0.3	0.08	M	120.7	3.0	10	4.6	15	3.0	10	1288	40	90	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1493	King Creek	82	0.3	0.4	0.05	M	80.5	3.0	10	6.1	20	3.7	12	1030	20	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1494	King Creek	82	0.4	0.4	0.08	M	120.7	3.0	10	9.1	30	3.0	10	1840	50	90	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1495	King Creek	82	0.4	0.7	0.23	M	362.1	3.7	12	3.7	12	1.8	6	3311	60	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1496	King Creek	80-A	0.0	0.1	0.10	R	160.9	3.7	12	3.7	12	1.8	6	1472	50	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1497	King Creek	81	0.0	0.1	0.05	M	80.5	3.7	12	3.0	10	1.8	6	687	80	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1498	King Creek	81	0.1	0.1	0.05	M	80.5	3.7	12	7.6	25	1.8	6	1055	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1499	King Creek	81	0.1	0.3	0.20	R	321.9	3.7	12	3.7	12	1.8	6	2943	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1500	King Creek	81-A	0.0	0.1	0.08	M	120.7	3.7	12	3.0	10	1.8	6	1030	60	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1501	King Creek	81-A	0.1	0.1	0.03	M	40.2	3.7	12	1.8	6	1.8	6	294	100	100	4	45%	5%	10%	0%	4	6	N	10%	Y	1	N
1502	King Creek	81-A	0.1	0.1	0.03	S	40.2	3.0	10	3.7	12	2.4	8	368	80	100	4	45%	60%	100%	10%	4	6	N	100%	N	1	Y
1503	King Creek	81-A	0.1	0.3	0.18	M	281.6	3.0	10	3.7	12	1.8	6	2404	80	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1504	King Creek	81-A	0.3	0.4	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	50	100	4	45%	0%	0%	0%	5	6	N	0%	N	1	N
1505	King Creek	85	0.0	0.1	0.10	M	160.9	3.0	10	6.1	20	3.0	10	1962	60	100	4	45%	10%	100%	0%	4	6	N	100%	Y	2	N
1506	King Creek	85	0.1	0.3	0.15	M	241.4	3.0	10	4.6	15	3.0	10	2575	60	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1507	King Creek	85	0.3	0.3	0.05	M	80.5	3.0	10	6.1	20	3.0	10	981	50	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1508	King Creek	85	0.3	0.4	0.10	M	160.9	3.0	10	4.6	15	3.0	10	1717	60	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1509	King Creek	86	0.0	0.2	0.20	M	321.9	4.3	14	4.6	15	3.0	10	3826	80	100	4	45%	5%	10%	0%	2	6	N	10%	Y	1	N
1510	King Creek	86	0.2	0.3	0.10	M	160.9	3.7	12	9.1	30	4.6	15	2796	60	80	4	45%	25%	50%	0%	2	6	N	100%	N	2	Y
1511	King Creek	86	0.3	0.4	0.08	M	120.7	4.3	14	6.1	20	3.7	12	1692	60	80	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1512	King Creek	86	0.4	0.6	0.20	M	321.9	3.7	12	4.6	15	3.0	10	3630	60	90	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1513	King Creek	86	0.6	0.8	0.18	M	281.6	3.7	12	6.1	20	3.0	10	3605	80	90	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1514	King Creek	86	0.8	0.8	0.03	M	40.2	3.7	12	3.7	12	2.4	8	392	90	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1515	King Creek	86	0.8	0.8	0.03	M	40.2	3.0	10	7.6	25	3.0	10	552	10	40	4	45%	0%	0%	0%	2	6	N	0%	Y	5	N

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub-Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1466	King Creek	GCR 80	1.62	1.74	1.16	1.62	0.31	0.21	0.00	0.16	0.00	0.00	0.00	0.16	0.16	0.11	1.30	0.17	2.29		
1467	King Creek	GCR 80	2.16	2.32	1.24	2.16	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1468	King Creek	GCR 80	0.93	0.62	0.46	0.93	0.11	0.08	0.05	0.01	0.00	0.00	0.00	0.02	0.02	0.02	0.20	0.02	0.35		
1469	King Creek	GCR 80	0.93	0.93	0.46	0.93	0.17	0.08	0.05	0.02	0.00	0.00	0.00	0.02	0.02	0.03	0.26	0.02	0.47		
1470	King Creek	GCR 80	0.93	1.16	0.46	0.93	0.21	0.08	0.46	0.21	0.00	0.05	0.05	0.25	0.25	0.32	3.17	0.28	5.61		
1471	King Creek	GCR 80	0.93	1.16	0.62	0.93	0.21	0.11	0.46	0.21	0.00	0.05	0.05	0.25	0.25	0.30	3.17	0.28	5.61		
1472	King Creek	GCR 80	2.88	3.61	1.92	2.88	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1473	King Creek	GCR 80	2.88	4.33	2.40	2.88	0.78	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1474	King Creek	GCR 80	2.16	2.70	1.44	2.16	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1475	King Creek	GCR 80	3.61	4.51	3.00	3.61	0.81	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1476	King Creek	GCR 80	5.77	7.21	3.85	5.77	1.30	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1477	King Creek	GCR 80	5.05	2.52	1.68	5.05	0.45	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1478	King Creek	GCR 80	0.72	0.72	0.36	0.72	0.13	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1479	King Creek	GCR 80	2.16	2.70	1.44	2.16	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1480	King Creek	GCR 80	0.60	0.90	0.60	0.60	0.16	0.11	0.30	0.16	0.00	0.03	0.03	0.19	0.19	0.45	4.78	0.21	8.46		
1481	King Creek	GCR 80	2.40	4.81	2.40	2.40	0.87	0.43	1.20	0.87	0.00	0.12	0.12	0.99	0.99	0.50	6.12	1.08	10.84		
1482	King Creek	GCR 80	3.00	7.51	3.61	3.00	1.35	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1483	King Creek	GCR 80	1.80	1.44	1.08	1.80	0.26	0.19	0.18	0.03	0.02	0.02	0.02	0.06	0.06	0.07	0.53	0.07	0.93		
1484	King Creek	80-C	2.40	1.44	0.96	2.40	0.26	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1485	King Creek	80-B	1.44	1.44	0.72	1.44	0.26	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1486	King Creek	83	1.55	1.24	0.62	1.55	0.22	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1487	King Creek	83	4.21	7.57	4.21	4.21	1.36	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1488	King Creek	82	0.72	0.90	0.48	0.72	0.16	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1489	King Creek	82	2.88	3.61	2.40	2.88	0.65	0.43	1.44	0.65	0.00	0.14	0.14	0.79	0.79	0.44	4.93	0.87	8.72		
1490	King Creek	82	0.72	1.20	0.60	0.72	0.22	0.11	0.43	0.22	0.01	0.04	0.04	0.27	0.27	0.53	6.72	0.30	11.90		
1491	King Creek	82	2.16	3.61	1.80	2.16	0.65	0.32	1.30	0.65	0.03	0.13	0.13	0.81	0.81	0.53	6.72	0.89	11.90		
1492	King Creek	82	1.80	2.70	1.80	1.80	0.49	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1493	King Creek	82	1.20	2.40	1.44	1.20	0.43	0.26	0.60	0.43	0.00	0.06	0.06	0.49	0.49	0.48	6.12	0.54	10.84		
1494	King Creek	82	1.80	5.41	1.80	1.80	0.97	0.32	0.90	0.97	0.00	0.09	0.09	1.06	1.06	0.58	8.81	1.17	15.60		
1495	King Creek	82	6.49	6.49	3.24	6.49	1.17	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1496	King Creek	80-A	1.85	1.85	0.93	1.85	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1497	King Creek	81	0.93	0.77	0.46	0.93	0.14	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1498	King Creek	81	1.44	3.00	0.72	1.44	0.54	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1499	King Creek	81	5.77	5.77	2.88	5.77	1.04	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1500	King Creek	81-A	1.39	1.16	0.70	1.39	0.21	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1501	King Creek	81-A	0.46	0.23	0.23	0.46	0.04	0.04	0.02	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.16	0.01	0.29		
1502	King Creek	81-A	0.39	0.46	0.31	0.39	0.08	0.06	0.23	0.08	0.01	0.02	0.02	0.11	0.11	0.30	2.79	0.12	4.94		
1503	King Creek	81-A	2.70	3.24	1.62	2.70	0.58	0.29	1.35	0.58	0.00	0.14	0.14	0.72	0.72	0.30	2.55	0.79	4.52		
1504	King Creek	81-A	2.32	2.90	1.93	2.32	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1505	King Creek	85	1.55	3.09	1.55	1.55	0.56	0.26	0.15	0.56	0.00	0.02	0.02	0.57	0.57	0.29	3.55	0.63	6.29		
1506	King Creek	85	2.32	3.48	2.32	2.32	0.63	0.42	1.16	0.63	0.00	0.12	0.12	0.74	0.74	0.29	3.07	0.82	5.44		
1507	King Creek	85	0.77	1.55	0.77	0.77	0.28	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1508	King Creek	85	1.55	2.32	1.55	1.55	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1509	King Creek	86	4.33	4.64	3.09	4.33	0.83	0.56	0.22	0.08	0.00	0.09	1.08	0.17	1.17	0.04	0.53	0.19	0.93		
1510	King Creek	86	1.85	4.64	2.32	1.85	0.83	0.42	0.46	0.42	0.00	0.19	2.32	0.60	2.74	0.22	3.74	0.66	6.63		
1511	King Creek	86	1.62	2.32	1.39	1.62	0.42	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1512	King Creek	86	3.71	4.64	3.09	3.71	0.83	0.56	1.85	0.83	0.00	0.74	9.27	1.58	10.11	0.43	4.90	1.73	8.67		
1513	King Creek	86	3.24	5.41	2.70	3.24	0.97	0.49	1.62	0.97	0.00	0.65	8.11	1.62	9.09	0.45	5.76	1.78	10.20		
1514	King Creek	86	0.46	0.46	0.31	0.46	0.08	0.06	0.23	0.08	0.00	0.09	1.16	0.18	1.24	0.45	4.38	0.19	7.75		
1515	King Creek	86	0.39	0.97	0.39	0.39	0.17	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac 85. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Persent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1516	King Creek	160	0.0	0.1	0.13	R	201.2	4.9	16	4.6	15	3.0	10	2514	60	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
1516	King Creek	86-A	0.0	0.1	0.05	R	80.5	3.7	12	1.8	6	1.8	6	589	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1517	King Creek	160	0.1	0.3	0.15	R	241.4	4.9	16	3.7	12	1.8	6	2502	80	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1518	King Creek	160	0.3	0.4	0.10	M	160.9	4.3	14	9.1	30	3.7	12	2747	80	80	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1519	King Creek	160	0.4	0.5	0.15	M	241.4	3.7	12	6.1	20	3.7	12	3238	80	80	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1520	King Creek	160	0.5	0.6	0.08	M	120.7	4.3	14	12.2	40	4.6	15	2539	80	80	4	45%	5%	10%	0%	2	6	N	10%	Y	1	N
1521	King Creek	160	0.6	0.6	0.03	M	40.2	4.3	14	6.1	20	3.7	12	564	80	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1522	King Creek	160	0.6	0.7	0.08	M	120.7	4.3	14	6.1	20	3.7	12	1692	90	100	4	45%	5%	10%	0%	2	6	N	10%	Y	1	N
1523	King Creek	160	0.7	0.8	0.10	M	160.9	4.3	14	9.1	30	3.7	12	2747	60	80	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1524	King Creek	160	0.8	0.9	0.10	M	160.9	4.3	14	6.1	20	3.7	12	2256	90	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1525	King Creek	160	0.9	1.2	0.33	M	523.0	4.3	14	4.6	15	3.0	10	6218	90	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1526	King Creek	160	1.2	1.4	0.18	M	281.6	3.7	12	5.5	18	3.0	10	3434	90	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1527	King Creek	160	1.4	1.7	0.30	R	482.8	3.0	10	4.6	15	3.7	12	5445	60	80	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1528	King Creek	160-D	0.0	0.1	0.13	R	201.2	3.7	12	4.6	15	3.7	12	2391	80	90	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1529	King Creek	160-D	0.0	0.1	0.10	M	160.9	4.3	14	3.7	12	3.0	10	1766	100	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1530	King Creek	160-D	0.1	0.1	0.03	S	40.2	4.3	14	4.6	15	3.7	12	503	100	100	4	45%	15%	10%	10%	2	6	N	10%	Y	1	N
1531	King Creek	160-D	0.1	0.4	0.28	M	442.6	3.7	12	6.1	20	3.7	12	5936	80	80	4	45%	10%	50%	0%	2	6	N	100%	N	2	Y
1532	King Creek	160-D	0.4	0.5	0.10	R	160.9	4.3	14	4.6	15	3.0	10	1913	90	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1533	King Creek	99	0.0	0.3	0.30	R	482.8	3.7	12	2.4	8	1.8	6	3826	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1534	King Creek	99	0.3	0.5	0.18	R	281.6	3.7	12	2.4	8	1.8	6	2232	90	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1535	King Creek	99	0.5	0.5	0.03	M	40.2	3.7	12	3.7	12	2.4	8	392	80	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1536	King Creek	99	0.5	0.7	0.15	R	241.4	3.7	12	2.4	8	1.8	6	1913	60	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1537	King Creek	99	0.7	0.8	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	80	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1538	King Creek	99	0.8	0.9	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	60	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1539	King Creek	99	0.9	0.9	0.05	M	80.5	3.7	12	4.6	15	3.0	10	907	80	100	4	45%	5%	10%	0%	4	6	N	10%	Y	1	N
1540	King Creek	99	0.9	0.9	0.03	M	40.2	3.7	12	4.6	15	3.0	10	454	80	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1541	King Creek	99	0.9	1.0	0.10	M	160.9	3.7	12	5.5	18	3.0	10	1962	60	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1542	King Creek	99	1.0	1.2	0.13	M	201.2	3.7	12	4.6	15	3.7	12	2391	80	90	4	45%	2%	10%	0%	4	6	N	10%	Y	2	N
1543	King Creek	99	1.2	1.3	0.13	M	201.2	3.0	10	4.6	15	2.4	8	2023	40	100	4	45%	10%	10%	0%	4	6	N	10%	Y	5	N
1544	King Creek	99	1.3	1.4	0.08	M	120.7	3.0	10	4.6	15	3.0	10	1288	40	100	4	45%	0%	0%	0%	4	8	N	0%	N	1	N
1545	King Creek	99-H	0.0	0.2	0.18	M	281.6	3.7	12	4.6	15	3.0	10	3176	40	100	4	45%	5%	10%	0%	4	6	N	10%	Y	1	N
1546	King Creek	99-H	0.2	0.2	0.03	M	40.2	3.0	10	6.1	20	3.0	10	491	10	60	4	45%	50%	100%	10%	4	6	N	100%	N	1	Y
1547	King Creek	99-H	0.2	0.3	0.05	R	80.5	3.7	12	1.8	6	1.2	4	540	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1548	King Creek	99-F	0.0	0.2	0.15	M	241.4	3.7	12	1.8	6	1.2	4	1619	80	100	2	45%	0%	0%	0%	4	6	N	0%	N	4	N
1549	King Creek	99-E	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	90	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1550	King Creek	99-D	0.0	0.3	0.28	R	442.6	3.7	12	1.8	6	1.2	4	2968	90	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1551	King Creek	99-C	0.0	0.4	0.35	R	563.3	3.7	12	1.8	6	1.2	4	3777	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1552	King Creek	99-C	0.4	0.7	0.35	R	563.3	3.0	10	1.8	6	1.2	4	3434	90	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1553	King Creek	99-C	0.7	1.3	0.55	R	885.1	3.0	10	2.4	8	1.2	4	5936	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1554	King Creek	99-B	0.0	0.3	0.30	M	482.8	3.7	12	4.6	15	3.0	10	5445	40	80	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1555	King Creek	99-B	0.3	0.6	0.25	M	402.3	3.7	12	7.6	25	3.0	10	5764	40	80	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1556	King Creek	99-A	0.0	0.3	0.30	R	482.8	3.0	10	3.7	12	2.4	8	4415	90	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1557	King Creek	161	0.0	0.1	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1558	King Creek	161	0.1	0.2	0.08	M	120.7	3.7	12	2.4	8	1.8	6	957	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1559	King Creek	161	0.2	0.3	0.13	M	201.2	4.3	14	6.1	20	3.0	10	2698	20	80	4	45%	100%	100%	0%	4	6	N	100%	N	5	Y
1560	King Creek	161	0.3	0.4	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	60	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1561	King Creek	161	0.4	0.5	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	90	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1562	King Creek	161-A	0.0	0.1	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	60	100	2	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1563	King Creek	161-A	0.1	0.3	0.20	M	321.9	3.7	12	3.7	12	1.8	6	2943	60	100	2	45%	0%	0%	0%	4	6	N	0%	N	1	N
1564	King Creek	160-A	0.0	0.1	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	80	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1516	King Creek	160	3.09	2.90	1.93	3.09	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1516	King Creek	86-A	0.93	0.46	0.46	0.93	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1517	King Creek	160	3.71	2.78	1.39	3.71	0.50	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1518	King Creek	160	2.16	4.64	1.85	2.16	0.83	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1519	King Creek	160	2.78	4.64	2.78	2.78	0.83	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1520	King Creek	160	1.62	4.64	1.74	1.62	0.83	0.31	0.08	0.08	0.00	0.03	0.41	0.12	0.49	0.05	0.96	0.13	1.70		
1521	King Creek	160	0.54	0.77	0.46	0.54	0.14	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1522	King Creek	160	1.62	2.32	1.39	1.62	0.42	0.25	0.08	0.04	0.00	0.03	0.41	0.07	0.45	0.04	0.61	0.08	1.09		
1523	King Creek	160	2.16	4.64	1.85	2.16	0.83	0.33	1.08	0.83	0.00	0.43	5.41	1.27	6.24	0.46	7.87	1.39	13.94		
1524	King Creek	160	2.16	3.09	1.85	2.16	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1525	King Creek	160	7.03	7.53	5.02	7.03	1.36	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1526	King Creek	160	3.24	4.87	2.70	3.24	0.88	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1527	King Creek	160	4.64	6.95	5.56	4.64	1.25	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1528	King Creek	160-D	2.32	2.90	2.32	2.32	0.52	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1529	King Creek	160-D	2.16	1.85	1.55	2.16	0.33	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1530	King Creek	160-D	0.54	0.58	0.46	0.54	0.10	0.08	0.08	0.01	0.01	0.03	0.41	0.05	0.42	0.10	1.27	0.06	2.25		
1531	King Creek	160-D	5.10	8.50	5.10	5.10	1.53	0.92	0.51	0.76	0.00	0.20	2.55	0.97	3.31	0.16	2.19	1.07	3.88		
1532	King Creek	160-D	2.16	2.32	1.55	2.16	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1533	King Creek	99	5.56	3.71	2.78	5.56	0.67	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1534	King Creek	99	3.24	2.16	1.62	3.24	0.39	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1535	King Creek	99	0.46	0.46	0.31	0.46	0.08	0.06	0.23	0.08	0.00	0.02	0.02	0.11	0.11	0.27	2.65	0.12	4.69		
1536	King Creek	99	2.78	1.85	1.39	2.78	0.33	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1537	King Creek	99	2.78	2.78	1.39	2.78	0.50	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1538	King Creek	99	0.93	1.16	0.62	0.93	0.21	0.11	0.46	0.21	0.00	0.05	0.05	0.25	0.25	0.30	3.17	0.28	5.61		
1539	King Creek	99	0.93	1.16	0.77	0.93	0.21	0.14	0.05	0.02	0.00	0.00	0.00	0.03	0.03	0.03	0.32	0.03	0.56		
1540	King Creek	99	0.46	0.58	0.39	0.46	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1541	King Creek	99	1.85	2.78	1.55	1.85	0.50	0.28	0.93	0.50	0.00	0.09	0.09	0.59	0.59	0.30	3.69	0.65	6.53		
1542	King Creek	99	2.32	2.90	2.32	2.32	0.52	0.42	0.05	0.05	0.00	0.00	0.00	0.06	0.06	0.02	0.28	0.06	0.50		
1543	King Creek	99	1.93	2.90	1.55	1.93	0.52	0.28	0.19	0.05	0.00	0.02	0.02	0.07	0.07	0.04	0.36	0.08	0.63		
1544	King Creek	99	1.16	1.74	1.16	1.16	0.31	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1545	King Creek	99-H	3.24	4.06	2.70	3.24	0.73	0.49	0.16	0.07	0.00	0.02	0.02	0.09	0.09	0.03	0.32	0.10	0.56		
1546	King Creek	99-H	0.39	0.77	0.39	0.39	0.14	0.07	0.19	0.14	0.01	0.02	0.02	0.17	0.17	0.34	4.11	0.18	7.27		
1547	King Creek	99-H	0.93	0.46	0.31	0.93	0.08	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1548	King Creek	99-F	2.78	1.39	0.93	2.78	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1549	King Creek	99-E	1.55	0.93	0.62	1.55	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1550	King Creek	99-D	5.10	2.55	1.70	5.10	0.46	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1551	King Creek	99-C	6.49	3.24	2.16	6.49	0.58	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1552	King Creek	99-C	5.41	3.24	2.16	5.41	0.58	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1553	King Creek	99-C	8.50	6.80	3.40	8.50	1.22	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1554	King Creek	99-B	5.56	6.95	4.64	5.56	1.25	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1555	King Creek	99-B	4.64	9.66	3.86	4.64	1.74	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1556	King Creek	99-A	4.64	5.56	3.71	4.64	1.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1557	King Creek	161	1.39	1.39	0.70	1.39	0.25	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1558	King Creek	161	1.39	0.93	0.70	1.39	0.17	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1559	King Creek	161	2.70	3.86	1.93	2.70	0.70	0.35	2.70	0.70	0.00	0.27	0.27	0.97	0.97	0.36	4.80	1.06	8.50		
1560	King Creek	161	2.32	2.90	1.93	2.32	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1561	King Creek	161	1.85	2.32	1.55	1.85	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1562	King Creek	161-A	1.85	2.32	1.24	1.85	0.42	0.22	0.93	0.42	0.00	0.09	0.09	0.51	0.51	0.30	3.17	0.56	5.61		
1563	King Creek	161-A	3.71	3.71	1.85	3.71	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1564	King Creek	160-A	1.39	1.74	0.93	1.39	0.31	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac[illegible] 35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1565	King Creek	160-A	0.1	0.2	0.13	R	201.2	3.0	10	4.6	15	3.0	10	2146	40	80	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1566	King Creek	150	0.0	0.2	0.15	M	241.4	4.3	14	4.6	15	2.4	8	2722	90	100	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
1567	King Creek	150	0.2	0.2	0.08	M	120.7	4.3	14	7.6	25	3.0	10	1803	40	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1568	King Creek	150	0.2	0.3	0.05	M	80.5	4.3	14	6.1	20	3.7	12	1128	50	60	4	45%	50%	100%	10%	4	6	N	100%	Y	1	Y
1569	King Creek	150	0.3	0.5	0.20	M	321.9	3.7	12	9.1	30	4.6	15	5592	60	100	4	45%	5%	10%	0%	4	6	N	10%	Y	1	N
1570	King Creek	150	0.5	0.6	0.10	M	160.9	3.7	12	7.6	25	3.7	12	2404	50	100	4	45%	5%	50%	0%	4	6	N	100%	N	2	Y
1571	King Creek	150	0.6	0.7	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1572	King Creek	150	0.7	0.8	0.10	M	160.9	3.0	10	4.6	15	3.0	10	1717	90	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1573	King Creek	150	0.8	0.8	0.02	S	40.2	3.0	10	9.1	30	4.6	15	674	90	100	4	45%	100%	100%	50%	4	6	N	100%	N	3	Y
1574	King Creek	150	0.8	0.9	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	90	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1575	King Creek	150	0.9	1.0	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	80	90	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1576	King Creek	150	1.0	1.1	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	50	90	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1577	King Creek	150	1.1	1.2	0.08	M	120.7	3.0	10	4.6	15	3.0	10	1288	70	90	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1578	King Creek	150	1.2	1.3	0.10	M	160.9	3.0	10	6.1	20	3.7	12	2060	40	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
1579	King Creek	150	1.3	1.4	0.15	M	241.4	3.7	12	7.6	25	4.6	15	3826	60	90	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1580	King Creek	170	0.0	0.1	0.13	M	201.2	4.3	14	6.1	20	3.0	10	2698	90	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1581	King Creek	170	0.1	0.3	0.18	M	281.6	4.3	14	9.1	30	4.6	15	5065	50	80	4	45%	0%	0%	0%	2	6	N	0%	Y	2	N
1582	King Creek	170	0.3	0.5	0.20	M	321.9	3.7	12	7.6	25	4.6	15	5102	90	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1583	King Creek	170	0.5	0.7	0.20	M	321.9	3.7	12	6.1	20	3.7	12	4317	60	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1584	King Creek	170	0.7	0.7	0.03	M	40.2	3.7	12	6.1	20	3.7	12	540	60	90	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2377	King Creek	3360	0.0	0.1	0.13	M	201.2	3.7	12	3.0	10	1.8	6	1717	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	N
2378	King Creek	3360	0.1	0.4	0.23	M	362.1	3.7	12	3.7	12	2.4	8	3532	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2379	King Creek	3360	0.4	0.5	0.10	M	160.9	3.7	12	5.5	18	3.0	10	1962	90	90	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2380	King Creek	3360	0.5	0.8	0.30	M	482.8	3.7	12	4.6	15	2.4	8	5151	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2381	King Creek	3360	0.8	1.0	0.23	M	362.1	4.3	14	6.1	20	3.7	12	5077	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2382	King Creek	3360	1.0	1.1	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	100	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	N
2383	King Creek	3360	1.1	1.1	0.05	M	80.5	3.7	12	9.1	30	4.6	15	1398	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2384	King Creek	3360	1.1	1.2	0.08	M	120.7	3.7	12	7.6	25	4.6	15	1913	60	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2385	King Creek	3360	1.2	1.3	0.10	M	160.9	3.7	12	7.6	25	3.7	12	2404	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2386	King Creek	3360	1.3	1.4	0.10	M	160.9	3.7	12	9.1	30	4.6	15	2796	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2387	King Creek	3360	1.4	1.7	0.28	M	442.6	3.7	12	6.1	20	3.0	10	5666	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2388	King Creek	3360	1.7	1.8	0.15	M	241.4	3.7	12	4.6	15	2.4	8	2575	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2389	King Creek	3360	1.8	1.8	0.02	M	40.2	3.7	12	6.1	20	2.4	8	491	80	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	N
2390	King Creek	3360	1.8	2.0	0.18	M	281.6	3.7	12	6.1	20	3.7	12	3777	90	100	4	45%	50%	100%	0%	4	6	N	100%	Y	1	N
2391	King Creek	3360	2.0	2.2	0.18	M	281.6	3.7	12	6.1	20	3.7	12	3777	90	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
2392	King Creek	3360	2.2	2.2	0.03	M	40.2	3.7	12	6.1	20	3.7	12	540	60	90	4	45%	50%	100%	10%	4	6	N	100%	N	1	Y
2393	King Creek	3360	2.2	2.5	0.25	M	402.3	2.7	9	6.1	20	3.7	12	5028	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2394	King Creek	3367	0.0	0.1	0.05	M	80.5	3.0	10	6.1	20	3.0	10	981	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2395	King Creek	3367	0.1	0.2	0.10	M	160.9	3.0	10	7.6	25	4.6	15	2453	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2396	King Creek	3367	0.2	0.2	0.05	M	80.5	3.0	10	7.6	25	4.6	15	1226	20	60	4	70%	50%	100%	100%	4	6	N	100%	Y	1	N
2397	King Creek	3367	0.2	0.5	0.25	R	402.3	3.7	12	2.4	8	1.8	6	3189	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2398	King Creek	3366	0.0	0.2	0.15	R	241.4	3.0	10	1.2	4	1.2	4	1324	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2399	King Creek	3365	0.0	0.1	0.08	M	120.7	3.7	12	1.8	6	1.2	4	809	100	100	4	70%	100%	100%	100%	2	6	N	100%	Y	5	N
2400	King Creek	3365	0.1	0.1	0.03	M	40.2	3.7	12	3.0	10	1.8	6	343	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2401	King Creek	3365	0.1	0.2	0.05	M	80.5	3.7	12	3.7	12	1.8	6	736	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2402	King Creek	3365	0.2	0.4	0.25	M	402.3	3.7	12	2.4	8	1.8	6	3189	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2403	King Creek	3365	0.4	0.7	0.30	M	482.8	3.7	12	1.8	6	1.2	4	3238	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2404	King Creek	3365	0.7	0.9	0.20	M	321.9	3.7	12	4.6	15	2.4	8	3434	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2405	King Creek	3365	0.9	1.0	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2406	King Creek	3365	1.0	1.3	0.28	M	442.6	3.7	12	4.6	15	2.4	8	4721	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1565	King Creek	160-A	1.93	2.90	1.93	1.93	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1566	King Creek	150	3.24	3.48	1.85	3.24	0.63	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1567	King Creek	150	1.62	2.90	1.18	1.62	0.52	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1568	King Creek	150	1.08	1.55	0.93	1.08	0.28	0.17	0.54	0.28	0.02	0.05	0.05	0.35	0.35	0.31	4.34	0.38	7.68		
1569	King Creek	150	3.71	9.27	4.64	3.71	1.67	0.83	0.19	0.17	0.00	0.02	0.02	0.19	0.19	0.03	0.58	0.20	1.02		
1570	King Creek	150	1.85	3.88	1.85	1.85	0.70	0.33	0.09	0.35	0.00	0.01	0.01	0.38	0.38	0.15	2.22	0.39	3.93		
1571	King Creek	150	2.32	2.90	1.55	2.32	0.52	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1572	King Creek	150	1.55	2.32	1.55	1.55	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1573	King Creek	150	0.39	1.16	0.58	0.39	0.21	0.10	0.39	0.21	0.05	0.04	0.04	0.30	0.30	0.44	7.44	0.33	13.17		
1574	King Creek	150	1.39	1.74	1.18	1.39	0.31	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1575	King Creek	150	1.85	2.32	1.55	1.85	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1576	King Creek	150	1.39	1.74	0.93	1.39	0.31	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1577	King Creek	150	1.16	1.74	1.18	1.16	0.31	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1578	King Creek	150	1.55	3.09	1.85	1.55	0.56	0.33	0.77	0.56	0.00	0.08	0.08	0.63	0.63	0.31	3.94	0.70	6.97		
1579	King Creek	150	4.33	9.01	5.41	4.33	1.62	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1580	King Creek	170	2.70	3.86	1.93	2.70	0.70	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1581	King Creek	170	3.79	8.11	4.06	3.79	1.46	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1582	King Creek	170	3.71	7.73	4.64	3.71	1.39	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1583	King Creek	170	3.71	8.18	3.71	3.71	1.11	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1584	King Creek	170	0.46	0.77	0.46	0.46	0.14	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2377	King Creek	3360	3.61	3.00	1.80	3.61	0.54	0.32	1.80	0.54	0.00	0.72	9.01	1.26	9.55	0.74	6.27	1.39	11.10		
2378	King Creek	3360	6.49	6.49	4.33	6.49	1.17	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2379	King Creek	3360	2.88	4.33	2.40	2.88	0.78	0.43	1.44	0.78	0.00	0.58	7.21	1.36	7.99	0.69	8.42	1.49	14.91		
2380	King Creek	3360	8.65	10.82	5.77	8.65	1.95	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2381	King Creek	3360	7.57	10.82	6.49	7.57	1.95	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2382	King Creek	3360	2.16	2.16	1.44	2.16	0.39	0.26	1.08	0.39	0.00	0.43	5.41	0.82	5.80	0.70	6.81	0.90	12.06		
2383	King Creek	3360	1.44	3.61	1.80	1.44	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2384	King Creek	3360	2.16	4.51	2.70	2.16	0.81	0.49	1.08	0.81	0.00	0.43	5.41	1.24	6.22	0.65	10.31	1.37	18.24		
2385	King Creek	3360	2.88	6.01	2.68	2.88	1.08	0.52	1.44	1.08	0.00	0.58	7.21	1.66	8.29	0.69	10.31	1.82	18.24		
2386	King Creek	3360	2.88	7.21	3.61	2.88	1.30	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2387	King Creek	3360	7.93	13.22	6.61	7.93	2.38	1.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2388	King Creek	3360	4.33	5.41	2.88	4.33	0.97	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2389	King Creek	3360	0.72	1.20	0.48	0.72	0.22	0.09	0.36	0.22	0.00	0.04	0.04	0.25	0.25	0.51	6.27	0.28	11.10		
2390	King Creek	3360	3.24	5.41	3.24	3.24	0.97	0.58	1.62	0.97	0.00	0.16	0.16	1.14	1.14	0.30	4.03	1.25	7.14		
2391	King Creek	3360	3.24	5.41	3.24	3.24	0.97	0.58	1.62	0.97	0.00	0.18	0.16	1.14	1.14	0.30	4.03	1.25	7.14		
2392	King Creek	3360	0.46	0.77	0.46	0.46	0.14	0.08	0.23	0.14	0.01	0.02	0.02	0.17	0.17	0.32	4.24	0.19	7.51		
2393	King Creek	3360	5.41	12.02	7.21	5.41	2.16	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2394	King Creek	3367	1.20	2.40	1.20	1.20	0.43	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2395	King Creek	3367	2.40	6.01	3.61	2.40	1.08	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2396	King Creek	3367	1.20	3.00	1.80	1.20	0.54	0.32	0.60	0.54	0.32	0.06	0.06	0.93	0.93	0.75	11.50	1.02	20.86		
2397	King Creek	3367	7.21	4.81	3.61	7.21	0.87	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2398	King Creek	3366	3.61	1.44	1.44	3.61	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2399	King Creek	3365	2.16	1.08	0.72	2.16	0.19	0.13	2.16	0.19	0.13	0.87	10.82	1.19	11.14	1.47	9.86	1.31	17.45		
2400	King Creek	3365	0.72	0.60	0.36	0.72	0.11	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2401	King Creek	3365	1.44	1.44	0.72	1.44	0.26	0.13	0.72	0.26	0.00	0.29	3.61	0.55	3.87	0.74	6.81	0.60	12.06		
2402	King Creek	3365	7.21	4.81	3.61	7.21	0.87	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2403	King Creek	3365	8.65	4.33	2.88	8.65	0.78	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2404	King Creek	3365	5.77	7.21	3.85	5.77	1.30	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2405	King Creek	3365	2.88	1.92	1.44	2.88	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2406	King Creek	3365	7.93	9.92	5.29	7.93	1.78	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac[illegible]35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2407	King Creek	3365	1.3	1.5	0.25	M	402.3	3.7	12	6.1	20	3.0	10	5151	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2408	King Creek	3365	1.5	1.7	0.20	M	321.9	3.7	12	3.7	12	2.4	8	3139	100	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
2409	King Creek	3365	1.7	1.9	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	90	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
2410	King Creek	3365	1.9	2.0	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	100	100	4	45%	0%	0%	0%	2	6	N	0%	Y	2	N
2411	King Creek	3365	2.0	2.0	0.05	M	80.5	3.0	10	6.1	20	3.7	12	1030	100	100	4	45%	0%	0%	0%	2	6	N	0%	Y	2	N
2412	King Creek	3365	2.0	2.1	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	100	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2413	King Creek	3365	2.1	2.3	0.16	M	261.6	3.7	12	4.6	15	2.4	8	3005	100	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2414	King Creek	3365	2.3	2.4	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	4	45%	0%	0%	0%	2	6	N	0%	N	5	N
2415	King Creek	3365	2.4	2.5	0.08	M	120.7	3.0	10	3.7	12	2.4	8	1104	100	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2416	King Creek	3365	2.5	2.6	0.13	M	201.2	3.7	12	4.6	15	2.4	6	2146	100	100	4	45%	0%	0%	0%	2	6	N	0%	Y	5	N
2417	King Creek	3365	2.6	2.7	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	80	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2418	King Creek	3365	2.7	2.8	0.05	M	80.5	3.0	10	4.6	15	2.4	8	809	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2419	King Creek	3365	2.8	2.8	0.05	M	80.5	3.0	10	6.1	20	3.7	12	1030	100	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
2420	King Creek	3365	2.8	2.9	0.08	M	120.7	3.0	10	6.1	20	3.0	10	1472	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2421	King Creek	3365	2.9	3.1	0.18	M	281.6	3.0	10	6.1	20	3.7	12	3605	80	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2422	King Creek	3365	3.1	3.1	0.05	M	80.5	3.0	10	6.1	20	3.7	12	1030	90	100	4	45%	0%	0%	0%	4	6	N	0%	N	2	N
2423	King Creek	3365	3.1	3.1	0.02	M	40.2	3.0	10	4.6	15	3.0	10	429	100	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
2424	King Creek	3365	3.1	3.3	0.18	M	281.6	3.0	10	4.6	15	3.7	12	3176	90	100	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
2425	King Creek	3365	3.3	3.3	0.03	M	40.2	3.0	10	3.7	12	2.4	8	368	100	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
2426	King Creek	3365	3.3	3.6	0.28	M	442.6	3.7	12	3.7	12	1.8	6	4047	80	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2427	King Creek	3365-J	0.0	0.1	0.10	M	160.9	3.0	10	3.7	12	2.4	8	1472	100	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
2428	King Creek	3365-J	0.1	0.1	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	60	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2429	King Creek	3365-G	0.0	0.1	0.08	M	120.7	3.7	12	2.4	8	1.8	6	957	10	10	5	70%	0%	0%	0%	4	6	Y	0%	Y	1	N
2430	King Creek	3365-G	0.1	0.2	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	40	60	5	70%	50%	100%	0%	4	6	Y	100%	N	1	Y
2432	King Creek	3365-G-1	0.0	0.2	0.18	R	281.6	3.7	12	2.4	8	1.8	6	2232	10	10	5	70%	0%	0%	0%	4	6	Y	0%	N	1	N
2433	King Creek	3360-C	0.0	0.1	0.08	M	120.7	3.7	12	4.6	15	4.6	15	1545	10	10	5	70%	60%	100%	10%	4	6	Y	100%	N	1	Y
2434	King Creek	3360-C	0.1	0.1	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	10	60	5	70%	50%	100%	0%	4	6	Y	100%	N	1	Y
2435	King Creek	3360-C	0.1	0.3	0.18	M	281.6	3.7	12	3.0	10	1.8	6	2404	10	20	5	70%	0%	0%	0%	4	6	Y	0%	Y	1	N
2436	King Creek	3360-B	0.0	0.2	0.18	M	281.6	3.7	12	3.7	12	1.8	6	2575	80	80	5	70%	50%	100%	0%	4	6	Y	100%	N	1	Y
2437	King Creek	3360-B	0.2	0.3	0.08	M	120.7	3.0	10	4.6	15	2.4	8	1214	40	80	5	70%	0%	0%	0%	4	6	Y	0%	Y	1	N
2438	King Creek	3360-B	0.3	0.3	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	10	10	5	70%	50%	100%	0%	4	6	Y	100%	N	1	Y
2439	King Creek	3360-B-1	0.0	0.0	0.03	M	40.2	3.7	12	3.7	12	2.4	8	392	40	60	5	70%	50%	100%	0%	4	6	Y	100%	N	1	Y
2440	King Creek	3360-B-1	0.0	0.2	0.13	R	201.2	3.7	12	2.4	8	1.2	4	1472	40	80	5	70%	0%	0%	0%	4	6	Y	0%	N	1	N
2441	King Creek	3360-A	0.0	0.1	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	90	100	5	70%	50%	100%	0%	4	6	N	100%	N	1	N
2442	King Creek	3360-A	0.1	0.4	0.23	M	362.1	3.7	12	3.7	12	1.8	6	3311	80	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2443	King Creek	3360-A	0.4	0.4	0.03	M	40.2	3.7	12	1.8	6	1.8	6	294	100	100	5	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2444	King Creek	3360-A	0.4	0.4	0.03	M	40.2	3.7	12	2.4	8	1.8	6	319	60	100	5	70%	5%	10%	0%	4	6	N	10%	Y	1	N
2445	King Creek	3360-A	0.4	0.5	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	80	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2446	King Creek	3360-A	0.5	0.6	0.08	M	120.7	3.7	12	2.4	8	1.2	4	883	80	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2447	King Creek	3360-A	0.6	0.8	0.23	M	362.1	3.7	12	2.4	8	1.8	6	2870	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2448	King Creek	3360-A-1	0.0	0.1	0.10	M	160.9	3.0	10	3.7	12	1.8	6	1374	80	100	4	70%	10%	100%	0%	4	6	N	100%	N	2	Y
2449	King Creek	3370	0.0	0.2	0.18	M	281.6	4.3	14	1.8	6	1.2	4	2060	60	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	N
2450	King Creek	3370	0.2	0.3	0.10	M	160.9	4.3	14	3.7	12	1.8	6	1570	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2451	King Creek	3370	0.3	0.5	0.23	M	362.1	4.3	14	4.6	15	2.4	8	4084	40	80	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2452	King Creek	3370	0.5	0.9	0.40	R	643.7	4.3	14	4.6	15	3.0	10	7652	60	80	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2453	King Creek	3380	0.0	0.1	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	80	100	4	70%	25%	50%	0%	2	6	N	50%	Y	1	N
2454	King Creek	3380	0.1	0.1	0.03	M	40.2	4.3	14	3.7	12	1.8	6	392	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2455	King Creek	3380	0.1	0.2	0.10	M	160.9	4.3	14	4.6	15	1.8	6	1717	80	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2456	King Creek	3380	0.2	0.3	0.05	M	80.5	4.3	14	4.6	15	2.4	8	907	90	100	4	70%	5%	10%	0%	2	6	N	10%	Y	1	N
2457	King Creek	3380	0.3	0.5	0.23	M	362.1	4.3	14	6.1	20	3.0	10	4856	50	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2407	King Creek	3365	7.21	12.02	6.01	7.21	2.16	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2408	King Creek	3365	3.71	3.71	2.47	3.71	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2409	King Creek	3365	2.32	2.90	1.93	2.32	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2410	King Creek	3365	1.85	3.09	1.55	1.85	0.56	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2411	King Creek	3365	0.77	1.55	0.93	0.77	0.28	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2412	King Creek	3365	2.32	2.90	1.93	2.32	0.52	0.35	1.16	0.52	0.00	0.46	5.79	0.99	6.32	0.43	4.90	1.08	8.67		
2413	King Creek	3365	3.24	4.06	2.16	3.24	0.73	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2414	King Creek	3365	1.55	1.24	0.93	1.55	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2415	King Creek	3365	1.16	1.39	0.93	1.16	0.25	0.17	0.58	0.25	0.00	0.23	2.90	0.46	3.15	0.44	3.99	0.53	7.07		
2416	King Creek	3365	2.32	2.90	1.55	2.32	0.52	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2417	King Creek	3365	1.85	1.85	1.24	1.85	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2418	King Creek	3365	0.77	1.16	0.62	0.77	0.21	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2419	King Creek	3365	0.77	1.55	0.93	0.77	0.28	0.17	0.39	0.28	0.00	0.04	0.04	0.32	0.32	0.31	3.94	0.35	6.97		
2420	King Creek	3365	1.16	2.32	1.16	1.16	0.42	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2421	King Creek	3365	2.70	5.41	3.24	2.70	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2422	King Creek	3365	0.77	1.55	0.93	0.77	0.28	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2423	King Creek	3365	0.39	0.58	0.39	0.39	0.10	0.07	0.19	0.10	0.00	0.02	0.02	0.12	0.12	0.29	3.07	0.14	5.44		
2424	King Creek	3365	2.70	4.06	3.24	2.70	0.73	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2425	King Creek	3365	0.39	0.46	0.31	0.39	0.08	0.06	0.19	0.08	0.00	0.02	0.02	0.10	0.10	0.26	2.55	0.11	4.52		
2426	King Creek	3365	5.10	5.10	2.55	5.10	0.92	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2427	King Creek	3365-J	1.55	1.85	1.24	1.55	0.33	0.22	0.77	0.33	0.00	0.08	0.08	0.41	0.41	0.28	2.55	0.45	4.52		
2428	King Creek	3365-J	0.46	0.56	0.31	0.46	0.10	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2429	King Creek	3365-G	2.16	1.44	1.08	0.43	0.26	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2430	King Creek	3365-G	4.33	4.33	2.16	0.87	0.78	0.39	0.43	0.78	0.00	0.04	0.04	0.62	0.82	0.37	3.41	0.90	6.03		
2432	King Creek	3365-G-1	5.05	3.37	2.52	1.01	0.61	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2433	King Creek	3360-C	2.16	2.70	2.70	0.43	0.49	0.49	0.26	0.49	0.05	0.03	0.03	0.56	0.56	0.36	4.65	0.62	8.23		
2434	King Creek	3360-C	0.72	0.90	0.48	0.14	0.16	0.09	0.07	0.16	0.00	0.01	0.01	0.17	0.17	0.39	4.21	0.19	7.46		
2435	King Creek	3360-C	5.05	4.21	2.52	1.01	0.76	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2436	King Creek	3360-B	5.05	5.05	2.52	1.01	0.91	0.45	0.50	0.91	0.00	0.05	0.05	0.96	0.96	0.37	3.41	1.05	6.03		
2437	King Creek	3360-B	1.80	2.70	1.44	0.36	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2438	King Creek	3360-B	1.44	0.96	0.72	0.29	0.17	0.13	0.14	0.17	0.00	0.01	0.01	0.19	0.19	0.29	2.33	0.21	4.12		
2439	King Creek	3360-B-1	0.72	0.72	0.48	0.14	0.13	0.09	0.07	0.13	0.00	0.01	0.01	0.14	0.14	0.35	3.41	0.15	6.03		
2440	King Creek	3360-B-1	3.61	2.40	1.20	0.72	0.43	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2441	King Creek	3360-A	3.61	3.61	1.60	0.72	0.65	0.32	0.36	0.65	0.00	0.04	0.04	0.69	0.69	0.37	3.41	0.75	6.03		
2442	King Creek	3360-A	6.49	6.49	3.24	1.30	1.17	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2443	King Creek	3360-A	0.72	0.36	0.36	0.14	0.06	0.06	0.07	0.06	0.00	0.01	0.01	0.07	0.07	0.25	1.79	0.08	3.17		
2444	King Creek	3360-A	0.72	0.48	0.36	0.14	0.09	0.06	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.03	0.23	0.01	0.41		
2445	King Creek	3360-A	2.88	2.88	1.44	0.58	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2446	King Creek	3360-A	2.16	1.44	0.72	2.16	0.26	0.13	1.08	0.26	0.00	0.11	0.11	0.37	0.37	0.42	3.05	0.40	5.39		
2447	King Creek	3360-A	6.49	4.33	3.24	6.49	0.78	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2448	King Creek	3360-A-1	2.40	2.88	1.44	2.40	0.52	0.26	0.24	0.52	0.00	0.02	0.02	0.54	0.54	0.40	3.38	0.60	5.98		
2449	King Creek	3370	5.89	2.52	1.68	5.89	0.45	0.30	2.94	0.45	0.00	0.29	0.29	0.75	0.75	0.36	2.66	0.82	4.71		
2450	King Creek	3370	3.37	2.88	1.44	3.37	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2451	King Creek	3370	7.57	8.11	4.33	7.57	1.46	0.78	3.79	1.46	0.00	0.38	0.38	1.84	1.84	0.45	5.08	2.02	8.99		
2452	King Creek	3370	13.46	14.42	9.61	13.46	2.60	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2453	King Creek	3360	3.37	3.61	1.92	3.37	0.65	0.35	0.84	0.32	0.00	0.34	4.21	0.66	4.53	0.36	4.11	0.73	7.27		
2454	King Creek	3380	0.84	0.72	0.36	0.84	0.13	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2455	King Creek	3380	3.37	3.61	1.44	3.37	0.65	0.26	1.68	0.65	0.00	0.67	8.41	1.32	9.06	0.77	6.21	1.45	14.54		
2456	King Creek	3380	1.66	1.60	0.96	1.66	0.32	0.17	0.08	0.03	0.00	0.03	0.42	0.07	0.45	0.07	0.82	0.07	1.45		
2457	King Creek	3380	7.57	10.82	5.41	7.57	1.95	0.97	3.79	1.95	0.00	1.51	18.93	3.46	20.86	0.71	9.56	3.81	16.92		

Attac[illegible]35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2458	King Creek	3380	0.5	0.9	0.38	M	603.5	3.7	12	4.8	15	3.0	10	6806	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2459	King Creek	3380	0.9	1.0	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	80	100	4	70%	10%	100%	0%	2	6	N	100%	N	2	Y
2460	King Creek	3380	1.0	1.0	0.05	M	80.5	3.7	12	7.6	25	3.7	12	1202	60	100	4	70%	0%	0%	0%	2	6	N	0%	N	2	N
2461	King Creek	3380	1.0	1.1	0.08	M	120.7	3.7	12	9.1	30	3.7	12	1987	60	100	4	70%	100%	100%	0%	2	6	N	100%	N	3	Y
2462	King Creek	3380	1.1	1.3	0.20	M	321.9	3.7	12	6.1	20	3.0	10	4121	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2463	King Creek	3380	1.3	1.7	0.43	R	684.0	3.7	12	2.4	8	1.2	4	5004	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2464	King Creek	3380	1.7	1.8	0.08	R	120.7	3.7	12	2.4	8	1.8	6	957	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2465	King Creek	3380	1.8	1.9	0.10	M	160.9	3.7	12	3.0	10	2.4	8	1472	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2466	King Creek	3380	1.9	2.1	0.15	M	241.4	4.3	14	6.1	20	3.0	10	3238	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2467	King Creek	3380	2.1	2.1	0.03	M	40.2	3.7	12	6.1	20	3.7	12	540	60	90	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
2468	King Creek	3380	2.1	2.2	0.13	M	201.2	3.7	12	6.1	20	3.0	10	2575	60	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	N
2469	King Creek	3380	2.2	2.3	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2470	King Creek	3380	2.3	2.3	0.03	S	40.2	3.7	12	6.1	20	3.7	12	540	40	60	4	70%	60%	100%	10%	4	6	N	100%	N	1	Y
2471	King Creek	3380	2.3	2.5	0.20	M	321.9	3.7	12	4.6	15	2.4	8	3434	70	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2472	King Creek	3380	2.5	2.8	0.28	R	442.6	3.7	12	2.4	8	1.8	6	3507	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2473	King Creek	3380	2.8	3.1	0.30	R	482.8	3.7	12	3.7	12	1.8	6	4415	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2474	King Creek	3389-A	0.0	0.1	0.10	M	160.9	3.0	10	3.7	12	1.8	6	1374	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
2475	King Creek	3389	0.0	0.1	0.08	M	120.7	3.0	10	2.4	8	1.8	6	883	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2476	King Creek	3388	0.0	0.1	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2477	King Creek	3388	0.1	0.3	0.15	M	241.4	3.0	10	2.4	8	1.8	6	1766	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
2478	King Creek	3387	0.0	0.1	0.13	R	201.2	3.7	12	3.0	10	1.8	6	1717	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2479	King Creek	3387	0.1	0.3	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2480	King Creek	3387	0.3	0.4	0.15	M	241.4	3.7	12	4.6	15	2.4	8	2575	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2481	King Creek	3387-A	0.0	0.1	0.10	M	160.9	3.0	10	6.1	20	4.6	15	2207	40	80	4	70%	0%	0%	0%	4	6	N	0%	Y	5	N
2482	King Creek	3385	0.0	0.5	0.45	R	724.2	3.7	12	4.6	15	3.7	12	8609	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2483	King Creek	3385	0.5	0.7	0.28	M	442.6	3.0	10	6.1	20	3.0	10	5396	80	100	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
2484	King Creek	3385-A	0.0	0.2	0.15	M	241.4	3.0	10	6.1	20	3.7	12	3090	40	90	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2485	King Creek	3385-A	0.2	0.3	0.13	M	201.2	3.0	10	7.6	25	3.7	12	2882	40	100	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
2486	King Creek	3385-A	0.3	0.4	0.10	M	160.9	3.0	10	6.1	20	3.0	10	1962	60	100	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
2487	King Creek	3385-A	0.4	0.7	0.28	M	442.6	3.7	12	4.6	15	3.0	10	4991	40	90	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2488	King Creek	3385-A	0.7	0.7	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	60	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2489	King Creek	3385-A-1	0.0	0.1	0.13	M	201.2	3.0	10	3.7	12	2.4	8	1840	40	100	4	45%	0%	0%	0%	4	6	N	0%	N	2	N
2490	King Creek	3384	0.0	0.2	0.23	R	362.1	3.7	12	2.4	8	1.8	6	2870	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
2491	King Creek	3383	0.0	0.1	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2492	King Creek	3383	0.1	0.1	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	40	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2493	King Creek	3382	0.0	0.1	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2494	King Creek	3382	0.1	0.1	0.03	M	40.2	3.7	12	3.7	12	1.8	6	368	100	100	4	70%	100%	100%	10%	4	6	N	100%	N	2	Y
2495	King Creek	3382	0.1	0.1	0.03	M	40.2	3.7	12	3.7	12	1.8	6	368	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2496	King Creek	3382	0.1	0.4	0.25	R	402.3	3.7	12	3.7	12	1.8	6	3679	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2497	King Creek	3382-A	0.0	0.1	0.05	S	80.5	3.0	10	3.0	10	1.8	6	638	80	100	4	70%	50%	100%	100%	4	6	N	100%	N	1	Y
2498	King Creek	3382-A	0.1	0.1	0.08	M	120.7	3.0	10	3.7	12	1.8	6	1030	60	100	4	70%	10%	100%	0%	4	6	N	100%	N	2	Y
2499	King Creek	3381	0.0	0.1	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2500	King Creek	3381	0.1	0.1	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	60	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	N
2501	King Creek	3381	0.1	0.1	0.05	M	80.5	3.7	12	6.1	20	3.0	10	1030	40	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2502	King Creek	3381	0.1	0.4	0.28	M	442.6	3.7	12	7.6	25	3.0	10	6340	70	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2503	King Creek	3381	0.4	0.5	0.10	M	160.9	3.0	10	6.1	20	3.0	10	1962	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2504	King Creek	3381	0.5	0.7	0.23	R	362.1	3.7	12	3.7	12	1.8	6	3311	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2505	King Creek	3381-A	0.0	0.1	0.10	M	160.9	3.0	10	3.7	12	1.8	6	1374	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2506	King Creek	3381-A	0.1	0.2	0.10	M	160.9	3.0	10	3.7	12	1.8	6	1374	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2507	King Creek	3389	0.0	0.2	0.20	M	321.9	3.0	10	4.6	15	2.4	8	3238	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2458	King Creek	3380	10.82	13.52	9.01	10.82	2.43	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2459	King Creek	3380	2.88	4.81	2.40	2.88	0.87	0.43	0.29	0.87	0.00	0.12	1.44	0.98	2.31	0.48	6.09	1.08	10.79		
2460	King Creek	3380	1.44	3.00	1.44	1.44	0.54	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2461	King Creek	3380	2.16	5.41	2.16	2.16	0.97	0.39	2.16	0.97	0.00	0.87	10.82	1.84	11.79	0.93	15.23	2.02	26.97		
2462	King Creek	3380	5.77	9.61	4.81	5.77	1.73	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2463	King Creek	3380	12.26	8.17	4.09	12.26	1.47	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2464	King Creek	3380	2.16	1.44	1.08	2.16	0.26	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2465	King Creek	3380	2.88	2.40	1.92	2.88	0.43	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2466	King Creek	3380	5.05	7.21	3.61	5.05	1.30	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2467	King Creek	3380	0.72	1.20	0.72	0.72	0.22	0.13	0.04	0.02	0.00	0.00	0.00	0.00	0.03	0.03	0.05	0.63	0.03	1.11	
2468	King Creek	3380	3.61	6.01	3.00	3.61	1.08	0.54	1.80	1.08	0.00	0.18	0.18	1.26	1.26	0.49	6.27	1.39	11.10		
2469	King Creek	3380	2.88	3.61	1.92	2.88	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2470	King Creek	3380	0.72	1.20	0.72	0.72	0.22	0.13	0.43	0.22	0.01	0.04	0.04	0.27	0.27	0.51	6.77	0.30	11.99		
2471	King Creek	3380	5.77	7.21	3.85	5.77	1.30	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2472	King Creek	3380	7.93	5.29	3.97	7.93	0.95	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2473	King Creek	3380	8.65	8.65	4.33	8.65	1.56	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2474	King Creek	3389-A	2.40	2.88	1.44	2.40	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2475	King Creek	3389	1.80	1.44	1.08	1.80	0.26	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2476	King Creek	3388	2.88	1.92	1.44	2.88	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2477	King Creek	3388	3.61	2.88	2.16	3.61	0.52	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2478	King Creek	3387	3.61	3.00	1.80	3.61	0.54	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2479	King Creek	3387	3.61	4.51	3.00	3.61	0.81	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2480	King Creek	3387	4.33	5.41	2.88	4.33	0.97	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2481	King Creek	3387-A	2.40	4.81	3.61	2.40	0.87	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2482	King Creek	3385	12.98	16.22	12.98	12.98	2.92	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2483	King Creek	3385	4.25	8.50	4.25	4.25	1.53	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2484	King Creek	3385-A	3.61	7.21	4.33	3.61	1.30	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2485	King Creek	3385-A	1.93	4.83	2.32	1.93	0.87	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2486	King Creek	3385-A	1.55	3.09	1.55	1.55	0.56	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2487	King Creek	3385-A	5.10	6.37	4.25	5.10	1.15	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2488	King Creek	3385-A	0.93	1.16	0.62	0.93	0.21	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2489	King Creek	3385-A-1	1.93	2.32	1.55	1.93	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2490	King Creek	3384	6.49	4.33	3.24	6.49	0.78	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2491	King Creek	3383	2.16	2.16	1.44	2.16	0.39	0.26	1.08	0.39	0.00	0.11	0.11	0.50	0.50	0.42	4.12	0.55	7.30		
2492	King Creek	3383	1.44	1.80	0.96	1.44	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2493	King Creek	3382	2.16	2.70	1.44	2.16	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2494	King Creek	3382	0.72	0.72	0.36	0.72	0.13	0.06	0.72	0.13	0.01	0.07	0.07	0.21	0.21	0.57	5.18	0.23	9.17		
2495	King Creek	3382	0.72	0.72	0.36	0.72	0.13	0.06	0.36	0.13	0.00	0.04	0.04	0.17	0.17	0.45	4.12	0.18	7.30		
2496	King Creek	3382	7.21	7.21	3.61	7.21	1.30	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2497	King Creek	3382-A	1.20	1.20	0.72	1.20	0.22	0.13	0.60	0.22	0.13	0.06	0.06	0.41	0.41	0.64	5.05	0.45	8.94		
2498	King Creek	3382-A	1.80	2.16	1.08	1.80	0.39	0.19	0.18	0.39	0.00	0.02	0.02	0.41	0.41	0.40	3.38	0.45	5.98		
2499	King Creek	3381	1.44	1.44	0.96	1.44	0.26	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2500	King Creek	3381	0.72	0.90	0.48	0.72	0.16	0.09	0.36	0.16	0.00	0.04	0.04	0.20	0.20	0.46	4.93	0.22	8.72		
2501	King Creek	3381	1.44	2.40	1.20	1.44	0.43	0.22	0.72	0.43	0.00	0.07	0.07	0.50	0.50	0.49	6.27	0.56	11.10		
2502	King Creek	3381	7.93	16.53	6.61	7.93	2.97	1.19	3.97	2.97	0.00	0.40	0.40	3.37	3.37	0.53	7.62	3.71	13.48		
2503	King Creek	3381	2.40	4.81	2.40	2.40	0.87	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2504	King Creek	3381	6.49	6.49	3.24	6.49	1.17	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2505	King Creek	3381-A	2.40	2.88	1.44	2.40	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2506	King Creek	3381-A	2.40	2.88	1.44	2.40	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2507	King Creek	3389	4.81	7.21	3.85	4.81	1.30	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac[illegible] B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2508	King Creek	3389	0.2	0.3	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	5	N
2509	King Creek	3389	0.3	0.5	0.18	M	281.6	3.0	10	4.6	15	3.0	10	3005	60	100	4	70%	25%	100%	0%	4	6	N	100%	N	2	Y
2510	King Creek	3389	0.5	0.6	0.10	M	160.9	3.0	10	3.7	12	2.4	8	1472	60	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
2511	King Creek	3390	0.0	0.2	0.20	M	321.9	3.7	12	2.4	8	1.8	6	2551	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2512	King Creek	3390	0.2	0.3	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	80	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2513	King Creek	3390	0.3	0.3	0.08	M	120.7	3.7	12	1.8	6	1.2	4	809	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2516	King Creek	3391	0.3	0.6	0.30	M	482.8	3.7	12	2.4	8	1.8	6	3826	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2517	King Creek	3391	0.6	0.7	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2518	King Creek	3391	0.7	0.9	0.25	M	402.0	3.7	12	3.0	10	1.8	6	3431	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2519	King Creek	3391	0.9	1.1	0.15	M	241.4	3.7	12	3.7	12	2.4	8	2355	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2520	King Creek	3391	1.1	1.5	0.40	R	643.7	3.7	12	3.0	10	1.8	6	5494	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2521	King Creek	3391	1.5	1.7	0.25	R	402.3	3.0	10	3.7	12	2.4	8	3679	80	100	1	70%	0%	0%	0%	4	6	N	0%	N	5	N
2522	King Creek	3390-A	0.0	0.1	0.05	M	80.5	2.7	9	1.2	4	1.2	4	417	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2932	King Creek	600	4.9	5.2	0.30	M	482.8	3.7	12	3.0	10	1.8	6	4121	100	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2933	King Creek	600	5.2	5.8	0.58	M	925.4	3.7	12	2.4	8	1.8	6	7334	100	100	4	45%	5%	10%	0%	2	6	N	10%	Y	1	N
2934	King Creek	600	5.8	5.9	0.13	M	201.2	3.7	12	3.7	12	2.4	8	1962	60	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2935	King Creek	600	5.9	6.1	0.18	M	281.6	3.7	12	3.7	12	1.8	6	2575	100	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2936	King Creek	600	6.1	6.3	0.20	M	321.9	3.7	12	1.8	6	1.8	6	2355	100	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2937	King Creek	600	6.3	6.4	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	100	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2938	King Creek	600	6.4	6.5	0.15	M	241.4	3.7	12	2.4	8	1.2	4	1766	100	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
2939	King Creek	600	6.5	6.6	0.07	M	120.7	3.7	12	1.8	6	1.2	4	809	100	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2940	King Creek	600	6.6	7.0	0.40	M	643.7	3.7	12	3.0	10	1.8	6	5494	100	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
2947	King Creek	660	0.0	0.0	0.03	M	40.2	3.0	10	2.4	8	1.8	6	294	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2948	King Creek	660	0.0	0.2	0.18	M	281.6	3.0	10	4.6	15	2.4	8	2833	70	100	4	45%	25%	100%	0%	4	6	N	100%	N	2	Y
2949	King Creek	660	0.2	0.3	0.05	M	80.5	3.0	10	3.7	12	2.4	8	736	60	100	4	45%	0%	0%	0%	4	6	N	0%	N	2	N
2950	King Creek	660	0.3	0.4	0.13	M	201.2	3.0	10	4.6	15	3.0	10	2146	80	100	4	45%	10%	80%	0%	4	6	N	100%	N	2	Y
2951	King Creek	660	0.4	0.5	0.10	M	160.9	3.0	10	4.6	15	2.4	8	1619	70	100	4	45%	10%	50%	0%	4	6	N	100%	N	2	Y
2952	King Creek	660	0.5	0.6	0.10	M	160.9	3.0	10	2.4	8	1.8	6	1177	100	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
2953	King Creek	660	0.6	0.6	0.05	M	60.5	3.0	10	2.4	8	1.2	4	540	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2954	King Creek	660	0.6	0.7	0.08	M	120.7	3.0	10	2.4	8	1.8	6	883	100	100	4	45%	10%	100%	0%	4	6	N	100%	N	2	Y
2955	King Creek	660	0.7	0.9	0.20	M	321.9	3.0	10	4.6	15	3.0	10	3434	80	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
2956	King Creek	660	0.9	1.1	0.15	M	241.4	2.7	9	4.6	15	3.0	10	2502	90	100	4	45%	5%	10%	0%	4	6	N	100%	N	2	Y
2957	King Creek	660	1.1	1.3	0.20	M	321.9	3.0	10	3.7	12	1.8	6	2747	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
2958	King Creek	660	1.3	1.5	0.25	M	402.3	3.0	10	2.4	8	1.8	6	2943	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2959	King Creek	661	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2960	King Creek	661	0.1	0.3	0.20	M	321.9	3.0	10	2.4	8	1.2	4	2158	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2961	King Creek	661	0.3	0.6	0.25	M	402.3	3.0	10	3.7	12	2.4	8	3679	100	100	4	45%	25%	50%	0%	4	6	N	100%	N	2	Y
2962	King Creek	661	0.6	0.9	0.35	M	563.3	2.4	8	1.8	6	1.2	4	3090	100	100	1	45%	0%	0%	0%	4	6	N	0%	N	5	N
1295a	King Creek	3351	0.7	0.9	0.24	S	386.2	6.4	21	1.8	6	1.8	6	3885	70	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2431a	King Creek	3365-G	0.2	0.4	0.15	S	233.4	6.4	21	1.8	6	1.8	6	2347	10	10	5	70%	0%	0%	0%	4	6	Y	0%	Y	1	N
160	N. F. Calapooia	MAINLINE	15.2	15.2	0.03	S	40.2	5.5	18	2.4	8	2.4	8	417	100	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
161	N. F. Calapooia	MAINLINE	15.2	15.5	0.32	M	523.0	5.5	18	3.0	10	2.4	8	5739	100	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
162	N. F. Calapooia	MAINLINE	15.5	15.6	0.07	M	120.7	4.9	16	3.7	12	1.8	6	1251	100	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
163	N. F. Calapooia	MAINLINE	15.6	15.6	0.03	S	40.2	4.9	16	2.4	8	2.4	8	392	100	100	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
164	N. F. Calapooia	MAINLINE	15.6	15.8	0.20	S	321.9	4.9	16	3.7	12	3.7	12	3924	80	100	5	70%	75%	100%	50%	1	6	N	100%	Y	1	Y
165	N. F. Calapooia	MAINLINE	15.8	15.9	0.10	S	160.9	4.9	16	3.7	12	4.6	15	2109	90	100	5	70%	25%	0%	50%	1	6	N	0%	N	1	N
166	N. F. Calapooia	MAINLINE	15.9	15.9	0.03	S	40.2	4.9	16	2.4	8	2.4	8	392	100	100	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
167	N. F. Calapooia	MAINLINE	15.9	16.0	0.10	S	160.9	4.9	16	3.7	12	3.7	12	1962	100	100	5	70%	100%	100%	100%	1	6	N	100%	Y	1	N
168	N. F. Calapooia	MAINLINE	16.0	16.2	0.20	S	321.9	5.5	18	1.8	6	2.4	8	3139	100	100	5	70%	75%	100%	50%	1	6	N	100%	N	1	Y
169	N. F. Calapooia	MAINLINE	16.2	16.3	0.11	S	185.1	5.5	18	1.8	6	1.8	6	1692	100	100	5	70%	50%	50%	50%	1	6	N	50%	Y	1	N

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2508	King Creek	3389	3.61	3.61	1.80	3.61	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2509	King Creek	3389	4.21	6.31	4.21	4.21	1.14	0.76	1.05	1.14	0.00	0.11	0.11	1.24	1.24	0.41	4.41	1.36	7.80		
2510	King Creek	3389	2.40	2.88	1.92	2.40	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2511	King Creek	3390	5.77	3.85	2.88	5.77	0.89	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2512	King Creek	3390	1.44	1.80	0.96	1.44	0.32	0.17	0.72	0.32	0.00	0.07	0.07	0.40	0.40	0.46	4.93	0.44	8.72		
2513	King Creek	3390	2.16	1.08	0.72	2.16	0.19	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2516	King Creek	3391	8.65	5.77	4.33	8.65	1.04	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2517	King Creek	3391	2.16	2.16	1.44	2.16	0.39	0.26	1.08	0.39	0.00	0.11	0.11	0.50	0.50	0.42	4.12	0.55	7.30		
2518	King Creek	3391	7.20	6.00	3.60	7.20	1.08	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2519	King Creek	3391	4.33	4.33	2.88	4.33	0.78	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2520	King Creek	3391	11.54	9.81	5.77	11.54	1.73	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2521	King Creek	3391	6.01	7.21	4.81	6.01	1.30	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2522	King Creek	3390-A	1.08	0.48	0.48	1.08	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2932	King Creek	600	5.56	4.64	2.78	5.56	0.83	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2933	King Creek	600	10.66	7.11	5.33	10.66	1.28	0.96	0.53	0.13	0.00	0.21	2.87	0.34	2.79	0.05	0.37	0.38	0.65		
2934	King Creek	600	2.32	2.32	1.55	2.32	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2935	King Creek	600	3.24	3.24	1.62	3.24	0.58	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2936	King Creek	600	3.71	1.85	1.85	3.71	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2937	King Creek	600	1.85	1.24	0.93	1.85	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2938	King Creek	600	2.78	1.85	0.93	2.78	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2939	King Creek	600	1.39	0.70	0.46	1.39	0.13	0.08	0.70	0.13	0.00	0.28	3.48	0.40	3.60	0.50	3.34	0.44	5.91		
2940	King Creek	600	7.42	6.18	3.71	7.42	1.11	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2947	King Creek	660	0.39	0.31	0.23	0.39	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2948	King Creek	660	2.70	4.06	2.16	2.70	0.73	0.39	0.68	0.73	0.00	0.07	0.07	0.80	0.80	0.28	2.83	0.88	5.01		
2949	King Creek	660	0.77	0.93	0.62	0.77	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2950	King Creek	660	1.93	2.90	1.93	1.93	0.52	0.35	0.19	0.42	0.00	0.02	0.02	0.44	0.44	0.20	2.17	0.48	3.84		
2951	King Creek	660	1.55	2.32	1.24	1.55	0.42	0.22	0.15	0.21	0.00	0.02	0.02	0.22	0.22	0.14	1.39	0.25	2.46		
2952	King Creek	660	1.55	1.24	0.93	1.55	0.22	0.17	0.77	0.22	0.00	0.08	0.08	0.30	0.30	0.25	1.86	0.33	3.30		
2953	King Creek	660	0.77	0.62	0.31	0.77	0.11	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2954	King Creek	660	1.16	0.93	0.70	1.16	0.17	0.13	0.12	0.17	0.00	0.01	0.01	0.18	0.18	0.20	1.48	0.20	2.62		
2955	King Creek	660	3.09	4.64	3.09	3.09	0.83	0.56	1.55	0.83	0.00	0.15	0.15	0.99	0.99	0.29	3.07	1.09	5.44		
2956	King Creek	660	2.09	3.48	2.32	2.09	0.63	0.42	0.10	0.06	0.00	0.01	0.01	0.07	0.07	0.03	0.30	0.08	0.54		
2957	King Creek	660	3.09	3.71	1.85	3.09	0.87	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2958	King Creek	660	3.86	3.09	2.32	3.86	0.56	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2959	King Creek	661	1.55	0.93	0.62	1.55	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2960	King Creek	661	3.09	2.47	1.24	3.09	0.45	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2961	King Creek	661	3.86	4.64	3.09	3.86	0.83	0.56	0.97	0.42	0.00	0.10	0.10	0.51	0.51	0.14	1.28	0.57	2.26		
2962	King Creek	661	4.33	3.24	2.16	4.33	0.58	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1295a	King Creek	3351	7.79	2.23	2.23	1.56	0.40	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2431a	King Creek	3365-G	7.32	2.09	2.09	1.46	0.38	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
160	N. F. Calapooia	MAINLINE	1.08	0.48	0.48	0.22	0.09	0.09	0.22	0.09	0.09	0.09	1.08	0.26	1.25	0.62	8.45	0.29	11.42	93	407
161	N. F. Calapooia	MAINLINE	14.06	7.81	6.25	2.81	1.41	1.12	1.41	1.41	0.00	0.56	7.03	1.97	8.44	0.34	3.76	2.17	6.66		
162	N. F. Calapooia	MAINLINE	2.88	2.16	1.08	0.58	0.39	0.19	0.29	0.39	0.00	0.12	1.44	0.50	1.83	0.40	4.18	0.56	7.40		
163	N. F. Calapooia	MAINLINE	0.96	0.48	0.48	0.19	0.09	0.09	0.19	0.09	0.09	0.08	0.96	0.25	1.13	0.64	6.21	0.27	11.00		
164	N. F. Calapooia	MAINLINE	7.69	5.77	5.77	1.54	1.04	1.04	1.15	1.04	0.52	0.46	5.77	2.02	7.33	0.51	6.27	2.22	11.10		
165	N. F. Calapooia	MAINLINE	3.85	2.88	3.61	0.77	0.52	0.65	0.19	0.00	0.32	0.08	0.96	0.40	1.29	0.19	2.49	0.44	4.42		
166	N. F. Calapooia	MAINLINE	0.96	0.48	0.48	0.19	0.09	0.09	0.19	0.09	0.09	0.08	0.96	0.25	1.13	0.64	6.21	0.27	11.00		
167	N. F. Calapooia	MAINLINE	3.85	2.88	2.88	0.77	0.52	0.52	0.77	0.52	0.52	0.31	3.85	1.35	4.88	0.69	8.36	1.48	14.81		
168	N. F. Calapooia	MAINLINE	8.65	2.88	3.85	1.73	0.52	0.69	1.30	0.52	0.35	0.52	6.49	1.38	7.36	0.44	4.30	1.52	7.61		
169	N. F. Cala[illegible]ia	MAINLINE	4.98	1.66	1.66	1.00	0.30	0.30	0.50	0.15	0.15	0.20	2.49	0.50	2.79	0.29	2.69	0.55	4.76		

Attach B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Percent Rock Code	Road Age ≤2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
170	N. F. Calapooia	MAINLINE	16.3	16.4	0.01	S	16.1	5.5	18	1.2	4	1.8	6	137	100	100	5	70%	100%	100%	100%	1	6	N	100%	N	1	Y
171	N. F. Calapooia	MAINLINE	16.4	16.6	0.22	S	362.1	5.5	18	1.8	6	1.8	6	3311	100	100	5	70%	75%	100%	50%	1	6	N	100%	Y	1	Y
172	N. F. Calapooia	MAINLINE	16.6	16.7	0.14	S	217.3	5.5	18	1.8	6	1.8	6	1987	100	100	5	70%	50%	50%	50%	1	6	N	50%	Y	1	N
173	N. F. Calapooia	MAINLINE	16.7	16.8	0.04	M	64.4	5.5	18	2.4	8	1.8	6	628	50	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
174	N. F. Calapooia	MAINLINE	16.8	17.0	0.23	M	362.1	4.9	16	4.6	15	2.4	8	4304	90	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
1325	N. F. Calapooia	3400	0.0	0.1	0.13	M	201.2	4.9	16	2.4	8	1.6	6	1840	80	90	5	70%	100%	100%	100%	2	6	N	100%	N	1	Y
1326	N. F. Calapooia	3400	0.1	0.2	0.08	M	120.7	4.9	16	1.8	6	1.8	6	1030	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1327	N. F. Calapooia	3400	0.2	0.3	0.05	M	80.5	4.3	14	3.7	12	1.8	6	785	100	100	5	70%	50%	100%	0%	2	6	N	100%	Y	1	N
1328	N. F. Calapooia	3400	0.3	0.3	0.05	M	80.5	4.3	14	6.1	20	2.4	8	1030	20	100	5	70%	5%	10%	0%	2	6	N	10%	Y	1	N
1329	N. F. Calapooia	3400	0.3	0.4	0.05	M	80.5	4.3	14	3.7	12	1.8	6	785	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1330	N. F. Calapooia	3400	0.4	0.5	0.15	M	241.4	4.3	14	3.0	10	1.8	6	2207	90	100	5	70%	0%	0%	0%	2	6	N	0%	N	1	N
1331	N. F. Calapooia	3400	0.5	0.6	0.13	M	201.2	4.3	14	3.7	12	2.4	8	2085	90	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1332	N. F. Calapooia	3400	0.6	0.8	0.15	R	241.4	4.3	14	2.4	8	1.8	6	2060	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1333	N. F. Calapooia	3400	0.8	0.9	0.15	M	241.4	4.3	14	4.6	15	2.4	8	2722	70	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1334	N. F. Calapooia	3400	0.9	1.0	0.08	M	120.7	4.3	14	3.7	12	1.8	6	1177	80	100	5	70%	5%	10%	0%	2	6	N	10%	Y	1	N
1335	N. F. Calapooia	3400	1.0	1.3	0.30	R	482.8	4.3	14	2.4	8	1.8	6	4121	80	90	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1336	N. F. Calapooia	3400	1.3	1.4	0.05	M	80.5	4.3	14	4.6	15	2.4	8	907	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
1360	N. F. Calapooia	3440	0.2	0.4	0.16	M	281.6	3.7	12	5.5	18	3.0	10	3434	90	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1361	N. F. Calapooia	3440	0.4	0.6	0.16	M	281.6	3.7	12	6.1	20	4.6	15	4035	90	90	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1362	N. F. Calapooia	3440	0.6	0.7	0.10	M	160.9	3.0	10	6.1	20	3.7	12	2060	90	90	4	45%	80%	100%	0%	2	6	N	100%	N	3	Y
1363	N. F. Calapooia	3440	0.7	0.8	0.15	M	241.4	3.0	10	4.6	15	3.7	12	2722	60	80	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1364	N. F. Calapooia	3440	0.8	0.9	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	50	90	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1365	N. F. Calapooia	3440	0.9	1.0	0.13	M	201.2	3.7	12	4.6	15	3.7	12	2391	80	90	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1366	N. F. Calapooia	3440	1.0	1.1	0.10	M	160.9	3.7	12	6.1	20	3.7	12	2158	50	60	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1367	N. F. Calapooia	3440	1.1	1.2	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	60	70	4	45%	5%	10%	0%	2	6	N	10%	Y	1	N
1368	N. F. Calapooia	3440	1.2	1.4	0.13	M	201.2	3.7	12	6.1	20	4.6	15	2682	60	60	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1369	N. F. Calapooia	3440	1.4	1.5	0.13	M	201.2	3.7	12	4.6	15	3.7	12	2391	60	80	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1370	N. F. Calapooia	3440	1.5	1.7	0.23	M	362.1	3.0	10	6.1	20	3.7	12	4636	40	90	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1371	N. F. Calapooia	3440	1.7	1.8	0.05	M	80.5	3.7	12	4.6	15	3.0	10	907	80	90	4	45%	5%	10%	0%	2	6	N	10%	Y	1	N
1372	N. F. Calapooia	3440	1.8	1.9	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	40	80	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1373	N. F. Calapooia	3440	1.9	1.9	0.05	M	80.5	3.7	12	5.5	18	3.7	12	1030	80	80	4	45%	5%	10%	0%	2	6	N	10%	Y	1	N
1374	N. F. Calapooia	3440	1.9	2.1	0.23	M	362.1	3.7	12	4.6	15	3.0	10	4084	40	90	4	45%	0%	0%	0%	2	6	N	0%	Y	2	N
1375	N. F. Calapooia	3440	2.1	2.3	0.16	M	281.6	3.7	12	4.6	15	3.7	12	3346	40	60	4	45%	50%	100%	0%	2	6	N	100%	Y	1	Y
1376	N. F. Calapooia	3440	2.3	2.4	0.10	M	160.9	3.7	12	4.6	15	3.7	12	1913	30	50	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1377	N. F. Calapooia	3440	2.4	2.5	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	50	60	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1378	N. F. Calapooia	3440	2.5	2.6	0.08	M	120.7	3.7	12	6.1	20	4.6	15	1729	50	60	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1383	N. F. Calapooia	3446	0.0	0.2	0.15	M	241.4	3.0	10	4.6	15	3.0	10	2575	50	90	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1384	N. F. Calapooia	3445	0.0	0.1	0.10	R	160.9	3.7	12	1.8	6	1.8	6	1177	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1385	N. F. Calapooia	3444	0.0	0.1	0.10	R	160.9	3.7	12	4.6	15	2.4	8	1717	50	80	4	45%	0%	0%	0%	4	6	N	0%	N	2	N
1386	N. F. Calapooia	3443	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	3.0	10	1668	30	70	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1387	N. F. Calapooia	3450	0.0	0.4	0.35	R	563.3	3.7	12	4.6	15	3.0	10	6352	20	60	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
1388	N. F. Calapooia	3450	0.4	0.5	0.10	M	160.9	3.7	12	5.5	18	3.7	12	2060	20	60	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
1389	N. F. Calapooia	3450	0.5	0.9	0.40	M	643.7	3.7	12	5.5	18	3.0	10	7849	40	80	4	45%	0%	0%	0%	2	6	N	0%	Y	2	N
1390	N. F. Calapooia	3450	0.9	2.0	1.15	R	1850.6	4.3	14	3.7	12	1.8	6	18052	50	80	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1391	N. F. Calapooia	3456	0.0	0.1	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	60	80	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1392	N. F. Calapooia	3456	0.1	0.1	0.03	M	40.2	3.7	12	3.7	12	1.8	6	368	80	100	4	45%	5%	10%	0%	4	6	N	10%	Y	1	N
1393	N. F. Calapooia	3456	0.1	0.2	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	40	80	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1394	N. F. Calapooia	3456	0.2	0.4	0.18	M	281.6	3.7	12	4.6	15	3.0	10	3176	40	80	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1395	N. F. Calapooia	3454	0.0	0.3	0.28	R	442.6	3.0	10	4.6	15	3.0	10	4721	60	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
1396	N. F. Calapooia	3454	0.3	1.0	0.66	R	1066.3	3.0	10	4.6	15	3.7	12	12251	60	80	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
170	N. F. Calapooia	MAINLINE	0.43	0.10	0.14	0.09	0.02	0.03	0.09	0.02	0.03	0.03	0.43	0.08	0.48	0.57	4.84	0.09	8.57		
171	N. F. Calapooia	MAINLINE	9.73	3.24	3.24	1.95	0.58	0.58	1.46	0.58	0.29	0.58	7.30	1.46	8.18	0.44	4.03	1.61	7.14		
172	N. F. Calapooia	MAINLINE	5.84	1.95	1.95	1.17	0.35	0.35	0.58	0.18	0.18	0.23	2.92	0.58	3.27	0.29	2.69	0.64	4.78		
173	N. F. Calapooia	MAINLINE	1.73	0.77	0.58	0.35	0.14	0.10	0.17	0.14	0.00	0.07	0.87	0.21	1.00	0.33	3.28	0.23	5.71		
174	N. F. Calapooia	MAINLINE	8.65	8.11	4.33	1.73	1.46	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1325	N. F. Calapooia	3400	4.81	2.40	1.80	0.96	0.43	0.32	0.96	0.43	0.32	0.38	4.81	1.14	5.56	0.62	5.68	1.26	10.05		
1326	N. F. Calapooia	3400	2.88	1.08	1.08	0.58	0.19	0.19	0.29	0.19	0.00	0.12	1.44	0.31	1.64	0.30	2.57	0.34	4.55		
1327	N. F. Calapooia	3400	1.68	1.44	0.72	0.34	0.26	0.13	0.17	0.26	0.00	0.07	0.84	0.33	1.10	0.42	4.06	0.36	7.19		
1328	N. F. Calapooia	3400	1.68	2.40	0.96	0.34	0.43	0.17	0.02	0.04	0.00	0.01	0.08	0.05	0.13	0.05	0.62	0.05	1.10		
1329	N. F. Calapooia	3400	1.68	1.44	0.72	0.34	0.26	0.13	0.17	0.26	0.00	0.07	0.84	0.33	1.10	0.42	4.06	0.36	7.19		
1330	N. F. Calapooia	3400	5.05	3.61	2.16	1.01	0.65	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1331	N. F. Calapooia	3400	4.21	3.61	2.40	0.84	0.65	0.43	0.42	0.65	0.00	0.17	2.10	0.82	2.75	0.39	4.06	0.90	7.19		
1332	N. F. Calapooia	3400	5.05	2.88	2.16	1.01	0.52	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1333	N. F. Calapooia	3400	5.05	5.41	2.88	1.01	0.97	0.52	0.50	0.97	0.00	0.20	2.52	1.18	3.50	0.43	4.87	1.29	8.62		
1334	N. F. Calapooia	3400	2.52	2.16	1.08	0.50	0.39	0.19	0.03	0.04	0.00	0.01	0.13	0.05	0.17	0.04	0.41	0.05	0.72		
1335	N. F. Calapooia	3400	10.10	5.77	4.33	2.02	1.04	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1336	N. F. Calapooia	3400	1.68	1.80	0.96	0.34	0.32	0.17	0.17	0.32	0.00	0.07	0.84	0.39	1.17	0.43	4.87	0.43	8.62		
1360	N. F. Calapooia	3440	3.24	4.87	2.70	3.24	0.88	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1361	N. F. Calapooia	3440	3.24	5.41	4.06	3.24	0.97	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1362	N. F. Calapooia	3440	1.55	3.09	1.85	1.55	0.56	0.33	1.24	0.56	0.00	0.49	6.18	1.05	6.74	0.51	6.53	1.16	11.56		
1363	N. F. Calapooia	3440	2.32	3.48	2.78	2.32	0.63	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1364	N. F. Calapooia	3440	1.85	2.32	1.55	1.85	0.42	0.28	0.93	0.42	0.00	0.37	4.64	0.79	5.05	0.43	4.90	0.87	8.67		
1365	N. F. Calapooia	3440	2.32	2.90	2.32	2.32	0.52	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1366	N. F. Calapooia	3440	1.85	3.09	1.85	1.85	0.56	0.33	0.93	0.56	0.00	0.37	4.64	0.93	5.19	0.43	5.76	1.02	10.20		
1367	N. F. Calapooia	3440	1.85	2.32	1.55	1.85	0.42	0.28	0.09	0.04	0.00	0.04	0.46	0.08	0.51	0.04	0.49	0.09	0.87		
1368	N. F. Calapooia	3440	2.32	3.86	2.90	2.32	0.70	0.52	1.16	0.70	0.00	0.46	5.79	1.16	6.49	0.40	5.78	1.27	10.20		
1369	N. F. Calapooia	3440	2.32	2.90	2.32	2.32	0.52	0.42	1.16	0.52	0.00	0.46	5.79	0.99	6.32	0.41	4.90	1.08	8.67		
1370	N. F. Calapooia	3440	3.48	6.95	4.17	3.48	1.25	0.75	1.74	1.25	0.00	0.70	8.69	1.95	9.94	0.42	5.38	2.14	9.52		
1371	N. F. Calapooia	3440	0.93	1.16	0.77	0.93	0.21	0.14	0.05	0.02	0.00	0.02	0.23	0.04	0.25	0.04	0.49	0.04	0.87		
1372	N. F. Calapooia	3440	1.85	2.32	1.55	1.85	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1373	N. F. Calapooia	3440	0.93	1.39	0.93	0.93	0.25	0.17	0.05	0.03	0.00	0.02	0.23	0.04	0.26	0.04	0.54	0.05	0.96		
1374	N. F. Calapooia	3440	4.17	5.22	3.48	4.17	0.94	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1375	N. F. Calapooia	3440	3.24	4.06	3.24	3.24	0.73	0.58	1.62	0.73	0.00	0.65	8.11	1.38	8.84	0.41	4.90	1.52	8.67		
1376	N. F. Calapooia	3440	2.88	3.61	2.88	2.88	0.65	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1377	N. F. Calapooia	3440	3.61	4.51	3.00	3.61	0.81	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1378	N. F. Calapooia	3440	2.16	3.61	2.70	2.16	0.65	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1383	N. F. Calapooia	3446	3.61	5.41	3.61	3.61	0.97	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1384	N. F. Calapooia	3445	1.85	0.93	0.93	1.85	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1385	N. F. Calapooia	3444	1.85	2.32	1.24	1.85	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1386	N. F. Calapooia	3443	1.85	1.85	1.55	1.85	0.33	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1387	N. F. Calapooia	3450	6.49	8.11	5.41	6.49	1.46	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1388	N. F. Calapooia	3450	1.85	2.78	1.85	1.85	0.50	0.33	0.93	0.50	0.00	0.37	4.64	0.87	5.14	0.42	5.42	0.96	9.59		
1389	N. F. Calapooia	3450	7.42	11.13	6.18	7.42	2.00	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1390	N. F. Calapooia	3450	24.88	21.32	10.66	24.88	3.84	1.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1391	N. F. Calapooia	3456	1.39	1.39	0.70	1.39	0.25	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1392	N. F. Calapooia	3456	0.46	0.46	0.23	0.46	0.08	0.04	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.03	0.26	0.01	0.47		
1393	N. F. Calapooia	3456	1.85	2.32	1.24	1.85	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1394	N. F. Calapooia	3456	3.24	4.06	2.70	3.24	0.73	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1395	N. F. Calapooia	3454	4.25	6.37	4.25	4.25	1.15	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1396	N. F. Cal[illegible]	3454	10.43	15.65	12.52	10.43	2.82	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attach. 85. Road fine sediment yield - inventory.

Segment Number	Sub-Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
1397	N. F. Calapooia	3454-A	0.0	0.4	0.43	M	684.0	3.0	10	4.6	15	3.0	10	7297	60	80	4	45%	0%	0%	0%	4	6	N	0%	Y	4	N
1398	N. F. Calapooia	3453	0.0	0.3	0.25	M	402.3	3.7	12	4.6	15	3.0	10	4537	40	60	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
1399	N. F. Calapooia	3453	0.3	0.3	0.05	M	80.5	3.7	12	4.6	15	3.0	10	907	30	60	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
1400	N. F. Calapooia	3453	0.3	0.4	0.13	M	201.2	3.7	12	6.1	20	3.0	10	2575	40	60	4	45%	1%	5%	0%	4	6	N	10%	Y	2	N
1401	N. F. Calapooia	3453	0.4	0.6	0.18	M	281.6	3.7	12	7.6	25	2.4	8	3863	80	90	4	45%	5%	10%	0%	4	6	N	10%	Y	1	N
1402	N. F. Calapooia	3453	0.6	0.7	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	80	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1403	N. F. Calapooia	3453	0.7	0.8	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	40	80	4	45%	50%	100%	0%	4	6	N	100%	Y	1	Y
1404	N. F. Calapooia	3453	0.8	0.8	0.03	M	40.2	3.7	12	4.6	15	3.0	10	454	30	80	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1405	N. F. Calapooia	3453	0.8	0.9	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	40	90	4	45%	0%	5%	0%	4	6	N	10%	Y	2	N
1406	N. F. Calapooia	3453	0.9	1.0	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	60	80	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1407	N. F. Calapooia	3453	1.0	1.1	0.15	M	241.4	3.7	12	3.7	12	1.8	6	2207	50	90	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
1408	N. F. Calapooia	3453	1.1	1.2	0.13	M	201.2	3.7	12	3.7	12	3.0	10	2065	40	80	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
1409	N. F. Calapooia	3453	1.2	1.3	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	40	90	4	45%	0%	10%	0%	4	6	N	10%	Y	2	N
1410	N. F. Calapooia	3453	1.3	1.5	0.18	M	281.6	3.0	10	4.6	15	3.0	10	3005	40	80	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
1412	N. F. Calapooia	3420	0.0	0.1	0.08	M	120.7	3.7	12	5.5	18	2.4	8	1398	50	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
1413	N. F. Calapooia	3420	0.1	0.1	0.05	M	80.5	3.7	12	6.1	20	3.0	10	1030	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1414	N. F. Calapooia	3420	0.1	0.2	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	90	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	Y
1415	N. F. Calapooia	3420	0.2	0.2	0.03	M	40.2	3.7	12	4.6	15	3.0	10	454	80	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1416	N. F. Calapooia	3420	0.2	0.2	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	90	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	Y
1426	N. F. Calapooia	3410	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	5	70%	50%	10%	0%	4	6	N	10%	Y	1	N
1427	N. F. Calapooia	3410	0.1	0.2	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1428	N. F. Calapooia	3410	0.2	0.3	0.13	M	201.2	3.7	12	3.0	10	1.8	6	1717	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1429	N. F. Calapooia	3410	0.3	0.4	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
1430	N. F. Calapooia	3411	0.0	0.1	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	40	80	5	70%	0%	0%	0%	4	6	Y	0%	Y	1	N
1431	N. F. Calapooia	3411	0.1	0.1	0.05	M	80.5	3.7	12	3.7	12	1.8	6	736	60	80	5	70%	0%	0%	0%	4	6	Y	0%	Y	1	N
1432	N. F. Calapooia	3411	0.1	0.2	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	40	60	5	70%	0%	0%	0%	4	6	Y	0%	Y	1	N
1433	N. F. Calapooia	3411-B	0.0	0.1	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	20	20	1	70%	0%	0%	0%	4	6	Y	0%	Y	1	N
1434	N. F. Calapooia	3411-B	0.1	0.3	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	0	20	1	70%	50%	100%	10%	4	6	Y	100%	N	1	Y
1435	N. F. Calapooia	3411-B	0.3	0.4	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	0	0	1	70%	50%	100%	10%	4	6	Y	100%	N	1	Y
1436	N. F. Calapooia	3411-B-1	0.0	0.1	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	0	0	1	70%	0%	0%	0%	4	6	Y	0%	Y	1	N
1437	N. F. Calapooia	3411-B-1	0.1	0.1	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	0	10	1	70%	60%	100%	10%	4	6	Y	100%	Y	1	Y
1438	N. F. Calapooia	3411-B-1	0.1	0.2	0.05	M	80.5	3.7	12	3.7	12	3.0	10	834	0	0	1	70%	0%	0%	0%	4	6	Y	0%	N	1	N
1439	N. F. Calapooia	3408	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	20	50	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1440	N. F. Calapooia	3408	0.1	0.2	0.05	M	80.5	3.7	12	1.8	6	1.2	4	540	40	40	5	70%	50%	100%	0%	4	6	N	100%	N	1	Y
1441	N. F. Calapooia	3408	0.2	0.3	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	20	20	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1442	N. F. Calapooia	3408	0.3	0.5	0.23	M	362.1	3.7	12	3.7	12	1.8	6	3311	20	40	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1443	N. F. Calapooia	3408	0.5	0.6	0.05	M	80.5	3.0	10	4.6	15	2.4	8	809	20	40	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1444	N. F. Calapooia	3408-A	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	20	40	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1445	N. F. Calapooia	3408-A	0.1	0.2	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	40	60	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
1446	N. F. Calapooia	3405	0.0	0.2	0.23	M	362.1	4.9	16	5.5	18	2.4	8	4636	40	80	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1447	N. F. Calapooia	3405	0.2	0.4	0.13	M	201.2	4.3	14	9.1	30	3.7	12	3434	50	80	5	70%	0%	0%	0%	2	6	N	0%	N	2	N
1448	N. F. Calapooia	3405	0.4	0.5	0.10	M	160.9	4.3	14	6.1	20	3.0	10	2158	60	80	5	70%	5%	10%	0%	2	6	N	10%	Y	1	N
1449	N. F. Calapooia	3405	0.5	0.5	0.03	M	120.7	4.3	14	7.6	25	4.6	15	1987	40	40	5	70%	50%	100%	10%	2	6	N	100%	N	1	Y
1450	N. F. Calapooia	3405	0.5	0.7	0.13	M	201.2	4.3	14	6.1	20	4.6	15	3005	50	50	5	70%	10%	50%	0%	2	6	N	100%	N	2	Y
1451	N. F. Calapooia	3405	0.7	0.8	0.13	M	201.2	3.0	10	6.1	20	4.6	15	2759	80	80	5	70%	5%	10%	0%	2	6	N	10%	Y	1	N
1452	N. F. Calapooia	3405	0.8	0.9	0.13	M	201.2	3.7	12	6.1	20	3.7	12	2698	80	90	5	70%	5%	10%	0%	2	6	N	10%	Y	1	N
2514	N. F. Calapooia	3391	0.0	0.2	0.15	M	241.4	3.7	12	4.6	15	2.4	8	2575	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	5	N
2515	N. F. Calapooia	3391	0.2	0.3	0.15	M	241.4	3.7	12	3.0	10	1.8	6	2060	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2523	N. F. Calapooia	3500	0.0	0.2	0.15	S	241.4	4.3	14	7.6	25	3.0	10	3605	40	100	4	70%	75%	100%	10%	2	6	N	100%	N	1	N
2524	N. F. Calapooia	3500	0.2	0.2	0.08	S	120.7	4.3	14	12.2	40	4.6	15	2539	80	100	4	70%	60%	100%	10%	2	6	N	100%	N	1	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from FillslopeDeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
1397	N. F. Calapooia	3454-A	6.57	9.85	6.57	6.57	1.77	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1398	N. F. Calapooia	3453	4.64	5.79	3.86	4.64	1.04	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1399	N. F. Calapooia	3453	0.93	1.16	0.77	0.93	0.21	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1400	N. F. Calapooia	3453	2.32	3.86	1.93	2.32	0.70	0.35	0.02	0.03	0.00	0.00	0.00	0.04	0.04	0.01	0.18	0.04	0.33		
1401	N. F. Calapooia	3453	3.24	6.76	2.16	3.24	1.22	0.39	0.16	0.12	0.00	0.02	0.02	0.14	0.14	0.04	0.49	0.15	0.87		
1402	N. F. Calapooia	3453	1.65	1.85	1.24	1.85	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1403	N. F. Calapooia	3453	1.39	1.74	1.16	1.39	0.31	0.21	0.70	0.31	0.00	0.07	0.07	0.38	0.38	0.28	3.17	0.42	5.61		
1404	N. F. Calapooia	3453	0.46	0.58	0.39	0.46	0.10	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1405	N. F. Calapooia	3453	0.93	1.16	0.62	0.93	0.21	0.11	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.13	0.01	0.23		
1406	N. F. Calapooia	3453	1.85	1.85	0.93	1.85	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1407	N. F. Calapooia	3453	2.78	2.78	1.39	2.78	0.50	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1408	N. F. Calapooia	3453	2.32	2.32	1.93	2.32	0.42	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1409	N. F. Calapooia	3453	1.39	1.74	1.16	1.39	0.31	0.21	0.00	0.03	0.00	0.00	0.00	0.03	0.03	0.02	0.26	0.03	0.46		
1410	N. F. Calapooia	3453	2.70	4.06	2.70	2.70	0.73	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1412	N. F. Calapooia	3420	2.16	3.24	1.44	2.18	0.58	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1413	N. F. Calapooia	3420	1.44	2.40	1.20	1.44	0.43	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1414	N. F. Calapooia	3420	1.44	1.80	0.96	1.44	0.32	0.17	0.72	0.32	0.00	0.07	0.07	0.40	0.40	0.46	4.93	0.44	8.72		
1415	N. F. Calapooia	3420	0.72	0.90	0.60	0.72	0.16	0.11	0.36	0.16	0.00	0.04	0.04	0.20	0.20	0.44	4.93	0.22	8.72		
1416	N. F. Calapooia	3420	0.72	0.90	0.48	0.72	0.16	0.09	0.36	0.16	0.00	0.04	0.04	0.20	0.20	0.46	4.93	0.22	8.72		
1426	N. F. Calapooia	3410	2.88	2.88	1.44	0.58	0.52	0.26	0.29	0.05	0.00	0.03	0.03	0.08	0.08	0.05	0.50	0.09	0.89		
1427	N. F. Calapooia	3410	2.88	2.88	1.44	2.88	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1428	N. F. Calapooia	3410	3.61	3.00	1.80	3.61	0.54	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1429	N. F. Calapooia	3410	2.88	2.40	1.44	2.88	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1430	N. F. Calapooia	3411	2.16	2.16	1.08	0.43	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1431	N. F. Calapooia	3411	1.44	1.44	0.72	0.29	0.26	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1432	N. F. Calapooia	3411	2.88	2.40	1.44	0.58	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1433	N. F. Calapooia	3411-B	3.61	2.40	1.80	3.61	0.43	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1434	N. F. Calapooia	3411-B	3.61	3.61	1.80	3.61	3.61	0.32	1.80	3.61	0.03	0.18	0.18	3.82	3.82	2.08	18.98	4.20	33.60		
1435	N. F. Calapooia	3411-B	2.88	2.40	1.44	2.88	2.40	1.44	1.44	2.40	0.14	0.14	0.14	2.69	2.69	1.96	16.73	2.96	29.61		
1436	N. F. Calapooia	3411-B-1	2.16	2.16	1.08	2.16	2.16	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1437	N. F. Calapooia	3411-B-1	1.44	1.44	0.96	1.44	1.44	0.17	0.87	1.44	0.02	0.09	0.09	1.55	1.55	1.97	19.21	1.70	34.01		
1438	N. F. Calapooia	3411-B-1	1.44	1.44	1.20	1.44	1.44	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1439	N. F. Calapooia	3408	2.88	2.88	1.44	0.58	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1440	N. F. Calapooia	3408	1.44	0.72	0.48	0.29	0.13	0.09	0.14	0.13	0.00	0.01	0.01	0.14	0.14	0.27	1.79	0.16	3.17		
1441	N. F. Calapooia	3408	3.61	3.61	1.80	0.72	0.65	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1442	N. F. Calapooia	3408	6.49	6.49	3.24	1.30	1.17	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1443	N. F. Calapooia	3408	1.20	1.80	0.96	0.24	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1444	N. F. Calapooia	3408-A	2.88	2.88	1.44	0.58	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1445	N. F. Calapooia	3408-A	2.88	2.40	1.44	0.58	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1446	N. F. Calapooia	3405	8.65	9.73	4.33	1.73	1.75	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1447	N. F. Calapooia	3405	4.21	9.01	3.61	0.84	1.62	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1448	N. F. Calapooia	3405	3.37	4.81	2.40	0.67	0.87	0.43	0.03	0.09	0.00	0.01	0.17	0.10	0.25	0.05	0.62	0.11	1.10		
1449	N. F. Calapooia	3405	2.52	4.51	2.70	0.50	0.81	0.49	0.25	0.81	0.05	0.10	1.26	0.96	2.12	0.48	7.96	1.06	14.09		
1450	N. F. Calapooia	3405	4.21	6.01	4.51	0.84	1.08	0.81	0.08	0.54	0.00	0.03	0.42	0.57	0.96	0.19	2.86	0.63	5.06		
1451	N. F. Calapooia	3405	3.00	6.01	4.51	0.60	1.08	0.81	0.03	0.11	0.00	0.01	0.15	0.12	0.26	0.04	0.60	0.13	1.06		
1452	N. F. Calapooia	3405	3.61	6.01	3.61	0.72	1.08	0.65	0.04	0.11	0.00	0.01	0.18	0.12	0.29	0.05	0.61	0.13	1.08		
2514	N. F. Calapooia	3391	4.33	5.41	2.88	4.33	0.97	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2515	N. F. Calapooia	3391	4.33	3.61	2.16	4.33	0.65	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2523	N. F. Calapooia	3500	5.05	9.01	3.61	5.05	1.62	0.65	3.79	1.62	0.06	1.51	18.93	3.20	20.62	0.89	13.26	3.52	23.48		
2524	N. F. Calapooia	3500	2.52	7.21	2.70	2.52	1.30	0.49	1.51	1.30	0.05	0.61	7.57	1.95	8.92	0.77	16.18	2.15	28.63		

Attac[illegible]35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2525	N. F. Calapooia	3500	0.2	0.3	0.05	S	80.5	4.3	14	4.6	15	2.4	8	907	100	100	4	70%	60%	100%	10%	2	6	N	100%	N	1	Y
2526	N. F. Calapooia	3500	0.3	0.5	0.20	M	321.9	4.3	14	4.6	15	3.0	10	3826	60	100	4	70%	5%	10%	0%	2	6	N	10%	Y	1	N
2527	N. F. Calapooia	3500	0.5	0.7	0.23	R	362.1	4.3	14	3.7	12	2.4	8	3753	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2528	N. F. Calapooia	3500	0.7	1.0	0.30	M	482.8	3.7	12	4.6	15	2.4	8	5151	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2529	N. F. Calapooia	3500	1.0	1.3	0.25	M	402.3	3.7	12	6.1	20	3.0	10	5151	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2530	N. F. Calapooia	3500	1.3	1.3	0.05	M	80.5	3.7	12	6.1	20	3.7	12	1079	80	100	4	70%	100%	100%	0%	2	6	N	100%	N	5	Y
2531	N. F. Calapooia	3500	1.3	1.4	0.13	M	201.2	3.7	12	6.1	20	3.0	10	2575	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2532	N. F. Calapooia	3500	1.4	1.5	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	80	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2533	N. F. Calapooia	3500	1.5	1.6	0.08	M	120.7	3.7	12	4.6	15	2.4	8	1288	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2534	N. F. Calapooia	3500	1.6	1.6	0.03	M	40.2	3.7	12	7.6	25	3.0	10	576	40	100	4	70%	100%	100%	0%	2	6	N	100%	N	5	Y
2535	N. F. Calapooia	3500	1.6	1.7	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2536	N. F. Calapooia	3500	1.7	1.9	0.15	M	241.4	3.7	12	3.0	10	1.8	6	2060	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2537	N. F. Calapooia	3500	1.9	2.2	0.35	R	563.3	3.7	12	2.4	8	1.2	4	4121	60	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2538	N. F. Calapooia	3500	2.2	2.3	0.05	M	80.5	3.7	12	2.4	8	1.8	6	638	80	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2539	N. F. Calapooia	3500	2.3	2.4	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2540	N. F. Calapooia	3500	2.4	2.5	0.08	M	120.7	3.7	12	3.0	10	1.8	6	1030	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2541	N. F. Calapooia	3500	2.5	2.5	0.07	M	120.7	3.0	10	4.6	15	3.0	10	1288	40	100	4	70%	25%	100%	0%	2	6	N	100%	N	2	Y
2542	N. F. Calapooia	3500	2.5	2.6	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	40	100	4	70%	10%	100%	0%	2	6	N	100%	N	2	Y
2543	N. F. Calapooia	3500	2.6	2.7	0.05	M	80.5	3.0	10	7.6	25	3.0	10	1104	40	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2544	N. F. Calapooia	3500	2.7	2.7	0.05	M	80.5	3.7	12	7.6	25	3.7	12	1202	40	100	4	45%	10%	100%	0%	2	6	N	100%	N	2	Y
2545	N. F. Calapooia	3500	2.7	2.8	0.07	M	120.7	3.7	12	3.7	12	1.8	6	1104	80	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2546	N. F. Calapooia	3500	2.8	3.1	0.28	M	442.6	3.7	12	3.7	12	1.8	6	4047	80	100	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
2547	N. F. Calapooia	3500	3.1	3.4	0.33	M	523.0	3.7	12	3.7	12	1.8	8	4783	70	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2548	N. F. Calapooia	744	0.0	0.1	0.13	R	201.2	3.0	10	1.2	4	1.2	4	1104	100	100	2	45%	0%	0%	0%	4	6	N	0%	N	5	N
2549	N. F. Calapooia	744	0.1	0.2	0.08	R	120.7	2.7	9	1.2	4	1.2	4	625	100	100	2	45%	0%	0%	0%	4	6	N	0%	N	5	N
2550	N. F. Calapooia	3580	0.0	0.1	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	100	100	4	45%	5%	10%	0%	2	6	N	10%	Y	1	N
2551	N. F. Calapooia	3580	0.1	0.2	0.08	M	120.7	3.7	12	1.8	6	1.2	4	809	100	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2552	N. F. Calapooia	3580	0.2	0.3	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	80	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2553	N. F. Calapooia	3580	0.3	0.4	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	90	100	4	45%	25%	100%	0%	2	6	N	100%	N	2	Y
2554	N. F. Calapooia	3580	0.4	0.5	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	80	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2555	N. F. Calapooia	3580	0.5	0.6	0.05	M	80.5	3.7	12	1.8	6	1.2	4	540	100	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
2556	N. F. Calapooia	3580	0.6	0.6	0.05	M	80.5	3.7	12	1.8	6	1.2	4	540	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2557	N. F. Calapooia	3580	0.6	0.8	0.15	M	241.4	3.7	12	3.7	12	2.4	8	2355	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2559	N. F. Calapooia	3581	0.0	0.1	0.08	M	120.7	2.7	9	2.4	8	1.8	6	846	100	100	1	70%	100%	100%	0%	4	6	N	100%	N	5	N
2560	N. F. Calapooia	3570	0.0	0.1	0.05	M	80.5	3.0	10	1.8	6	1.2	4	491	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	N
2561	N. F. Calapooia	3570	0.1	0.1	0.05	M	80.5	3.0	10	1.8	6	1.2	4	491	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2565	N. F. Calapooia	3550	0.0	0.3	0.30	R	482.8	3.7	12	3.7	12	1.8	6	4415	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2566	N. F. Calapooia	3550	0.3	0.4	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	5	N
2567	N. F. Calapooia	3550	0.4	0.5	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2568	N. F. Calapooia	3550	0.5	0.6	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	90	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2569	N. F. Calapooia	3550	0.6	0.7	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2570	N. F. Calapooia	3550	0.7	0.8	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2571	N. F. Calapooia	3550	0.8	1.0	0.20	M	321.9	3.0	10	3.7	12	2.4	8	2943	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2572	N. F. Calapooia	3550	1.0	1.0	0.03	M	40.2	3.0	10	2.4	8	1.8	6	294	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2573	N. F. Calapooia	3552	0.0	0.1	0.10	R	160.9	3.7	12	1.8	6	1.2	4	1079	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2574	N. F. Calapooia	3551	0.0	0.2	0.18	M	281.6	3.7	12	3.7	12	1.8	6	2575	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2575	N. F. Calapooia	3540	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	5	N
2576	N. F. Calapooia	3540	0.1	0.3	0.15	M	241.4	3.7	12	4.6	15	3.0	10	2722	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2577	N. F. Calapooia	3530	0.0	0.2	0.15	M	241.4	3.7	12	4.6	15	2.4	6	2575	80	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2578	N. F. Calapooia	3530	0.2	0.2	0.05	M	80.5	3.7	12	4.6	15	3.0	10	907	80	80	4	70%	50%	100%	10%	4	6	N	100%	N	1	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2525	N. F. Calapooia	3500	1.68	1.80	0.96	1.68	0.32	0.17	1.01	0.32	0.02	0.40	5.05	0.75	5.39	0.82	9.27	0.82	16.40		
2526	N. F. Calapooia	3500	6.73	7.21	4.81	6.73	1.30	0.87	0.34	0.13	0.00	0.13	1.68	0.26	1.81	0.07	0.82	0.29	1.45		
2527	N. F. Calapooia	3500	7.57	6.49	4.33	7.57	1.17	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2528	N. F. Calapooia	3500	8.65	10.82	5.77	8.65	1.95	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2529	N. F. Calapooia	3500	7.21	12.02	6.01	7.21	2.16	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2530	N. F. Calapooia	3500	1.44	2.40	1.44	1.44	0.43	0.26	1.44	0.43	0.00	0.58	7.21	1.01	7.64	0.94	12.55	1.11	22.21		
2531	N. F. Calapooia	3500	3.61	6.01	3.00	3.61	1.08	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2532	N. F. Calapooia	3500	2.16	2.70	1.80	2.16	0.49	0.32	1.08	0.49	0.00	0.43	5.41	0.92	5.89	0.68	7.62	1.01	13.48		
2533	N. F. Calapooia	3500	2.16	2.70	1.44	2.16	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2534	N. F. Calapooia	3500	0.72	1.50	0.60	0.72	0.27	0.11	0.72	0.27	0.00	0.29	3.61	0.56	3.88	0.97	13.89	0.61	24.59		
2535	N. F. Calapooia	3500	3.61	4.51	2.40	3.61	0.81	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2536	N. F. Calapooia	3500	4.33	3.61	2.16	4.33	0.65	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2537	N. F. Calapooia	3500	10.10	6.73	3.37	10.10	1.21	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2538	N. F. Calapooia	3500	1.44	0.96	0.72	1.44	0.17	0.13	0.72	0.17	0.00	0.29	3.61	0.46	3.78	0.72	5.74	0.51	10.15		
2539	N. F. Calapooia	3500	2.88	1.92	1.44	2.88	0.35	0.26	1.44	0.35	0.00	0.58	7.21	0.92	7.56	0.72	5.74	1.02	10.15		
2540	N. F. Calapooia	3500	2.16	1.80	1.08	2.16	0.32	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2541	N. F. Calapooia	3500	1.80	2.70	1.80	1.80	0.49	0.32	0.45	0.49	0.00	0.18	2.25	0.67	2.74	0.52	5.53	0.73	9.78		
2542	N. F. Calapooia	3500	2.88	3.61	1.92	2.88	0.65	0.35	0.29	0.65	0.00	0.12	1.44	0.76	2.09	0.45	4.75	0.84	8.41		
2543	N. F. Calapooia	3500	1.20	3.00	1.20	1.20	0.54	0.22	0.60	0.54	0.00	0.24	3.00	0.78	3.55	0.71	9.71	0.86	17.19		
2544	N. F. Calapooia	3500	0.93	1.93	0.93	0.93	0.35	0.17	0.09	0.35	0.00	0.04	0.46	0.38	0.81	0.32	4.78	0.42	8.46		
2545	N. F. Calapooia	3500	1.39	1.39	0.70	1.39	0.25	0.13	0.70	0.25	0.00	0.28	3.48	0.53	3.73	0.48	4.38	0.58	7.75		
2546	N. F. Calapooia	3500	5.10	5.10	2.55	5.10	0.92	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2547	N. F. Calapooia	3500	6.03	6.03	3.01	6.03	1.08	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2548	N. F. Calapooia	744	1.93	0.77	0.77	1.93	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2549	N. F. Calapooia	744	1.04	0.46	0.46	1.04	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2550	N. F. Calapooia	3580	2.32	1.55	1.16	2.32	0.28	0.21	0.12	0.03	0.00	0.05	0.58	0.07	0.61	0.05	0.37	0.08	0.65		
2551	N. F. Calapooia	3580	1.39	0.70	0.46	1.39	0.13	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2552	N. F. Calapooia	3580	2.32	2.32	1.16	2.32	0.42	0.21	1.16	0.42	0.00	0.46	5.79	0.88	6.21	0.48	4.38	0.97	7.75		
2553	N. F. Calapooia	3580	1.39	1.39	0.93	1.39	0.25	0.17	0.35	0.25	0.00	0.14	1.74	0.39	1.99	0.33	3.23	0.43	5.71		
2554	N. F. Calapooia	3580	1.85	2.32	1.55	1.85	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2555	N. F. Calapooia	3580	0.93	0.46	0.31	0.93	0.08	0.06	0.46	0.08	0.00	0.05	0.05	0.13	0.13	0.24	1.61	0.14	2.86		
2556	N. F. Calapooia	3580	1.44	0.72	0.48	1.44	0.13	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2557	N. F. Calapooia	3580	4.33	4.33	2.88	4.33	0.78	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2559	N. F. Calapooia	3581	1.62	1.44	1.08	1.62	0.26	0.19	1.62	0.26	0.00	0.16	0.16	0.42	0.42	0.50	3.49	0.46	6.19		
2560	N. F. Calapooia	3570	1.20	0.72	0.48	1.20	0.13	0.09	0.60	0.13	0.00	0.06	0.06	0.19	0.19	0.39	2.36	0.21	4.18		
2561	N. F. Calapooia	3570	1.20	0.72	0.48	1.20	0.13	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2565	N. F. Calapooia	3550	8.65	8.65	4.33	8.65	1.56	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2566	N. F. Calapooia	3550	2.88	3.61	1.92	2.88	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2567	N. F. Calapooia	3550	2.68	3.61	1.92	2.68	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2568	N. F. Calapooia	3550	1.44	1.80	0.96	1.44	0.32	0.17	0.72	0.32	0.00	0.07	0.07	0.40	0.40	0.46	4.93	0.44	8.72		
2569	N. F. Calapooia	3550	2.88	1.92	1.44	2.88	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2570	N. F. Calapooia	3550	3.61	3.61	1.80	3.61	0.65	0.32	1.80	0.65	0.00	0.18	0.18	0.83	0.83	0.45	4.12	0.91	7.30		
2571	N. F. Calapooia	3550	4.81	5.77	3.85	4.81	1.04	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2572	N. F. Calapooia	3550	0.60	0.48	0.36	0.60	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2573	N. F. Calapooia	3552	2.88	1.44	0.96	2.88	0.26	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2574	N. F. Calapooia	3551	5.05	5.05	2.52	5.05	0.91	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2575	N. F. Calapooia	3540	2.88	2.88	1.92	2.88	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2576	N. F. Calapooia	3540	4.33	5.41	3.61	4.33	0.97	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2577	N. F. Calapooia	3530	4.33	5.41	2.88	4.33	0.97	0.52	2.16	0.97	0.00	0.22	0.22	1.19	1.19	0.46	4.93	1.31	8.72		
2578	N. F. Cala[illegible]	3530	1.44	1.80	1.20	1.44	0.32	0.22	0.72	0.[illegible]	0.02	0.07	0.07	0.42	0.42	0.46	5.20	0.46	9.20		

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2579	N. F. Calapooia	3530	0.2	0.3	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	90	100	4	70%	50%	100%	0%	4	8	N	100%	N	1	Y
2580	N. F. Calapooia	3530	0.3	0.5	0.20	M	321.9	3.7	12	3.7	12	1.8	6	2943	80	100	4	70%	0%	0%	0%	4	8	N	0%	Y	5	N
2581	N. F. Calapooia	3530	0.5	0.7	0.15	M	241.4	3.7	12	4.6	15	2.4	8	2575	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	5	N
2582	N. F. Calapooia	3530	0.7	0.8	0.15	M	241.4	3.7	12	6.1	20	3.0	10	3090	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2583	N. F. Calapooia	3530	0.8	0.9	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	80	100	4	70%	50%	100%	0%	4	8	N	100%	N	1	Y
2584	N. F. Calapooia	3530	0.9	1.0	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2585	N. F. Calapooia	3530	1.0	1.0	0.05	M	80.5	3.0	10	3.7	12	1.8	6	687	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2586	N. F. Calapooia	3530	1.0	1.1	0.08	M	120.7	3.0	10	4.6	15	2.4	8	1214	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2587	N. F. Calapooia	3530	1.1	1.2	0.13	M	201.2	3.0	10	3.0	10	1.8	8	1594	100	100	1	70%	0%	0%	0%	4	6	N	0%	N	5	N
2588	N. F. Calapooia	3530-C	0.0	0.1	0.10	M	160.9	3.0	10	3.7	12	1.8	8	1374	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2589	N. F. Calapooia	3530-B	0.0	0.0	0.03	M	40.2	3.7	12	3.7	12	2.4	8	392	70	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2590	N. F. Calapooia	3530-B	0.0	0.2	0.15	M	241.4	3.7	12	2.4	8	1.8	6	1913	100	100	4	70%	50%	100%	0%	4	6	N	100%	Y	1	N
2591	N. F. Calapooia	3530-B	0.2	0.2	0.03	M	40.2	3.7	12	1.8	8	1.2	4	270	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2592	N. F. Calapooia	3530-B	0.2	0.3	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2593	N. F. Calapooia	3530-A	0.0	0.1	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2594	N. F. Calapooia	3530-A	0.1	0.2	0.08	M	120.7	3.0	10	3.7	12	1.8	6	1030	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2595	N. F. Calapooia	3530-A	0.2	0.3	0.10	M	160.9	3.0	10	4.6	15	2.4	8	1619	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2596	N. F. Calapooia	3530-A	0.3	0.3	0.05	M	80.5	3.0	10	3.7	12	1.8	6	687	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2597	N. F. Calapooia	3530-A	0.3	0.4	0.10	M	160.9	3.0	10	3.7	12	2.4	8	1472	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2598	N. F. Calapooia	3530-A	0.4	0.5	0.05	M	80.5	3.0	10	4.6	15	2.4	8	809	60	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2599	N. F. Calapooia	3530-A-1	0.0	0.1	0.10	M	160.9	3.0	10	2.4	8	1.2	4	1079	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2682	N. F. Calapooia	3580	0.0	0.2	0.20	M	321.9	3.0	10	3.7	12	1.8	6	2747	60	100	4	45%	0%	0%	0%	4	6	N	0%	N	5	N
2683	N. F. Calapooia	3580	0.2	0.4	0.15	M	241.4	3.0	10	1.8	6	1.2	4	1472	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2830	N. F. Calapooia	700	0.0	0.1	0.08	M	120.7	3.7	12	3.7	12	1.8	6	1104	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2831	N. F. Calapooia	700	0.1	0.3	0.23	M	362.1	3.7	12	4.6	15	3.0	10	4084	100	100	4	70%	10%	100%	0%	2	6	N	100%	N	2	Y
2832	N. F. Calapooia	700	0.3	0.6	0.30	S	482.8	3.7	12	4.6	15	3.0	10	5445	100	100	4	70%	20%	100%	10%	2	6	N	100%	N	2	Y
2833	N. F. Calapooia	700	0.6	1.0	0.40	S	643.7	3.7	12	4.6	15	3.7	12	7652	100	100	4	70%	20%	100%	10%	2	6	N	100%	N	2	Y
2834	N. F. Calapooia	700	1.0	1.4	0.40	M	643.7	3.7	12	4.6	15	3.7	12	7652	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	2	N
2835	N. F. Calapooia	700	1.4	1.6	0.20	M	321.9	3.7	12	3.0	10	2.4	8	2943	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	2	N
2836	N. F. Calapooia	700	1.6	1.8	0.20	M	321.9	3.7	12	3.7	12	2.4	6	3139	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
2837	N. F. Calapooia	700	1.8	1.9	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	2	N
2838	N. F. Calapooia	700	1.9	2.0	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2839	N. F. Calapooia	700	2.0	2.2	0.18	M	281.6	3.7	12	4.6	15	2.4	8	3005	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2840	N. F. Calapooia	700	2.2	2.5	0.25	M	402.3	3.7	12	3.7	12	2.4	8	3924	90	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2841	N. F. Calapooia	700	2.5	2.5	0.02	M	40.2	3.7	12	1.8	6	1.2	4	270	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2842	N. F. Calapooia	700	2.5	2.5	0.05	S	80.5	3.7	12	3.0	10	1.8	6	687	100	100	4	70%	75%	100%	50%	2	6	N	100%	N	1	Y
2843	N. F. Calapooia	700	2.5	2.6	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2844	N. F. Calapooia	700	2.6	2.9	0.28	M	442.6	3.7	12	4.6	15	2.4	8	4721	80	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2845	N. F. Calapooia	700	2.9	3.1	0.18	M	281.6	3.7	12	6.1	20	3.0	10	3605	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2846	N. F. Calapooia	700	3.1	3.2	0.07	M	120.7	3.7	12	4.6	15	3.0	10	1361	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2847	N. F. Calapooia	700	3.2	3.3	0.13	M	201.2	3.7	12	9.1	30	4.6	15	3495	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2848	N. F. Calapooia	700	3.3	3.5	0.18	M	281.6	3.0	10	9.1	30	4.6	15	4721	80	100	4	45%	100%	100%	0%	2	6	N	100%	N	1	Y
2849	N. F. Calapooia	700	3.5	3.7	0.20	M	321.9	3.7	12	4.6	15	2.4	8	3434	100	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2850	N. F. Calapooia	700	3.7	3.7	0.05	S	80.5	3.7	12	4.6	15	3.0	10	907	100	100	4	45%	5%	0%	10%	2	6	N	0%	Y	1	N
2851	N. F. Calapooia	700	3.7	3.8	0.07	S	120.7	3.7	12	7.6	25	3.7	12	1803	80	100	4	45%	20%	10%	10%	2	6	N	10%	Y	1	N
2852	N. F. Calapooia	700	3.8	3.8	0.02	S	40.2	3.0	10	4.6	15	2.4	8	405	100	100	4	45%	20%	10%	10%	2	6	N	10%	Y	1	N
2853	N. F. Calapooia	700	3.8	3.9	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	100	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2854	N. F. Calapooia	700	3.9	4.1	0.20	M	321.9	3.7	12	3.7	12	2.4	8	3139	80	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
2855	N. F. Calapooia	700	4.1	4.2	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	80	100	4	45%	50%	100%	10%	2	6	N	100%	Y	1	N
2856	N. F. Calapooia	700	4.2	4.7	0.55	R	885.1	3.7	12	4.6	15	2.4	8	9443	90	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2579	N. F. Calapooia	3530	2.88	2.88	1.92	2.88	0.52	0.35	1.44	0.52	0.00	0.14	0.14	0.66	0.66	0.42	4.12	0.73	7.30		
2580	N. F. Calapooia	3530	5.77	5.77	2.88	5.77	1.04	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2581	N. F. Calapooia	3530	4.33	5.41	2.88	4.33	0.97	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2582	N. F. Calapooia	3530	4.33	7.21	3.61	4.33	1.30	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2583	N. F. Calapooia	3530	2.88	4.81	2.40	2.88	0.87	0.43	1.44	0.87	0.00	0.14	0.14	1.01	1.01	0.49	6.27	1.11	11.10		
2584	N. F. Calapooia	3530	1.44	1.80	0.96	1.44	0.32	0.17	0.72	0.32	0.00	0.07	0.07	0.40	0.40	0.46	4.93	0.44	8.72		
2585	N. F. Calapooia	3530	1.20	1.44	0.72	1.20	0.26	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2586	N. F. Calapooia	3530	1.80	2.70	1.44	1.80	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2587	N. F. Calapooia	3530	3.00	3.00	1.80	3.00	0.54	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2588	N. F. Calapooia	3530-C	2.40	2.88	1.44	2.40	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2589	N. F. Calapooia	3530-B	0.72	0.72	0.48	0.72	0.13	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2590	N. F. Calapooia	3530-B	4.33	2.88	2.16	4.33	0.52	0.39	2.16	0.52	0.00	0.22	0.22	0.74	0.74	0.38	3.05	0.81	5.39		
2591	N. F. Calapooia	3530-B	0.72	0.36	0.24	0.72	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2592	N. F. Calapooia	3530-B	2.40	2.40	1.44	2.40	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2593	N. F. Calapooia	3530-A	2.16	2.16	1.08	2.16	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2594	N. F. Calapooia	3530-A	1.80	2.16	1.08	1.80	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2595	N. F. Calapooia	3530-A	2.40	3.61	1.92	2.40	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2596	N. F. Calapooia	3530-A	1.20	1.44	0.72	1.20	0.26	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2597	N. F. Calapooia	3530-A	2.40	2.88	1.92	2.40	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2598	N. F. Calapooia	3530-A	1.20	1.80	0.96	1.20	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2599	N. F. Calapooia	3530-A-1	2.40	1.92	0.96	2.40	0.35	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2682	N. F. Calapooia	3580	3.09	3.71	1.85	3.09	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2683	N. F. Calapooia	3580	2.32	1.39	0.93	2.32	0.25	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2830	N. F. Calapooia	700	2.16	2.16	1.08	2.16	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2831	N. F. Calapooia	700	6.49	8.11	5.41	6.49	1.46	0.97	0.65	1.46	0.00	0.26	3.24	1.72	4.71	0.42	4.75	1.89	8.41		
2832	N. F. Calapooia	700	8.65	10.82	7.21	8.65	1.95	1.30	1.73	1.95	0.13	0.69	8.65	2.77	10.73	0.51	5.74	3.05	10.15		
2833	N. F. Calapooia	700	11.54	14.42	11.54	11.54	2.60	2.08	2.31	2.60	0.21	0.92	11.54	3.73	14.34	0.49	5.79	4.10	10.25		
2834	N. F. Calapooia	700	11.54	14.42	11.54	11.54	2.60	2.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2835	N. F. Calapooia	700	5.77	4.81	3.85	5.77	0.87	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2836	N. F. Calapooia	700	5.77	5.77	3.85	5.77	1.04	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2837	N. F. Calapooia	700	3.61	4.51	3.00	3.61	0.81	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2838	N. F. Calapooia	700	2.88	3.61	1.92	2.88	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2839	N. F. Calapooia	700	5.05	6.31	3.37	5.05	1.14	0.61	2.52	1.14	0.00	1.01	12.62	2.15	13.75	0.71	7.62	2.36	13.48		
2840	N. F. Calapooia	700	7.21	7.21	4.81	7.21	1.30	0.87	3.61	1.30	0.00	1.44	18.03	2.74	19.33	0.70	6.81	3.01	12.06		
2841	N. F. Calapooia	700	0.72	0.36	0.24	0.72	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2842	N. F. Calapooia	700	1.44	1.20	0.72	1.44	0.22	0.13	1.08	0.22	0.06	0.43	5.41	0.71	5.69	1.04	8.87	0.79	15.70		
2843	N. F. Calapooia	700	2.88	2.88	1.92	2.88	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2844	N. F. Calapooia	700	7.93	9.92	5.29	7.93	1.78	0.95	3.97	1.78	0.00	1.59	19.83	3.37	21.61	0.71	7.62	3.71	13.48		
2845	N. F. Calapooia	700	5.05	8.41	4.21	5.05	1.51	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2846	N. F. Calapooia	700	2.16	2.70	1.80	2.16	0.49	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2847	N. F. Calapooia	700	3.61	9.01	4.51	3.61	1.62	0.81	1.80	1.62	0.00	0.72	9.01	2.34	10.64	0.67	11.65	2.58	20.62		
2848	N. F. Calapooia	700	2.70	8.11	4.06	2.70	1.46	0.73	2.70	1.46	0.00	1.08	13.52	2.54	14.98	0.54	9.03	2.80	15.98		
2849	N. F. Calapooia	700	3.71	4.64	2.47	3.71	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2850	N. F. Calapooia	700	0.93	1.16	0.77	0.93	0.21	0.14	0.05	0.00	0.01	0.02	0.23	0.03	0.25	0.04	0.40	0.04	0.71		
2851	N. F. Calapooia	700	1.39	2.90	1.39	1.39	0.52	0.25	0.28	0.05	0.03	0.11	1.39	0.19	1.47	0.10	1.56	0.21	2.76		
2852	N. F. Calapooia	700	0.39	0.58	0.31	0.39	0.10	0.06	0.08	0.01	0.01	0.03	0.39	0.05	0.40	0.12	1.17	0.05	2.06		
2853	N. F. Calapooia	700	1.85	1.85	1.24	1.85	0.33	0.22	0.93	0.33	0.00	0.37	4.64	0.70	4.97	0.45	4.38	0.78	7.75		
2854	N. F. Calapooia	700	3.71	3.71	2.47	3.71	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2855	N. F. Calapooia	700	0.93	0.93	0.62	0.93	0.17	0.11	0.46	0.17	0.01	0.19	2.32	0.36	2.50	0.46	4.52	0.40	8.00		
2856	N. F. Calapooia	700	10.20	12.75	6.80	10.20	2.29	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attach B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a five stream culvert?
2857	N. F. Calapooia	780	0.0	0.1	0.08	M	120.7	3.0	10	3.7	12	1.2	4	957	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2858	N. F. Calapooia	780	0.1	0.4	0.28	M	442.6	3.0	10	2.4	8	1.8	6	3238	100	100	2	45%	0%	0%	0%	4	6	N	0%	N	5	N
2859	N. F. Calapooia	780	0.4	0.8	0.45	R	724.2	2.7	9	2.4	8	1.2	4	4636	100	100	2	45%	0%	0%	0%	4	6	N	0%	N	5	N
2860	N. F. Calapooia	2000	0.0	0.1	0.10	M	160.9	4.3	14	3.7	12	2.4	8	1668	90	100	5	45%	0%	0%	0%	2	6	N	0%	N	1	N
2861	N. F. Calapooia	2000	0.1	0.6	0.50	M	804.7	4.3	14	3.0	10	1.8	6	7358	90	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2862	N. F. Calapooia	2000	0.6	0.8	0.15	M	241.4	4.3	14	3.7	12	2.4	8	2502	90	100	5	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2863	N. F. Calapooia	2000	0.8	0.9	0.13	M	201.2	4.3	14	2.4	8	1.8	6	1717	100	100	5	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2864	N. F. Calapooia	2000	0.9	1.1	0.23	M	362.1	3.7	12	3.0	10	1.8	6	3090	100	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2865	N. F. Calapooia	2000	1.1	1.2	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	100	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2866	N. F. Calapooia	2000	1.2	1.4	0.20	M	321.9	3.7	12	3.7	12	2.4	8	3139	90	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2867	N. F. Calapooia	2000	1.4	1.4	0.03	M	40.2	3.7	12	3.7	12	1.8	6	368	90	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2868	N. F. Calapooia	2000	1.4	1.5	0.05	M	80.5	3.7	12	3.7	12	1.8	6	736	100	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2869	N. F. Calapooia	2000	1.5	1.6	0.13	M	201.2	3.7	12	3.7	12	2.4	8	1962	60	100	5	45%	0%	0%	0%	2	6	N	0%	N	1	N
2870	N. F. Calapooia	2050	0.0	0.2	0.23	M	362.1	3.0	10	3.0	10	1.8	6	2870	90	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2871	N. F. Calapooia	2040	0.0	0.2	0.20	M	321.9	3.0	10	2.4	8	1.2	4	2158	60	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
2872	N. F. Calapooia	2040	0.2	0.3	0.10	M	160.9	3.0	10	2.4	8	1.2	4	1079	80	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2873	N. F. Calapooia	2040	0.3	0.5	0.20	M	321.9	3.0	10	2.4	8	1.2	4	2158	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	2	N
2874	N. F. Calapooia	2030	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2875	N. F. Calapooia	2020	0.0	0.4	0.40	R	643.7	2.7	9	1.2	4	0.6	2	2943	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	5	N
2876	N. F. Calapooia	781	0.0	0.1	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	100	100	6	45%	0%	0%	0%	4	6	N	0%	Y	5	N
2877	N. F. Calapooia	781	0.1	0.3	0.15	M	241.4	3.0	10	2.4	8	1.8	6	1766	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2878	N. F. Calapooia	760	0.0	0.4	0.35	R	563.3	3.0	10	2.4	8	1.8	6	4121	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2879	N. F. Calapooia	760	0.4	0.6	0.25	M	402.3	3.0	10	1.8	6	1.2	4	2453	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	5	N
2880	N. F. Calapooia	740	0.0	0.2	0.15	M	241.4	3.7	12	4.6	15	2.4	8	2575	80	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2881	N. F. Calapooia	740	0.2	0.4	0.20	M	321.9	3.0	10	6.1	20	3.0	10	3924	90	100	4	45%	10%	100%	0%	4	6	N	100%	N	2	Y
2882	N. F. Calapooia	740	0.4	0.5	0.10	M	160.9	3.0	10	4.6	15	3.0	10	1717	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	2	N
2883	N. F. Calapooia	740	0.5	0.6	0.15	M	241.4	3.0	10	4.6	15	2.4	8	2428	100	100	4	45%	50%	100%	0%	4	6	N	100%	Y	1	N
2884	N. F. Calapooia	740	0.6	0.6	0.03	M	40.2	3.0	10	2.4	8	1.8	6	294	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2885	N. F. Calapooia	740	0.6	0.7	0.05	M	80.5	3.0	10	3.7	12	2.4	8	736	100	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
2886	N. F. Calapooia	740	0.7	0.8	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	100	100	4	45%	5%	10%	0%	4	6	N	10%	Y	1	N
2887	N. F. Calapooia	740	0.8	1.0	0.23	M	362.1	3.0	10	3.7	12	1.8	6	3090	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	5	N
2888	N. F. Calapooia	743	0.0	0.2	0.20	M	321.9	3.0	10	1.8	6	1.2	4	1962	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2889	N. F. Calapooia	730	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
2890	N. F. Calapooia	730	0.1	0.3	0.15	M	241.4	3.7	12	4.6	15	2.4	8	2575	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2891	N. F. Calapooia	730	0.3	0.3	0.03	M	40.2	3.7	12	3.0	10	1.8	6	343	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
2892	N. F. Calapooia	730	0.3	0.4	0.13	M	201.2	3.7	12	3.0	10	1.8	6	1717	100	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2893	N. F. Calapooia	730	0.4	0.5	0.13	M	201.2	3.7	12	3.7	12	1.8	6	1840	100	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
2894	N. F. Calapooia	730	0.5	0.7	0.18	M	281.6	3.7	12	3.7	12	2.4	8	2747	90	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2895	N. F. Calapooia	730	0.7	0.8	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	100	100	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
2896	N. F. Calapooia	730	0.8	1.2	0.38	M	603.5	3.7	12	3.7	12	2.4	8	5886	90	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2897	N. F. Calapooia	730	1.2	1.4	0.20	M	321.9	3.7	12	6.1	20	3.7	12	4317	60	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2898	N. F. Calapooia	730	1.4	1.5	0.08	M	120.7	3.7	12	3.7	12	2.4	8	1177	80	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2899	N. F. Calapooia	730	1.5	1.8	0.35	M	563.3	3.7	12	3.7	12	1.8	6	5151	90	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2900	N. F. Calapooia	730	1.8	2.0	0.20	M	321.9	3.7	12	3.0	10	1.8	6	2747	100	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2901	N. F. Calapooia	730	2.0	2.2	0.20	M	321.9	3.7	12	4.6	15	2.4	8	3434	80	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2902	N. F. Calapooia	730	2.2	2.3	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	80	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2903	N. F. Calapooia	733	0.0	0.2	0.18	M	281.6	3.0	10	3.7	12	1.8	6	2404	80	100	4	45%	5%	10%	0%	4	6	N	100%	N	2	Y
2904	N. F. Calapooia	733	0.2	0.3	0.10	M	160.9	3.0	10	3.7	12	1.8	6	1374	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
2905	N. F. Calapooia	733	0.3	0.6	0.35	M	563.3	3.0	10	4.6	15	3.0	10	6009	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	2	N
2906	N. F. Calapooia	733	0.6	0.8	0.18	M	281.6	2.7	9	6.1	20	3.7	12	3520	60	100	4	45%	10%	10%	0%	4	6	N	100%	N	2	Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2857	N. F. Calapooia	780	1.16	1.39	0.46	1.16	0.25	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2858	N. F. Calapooia	780	4.25	3.40	2.55	4.25	0.61	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2859	N. F. Calapooia	780	6.26	5.56	2.78	6.26	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2860	N. F. Calapooia	2000	2.16	1.85	1.24	0.43	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2861	N. F. Calapooia	2000	10.82	7.73	4.64	2.16	1.39	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2862	N. F. Calapooia	2000	3.24	2.78	1.85	0.65	0.50	0.33	0.32	0.50	0.00	0.13	1.62	0.63	2.12	0.25	2.61	0.69	4.62		
2863	N. F. Calapooia	2000	2.70	1.55	1.16	0.54	0.28	0.21	0.27	0.28	0.00	0.11	1.35	0.39	1.63	0.23	1.92	0.42	3.40		
2864	N. F. Calapooia	2000	4.17	3.48	2.09	0.83	0.63	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2865	N. F. Calapooia	2000	1.85	1.85	1.24	0.37	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2866	N. F. Calapooia	2000	3.71	3.71	2.47	0.74	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2867	N. F. Calapooia	2000	0.46	0.46	0.23	0.09	0.08	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2868	N. F. Calapooia	2000	0.93	0.93	0.46	0.19	0.17	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2869	N. F. Calapooia	2000	2.32	2.32	1.55	0.46	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2870	N. F. Calapooia	2050	3.48	3.48	2.09	3.48	0.63	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2871	N. F. Calapooia	2040	3.09	2.47	1.24	3.09	0.45	0.22	1.55	0.45	0.00	0.15	0.15	0.60	0.60	0.28	1.86	0.66	3.30		
2872	N. F. Calapooia	2040	1.55	1.24	0.62	1.55	0.22	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2873	N. F. Calapooia	2040	3.09	2.47	1.24	3.09	0.45	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2874	N. F. Calapooia	2030	1.55	0.93	0.62	1.55	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2875	N. F. Calapooia	2020	5.56	2.47	1.24	5.56	0.45	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2876	N. F. Calapooia	781	1.55	1.55	0.93	1.16	0.28	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2877	N. F. Calapooia	781	2.32	1.85	1.39	2.32	0.33	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2878	N. F. Calapooia	760	5.41	4.33	3.24	5.41	0.76	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2879	N. F. Calapooia	760	3.86	2.32	1.55	3.86	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2880	N. F. Calapooia	740	2.78	3.48	1.85	2.78	0.63	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2881	N. F. Calapooia	740	3.09	6.18	3.09	3.09	1.11	0.56	0.31	1.11	0.00	0.03	0.03	1.14	1.14	0.29	3.55	1.26	6.29		
2882	N. F. Calapooia	740	1.55	2.32	1.55	1.55	0.42	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2883	N. F. Calapooia	740	2.32	3.48	1.85	2.32	0.63	0.33	1.16	0.63	0.00	0.12	0.12	0.74	0.74	0.31	3.07	0.82	5.44		
2884	N. F. Calapooia	740	0.39	0.31	0.23	0.39	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2885	N. F. Calapooia	740	0.77	0.93	0.62	0.77	0.17	0.11	0.39	0.17	0.00	0.04	0.04	0.21	0.21	0.28	2.55	0.23	4.52		
2886	N. F. Calapooia	740	1.55	1.55	0.93	1.55	0.28	0.17	0.08	0.03	0.00	0.01	0.01	0.04	0.04	0.03	0.22	0.04	0.39		
2887	N. F. Calapooia	740	3.48	4.17	2.09	3.48	0.75	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2888	N. F. Calapooia	743	3.09	1.85	1.24	3.09	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2889	N. F. Calapooia	730	2.88	2.88	1.44	2.88	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2890	N. F. Calapooia	730	4.33	5.41	2.88	4.33	0.97	0.52	2.16	0.97	0.00	0.87	10.82	1.84	11.79	0.71	7.62	2.02	13.48		
2891	N. F. Calapooia	730	0.72	0.60	0.36	0.72	0.11	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2892	N. F. Calapooia	730	3.61	3.00	1.80	3.61	0.54	0.32	1.80	0.54	0.00	0.72	9.01	1.26	9.55	0.74	6.27	1.39	11.10		
2893	N. F. Calapooia	730	2.32	2.32	1.16	2.32	0.42	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2894	N. F. Calapooia	730	3.24	3.24	2.16	3.24	0.58	0.39	1.62	0.58	0.00	0.65	8.11	1.23	8.70	0.45	4.38	1.36	7.75		
2895	N. F. Calapooia	730	1.85	1.24	0.93	1.85	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2896	N. F. Calapooia	730	6.95	6.95	4.64	6.95	1.25	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2897	N. F. Calapooia	730	3.71	6.18	3.71	3.71	1.11	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2898	N. F. Calapooia	730	1.39	1.39	0.93	1.39	0.25	0.17	0.70	0.25	0.00	0.28	3.48	0.53	3.73	0.45	4.38	0.58	7.75		
2899	N. F. Calapooia	730	6.49	6.49	3.24	6.49	1.17	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2900	N. F. Calapooia	730	3.71	3.09	1.85	3.71	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2901	N. F. Calapooia	730	3.71	4.64	2.47	3.71	0.83	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2902	N. F. Calapooia	730	1.85	1.85	1.24	1.85	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2903	N. F. Calapooia	733	2.70	3.24	1.62	2.70	0.58	0.29	0.14	0.06	0.00	0.01	0.01	0.07	0.07	0.03	0.26	0.08	0.45		
2904	N. F. Calapooia	733	1.55	1.85	0.93	1.55	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2905	N. F. Calapooia	733	5.41	8.11	5.41	5.41	1.46	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2906	N. F. Calapooia	733	2.43	5.41	3.24	2.43	0.97	0.58	0.24	0.10	0.00	0.02	0.02	0.12	0.12	0.03	0.43	0.13	0.76		

AttacB5

Attach B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2907	N. F. Calapooia	733	0.8	1.0	0.15	M	241.4	2.7	9	3.0	10	2.4	8	1987	90	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2908	N. F. Calapooia	733	1.0	1.1	0.15	M	241.4	3.0	10	4.6	15	3.0	10	2575	80	100	4	45%	5%	10%	0%	4	6	N	100%	N	2	Y
2909	N. F. Calapooia	733	1.1	1.2	0.10	M	160.9	3.0	10	4.6	15	2.4	8	1619	80	100	4	45%	50%	100%	0%	4	6	N	100%	N	1	Y
2910	N. F. Calapooia	733	1.2	1.4	0.20	M	321.9	3.0	10	7.6	25	3.0	10	4415	80	100	4	45%	10%	20%	0%	4	6	N	100%	Y	2	N
2911	N. F. Calapooia	733	1.4	1.5	0.13	M	201.2	3.0	10	4.6	15	3.0	10	2146	100	100	4	45%	10%	100%	0%	4	6	N	100%	N	2	Y
2912	N. F. Calapooia	733	1.5	2.1	0.55	M	885.1	2.7	9	4.6	15	3.0	10	9173	80	100	4	45%	0%	0%	0%	4	6	N	0%	N	2	N
2913	N. F. Calapooia	733	2.1	2.1	0.05	M	80.5	2.7	9	4.6	15	3.0	10	834	80	100	4	45%	10%	100%	0%	4	6	N	100%	N	2	Y
2914	N. F. Calapooia	733	2.1	2.2	0.05	M	80.5	2.7	9	7.6	25	2.4	8	1030	40	100	4	45%	100%	100%	100%	4	6	N	100%	N	5	Y
2915	N. F. Calapooia	733	2.2	2.3	0.13	M	201.2	2.7	9	3.7	12	3.0	10	1901	90	100	4	45%	10%	50%	0%	4	6	N	100%	N	2	Y
2916	N. F. Calapooia	733	2.3	2.4	0.10	M	160.9	2.7	9	3.7	12	2.4	8	1423	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
2917	N. F. Calapooia	733-B	0.0	0.2	0.20	M	321.9	2.7	9	3.7	12	2.4	8	2845	40	100	4	45%	0%	0%	0%	4	6	N	0%	N	2	N
2918	N. F. Calapooia	720-A	0.0	0.1	0.10	R	160.9	3.7	12	3.7	12	2.4	8	1570	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2919	N. F. Calapooia	720	0.0	0.1	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	100	100	1	70%	0%	0%	0%	4	6	N	0%	N	5	N
2920	N. F. Calapooia	720	0.1	0.6	0.50	M	804.7	3.0	10	3.7	12	2.4	8	7358	100	100	1	70%	0%	0%	0%	4	6	N	0%	N	5	N
2941	N. F. Calapooia	600	7.0	7.2	0.20	M	321.9	3.7	12	2.4	8	1.8	6	2551	100	100	4	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2942	N. F. Calapooia	600	7.2	7.6	0.38	M	603.5	3.7	12	2.4	8	1.8	6	4783	100	100	4	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2943	N. F. Calapooia	600	7.6	8.8	1.23	R	1971.5	3.0	10	4.6	15	3.7	12	22234	80	90	4	45%	0%	0%	0%	2	6	N	0%	N	1	N
175	Upper Calapooia	MAINLINE	17.0	17.3	0.30	M	482.8	4.9	16	9.1	30	6.1	20	9713	80	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
176	Upper Calapooia	MAINLINE	17.3	17.3	0.03	M	40.2	4.9	16	6.1	20	4.6	15	625	100	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
177	Upper Calapooia	MAINLINE	17.3	17.5	0.15	M	241.4	4.9	16	4.6	15	4.6	15	3385	80	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
178	Upper Calapooia	MAINLINE	17.5	17.6	0.10	M	160.9	4.9	16	2.4	8	2.4	8	1570	100	100	5	70%	50%	100%	0%	1	6	N	100%	N	1	Y
179	Upper Calapooia	MAINLINE	17.6	17.8	0.20	M	321.9	4.9	16	5.5	18	3.0	10	4317	100	100	5	70%	0%	0%	0%	1	6	N	0%	Y	1	N
180	Upper Calapooia	MAINLINE	17.6	17.8	0.25	M	402.3	4.9	16	3.7	12	2.4	8	4415	100	100	5	70%	75%	100%	50%	1	6	N	100%	N	1	Y
1379	Upper Calapooia	3440	2.6	2.9	0.30	R	482.8	3.7	12	3.7	12	2.4	8	4709	50	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1380	Upper Calapooia	3440	2.9	3.0	0.13	M	201.2	3.7	12	2.4	8	1.8	6	1594	90	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
1381	Upper Calapooia	3449	0.0	0.1	0.10	M	160.9	2.4	8	3.7	12	1.8	6	1275	50	100	1	70%	0%	0%	0%	4	6	N	0%	N	1	N
1382	Upper Calapooia	3448	0.0	0.2	0.15	R	241.4	3.7	12	1.8	6	1.2	4	1619	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
1411	Upper Calapooia	3453-B	0.0	0.1	0.10	R	160.9	3.0	10	3.7	12	1.8	6	1374	40	90	4	45%	0%	0%	0%	4	6	N	0%	Y	1	N
1453	Upper Calapooia	3465	0.9	1.3	0.40	M	643.7	3.7	12	6.1	20	3.0	10	6241	60	90	5	70%	0%	0%	0%	2	6	N	0%	Y	2	N
1454	Upper Calapooia	3465	1.3	1.4	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	80	80	5	70%	50%	100%	0%	2	6	N	100%	Y	1	Y
1455	Upper Calapooia	3465	1.4	1.6	0.20	M	321.9	3.7	12	3.0	10	1.8	6	2747	60	80	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2558	Upper Calapooia	3560	0.8	1.1	0.33	M	523.0	3.0	10	4.6	15	2.4	8	5261	70	100	4	70%	0%	0%	0%	4	6	N	0%	Y	5	N
2562	Upper Calapooia	3560	0.0	0.1	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	40	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2563	Upper Calapooia	3560	0.1	0.2	0.08	M	120.7	3.0	10	2.4	8	1.8	6	883	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2564	Upper Calapooia	3560	0.2	0.2	0.05	M	80.5	3.0	10	3.0	10	1.8	6	638	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2600	Upper Calapooia	2026	0.0	0.1	0.05	M	80.5	4.9	16	3.7	12	2.4	8	883	100	100	5	70%	5%	10%	0%	2	8	N	10%	Y	1	N
2601	Upper Calapooia	2026	0.1	0.1	0.05	M	80.5	4.9	16	4.6	15	2.4	8	957	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2602	Upper Calapooia	2026	0.1	0.3	0.20	M	321.9	4.3	14	4.6	15	3.0	10	3826	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2603	Upper Calapooia	2026	0.3	0.4	0.10	M	160.9	4.9	16	3.7	12	2.4	8	1766	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2604	Upper Calapooia	2026	0.4	0.6	0.20	M	321.9	4.3	14	4.6	15	3.0	10	3826	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2605	Upper Calapooia	2026	0.6	0.9	0.33	M	523.0	4.3	14	6.1	20	3.7	12	7334	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2606	Upper Calapooia	2026	0.9	1.1	0.13	M	201.2	4.3	14	7.6	25	3.7	12	3127	80	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2607	Upper Calapooia	2026	1.1	1.1	0.02	M	40.2	4.3	14	6.1	20	3.0	10	540	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2608	Upper Calapooia	2026	1.1	1.1	0.05	M	80.5	4.3	14	6.1	20	3.0	10	1079	40	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2609	Upper Calapooia	2026	1.1	1.2	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2610	Upper Calapooia	2026	1.2	1.4	0.18	M	281.6	3.7	12	4.6	15	3.0	10	3176	80	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2611	Upper Calapooia	2026	1.4	1.5	0.08	M	120.7	3.7	12	3.7	12	1.6	6	1104	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2612	Upper Calapooia	2026	1.5	1.6	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2613	Upper Calapooia	2026	1.6	1.6	0.05	M	80.5	3.7	12	4.6	15	3.0	10	907	90	100	5	70%	5%	10%	0%	2	6	N	10%	Y	1	N
2614	Upper Calapooia	2026	1.6	1.7	0.13	M	201.2	3.7	12	12.2	40	4.6	15	4108	80	100	5	70%	100%	100%	0%	2	6	N	100%	N	1	Y

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square mile	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2907	N. F. Calapooia	733	2.09	2.32	1.85	2.09	0.42	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2908	N. F. Calapooia	733	2.32	3.48	2.32	2.32	0.83	0.42	0.12	0.06	0.00	0.01	0.01	0.07	0.07	0.03	0.31	0.08	0.54		
2909	N. F. Calapooia	733	1.55	2.32	1.24	1.55	0.42	0.22	0.77	0.42	0.00	0.08	0.08	0.49	0.49	0.31	3.07	0.54	5.44		
2910	N. F. Calapooia	733	3.09	7.73	3.09	3.09	1.39	0.56	0.31	0.28	0.00	0.03	0.03	0.31	0.31	0.07	0.96	0.34	1.70		
2911	N. F. Calapooia	733	1.93	2.90	1.93	1.93	0.52	0.35	0.19	0.52	0.00	0.02	0.02	0.54	0.54	0.25	2.69	0.59	4.76		
2912	N. F. Calapooia	733	7.65	12.75	8.50	7.65	2.29	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2913	N. F. Calapooia	733	0.70	1.16	0.77	0.70	0.21	0.14	0.07	0.21	0.00	0.01	0.01	0.22	0.22	0.26	2.68	0.24	4.74		
2914	N. F. Calapooia	733	0.70	1.93	0.62	0.70	0.35	0.11	0.70	0.35	0.11	0.07	0.07	0.53	0.53	0.51	6.57	0.58	11.63		
2915	N. F. Calapooia	733	1.74	2.32	1.93	1.74	0.42	0.35	0.17	0.21	0.00	0.02	0.02	0.23	0.23	0.12	1.12	0.25	1.99		
2916	N. F. Calapooia	733	1.39	1.85	1.24	1.39	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2917	N. F. Calapooia	733-B	2.78	3.71	2.47	2.78	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2918	N. F. Calapooia	720-A	2.88	2.88	1.92	2.88	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2919	N. F. Calapooia	720	2.40	2.40	1.44	2.40	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2920	N. F. Calapooia	720	12.02	14.42	9.61	12.02	2.60	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2941	N. F. Calapooia	600	3.71	2.47	1.85	3.71	0.45	0.33	1.85	0.45	0.00	0.74	9.27	1.19	9.72	0.47	3.69	1.31	6.53		
2942	N. F. Calapooia	600	6.95	4.64	3.48	6.95	0.63	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2943	N. F. Calapooia	600	18.93	26.39	22.71	18.93	5.41	4.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
175	Upper Calapooia	MAINLINE	11.54	21.63	14.42	2.31	3.89	2.60	1.15	3.89	0.00	0.46	5.77	4.36	9.66	0.45	9.02	4.79	15.97	59	172
176	Upper Calapooia	MAINLINE	0.96	1.20	0.90	0.19	0.22	0.16	0.10	0.22	0.00	0.04	0.48	0.25	0.70	0.41	6.33	0.28	11.21		
177	Upper Calapooia	MAINLINE	5.77	5.41	5.41	1.15	0.97	0.97	0.58	0.97	0.00	0.23	2.88	1.20	3.86	0.36	4.99	1.32	8.83		
178	Upper Calapooia	MAINLINE	3.85	1.92	1.92	0.77	0.35	0.35	0.38	0.35	0.00	0.15	1.92	0.50	2.27	0.32	3.11	0.55	5.50		
179	Upper Calapooia	MAINLINE	7.69	8.65	4.81	1.54	1.56	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
180	Upper Calapooia	MAINLINE	9.61	7.21	4.81	1.92	1.30	0.87	1.44	1.30	0.43	0.58	7.21	2.31	8.94	0.52	5.74	2.54	10.15		
1379	Upper Calapooia	3440	8.65	8.65	5.77	8.65	1.56	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1380	Upper Calapooia	3440	3.61	2.40	1.80	3.61	0.43	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1381	Upper Calapooia	3449	1.92	2.88	1.44	1.92	0.52	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1382	Upper Calapooia	3448	4.33	2.16	1.44	4.33	0.39	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1411	Upper Calapooia	3453-B	1.55	1.85	0.93	1.55	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1453	Upper Calapooia	3405	11.54	19.23	9.61	2.31	3.46	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1454	Upper Calapooia	3405	2.88	2.88	1.44	0.58	0.52	0.26	0.29	0.52	0.00	0.12	1.44	0.63	1.96	0.43	3.94	0.70	6.98		
1455	Upper Calapooia	3405	5.77	4.81	2.88	1.15	0.87	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2558	Upper Calapooia	3580	7.81	11.72	6.25	7.81	2.11	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2562	Upper Calapooia	3560	2.88	2.88	1.92	2.88	0.52	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2563	Upper Calapooia	3560	1.80	1.44	1.08	1.80	0.26	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2564	Upper Calapooia	3560	1.20	1.20	0.72	1.20	0.22	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2600	Upper Calapooia	2026	1.92	1.44	0.96	0.38	0.26	0.17	0.02	0.03	0.00	0.01	0.10	0.03	0.12	0.04	0.42	0.04	0.74		
2601	Upper Calapooia	2026	1.92	1.80	0.96	0.38	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2602	Upper Calapooia	2026	6.73	7.21	4.81	1.35	1.30	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2603	Upper Calapooia	2026	3.85	2.88	1.92	0.77	0.52	0.35	0.38	0.52	0.00	0.15	1.92	0.67	2.44	0.38	4.18	0.74	7.40		
2604	Upper Calapooia	2026	6.73	7.21	4.81	1.35	1.30	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2605	Upper Calapooia	2026	10.94	15.62	9.37	2.19	2.81	1.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2606	Upper Calapooia	2026	4.21	7.51	3.61	0.84	1.35	0.65	0.42	1.35	0.00	0.17	2.10	1.52	3.46	0.49	7.56	1.67	13.38		
2607	Upper Calapooia	2026	0.84	1.20	0.60	0.17	0.22	0.11	0.08	0.22	0.00	0.03	0.42	0.25	0.64	0.46	6.21	0.27	11.00		
2608	Upper Calapooia	2026	1.68	2.40	1.20	0.34	0.43	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2609	Upper Calapooia	2026	2.16	2.70	1.80	0.43	0.49	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2610	Upper Calapooia	2026	5.05	6.31	4.21	1.01	1.14	0.76	0.50	1.14	0.00	0.20	2.52	1.34	3.66	0.42	4.75	1.47	8.41		
2611	Upper Calapooia	2026	2.16	2.16	1.08	0.43	0.39	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2612	Upper Calapooia	2026	2.88	3.61	1.92	0.56	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2613	Upper Calapooia	2026	1.44	1.80	1.20	0.29	0.32	0.22	0.01	0.03	0.00	0.01	0.07	0.04	0.10	0.04	0.47	0.04	0.84		
2614	Upper Calapooia	2026	3.61	12.02	4.51	0.72	2.16	0.81	0.72	2.16	0.00	0.29	3.61	2.45	5.77	0.60	12.19	2.70	21.57		

Attachment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2615	Upper Calapooia	2026	1:7	1:8	0.05	M	80.5	3.7	12	4.6	15	3.0	10	907	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2616	Upper Calapooia	2026	1:8	1:9	0.13	M	201.2	3.7	12	5.5	18	3.7	12	2575	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2617	Upper Calapooia	2026	1:9	2:3	0.35	M	563.3	3.7	12	4.6	15	3.0	10	6352	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2618	Upper Calapooia	2026	2:3	2:4	0.10	M	160.9	3.7	12	4.6	15	3.0	10	1815	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2619	Upper Calapooia	2026	2:4	2:8	0.40	M	643.7	3.7	12	4.6	15	3.0	10	7260	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2620	Upper Calapooia	2026	2:8	3:0	0.25	M	402.3	3.7	12	4.6	15	3.7	12	4783	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2621	Upper Calapooia	2026	3:0	3:2	0.15	M	241.4	3.7	12	6.1	20	3.7	12	3238	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2622	Upper Calapooia	2026	3:2	3:3	0.15	M	241.4	3.7	12	6.1	20	3.0	10	3090	70	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2623	Upper Calapooia	2026	3:3	3:4	0.13	M	201.2	4.3	14	7.6	25	3.7	12	3127	80	100	5	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2624	Upper Calapooia	2026	3:4	3:7	0.28	M	442.6	4.3	14	4.6	15	3.0	10	5261	60	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2625	Upper Calapooia	2026	3:7	3:9	0.20	M	321.9	4.3	14	7.6	25	3.7	12	5004	60	100	5	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2626	Upper Calapooia	2026	3:9	4:0	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	40	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2627	Upper Calapooia	2026	4:0	4:4	0.35	R	563.3	4.3	14	2.4	8	1.8	6	4807	90	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2628	Upper Calapooia	2026	4:4	4:4	0.03	M	40.2	4.3	14	2.4	8	1.8	6	343	100	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2629	Upper Calapooia	2026	4:4	4:5	0.10	M	160.9	4.3	14	2.4	8	1.8	6	1374	100	100	5	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2630	Upper Calapooia	2026	4:5	4:7	0.25	M	402.3	4.3	14	3.0	10	1.8	6	3679	90	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2631	Upper Calapooia	2026	4:7	4:8	0.08	M	120.7	4.3	14	3.7	12	3.0	10	1324	80	80	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2632	Upper Calapooia	2026	4:8	4:9	0.05	M	80.5	4.3	14	4.6	15	3.0	10	957	80	80	5	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2633	Upper Calapooia	2026	4:9	4:9	0.05	M	80.5	4.3	14	4.6	15	2.4	8	907	60	100	5	45%	50%	100%	0%	2	6	N	100%	N	1	Y
2634	Upper Calapooia	2026	4:9	5:1	0.20	M	321.9	4.3	14	7.6	25	2.4	8	4611	60	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2635	Upper Calapooia	2026	5:1	5:4	0.30	M	482.8	4.3	14	3.7	12	1.8	6	4799	90	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2636	Upper Calapooia	2026	5:4	5:8	0.40	M	643.7	4.3	14	2.4	8	1.8	6	5494	100	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2637	Upper Calapooia	2026	5:8	6:0	0.20	M	321.9	4.3	14	3.0	10	1.8	6	2943	100	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2638	Upper Calapooia	2026	6:0	6:2	0.15	M	241.4	4.3	14	3.7	12	2.4	8	2502	100	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2639	Upper Calapooia	2026	6:2	6:4	0.20	M	321.9	3.7	12	3.0	10	1.8	6	2747	100	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2640	Upper Calapooia	2026	6:4	6:5	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	80	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2641	Upper Calapooia	2026	6:5	6:5	0.05	M	80.5	3.7	12	3.7	12	1.8	6	736	100	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2642	Upper Calapooia	2026	6:5	6:6	0.07	M	120.7	3.7	12	3.0	10	1.8	6	1030	100	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2643	Upper Calapooia	2026	6:6	7:2	0.55	M	885.1	3.7	12	3.7	12	2.4	8	8634	80	100	5	45%	0%	0%	0%	2	6	N	0%	Y	1	N
2644	Upper Calapooia	335	0:0	0:2	0.20	M	321.9	3.7	12	3.0	10	1.8	6	2747	90	100	5	45%	0%	0%	0%	4	6	N	0%	N	1	N
2645	Upper Calapooia	335	0:2	0:3	0.10	M	160.9	3.7	12	3.7	12	1.8	6	1472	100	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2646	Upper Calapooia	335	0:3	0:4	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2647	Upper Calapooia	335	0:4	0:5	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	100	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2648	Upper Calapooia	335	0:5	0:7	0.20	M	321.9	3.7	12	5.5	18	2.4	8	3728	90	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2649	Upper Calapooia	335	0:7	0:8	0.10	M	160.9	3.7	12	6.1	20	3.0	10	2060	80	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2650	Upper Calapooia	335	0:8	0:9	0.10	M	160.9	3.7	12	6.1	20	3.7	12	2158	80	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2651	Upper Calapooia	335	0:9	1:1	0.20	M	321.9	3.7	12	6.1	20	3.7	12	4317	80	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2652	Upper Calapooia	335	1:1	1:4	0.28	M	442.6	3.7	12	6.1	20	3.7	12	5936	80	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2653	Upper Calapooia	335	1:4	1:6	0.18	M	281.6	3.7	12	6.1	20	3.7	12	3777	80	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2654	Upper Calapooia	335	1:6	1:9	0.30	M	482.8	3.7	12	7.6	25	3.7	12	7211	80	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2655	Upper Calapooia	335	1:9	2:1	0.25	M	402.3	3.7	12	6.1	20	3.0	10	5151	90	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2656	Upper Calapooia	335	2:1	2:5	0.40	R	643.7	3.7	12	3.7	12	2.4	8	6279	80	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2657	Upper Calapooia	335	2:5	2:8	0.30	R	482.8	3.7	12	3.7	12	1.8	6	4415	80	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2658	Upper Calapooia	460	0:0	0:2	0.20	M	321.9	2.7	9	1.8	6	1.2	4	1864	100	100	4	45%	0%	0%	0%	4	6	N	0%	Y	2	N
2659	Upper Calapooia	340	0:0	0:2	0.20	M	321.9	3.7	12	3.7	12	2.4	8	3139	60	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2660	Upper Calapooia	340	0:2	0:4	0.20	M	321.9	3.7	12	3.0	10	1.8	6	2747	100	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2661	Upper Calapooia	340	0:4	0:6	0.18	R	281.6	3.7	12	1.8	6	1.2	4	1889	100	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2662	Upper Calapooia	340	0:6	0:8	0.23	M	362.1	3.7	12	4.6	15	3.0	10	4084	80	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2663	Upper Calapooia	340	0:8	0:9	0.10	R	160.9	3.7	12	2.4	8	1.8	6	1275	100	100	5	45%	0%	0%	0%	4	6	N	0%	Y	1	N
2664	Upper Calapooia	340	0:9	1:3	0.40	M	643.7	2.7	9	4.6	15	3.0	10	6671	60	100	4	45%	0%	0%	0%	4	6	N	0%	N	2	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2615	Upper Calapooia	2026	1.44	1.80	1.20	0.29	0.32	0.22	0.14	0.32	0.00	0.06	0.72	0.38	1.05	0.42	4.75	0.42	8.41		
2616	Upper Calapooia	2026	3.61	5.41	3.61	0.72	0.97	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2617	Upper Calapooia	2026	10.10	12.62	8.41	2.02	2.27	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2618	Upper Calapooia	2026	2.88	3.61	2.40	0.58	0.65	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2619	Upper Calapooia	2026	11.54	14.42	9.61	2.31	2.60	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2620	Upper Calapooia	2026	7.21	9.01	7.21	1.44	1.62	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2621	Upper Calapooia	2026	4.33	7.21	4.33	0.87	1.30	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2622	Upper Calapooia	2026	4.33	7.21	3.61	0.87	1.30	0.65	0.43	1.30	0.00	0.17	2.16	1.47	3.46	0.48	6.09	1.62	10.79		
2623	Upper Calapooia	2026	2.70	4.63	2.32	0.54	0.87	0.42	0.27	0.87	0.00	0.11	1.35	0.98	2.22	0.31	4.86	1.08	6.60		
2624	Upper Calapooia	2026	5.95	6.37	4.25	1.19	1.15	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2625	Upper Calapooia	2026	4.33	7.73	3.71	0.87	1.39	0.67	0.43	1.39	0.00	0.17	2.16	1.56	3.55	0.31	4.86	1.72	8.60		
2626	Upper Calapooia	2026	2.16	2.32	1.24	0.43	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2627	Upper Calapooia	2026	7.57	4.33	3.24	1.51	0.78	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2628	Upper Calapooia	2026	0.54	0.81	0.23	0.11	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2629	Upper Calapooia	2026	2.16	1.24	0.93	0.43	0.22	0.17	0.22	0.22	0.00	0.09	1.08	0.31	1.30	0.23	1.92	0.34	3.40		
2630	Upper Calapooia	2026	5.41	3.86	2.32	1.08	0.70	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2631	Upper Calapooia	2026	1.62	1.39	1.16	0.32	0.25	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2632	Upper Calapooia	2026	1.08	1.16	0.77	0.22	0.21	0.14	0.11	0.21	0.00	0.04	0.54	0.25	0.75	0.26	3.13	0.28	5.54		
2633	Upper Calapooia	2026	1.08	1.16	0.62	0.22	0.21	0.11	0.11	0.21	0.00	0.04	0.54	0.25	0.75	0.28	3.13	0.28	5.54		
2634	Upper Calapooia	2026	4.33	7.73	2.47	0.87	1.39	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2635	Upper Calapooia	2026	6.49	5.56	2.78	1.30	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2636	Upper Calapooia	2026	8.65	4.94	3.71	1.73	0.89	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2637	Upper Calapooia	2026	4.33	3.09	1.85	0.87	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2638	Upper Calapooia	2026	3.24	2.76	1.85	0.65	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2639	Upper Calapooia	2026	3.71	3.09	1.85	0.74	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2640	Upper Calapooia	2026	2.32	2.90	1.55	0.46	0.52	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2641	Upper Calapooia	2026	0.93	0.93	0.46	0.19	0.17	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2642	Upper Calapooia	2026	1.39	1.16	0.70	0.28	0.21	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2643	Upper Calapooia	2026	10.20	10.20	6.80	2.04	1.84	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2644	Upper Calapooia	335	3.71	3.09	1.65	0.74	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2645	Upper Calapooia	335	1.85	1.85	0.93	0.37	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2646	Upper Calapooia	335	1.85	2.32	1.24	0.37	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2647	Upper Calapooia	335	1.85	2.32	1.24	0.37	0.42	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2648	Upper Calapooia	335	3.71	5.56	2.47	0.74	1.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2649	Upper Calapooia	335	1.85	3.09	1.55	0.37	0.56	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2650	Upper Calapooia	335	1.85	3.09	1.85	0.37	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2651	Upper Calapooia	335	3.71	6.18	3.71	0.74	1.11	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2652	Upper Calapooia	335	5.10	8.50	5.10	1.02	1.53	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2653	Upper Calapooia	335	3.24	5.41	3.24	0.65	0.97	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2654	Upper Calapooia	335	5.56	11.59	5.56	1.11	2.09	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2655	Upper Calapooia	335	4.64	7.73	3.86	0.93	1.39	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2656	Upper Calapooia	335	7.42	7.42	4.94	1.48	1.34	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2657	Upper Calapooia	335	5.56	5.56	2.78	1.11	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2658	Upper Calapooia	460	2.78	1.85	1.24	2.78	0.33	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2659	Upper Calapooia	340	3.71	3.71	2.47	0.74	0.67	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2660	Upper Calapooia	340	3.71	3.09	1.85	0.74	0.56	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2661	Upper Calapooia	340	3.24	1.62	1.08	0.65	0.29	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2662	Upper Calapooia	340	4.17	5.22	3.48	0.83	0.94	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2663	Upper Calapooia	340	1.85	1.24	0.93	0.37	0.22	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2664	Upper Calapooia	340	5.56	9.27	6.18	5.56	1.67	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac[illegible] B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2665	Upper Calapooia	348	0.0	0.3	0.30	R	482.8	3.0	10	1.8	6	1.2	4	2943	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2666	Upper Calapooia	343	0.0	0.1	0.10	R	160.9	2.7	9	1.8	6	1.2	4	932	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	4	N
2667	Upper Calapooia	342	0.0	0.1	0.08	R	120.7	2.7	9	1.8	6	1.2	4	699	100	100	4	45%	0%	0%	0%	4	6	N	0%	N	1	N
2668	Upper Calapooia	3600	0.0	0.3	0.28	M	442.6	4.3	14	4.6	15	2.4	8	4991	70	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2669	Upper Calapooia	3600	0.3	0.4	0.15	M	241.4	4.3	14	6.1	20	2.4	8	3090	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2670	Upper Calapooia	3600	0.4	0.6	0.18	M	281.6	4.3	14	4.6	15	2.4	8	3176	80	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2671	Upper Calapooia	3600	0.6	0.8	0.23	M	362.1	4.3	14	6.1	20	3.0	10	4856	70	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2672	Upper Calapooia	3600	0.8	0.9	0.08	M	120.7	4.3	14	4.6	15	2.4	8	1361	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2673	Upper Calapooia	3600	0.9	1.1	0.20	M	321.9	3.7	12	4.6	15	3.0	10	3630	80	80	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2674	Upper Calapooia	3600	1.1	1.2	0.10	M	160.9	4.3	14	2.4	8	1.8	6	1374	80	100	4	70%	50%	100%	0%	2	6	N	100%	Y	1	N
2675	Upper Calapooia	3600	1.2	1.3	0.13	M	201.2	3.7	12	3.0	10	1.8	6	1717	80	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2676	Upper Calapooia	3600	1.3	1.4	0.08	M	120.7	3.7	12	6.1	20	2.4	8	1472	40	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2677	Upper Calapooia	3600	1.4	1.7	0.30	M	482.8	4.3	14	3.7	12	2.4	8	5004	60	100	4	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2678	Upper Calapooia	3600	1.7	1.9	0.15	M	241.4	4.3	14	3.7	12	2.4	8	2502	60	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2679	Upper Calapooia	3600	1.9	2.1	0.25	R	402.3	3.7	12	1.8	6	1.2	4	2698	100	100	4	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2680	Upper Calapooia	3600	2.1	2.5	0.35	R	563.3	3.7	12	1.8	6	1.2	4	3777	100	100	4	70%	0%	0%	0%	2	6	N	0%	N	1	N
2681	Upper Calapooia	3600	2.5	2.6	0.10	R	160.9	3.0	10	2.4	8	1.2	4	1079	100	100	2	45%	0%	0%	0%	4	6	N	0%	N	1	N
2684	Upper Calapooia	3630	0.0	0.1	0.10	M	160.9	3.7	12	2.4	8	1.8	6	1275	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2685	Upper Calapooia	3630	0.1	0.3	0.20	M	321.9	3.7	12	3.0	10	1.8	6	2747	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	5	N
2686	Upper Calapooia	3630	0.3	0.4	0.10	M	160.9	3.7	12	3.0	10	1.8	6	1374	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2687	Upper Calapooia	3630	0.4	0.6	0.20	M	321.9	3.0	10	3.7	12	1.8	6	2747	80	100	1	45%	0%	0%	0%	4	6	N	0%	N	5	N
2688	Upper Calapooia	3630	0.0	0.1	0.13	M	201.2	3.0	10	1.8	6	1.2	4	1226	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2689	Upper Calapooia	3623	0.0	0.1	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
2690	Upper Calapooia	3619	0.0	0.2	0.20	M	321.9	3.0	10	2.4	8	1.2	4	2158	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
2691	Upper Calapooia	3620	0.0	0.1	0.05	M	80.5	3.7	12	6.1	20	3.0	10	1030	80	80	4	70%	100%	100%	100%	4	6	N	100%	N	5	Y
2692	Upper Calapooia	3620	0.1	0.1	0.03	M	40.2	3.7	12	4.6	15	2.4	8	429	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2693	Upper Calapooia	3620	0.1	0.4	0.33	M	523.0	3.0	10	3.7	12	2.4	8	4783	90	100	4	70%	0%	0%	0%	4	6	N	0%	N	2	N
2694	Upper Calapooia	3619	0.0	0.1	0.13	M	201.2	2.7	9	2.4	8	1.8	6	1410	100	100	1	70%	0%	0%	0%	4	6	N	0%	N	5	N
2695	Upper Calapooia	3619	0.0	0.1	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	60	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2696	Upper Calapooia	3619	0.1	0.3	0.20	M	321.9	3.7	12	5.5	18	3.0	10	3924	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2697	Upper Calapooia	3619	0.3	0.5	0.20	M	321.9	3.7	12	4.6	15	2.4	8	3434	80	100	4	70%	10%	100%	0%	4	6	N	100%	Y	2	N
2698	Upper Calapooia	3619	0.0	0.2	0.15	M	241.4	3.7	12	3.7	12	2.4	8	2355	60	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2699	Upper Calapooia	3619	0.2	0.3	0.18	M	281.6	3.0	10	3.7	12	2.4	8	2575	40	90	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2700	Upper Calapooia	3619	0.3	0.5	0.18	M	281.6	3.7	12	3.0	10	1.8	6	2404	80	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2701	Upper Calapooia	282	0.0	0.1	0.08	S	120.7	4.3	14	6.1	20	3.7	12	1692	100	100	5	70%	60%	100%	10%	2	6	N	100%	N	1	Y
2702	Upper Calapooia	282	0.1	0.2	0.08	M	120.7	4.3	14	3.7	12	2.4	8	1251	100	100	5	70%	5%	10%	0%	2	6	N	10%	Y	1	N
2703	Upper Calapooia	282	0.2	0.2	0.05	M	80.5	4.3	14	3.0	10	1.8	6	736	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2704	Upper Calapooia	282	0.2	0.3	0.05	S	80.5	4.3	14	6.1	20	3.7	12	1128	90	100	5	70%	60%	100%	10%	2	6	N	100%	N	1	Y
2705	Upper Calapooia	282	0.3	0.3	0.05	M	80.5	3.7	12	9.1	30	4.6	15	1398	90	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2706	Upper Calapooia	282	0.3	0.5	0.20	M	321.9	3.7	12	6.1	20	3.0	10	4121	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2707	Upper Calapooia	282	0.5	0.7	0.20	M	321.9	3.7	12	7.6	25	3.7	12	4807	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2708	Upper Calapooia	282	0.7	0.9	0.15	M	241.4	4.3	14	4.6	15	2.4	8	2722	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2709	Upper Calapooia	282	0.9	0.9	0.05	M	80.5	4.3	14	7.6	25	3.7	12	1251	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2710	Upper Calapooia	282	0.9	1.0	0.08	M	120.7	4.3	14	7.6	25	4.6	15	1987	90	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2711	Upper Calapooia	282	1.0	1.1	0.15	M	241.4	3.7	12	7.6	25	4.6	15	3826	80	100	5	70%	60%	100%	0%	2	6	N	100%	N	1	Y
2712	Upper Calapooia	282	1.1	1.3	0.18	M	281.6	4.3	14	5.5	18	3.0	10	3605	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2713	Upper Calapooia	282	1.3	1.5	0.20	M	321.9	4.3	14	6.1	20	3.7	12	4513	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2714	Upper Calapooia	282	1.5	1.6	0.10	M	160.9	4.3	14	4.6	15	2.4	8	1815	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2715	Upper Calapooia	282	1.6	1.9	0.30	M	482.8	3.7	12	4.6	15	3.0	10	5445	90	90	5	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2716	Upper Calapooia	282	1.9	2.3	0.40	M	643.7	4.3	14	6.1	20	3.7	12	9026	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	2	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2665	Upper Calapooia	348	4.64	2.78	1.85	4.64	0.50	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2666	Upper Calapooia	343	1.39	0.93	0.62	1.39	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2667	Upper Calapooia	342	1.04	0.70	0.46	1.04	0.13	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2668	Upper Calapooia	3600	9.25	9.92	5.29	9.25	1.78	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2669	Upper Calapooia	3600	5.05	7.21	2.88	5.05	1.30	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2670	Upper Calapooia	3600	5.89	6.31	3.37	5.89	1.14	0.61	2.94	1.14	0.00	1.18	14.72	2.31	15.86	0.73	8.21	2.54	14.54		
2671	Upper Calapooia	3600	7.57	10.82	5.41	7.57	1.95	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2672	Upper Calapooia	3600	2.52	2.70	1.44	2.52	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2673	Upper Calapooia	3600	5.77	7.21	4.81	5.77	1.30	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2674	Upper Calapooia	3600	3.37	1.92	1.44	3.37	0.35	0.26	1.68	0.35	0.00	0.67	8.41	1.02	8.76	0.74	6.33	1.12	11.21		
2675	Upper Calapooia	3600	3.61	3.00	1.60	3.61	0.54	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2676	Upper Calapooia	3600	2.16	3.61	1.44	2.16	0.65	0.26	1.08	0.65	0.00	0.43	5.41	1.08	6.06	0.74	8.96	1.19	15.86		
2677	Upper Calapooia	3600	10.10	8.65	5.77	10.10	1.56	1.04	5.05	1.56	0.00	2.02	25.24	3.58	26.80	0.71	7.41	3.93	13.11		
2678	Upper Calapooia	3600	5.05	4.33	2.88	5.05	0.78	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2679	Upper Calapooia	3600	7.21	3.61	2.40	7.21	0.65	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2680	Upper Calapooia	3600	10.10	5.05	3.37	10.10	0.91	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2681	Upper Calapooia	3600	1.55	1.24	0.62	1.55	0.22	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2684	Upper Calapooia	3630	2.88	1.92	1.44	2.88	0.35	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2685	Upper Calapooia	3630	5.77	4.81	2.88	5.77	0.87	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2686	Upper Calapooia	3630	2.88	2.40	1.44	2.88	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2687	Upper Calapooia	3630	3.09	3.71	1.85	3.09	0.67	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2688	Upper Calapooia	3630	3.00	1.80	1.20	3.00	0.32	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2689	Upper Calapooia	3623	2.40	2.40	1.44	2.40	0.43	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2690	Upper Calapooia	3619	4.81	3.85	1.92	4.81	0.69	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2691	Upper Calapooia	3620	1.44	2.40	1.20	1.44	0.43	0.22	1.44	0.43	0.22	0.14	0.14	0.79	0.79	0.77	9.86	0.87	17.45		
2692	Upper Calapooia	3620	0.72	0.90	0.48	0.72	0.16	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2693	Upper Calapooia	3620	7.81	9.37	6.25	7.81	1.69	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2694	Upper Calapooia	3619	2.70	2.40	1.80	2.70	0.43	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2695	Upper Calapooia	3619	2.88	3.61	1.92	2.88	0.65	0.35	1.44	0.65	0.00	0.14	0.14	0.79	0.79	0.46	4.93	0.87	8.72		
2696	Upper Calapooia	3619	5.77	8.65	4.81	5.77	1.56	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2697	Upper Calapooia	3619	5.77	7.21	3.85	5.77	1.30	0.69	0.58	1.30	0.00	0.06	0.06	1.36	1.36	0.39	4.21	1.49	7.46		
2698	Upper Calapooia	3619	4.33	4.33	2.88	4.33	0.78	0.52	2.18	0.78	0.00	0.22	0.22	1.00	1.00	0.42	4.12	1.09	7.30		
2699	Upper Calapooia	3619	4.21	5.05	3.37	4.21	0.91	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2700	Upper Calapooia	3619	5.05	4.21	2.52	5.05	0.76	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2701	Upper Calapooia	282	2.52	3.61	2.16	0.50	0.65	0.39	0.30	0.65	0.04	0.12	1.51	0.81	2.20	0.48	6.70	0.89	11.87	26	
2702	Upper Calapooia	282	2.52	2.16	1.44	0.50	0.39	0.26	0.03	0.04	0.00	0.01	0.13	0.05	0.17	0.04	0.41	0.05	0.72		
2703	Upper Calapooia	282	1.68	1.20	0.72	0.34	0.22	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2704	Upper Calapooia	282	1.68	2.40	1.44	0.34	0.43	0.26	0.20	0.43	0.03	0.08	1.01	0.54	1.47	0.48	6.70	0.59	11.87		
2705	Upper Calapooia	282	1.44	3.61	1.80	0.29	0.65	0.32	0.14	0.65	0.00	0.06	0.72	0.71	1.37	0.51	8.78	0.78	15.55		
2706	Upper Calapooia	282	5.77	9.61	4.81	1.15	1.73	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2707	Upper Calapooia	282	5.77	12.02	5.77	1.15	2.16	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2708	Upper Calapooia	282	5.05	5.41	2.88	1.01	0.97	0.52	0.50	0.97	0.00	0.20	2.52	1.18	3.50	0.43	4.87	1.29	8.62		
2709	Upper Calapooia	282	1.68	3.00	1.44	0.34	0.54	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2710	Upper Calapooia	282	2.52	4.51	2.70	0.50	0.81	0.49	0.25	0.81	0.00	0.10	1.26	0.91	2.07	0.46	7.56	1.00	13.38		
2711	Upper Calapooia	282	4.33	9.01	5.41	0.87	1.62	0.97	0.52	1.62	0.00	0.21	2.60	1.83	4.22	0.48	7.58	2.01	13.42		
2712	Upper Calapooia	282	5.89	7.57	4.21	1.18	1.36	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2713	Upper Calapooia	282	6.73	9.61	5.77	1.35	1.73	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2714	Upper Calapooia	282	3.37	3.61	1.92	0.67	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2715	Upper Calapooia	282	8.65	10.82	7.21	1.73	1.95	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2716	Upper Cal[illegible]ia	282	13.46	19.23	11.54	2.69	3.46	2.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attachment 8.5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2717	Upper Calapooia	282	2.3	2.4	0.10	M	160.9	4.3	14	4.6	15	3.0	10	1913	90	100	5	70%	50%	100%	0%	2	6	N	100%	N		1 Y
2718	Upper Calapooia	282	2.4	2.8	0.38	M	603.5	3.7	12	4.6	15	2.4	8	6438	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2719	Upper Calapooia	282	2.8	2.9	0.13	M	201.2	4.3	14	6.1	20	3.7	12	2821	80	100	5	70%	50%	100%	0%	2	6	N	100%	N		1 Y
2720	Upper Calapooia	282	2.9	3.0	0.10	M	160.9	4.3	14	4.6	15	3.0	10	1913	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2721	Upper Calapooia	282	3.0	3.1	0.10	M	160.9	4.3	14	4.6	15	3.0	10	1913	80	100	5	70%	10%	100%	0%	2	6	N	100%	N		2 Y
2722	Upper Calapooia	282	3.1	3.3	0.15	M	241.4	4.3	14	4.6	15	3.0	10	2870	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y		2 N
2723	Upper Calapooia	282	3.3	3.5	0.25	M	402.3	3.7	12	4.6	15	3.0	10	4537	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y		2 N
2724	Upper Calapooia	282	3.5	3.6	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	5	70%	10%	100%	0%	2	6	N	100%	N		2 Y
2725	Upper Calapooia	282	3.6	3.9	0.25	M	402.3	4.3	14	4.6	15	2.4	8	4537	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y		2 N
2726	Upper Calapooia	282	3.9	4.0	0.15	M	241.4	4.3	14	4.6	15	3.0	10	2870	100	100	5	70%	5%	10%	0%	2	6	N	10%	Y		1 N
2727	Upper Calapooia	282	4.0	4.1	0.05	S	80.5	4.3	14	4.6	15	3.7	12	1006	80	100	5	70%	20%	10%	10%	2	6	N	10%	Y		1 N
2728	Upper Calapooia	282	4.1	4.2	0.13	M	201.2	4.3	14	4.6	15	3.0	10	2391	70	100	5	70%	50%	100%	0%	2	6	N	100%	N		1 Y
2729	Upper Calapooia	282	4.2	4.4	0.23	M	362.1	4.3	14	6.1	20	3.7	12	5077	60	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2730	Upper Calapooia	282	4.4	4.5	0.05	M	80.5	3.7	12	4.6	15	3.0	10	907	60	100	5	70%	50%	100%	0%	2	6	N	100%	N		1 Y
2731	Upper Calapooia	282	4.5	4.6	0.15	M	241.4	4.3	14	4.6	15	2.4	8	2722	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2732	Upper Calapooia	282	4.6	4.7	0.10	M	160.9	4.3	14	4.6	15	3.0	10	1913	40	100	5	70%	50%	100%	0%	2	6	N	100%	N		1 Y
2733	Upper Calapooia	282	4.7	5.1	0.40	M	643.7	4.3	14	6.1	20	3.0	10	8634	40	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2734	Upper Calapooia	282	5.1	5.4	0.28	M	442.6	4.3	14	4.6	15	2.4	8	4991	60	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2735	Upper Calapooia	282	5.4	5.6	0.23	M	362.1	4.3	14	4.6	15	2.4	8	4084	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2736	Upper Calapooia	282	5.6	5.7	0.10	M	160.9	3.7	12	5.5	18	3.7	12	2060	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2737	Upper Calapooia	282	5.7	6.1	0.35	M	563.3	4.3	14	4.6	15	2.4	8	6352	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2738	Upper Calapooia	282	6.1	6.2	0.13	M	201.2	4.3	14	4.6	15	2.4	8	2269	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2739	Upper Calapooia	282	6.2	6.3	0.10	M	160.9	4.3	14	4.6	15	3.0	10	1913	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2740	Upper Calapooia	282	6.3	6.4	0.13	M	201.2	4.3	14	4.6	15	2.4	8	2269	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2741	Upper Calapooia	282	6.4	6.5	0.10	M	160.9	4.3	14	6.1	20	3.0	10	2158	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2742	Upper Calapooia	282	6.5	6.7	0.20	M	321.9	4.3	14	4.6	15	3.0	10	3826	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2743	Upper Calapooia	282	6.7	7.0	0.30	M	482.8	4.3	14	4.6	15	2.4	8	5445	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2744	Upper Calapooia	282	7.0	7.5	0.50	M	804.7	4.3	14	4.6	15	3.0	10	9566	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y		1 N
2745	Upper Calapooia	693	0.0	0.1	0.05	M	80.5	3.0	10	5.5	18	3.0	10	932	100	100	5	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2746	Upper Calapooia	693	0.1	0.2	0.15	M	241.4	3.0	10	6.1	20	3.7	12	3090	40	100	5	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2747	Upper Calapooia	692	0.0	0.1	0.13	R	201.2	3.7	12	2.4	8	1.8	6	1594	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2748	Upper Calapooia	692	0.1	0.2	0.08	M	120.7	3.7	12	3.0	10	1.8	6	1030	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2749	Upper Calapooia	692	0.2	0.3	0.08	M	120.7	3.7	12	4.6	15	2.4	6	1288	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2750	Upper Calapooia	692	0.3	0.3	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2751	Upper Calapooia	692	0.3	0.4	0.08	M	120.7	3.7	12	3.7	12	2.4	6	1177	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2752	Upper Calapooia	692	0.4	0.5	0.10	M	160.9	3.7	12	4.6	15	2.4	8	1717	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2753	Upper Calapooia	692	0.5	0.6	0.05	M	80.5	3.7	12	3.7	12	3.0	10	834	80	100	4	70%	5%	10%	0%	4	6	N	10%	Y		1 N
2754	Upper Calapooia	692	0.6	0.6	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2755	Upper Calapooia	692	0.6	0.7	0.10	M	160.9	3.7	12	3.7	12	2.4	8	1570	60	100	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
2756	Upper Calapooia	692	0.7	0.9	0.13	M	201.2	3.7	12	4.6	15	3.0	10	2269	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2757	Upper Calapooia	692	0.9	1.0	0.15	M	241.4	3.7	12	4.6	15	2.4	8	2575	80	100	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
2758	Upper Calapooia	692	1.0	1.0	0.02	S	40.2	3.7	12	4.6	15	3.0	10	454	100	100	4	70%	60%	100%	10%	4	6	N	100%	N		1 Y
2759	Upper Calapooia	692	1.0	1.1	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2760	Upper Calapooia	692	1.1	1.1	0.05	M	80.5	3.0	10	6.1	20	3.0	10	981	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2761	Upper Calapooia	692	1.1	1.2	0.08	M	120.7	3.0	10	6.1	20	3.7	12	1545	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2762	Upper Calapooia	692	1.2	1.3	0.10	M	160.9	3.7	12	5.5	18	3.7	12	2060	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2763	Upper Calapooia	692	1.3	1.4	0.05	M	80.5	3.7	12	3.0	10	1.8	6	667	100	100	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y
2764	Upper Calapooia	692	1.4	1.5	0.18	M	281.6	3.0	10	3.7	12	2.4	8	2575	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y		1 N
2765	Upper Calapooia	692	1.5	1.6	0.10	M	160.9	3.0	10	4.6	15	3.0	10	1717	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y		2 N
2766	Upper Calapooia	692	1.6	1.7	0.08	M	120.7	3.0	10	4.6	15	3.0	10	1288	100	100	4	70%	50%	100%	0%	4	6	N	100%	N		1 Y

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2717	Upper Calapooia	282	3.37	3.61	2.40	0.67	0.65	0.43	0.34	0.65	0.00	0.13	1.68	0.78	2.33	0.41	4.87	0.86	8.62		
2718	Upper Calapooia	282	10.82	13.52	7.21	2.16	2.43	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2719	Upper Calapooia	282	4.21	6.01	3.61	0.84	1.08	0.65	0.42	1.08	0.00	0.17	2.10	1.25	3.18	0.44	6.21	1.37	11.00		
2720	Upper Calapooia	282	3.37	3.61	2.40	0.67	0.65	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2721	Upper Calapooia	282	3.37	3.61	2.40	0.67	0.65	0.43	0.07	0.65	0.00	0.03	0.34	0.68	0.99	0.35	4.20	0.74	7.43		
2722	Upper Calapooia	282	5.05	5.41	3.61	1.01	0.97	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2723	Upper Calapooia	282	7.21	9.01	6.01	1.44	1.62	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2724	Upper Calapooia	282	2.88	3.61	1.92	0.58	0.65	0.35	0.06	0.65	0.00	0.02	0.29	0.67	0.94	0.39	4.18	0.74	7.39		
2725	Upper Calapooia	282	8.41	9.01	4.81	1.68	1.62	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2726	Upper Calapooia	282	5.05	5.41	3.61	1.01	0.97	0.65	0.05	0.10	0.00	0.02	0.25	0.12	0.35	0.04	0.49	0.13	0.86		
2727	Upper Calapooia	282	1.68	1.80	1.44	0.34	0.32	0.26	0.07	0.03	0.03	0.03	0.34	0.09	0.39	0.08	1.06	0.09	1.88		
2728	Upper Calapooia	282	4.21	4.51	3.00	0.84	0.81	0.54	0.42	0.81	0.00	0.17	2.10	0.98	2.91	0.41	4.87	1.08	8.62		
2729	Upper Calapooia	282	7.57	10.82	6.49	1.51	1.95	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2730	Upper Calapooia	282	1.44	1.80	1.20	0.29	0.32	0.22	0.14	0.32	0.00	0.06	0.72	0.36	1.05	0.42	4.75	0.42	8.41		
2731	Upper Calapooia	282	5.05	5.41	2.88	1.01	0.97	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2732	Upper Calapooia	282	3.37	3.61	2.40	0.67	0.65	0.43	0.34	0.65	0.00	0.13	1.68	0.78	2.33	0.41	4.87	0.86	8.62		
2733	Upper Calapooia	282	13.46	19.23	9.61	2.69	3.46	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2734	Upper Calapooia	282	9.25	9.92	5.29	1.85	1.78	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2735	Upper Calapooia	282	7.57	8.11	4.33	1.51	1.46	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2736	Upper Calapooia	282	2.88	4.33	2.88	0.58	0.78	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2737	Upper Calapooia	282	11.78	12.62	6.73	2.36	2.27	1.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2738	Upper Calapooia	282	4.21	4.51	2.40	0.84	0.81	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2739	Upper Calapooia	282	3.37	3.61	2.40	0.67	0.65	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2740	Upper Calapooia	282	4.21	4.51	2.40	0.84	0.81	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2741	Upper Calapooia	282	3.37	4.81	2.40	0.67	0.87	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2742	Upper Calapooia	282	6.73	7.21	4.81	1.35	1.30	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2743	Upper Calapooia	282	10.10	10.82	5.77	2.02	1.95	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2744	Upper Calapooia	282	16.83	18.03	12.02	3.37	3.24	2.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2745	Upper Calapooia	693	1.20	2.16	1.20	0.24	0.39	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2746	Upper Calapooia	693	3.61	7.21	4.33	0.72	1.30	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2747	Upper Calapooia	692	3.61	2.40	1.80	3.61	0.43	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2748	Upper Calapooia	692	2.16	1.80	1.08	2.16	0.32	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2749	Upper Calapooia	692	2.16	2.70	1.44	2.16	0.49	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2750	Upper Calapooia	692	1.44	1.80	0.96	1.44	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2751	Upper Calapooia	692	2.16	2.16	1.44	2.16	0.39	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2752	Upper Calapooia	692	2.88	3.61	1.92	2.88	0.65	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2753	Upper Calapooia	692	1.44	1.44	1.20	1.44	0.26	0.22	0.07	0.03	0.00	0.01	0.01	0.03	0.03	0.04	0.41	0.04	0.73		
2754	Upper Calapooia	692	2.16	2.70	1.80	2.16	0.49	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2755	Upper Calapooia	692	2.88	2.88	1.92	2.88	0.52	0.35	1.44	0.52	0.00	0.14	0.14	0.66	0.66	0.42	4.12	0.73	7.30		
2756	Upper Calapooia	692	3.61	4.51	3.00	3.61	0.81	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2757	Upper Calapooia	692	4.33	5.41	2.88	4.33	0.97	0.52	2.16	0.97	0.00	0.22	0.22	1.19	1.19	0.46	4.93	1.31	8.72		
2758	Upper Calapooia	692	0.72	0.90	0.60	0.72	0.16	0.11	0.43	0.16	0.01	0.04	0.04	0.22	0.22	0.48	5.38	0.24	9.52		
2759	Upper Calapooia	692	1.44	1.80	0.96	1.44	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2760	Upper Calapooia	692	1.20	2.40	1.20	1.20	0.43	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2761	Upper Calapooia	692	1.80	3.61	2.16	1.80	0.65	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2762	Upper Calapooia	692	2.88	4.33	2.88	2.88	0.78	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2763	Upper Calapooia	692	1.44	1.20	0.72	1.44	0.22	0.13	0.72	0.22	0.00	0.07	0.07	0.29	0.29	0.42	3.58	0.32	6.35		
2764	Upper Calapooia	692	4.21	5.05	3.37	4.21	0.91	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2765	Upper Calapooia	692	2.40	3.61	2.40	2.40	0.65	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2766	Upper Ca[illegible]ia	692	1.80	2.70	1.80	1.80	0.49	0.32	0.90	0[illegible]	0.00	0.09	0.09	0.58	0.58	0.45	4.78	0.63	8.46		

Attac[illegible] B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	TrafficRd Use	Percent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2767	Upper Calapooia	692	1.7	1.8	0.13	M	201.2	3.0	10	4.6	15	2.4	8	2023	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2768	Upper Calapooia	520	0.0	0.2	0.15	M	241.4	3.7	12	4.6	15	2.4	8	2575	90	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2769	Upper Calapooia	520	0.2	0.2	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	100	100	5	70%	0%	0%	0%	2	6	N	0%	N	1	N
2770	Upper Calapooia	520	0.2	0.4	0.15	M	241.4	3.7	12	4.6	15	2.4	8	2575	70	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2771	Upper Calapooia	520	0.4	0.4	0.05	M	80.5	3.7	12	3.7	12	2.4	8	785	80	100	5	70%	0%	0%	0%	2	6	N	0%	N	1	N
2772	Upper Calapooia	520	0.4	0.6	0.18	M	281.6	3.7	12	4.6	15	3.0	10	3178	90	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2773	Upper Calapooia	520	0.6	0.8	0.20	M	321.9	3.7	12	4.6	15	2.4	8	3434	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2774	Upper Calapooia	520	0.8	0.9	0.08	M	120.7	3.7	12	3.0	10	1.8	6	1030	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2775	Upper Calapooia	520	0.9	0.9	0.05	M	80.5	3.0	10	5.5	18	3.0	10	932	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2776	Upper Calapooia	520	0.9	1.2	0.23	M	362.1	3.0	10	5.5	18	3.0	10	4194	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2777	Upper Calapooia	520	1.2	1.3	0.15	M	241.4	3.0	10	6.1	20	3.7	12	3090	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2778	Upper Calapooia	520	1.3	1.6	0.28	M	442.6	3.0	10	9.1	30	4.6	15	7419	60	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2779	Upper Calapooia	520	1.6	1.7	0.15	M	241.4	3.0	10	4.6	15	3.0	10	2575	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2780	Upper Calapooia	520	1.7	2.0	0.23	M	362.1	3.0	10	4.6	15	3.0	10	3863	60	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2781	Upper Calapooia	520	2.0	2.1	0.18	M	281.6	3.0	10	7.6	25	3.7	12	4035	60	100	5	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2782	Upper Calapooia	520	2.1	2.3	0.18	M	281.6	3.0	10	6.1	20	3.7	12	3605	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2783	Upper Calapooia	520	2.3	2.7	0.35	M	563.3	3.0	10	6.1	20	3.7	12	7211	70	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2784	Upper Calapooia	520	2.7	2.8	0.15	M	241.4	3.0	10	6.1	20	3.7	12	3090	60	100	5	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2785	Upper Calapooia	520	2.6	3.1	0.30	M	482.8	3.0	10	4.6	15	3.0	10	5151	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2786	Upper Calapooia	520	3.1	3.2	0.07	M	120.7	3.0	10	5.5	18	3.0	10	1398	90	100	5	70%	10%	100%	0%	2	6	N	100%	N	2	Y
2787	Upper Calapooia	520	3.2	3.3	0.13	M	201.2	3.7	12	6.1	20	3.7	12	2698	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2788	Upper Calapooia	515	0.0	0.1	0.10	M	160.9	3.0	10	4.6	15	2.4	8	1619	80	100	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
2789	Upper Calapooia	515	0.1	0.2	0.05	M	80.5	3.0	10	6.1	20	3.0	10	981	80	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2790	Upper Calapooia	515	0.2	0.3	0.15	M	241.4	3.0	10	4.6	15	2.4	8	2428	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2791	Upper Calapooia	515	0.3	0.4	0.05	M	80.5	3.0	10	4.6	15	2.4	8	809	100	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2792	Upper Calapooia	515	0.4	0.5	0.10	S	160.9	3.0	10	5.5	18	3.0	10	1864	80	100	4	70%	60%	100%	10%	4	6	N	100%	N	1	Y
2793	Upper Calapooia	515	0.5	0.5	0.03	S	40.2	3.0	10	6.1	20	3.0	10	491	80	100	4	70%	20%	0%	10%	4	6	N	10%	N	2	N
2794	Upper Calapooia	515	0.5	0.7	0.23	M	362.1	3.0	10	4.6	15	2.4	8	3642	80	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2795	Upper Calapooia	515	0.7	0.9	0.20	M	321.9	3.0	10	4.6	15	3.0	10	3434	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2796	Upper Calapooia	515	0.9	1.0	0.10	M	160.9	2.7	9	4.6	15	3.7	12	1766	100	100	6	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2797	Upper Calapooia	514	0.0	0.1	0.13	M	201.2	3.7	12	4.6	15	2.4	8	2146	90	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2798	Upper Calapooia	514	0.1	0.5	0.38	R	603.5	3.7	12	3.7	12	2.4	8	5866	60	100	4	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2799	Upper Calapooia	682	0.0	0.3	0.28	M	442.6	3.7	12	7.6	25	3.7	12	6610	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2800	Upper Calapooia	682	0.3	0.4	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2801	Upper Calapooia	682	0.4	0.4	0.08	M	120.7	3.7	12	6.1	20	3.0	10	1545	80	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2802	Upper Calapooia	682	0.4	0.6	0.18	M	281.6	3.7	12	4.6	15	2.4	8	3005	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2803	Upper Calapooia	682	0.6	0.9	0.30	M	482.8	3.7	12	6.1	20	3.7	12	6475	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2804	Upper Calapooia	682	0.9	1.0	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2805	Upper Calapooia	682	1.0	1.1	0.08	M	120.7	3.7	12	4.6	15	3.0	10	1361	100	100	5	70%	5%	10%	0%	2	6	N	10%	Y	1	N
2806	Upper Calapooia	682	1.1	1.1	0.05	M	80.5	3.7	12	6.1	20	3.0	10	1030	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2807	Upper Calapooia	682	1.1	1.4	0.30	M	482.8	3.7	12	15.2	50	6.1	20	12067	80	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2808	Upper Calapooia	682	1.4	1.5	0.13	M	201.2	3.7	12	6.1	20	3.7	12	2698	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2809	Upper Calapooia	682	1.5	1.7	0.18	M	281.6	3.7	12	10.7	35	4.6	15	5322	40	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2810	Upper Calapooia	682	1.7	2.0	0.30	M	482.8	3.7	12	4.6	15	3.0	10	5445	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	2	N
2811	Upper Calapooia	682	2.0	2.3	0.30	M	482.8	3.7	12	6.1	20	3.7	12	6475	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2812	Upper Calapooia	682	2.3	2.5	0.20	M	321.9	3.7	12	6.1	20	3.7	12	4317	90	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2813	Upper Calapooia	682	2.5	2.7	0.20	M	321.9	3.7	12	4.6	15	3.0	10	3630	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2814	Upper Calapooia	682	2.7	2.9	0.20	M	321.9	3.7	12	7.6	25	3.7	12	4807	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N
2815	Upper Calapooia	682	2.9	3.0	0.10	M	160.9	3.7	12	6.1	20	3.7	12	2158	100	100	5	70%	50%	100%	0%	2	6	N	100%	N	1	Y
2816	Upper Calapooia	682	3.0	3.0	0.02	M	40.2	3.0	10	4.6	15	3.0	10	429	100	100	5	70%	0%	0%	0%	2	6	N	0%	Y	1	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2767	Upper Calapooia	692	3.00	4.51	2.40	3.00	0.81	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2768	Upper Calapooia	520	4.33	5.41	2.88	0.87	0.97	0.52	0.43	0.97	0.00	0.17	2.16	1.15	3.14	0.45	4.75	1.26	6.41		
2769	Upper Calapooia	520	2.16	2.70	1.80	0.43	0.49	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2770	Upper Calapooia	520	4.33	5.41	2.88	0.87	0.97	0.52	0.43	0.97	0.00	0.17	2.16	1.15	3.14	0.45	4.75	1.26	8.41		
2771	Upper Calapooia	520	1.44	1.44	0.96	0.29	0.26	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2772	Upper Calapooia	520	5.05	6.31	4.21	1.01	1.14	0.76	0.50	1.14	0.00	0.20	2.52	1.34	3.66	0.42	4.75	1.47	8.41		
2773	Upper Calapooia	520	5.77	7.21	3.85	1.15	1.30	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2774	Upper Calapooia	520	2.16	1.80	1.08	0.43	0.32	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2775	Upper Calapooia	520	1.20	2.16	1.20	0.24	0.39	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2776	Upper Calapooia	520	5.41	9.73	5.41	1.08	1.75	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2777	Upper Calapooia	520	3.61	7.21	4.33	0.72	1.30	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2778	Upper Calapooia	520	6.61	19.83	9.92	1.32	3.57	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2779	Upper Calapooia	520	3.61	5.41	3.61	0.72	0.97	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2780	Upper Calapooia	520	5.41	8.11	5.41	1.08	1.46	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2781	Upper Calapooia	520	4.21	10.52	5.05	0.84	1.89	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2782	Upper Calapooia	520	4.21	8.41	5.05	0.84	1.51	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2783	Upper Calapooia	520	8.41	16.83	10.10	1.68	3.03	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2784	Upper Calapooia	520	3.61	7.21	4.33	0.72	1.30	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2785	Upper Calapooia	520	7.21	10.82	7.21	1.44	1.95	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2786	Upper Calapooia	520	1.80	3.24	1.80	0.36	0.58	0.32	0.04	0.58	0.00	0.01	0.18	0.60	0.76	0.43	4.96	0.66	8.78		
2787	Upper Calapooia	520	3.61	6.01	3.61	0.72	1.08	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2788	Upper Calapooia	515	2.40	3.61	1.92	2.40	0.65	0.35	0.12	0.06	0.00	0.01	0.01	0.08	0.08	0.05	0.48	0.08	0.85		
2789	Upper Calapooia	515	1.20	2.40	1.20	1.20	0.43	0.22	0.60	0.43	0.00	0.06	0.06	0.49	0.49	0.50	6.12	0.54	10.84		
2790	Upper Calapooia	515	3.61	5.41	2.88	3.61	0.97	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2791	Upper Calapooia	515	1.20	1.80	0.96	1.20	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2792	Upper Calapooia	515	2.40	4.33	2.40	2.40	0.78	0.43	1.44	0.78	0.04	0.14	0.14	0.97	0.97	0.52	6.00	1.06	10.63		
2793	Upper Calapooia	515	0.60	1.20	0.60	0.60	0.22	0.11	0.12	0.00	0.01	0.01	0.01	0.02	0.02	0.05	0.57	0.03	1.00		
2794	Upper Calapooia	515	5.41	8.11	4.33	5.41	1.46	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2795	Upper Calapooia	515	4.81	7.21	4.81	4.81	1.30	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2796	Upper Calapooia	515	2.16	3.61	2.88	1.62	0.65	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2797	Upper Calapooia	514	3.61	4.51	2.40	3.61	0.81	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2798	Upper Calapooia	514	10.82	10.82	7.21	10.82	1.95	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2799	Upper Calapooia	682	7.93	16.53	7.93	1.59	2.97	1.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2800	Upper Calapooia	682	2.16	2.70	1.80	0.43	0.49	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2801	Upper Calapooia	682	2.16	3.61	1.80	0.43	0.65	0.32	0.22	0.65	0.00	0.09	1.08	0.74	1.73	0.48	6.09	0.81	10.79		
2802	Upper Calapooia	682	5.05	6.31	3.37	1.01	1.14	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2803	Upper Calapooia	682	8.65	14.42	8.65	1.73	2.60	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2804	Upper Calapooia	682	2.16	2.70	1.80	0.43	0.49	0.32	0.22	0.49	0.00	0.09	1.08	0.57	1.57	0.42	4.75	0.63	8.41		
2805	Upper Calapooia	682	2.16	2.70	1.80	0.43	0.49	0.32	0.02	0.05	0.00	0.01	0.11	0.06	0.16	0.04	0.47	0.06	0.84		
2806	Upper Calapooia	682	1.44	2.40	1.20	0.29	0.43	0.22	0.14	0.43	0.00	0.06	0.72	0.49	1.15	0.48	6.09	0.54	10.79		
2807	Upper Calapooia	682	8.65	36.05	14.42	1.73	6.49	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2808	Upper Calapooia	682	3.61	6.01	3.61	0.72	1.08	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2809	Upper Calapooia	682	5.05	14.72	6.31	1.01	2.65	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2810	Upper Calapooia	682	8.65	10.82	7.21	1.73	1.95	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2811	Upper Calapooia	682	8.65	14.42	8.65	1.73	2.60	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2812	Upper Calapooia	682	5.77	9.61	5.77	1.15	1.73	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2813	Upper Calapooia	682	5.77	7.21	4.81	1.15	1.30	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2814	Upper Calapooia	682	5.77	12.02	5.77	1.15	2.16	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2815	Upper Calapooia	682	2.88	4.81	2.88	0.58	0.87	0.52	0.29	0.87	0.00	0.12	1.44	0.98	2.31	0.45	6.09	1.08	10.79		
2816	Upper Calapooia	682	0.60	0.90	0.60	0.12	0.16	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Attac[illegible]35. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Start (mi)	End (mi)	Length in miles	Road Position	Length in meters	Tread Width m	Tread Width feet	Cutslope Width m	Cutslope Width feet	Fillslope Width m	Fillslope Width feet	Road prism area m	Cutslope cover %	Fillslope cover %	Surfacing	Percent Fine Sediment	Tread Delivery %	Cutslope Delivery %	Fillslope Delivery %	Traffic/Rd Use	Parent Rock Code	Road Age < 2 years old?	Stream Delivery	Is this a relief culvert?	Configuration	Is this a live stream culvert?
2817	Upper Calapooia	510	0.0	0.1	0.05	M	80.5	3.7	12	4.6	15	2.4	8	858	100	100	4	70%	5%	10%	0%	4	6	N	10%	Y	1	N
2818	Upper Calapooia	510	0.1	0.1	0.05	S	80.5	3.7	12	6.1	20	3.7	12	1079	80	100	4	70%	60%	100%	10%	4	6	N	100%	N	1	Y
2819	Upper Calapooia	510	0.1	0.3	0.23	M	362.1	3.7	12	6.1	20	3.0	10	4636	70	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2820	Upper Calapooia	510	0.3	0.8	0.48	M	764.4	3.0	10	6.1	20	3.7	12	9786	100	100	5	70%	0%	0%	0%	4	6	N	0%	Y	2	N
2821	Upper Calapooia	510	0.8	1.1	0.30	M	482.8	3.0	10	7.6	25	4.6	15	7358	90	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2822	Upper Calapooia	510	1.1	1.5	0.40	M	643.7	3.0	10	6.1	20	3.7	12	8241	90	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2823	Upper Calapooia	510	1.5	1.5	0.02	M	40.2	3.0	10	6.1	20	4.6	15	552	90	100	5	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2824	Upper Calapooia	510	1.5	1.6	0.08	M	120.7	3.0	10	4.6	15	3.0	10	1288	100	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2825	Upper Calapooia	510	1.6	1.8	0.15	M	241.4	3.0	10	6.1	20	3.0	10	2943	80	100	5	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2826	Upper Calapooia	510	1.8	2.0	0.20	M	321.9	3.0	10	4.6	15	2.4	8	3238	100	100	5	70%	0%	0%	0%	4	6	N	0%	Y	1	N
2827	Upper Calapooia	509	0.0	0.1	0.10	M	160.9	3.0	10	1.8	6	1.2	4	981	100	100	4	70%	0%	0%	0%	4	6	N	0%	N	1	N
2828	Upper Calapooia	509	0.1	0.2	0.10	M	160.9	3.0	10	3.0	10	1.8	6	1275	100	100	4	70%	50%	100%	0%	4	6	N	100%	N	1	Y
2829	Upper Calapooia	696	0.0	0.1	0.13	M	201.2	2.7	9	2.4	8	1.8	6	1410	100	100	2	70%	0%	0%	0%	4	6	N	0%	N	5	N

Attacment B5. Road fine sediment yield - inventory.

Segment Number	Sub Basin	Road Number	Base Yield Fines from Tread Metric tonnes/yr	Base Yield Fines from CutslopeMetric tonnes/yr	Base Yield Fines from Fillslope Metric tonnes/yr	Yield of Fines from Tread SurfaceMetric tonnes/yr	Yield of Fines from Cutslope Cover Metric tonnes/yr	Yield of Fines from Fillslope Cover Metric tonnes/yr	Yield of Fines from Tread DeliveryMetric tonnes/yr	Yield of Fines from Cutslope Delivery Metric tonnes/yr	Yield of Fines from Fillslope DeliveryMetric tonnes/yr	Tread Traffic/current Metric tonnes/yr	Tread Traffic/heavy Metric tonnes/yr	Total Fine Sediment Yield: Current traffic Metric Tons/yr	Total Fine Sediment Yield: Heavy traffic Metric Tonnes per year	Current kg per square meter	Current Metric Tonnes per km per year	Current Total Fine Sediment Yield Tons/yr	Current Total Fine Sediment Yield Tons/mi/yr	Subbasin total current Metric tonnes per year	Subbasin total heavy Metric tonnes per year
2817	Upper Calapooia	510	1.44	1.80	0.96	1.44	0.32	0.17	0.07	0.03	0.00	0.01	0.01	0.04	0.04	0.05	0.49	0.04	0.87		
2818	Upper Calapooia	510	1.44	2.40	1.44	1.44	0.43	0.26	0.87	0.43	0.03	0.09	0.09	0.55	0.55	0.51	6.77	0.60	11.99		
2819	Upper Calapooia	510	6.49	10.82	5.41	1.30	1.95	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2820	Upper Calapooia	510	11.42	22.83	13.70	2.28	4.11	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2821	Upper Calapooia	510	7.21	18.03	10.82	1.44	3.24	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2822	Upper Calapooia	510	9.61	19.23	11.54	1.92	3.46	2.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2823	Upper Calapooia	510	0.60	1.20	0.90	0.12	0.22	0.16	0.06	0.22	0.00	0.01	0.01	0.22	0.22	0.40	5.53	0.24	9.78		
2824	Upper Calapooia	510	1.80	2.70	1.80	0.36	0.49	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2825	Upper Calapooia	510	3.61	7.21	3.61	0.72	1.30	0.65	0.36	1.30	0.00	0.04	0.04	1.33	1.33	0.45	5.53	1.47	9.78		
2826	Upper Calapooia	510	4.81	7.21	3.85	0.96	1.30	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2827	Upper Calapooia	509	2.40	1.44	0.96	2.40	0.26	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2828	Upper Calapooia	509	2.40	2.40	1.44	2.40	0.43	0.26	1.20	0.43	0.00	0.12	0.12	0.55	0.55	0.43	3.44	0.61	6.08		
2829	Upper Calapooia	696	2.70	2.40	1.80	2.70	0.43	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

ATTACHMENT B6

ROAD SEGMENT EROSION UNIT 5 SITE DESCRIPTIONS

Road Segment Erosion Unit 5 Site Descriptions

Site 1: Existing Gully

Gully below 300 road approximately 0.6 miles from the 3030 junction. 0.5 mile long ditch is pirating flow from a rock pit and routing it around the corner and down the road to this site. A gully has formed where the ditch relief culvert discharges onto road fill material. The gully is up to 1.5 meters deep, 2.7 meters wide and transmits channelized flow all the way to the Calapooia River. There was no mineral channel above the road and ditch relief culvert at this site.

Site 2: Existing Gully

An old road grade apparently extended up Potts Creek from the 600 road then turned and went up the second tributary to the north. A log culvert was installed where this road crossed the tributary. The culvert appears to have collapsed, and because the crossing had a high diversion potential, flow was directed along the road grade. A gully 3 meters wide by 3 meters deep (sometimes more) extends for approximately 500 feet before discharging back into the stream. In places, the flow comes within 2 feet of breaching the road.

Site 3: Existing Gully

The culverted stream crossing site on United States Creek approximately one mile from the mainline has been plugged by a major logjam. The stream was diverted down the road and has resulted in a complex gully over 1000 feet long. Depths ranged from 3 to 60 inches and widths ranged from 5 to 21 feet, with an estimated total volume of 1090 cubic yards (482 tons fine sediment). Numerous cross-drains plugged and subsequently failed, periodically routing water across road. Total volume calculations do not include areas of eroded fill at those sites, which may be almost equal to the gully erosion.

Site 4: Existing Gully

Small (16 inches x 20 inches) gully has formed below ditch relief culvert. Delivers to stream. Ditch relief culvert has high diversion potential.

Site 5: Existing Gully.

Ditch intercepts subsurface flow and routes it down to relief culvert that outfalls onto unprotected fill slope. A gully has formed below, connecting road to stream. Total volume was not estimated, but is not great, as flow quickly cut to bedrock which is near the surface in this case. Similar sites exist nearby; downspouts effectively prevent fill erosion at some sites, but do not disconnect flow from the stream system.

Site 6: High Diversion Potential

Stream crossing site on road 3040 has high diversion potential. Rock placed in ditch on downhill side suggests stream has diverted down gully in the past. Rock will not prevent future diversions, but will force flow onto roadbed. A rolling dip would be reasonable fail-safe solution. No current erosion problems.

Site 7: High diversion Potential

Stream crossing culvert with high diversion potential. There are no current erosion problems.

Site 8: High Diversion Potential

Stream crossing culvert with high diversion potential. There are no current erosion problems.

APPENDIX C

Calapooia River Watershed Analysis
Hydrology Assessment

Maryanne Reiter
Weyerhaeuser Company

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INTRODUCTION

The purpose of this assessment is to describe the hydrologic character of the Calapooia River Watershed Administrative Unit (WAU) and assess the potential for management related changes in Rain-On Snow (ROS) peak flows. This assessment was conducted using the Washington State Watershed Analysis Method (Version 4.0) for assessing hydrologic change due to forest practices and focuses on the effects of timber harvest on peak flows in the rain-on-snow. Though the transient snow zone can exist as low as 1,200 feet (Harr 1981), it is more common to occur between 1,600-4,000 feet (Berris and Harr 1987). Peak flow increases are the focus of this assessment since they are assumed to have the greatest potential to impact fish habitat (WFPB 1997). The critical questions to be answered in this assessment include:

- *What are the current watershed conditions influencing watershed response?*
- *What is the history of floods and disturbances of hydrologic significance in the watershed?*
- *What is the influence of land use on runoff during storm events which generate peak flows?*
- *What are the effects of changes in runoff on flood peaks?*
- *What are the effects of changes in peak flows on public resources?*

Forest practices may influence other hydrologic processes (e.g., lowflows and annual water yield) in a watershed, however the changes are generally neither pronounced or not persistent. Changes in lowflows or annual water yield due to forest practices are not likely to be detrimental to fish habitat or water quality in the western Cascades.

CURRENT WATERSHED CONDITIONS

The Calapooia River WAU is approximately 56,644 acres (88.5 square miles) in size. The entire Calapooia River watershed encompasses approximately 372 square miles and enters the Willamette River near Albany. Elevation ranges from 590 ft above mean sea level (FAMSL) at the lower end of the WAU to 5,184 FAMSL at Tidbits Mountain in the headwaters. Below the WAU, minimal tributary summer flow and the numerous diversions and dams result in reduced summer flow in the mainstem. Figure C1 shows the average monthly flow for the Calapooia River at Holley (4 miles below WAU boundary) and the Calapooia River at Albany. As this figure indicates, the summer months have the same flow though the drainage area for the Albany gage as that of the gage near Holley. This reduced summer flow condition in the lower part of the Calapooia River basin system impacts fish migration (see Appendix F: Fish Habitat Assessment for more information).

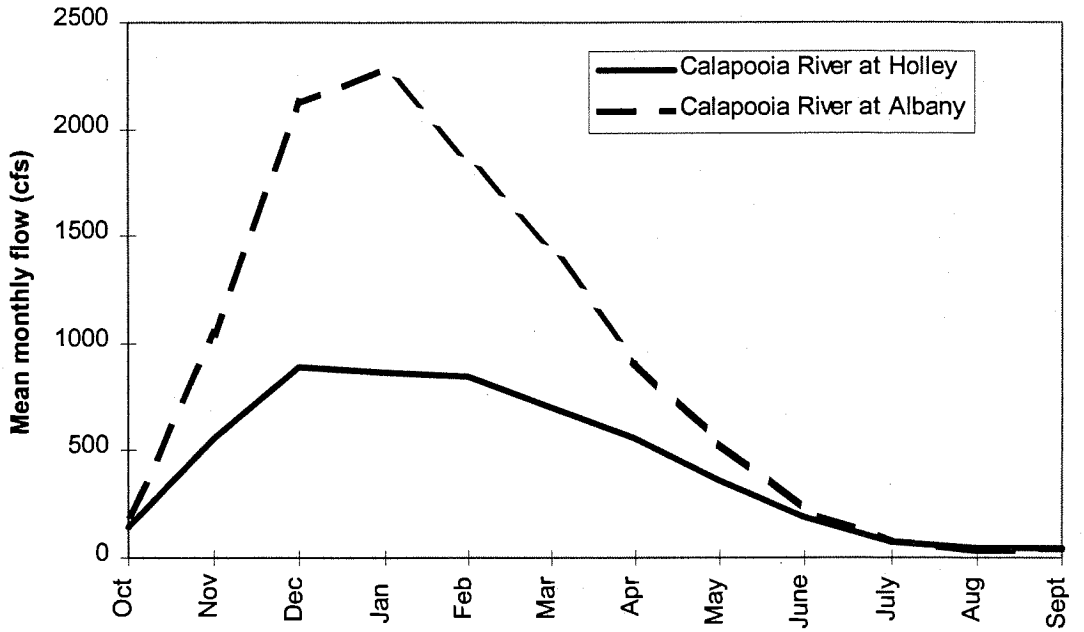


Figure C1 Average monthly flow (cfs) for the Calapooia River near Holley (USGS gaging station number 14172000) and the Calapooia River near Albany (USGS gaging station 14173500). Drainage area above the Holley gage is 105 square miles while drainage area above the gage at Albany is 372 square miles.

Current Land Use/Vegetative Cover

The major land use in the WAU is industrial forest lands (**Map C1**). Table C1 shows the acres in different age classes as well as the amount of non-forest land use in the WAU. The amount of non-forest land is minimal, with only a small percentage of the WAU used for agriculture. There are no lakes or major wetlands in the WAU. The main public works in the watershed are bridges and there is no domestic water usage.

Table C1 Acres and percent of Calapooia River WAU in different hydrologic maturity classes.

Land use	Acres	Percent of WAU
0-7 year old forest	2,427	4.5
7-20 year old forest	18,813	34.5
Greater than 20 year old forest	33,178	60.9
Non-forest	101	0.2
Total	54,517	

Precipitation and Runoff Patterns

The majority of precipitation in this watershed falls as rain during the winter months, with snowfall generally occurring above 2,000 FAMSL (Table C2; **Map C2**). The estimated zone where rain-on-snow is most likely occurs from 2,000-2,800 ft. and composes approximately 26 percent of the watershed.

Table C2 Percent of Calapooia River WAU in various precipitation zones.

Precipitation zone	Elevation range (feet)	Percent of WAU
Lowland	less than 1,500	17.0
Rain	1,500-2,130	22.7
ROS	2,130-2,810	26.4
Snow	2,810-4,300	33.2
Highland	above 4,300	0.8

Streamflow follows a similar pattern to precipitation with the highest average monthly flow occurring in December and lowest average monthly flow in August and September (Figure C1). The majority of peak flows (30.9%) occur in December, based on 55 annual records for the Calapooia River near Holley. The second most common month for peak flows is January, with 29.1% of the events occurring then.

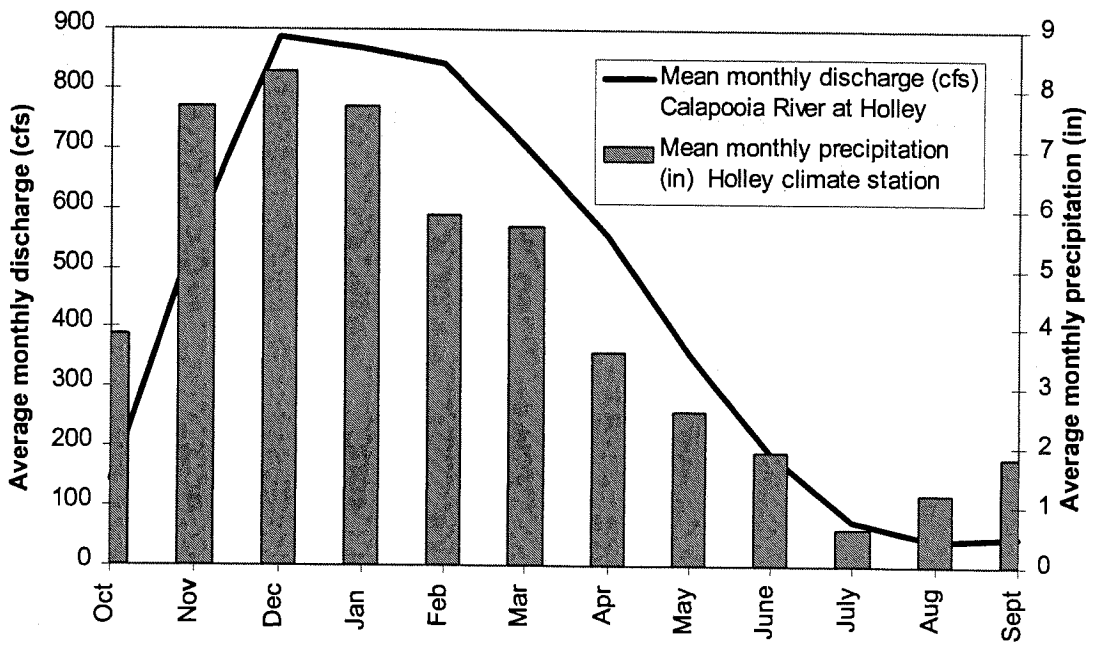


Figure C2 Average monthly precipitation (in) for the climate station and average monthly discharge (cfs) for the Calapooia River near Holley (USGS).

Global oceanic and atmospheric conditions strongly influence climate cycles, for example, Taylor and Southards (1997) found distinctive wet/cool and dry/warm periods (multiple years) in Oregon. Though there can be anomalies during that period, a general trend is usually present. The period from 1947 to 1975 was generally wet and cool while from 1976 to 1994 it was generally dry and warm. This similar pattern can be found in the precipitation records for the Holley climate station (Figure C2) where from 1947 to 1975, annual precipitation averaged 54.3" as compared to 47.2" for the 1975-1994 period. Furthermore, some authors have suggested that certain anadromous salmon populations (e.g., Columbia River spring chinook) are influenced by these climate cycles (Taylor and Southards 1997), where salmon are more abundant during cool/wet periods than in warm/dry ones.

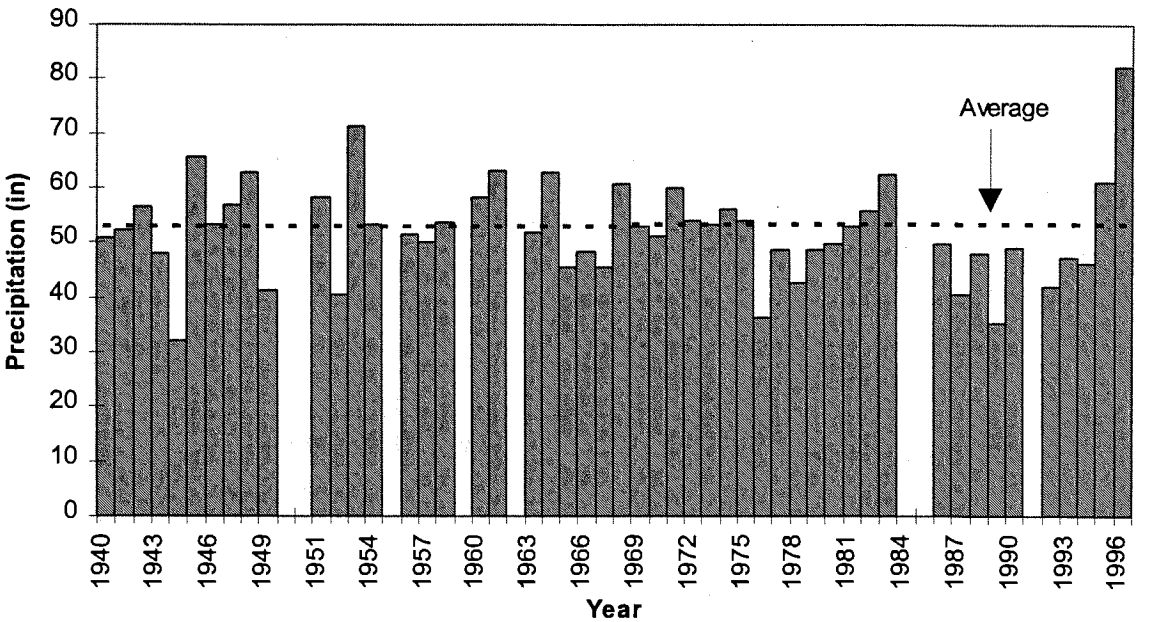


Figure C3 Annual precipitation (in) through time for the Holley climate station.

DISTURBANCE HISTORY

High magnitude storm events can cause landslides and flooding, and can have a significant effect on channel morphology and stream-adjacent vegetation. In the following section the flooding history of the WAU is described, for further information on the landslide history see Appendix A (Mass Wasting). The three largest floods on record for the Calapooia River near Holley include February 1996 (estimated) and December 1964 followed by the December 1945 event (figure C3). Other large events (between a 10 and 25-year event) include water year 1961, 1956, 1972, 1954 and 1958.

MAP C1
CURRENT LAND USE/ VEGETATIVE COVER

Calapooia River WAU

14S1E

15S1E

15S2E

15S3E

15S4E

Legend

- Hydrologically Immature (0-6 years)
- Intermediate Maturity (7-20 years)
- Hydrologically Mature (20+ years)
- Nonforested land

1.0MI 0MI 1MI 2MI 3MI 4MI

1 : 90000

1 inch = 7500 feet

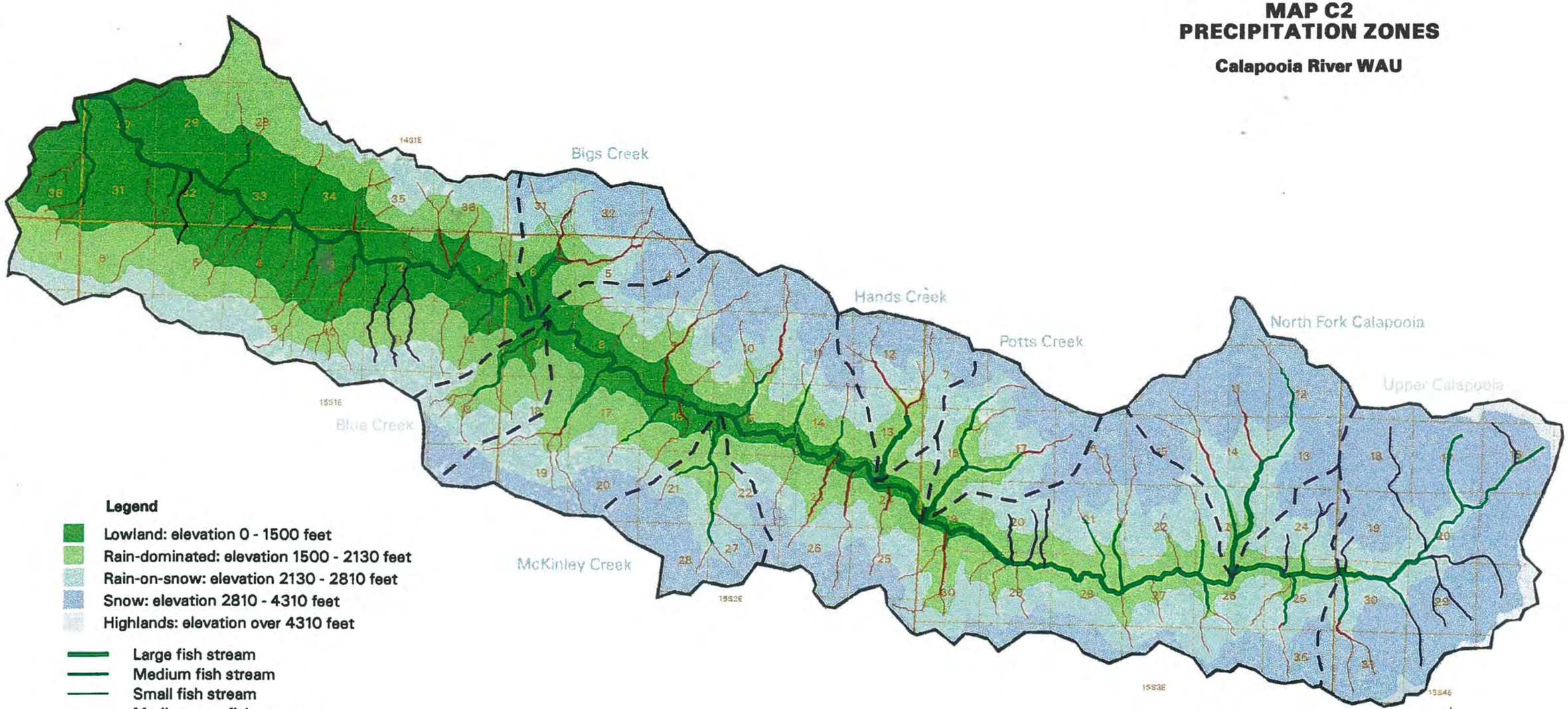
Map C1 Current Land Use/ Vegetative Cover

Weyerhaeuser

DATE: 08/17/98

MAP C2
PRECIPITATION ZONES

Calapooia River WAU



Legend

- Lowland: elevation 0 - 1500 feet
- Rain-dominated: elevation 1500 - 2130 feet
- Rain-on-snow: elevation 2130 - 2810 feet
- Snow: elevation 2810 - 4310 feet
- Highlands: elevation over 4310 feet

- Large fish stream
- Medium fish stream
- Small fish stream
- Medium non-fish stream
- Small non-fish stream
- Medium unclassified stream
- Small unclassified stream

1 : 90000

1 inch = 7500 feet

Map C2 Precipitation Zones

Weyerhaeuser

DATE: 08/18/98

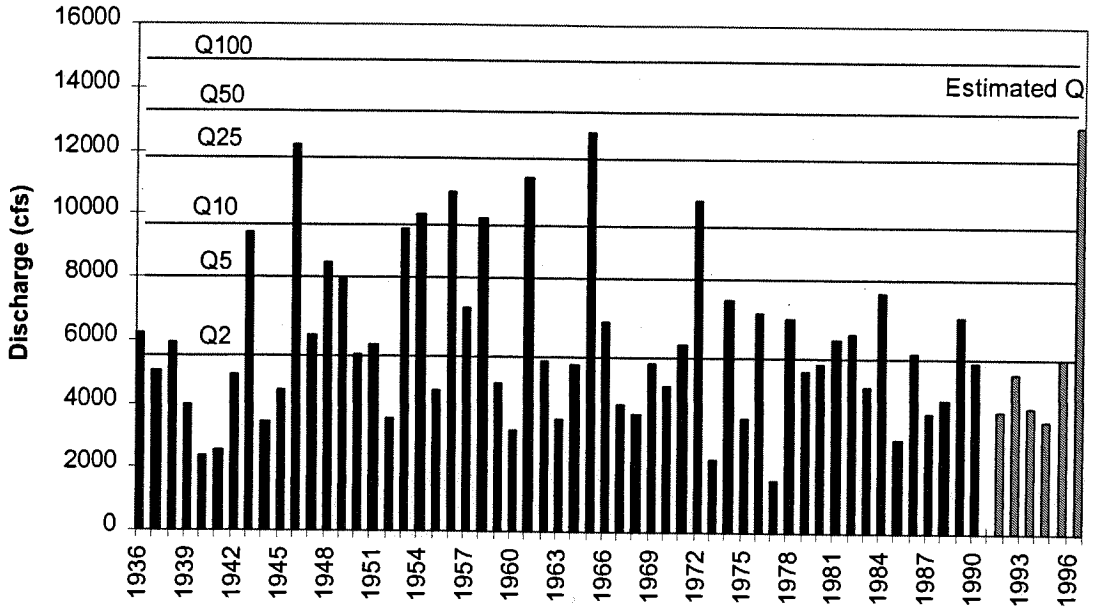


Figure C4. Instantaneous annual peak flows (cfs) for the Calapooia River near Holley (USGS gaging station number). Return periods based on Wellman et al. (1993). Water year (WY) is from October 1 to September 30.

Before the 1996 event, most of the large events (greater than 10-year) occurred before 1972, with the majority occurring between WY 1946 and 1965. The higher frequency of peak flows from WY 1946 to WY 1972 follows roughly the period of wetter than normal precipitation which occurred from 1947 to 1975., as discussed previously.

WATER AVAILABLE FOR RUNOFF

Water Available for Runoff (WAR) is influenced primarily by the hydrologic maturity of the watershed's forest cover and the potential for ROS peaks to occur (i.e., deep initial snow accumulation and warm air temperatures and high wind speeds during subsequent ROS storms). The calculations are based on the assumption that the primary mechanism affecting peak flows is the alteration of snow accumulation and melt in response to changes in forest canopy. WAR is estimated by adding potential snowmelt to the 24-hour precipitation amounts found in the National Oceanic and Atmospheric Administration (NOAA) precipitation-frequency atlas (Miller et al. 1973).

Precipitation zones (as defined by the Manual) for the Calapooia River were determined using the methods outlined by Brunengo et al. (1992). The Calapooia River WAU encompasses 5 zones ranging from lowland to highland with the snow zone the most extensive (33% of the WAU). For each precipitation zone there is an expected or "ideal" amount of snow that is available for melt during a storm event. This ideal amount of snow is calculated from the following equation (USACE 1956):

$$SM_{24h} = T_a [0.133 + 0.086V_w + 0.0126 P_{24h}] + 0.23$$

Where: SM_{24h} = 24-hour snowmelt
T_a = average air temperature (°C)
V_w = average wind speed (m/s)
P_{24h} = 24-hour precipitation

In order to evaluate hydrologic effects within specific areas of the WAU, subbasins or Hydrologic Analysis Units (HAUs; see Table C3) were delineated. Smaller watershed areas were delineated for analysis since land use effects on peak flows is diminished as basin area increases.

Table C3 Hydrologic Analysis Units (HAUs) for the Calapooia River WAU.

Hydrologic Analysis Unit	Size (mi^2)	Percent ROS zone
Bigs Creek	3.7	28.2
Blue Creek	2.2	35.4
Hand Creek	2.8	36.8
McKinley Creek	3.1	28.2
North Fork Calapooia River	8.7	18.9
Potts Creek	3.4	39.3
Upper Calapooia River	10.4	16.1

The current land use conditions in the watershed produce little to moderate increases in WAR over that expected from a fully mature forest cover condition. Predicted WAR values for 2-year events indicate that current conditions increase WAR from less than 1 to slightly over 5 percent for average ROS storm intensity (Table C4).

Table C4 Water available for runoff for the 2-year event.

Hydrologic Analysis Unit	Fully Forested WAR (in)	Current Condition WAR (in)	Current condition Percent increase over fully forested	Fully Open WAR (in)	Fully open percent increase over fully forested
Bigs Creek	5.15	5.28	2.5	5.78	12.2
Blue Creek	5.20	5.27	1.3	5.86	12.7
Hand Creek	5.24	5.51	5.2	5.92	13.0
McKinley Creek	5.20	5.40	3.8	5.86	12.7
North Fork Calapooia River	5.15	5.19	0.8	5.78	12.2
Potts Creek	5.27	5.33	1.1	5.97	13.3
Upper Calapooia River	5.13	5.25	2.3	5.75	12.1

Further conversion of forest lands to a hydrologically immature or "young forest" condition are expected to produce small to moderate increases in WAR depending on ROS storm intensity. WAR values for immature cover conditions are predicted to increase no more than 0.7 inches (about 13 percent) over fully forested conditions for average ROS storm intensity (Table C4). This suggests that current forest harvesting practices are unlikely to significantly increase snow melt contribution to runoff during typical ROS events, except where subbasins have more than 70% of their canopy cover in a hydrologically immature or intermediate condition.

POTENTIAL PEAK FLOW CHANGES AND CHANNEL SENSITIVITY

Peak flow estimates were derived based on procedures outlined in the Manual and modified for Oregon. Changes in WAR for each HAU were translated into potential peak flow changes (Table C5). Under current conditions, most of the HAUs are below the 10% threshold. An increase in peak flows of 10% or more is considered to have the potential to cause adverse effects and requires further consideration in the assessment (WFPB 1997).

Table C5 Changes in the 2-year event for current and fully open conditions in the Calapooia River WAU.

Hydrologic Analysis Unit	2-year runoff (cfs) under fully forested conditions*	Percent increase under current conditions	Percent increase under fully open conditions
Bigs Creek	291	5.0	24.0
Blue Creek	185	2.7	24.7
Hand Creek	228	10	25.0
McKinley Creek	249	7.6	24.5
North Fork Calapooia Creek	612	1.4	24.0
Potts Creek	270	2.4	25.4
Upper Calapooia River	714	4.5	23.7

*Based on USGS regional regression equations.

Hand Creek is the only HAU where potential peak flow increases under current conditions are at or above the 10% threshold. Channel sensitivity to peak flows must also be considered in determining whether a 10% or more increase in peak flows would have a detrimental effect on fish habitat. Channel sensitivities to peak flows were developed in the Stream Channel Assessment (Appendix E.) for the Geomorphic Map Units (GMUs). Hand Creek has a 4-20% channel gradient with a coarse-bedded step-pool and cascade morphology (see Appendix E. Stream Channel Assessment for more detail). Because of the gradient and morphology Hand Creek has a low sensitivity to peak flows. Since there is low sensitivity to peak flows in Hand Creek, no further investigation into potential channel scour was conducted.

An increase in peak flows of more than 20% is considered to the have the potential to significantly affect fish habitat by altering the frequency of a 2-year event to a 5-year event (WFPB 1997). Under current conditions, none of the HAUs have potential peak flow increases of over 20%. However, under fully open conditions, all of the HAUs are above 20%. It is unlikely that any of the modeled HAUs would be completely converted to a hydrologically immature condition since current forest practice require "green-up" (48" high trees or 48 months; ODF 1994) of adjacent harvest units prior to subsequent adjacent harvest.

CONCLUSIONS

The Calapooia River WAU had a large peak flow event (greater than 25-years) in 1996 after over 20 years of relative low magnitude events. The large storm event altered channels within the WAU by debris torrent scour and deposition.

Potential increases in rain-on-snow peak flows in the WAU are generally less than 10% under current canopy conditions, except for Hand Creek. However, the Hand Creek stream channel is not sensitive to peak flows. Converting all of the HAUs to a hydrologically immature condition results in potential peak flow increases of more than 20%. However, under current forest practices rules, complete conversion to an immature canopy condition is unlikely.

CONFIDENCE

The confidence in the hydrologic change assessment is moderate to high. The reason for this call is that the relative percent change in peak flows is consistent with other watershed analyses and are thought to be an appropriate index of the potential for timber harvest to affect peak flows.

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ATTACHMENTS

Table 1 Potential increases in peak flows under current conditions.

Hydrologic Analysis Unit	Return Period (years)					
	2-year	5-year	10-year	25-year	50-year	100-year
Bigs Creek	5.0	4.1	3.8	3.1	2.7	2.5
Blue Creek	2.7	2.2	2.1	1.7	1.5	1.3
Hand Creek	10.0	8.3	7.7	6.2	5.5	5.0
McKinley Creek	7.6	6.3	5.8	4.7	4.2	3.8
North Fork Calapooia Creek	1.4	1.2	1.1	0.9	0.8	0.7
Potts Creek	2.4	2.0	1.8	1.5	1.3	1.2
Upper Calapooia River	4.5	3.7	3.4	2.7	2.4	2.2

Table 2 Potential increases in peak flows under fully open conditions.

Hydrologic Analysis Unit	Return Period (years)					
	2-year	5-year	10-year	25-year	50-year	100-year
Bigs Creek	24.0	19.9	18.3	14.8	13.1	11.8
Blue Creek	24.7	20.5	18.9	15.3	13.6	12.2
Hand Creek	25.0	20.8	19.2	15.6	13.9	12.5
McKinley Creek	24.5	20.4	18.8	15.2	13.5	12.1
North Fork Calapooia Creek	24.0	19.9	18.3	14.8	13.1	11.8
Potts Creek	25.4	21.2	19.5	15.9	14.1	12.7
Upper Calapooia River	23.7	19.6	18.0	14.6	12.9	11.6

APPENDIX D

Calapooia River Watershed Analysis
Riparian Function

Maryanne Reiter
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INTRODUCTION

Riparian areas have numerous functions that include providing large woody debris (LWD), stream shading, microclimate amelioration, nutrient cycling, and bank stability. The focus of this assessment is on two of the main functions, large wood recruitment and stream shading. The assessment area includes the Calapooia River Watershed Administrative Unit (WAU) located in Linn County, Oregon.

LARGE WOODY DEBRIS ASSESSMENT

Critical questions to be addressed in the large woody debris recruitment potential portion of the Riparian Module include (from WFPB 1997):

- *What information is available regarding the early character of the riparian zone relative to its ability to supply LWD to the stream in the near term?*
- *What are the dominant processes by which LWD is delivered to streams, lakes and wetlands in the WAU?*
- *What is the current condition of the riparian zone relative to its ability to supply functional LWD in the near term?*
- *What is the current condition of the riparian zone relative to its ability to supply LWD in the long term?*

Large Woody Debris Assessment Methods

Assessment methods were performed in accordance with the Washington State Forest Practice Board (WFPB) Manual: Standard Methodology for Conducting Watershed Analysis (Version 4.0,). Near term LWD recruitment potential (as defined by the Standard Methodology for Conducting Watershed Analysis [WFPB 1997]) is derived from current stand characteristics within 100 feet of each bank of the stream channel for fish-bearing streams. Riparian stand characteristics that were evaluated included species composition, tree size and stand density (Table D1). Field verification of riparian stand condition was conducted during May of 1998. Deviations from the methodology follow this section.

Table D1 Riparian large wood recruitment potential categories (WFPB 1997).

High Recruitment Potential	Moderate Recruitment Potential	Low Recruitment Potential
CMD	CMS	CSS
CLD	CLS	CSD
MLD	HMD	HSS
MMD	HLD	HSD
	MLS	HLS
	MMS	HMS
		MSS
		MSD

Note: First letter is species, 2nd letter is age/size, and 3rd is density.
Species key: C=Conifer, H=Hardwood, M=Mixed
Size key: S=Small (<12" dbh), M=Medium (12-20" dbh), L=Large (>20" dbh)
Density key: D=Dense (<1/3 bare ground), S=Sparse (>1/3 bare ground)

Near term LWD recruitment potential was assessed using 1997 color aerial photographs (1:12000 scale; SPINV-97). For historical analysis, black and white aerial photographs from 1946 were also used (1:15,840 scale; flight DEK 1946). Originals of recent photographs are archived in Weyerhaeuser Company's Springfield, Oregon office. Historical photographs were from the University of Oregon Map Library, Eugene, Oregon.

Deviation from Standard Methods

The only deviation from the standard method is that riparian stands were assessed in minimum increments of 1000 feet rather than the 2000' segments described in the manual. Use of smaller increments increased the resolution of the assessment to more accurately represent the variation in riparian vegetation in the WAU.

RIPARIAN PATTERNS AND PROCESSES

Riparian tree species composition, growth and stand density are influenced by several factors including moisture and light gradients, geomorphology, soils and patterns of disturbance. For example, red alder (*Alnus rubra*) generally occurs in disturbed sites, especially along stream channels (Franklin and Dyrness 1973). This is evident in the Calapooia River WAU where red alder occurs along stream channels and areas disturbed by debris torrents. Major conifer species found in riparian areas of the Calapooia River WAU include western red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla)* and Douglas fir (*Psuedotsuga menziesii*). Other hardwood species besides red alder include big leaf maple (*Acer macrophyllum*).

Historical Character of Riparian Areas

Aerial photographs from 1946 were inspected to determine pre-management riparian patterns. By 1946, most of the area below Sweet Home Creek had been harvested or converted to agriculture. Harvesting also had occurred in various places along the mainstem of the Calapooia River up to King Creek (extent of photos). In addition to the mainstem, the mouths of several tributary streams had been harvested including King Creek and several unnamed tributaries. For the remainder of the watershed, large conifers covered the area. Currently, many of the areas that have alder overstories along the stream channel have remnant large diameter conifer stumps.

Historically, shade was generally high along tributary reaches. Along apparently undisturbed areas along the mainstem of the Calapooia River (near Hand Creek) shading levels were greater than 70%, with some patches of moderate (40-70%) shade.

Soil survey maps (Langridge 1987) of the watershed mapped only 67 acres of hydric (wetland) soils in the lower portion of the watershed. Current wetland mapping efforts (see Appendix G, Water Quality Assessment) also found that only a small portion of the watershed (80 acres) is wetlands indicating that prior to management most of the WAU was forested.

Disturbance Patterns

Timber harvest and agricultural practices as well as natural disturbance events, such as fire, floods and mass wasting can alter riparian vegetation patterns. A large flood event in 1996 altered many tributary riparian areas in the Calapooia River WAU (see Appendix A, Mass Wasting Assessment for more detail). In many streams, debris torrents removed vegetation within an average of 6 ft (horizontal distance) of the channel. Small-diameter alder and mixed stands were the most impacted by debris torrents since they were the predominant riparian stand type along debris torrented streams. Removal of riparian vegetation influences not only potential large woody debris recruitment, but shading as well.

The impact of debris torrents on in-channel wood was varied, in some cases wood was deposited and in others it was exported, depending on channel gradient and confinement. In several streams impacted by debris torrents, large woody debris was deposited high above the current channel, in some cases 15 ft above the bed of the channel.

Large Wood Recruitment Mechanisms

The delivery of large wood to streams is affected by a wide range of factors including forest species and age classes, soil stability, valley form, occurrence of large stream flows, and streamside harvest history (Bisson et al. 1987). The recruitment of large woody debris to a stream system can result from chronic, episodic or anthropogenic mechanisms (Steinblums 1977). Chronic inputs include individual trees or groups of trees that naturally enter the channel from mortality or gradual undercutting of streambanks. Episodic inputs include large scale blowdown or breakage, mass wasting from upslope areas and debris torrents. A major source of in-channel wood from human activities include large diameter (>12" dbh) slash from previous timber harvests.

Large woody debris recruitment mechanisms vary by geomorphic setting. For example, in steep areas wood can be recruited to stream channels by landslides while in wide, flat valley areas, wood is either recruited from stream-adjacent areas (e.g., bank undercutting, windthrow, etc.) or floated in from upstream reaches. Table D2 describes recruitment mechanisms by geomorphic map units (GMUs;. see Appendix E, Stream Channel Assessment for more details on GMUs).

Table D2 Large woody debris recruitment mechanisms by GMU.

GMU Number and Name	Recruitment Mechanisms (aside from stream-adjacent mortality)
1 Calapooia Valley Mainstem	Fluvial transport from upstream sources
2 Benches	No streams present in this GMU
3 Hummocky Earthflow Hillslopes	Earthflow movement
4 Low Gradient Narrow Valley Floor	Fluvial transport from upstream sources, debris flow deposition
5 Steep Mountains	Debris torrent deposits or export

LARGE WOODY DEBRIS RECRUITMENT POTENTIAL

Due to the greater stability and longevity of coniferous debris, the focus of this assessment is on the recruitment of conifers to the stream channel. For most coniferous species, significant recruitment from a second-growth stand generally begins approximately 60 years after harvesting or disturbance, with increasing rates of recruitment occurring thereafter (Grette 1985, Heimann 1988). Though deciduous hardwood species (mainly red alder) are not as long-lived as conifer species, they do provide important riparian functions such as bank stability from their root network.

Near Term LWD Recruitment Potential

Approximately 55 miles of streams within the WAU were assessed in the Calapooia River WAU. Thirty-six percent of the surveyed riparian zones have a High or Moderate near term LWD recruitment potential based on the species, size and density of the riparian area while, the majority (64%) have Low recruitment potential (Table D3 and **Map D1**).

Table D3 Summary of riparian stand condition

Riparian Stand Condition	Near-Term Recruitment Potential	Miles of riparian condition	Percent of total
Hardwood small sparse	Low	7.4	6.7
Hardwood small dense	Low	7.9	7.2
Mixed small sparse	Low	0.7	0.6
Mixed small dense	Low	23.6	21.4
Conifer small sparse	Low	2.8	2.5
Conifer small dense	Low	25.5	23.2
Hardwood medium sparse	Low	3.1	2.8
Hardwood medium dense	Moderate	0.9	0.8
Mixed medium sparse	Moderate	3.5	3.2
Conifer large sparse	Moderate	0	0
Conifer medium sparse	Moderate	19.9	18.1
Conifer medium dense	High	5.9	5.3
Mixed medium dense	High	9.3	8.4
Conifer large dense	High	0	0
Total (both sides of stream)		**110.3**	**100**

Low Near Term LWD Recruitment Potential

Riparian areas in the Calapooia River watershed classified as having "Low" near term LWD recruitment potential consist of the following stand types:

- Small to medium-diameter hardwood
- Small-diameter mixed stands
- Small-diameter conifer stands

The relative percentage of hardwoods and conifers on a site is influenced by the interaction of geomorphology (e.g., terraces and floodplains tend to have a greater hardwood component than hillslopes [e.g., Andrus and Froehlich 1988, Minore and Weatherly 1994) and land management practices. In most cases, narrow bands of alder growing on the stream bank have resulted from either natural or human-caused disturbance.

Small-diameter (<12" dbh) dense hardwood stands comprise 7.2% of the total riparian areas in the watershed. They are mainly red alder, which is a shade intolerant species that is not self-sustaining. Mixed stands of small-diameter trees represent 21.4% of assessed riparian areas. These stands generally consist of stream-adjacent Douglas fir plantations in combination with small-diameter alders along the stream margin. Although the near term potential for LWD recruitment is low for mixed stands, the long-term trend will shift toward greater LWD recruitment potential as the alder die-out.

Small-diameter conifer-dominated stands (both sparse and dense) compose 25.7% of the surveyed riparian zones. Most of these stands have dense stocking rates. These stands are mainly a result of planted Douglas fir adjacent to the stream channel. Though near term LWD recruitment potential is low, in time the stand will move towards moderate followed by high recruitment potential. Without disturbance, species composition will remain fairly constant over time.

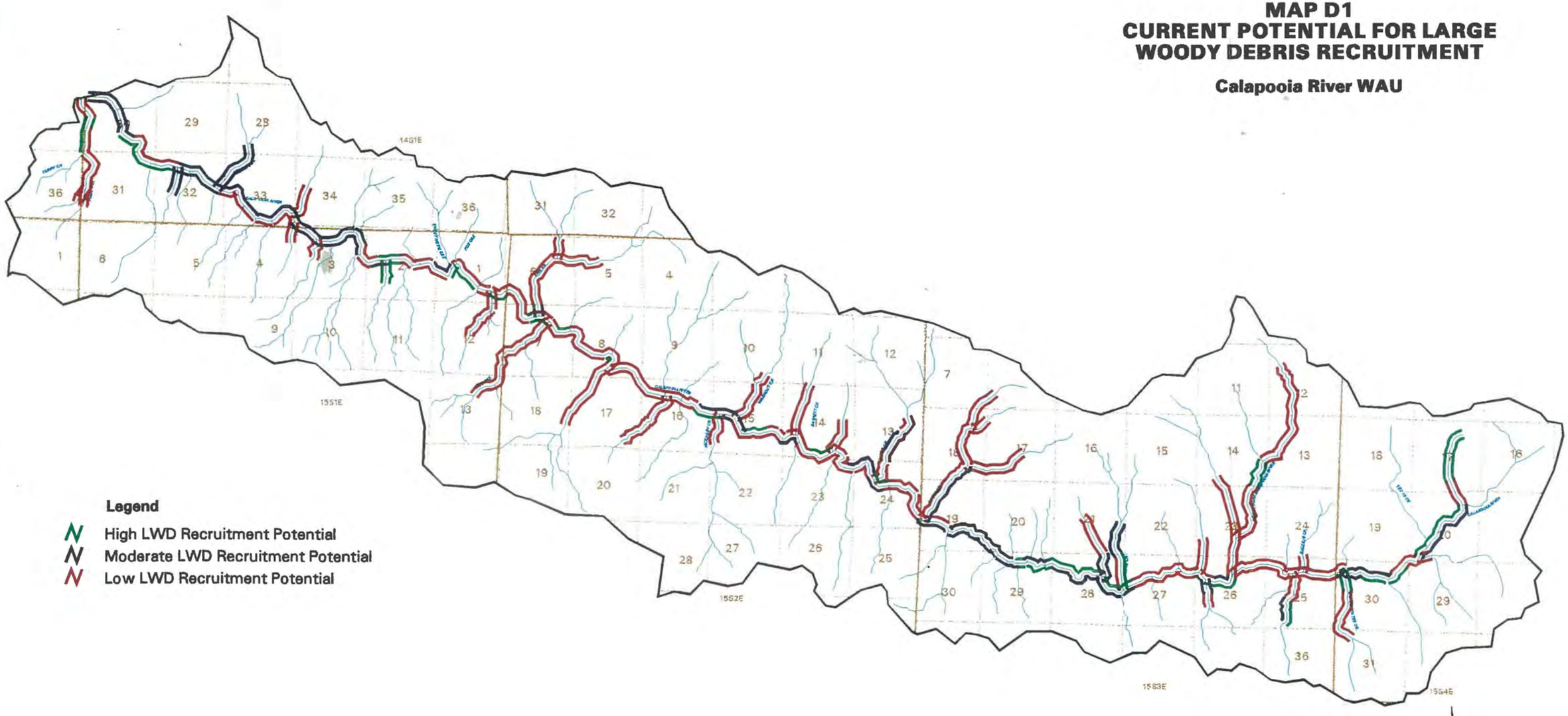
Moderate Near Term LWD Recruitment Potential

Twenty-two percent of the surveyed riparian areas in the Calapooia River WAU were classified as having "Moderate" near term LWD recruitment potential. Moderate LWD recruitment is provided by dense stands of medium to large hardwoods as well as sparsely stocked mixed and conifer stands.

The densely-stocked medium-diameter hardwood stands are composed mainly of red alder that is less than 40 years old. In approximately 50 years, after the hardwood stand dies, these sites could progress towards a shade-tolerant conifer community. However, if conifers do not occupy the site, these areas could become shrub-dominated within 150 years in the absence of disturbance (Hemstrom and Logan 1986). The resulting shrub-dominated riparian area would have a low recruitment potential.

MAP D1
CURRENT POTENTIAL FOR LARGE WOODY DEBRIS RECRUITMENT

Calapooia River WAU



Legend

- High LWD Recruitment Potential
- Moderate LWD Recruitment Potential
- Low LWD Recruitment Potential

1 : 90000

1 inch = 7500 feet

Map D1 LWD Recruitment Potential
Weyerhaeuser
DATE: 08/17/98

High Near Term LWD Recruitment Potential

High near term recruitment potential riparian zones are those with the greatest likelihood of delivering large-diameter LWD to streams over the next 10-20 years (WFPB 1996). These stands tend to be densely stocked, mixed or conifer dominated stands. They comprise only 13.7% of the riparian zones in the WAU.

Dense mixed stands of large and medium size trees represent one of the two most prevalent High riparian recruitment conditions within the WAU (8.4% of surveyed riparian areas). These stands are at least 40 years in age and most contain some large second growth conifers. Over time, the proportion of conifers in the stand will increase as the alders experience mortality.

Riparian Recruitment Potential by Geomorphic Map Unit (GMU)

Riparian condition was evaluated by stream channel geomorphic map unit (GMU) to provide a geomorphic context for assessing current wood recruitment potential and the relative sensitivity of stream channels to gains or losses of wood, (see Appendix E, Stream Channel Assessment for a complete discussion of GMUs and channel sensitivities). This evaluation was done because some stream channels are more sensitive to changes in wood loading than others. For example, many channels characterized as forced pool-riffle have pools and/or riffles created by wood. Reductions of functional wood in a forced pool-riffle segment can potentially change this type of channel to a plane-bed channel. Plane-bed channels are relatively straight, and lack deep pools and well-sorted riffles. Additions of LWD to plane-bed streams may increase pool frequency, aid in sediment sorting, and force deeper pools.

By evaluating riparian recruitment potential within a GMU compared to its relative sensitivity to wood, stream reaches can be prioritized for both stream enhancement and riparian management projects. A summary of the recruitment potential by GMU is presented in Table D4 as well as the size of functional wood (using relationships established in Bilby and Ward 1990) for streams in that GMU based on the average bankfull width for the GMU.

Table D4 Current riparian recruitment potential by Geomorphic Map Unit (GMU) for the Calapooia River WAU.

GMU number/ Name	Channel sensitivity to wood	Average bankfull width (ft)	Average diameter (in) for functional wood*	Percent of GMU by Recruitment Potential		
				High	Moderate	Low
1) Calapooia Valley Mainstem	Moderate	69	28	17.7	32.5	51.2
2) Benches	no stream segments	-	-	-	-	-
3) Hummocky Earthflow Hillslopes	High	13	13.8	15.0	25.8	58.1
4) Low Gradient Narrow Valley Floor	High	21	15.9	15.2	29.4	58.8
5) Steep Mountains	High in lower gradients; moderate in >8%	21	15.8	9.9	8.2	83.0

**based on Bilby and Ward 1991.*

In-Channel LWD and Riparian Stand Condition

In-channel woody debris was tallied by Weyerhaeuser's Technical Support staff for the Fisheries Biologist and the Channel Analyst. In addition, qualitative assessments of wood levels were conducted during field checking of riparian stands. In the Calapooia River WAU, in-channel wood loadings were not apparently as influenced by stream-adjacent stand type as they were disturbance history (Figure D1). For example, in one of the two stream segments bordered by mixed, medium-sized dense (MMD) riparian stands (averaged in Figure D1) the low in-channel wood may have been a result of a previous debris torrent which exported in-channel wood. In the other MMD segment which is located along the mainstem of the Calapooia River, the channel is a bedrock chute which would not be a likely place of wood accumulation. The low recruitment stand composed of small-diameter sparse hardwoods (HSS) was also influenced by a debris torrent, but in this segment, the channel was working through a debris torrent deposit containing wood. Thus, while riparian stands provide in-channel wood, other factors such as disturbance can also influence in-channel wood amounts.

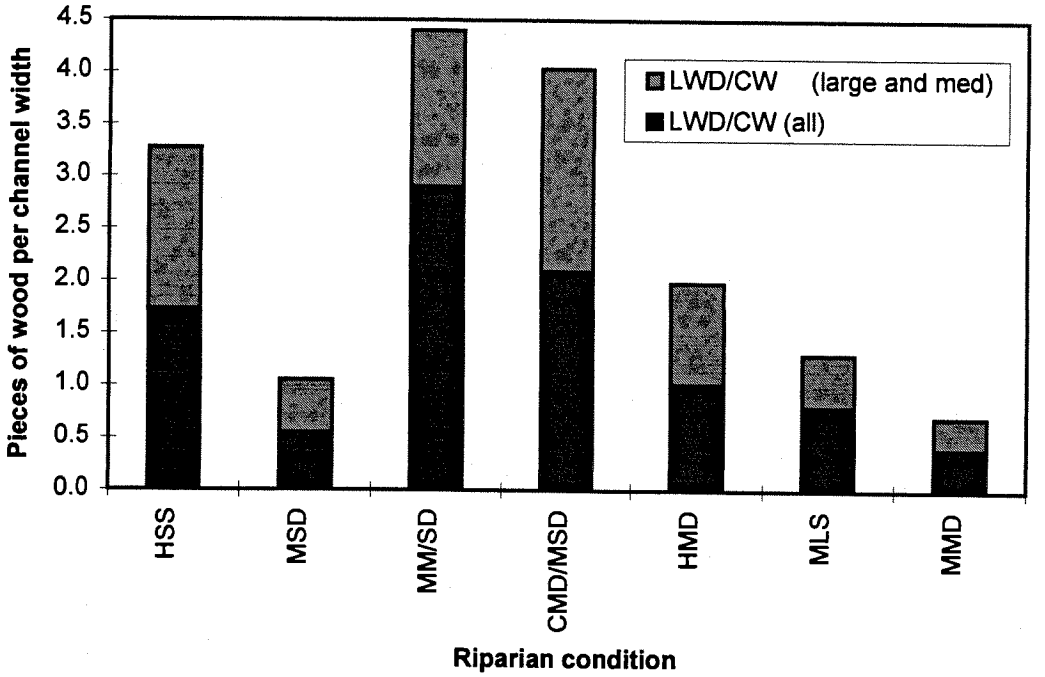


Figure D1 Pieces of LWD per channel width (CW) by general riparian stand condition. Each riparian condition represents an average of several surveyed segments. For in-channel wood, large pieces are greater than 20" (50 cm) and Medium pieces are from 8-20" (20-50 cm).

Long-term LWD Recruitment Potential

Future large woody debris recruitment is influenced by the current riparian condition. In general, those areas that are currently in a young or mature hardwood condition may require long periods of time to establish a conifer component that can contribute more stable large woody debris. Within the Calapooia River WAU, the long-term recruitment potential is generally high with 45 percent of the riparian areas having a substantial conifer component and therefore a high long-term recruitment potential (Table D6). Sites that are not suitable for sustaining conifers are infrequent in the watershed, except in the agricultural areas. Riparian areas of the WAU under each long-term recruitment potential type are described further on the following page.

Table D6 Long-term LWD recruitment potential, stand condition and percent of WAU.

Riparian areas stand type with current riparian condition indicated	**Long-term LWD recruitment potential and percent of WAU**
Conifer dominated (CSS, CSD, CLS, CMS, CMD and CLD)	High (45.4% of riparian areas)
Dense mixed (MSD and MMD)	Moderate (31.7% of riparian areas)
Sparse mixed (HSS, MSS, HMS and MMS)	Indeterminate (15.1% of riparian areas)
Hardwood dominated (HSD and HMD)	Low (7.7% of riparian areas)

High Long-term LWD Recruitment Potential

Conifer dominated stands have high long-term LWD potential because the stand composition is likely to remain predominantly coniferous. Where stands have been thinned, medium-diameter conifer trees (12-20" dbh) may be achieved after 40 years. Where there has been no thinning and stands are dense, medium-diameter conifers may take as long as 80 years to grow to size (Emmingham 1996).

Moderate Long-term LWD Recruitment Potential

Riparian stands that are densely stocked with mixed species have a moderate long-term LWD recruitment potential. As more shade tolerant conifers establish themselves in the understory, LWD recruitment potential will increase over the next 50 years. However, without thinning, these currently small-diameter mixed stands may take 150 years to grow medium-diameter conifers (Emmingham 1996).

Indeterminate Long-term LWD Recruitment Potential

In sparsely stocked mixed and hardwood stands, the stand trajectory is more difficult to forecast due to the low stocking. The long-term LWD recruitment potential for these sites is therefore indeterminate.

Low Long-term LWD Recruitment Potential

In dense hardwood (mainly alder) dominated riparian areas recruitment potential will remain low until the hardwood stand degenerates sufficiently to allow conifer establishment. These stands comprise only a small proportion of the WAU (7.7%). Some shade tolerant conifers will likely become established during this time in gaps created by windthrow or breakage, but the overall percentage of conifers will remain low. In these stands, natural growth of large conifers may take 100-150 years

SHADE ASSESSMENT

The shade provided by riparian vegetation performs an important function for forest streams by maintaining optimal water temperatures for salmonids. Riparian shade can therefore be used to assess water quality in absence of actual stream temperature data. The Standard Methodology for Conducting Watershed Analysis, Chapter 222-22 WAC, Version 4.0 (WFPB 1997) outlines procedures for assessing the condition of the riparian vegetation with respect to shade. This assessment follows those procedures, and attempts to answer the following critical questions:

- *What was the early condition of the riparian zone relative to its ability to provide shade?*
- *What is the current condition of the riparian zone relative to its ability to provide shade necessary to maintain desirable summer stream temperatures?*

Shade Assessment Methods

Assessment methods were performed in accordance with the Washington State Forest Practice Board (WFPB) Standard Methodology for Conducting Watershed Analysis (Version 4.0, 1997). The assessment was completed using color photocopies of 1997 Weyerhaeuser, 1:12,000 color aerial photographs (flight SPINV-97). All fish-bearing streams, plus 1,000 ft above fish-bearing streams were assessed. The historical assessment (see previous section on Historical Character of Riparian Areas for the historical shade assessment) was achieved using 1946 black and white photographs (1:15,840; DEK 1946). Field verification was completed for several stream segments using a spherical densiometer and taking shade measurements every 100 feet for a 1000 feet.

Deviation from Standard Methods

The only deviation from the standard method is that riparian shade was assessed in minimum increments of 1000 feet rather than the 2000' segments described in the manual. Use of smaller increments increased the resolution of the assessment to more accurately represent the variation in shade in the WAU.

RESULTS OF SHADE ASSESSMENT

Stream temperatures can be affected by stream and basin characteristics including shading, depth of flow, length of exposed reach, interchange of flows with near-channel water, and groundwater inflow. Tributaries of cooler water can also play an important role in moderating summertime maximum temperatures on larger streams (McSwain 1987, Holaday 1993). Air temperatures generally increase with decreasing elevation, likewise stream temperatures also increase with decreasing elevation causing streams lower in the basin to be generally warmer than streams higher in the basin.

The majority of the assessed stream miles in the Calapooia River WAU have low stream shading (Table D7; **Map D2**). Almost half (49%) of the assessed streams had shading levels less than 40% due to the low shading along the mainstem and as a result of debris-torrented tributary reaches with reduced shade.

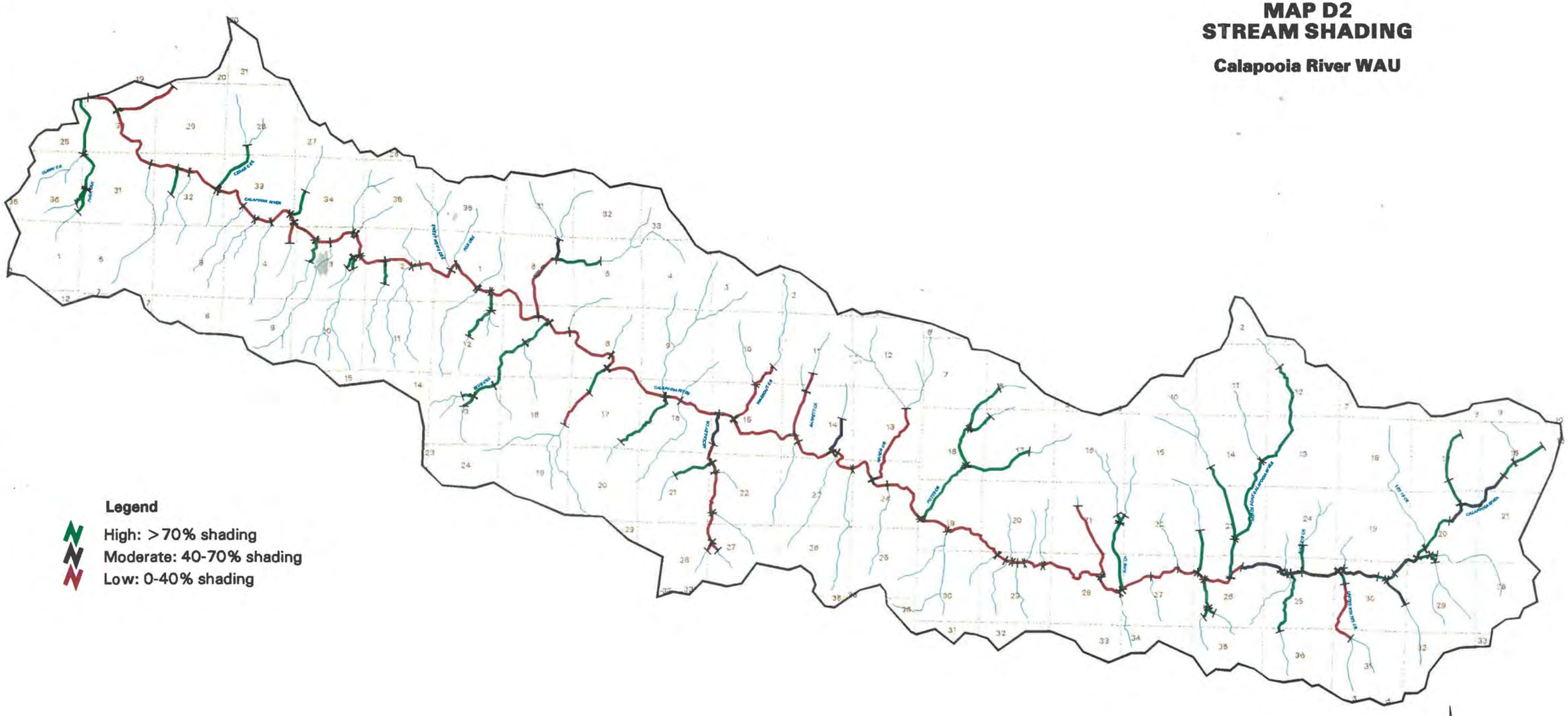
Table D7. Shading levels (miles and percent) for the Calapooia River WAU

Percent canopy closure	Assessed Miles	Percent of WAU
0-20% Low	0.9	1.4
20-40% Low	30.1	47.2
40-70% Moderate	6.3	9.9
70-90% High	1.1	1.7
Greater than 90% High	25.3	39.7
Total miles assessed	63.7	

The Calapooia River mainstem accounts for 41% of the stream length assessed for shade. The remaining 59.0% of the assessed area includes fish-bearing (plus 1,000 ft above the end of fish-bearing) tributary streams. For the Calapooia River WAU, 24.0% of the tributary reaches have low shading levels as a result of numerous debris torrents that were triggered during the February 1996 storm event. In most of these smaller channels, shade recovery make take up to 10 years depending on the site. For example, on Johnson Creek (tributary to the McKenzie River) stream temperatures fell below the state standard (mean 7-day maximum of 64 °F) after 7 years of shade recovery (Weyerhaeuser unpublished data). Since the Calapooia River is just north of the McKenzie River, it is expected that shade recovery on smaller tributaries will likewise occur after 7 years.

MAP D2
STREAM SHADING

Calapooia River WAU



Legend

- High: >70% shading
- Moderate: 40-70% shading
- Low: 0-40% shading

1 : 90000

1 inch = 7500 feet

Map D2 Stream Shading

Weyerhaeuser

DATE: 08/17/98

CONFIDENCE

Confidence in the LWD and shade assessment portion of the Riparian Assessment Module is moderate to high. Reasons for the moderate to high confidence call include:

- The aerial photographs that were used for this assessments were very recent (1997) and reflected current stand conditions.
- The moderate confidence level is a result of the limited extent of field verification for mainstem reaches due to high water.

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APPENDIX E

Calapooia River Watershed Analysis
Stream Channel Assessment

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August 1998

APPENDIX E

Calapooia River Watershed Analysis
Stream Channel Assessment

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INTRODUCTION

The purpose of this analysis is to assess historic, current, and potential future stream channel conditions and morphologic sensitivity to inputs. Channel morphology is a product of the transport of water, sediment and wood, and therefore reflects the processes operating in a watershed (Montgomery and Dietrich 1989; Sullivan et al 1986). This assessment divides the channel network into areas that respond to disturbance and inputs in a similar fashion based on similarities in channel-forming processes. The products from this assessment provide the context for evaluating the effects of land management on fish, water quality and public works.

This assessment addresses several key questions critical to understanding channel processes:

- *What is the spatial distribution of channel response types?*
- *Is there evidence of channel change from historic conditions?*
- *What do existing channel conditions indicate about past and present active geomorphic processes?*
- *What are the dominant channel- and habitat-forming processes in different parts of the channel network?*

Working hypotheses of channel condition, generated early during the watershed assessment are a vital tool for extrapolating local channel conditions and interpreting potential causal relationships because most of the watershed could not be directly observed.

Discussions of historic and current channel condition, as well as future condition, are stratified into geomorphically derived units known as Geomorphic Map Units (GMUs). GMUs encompass stream reaches and their associated valleys that display similar morphologic character and function. As a result, habitat forming processes are inferred to be generally distinctive in each GMU. This approach aids integration and synthesis of data collected during remote sensing and field work. Since most of the segment clustering into GMUs involves considerable extrapolation, those attributes that are remotely sensed in the assessment (i.e., map gradient, confinement, and relative drainage area or network position) are the primary variables used to define GMU boundaries.

General Geomorphology

The Calapooia River watershed is located in the western Cascades and is carved by steep, highly confined high energy mountain streams. Steps occasionally punctuate longitudinal profiles where channels cross more resistant bedrock and form cascading waterfalls. Landslides that turn into debris flows are naturally a dominant mechanism of erosion in the western Cascades, and route sediment and wood to downstream reaches (see Appendix A, Mass Wasting). Small and large debris jams are currently present in the system and play an important role in upstream channel aggradation and pool formation. Coarse sediment and bedrock are the dominant substrates in most of the channels and boulders currently dominate pool formation. However the lower end of the watershed is dominated by fine sediment substrates. The majority of the Calapooia tributaries are high gradient (greater than 8% in slope). Stormflow response to rainfall is rapid in the steep, shallow soil topography of the mountainous areas. Channel morphologies are expected to rebound quickly to the high energy physical processes that express themselves in the watershed, however, a recent storm event (February 1996) which left many of the tributary channels debris torrented, is still evident by scoured out channels and riparian areas.

Hypotheses

The following hypotheses provide a baseline for understanding how the stream system in this watershed processes sediment, water and wood based on the regional and geologic location.

Coarse sediment loads are high in the watershed because the local geology and steep slopes supply and transport coarse sediment. The high number of miles of source and transport reaches in the watershed (Figure E1) indicate that the Calapooia River watershed has a high probability of routing a large amount of coarse sediment to downstream reaches.

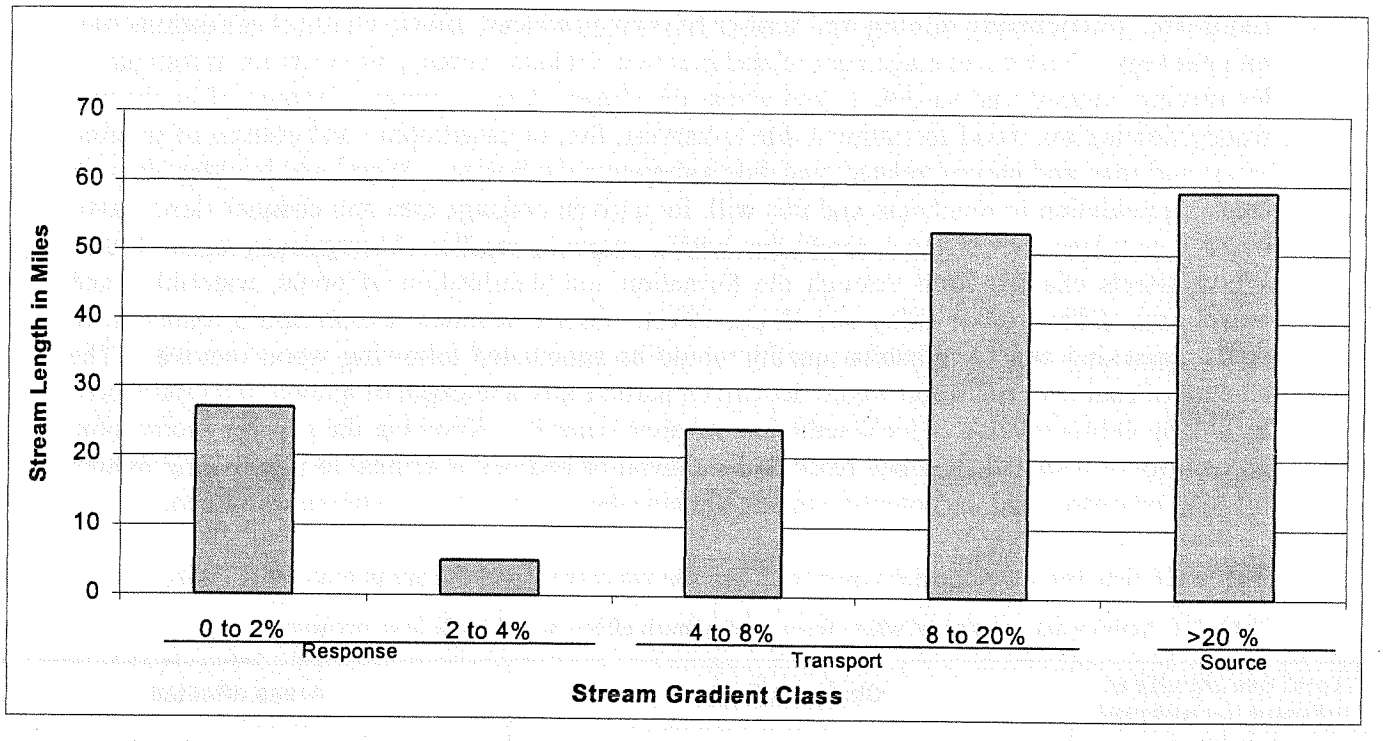


Figure E1 Length of stream channels as a function of gradient class. Gradients were initially reach averaged through DEM data and were corrected using USGS 7.5 minute topographic maps (40 ft. contour interval).

High coarse sediment loads could impose morphological channel changes to response reaches and temporary sediment storage volumes may be relatively high (Montgomery and Buffington, 1993). Coarse sediment introduced to the Calapooia mainstem, which is a response reach, may increase fish habitat complexity and create spawning gravel patches. The mainstem is confined, but there are segments along the mainstem which are moderately confined (loosely confined) and these areas may allow gravel bar development at meander bends and low velocity points. In areas of high confinement a lack of roughness moves the bedload through the system rapidly.

Channel morphology reflects high energy stream systems where streamflow responds quickly to rainfall events and debris flows are common. An alternating cycle of aggradation and degradation occurs historically within channels that commonly experience debris flows. Deposition by debris flows subsequently erodes and develops a boulder lag deposit. Once this sediment is depleted, channel bedrock is easily exposed with some armoring by coarse sediments, cobbles and boulders, until deposition occurs again (Benda, 1990).

Land-use, particularly mining and timber harvest practices, affects channel conditions and morphology. Historic management related practices include: mining, downstream splash dams, log driving, logging and yarding to and across the stream channel, stream cleaning of in-channel woody debris; low wood recruitment due to harvest, fire, or catastrophic disturbance of riparian areas; and road and harvest related landslide sediment contributions. Wood and boulder removal creates a reduction in roughness and this will, for a given drainage area and channel slope, favor bedrock or plane–bed channel conditions within response reaches (Montgomery et al. 1996). Wood affects channel form through the formation and stabilization of pools, waterfalls, and gravel bars (Bilby, 1981; Bilby and Ward, 1991). Coarse sediment export and a reduction in pools, spawning and riffle habitat quality would be anticipated following wood removal. The amount of sediment reduction would depend on particle size and depth of alluvial material stored by woody debris relative to local sediment transport capacity. Knowing the general geomorphic probability of a specific channel reach to be alluvial or bedrock is critical to interpreting habitat forming processes and the potential impact of management practices on stream morphology.

Table E1 lists the land use activities found in the watershed and the areas that are affected.

Table E1 Activity and location of where forest management effects would likely have occurred

Land use activity or inherent geomorphic condition	Channel affects	Areas affected
Splash dams	Bed scour, change in base level leading to degradation	Downstream of watershed boundary
Roads/bridges/culverts	Fine sediment inputs, hydraulic changes increase shear stresses (confinement) causing downstream scour, upstream deposition	Stream crossings and stream adjacent roads impinging on the channel. Mainstem channel altered in 1970s because the mainline was washing out above King Creek
Railroad Logging	Related logging activities	Dollar Camp and downstream
Logging Camps	Related logging activities	Dollar Camp, King Camp
Log Drives	Bed scour from wood removal, boulder removal increasing shear stresses	Documented from Dollar and downstream
Stream cleaning	Wood removal causes increased stream power: flushing of fine and coarse sediment, loss of peak flow dampening effects. Reduction in pool volume and spacing.	Variable, occurred throughout the watershed. Documented to have occurred through 8 miles of river upstream of Dollar and 0.8 mile of North Fork in 1959
Mining	Streambank erosion, displacement and suction of gravels altering pool volume and depths	Headwaters severely affected by placer mining, other tributaries also placer mined
Riparian harvest	Coarse and fine sediment inputs, loss of wood roughness increases stream power, bank erosion	All drainages
Road & harvest related catastrophic events (i.e., debris torrents)	Coarse and fine sediment inputs causing aggradation, routing of large amounts of LWD to streams increasing debris jams	Transport and source reaches

METHODS

The critical questions, assumptions, and methods used in this assessment are detailed in the Standard Methodology for Conducting Watershed Analysis, Version 3.1 (Washington Forest Practices Board, 1996).

Stream Channel Partitioning

The stream network was defined using Digital Elevation Models (DEMs). USGS 7.5 minute topographic maps were utilized to correct the DEM gradient calls. The blue line U.S.G.S. streams were divided into segments based on reach average gradient and confinement. Confinement classes were visually estimated from topo maps, aerial photographs and field checking.

The distribution of segments in the watershed as a function of gradient, confinement and probable channel morphology is provided in **Form E1** located in Attachment E1. **Map E1** displays the location of channel segments in the basin and the distribution of response (<4 percent gradient), transport (4-20 percent gradient), and source (>20 percent gradient) reaches.

HISTORIC TRENDS AFFECTING CHANNEL CONDITION

Through historic documentation and interviews, morphologic adjustments to the stream channel can be identified. The following are documented activities, which impacted the stream channels within the watershed.

- The first impacts to the headwater streams include hard rock mining which began during the mid-1800s. Today there are over 150 mineral claims in the headwaters of the Calapooia River. Placer mining and suction dredging continue to occur along the stream channel (Haberkorn, pers. communication, U.S.F.S., 1998).

- Logging began to impact the stream channels by the late 1800s. In the 1850s, sawmills began to spring up along the Calapooia River near Holley. By 1906, the Thurston Brothers Lumber Company had a "River Camp" twelve miles up the Calapooia River from Crawfordsville (placing it just downstream of Big Creek at Dollar—within the watershed). The camp was headquarters for the log drive crew that drove the logs down the Calapooia River to their mill at Crawfordsville (Repetto, 1970). A log drive in smaller streams and rivers generally meant shorter logs (**Photo E1**). Log drives scoured out the lower end of the mainstem channel from Bigs Creek downstream. Steam donkeys were used to bring logs to the river and a large boom held the logs at the Thurston sawmill. Dynamite was used to blast boulders, hung up logs and dams built with dirt and logs in the mainstem channel (Reece Watkins, pers comm., 1998).

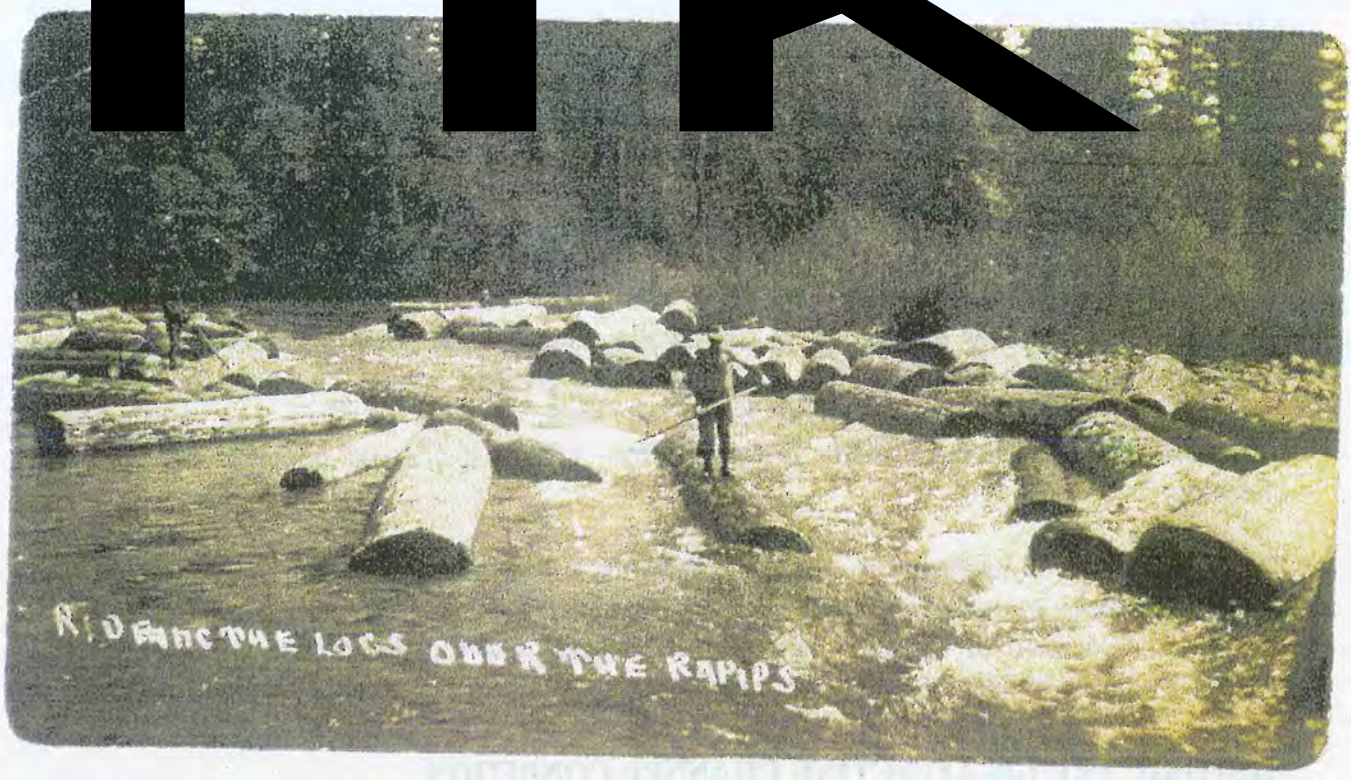


Photo E1 Postcard photograph taken by P.A. Caverly & Wife, Brownsville, Ore., illustrating a typical log drive on a western Oregon River.

The clearance of log jams to approximately 8 miles above Dollar and 0.8 miles of the North Fork was completed by the Oregon fish commission in 1959 (Willis et al, 1960), further simplifying the channel.

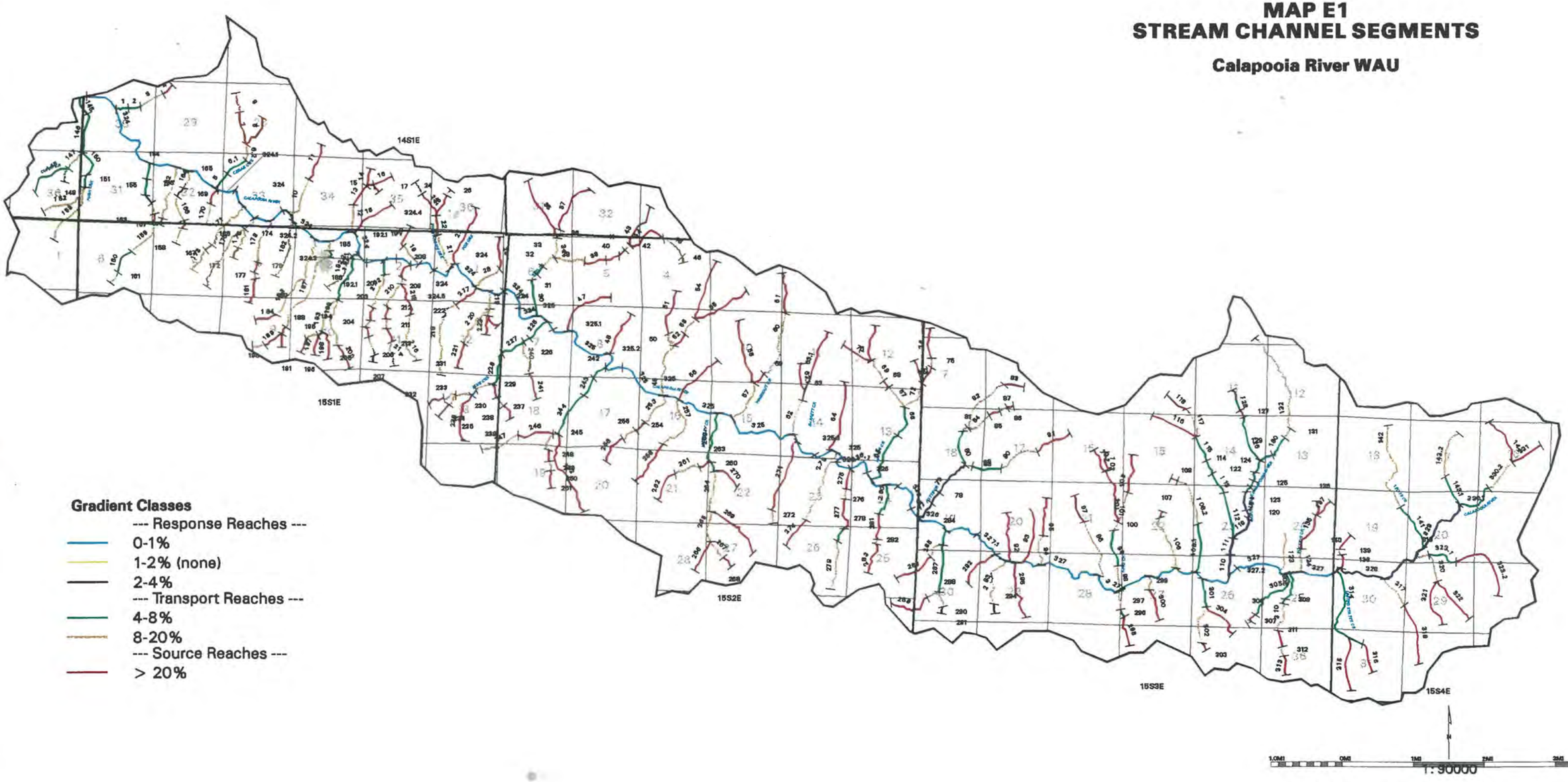
- Weyerhaeuser placed a shear boom in the Calapooia River just above Bigs Creek. It was present in 1965 and was probably used to collect any large pieces of wood floating downstream (Atkinson, pers. comm. Weyco, 1998). A loader took logs captured by the shear boom out from the north bank (Gehrman, pers. comm., 1989).

- Major instream channel work was done on the mainstem by bulldozer to protect the mainline road in the late 60s, at a spot between North Fork Calapooia Creek and King Creek (Atkinson, pers. comm., Weyco, 1998).

- Other channel impacts and fish impacts included Finley Dam, built in 1847 (10 feet high) near Crawfordsville, which blew out in the winter of 1948-49, and which was a block to migratory fish for over 100 years (downstream impacts to fish are addressed in Appendix F, Fish Habitat Assessment).

MAP E1
STREAM CHANNEL SEGMENTS

Calapooia River WAU



Gradient Classes

--- Response Reaches ---
0-1%
1-2% (none)
2-4%
--- Transport Reaches ---
4-8%
8-20%
--- Source Reaches ---
> 20%

1 inch = 7500 feet

Map E1 Stream Channel Segments
Weyerhaeuser
DATE: 08/12/98

Evaluation of Historic Changes in Channel Morphology

Aerial photographs were viewed to determine if changes in the channel width and/or channel pattern occurred in any of the segments between 1949 and 1996. Photo coverage examined included photo years 1949, 1967, 1978, 1987 and 1996. Photo years were examined in part or in whole, depending on the resolution, flight elevation and harvest patterns of each year, for historic channel changes. **Form E2**, the Channel Condition and Disturbance worksheet, is found in Attachment E1 of this assessment.

In 1949, timber harvesting was limited to adjacent slopes of the mainstem near the bottom of the Calapooia River watershed and along larger tributaries such as Potts and King Creek. High reflectance along the channels indicate sediment inputs and some channel braiding was evident in the less confined reaches of the mainstem. In photos after 1949, typical changes that occur in channel and riparian conditions as a result of timber harvest and/or flood induced disturbances include opening of the riparian canopy, high reflectance of stream channels indicating a possible increase in fill (sediment storage) along the channel floors, and debris slide tracks indicating landslide materials delivering to the stream channels. Roads and landings extended further and higher into the watershed.

Throughout the air photo record, the tributary channels are visible only after a timber harvest. As each drainage was harvested, removal of trees occurred within the riparian area and high reflectance in air photos along the channel indicates sediment inputs and some channel braiding occurs in less confined channel reaches. In the 1996 air photo, large sediment inputs have occurred in the mainstem from debris flows issuing directly into the channel from transport and source streams. Numerous landslides and scoured tributaries are visible.

Routing

In general, the effects of the historic removal of wood and debris torrents is evident in the channels with the presence of large particle sizes and lack of morphologic complexity within the stream system. Fine sediment is quickly routed out of the watershed, except for localized areas and in the lower end of the watershed where geology and slope play a dominant role in fine sediment production and deposition. Coarse sediment is easily routed through the mountainous upper end of the watershed, and with high sheer stresses, eventually migrate downstream through the confined mainstem. Wood is routed from upstream source areas, but individual large pieces of wood are limited in field-visited reaches. Most in-channel wood that was observed was cut wood from logging debris. The recent flood of February 1996 (Figure E2) scoured many stream channels and left wood stranded high on hillslopes and channel terraces. These individual pieces may eventually be recruited, but most riparian areas have limited recruitment potential because of past harvest of riparian areas. Tree cores taken of hardwood trees lining streams which were not debris torrented during the 1996 storm event frequently dated to the 1972 and 1965 (Dec. 1964) water year storm events (Hydrology Appendix C).

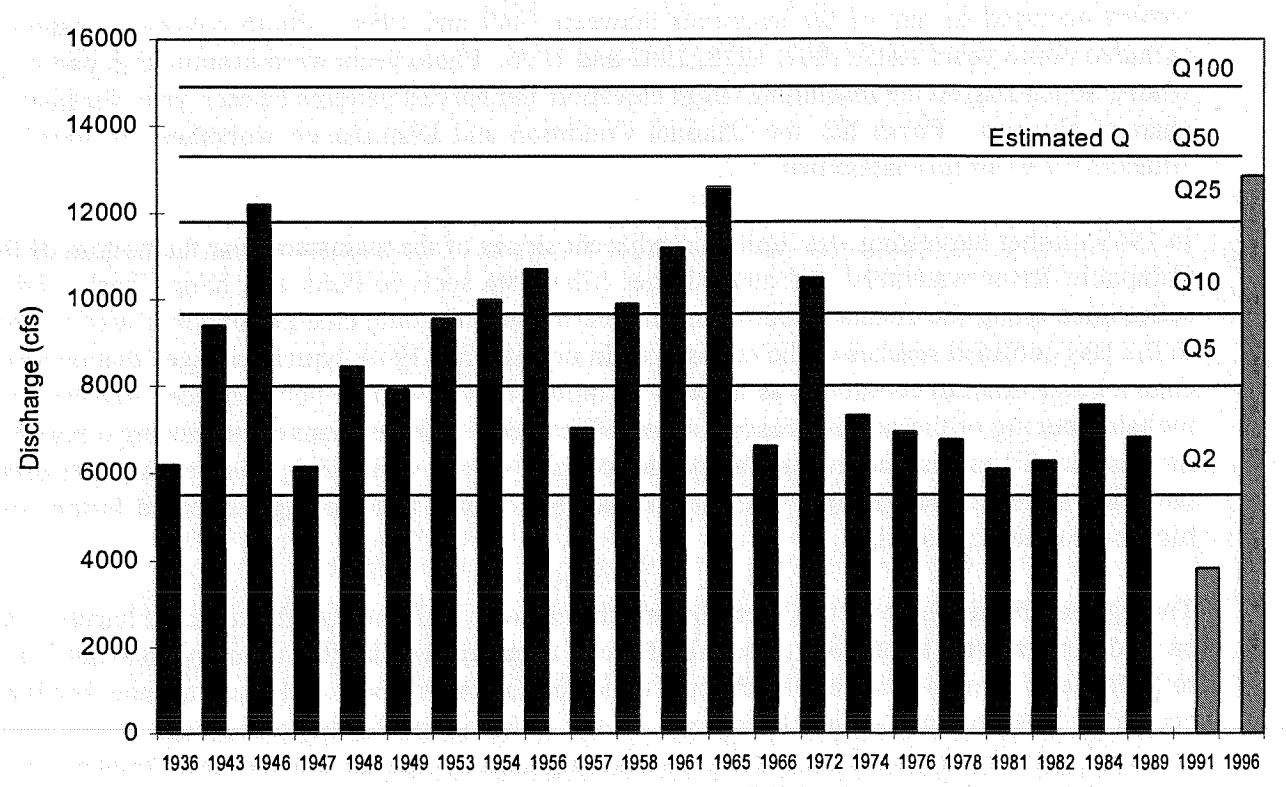


Figure E2 The instantaneous annual discharge for the Calapooia River at Holley, selected high flow years (Hydrology Appendix C).

CURRENT STREAM CHANNEL CONDITIONS

The objective of the channel field assessment is to identify and compare relationships between current channel form and historical conditions, and to evaluate response potentials of each channel type to the following factors: the volume and size of sediment in storage, the frequency and nature of channel obstructions (e.g., woody debris and boulders), and hydrologic conditions. These relationships provide the context for extrapolating similar channel characteristics to other channel segments.

Field Site Selection Criteria

To check the validity of the initial clustering of stream segments into Geomorphic Map Units, several streams were selected for reconnaissance or surveys prior to commencement of field work. Field reconnaissance and surveys were conducted intermittently by Weyerhaeuser in September and October, 1997, under low to moderate flow conditions. ODFW surveys were taken during the summer of 1991. Twelve reaches were surveyed by Weyerhaeuser (Segments 79, 96, 98, 112, 229, 243, 308, 324, 324.1, 325, 327, 328). ODFW data was useful for general survey information, but because of a difference in data collection methodologies, the ODFW data was not meaningful for some comparisons.

Woody debris tallies and measurement of channel characteristics were made within a wide range of different channel types. Observations of a reconnaissance nature were made at many other segments. Site selection was done by choosing segments within different channel gradient classes, by accessibility and for testing initial GMU designations (see Form E1, Attachment E1). **Form E3** (Attachment E1) details site selection rationale for all segments observed. Channel Assessment Field Forms (**Form E4**) are located at the back of this assessment in Attachment E2. Physical habitat measurements made by ODFW are summarized in Appendix F (Unpublished data, 1991). Data summaries and other anecdotal information collected for this assessment can be found in the relevant Geomorphic Map Unit descriptions.

CHANNEL SENSITIVITY TO CHANGES IN INPUT FACTORS

Large Wood

Bilby and Ward (1989) showed that frequency of woody debris decreases with increasing stream size in old growth forests in western Washington. The following figure (E3) compares Bilby and Ward (1989) to the current Weyerhaeuser data collection. The figure indicates that there has been a reduction in wood in the Calapooia River as compared to a natural wood loading. Reductions in wood in the Calapooia are probably related to past land-use activities (i.e., log drives, stream cleaning and mining).

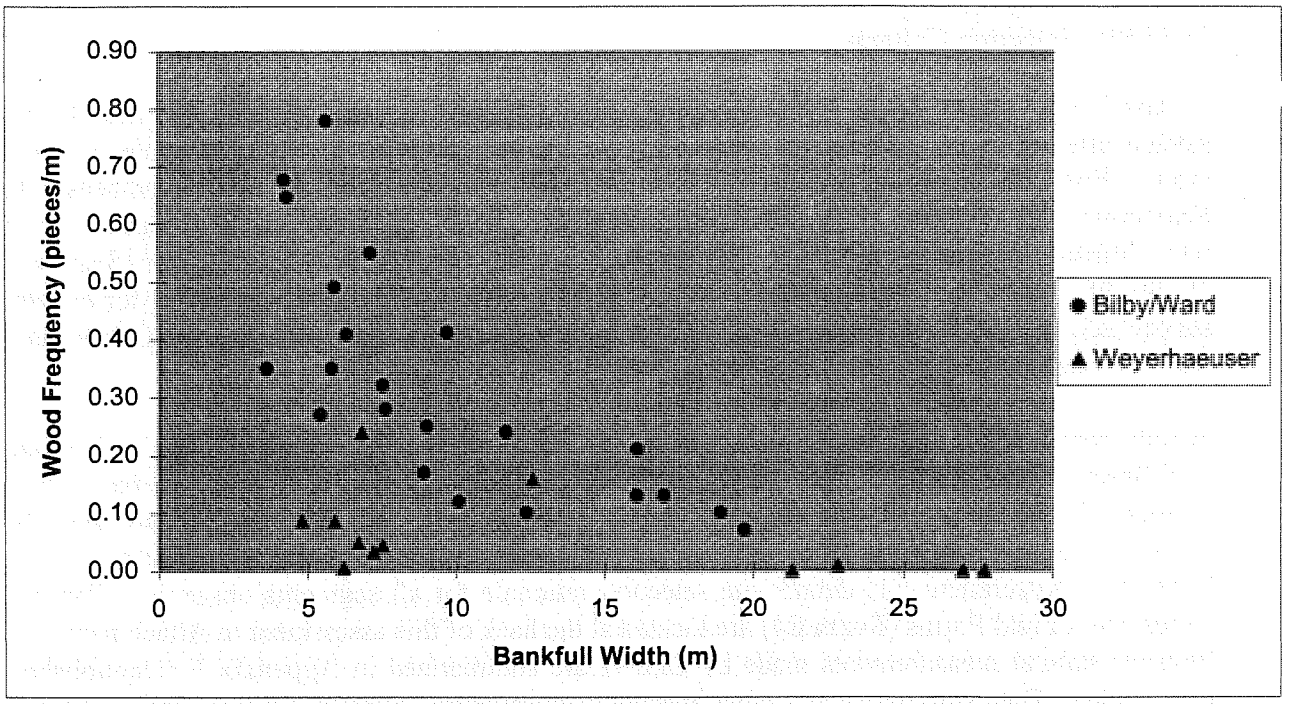


Figure E3 Bilby and Ward (1989) wood frequency (pieces/m) versus bankfull channel width (m) found in old growth forests of western Washington and wood frequency (pieces/m) in relation to bankfull channel width (m) from current Weyerhaeuser wood count surveys in the Calapooia River watershed.

Pool spacing related to wood loading in the South Fork Coos WAU, according to comparisons with Montgomery et. al., 1995, is much greater than found in old growth systems. Montgomery et. al., 1995, indicates that old growth systems show a decrease in pool spacing with increasing large wood frequency in old growth forests (Figure E4). The Calapooia River reaches have a lower large wood frequency and in some cases, a high pool spacing. Most pools are formed by coarse sediment in this system (Figure E5). This suggests that a reduction in in-stream LWD has resulted in fewer pools than might naturally exist in the surveyed reaches of the Calapooia River.

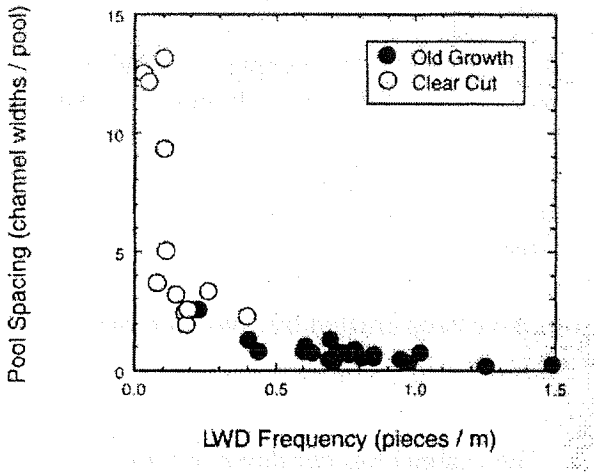


Figure E4 LWD frequency versus pool spacing for channels surveyed in previously clear-cut and old growth forests. Reproduced from Montgomery et al, 1995.

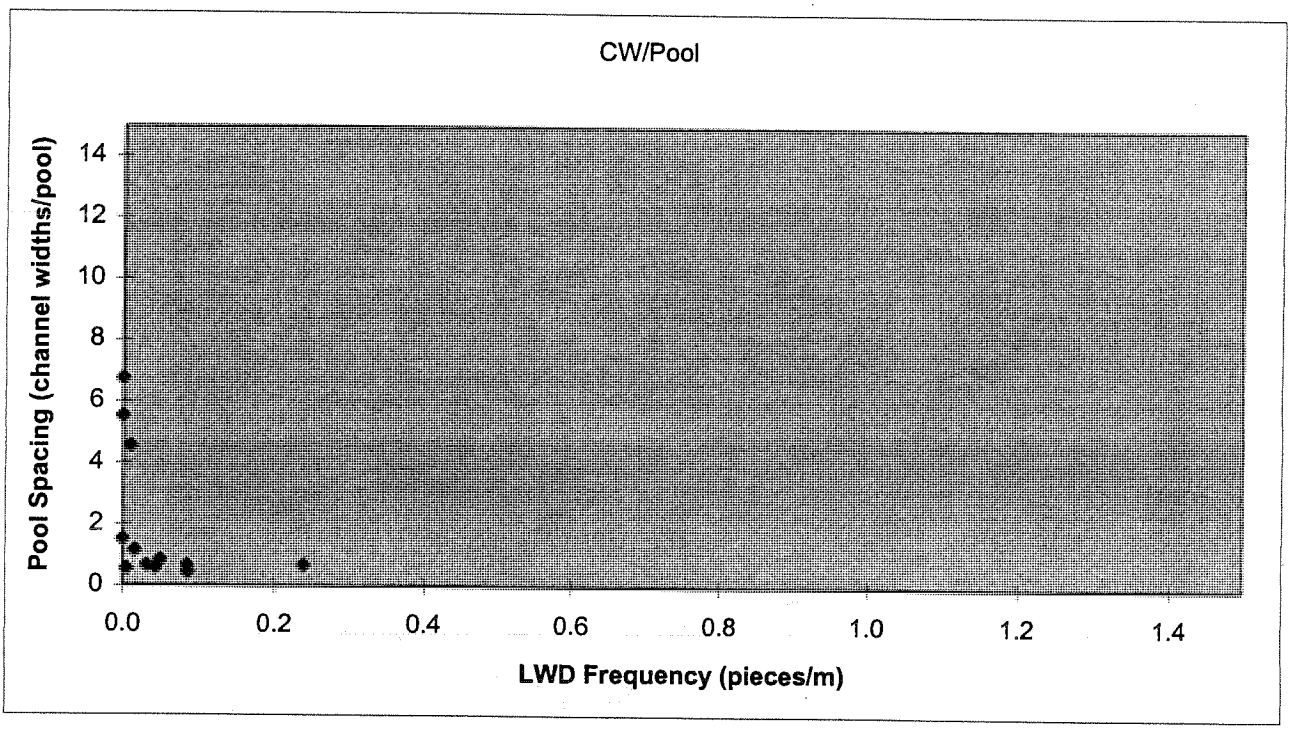


Figure E5 LWD frequency versus pool spacing for channels surveyed in the Calapooia River WAU. Boulders and or bedrock form many of the pools.

Summary

Frequency and size of large wood has decreased in stream channels as compared to old growth systems. Because of these decreases in channel roughness the following changes in channel morphology have occurred:

- pools are developed from boulders and bedrock
- pool spacing has become wider, there are fewer pools
- gravel storage and fine fraction storage has been reduced
- pool depth has decreased
- plane-bed morphologies and bedrock channels may have been created by LWD removal

Entrenchment

The mainstem of the Calapooia River is entrenched. The channel has cut down and incised into the valley bottom so that it no longer is connected to a higher terraced floodplain (Figure E6). Bankfull is evident as much as two and sometimes three meters below the floodplain at the lower end of the watershed.

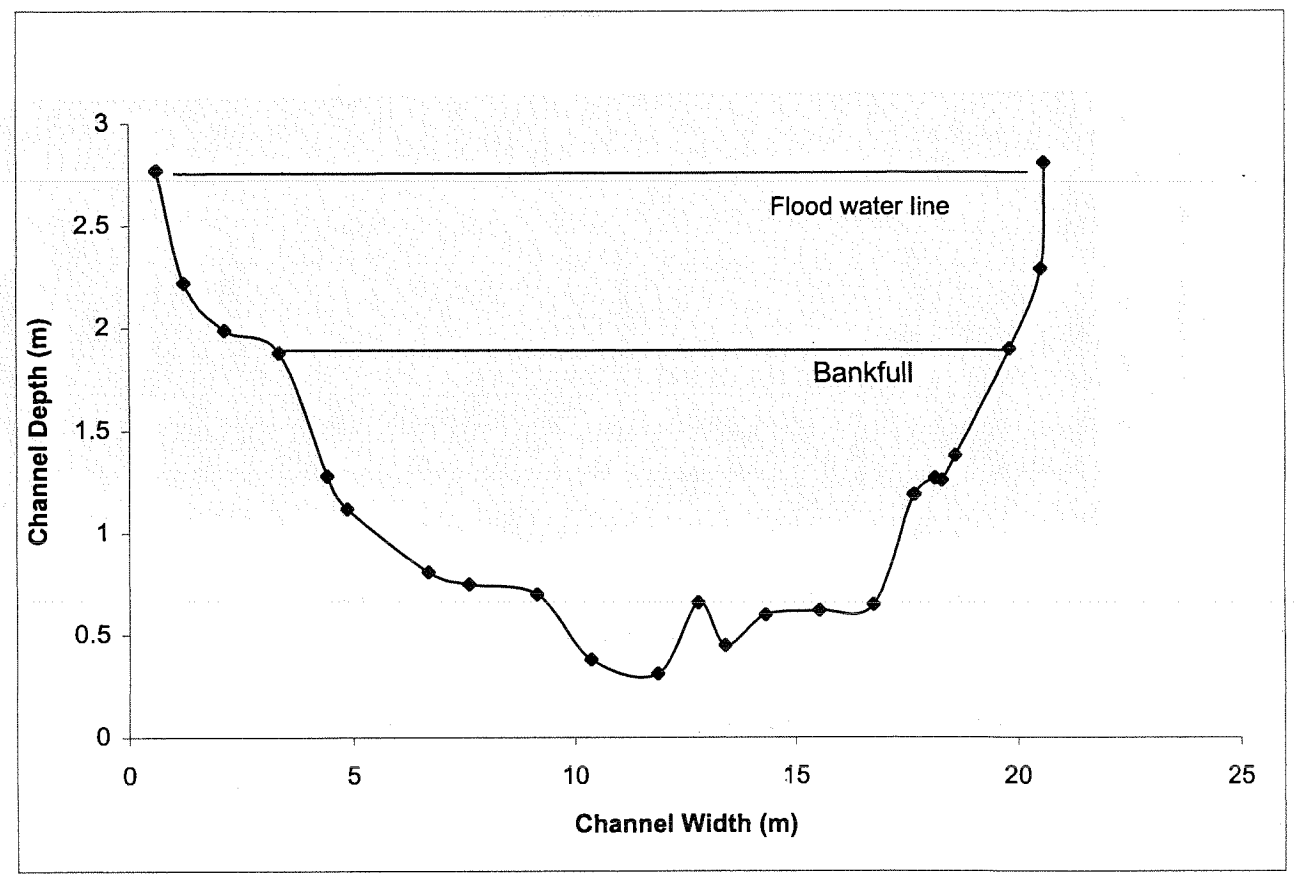


Figure E6 This cross-section was measured downstream of U.S. Creek in segment 327. The profile is typical of the confined mainstem reaches of the Calapooia River. Bankfull is entrenched within a deeper set channel, frequently incised into bedrock.

Another indication of entrenchment is that a significant drop-off occurs at the mouths of the tributaries throughout the system. One to two meter cascading drops occur in, but are not limited to, U.S. Creek, Potts Creek, Hands Creek, Blue Creek and Bigs Creek. Entrenchment may have been induced by log drives and the removal of debris jams which would have lowered base level, lowered roughness values, and increased boundary shear stresses leading to export of sediment and incision.

There are loosely confined segments along the mainstem that are not entrenched. At these reaches, alluvial deposits are evident in the channel-bank with imbricated layers of sand, gravel and cobble.

GEOMORPHIC MAP UNITS

The discussion of current stream channel conditions and sensitivities is organized by Geomorphic Map Units (GMUs). Each GMU includes the stream channel and adjacent landforms that contribute to its character. For example, hillslopes from streamside to ridgetop control, in part, the volume and rate of sediment, wood, and water inputs to the channel and are therefore considered part of the GMU. The GMUs encompass stream segments inferred to have similar:

1. channel characteristics
2. sensitivities to woody debris, peak flow, and sediment inputs
3. surrounding geomorphic terrain which can influence bedforms and valley bottom character

To aid in understanding the spatial relationship of these segment clusters, **Map E2** shows the spatial extent of each GMU and Figure E7 displays each GMU, its drainage, gradient and confinement.

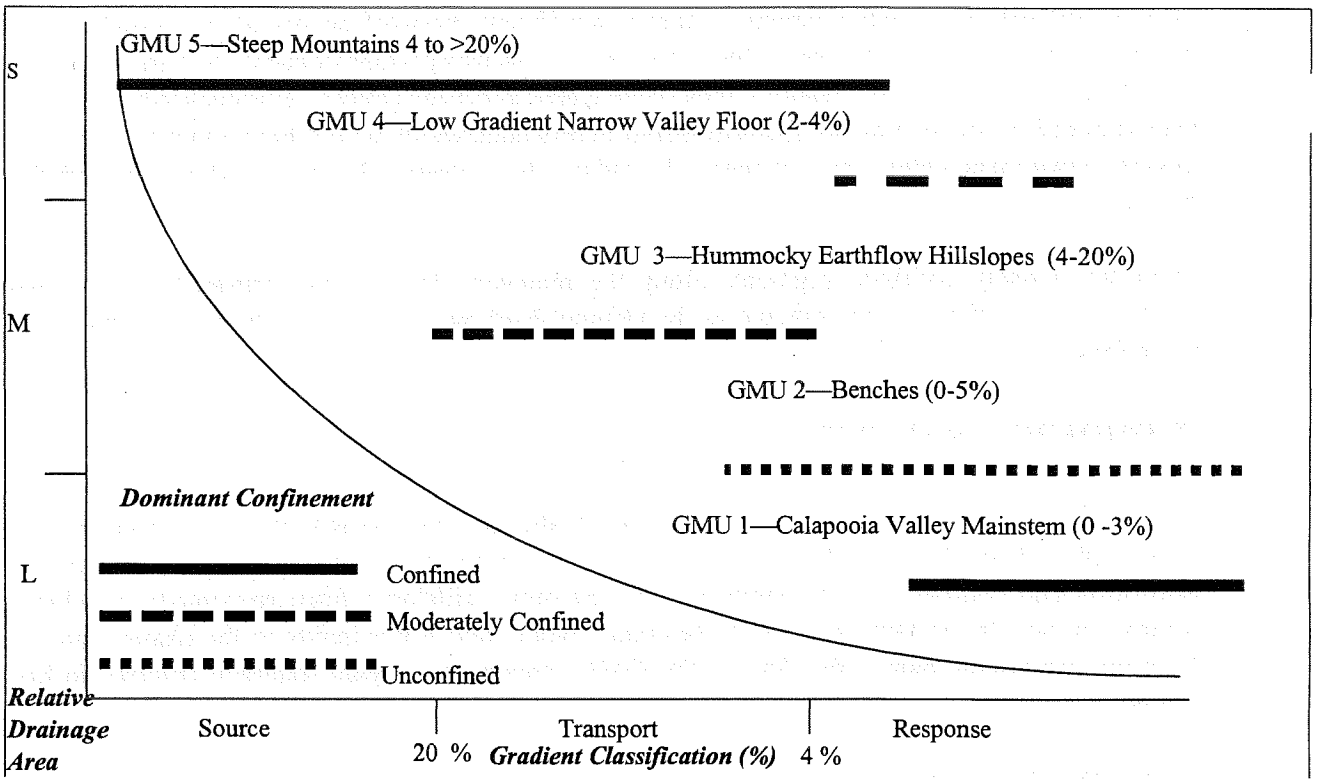
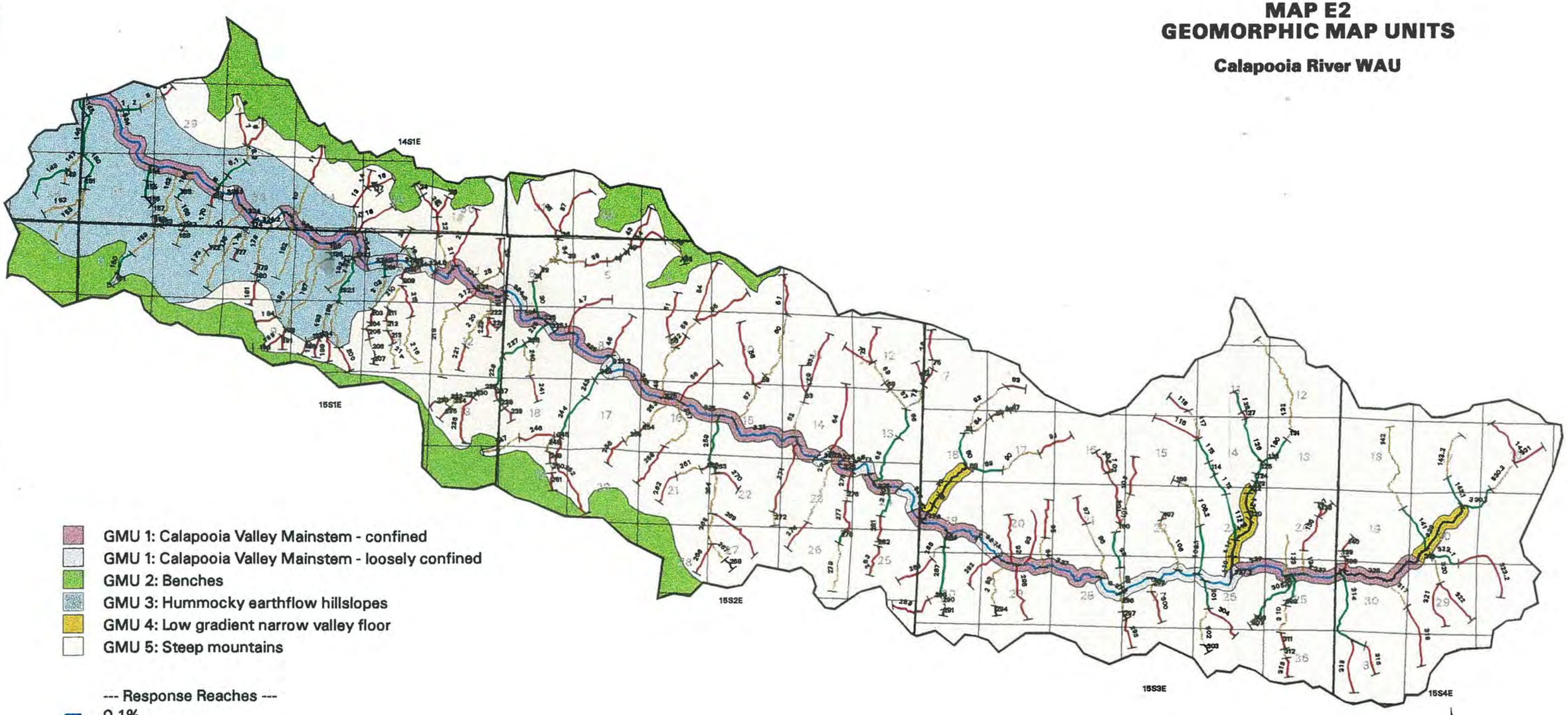


Figure E7 Illustration of five geomorphic map units found in the Calapooia WAU showing relative drainage size (small, medium, and large), gradient classification and confinement.

The five GMUs are illustrated in Figure E8 and individual tables (Tables 2,3,4,5,6; **Forms E6**) present the Geomorphic Unit description and sensitivity justifications.

MAP E2
GEOMORPHIC MAP UNITS

Calapooia River WAU



- GMU 1: Calapooia Valley Mainstem - confined
- GMU 1: Calapooia Valley Mainstem - loosely confined
- GMU 2: Benches
- GMU 3: Hummocky earthflow hillslopes
- GMU 4: Low gradient narrow valley floor
- GMU 5: Steep mountains

--- Response Reaches ---
- 0-1%
- 1-2% (none)
- 2-4%

--- Transport Reaches ---
- 4-8%
- 8-20%

--- Source Reaches ---
- > 20%

1:90000

1 inch = 7500 feet

Map E2 Geomorphic Map Units
Weyerhaeuser
DATE: 08/12/98

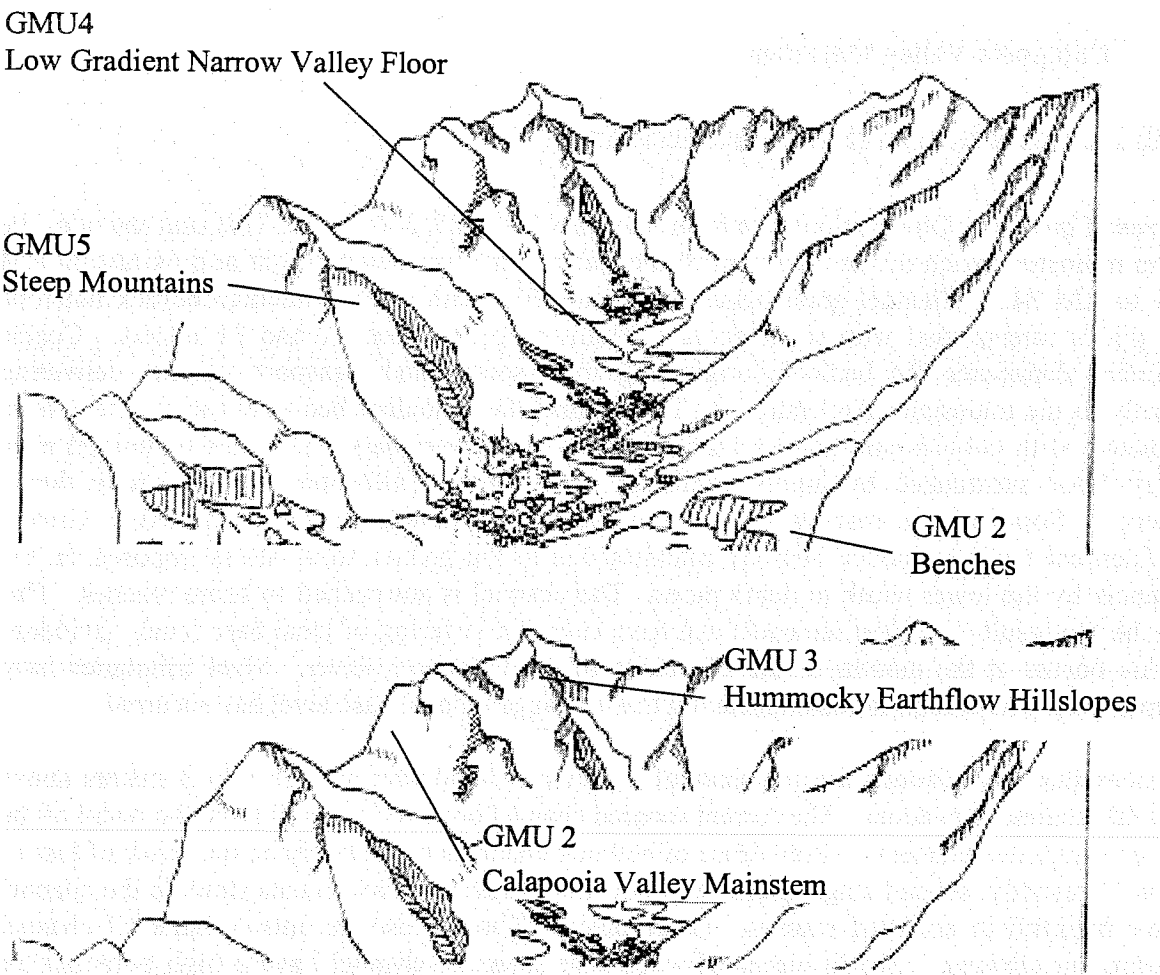


Figure E8 Illustration of the five geomorphic map units (GMUs) found in the Calapooia River watershed.

Descriptions of channel characteristics are separated into current observed conditions and expected conditions. Expected condition is dependent upon the current channel condition but reflects the potential for future change. Changes in watershed processes and channel condition occur as a result of natural or land-use effects and channels may or may not have had recent disturbances. Sensitivities are based on the potential for future change and the expected channel response given the channel characteristics and considering the magnitude, frequency, and distribution of the processes affecting each input factor.

(1) Calapooia Valley Mainstem

GMU 1 Characteristics and Sensitivities Summary

Current Condition: Observation/Data from segments 324, 325, 326, 327.2. This unit includes the entire mainstem reach of the mainstem of the Calapooia River beginning at approximately RM 48.5 to RM 74.5. Channel gradients are between 0-3%, with reaches having bedrock outcrops and glides interspersed with scour pools. Widths range between 11 and 31 meters. Coarse sediment dominates the bedload, originating from source and transport streams delivering directly to the mainstem (Appendix A). The channel has a boulder bed-load (up to 2 to 3 m in diameter) with cobbles and gravels lining margins and gravel bars. The unit is defined by a valley floor surrounded by highly confining steep forested hillslopes with a single thread channel. Some of the reaches are more moderately confined (loosely confined). Greater confinement tends to induce bedrock channels due to the greater shear stress imposed on the channels by the lower width to depth ratios. The channel is entrenched in some reaches. This may be the result of logjam removals that have caused a lowering of local base level. Evidence of this occurs at the mouths of the tributaries of the Calapooia River. Most tributaries have steeper drop-offs at their mouths indicating that a change in local base level has occurred.

Terraces that have formed are remnants of a previous floodplain and lie 1 to 3 meters above bankfull channel elevations. The current scoured channel bed is considered to be the result of the loss of roughness elements. Prevalence of bedrock channels may largely be the result of loss of wood. Presently, several single pieces of wood from previous flood events straddle the channel above bankfull in confined reaches. Large pieces of wood also lie outside bankfull channel margins on terraces. Single pieces of wood that enter the channel have a high potential for floatation and export to lower reaches during floods due to high discharge energy. Currently large wood recruitment and shade ratings are low for the mainstem Calapooia River (Appendix D).

Expected Channel Characteristics:
Sediment: The channel in this GMU is a direct depository for debris torrents that propagate from upstream source and transport reaches. Debris torrents occur episodically from upstream tributaries particularly GMU 5. Sediment retention occurs primarily in the more loosely confined reaches where shear stresses are reduced and sediment deposits in gravel bars. Boulders and meander bends also create sediment retention reservoirs in the more confined reaches. The large drainage area, meaning more stream power with the absence of roughness, may predispose this unit to having bedrock reaches. Bedrock glides are expected to occur intermittently in the GMU as geologic knickpoints. Transport capacity would exceed sediment supply in these reaches because of high shear stresses. Long term sediment storage, either as infrequently mobilized overbank deposits or, more frequently, entrained gravel and sand bars, is therefore limited to localized reaches where increases in valley width, meander bends and/or decreases in slope can encourage alluvial deposition. The stream channel is too wide for single pieces of wood to act effectively in storing sediment except locally, but debris jams could set up and provide an upstream sediment retention area.

Suspended sediment loads readily flush through GMU 1. Transport capacities are high, and most sediment inputs, excluding large boulders, are rapidly routed through unobstructed reaches. Textural patches in the sand size class exist on gravel bars and along channel margins where streamflow patterns induce deposition. Backwater areas in forced-pool reaches would be the most sensitive to fine sediment.

Water: This channel reach has a large drainage area and experiences very high peak discharges. There is little floodplain area available to dissipate energy during high flood stage. Peak flows can modify the channel by scouring pools, moving gravel bars and developing new side channels in the loosely confined areas. In 1996 the Oregon Department of Fish and Wildlife undertook an assessment resurveying 1991 reaches after a 1996 flood event. Their report indicates that a moderate impact of channel modification occurred in 15% of the 1000m reach they resurveyed and 2% of the reach had a high impact in the form of torrent scour (Jones et al, 1998).

Wood: Historically, large in-stream woody debris may have played a more significant role in GMU 1, particularly in the form of debris jams. Fallen trees wedged between boulders could create debris jams and trees falling top-down into the side of the channel could create riffles and provide shelter from fish predators. Overhanging trees and snags would provide cover and shelter for migrating fish. Fallen trees may affect local waterflow patterns and turbulence may affect the sedimentation patterns. Table E2 lists the characteristics and sensitivities to input variables.

Table E2 Characteristics and sensitivities of GMU 1 (Form E6).

GMU 1 Calapooia Valley Mainstem		
Characteristics		
Segments: 324,324.1,324.2,324.3,324.4,324.5,324.6,325,325.1,325.2,325.3,326,326.1,326.2,327,327.1,327.2,328		
Dominant Stream Morphology: 0-3%, response reach, bedrock forced pool riffle and scour pools, (removal of roughness has created plane beds and currently bedrock is evident) ***Dominant Confinement:*** Moderately (loosely) to tightly confined—frequently entrenched ***Dominant Bedload:*** Coarse, fines stored where roughness elements provide formation of sediment reservoirs ***Controlling Geology:*** Sedimentary rocks, tuffs and basalts ***Geomorphic Rationale:*** Mainstem with bedrock steps and scour pools are interspaced with boulder and cobble riffles, 11-31 m wide ***Salmonid Species:*** All species ***Habitat Use:*** Anadromous migration corridor, spawning and rearing for all species ***Land Use Influence:*** Adjacent timber harvest, roads, log driving, stream cleaning, railroad, mining		
GMU 1 Sensitivities		
Input	**Sensitivity**	**Justification**
Coarse sediment	Low in tightly confined Moderate in loosely confined	• Stream energy appears sufficient to carry sediment load • Confinement limits planform shifts from aggradation; however, temporary storage can occur in loosely confined reaches • High deliveries of coarse bedload from upstream source and transport reaches are migrating through GMU 1 • Observed reaches are scoured to bedrock • Gravels well sorted
Fine sediment	Low in tightly confined Moderate in Loosely confined	• High energy, rapid transport through tightly confined reaches, deposition in velocity shadows • Observations that system is processing fines in tightly confined reaches • Fines are evident on margins and gravel bars of loosely confined reaches and fine sediment deposition is possible in localized areas
Peak flow	High in tightly confined Moderate in loosely confined	• Limited potential for planform shift, too confined, bed and banks resistant to erosion, but less confined reaches may respond • Current conditions include pool scour; however, with bank proximal LWD and large boulder roughness, pool scour would decrease. Debris floods possible during floodstage • Bedrock channel present indicating scour • Post '96 Flood study by ODFW indicates channel modification and torrent scour occurred during flood event
LWD	Moderate	• In some places channel widths are 11 – 31 m allowing single pieces to lodge and span channel • Wood deposits are present on terrace/floodplain areas, not in channel • Bank erosion evident, wood needed for bank protection • Snags and tightly wedged debris jams are present and obstruct flow, trap sediment and create pools; pool formation by wood appears on a limited basis • Important as side complexity feature/holding cover for fish and bank protection • Low wood recruitment and low shading cited in Appendix D along the mainstem • High potential for floatation
Catastrophic	Moderate	• Debris flows do not originate in these reaches, but sediment is directly routed into this GMU from upstream transport and source reaches and adjacent tributaries (Appendix A). • Locally, inputs would cause pool filling and gravel bar formation • Dam break floods may occur locally with current debris jam loading

(2) Benches

GMU2 Characteristics and Sensitivities Summary

Current Condition: Observations/No quantative data was collected from these segments. This unit includes the streams within the benches along the lower half of the watershed. Channel gradients are between 0-5%, and widths are between 3 to 5 meters. Because of low gradients and small drainage areas, beaver populations are able to establish themselves in this GMU. The channels are mostly unconfined but moderate confinement occurs in steeper gradients with a step-pool morphology.

Expected Channel Characteristics:
Sediment: This GMU receives few to no inputs from landslides. Coarse sediment inputs are limited. Transport capacity is low, and because of small drainage areas and low slopes fine sediment deposits readily. Sediment input sources include bank erosion and road surface erosion.

Water: The drainage area within this unit is small and peak flows are small. Wider floodplains and beaver ponds aid in dissipating stream energy.

Wood: Historically, large woody debris played a large role in GMU 2. Low discharge and low coarse sediment inputs result in wood playing an important role in pool formation.

Table E3 Characteristics and sensitivities to input variables of GMU 2 (Form E6).

GMU 2 Benches		
Characteristics		
Segments: No segment numbers found in these reaches		
Dominant Stream Morphology: 0-5% pool riffle and step pool ***Dominant Confinement:*** Unconfined to moderate confinement ***Dominant Bedload:*** Gravel ***Controlling Geology:***Basaltic lava flows and andesitic rocks ***Geomorphic Rationale:*** Small sized, low gradient tributaries, with beaver ponds ***Salmonid Species:*** None ***Habitat Use:*** NA ***Land Use Influence:*** Adjacent timber harvest		
GMU 2 Sensitivities		
Input	**Sensitivity**	**Justification**
Coarse sediment	Low	• Coarse sediment could locally cause aggradation and channel braiding with excess upstream inputs, but coarse sediment is not available from upstream sources
Fine sediment	High	• Low gradients capture fines and may cause pool filling • Bank erosion noted along narrow alluvial reaches • Beaver ponds store fines • High fines are present in the geologic material
Peak flow	Low	• Effects from increased peak flows dampened by wider floodplain • Smaller drainages have lower stream power
LWD	High	• Low stream power, pools easily forced by obstructions • High fines in geologic material, wood is primary pool former • Function as bank protection • Channel widths are 3 – 5 m allowing single pieces to lodge and span channel • Currently large wood works effectively to obstruct flow, trap sediment and create pools
Catastrophic	Low	• Inputs from upstream source reaches and tributaries are not available

(3) Hummocky Earthflow Hillslopes

GMU 3 Characteristics and Sensitivities Summary

Current Condition: Observations/No quantatative data collected. GMU 3 is comprised of small tributaries of the Calapooia River that flow through ancient earth flows. They have gradients between 4-20%, which are moderately to tightly confined. The streams in this unit are defined by the undifferentiated tuffaceous sedimentary rocks, tuffs, and basalts which they flow through. The streams have a limited amount of coarse sediment available to them. The channels range from pool-riffle to step-pool and cascade morphology with cobble/boulder roughness elements within the channel, but wood is a primary pool former. Because of lower gradients, transport capacity of coarse sediment is low. Because of the geologic materials, fine sediment is abundant. Stream banks are composed of colluvial fine sediments.

Expected Channel Characteristics:
Sediment: Historically, debris torrents have not occurred in GMU 3. Although catastrophic debris flows are unlikely to propagate through GMU 3, deliveries from adjacent tributaries to this low gradient stream unit are possible. Large inputs of immobile boulders from hillslopes are limited particularly in areas of wider floodplain, which intercepts some of the sediment. Dam–break floods could route through the steeper portions of GMU 3, but none have been documented. No quantitative measurement of sediment entrainment thresholds are available; however, it is fair to assume that much of the boulder–sized material is immobile in this system. Because coarse sediment is less mobile in this reach, high inputs could result in aggradation and pool filling.

Fine sediment deposits easily in GMU 3 because of low gradient reaches and because the geology delivers a high natural background rate. GMU 3 has response reaches where deposits of fine sediment are to be expected, particularly with roughness elements. Fine sediment is readily available from bank erosion.

Water: Peak flows and or frequent high sediment transporting discharges can potentially cause bank erosion in this GMU. Noncohesive banks can widen during peak flows leading to planform changes in channel morphology.

Wood: Woody debris would readily trap bedload and force deeper pools. Large trees recruited from bank erosion and lodged in jams would sort and store storm-derived coarse bedload and create backwater areas. Despite lower gradients, peak flow energy causes hydraulic scour and pool formation. Wood also functions to protect banks and create flow conditions, that keep the gravel clean. A decrease in the supply of LWD has resulted in significant morphological changes such as: pool loss, increased effective shear stress, and conversion to plane-bed morphology. Table E4 lists the characteristics and sensitivities to input variables.

3. Hummocky Earthflow Hillslopes

GMU 3 Characteristics and Sensitivities Summary

Current Condition: Observations/No quantatative data collected. GMU 3 is comprised of small tributaries of the Calapooia River that flow through ancient earth flows. They have gradients between 4-20%, which are moderately to tightly confined. The streams in this unit are defined by the undifferentiated tuffaceous sedimentary rocks, tuffs, and basalts which they flow through. The streams have a limited amount of coarse sediment available to them. The channels range from pool-riffle to step-pool and cascade morphology with cobble/boulder roughness elements within the channel, but wood is a primary pool former. Because of lower gradients, transport capacity of coarse sediment is low. Because of the geologic materials, fine sediment is abundant. Stream banks are composed of colluvial fine sediments.

Expected Channel Characteristics:
Sediment: Historically, debris torrents have not occurred in GMU 3. Although catastrophic debris flows are unlikely to propagate through GMU 3, deliveries from adjacent tributaries to this low gradient stream unit are possible. Large inputs of immobile boulders from hillslopes are limited particularly in areas of wider floodplain, which intercepts some of the sediment. Dam–break floods could route through the steeper portions of GMU 3, but none have been documented. No quantitative measurement of sediment entrainment thresholds are available; however, it is fair to assume that much of the boulder–sized material is immobile in this system. Because coarse sediment is less mobile in this reach, high inputs could result in aggradation and pool filling.

Fine sediment deposits easily in GMU 3 because of low gradient reaches and because the geology delivers a high natural background rate. GMU 3 has response reaches where deposits of fine sediment are to be expected, particularly with roughness elements. Fine sediment is readily available from bank erosion.

Water: Peak flows and or frequent high sediment transporting discharges can potentially cause bank erosion in this GMU. Noncohesive banks can widen during peak flows leading to planform changes in channel morphology.

Wood: Woody debris would readily trap bedload and force deeper pools. Large trees recruited from bank erosion and lodged in jams would sort and store storm-derived coarse bedload and create backwater areas. Despite lower gradients, peak flow energy causes hydraulic scour and pool formation. Wood also functions to protect banks and create flow conditions, that keep the gravel clean. A decrease in the supply of LWD has resulted in significant morphological changes such as: pool loss, increased effective shear stress, and conversion to plane-bed morphology. Table E4 lists the characteristics and sensitivities to input variables.

Table E4 Characteristics and sensitivities to input variables in GMU 3 (Form E6).

GMU 3 Hummocky Earthflow Hillslopes		
Characteristics		
Segments: 1,2,3,5,6.1,6.2,10,12,19,145,146,147,148,149,150,151,152,153,154,155,156,157,158,159,160,161,162,163,164,165,166,167,168,169,170,171,172,173,174,175,176,177,178,179,180,182,183,185,186,187,192,192.1,192.2,193,194,195,199,201,202		
Dominant Stream Morphology: 4-20% step pool and cascade reaches ***Dominant Confinement:*** Moderate to tightly confined ***Dominant Bedload:*** Gravel ***Controlling Geology:*** Sedimentary rocks, tuffs and basalt; soils have a higher component of clay ***Geomorphic Rationale:*** Small-sized tributaries, alluvial terraces localized in reaches, high fine sediment source from deeply weathered parent materials ***Salmonid Species:*** Cutthroat trout. Steelhead use possible in lower ends ***Habitat Use:*** All life history phases of cutthroat trout ***Land Use Influence:*** Adjacent timber harvest		
GMU 3 Sensitivities		
Input	**Sensitivity**	**Justification**
Coarse sediment	Moderate	• Coarse sediment could locally cause aggradation and channel braiding with excess upstream inputs, but upstream inputs are limited • Low gradients, smaller drainages equal lower stream powers which do not process coarse sediments well and could result in pool filling, aggradation, gravel bar formation
Fine sediment	High	• Low gradients capture fines and may cause pool filling • Bank erosion noted along narrow alluvial reaches • Pool filling noted • Geologic influence: streams flow through earth flow materials, soils have high clay contents
Peak flow	Moderate	• Bank erosion possible in localized areas, but smaller drainages have lower stream power and therefore less power to erode banks • Wood dampens peak flow effects • Smaller substrate sizes are prone to entrainment and pool filling
LWD	High	• Low stream power, pools easily forced by obstructions • High fines in geologic material, wood is primary pool former • Function as bank protection • Channel widths are 3 – 5 m allowing single pieces to lodge and span channel • Currently large wood works effectively to obstruct flow, trap sediment and create pools
Catastrophic	Low	• Inputs from upstream source reaches and tributaries are possible, but not present historically; dam break floods might propagate through some reaches

(4) Low Gradient Narrow Valley Floor

GMU 4 Characteristics and Sensitivities Summary

*Current Condition:*Observations/Data from segments 78, 323.1. This unit includes the lower reach of Potts, North Fork Calapooia and the headwaters of the Calapooia River mainstem. Channel gradients are between 2 and 4%. Reaches have bedrock glides and plane beds interspersed with pool-riffles, some step-pools. The unit is characterized by moderate and tightly confined channels. Greater confinement tends to force bedrock beds due to the greater shear stress imposed on the channels by the lower width to depth ratios. Smaller source and transport channels in GMU 5 feed these reaches. The channels are vulnerable to debris torrents (Appendix A) and large wood recruitment from stream adjacent conifers is low in some reaches (Appendix D).

Expected Channel Characteristics:

Sediment: Catastrophic events, generally dam-break floods, can propagate through this response reach. Coarse and fine sediment is readily delivered to these streams. Bank erosion releases sediment from terraced and colluvial channel margins in confined reaches. Transport capacities are high due to larger drainage areas and most sediment inputs, excluding large boulders, are rapidly routed through unobstructed reaches. Fine sediment is rapidly flushed through the system because of a lack of roughness from large wood. Debris jams can create sediment retention reservoirs in this GMU.

Water: Because of confinement, increased discharge may result in flow width and depth expansion with bank cutting. In areas of confinement, pool scour is likely.

Wood: These streams are very sensitive to loss of large roughness elements. Large roughness elements effectively store sediment, creating backwater pools and low velocity shadows because of small channel size, high sediment supply and low gradients. Most pools are currently created by bedrock forced flow convergence (scour pools). Woody debris is important as a roughness element, and is a significant pool former when present. Large single pieces, as well as jams, can be stable and functional in this zone. Table E5 lists the characteristics and sensitivities to input variables.

Table E5 Characteristics and sensitivities to input variables of GMU 4 (Form E6).

GMU 4 Low Gradient Narrow Valley Floor		
Characteristics		
Segments: 77,78,79,110,111,119,120,121,329		
Dominant Stream Morphology: 2-4% response reach, pool riffle (plane bed) ***Dominant Confinement:*** Moderate to tightly confined ***Dominant Bedload:*** Gravel and cobbles ***Controlling Geology:*** Sedimentary rock, tuffs and basalt ***Geomorphic Rationale:*** Moderate sized response reach, 5-8 m wide, which experiences high flows and LWD routed from upstream. Debris jams are possible ***Salmonid Species:*** Steelhead/rainbow trout in tributary reaches of Lower North Fork and Potts Creek, Cutthroat trout throughout ***Habitat Use:*** Spawning and rearing habitat, all life history phases of cutthroat trout ***Land Use Influence:*** Adjacent timber harvest, roads, stream cleaning		
GMU 4 Sensitivities		
Input	**Sensitivity**	**Justification**
Coarse sediment	Moderate in moderately confined Low in tightly confined	• When tightly confined there is limited planform shift, however large inputs of coarse sediment could result in a temporarily braided channel in more loosely confined reaches • Plane bed morphology, 3% gradients, indicate stream energy is sufficient to carry sediment load • High deliveries of coarse bedload from upstream source and transport reaches are migrating through GMU • Gravels well sorted • Bedrock reaches observed in tightly confined reaches
Fine sediment	Moderate	• 2 to 4% gradients rapidly transport fines downstream but fines are present in velocity shadows and in channel margins
Peak flow	High	• Coarse alluvial banks are available for erosion, bank erosion along meander bends is evident • Pool scour is likely, however with increasing roughness (LWD) pool scour could decrease
LWD	High	• Single large pieces may form pools • Pools are forced by LWD • Function as bank protection • Channel width varies, averaging 5-8 m • Large wood was observed providing roughness and creating upstream aggradation, creating pools and changing channel planform
Catastrophic	Moderate	• Low gradient is not conducive to debris flows but can receive them and become a debris flood during floodstage • Debris floods could occur, but could be decreased under conditions when obstructions such as large conifers line the riparian area

(5) Steep Mountains

GMU5 Characteristics and Sensitivities Summary

Current Condition: Observations/Data from segments 30, 49, 56, 57, 78, 95, 96, 98, 112, 138, 225, 243, 259, and 308. Gradients in GMU 5 are generally 4 to greater than 20%. These are transport and source reaches with step-pool to cascade morphologies. Channels are confined between steep hillslopes and bedrock walls. Stable bed-forming particle sizes make cascade channels resilient to alterations in sediment supply or discharge. Channel substrate alternates between bedrock and mobile colluvial bed surfaces. Waterfalls become more numerous toward tributary headwaters. This unit incorporates source segments (>20% gradient) in tributary headwaters as well as lesser sloped transport stream segments. Fluvial form is generally weak and colluvial processes frequently dominate channel character. Debris flows and dam break floods have scoured stream channels in this GMU (Appendix A). Large wood recruitment and shade are considered low in many of GMU 5 stream reaches (Appendix D).

Expected Channel Characteristics:
Sediment: Landslide delivery and remobilization of colluvium and alluvium in storage along the streams occurs episodically. Debris torrents originate in this GMU and route through lower gradient reaches, typically as dam-break floods. Sediment of mixed sizes is delivered directly to the mainstem (GMU 1) from these transport reaches. Colluvial rockfall and erosion from steep stream adjacent hillslopes is common in this steep mountainous zone and provides important boulder roughness to the channels. Transport capacities are high and most sediment inputs, excluding large boulders, are rapidly routed through unobstructed reaches. Burial of cascade channels by debris flow deposition is generally short-lived, as these high-energy channels excavate rapidly. With decreases in discharge, a decrease in the average grain size is likely to occur, but bed-forming cobbles and boulders remain essentially static. Fine sediment is rapidly routed through this GMU.

Water: Because of tight confinement, the width and depth of the channels respond rapidly to high flows by overflowing their resilient banks. Peak flows generally do not make significant bed roughness changes.

Wood: Debris jams are present at constrictions but because of tight confinement, wood does not play an important role in channel morphology except where the jams have created large sediment deposition areas in lower gradients (<8%). Steep gradients and tight confinement lead to dam-break floods and scour of the bed channel. Single pieces of wood wedged between boulders create stairsteps, but boulders are more likely to provide this function. Table E6 lists the characteristics and sensitivities to input variables.

Table E6 Characteristics and sensitivities to input variables in GMU 5 (Form E6).

GMU 5 Steep Mountains		
Characteristics		
Segments: 4,7,8,9,11,13,14,15,16,17,18,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108.1,108.2,109,112,113,114,115,116,117,188,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136,137,138,139,140,141,142,143,143.1,143.2,144,181,184,188,189,190,191,196,197,198,200,203,204,205,206,207,208,209,210,211,212,213,214,215,216,217,218,219,220,221,222,223,224,225,226,227,228,229,230,231,232,233,234,235,236,237,238,239,240,241,242,243,244,245,246,247,248,249,250,251,252,253,254,255,256,257,258,259,260,261,262,263,264,265,266,267,268,269,270,271,272,273,274,275,276,277,278,279,280,281,282,283,284,285,286,287,288,289,290,291,292,293,294,295,296,297,298,300,301,302,303,304,305,306,307,308,309,310,311,312,313,314,315,316,317,318,319,320,321,322,323.1,323.2,330.1,330.2,331		
Dominant Stream Morphology: 4 to >20%, transport reaches, coarse bedded step-pool and cascade morphology ***Dominant Confinement:*** Tightly confined ***Dominant Bedload:*** Gravel, cobble ***Controlling Geology:*** Sedimentary rock, tuffs and basalt ***Geomorphic Rationale:*** Moderately sized tributary channels with boulder forced-pools interspaced with bedrock, recorded widths range between 4.2 – 8.5 m. Debris flows are frequently routed as dam break floods into lower reaches. Debris jams currently create lower gradient reaches ***Salmonid Species:*** Cutthroat trout, steelhead in lower U.S. Creek and maybe other tributaries ***Habitat Use:*** All life history phases of cutthroat trout, some steelhead spawning and rearing ***Land Use Influence:*** Adjacent timber harvest, roads		
GMU 5 Sensitivities		
Input	**Sensitivity**	**Justification**
Coarse sediment	Low	• Moderate confined areas experience planform shifts from aggradation; temporary storage can occur, filling pools • Boulders line margins of channel and stream energy appears to be sufficient to carry sediment load • High deliveries of coarse bedload from upstream source and transport reaches are migrating through GMU 5
Fine sediment	Low	• High energy, rapid transport to lower reaches, deposition in velocity shadows is expected • Inputs include erosion from stream adjacent hillslopes
Peak flow	Low	• Limited potential for planform shift, mostly too confined and bed and banks resistant to erosion • Little evidence of damage from peak flow • Low drainage areas • Stream flows expand and contract over resilient channel bed
LWD	High in lower gradients Moderate in gradients >8%	• Can span channel and wedge debris jams, working effectively to obstruct flow, trap sediment and create pools in lower gradient channels (<8%) • Debris jams effectively create pools and trap sediment • Boulders are primary pool former in all gradients, but in lower gradients wood could force larger pools
Catastrophic	High	• Dam break flood could affect channel; confined, moderately steep in deposition zone of debris torrents • With the return of large diameter riparian conifers, dam break flood potential would be reduced by large trees holding back debris

CHANNEL RESPONSE TO LAND USE

High confinements, relatively high gradients and downstream increases in channel size translate to relatively high sediment transport capacities in this system. Changes in runoff from roads and a reduction of root strength on harvest units influence sediment storage on hillslopes which may contribute to an increase in landslides. Stream surveys, anecdotal evidence, and air photo analysis show a large channel response to debris flows (natural and management related). This indicates a high sensitivity to catastrophic effects in GMU 5. Although coarse sediment is delivered to the stream system, and it temporarily sets up, the high energy in the streams readily reworks and routes coarse sediment.

Surface erosion from roads provides a chronic source of fine sediment to the streams but is flushed through the system quickly. Geologically, GMU 3 is naturally high in fine sediment and streams exhibit sensitivity to fines in this unit. Despite the management–induced fine sediment inputs imposed on the channels (>50% of background in some sub-basins – see Appendix B, Surface Erosion Assessment), observed pool tail–outs and riffle substrates in these large response reaches did not contain unusually high volumes of fine sediment. Storage of fine sediment in backwater areas and at channel margins occurs throughout the watershed as expected. Road erosion was found to contribute to fine sediment loads as turbidity and may form a component of stored alluvium in very localized reaches.

GMUs 1 and 4 are sensitive to peak flows. These are lower gradient response reach units, which have relatively large drainage areas and frequently have confined reaches within them. Given the high energy and rapid transport through tightly confined reaches, it is expected that pool scour may occur. Stream banks are also prone to bank erosion given the high shear stresses imposed on them during bankfull flows.

Most channels are sensitive to the gain or loss of roughness elements, whether that roughness is provided by the bed, the banks, or particles like woody debris and boulders. Form roughness was found to contribute to pool formation in GMUs 1, 2, 3, and 4, but additional woody debris is particularly important as a roughness element in aiding and inducing sediment storage and pool formation. Some degree of bedrock exposure may be expected in these channels. However, it is assumed that large wood removal during the log drives in the early 1900s, fish barrier removals in 1959 and more recent events (e.g., debris torrents and localized stream cleaning) have increased the frequency of bedrock exposure. The loss of in-channel LWD is therefore inferred to have decreased pool/riffle ratios, residual pool depths, and alluvial sorting and storage volumes. Currently, large wood recruitment and shading is considered relatively low for GMUs 1, 4 and 5.

HABITAT FORMING PROCESSES

Some important physical factors that affect fish survival are water temperature, water velocity, availability of escape cover, annual discharge of the stream (flow regime) and pool volume (both the number of pools, and size). Following is a description by GMU of the geomorphic processes controlling channel morphology relevant to the creation of fish habitat.

GMU 1—Upstream and downstream migration, fall Chinook spawning and rearing require deep pools, cover and gravels. High discharge velocities have formed bedrock pools good for juvenile rearing, although refuge cover within these pools is low. Side channels are relatively rare primarily because the mainstem channel has long stretches of entrenched reaches. Scoured bedrock is visible along the margins. Stream cleaning and log drives have removed wood and have contributed to the development of a scoured channel. Logging adjacent to the stream has reduced recruitment potential into the stream. Few overhanging banks and little overhanging vegetation is available for cover and refuge habitat for fish. Loss of roughness has occurred through confined reaches because of high shear stresses reducing available spawning gravels. Less obstruction to high flows also increases the potential for redd scour. Coarse and fine sediment is delivered directly from source and transport reaches through debris torrents and in the more loosely confined areas that are not entrenched, sediment stays around for longer periods of time supplying good spawning gravels on pool tailouts.

GMU 2—No fish.

GMU 3--Cutthroat trout live in pools and spawn in gravel patches and steelhead use is possible on the lower ends of these streams. Channel simplification through the removal of LWD has reduced the size and number of pools and reduced the number of good gravel bar tailouts suitable for spawning. Coarse sediment is limited in this GMU and wood is the primary pool former. There is a high natural background rate of fine sediment production in this GMU from the geologic substrate. Fine sediment may fill pools locally and turbidity, particularly during the winter rearing season, may be higher in GMU 3 than in other GMUs found in the WAU, although it does not appear to be a significant problem.

GMU 4—Steelhead and rainbow trout in Lower North Fork and Potts Creek and Cutthroat trout throughout, use this GMU for all life history phases. Spawning and juvenile rearing requires pools, cover and gravels. Channel simplification through the removal of LWD has reduced the size and number of pools and reduced the number of good gravel bar tailouts suitable for spawning. Historically, stream adjacent timber was cut and large wood recruitment potential has been reduced. A loss of roughness has increased stream velocities which increases redd scour potential. Frequently, bedrock glides exist where roughness (wood) has been removed. A general reduction in vegetation along banks has reduced bank stability and the number of undercut banks useful for fish protection from predation. The channels have received and routed debris torrents which have left large volumes of coarse sediment within and outside the channel margin. Finer sediments and gravels needed for spawning are limited despite lower gradients found in GMU 4 because of large drainages and high stream power. Pieces of large wood routed from upstream source areas during the debris torrents are frequently outside the channel margin on terraces or hillslopes and are not available to induce morphologic changes to the stream channel to increase fish habitat complexity.

GMU 5—Cutthroat trout and steelhead in the lower portions of U.S. Creek, require habitat for all life history phases. Spawning and juvenile rearing habitat requires pools, cover and gravels. Channel simplification with the removal of LWD has reduced the percent of cover available for protection of fish, reduced pool size and number. Logging has removed stream adjacent timber and recruitment of large wood potential is drastically reduced. Catastrophic flows transported through many of these reaches may scour the channel bed, reducing pool numbers and volumes and available spawning area. Large wood recruitment has been reduced by historic streamside harvests. Waterfalls, cascades and debris jams are natural barriers to fish passage and several fish populations are isolated in this GMU. Large accumulations of sediment from debris torrents create low flow barriers during the summer. No fish are present in the steeper stream reaches of this GMU.

The relationship of Geomorphic Map Units to fish distribution, and discussion of current habitat issues and concerns is presented in Appendix F, Fish Habitat Module.

CONFIDENCE IN WORK PRODUCTS

Stream Channel Partitioning

Measuring reach average gradients from topo maps (using DEMs) is generally acceptable and is given a moderate call in confidence for reliability. However, differences in resistance in the geologic materials creates much gradient variability as the streams erode through short sections of parent material with different resistance to erosion. Also, intermittent changes in long profile character are usually not resolved on the 1:24,000 scale topographic maps and only a broad profile is captured. Organic steps (wood jams) found in the channels also significantly reduces unit–level gradients from those derived from the topographic maps.

Field Assessment of Current Channel Condition

Weyerhaeuser and ODFW channel segment surveys were utilized during GMU determination, though many more segments were visited and field observations noted. For those segments where data was collected, surveys covered a small fraction of total segment length, and issues such as accessibility, which was influenced by road crossings, occasionally drove selection of survey sites. Field survey data was not used exclusively to create the Geomorphic Map Units, but was utilized as an aid in defining unit boundaries and sensitivity descriptions. Data supplied by ODFW was consistent with observations and added to overall confidence. There is a high confidence call in assessing current channel condition.

Historic Conditions

Data on channel condition in the WAU prior to forest management activities consist of air photo interpretation, General Land Surveys, documents and interviews. Reconstruction of channel conditions, as well as the pre–management style and function of woody debris, is based loosely on inferred stand conditions and morphologic attributes that can affect wood function and routing, such as channel size. Observations from aerial photos are good on the larger mainstem, where changes in channel storage of sediment is visible. Identifying features in confined channels is not possible due to the scale of the air photos. Vertical adjustments of channel beds are difficult to identify and impossible to quantify using photos. Old photographs aided in identifying early harvest patterns and potential affects to the stream channel. Interviews validated air photo interpretation. The 1800s General Land Surveys gave indications of channel condition before harvest. There is high confidence in identifying the historic trends of the watershed.

Geomorphic Map Units

Confidence in the level of extrapolation, the scale of each GMU, and the inferred sensitivities assigned is moderate to high. Numerous observations were made in most GMUs. The moderate confidence call occurs because delineating the location of gradient boundaries and overlying this with geologic influence within GMU 5 is a little uncertain. Boundaries between different gradients was problematic since the current condition of the channels pushed channel types into gradient ranges outside their typical designation. This created a GMU which had gradients from 4% to >20%.

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ATTACHMENT E1-E4

Forms

FORM E1 Segment Distribution: Calapooia River

UNCONFINED VW > 4CW						
MODERATELY CONFINED 2CW < VW < 4CW			110,111,119,120,121	112,122		
CONFINED VW < 2CW	230,324,324.1, 324.2,324.3, 324.4,324.5, 324.6,325, 325.1,325.2, 325.3,326,326. 1,326.2,327, 327.1,327.2		77,78,79, 156,194,328 ,329	1,2,5,6.1,30,32,46,65,66, 80,89,99,108.1,113,114, 115,123,124,125,126,128, 129,130,141,143.1,145, 146,148,150,151,154,155, 160,165,186,192.1,201, 225,226,227,228,242,243, 244,259,263,	3,6.2,8,10,12,19,21,24,26,28,31, 33,34,36,38,42,45,49,50,53,57, 60,62,67,69,72,75,81,82,84,86, 88,90,94,96,98,100,104,106,108 .2,117,131,132,133,134,139,142 ,143.2,147,149,152,153,157,159 ,161,162,164,166,168,170,171, 173,174,175,176,178,180,182, 183,185,187,190,192.2,193,195, 199,202,204,206,209,210,212, 214,216,218,219,220,222,229, 231,232,234,238,240,245,247, 248,250,253,255,257,261,264, 265,267,272,273,276,279,282, 285,288,290,293,296,299,302, 307,310,312,317,319,320,330.2	4,7,9,11,13,14,15,16,17,18,20,22,23, 25,27,29,35,37,39,40,41,43,44,47,48, 51,52,54,55,56,58,59,61,63,63.1,64, 68,70,71,73,74,76,83,85,87,91,92,93, 95,97,101,102,103,105,107,109,116, 118,127,135,136,137,138,140,144, 158,163,167,169,172,177,179,181, 184,188,189,191,196,197,198,200, 203,205,207,208,211,213,215,217, 221,223,224,233,235,236,237,239, 241,246,249,251,252,254,256,258, 260,262,266,268,269,270,271,274, 275,277,281,283,286,289,291,292, 294,295,298,300,303,304,306,311, 313,315,316,318,321,322,323.2,331
	<1.0 % Pool–Riffle	1.0–2.0 % Pool–Riffle, Plane–Bed	2.0 – 4.0 % Plane–Bed, Forced Pool–Riffle	4.0 – 8.0 % Step–Pool, Forced Step–	8.0 – 20.0 % Cascade	>20.0 % Colluvial
	Gradient and Potential Reach Level Channel Morphology					

Form E2 Channel Disturbance Worksheet

Channel response reaches	Photo year	Observations
Mainstem of Calapooia River	1946	Photo year incomplete. Logging along the mainstem of the river.
	1967	High reflectance—coarse sediment deposition seen in gravel bars and channel braiding in loosely confined areas
	1978	Inputs occur and are visible in the loosely confined areas as gravel bars
Potts Creek	1946	Harvested along mainstem of trib.
	1949	Harvesting has occurred and a streamside road exists. Riparian vegetation is gone. High reflectance indicates sediment in channel
	1967	Harvesting continues in headwater areas. Debris torrent appears to have scoured out Potts Creek channel, widening riparian area
	1978	Riparian area along the mainstem of the trib has well vegetated riparian area
	1987	Well vegetated
North Fork	1946	Harvested along mainstem, stream has no riparian canopy, high reflectance—appears sediment laden
	1949	Logging has occurred up the mainstem. The channel has lost riparian canopy. It appears the channel has experienced recent sediment inputs. The channel appears braided/high reflectance indicates sediment inputs are high. Stream adjacent roading
	1967	Harvesting has occurred in headwaters—possible debris torrent has scoured and deposited coarse sediment along the channel
	1978	Riparian area vegetated—stream not evident
	1987	Well vegetated
King Creek	1949	King Camp is visible at the western side of the creek. Shacks are visible on photos, High reflectance along the mainstem appears to be coarse sediment load
	1967	Debris torrent has caused the mainstem channel to move about
	1978	Trib mainstem has lots of sediment deposits. The riparian canopy is returning
Hands Creek	1946	Old growth
	1949	Debris torrent appears in mainstem of trib
	1978	Riparian area well vegetated
	1987	Well vegetated

Form E3 Field Sites Visited

Seg.	Survey	Recon	Stream	Selection Rationale
30	x		Bigs	Check geologic signature in stream, assess fines routing, access
56		x	Unnamed below Washout	Recon smaller drainage discharge and resulting channel morphology
57		x	Washout	Observe 1996 storm event debris torrent stream in this system
79	X		Potts	Observe stream not debris torrented in 1996 storm event, bank cutting, check bedload
96	X		Unnamed near King	Check for geologic changes, GMU designation
98	X		King	Check for confinement in moderate sized transport drainages
112	X		North Fork	Check channel morphology in medium drainage response reach
138		x	Unnamed	Geologic or land use signature in Forest Service stream system
229	X		Blue	Check for confinement and in stream wood
243	X		McKenzie	Compare bedload to other tribs
259	x		McKinley	Observe how channel is processing sediment, access
308	X		U.S.	Check if Forest Service stream has more wood, less impacted from recent land use activities
324	X		Mainstem	Review GMU designation confinement calls and particle size
324.1	X		Mainstem	Land use and log drive signature
325	X		Mainstem	Check condition of riparian canopy along the mainstem
326	x		Mainstem	Review GMU designation, assess fines routing, check bedload
327	X		Mainstem	Check LWD function assess debris torrent inputs
328	x		Mainstem	Make observations about channel under Forest Service management

Sites delineated with surveys include one or more of the following types of data: bankfull width and depth; pool-riffle tally; and LWD tally. Other sites were reconned in the field and qualitative observations noted.

Segment #: 1230 Date: 4-4 FORM 1 & 7

Gradient: 8-10 Location: McKenzie

Confinement: TC Crew: EB, JH

Segment # 243

	Distance (m)	Unit Type	Pools: Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rlc Dpth (m)	Forming Agent	% Cover	Substrate: Dominant Substrate	Subdominant Substrate	Spawning Gravel	Dom/Second/Negl/Outside: LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
1	28	P	4½	4½	4⅝	0.50	0.15	LWD	10	Gr	B	R	1	1							6.5
2	61	R								B	–	–									
3	95	P	1.1	1.8	1.4	0.55	0.12	BDr	20	Gr	B	R	1	4			1	4			
4	254	R								B	Gr	–									
5	297	P	3.5	3.6	3.7	0.50	0.20	BLDr	<5	Gr	B	R								40	
6	335	R								Gr	C	R									
7	337	P	3.2	3.7	3.7	0.50	0.15	BLDr	<5	Gr	B	R									
8	394	P	2.7	2.5	2.6	0.50	0.20	BLDr	<5	Gr	C	R					1	4			
9	445	R								Gr	B	–									
10	495	P	1.8	2.0	2.1	0.50	0.15	BLD	<5	Gr	B	R									
11	705	R	2							Gr	C	–					1	2			7.5
12	733	P	2.8	2.9	2.6	0.40	0.10	LWD	20	C	Gr	R					1	1		73	
13	785	R								Gr	C	RA									
14	912	P	4.6	3.1	1.5	0.60	0.20	BR	<5	BR	Gr	R									
15	987	R								C	BR	–									
16	110	P	2.5	3.2	2.6	1.10	0.15	BDr/BR	20	BR	Gr	R			1	4	2	3/4			
17	1345	R								B	Gr	R			1	3	1	2			
18	1405	P	1.1	1.0	1.0	0.60	0.20	BLDr	20	Gr	B	RA									
19	1443	P	2.5	1.8	1.6	0.45	0.25	BLDr	<5	Gr	B	A									
	1562	R								GR	B	A					1	2		81	7.1

5 functional

Barriers NONE

Bank characteristics erosion/undercuts 80% of the survey reach had eroding BANKS, MOST LIKELY occured during LAST event

Evidence of debris torrents/floods - channel HAS HAD DEBRIS torrent occur w/in recent years (96') roughly 2 m OF AGGRADATION

Nature of LWD function/singles, jams - pool (lateral scour) formation, limited plunge pool form

Sensitivity to coarse sediment - LARGE QUANTITIES OF AGRADED UNSORTED COARSE SEDIMENT W/ IN BFW - channel is cutting through deposition

Evidence and sensitivity of fine sediment deposition - LARGE AMOUNTS OF FINES IN DEBRIS DEPOSITIONAL AREAS - stream seems to be processing FINES ADEQUATELY, SOME DEPOSITION IN POOL MARG

Are there terraces, height/matrix hillslope BOTH BANKS

Condition of Riparian vegetation/cut oldgrowth trees/downed logs MMD

Dominant channel and habitat forming processes - STEP POOL (MOST STEP-POOL too SMALL for 4 pools)

Beaver – NO –

Gravel Bars - MANY *UNSORTED DEBRIS FLOW DEPOSITION

ling limited to pool bottoms ; non q pools w/in RIFFLE units - REMAINING Resident only

Rearing slow water habitat ABUNDANT w/in steps

Fish Movement several 10-20 cm drops may provide moderate impediment

Segment: LOL Date: 7-30-14

Gradient: 5-7 Location: N Fork

Confinement: MC Crew: EB JH

14.5°

Segment # 112

			Pools							Substrate			Dom/Second/Negl/Outside								
Unit	0 Distance (m)	Unit Type	Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Dominant Substrate	Subdominant Substrate	Spawning Gravel	LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
1	85	P	1.2	1.2	1.0	0.45	0.10	LWD	40	Gr	C	R/A	6	4	2	4	1	4			6.5
2	204	R								C	Gr	—	1	3			1	3			
3	25	P	3.5	3.2	3.4	0.45	0.15	LWD	30	Gr	B	R/A	4	4	1	1	2	3			
4	68.5	R								Gr	C	R/A	14	3/4			2/1	3/2			
5	71.3	P	2'	2.2	2.0	0.45	0.12	LWD	30	Gr	C	R/A	8	4	2	1	1	3			
6	84.7	R								Gr	C	A	3	4							
7	88	P	3.3	3.0	3.5	0.35	0.10	Bldr	<5	Gr	B	R/A									
8	110.4	R								Gr	C	A					1	2			
9	118	P	3.4	2.8	2	0.70	0.40	LWD	20	Gr	B	R/A	2	3	2	1				87	7.3
10	120.1	R								C	—	—									
11	127	P	3.3	3.0	2.2	0.40	0.15	Bldr	<5	B	S	R					1	2			
12	128.8	P	2.0	1.3	1.7	0.40	0.15	Bldr	<5	B	Gr	R									
13	160.2	R								Gr	B	R/A	1	3			3	0			
14	163	P	1.6	2.0	2.1	0.40	0.10	Bld	<5	Gr	C	R/A								88	6.3
15																					
17																					

Barriers: LARGE JAMS @ BOTTOM OF REACH & functional

Bank characteristics erosion/undercuts: BANKS unstable, channel entrenched, Recent erosion, cutting, widening

Evidence of debris torrents/floods: STREAMSIDE ALDERS HAVE BEEN UPROOTED & channel appears to have WIDENED 2-3 m during the last storm event (96?), channel is cutting through deposits

Nature of LWD function/singles, jams: Large pieces form scour/steps, infrequent. Recent recruitment of ALDERS have no impact on BED deformation

Sensitivity to coarse sediment: moderate → high, ABundant coarse gravels in BARS.

Evidence and sensitivity of fine sediment deposition: Channel seems to be processing fine sediment adequately

Are there terraces, height/matrix: LOW TERRACE (1-3 m) LB, RB, hillslope to RB @ gradient break @ top of sample reach

Condition of Riparian vegetation/cut oldgrowth trees/downed logs: M, M/S, D

Dominant channel and habitat forming processes: FORCED POOL RIFFLE (WOOD PRESENT) PLANE BED (WOOD ABSENT) STEP POOL AT GRADIENT >6% (ENDED REACH @ GRADIENT BREAK)

Beaver: N/A

Gravel Bars: LATERAL BARS OF WELL SORTED, FINE MATERIAL

Spawning: Abundant in pool tail out, RUNS, glides

Rearing: limited to the few pools present

Fish Movement: unobstructed

Segment #: [illegible] Date: 7-2-11

Gradient: 10-12% Location: Little Kingle

Confinement: [illegible] Crew: EB, IH Segment # 9/6

0 - Out of Channel 2) Less than 25 11 3) Negligible 4) Out of Channel

	Distance (m)	Unit Type	Pools: Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Substrate: Dominant Substrate	Subdominant Substrate	Spawning Gravel	Dom/Second/Negl/Outside: LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
1	3 3	P	3 1	3 2	3 1	0 45	0 05	LWD	5	S	B	–			2	1/2				45	4 1
2	7 5	R											3	3	8	3		4			
3	9 9	P	1 3	1 2	1 1	0 45	0 15	LWD	20	Gr	C	R					3	3/4			
4	11 1	R										–			1	1	2	1			
5	13 3	P	0 6	1 1	0 1	0 4	0 1	LWD	10	G	–	–					2	0/4			
6	43 2	R								Gr	B	–									
7	44 4	P	1 80	1 80	1 80	0 30	0 05	Bldr	<5	Gr	C	R/A			1	0					
8	61 1	R								Gr	C	–	1	0			1	0			
9	63 9	P	1 1	1 20	0 70	0 35	0 10	Bldr	15	Gr	C	R/A			1	4					
10	65 6	R								Gr	Bl										
11	67	P	1 20	1 50	1 35	0 40	0 10	Bldr	5	Gr	C	R/A								16	
12	89 0	R								Gr	C	A					4	3/0			8 0
13	91 3	P	0 4	0 2	0 1	0 35	0 10	LWD	20	Gr	B	R/A					2	1/2			
14	118 9	R								Gr	B	A					5	0/			
15	123 0	P	1 30	0 8	1 70	0 30	0 05	Bl	40	Gr	R	R/A					1	4			
16	126 9	R								Gr	C	R/A									
17	129 8	P	1 6	1 5	2 1	0 30	0 05	Bld	0	Gr	B	R/A								34	5 6

11 functional

rs CULVERT PASSABLE

Bank characteristics erosion/undercuts ERODING BANKS = 80% OF SURVEYED REACH

Evidence of debris torrents/floods Evidence of debris flow recently (PAST winter?)

Nature of LWD function/singles, jams LARGE RESIDUAL PIECES FUNCTION AS BANK STABILITY

Sensitivity to coarse sediment HIGH

Evidence and sensitivity of fine sediment deposition some intrachannel accumulation of fines in pool bottoms

Are there terraces, height/matrix Entrenched as channel works through debris flow deposition

Condition of Riparian vegetation/cut oldgrowth trees/downed logs - conifer, deciduous, small

Dominant channel and habitat forming processes channel has just begun to work through abundant coarse sediments deposited by debris flow

Beaver N/A

Gravel Bars SCARCE, MOST material unsorted

Spawning limited to pools (Residents)

[illegible]ring = pool area

Fish Movement undistributed

VEGETATION - ABUNDANT AUTOCHTHONOUS PRODUCTION

18°C = STREAM TEMP

Segment #: [illegible] Date: [illegible]

Gradient: 8-10 Location: King CR

Confinement: TC - MC Crew: EB, JH

F: 1 (>75%), 2 (<75%) 3 (NE) 4 (ZONE 4

Segment #98

Unit	Distance (m)	Unit Type	Pools: Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Substrate: Dominant Substrate	Subdominant Substrate	Spawning Gravel	Dom/Second/Negl/Outside: LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
1	4.2	P	1.5	1.4	1.3	0.4	0.12	Root	15	GR	C	R/A								90	8.4
2	6.9	R								Gr	C	R/A					•	0/			
3	11.5	P	2.1	2.4	2.0	0.45	0.10	Bldr	10	Gr	C	R/A									
4	18.3	P	1.5	2.0	1.1	0.42	0.15	Bldr	<5	Gr	C	R/A									
5	33.4	R								Gr	C	A			•	4					
6	36.9	P	2.12	1.90	1.50	0.50	0.20	Bldr	<5	Gr	C	A					•	3			5.5
7	41.4	R								C	B	-									
8	48.5	P	2.5	2.1	2.1	0.50	0.12	Bld	<5	Gr	C	R/A									
9	54.4	P	3.1	2.1	2.0	0.50	0.15	Bldr	<5	Gr	C	R/A									
10	72.5	R								B	G	R/A					•	4			
11	79.1	P	3.8	4	2.5	0.50	0.10	Bld	10	Gr	B	R/A				(1)	2	2/3		85	
12	101.3	R								Gr	B	R/A							3		
13	103.3	P	1.5	0.70	0.40	0.45	0.10	Bld	15	B	C	-									
14	109	R								Gr	C	R/A									
15	113	P	1.60	2.10	1.0	0.40	0.15	Bld	20	Gr	B	R/A									
16	122	R								Gr	C	-					3.	1/2			
17	123.4	P	2.4	2.2	1.7	0.45	0.15	Bldr	60	C	Gr	R/A									
18	127.9	R								Br	C	R/A		1	3		1	2			
19	133.6	P	1.9	2.4	2.1	0.40	0.10	Root	20	Gr	S	R									
20	135.4	R								Gr	-	R	1	3	1	4	2	2/6			

Notes: CULVERT HAS 1' DROP @ BOTTOM, 7 functional

Bank characteristics erosion/undercuts: SOME ERODING BANKS, LWD PROVIDES ARMORING. STABALIZED CHANNEL DURING HIGH FLOWS.

Evidence of debris torrents/floods: ABUNDANT ACCUMULATION OF COARSE SEDIMENT - COVERS BASE OF ALDER IN LM

Nature of LWD function/singles, jams: BANK stability enhanced by large, residual pieces. MAY HAVE MINIMIZED/DIMINISH COARSE sediment movement during 96 flood

Sensitivity to coarse sediment - C. Sediments are abundant immediately U/S of road x-ing & throughout sample reach

Evidence and sensitivity of fine sediment deposition: NOT Significant

Are there terraces, height/matrix: terrace (low) RB, LB = hillslope

Condition of Riparian vegetation/cut oldgrowth trees/downed logs: LARGE RESIDUAL CUT PIECES ALONG BANKS, ALSO ZONE 4 RIP. VEG = MEDIUM (12-16 dbh) SIZE DECIDUOUS, DENSE within BUFFER

Dominant channel and habitat forming processes: CASCADE, STEP POOL

Beaver: NO DAMS, some chewed branches evident

Gravel Bars: MEDIAL BARS, well sorted, small-medium GRAVEL

Spawning: in pools & riffles

Rearing: pool ABUNDANT, some SIDE channel pooling

Fish Movement: PASSAGE immediately U/S of culvert Restricted by large SEDIMENT DEPOSITION

NOTE: FRAME #1, ROLL J1, Frame 2 16%

Segment #: 200 Date: 12 17 Page 2

Gradient: 8-10% Location: KING

Confinement: MC Crew: EB, JH

#98

			Pools							Substrate			Dom/Second/Negl/Outside								
Unit	Distance (m) 135 →	Unit Type	Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Dominant Substrate	Subdominant Substrate	Spawning Gravel	LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
21	141.5	P	1'	1.2	1.0	0.49	0.13	LWD	80	GR	C	R/A			1	1	1	1			
22	150	R								C	B	–			3	4	1	0			
23	158	R*								Gr	B	R/A									
24	162	P	3'	3.2	2.9	0.56	0.10	LWD	35	Gr	B	R/A								89	8.5

* STEPS

Barriers

Bank characteristics erosion/undercuts

Evidence of debris torrents/floods

Nature of LWD function/singles, jams

Sensitivity to coarse sediment

Evidence and sensitivity of fine sediment deposition

Are there terraces, height/matrix

Condition of Riparian vegetation/cut oldgrowth trees/downed logs

Dominant channel and habitat forming processes

Beaver

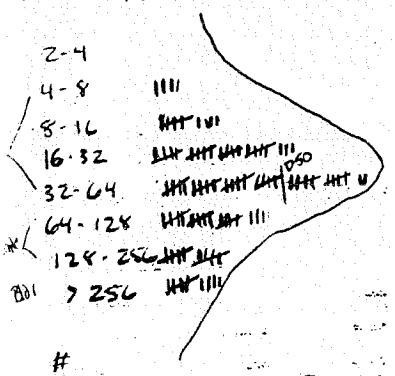
Gravel Bars

Spawning

Rearing

Fish Movement

Pepple count



#
52, 22, 90, 64, 30, 18, 10, 4, 20, 48, 40, 130, 150, 35, 30, 88, 28, 35, 155, 66, 306, 128, 79, 66, 24, 14,
28, 26, 18, 55, 270, 81, 170, 55, 48, 49, 12, 28, 47, 30, 88, 50, 12, 258, 51, 54, 155, 7, 115, 10, 256+,
45, 145, 8, 60, 44, 156, 18, 10, 256+, 38, 35, 58, 31, 71, 15, 42, 30, 44, 31, 40, 45, 20, 19, 10, 256+, 51, 32, 40
81, 115, 20, 45, 40, 120, 50, 44, 200, 74, 45, 145, 265+, 20, 13, 35, 38, 22, 91, 46, 256+, 22, 12, 256+, 61,

Segment #: 1000 Date: 7-7

Gradient: 0.2% Location: MStem L.Calapooya

Confinement: UC Crew: EB, JH

21°

Segment # 324

	Distance (m)	Unit Type	Pools: Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Substrate: Dominant Substrate	Subdominant Substrate	Spawning Gravel	Dom/Second/Negl/Outside: LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
1	227	R								Gr	C	—									28
2	1014	P	9	20	12	1.6	0.40	BLDR/MEANDER	<5	Gr	C	R-A								21	
3	163	R								B	Gr	—									
4	263	P	17	22	23	2.3	0.65	BLDR/MEANDER	<5	Gr	B	R-A								34	29
5	348	R								Gr	B	R-A							35		
6	387	P	12.1	11.4	9.2	1.10	0.60	MEANDER	<5	Gr	B	R-A									
7	406	R								C	B	—									
8	474	P	13	14	13.5	1.05	0.40	BLDR	10	C	Gr	A	4	4							
9	587	R								C	Gr	A	3	4			1	4			26
10	650	P	14	15.5	17.5	1.5	0.42	BR/mean.	<5	GR	BR	R/A								6	

...EVEN D/S OF BRIDGE

Barriers NONE

Bank characteristics erosion/undercuts - MOSTLY BEDROCK OR WELL ARMORED BY BLDR / ROOTS

Evidence of debris torrents/floods - DEBRIS PILE @ BRIDGE

Nature of LWD function/singles, jams - N/A

Sensitivity to coarse sediment - LOW

Evidence and sensitivity of fine sediment deposition - IN POOL MARGINS / BOTTOMS ABUNDANT FINES W/IN INTITIAL SPACES

Are there terraces, height/matrix High (3m+) terrace BOTH BANKS

Condition of Riparian vegetation/cut oldgrowth trees/downed logs NO SIGNIFICANT ACCUMULATION

Dominant channel and habitat forming processes - POOL/RIFFLE

Beaver - NO -

Gravel Bars INFREQUENT; MEDIAL BARS UNVEGTED, LATERAL BARS CURLL VEGTED

...g ABUNDANT

Rearing Some SIDE channel, slow water in Boulder Runs

Fish Movement UNOBSTRUCTED

Segment: 2-4 Location: Mside
Crew: TC JH, EB

Segment # 325

	Distance (m)	Unit Type	Pools: Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rlc Dpth (m)	Forming Agent	% Cover	Substrate: Dominant Substrate	Subdominant Substrate	Spawning Gravel	Dom/Second/Negl/Outside: LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
1	28	P	6	12	11	1	0.25	Br	10	BR	Gr	A								13	25
2	33.8	R								Br	C	–									
3	37.3	P	5	6	5	0.8	0.2	BR	15	Br	B	–									
4	43.7	R								C	B	–									
5	52	P	9	10	10	0.85	0.45	Mean	<5	Gr	B	R/A									
6	57.8	R								C	Gr	A									
7	63.4	P	8	6.8	8.2	0.82	0.42	Br	10	Gr	B	R·A									
8	122	P	11	11.8	9	2.2	0.2	BR	10	B	GR	R									17
9	130	R								C	Gr	–								39	
10	140.9	P	6.4	6.2	5.8	1.2	0.82	BR	<5	BR	B	–									
11	158.5	R*								Br	–	–									
12	175.8	P	6.1	4.8	7.3	0.70	0.40	Blr	<5	C	Gr	R									
13	199.3	R								C	Gr	A									
14	250.2	P	14	9	11	2.10	0.46	Br	10	Gr	BR	R-A									
15	265	R								B	Gr	R									
16	315	P	16	10	11	3+	0.42	BR	15	Gr	BR	R·A									
17	323	R								B	Gr	–					1	3			
18	344	P	8	6	3.5	1.75	0.40	Br	15	C	BR	–									
19	363	P	4	4.5	3.7	1.8	0.55	Br	<5	C	BR	R									
20	371	R								B	BR										

* BEDROCK CHUTE

Barriers —

Bank characteristics erosion/undercuts BEDROCK BANKS throughout SAMPLE reach

Evidence of debris torrents/floods —

Nature of LWD function/singles, jams — NO Significant LWD Accumulation

Sensitivity to coarse sediment - SEDIMENT limited, abundant EXPOSED bedrock; ENDED Reach @ U.S. gradient BREAK - SURVEYED REACH WAS A "TRANSPORT" REACH

Evidence and sensitivity of fine sediment deposition SAND, FINE gravel in MARGINS OF POOLS

Are there terraces, height/matrix Hillslope LB. high terrace → hillslope RB

Condition of Riparian vegetation/cut oldgrowth trees/downed logs MMD.

Dominant channel and habitat forming processes BEDROCK control, BOULDER STEPS

Beaver —

Gravel Bars LARGE LATERAL BARS w/ well SORTED gravel / COBBLE / BOULDER

ng - ABUNDANT IN POOL BOTTOMS BOTH RESIDENT & ANADROMOUS

Rearing - DEEP POOLS w/ BEDROCK overhangs

Fish Movement Unobstructed

Gradient: _____ Location: MAINSTEM

Confinement: TC Crew: JH EB

page 2 of 4

segment # 325

			Pools							Substrate			Dom/Second/Negl/Outside								
Unit	Distance (m) 37→	Unit Type	Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Dominant Substrate	Subdominant Substrate	Spawning Gravel	LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
21	380	P	4	5	5	1.00	0.35	Br	<5	B	Gr	—					1	4			
22	388	P	4.6	4.5	2.5	0.8	0.5	Br	<5	C	Br	—	1	4							22
23	412	R								B	Gr										
24	441	P	6.4	6.6	6.1	0.2	0.55	Br	<5	Gr	C	A								21	

Barriers

Bank characteristics erosion/undercuts

Evidence of debris torrents/floods

Nature of LWD function/singles, jams

Sensitivity to coarse sediment

Evidence and sensitivity of fine sediment deposition

Are there terraces, height/matrix

Condition of Riparian vegetation/cut oldgrowth trees/downed logs

Dominant channel and habitat forming processes

Beaver

Gravel Bars

Spawning

Rearing

Fish Movement

Gradient: 2% Location: MAIN Stem

Confinement: MC Crew: EB, JH

18°

Unit	Distance (m)	Unit Type	Pools: Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Substrate: Dominant Substrate	Subdominant Substrate	Spawning Gravel	LWD 10-20	Fu	LWD 20-50	Functional	LWD >50	Functional	Side Le	Shade %	Bankfull Width
1	73	R								C	Gr	A	2	3	1	3				21	22
2	136[9]	P	10	6	12	0[85]	0[25]	Mean.	<5	G	B	A					1	0			
3	148[1]	R								Gr	C	A					1	3			
4	156[2]	P	5[5]	5[7]	6	0[65]	0[33]	Mem	10	Gr	C	A									
5	189	R								Gr	C	R-A					1	4			
6	212	P	5[4]	5[3]	9[2]	1[8]	0[20]	BR	10	Gr	BR	R-A							6		21[5]
7	337	R								C	Gr	A-R	3	4	1	4	2[3]*	4			
8	363	P	14	15	8	1[50]	0[35]	LWD	20	Gr	C	R-A	1	1	1	3	2	2	2	15	
9	422	R								C	Gr	A		2	4	3					
10	441	P	7	7[9]	6[2]	0[90]	0[33] 3	Mean	10	Gr	B						3	3		28	25

4 [illegible]!

Barriers – NONE

Bank characteristics erosion/undercuts – SLIGHTLY ERODING, 5-10% undercut / RAW BANKS

Evidence of debris torrents/floods – large lateral BARS OF coarse unsorted material, channelization on low terrace 2 m above BFD

Nature of LWD function/singles, jams Primarily BANK Armor limited pool formation [illegible]

*LARGE ACCUMULATION OF LWD ON LATERAL BAR - NON FUNCTIONAL

~~Sensitivity to~~ coarse sediment – ABUNDANT COARSE SEDIMENT

Evidence and sensitivity of fine sediment deposition – SOME [illegible] in pool BOTTOMS

Are there terraces, height/matrix – Low terrace (1-3 m) LB, Low terrace / ROAD grade RB

Condition of Riparian vegetation/cut oldgrowth trees/downed logs M, L, S

Dominant channel and habitat forming processes – PLAIN BED

Beaver N/

Gravel Bars LATERAL BARS OF UNSORTED LARGE GRAVEL → BOULDER ABUNDANT THROUGHOUT SEG.

Spawning – pool tails & riffle margins

Rearing – [illegible] limited DFF channel or undercut BANKS –

Fish Movement UNOBSTRUCTED

Segment #: 4005 Date: 7-4

Gradient: 1-3 Location: MAINSTEM

Confinement: UC Crew: ER, JH

Segment # # 324.1

			Pools							Substrate			Dom/Second/Negl/Outside								
Unit	Distance (m)	Unit Type	Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rlc Dpth (m)	Forming Agent	% Cover	Dominant Substrate	Subdominant Substrate	Spawning Gravel	LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Wdth...
1	89	P	13	13	12	2	0.45	BR	<5	GR	BR	A			2	4				15	22
2	146	R*								BR	B	—									
3	263	R								C	Gr	A	2	4			1	4	70		31
4	287	P	8	8	8	0.90	0.35	Mean	<5	C	Gr	A-R	3	4							
5	326	R								C	Gr	A									
6	399	P	10	6	13	1	0.35	MEAN/BR	<5	Gr	BR	R-A									
7	441	R								Gr	Br	R-A								22	
8	490	P	11	14	21	2	0.25	BR/MEAN	<5	Gr	Br	R-A	1	3							
9	610	R								Gr	C	A								11	28

* BEDROCK CHUTE

Barriers NONE

Bank characteristics erosion/undercuts BEDROCK OR WELL ARMORED BY VEG or BOULDERS

Evidence of debris torrents/floods - DEBRIS IN VEG 2m above BFH

Nature of LWD function/singles, jams little LWD - NO functional pieces w/in surveyed reach

Sensitivity to coarse sediment # Sediment (when present) well sorted, transported through reach @ gradient breaks

Evidence and sensitivity of fine sediment deposition Little evidence except in bottoms of deep bedrock pools

Are there terraces, height/matrix high (3-5 m) terrace both banks

Condition of Riparian vegetation/cut oldgrowth trees/downed logs MLS

Dominant channel and habitat forming processes PLAIN BED (except where BEDROCK control)

Beaver - NO -

Gravel Bars LATERAL BARS WELL SORTED

Spawning Abundant, well sorted spawning gravels in pool bottoms and low gradient <2 RIFFLE units.

Rearing Deep, bedrock pools w/ overhung Banks

Fish Movement unobstructed

Segment #: 1053-1 Date: 7/23/97

Gradient: 4- Location: MS CAL.

Confinement: TC Crew: JH, ER

segment #328 1554E 5M/20

	Distance (m)	Unit Type	Pools: Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rlc Dpth (m)	Forming Agent	% Cover	Substrate: Dominant Substrate	Subdominant Substrate	Spawning Gravel	Dom/Second/Negl/Outside: LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
1	124	P	4.1	3.3	5.2	0.90	0.20	BR	10	BR	Gr	R					•	3		52	11.1
2	145	R								BR	–	–									
3	198	P	1.3	1.7	0.8	0.60	0.10	BR	1-5	BR	–	–									
4	340	R								BR	–	–									
5	40	P	1.7	2.3	2.9	1.20	0.20	Br	<5	BR	C	–									
6	457	R								BR	–	–									
7	502	P	2.4	2.0	2.1	0.98	0.30	BR	<5	BR	Gr	A					3	4			
8	717	R								C	BR	A					1	0			
9	74	P	4.1	4.0	4.3	0.60	0.20	BR	<5	BR	–	–									
10	85	R								Gr	C	A					8*	2/1			
11	92	P	4.0	3.3	2.1	0.50	0.10	BRr	<5	Gr	BR	R			2	4	1	4	128		
12	113	R								Gr	B	R/A									
13	122	P	4.7	4.9	4.3	0.70	0.20	LWD	40	C	Gr	R/A			∞	3	∞*	1			
14	132	R								C	GR	A	2	4	2	4	1	4			
15	154.5	P	5.1	5.9	6.4	0.90	0.10	LWD	20	Gr	C	R/A			2	2	3	2/4			
16	169.9	R								C	Gr	R/A							4	74	14
17	171.0	P	3.8	2.3	1.8	0.60	0.20	BWr	<5	C	B	=									
18	220	R								C	Gr	R/A									
19	232	P	3.0	5.5	2.4	0.60	0.20	BR	10	Gr	BWr	R			1	4	1	4			
20	243	R								BR	–	–	1	2			1	3			
21	252	P	5.4	3.1	4.1	0.90	0.20	LWD	30						3	2	8**	3			

4m BEDROCK FALLS @ BOTTOM OF SURVEY REACH, 4 functional

Bank characteristics erosion/undercuts Bedrock channel, tightly confined → 100m, then mod confinement, some BANK erosion, roots provide stability → 230m, then BR controlled

Evidence of debris torrents/floods – NO –

Nature of LWD function/singles, jams * large jam(s) channel spanning key pieces (100cm³ dia), NEK point ≥ 15 m of coarse sed aggregation behind log ** JAM is relic stringer BRIDGE

Sensitivity to coarse sediment – Low sensitivity to COARSE SEDIMENT - Processes through system, Accumulations Behind LARGE PIECES

Evidence and sensitivity of fine sediment deposition — NONE —

Are there terraces, height/matrix VALLEY WALL RB, high terrace (≥3m) L. BANK to 100 m, then low terrace BOTH BANKS (ht 1-m) → 200m then high terrace (>3m) BOTH BANKS

Condition of Riparian vegetation/cut oldgrowth trees/downed logs O.G. Right BANK, resid OG w/ MIXED SMALL DENSE on left. BANK.

Dominant channel and habitat forming processes - LWD - large channel spanning pieces trap sediment, where no wood present - Bedrock control

Beaver – NO –

Gravel Bars large, well sorted lateral bars ABOVE / in below large jams, MEDIAL BARS OF well sorted SMALL gravels WITH RIFFLE units

Spawning - ABUNDANT spawning gravels ABOVE 1st jam vs. to top of REACH

Rearing - ABUNDANT OFF channel / pools w/ sh. cover,

Fish Movement obstructed by falls

* Frame 3:4

Gradient: 2-4 Location: POTTS CR

Confinement: MC Crew: EB, JH

Segment #79

			Pools							Substrate			Dom/Second/Negl/Outside								
Unit	Distance (m)	Unit Type	Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Dominant Substrate	Subdominant Substrate	Spawning Gravel	LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
1	8 6	P	2 1/2	2 1/2	3 1/2	0 72	0 20	BR		Gr	BR	R	2	4						90	5 1/2
2	10 7	R								BR	—	-									
3	17 0	P	1 1/2	1 1/2	2 1/2	0 90	0 10	BR/LWD	<5	BR	—	—					1	1			
4	67	R								GR	C	R-A									
5	75 1/2	P	2 1/2	3 1/2	3 1/2	0 50	0 25	BR	<5	C	Gr	R									
6	91 5	R								Gr	B	R									
7	95 2	P	3 1/2	2 0	3 1/2	0 40	0 15	BR	<5	Gr	BR	R									
8	97 3	R								B	Br	—									
9	107 5	P	2 1/2	2	2 1/2	0 60	0 15	Br	10	Gr	B	R								90	6 0
10	112 1/2	P	2 5	2 1/2	2 0	0 60	0 25	BR		Gr	B	R									
11	119 7	P	2 1/2	2 1/2	0 2	0 55	0 25	Br	<5	Gr	B	R									
12	127 4	R								Gr	B	R									
13	131 1/2	P	4 1/2	3 1/2	4 1/2	0 80	0 25	Bldr	10	Gr	B	R									
14	146 6	R								Gr	B	R					1	1/4			
15	150 2	P	3 1/2	1 3/4	1 3/4	0 50	0 20	Bldr	10	Gr	B	R								92	
16	166 3	R								Gr	C	R					2	3/4			
17	171 6	P	2 1/2	3 1/4	3 1/2	0 50	0 10	Bldr	<5	Gr	D	R									7
18	176 0	R								G	C	R									
19	185 5	P	4 1/4	4 3/4	3 6	0 95	0 20	Br		Gr	BR	R									

Barriers 1 1/2 m drop BR pool,

Bank characteristics erosion/undercuts moderate undercutting, roots, BR provide armor, 10m eroding bank (3m high) u.s. of reach

Evidence of debris torrents/floods - NO - (tribs have evidence of failure u.s. of reach)

Nature of LWD function/singles, jams NO significant amount of LWD. Where present - Forming pools

~~Sensitivity to~~ coarse sediment Coarse sediments move through reach, many areas scoured to BEDROCK

Evidence and sensitivity of fine sediment deposition - NONE -

Are there terraces, height/matrix high terrace 3m+ RB, low terrace 1-3m LB

Condition of Riparian vegetation/cut oldgrowth trees/downed logs M, S, D

Dominant channel and habitat forming processes plain BED (WOOD ABSENT) when gradient <4%, otherwise BEDROCK CONTROL → step pool when adequate sediment present

Beaver NO

Gravel Bars (Well sorted) Lateral BARS present throughout reach

Spawning limited to pool tails / bottoms

Rearing limited off channel / slow water w/ DH cover

Fish Movement Several 1+m Bedrock drops restrict movement

Segment #: 1204 Date: 9-4-97
Gradient: 8-12 Location: BLUE CR.
Confinement: TC Crew: JH EB

Segment #229

16°

	Distance (m)	Unit Type	Pools: Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Substrate: Dominant Substrate	Subdominant Substrate	Spawning Gravel	Dom/Second/Negl/Outside: LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
0																					
1	43	P	12	140	150	0 50	0 10	LWD	25	Gr	C	A					2	1			48
2	92	R								C	Gr	—									
3	123	P	1 8	1 6	1 4	0 35	0 10	LWD	10	Gr	C	R					2	1	4		
4	136	R								Gr	C	A			3	2	1	2			
5	387	P	1 8	1 4	1 5	0 50	0 12	LWD	30	Gr	C	R					2	1			
6	42	P	1 8	2 0	2 4	0 40	0 15	LWD	<5	Gr	C	R			1	1					
7	56	R								C	Gr	—			1	2					
8	579	P	1 4	0 9	0 8	0 35	0 14	BLdr	<5	Gr	C	R								61	
9	90	R								Gr	B	—			2	4	3/1	0/0			42
10	938	P	1 4	1 6	1 5	0 30	0 5	LWD	80	Gr	C	R	1	3			1	1			
11	96	R								B	C	—									
12	984	P	0 5	0 7	1 5	0 30	0 16	Bldr	25	Gr	B	R			1	3	1	4			
13	102	R								Gr	C	A									
14	105	P	2	1 4	0 9	0 35	0 18	Bldr	<5	Gr	B	R							3m	97	
15	117	R								BR	B	—					4	0			
16	118	P	2	0 5	2	0 40	0 16	BR	<5	BR	S	—									
17	123	R*								BR	—	—					2	3/4			
18	129	P	1 3	1 8	1 9	0 40	0 25	BR	30	BR	GR	—					2	3/4			
19	137	R*								BR	B	—			1	2	1	3			54
	140	P	0 5	2 8	1 5	0 40	0 0	BR	20	BR	B	—			1	3	1	0		90	
	175	R* = BEDROCK CHUTE								BR	—	—						15 functional			

Barriers 2 m BEDROCK STEP @ 110m, CULVERT PASSABLE

Bank characteristics erosion/undercuts ARMORED (BR) @ 105m US., DS BANKS have BEEN ERODED DURING last event.

Evidence of debris torrents/floods COARSE SED/WOOD DEBRIS AGRADED ≈ 1-1½ m

Nature of LWD function/singles, jams steps, lateral scar, most pieces ABOVE BFH

Sensitivity to coarse sediment - upper part of reach scoured to BR.

Evidence and sensitivity of fine sediment deposition - pool margins have ACCUMULATION OF FINES

Are there terraces, height/matrix VALLEY WALL both banks

Condition of Riparian vegetation/cut oldgrowth trees/downed logs MSD

Dominant channel and habitat forming processes STEP POOL (ABUNDANT SMALL NON-q pools w/in riffle units)
Bedrock control 105m → US

Beaver — NO —

Gravel Bars — lateral bars w/ small gravels otherwise COARSE SED IS UNSORTED

ng VERY limited, small QUANTITIES OF well sorted material in pool margins

aring limited by pool size, LACK OF COVER

Movement .5m steps & a 2 m falls inhibit movement.

Segment #: 100 Date: 8-20-99
Gradient: 4% Location: Bigs Creek
Confinement: Moderate Crew: Heffner / Bentis

Segment #30

			Pools							Substrate			Dom/Second/Negl/Outside								
	Distance (m)	Unit Type	Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (cm)	Rlc Dpth (cm)	Forming Agent	% Cover	Dominant Substrate	Subdominant Substrate	Spawning Gravel	LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width m
1	4	P	1.8	1.7	2	35	10	B	10	C	B	+	2	0	1	0	1	0	—	82	5.6
2	8.4	R	—	—	—	—	—	—	—	C	B	+	—	—	—	—	—	—	—		
3	12.6	P	1.2	1.6	.95	35	15	B	5	G/C	B	A	—	—	—	—	—	—			
4	27.5	R	—	—	—	—	—	—		G/C	B	—	—	—	—	—	—	—			
5	29	P	2.1	1.9	.55	40	20	B	5	G/C	B	RA	1	0	—	—	—	—	—		
6	39.5	R	—	—	—	—	—	—		C	C/B	—	—	—	—	—	1	N			
7	41.8	P	2.5	1.8	2.0	40	15	B	10	B	C	RA	—	—	3	N	—	—	—		
8	52	R	3	—	—	—	~~15~~	—	—	C	B		—	—	—	—	—	—			
9	55.5	P	3.2	3.1	2.0	60	15	B	10	G/C	B	RA	5	0	4	0	2	N	—	74	7.6
10	61.5	P	3.3	2.8	2.7	90	20	B	15	G/C	B	RA*	5	0	3	0	—	—			
11	69.5	R	~~4~~	~~3.8~~	—	~~60~~	~~40~~	—	—	G/C	B	r ~~x~~	resist	Cottag	ell	ncl	—	—			
12	72.6	P	5	3.8	3.4	60	10	B	5	G/C	B	R/A*	—	—	—	—	1	N			
13	108	R	—	—	—	—	—	—		G/C	B	r ~~x~~	—	—	5	0	~~1~~		debris	barrier	
14	110.5	P	2.1	1.7	1.1	50	20	B	5	C/S	B	r ~~x~~	—	—	—	—	(1)	0			
15	143	R	—	—	—	Smaller	pools	this	area	G/C	B	r ~~x~~	—	—	—	—	—				
16	145.5	P	2.5	2.6	2.4	55	20	B	5	C/C	B	r ~~x~~	—	—	1	0	2	0			5.2

Step-Pools -

Boulders Currently cascading rapids, close to being barrier at lower flows - 1m high

Bank characteristics erosion/undercuts Banks well vegetated except for some undercutting - cutting thru cobble & boulder. Some 3m high bankcutting - 95'

Evidence of debris torrents/floods length of stream - experienced high flows - debris hung up over banks / flotsam

Nature of LWD function/singles, jams outside streams, wedged in trees

Sensitivity to coarse sediment - large Boulders form pools - currently

Evidence and sensitivity of fine sediment deposition sand along margins of some pools - good spawning for resident fish - fines in pool tailouts - stream power flushes fines out (sand pockets along banks)

Are there terraces, height/matrix Terrace along margin, 1-1.5m, well vegetated with small/medium boulders

Condition of Riparian vegetation/cut oldgrowth trees/downed logs Riparian veg consists of alder - large old growth/mossy covered along terrace edge - huge pieces - Average aged ALDER

Dominant channel and habitat forming processes Boulder

Beaver - NONE

Gravel Bars 0-50 30%

Spawning - Some areas of small patches of resident size gravel - Also pockets of cobble/gravel for anadromous

Rearing - POOR - Not much cover except for Boulders, no side channels

Fish Movement Great, Step pools [illegible] make it more difficult

Segment #: 1215 Date: 8/20/91

Gradient: 9% Location: Trib - McKinley Creek.

Confinement: Confined Crew: HEFFNER/BAINS

Segment #259

			Pools							Substrate			Dom/Second/Negl/Outside								
Unit	Distance (m) 0.00	Unit Type	Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Dominant Substrate	Subdominant Substrate	Spawning Gravel	LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
1	10.5	R	—	—	—	—	—	—	—	BR	B		—	—	—	—	—				
2	12.8	P	1.45	3.8	3.1	50	15	BR	0	BR	B		—	—	—	—	—				
3	26	R	—	—	—	—	—	—	—				—	—	—	—	12	0			
4	42.2	P	3.3	4.8	4.1	60	10	BR	5	BR	C		—	—	—	—	2/5	N/O		12	12.2
5	64.6	R	—	—	—	—	—	—	—				—	—	—	—	—	—			
6	72	P	5.3	4.2	4.1	90	20	BR	5	G/C	BR		—	—	—	—	1	0			
7	76	R	—	—	—	—	—	—	—	BR	BR		—	—	—	—	—	—			
8	78.5	P	1.2	1.7	1.4	55	10	BR	0	BR	BR		—	—	—	—	1	0			
9	112.2	R	—	—	—	—	—	—	—	C	B		—	—	—	—	5	0			Debris jam
10	117.7	P	3.6	3.1	2.1	55	15	B	5	C	B		—	—	—	—	30+	0			Debris jam
																				4	9.4

Cascade - falls

Barriers Bedrock falls barrier - 1 mi

Bank characteristics erosion/undercuts Scoured channel with cobble/boulder terraces

Evidence of debris torrents/floods Debris torrent to bedrock. Debris jams on terraces - Multi pieces.

Nature of LWD function/singles, jams Thrown above bankfull.

Sensitivity to coarse sediment

Evidence and sensitivity of fine sediment deposition Fines in velocity shadows

Are there terraces, height/matrix Cobble, boulder terraces line stream

Condition of Riparian vegetation/cut oldgrowth trees/downed logs

Dominant channel and habitat forming processes BR and Boulder

Beaver - WASHED DOWN STREAM

Gravel Bars - WASHED Down stream

Spawning Poor

Rearing Poor

Fish Movement Poor

Segment #: 7010 Date: 8-20-97

Gradient: 6% Location: ~~Lake Creek~~ Blue Rock

Confinement: Moderately Crew: Heffner / Burns

#325

	Distance (m)	Unit Type	Pools: Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Substrate: Dominant Substrate	Subdominant Substrate	Spawning Gravel	Dom/Second/Negl/Outside: LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width (m)
1	4.5	P	3.5	3.6	3.9	80	15	B	0	B	C	—	—	—	—	—	—	—	—	94	4.4
2	9.2	R	—	—	—	—	—	—	—				—	—	—	—	—	—			
3	10.5	P	2.1	1.8	1.1	45	20	B	10	C	B	gravel sort in margins	—	—	—	—	—	—			
4	27.1	R	—	—	—	—	—	—	—	G	C/B	—	—	—	—	—	—	—			
5	30.9	P	3.3	2.9	2.2	45	20	B	0	G	C/B	—	—	—	—	—	—	—			
6	41.5	R	—	—	—	—	—	—	—	G	C	—	—	—	—	—	—	—			
7	44.9	P	4.1	3.3	2.6	85	10	BR	10	G	C	—	1	0	—	—	—	—			
8	85.9	R				—	—			G/C	B	—	—	—	—	—	—	—			split channel
9	88.2	P	2.1	2.0	1.6	45	20	B	10	G/C	B	—	—	—	—	—	—	—		92	6.0
10	109.2	R				—	—			G	C	—	—	—	—	—	—	—			split channel terrace
11	113.6	P	2.6	2.9	2.2	45	10	B	0	G	C	A	—	—	—	—	—	—			
12	121.2	R	—	—	—	—	—	—	—	B	C	—	—	—	—	—	—	—			
13	122.7	P	1.8	1.6	1.4	55	25	B	10	B/G	B	—	1	0	—	—	—	—			plunge pool
14	126.3	R	—	—	—	—	—	—	—	G	C	—									
15	130.9	P	3.1	2.9	2.6	75	25	LWD	30	G	C	A	1/4	D/N	—	—	1	S			
16	140.9	R	—	—	—	—	—	—	—	G	C	A					1	N			
17	142.0	P	1.1	1.2	0.6	50	20	B	10	G	C	A	3	D	—	—	1	N	Same piece	93	5.8
~~18~~	~~86~~	~~R~~								~~C~~	~~B~~										
~~19~~	~~189~~	~~P~~	~~8.2~~	~~9.0~~	~~12.0~~	~~170~~	~~75~~	~~B~~	~~5~~	~~C~~	~~B~~										

Step-Pool, cascade -

ers — NONE

Bank characteristics erosion/undercuts very limited erosion in high terraces

Evidence of debris torrents/floods little evidence of high flows

Nature of LWD function/singles, jams Some pieces are forcing pools

Sensitivity to coarse sediment Bedload carves channel form changes at lower gradient breaks where channel can split

Evidence and sensitivity of fine sediment deposition Fines in velocity shadows

Are there terraces, height/matrix Limited terraces - narrow, but gradient reduces to ≈ 2-3%

Condition of Riparian vegetation/cut oldgrowth trees/downed logs — Some oldgrowth stumps along stream channel - Alder dominated 20-30 years old

Dominant channel and habitat forming processes Boulders, some bedrock

Beaver — NONE

Peak flows - ~~Lower~~ Stream primer less evidence of flotsam or debris flow vs sensitive flood flags.

Gravel Bars — Gravel Pulse that was functioning different flow.

Spawning ~~Pool~~ — Several areas of Gravel + Margins

~~Spawning~~ — Not that many Good Gravel areas, some Anadromous fish.

ning — POOR, STEEP, with a couple of side channels

Fish Movement Good — Not to many steps, but a few

Segment #: 10cc Date: 0-20-7j

Gradient: 4% Location: ~~Blue Creek~~ Calapooia River Mainstem Segment #325

Confinement: Mod Crew: Heffner / Baitis

RESPONSE

			Pools							Substrate			Dom/Second/Neg/Outside								
Unit	Distance (m)	Unit Type	Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rlc Dpth (m)	Forming Agent	% Cover	Dominant Substrate	Subdominant Substrate	Spawning Gravel	LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
1	19.0	R	—	—	—	—	→	—	—	C	B	—	—	—	2	0	—	—	—	5	26.0 m
2	25.0	P	6	6	6	85	20	B	5	C	B	—	—	—	—	—	—	—	—	—	Scour pool
3	62	R	—	—	—	—	—	—	—	G	C	A	20	0	5	0	—	—	—	—	Flatsdam
4	84	P	7.8	6.9	6.2	100	45	F	25	G	C	A	5	0	1	0	2	S	—	—	Rootwads
5	109	R	—	—	—	—	—	—	—	G	C	A					4/DJ	N/O			
6	154	P	12.1	14.5	10.8	200	40	BR	5	G	C	A					2	0			
7	192	R	—	—	—	—	—	—	—	BR	C		DJ/O				?	0			
8	200	P	7.1	5.2	4.1	145	15	B	10	G/C	/BR	A	2	0	—	—	—	—			Side pool
9	312	P	15.5	16.1	7.1	200+	40	BR	5	G	C	A	—	—	—	—	—	—		5	27.0 m
10	386	R	—	—	—	—	—	—	—	C	B	A	—	—	—	—	—	—			
11	127	P	8.2	7.0	12.0	140	35	B	5	C	B	A	—	—	—	—	—	—		26	25 m

Photo # 3 Riffle - glide

Barriers NONE - Mainline road is stream adjacent, confining on channel

In some reaches where gradient drops, gravel become dominant, better sorting

Bank characteristics erosion/undercuts vegetated banks, gravels + cobbles + boulder bars, some bedrock outcroppings

Erosion of banks 2 m above, cobble lined wetted banks - minimal

Evidence of debris torrents/floods Overbank LWD, debris jams on terraces

Nature of LWD function/singles, jams Most LWD is overbank. Some wedged jams line low flow channel - Few to no functional pieces

Sensitivity to coarse sediment Gravel bars ~~below~~ above bedrock ~~velocity~~ shadows with smaller particle size, (< 2 mm). Boulders forcing pools

Evidence and sensitivity of fine sediment deposition Sand bars on margin - very limited. Fines layer along margin of channel / no fines in thalweg

Are there terraces, height/matrix terrace grades to low water mark - matrix alluvial fines and reworked river rock cobble sizes

Condition of Riparian vegetation/cut oldgrowth trees/downed logs Debris jams line (outside) channel

Dominant channel and habitat forming processes Bedrock Boulder Freeforms

Peakflows have limited opportunity for overbank flow

Beaver - Some Beaver activity but no Dams

Also ranges from large gravels (50 mm) in some reaches to cobbles 100 mm in others

Gravel Bars Along margins at velocity shadows - gravel sizes

Spawning Some Good Anadromous but Poor Resident gravels mostly large Cobble

Rearing Poor Rearing, Lousy cover, not much for Side channel

Fish Movement Good, Lower gradient

Segment #325 18° C Mainstem 17.5° C in Bags

UNIT	Distance	Hab. Type	— Pools Only — MAXDP	RFCDP	RESDP	FORM	%WCOV	Substrate DOM	SDOM	SPGR	LWD 10-20 (cm)	20-50 (cm)	>50 (cm)	KP Tally	SHADE
	0														
1	46.5	P	1.08	8.7, 8.5, 10.1	.30	Bedrock	0	Bol	Bed	A					27%
2	86	R						Bol		A	1				
3	104	P	2.0	10, 11.1, 10.8	.25	Bedrock	5	Bed	Bol	RA					
4	154	R						Bol	Gravel	R,A		1			
5	178	P	1.6	5.8, 6.9, 7.0	.30	Bedrock	15	Bol	Cobble	A					
6	215	R						"	Bed	A					21%
7	254	P	90	11, 10.5, 11.6	35	Bedrock	5	"	Gravel	A,R			1		
8	342	R						"		A					37%
9	357	P	85	6.7, 7.1, 7.0	30	Bedrock	20	"	Cobble	A,R	11	1	11		

UNIT	Distance	Hab. Type	— Pools Only — MAXDP	RFCDP	RESDP	FORM	%WCOV	Substrate DOM	SDOM	SPGR	LWD 10-20 (cm)	20-50 (cm)	>50 (cm)	KP Tally	SHADE

Seg _____ Stream _____ Location _____
Grad _____ Conf _____ Mor pH _____ Species _____
Riparian: _____
Date _____ Crew _____ WW _____ BF _____

Barriers:	Movement:
LWD:	**Spawning:**
Coarse sed:	**Rearing:**
Fine sed:	**OTHER:**

Seg 9033? Stream Cal River Location #326
Grad 1.5 Conf _____ Mor pH _____ Species _____
Riparian: MIXED MED/mm
Date 8/15 Crew _____ WW _____ BF _____

Barriers: NONE	Movement: Good, easy movement
LWD: only in Margins	**Spawning:** - Good - Mostly larger cobble, but Gravels in some pool tailouts
Coarse sed: Largely Bolder with PATCHES of Cobbles in pool TAILOUTS. Gravel in 1 pool & Riffle	**Rearing:** - Poor - Very few side channel, not much cover
Fine sed: Very little, more evident Some Sand in one pool but it appears to be a new DEPOSIT	**OTHER:** There did appear to be lots of small salmonid fry - some larger fish also spotted

Gradient: _____ Location: _____

Confinement: TC Crew: EB, JH

#30

			Pools							Substrate			Dom/Second/Negl/Outside								
Unit	Distance (m)	Unit Type	Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Dominant Substrate	Subdominant Substrate	Spawning Gravel	LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width

SLIDE #1-2 ROLL 2 SUBSURFACE FLOW @ TIME OF VISIT - DNS

Barriers CULVERT perched .5 m

Bank characteristics erosion/undercuts

Evidence of debris torrents/floods - remnant SEDIMENT DEPOSITION from DEBRIS FLOW

Nature of LWD function/singles, jams

Sensitivity to coarse sediment

Evidence and sensitivity of fine sediment deposition

Are there terraces, height/matrix

Condition of Riparian vegetation/cut oldgrowth trees/downed logs MSS

Dominant channel and habitat forming processes

Beaver - NO -

Gravel Bars

Spawning Segment #186=

Rearing

Fish Movement

Segment #: 170 Date: [illegible]

Gradient: Location:

Confinement: TC Crew:

Segment #56

			Pools							Substrate			Dom/Second/Negl/Outside								
Unit	Distance (m)	Unit Type	Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Dominant Substrate	Subdominant Substrate	Spawning Gravel	LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width

EPHEMERAL - NO WATER (N) TIME OF SURVEY - REVISI

Barriers CULVERT PERCHED 3m — 1 PHOTO TAKEN - UPSTREAM

Bank characteristics erosion/undercuts

Evidence of debris torrents/floods

Nature of LWD function/singles, jams

Sensitivity to coarse sediment

Evidence and sensitivity of fine sediment deposition

Are there terraces, height/matrix

Condition of Riparian vegetation/cut oldgrowth trees/downed logs

Dominant channel and habitat forming processes

Beaver

Gravel Bars

Spawning

Rearing

Fish Movement

Segment #: 150 Date: 7-7-11

Gradient: >8% Location: WASHOUT

Confinement: TC Crew: EB, JH

Segment #57

			Pools							Substrate			Dom/Second/Negl/Outside								
	Distance (m)	Unit Type	Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Dominant Substrate	Subdominant Substrate	Spawning Gravel	LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width

Barriers

Bank characteristics erosion/undercuts

Evidence of debris torrents/floods - STREAM CHANNEL SHOWS EVIDENCE A LARGE SCALE DEBRIS TORRENT IN RECENT PAST (96?) SCOURED TO BEDROCK IN PLACES - ALMOST EXACT REPLICA OF McKILLOP CK

Nature of LWD function/singles, jams N/A

Sensitivity to coarse sediment - high -

Evidence and sensitivity of fine sediment deposition - NO -

Are there terraces, height/matrix

Condition of Riparian vegetation/cut oldgrowth trees/downed logs MMD

Dominant channel and habitat forming processes

Beaver —

Gravel Bars —

ing —

Rearing —

Fish Movement

Segment #: [illegible] Date: 9-3

Gradient: Location:

Confinement: Crew:

Segment #138

Reach						Pools				Substrate			Dom/Second/Negl/Outside							
Unit	Distance (m)	Unit Type	Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Dominant Substrate	Subdominant Substrate	Spawning Gravel	LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %

Barriers LARGE JAM IN MAINSTEM (953 seg), CULVERT [illegible] (1m) (50 x 100 meters)

Bank characteristics erosion/undercuts

Evidence of debris torrents/floods STREAM HAS "SLUICED" DEPOSIT IN MAINSTEM RESULTED IN the LARGE JAM.

Nature of LWD function/singles, jams — ALL ABOVE WATER line

Sensitivity to coarse sediment HIGHLY SENSITIVE - LOW TRANSPORT

Evidence and sensitivity of fine sediment deposition

Are there terraces, height/matrix

Condition of Riparian vegetation/cut oldgrowth trees/downed logs CMD

Dominant channel and habitat forming processes

Beaver [illegible]

Gravel Bars —

Spawning POOL

Rearing POOR

Fish Movement Bad, STEEP Rocky Channel

FRAME 8 & 9 Roll

Segment #: 1460 Date: 9-3-97

Gradient: 6-8 Location: U.S. Creek

Confinement: TC Crew: JH, EB

13°C

Segment #308

	Distance (m)	Unit Type	Pools: Width 1 (m)	Width 2 (m)	Width 3 (m)	Max Dpth (m)	Rfc Dpth (m)	Forming Agent	% Cover	Substrate: Dominant Substrate	Subdominant Substrate	Spawning Gravel	Dom/Second/Negl/Outside: LWD 10-20	Functional	LWD 20-50	Functional	LWD >50	Functional	Side Channel Length (m)	Shade %	Bankfull Width
1	22 4	R								Gr	C	R/A		2	3		1	3			
2	26 8	P	7 2	7 1	7 0	0 70	0 20	LWD	25	Gr	C	R/A	2	4	1	1/2	2	1		94	6 9
3	38 0	R								Gr	C	A	2	3	3	2	3	2			
4	43 7	P	2 2	2 0	2 1	0 80	0 15	LWD	20	Gr	C	R/A	2	3	2	2	2	1			
5	51	P	1 9	2 0	2 1	0 40	0 10	LWD	35	Gr	C	R/A			2	1	2	1/2			
6	68	R								Gr	C	R/A					1	4			
7	76 2	P	2 5	3 3	3 5	0 60	0 15	BR	20	Br	Gr	R	1	4	1 5	3	1	3			
8	87 5	R								Gr	C	A	3	2	2	1	3	3			
9	95 3	P	2 8	3 9	3 3	0 80	0 20	LWD	40	Gr	C	R/A	10	3	8	2	3	2/1			
10	107	R								Gr	C	R/A			4	2/3	1	2			6 5
11	120 9	P	2 1	2 4	1 3	0 80	0 15	LWD	30	GR	S	R			3/4	1/3	2	2	3		
12	134	R								Gr	C	A					1	1/4	30		
13	136 3	P	4 2	4 0	2 0	1 -	0 10	LWD	40	Gr	S	R					4	1			
14	139	R								C	-	-					3	2			
15	146 4	P	1 5	2	1 2	0 40	0 ~	LWD	25	C	S	-	7	3			2	2			7 0
16	152	R								C	S	-	2	3	2	3					
17	159 5	P	2 0	2 1	2 3	0 40	0 10	BDr	<5	Gr	C	R/A									
18	169	R								Gr	S	Gr	-								
19	171 8	P	3 5	3 8	3 2	0 50	0 10	LWD	10	Gr	C	A			2	1				89	
20																					

41 functional

ers - CULVERT perched 1 FT, 1m LWD DROP, IMPASSABLE

Bank characteristics erosion/undercuts - large eroding BANKS @ 110m, roots provide bank armor

Evidence of debris torrents/floods - LARGE ACCUMULATIONS OF COARSE SED AND LARGE WOOD SPORADIC THROUGHOUT REACH

Nature of LWD function/singles, jams - Large Key pieces form jams w/ smaller pieces ; sediment trapped LWD form step pools, provide cover

Sensitivity to coarse sediment - MODERATE

Evidence and sensitivity of fine sediment deposition - Accumulations in pool bottoms adjacent to eroding BANKS LIMITED TO 2 - 10 m STRETCHES

Are there terraces, height/matrix - Low terrace (to 2m) prevalent

Condition of Riparian vegetation/cut oldgrowth trees/downed logs M, M/S, D

Dominant channel and habitat forming processes FORCED POOL RIFFLE

Beaver NO

Gravel Bars LATERAL, WELL SORTED FINE GRAVEL

Spawning - IN POOLS

ing - ABUNDANT POOLS W/ COVER

Fish Movement LWD FORM STEPS UP TO 1 M HT, RESTRICTED

APPENDIX F

Calapooia River Watershed Analysis

Fish Habitat Assessment

Lillian Herger
Weyerhaeuser Company

August 1998

APPENDIX F

Fish Habitat Assessment

Lillian Herger
Weyerhaeuser Company

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INTRODUCTION

The purposes of this fish habitat assessment are to describe the fisheries resources and habitat conditions of the Calapooia River Watershed Administative Unit (WAU), with emphasis on salmonid species. The vulnerability of salmonids to management-caused changes to their habitat at various life history phases is assessed. The input variables considered are large woody debris (LWD), sediment, flow, thermal radiation and catastrophic events (i.e., debris torrents).

The methods followed are those developed for watershed assessment for Washington State (Washington Forest Practices Board, version 4.0, 1997). This analysis is organized in two sections: fisheries resources and habitat assessment. The fisheries resources section addresses the critical question: *What is the distribution and relative abundance of salmonid fish species in the WAU?* The remaining critical questions are addressed in the habitat section.

FISHERIES RESOURCES

Methods

This fisheries resources assessment is based on information compiled from existing documents, data sets, recent electrofishing sampling, and personal communications with fisheries managers of the area. Only limited data was available on abundance trends of salmonid within the WAU. Most information on the fishes of the WAU is from the Santiam and Calapooia Subbasin Fish Management Plan (ODFW 1992) and other unpublished data from the Oregon Department of Fish and Wildlife (ODFW) and the United States Forest Service (USFS).

Extent of Fish-bearing Waters

The extent of fish distribution in the WAU is based on the Weyerhaeuser FIRS database which was modified to reflect recent fish sampling. The watershed has 58.6 miles of fish-bearing streams. The miles of fish-bearing waters by Oregon Department of Forestry (ODF) stream size designation are listed in Table F1 and the extent of these classifications are shown on **Map SF1**. This map also shows the location of fish sample points during this assessment. Fish sampling was conducted in reaches currently classified as unknown fish status by the ODF classification map. These reaches are included in the cutthroat trout distribution zone on **Map F1.**

Table F1 Stream miles per fish-bearing stream type for the Calapooia River WAU based on Map F1 and Map SF2.

Stream Type	Fish-bearing stream miles
Large streams	30.1
Medium streams	22.4
Small streams	6.2
Total fish-bearing	**58.7**
Potential fish-bearing—medium	5.9
Potential fish-bearing—small	14.9

Currently, the fish-bearing status of most streams of the WAU is known. Accurate designation of fish-bearing status is important because: 1) forest management practices are based on stream-types (ODF 1994), and 2) knowing the limits of fish species distribution is fundamental for understanding the population dynamics of the species within the watershed.

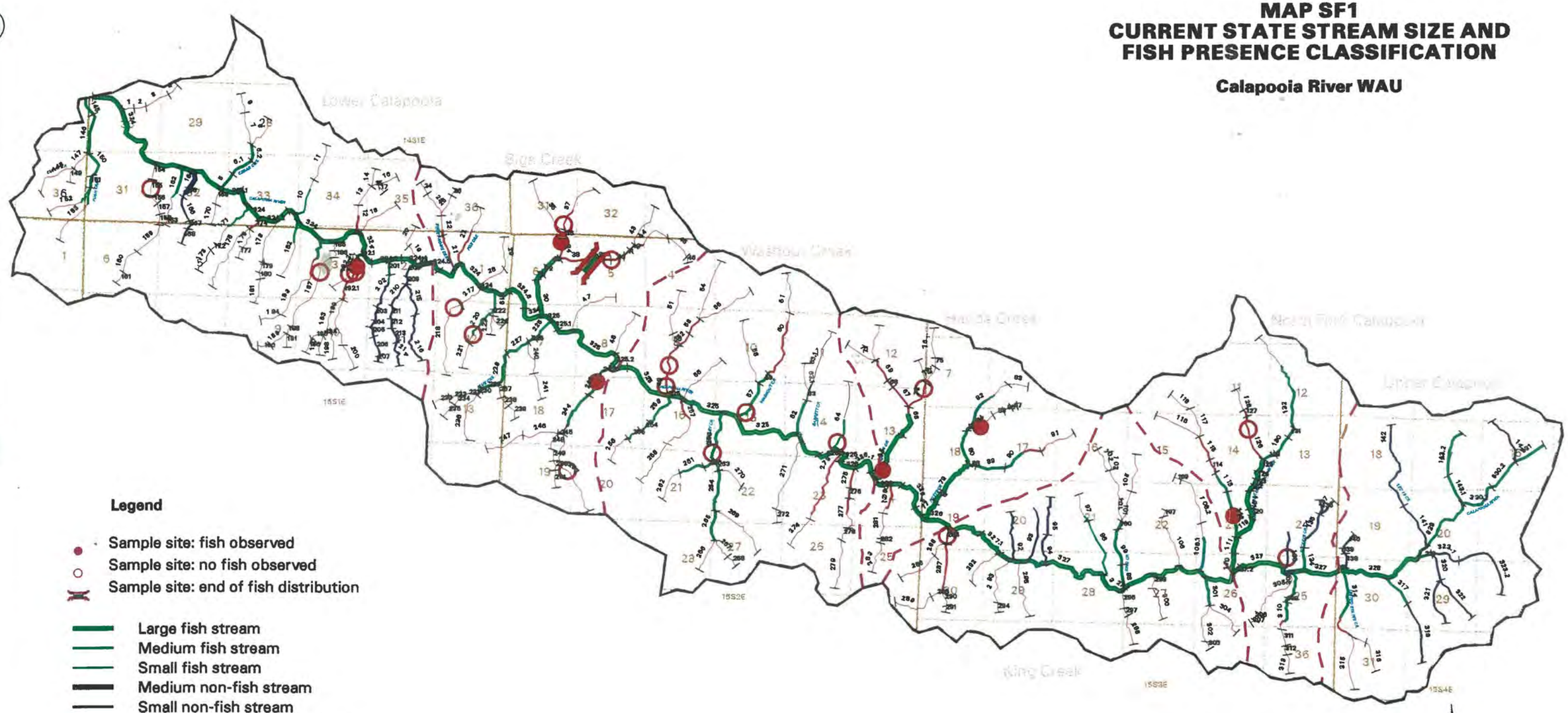
In order to determine stream reaches that are likely to support fish, we generated a GIS layer using the same landscape criteria used by the ODF as interim rules for fish distribution (ODF 1995). These rules state that waters in the Cascade Range with 40 inches of precipitation per year, with at least a 100 acre drainage area and < 20% gradient are likely to be fish-bearing, depending on the presence of barriers. Using gradients and drainage areas determined from USGS 1:24,000 quadrant maps these criteria were used to model fish-bearing extent (**Map SF2**). Based on these results, approximately 20.8 additional stream miles (35% of the present amount) may support fish (Table F1). Because map gradients are used, some stream reaches with local high gradients that could preclude fish are undetected by the model. This map is intended as a guide for determining likely sample locations.

Fish Species of the Calapooia River WAU

The WAU is inhabited by four native salmonid species; winter steelhead/rainbow trout (*Oncorhynchus mykiss*), spring chinook salmon (*O. tshawtyscha)*, coastal cutthroat trout (*O. clarki clarki*), and whitefish (*Prosopium williamsoni*). Salmonids are broadly distributed in the watershed (Map F1) with resident cutthroat trout trout inhabiting the greatest number of stream miles). There are no char species (native bull trout or exotic eastern brook trout) in the Calapooia subbasin. There are no endangered fish species in the WAU, although chinook salmon salmon and steelhead of the upper Willamette River basin (above Willamette Falls) are both proposed for 'threatened' status (Federal Register/Vol. 63, No. 45 and 53). Final listing decision is due in 1999. Species distribution is shown on Map F1 and stock descriptions of each are discussed in the following sections.

MAP SF1
CURRENT STATE STREAM SIZE AND FISH PRESENCE CLASSIFICATION

Calapooia River WAU



Legend

- Sample site: fish observed
- Sample site: no fish observed
- Sample site: end of fish distribution
- Large fish stream
- Medium fish stream
- Small fish stream
- Medium non-fish stream
- Small non-fish stream
- Medium unclassified stream
- Small unclassified stream

1 : 90000

1 inch = 7500 feet

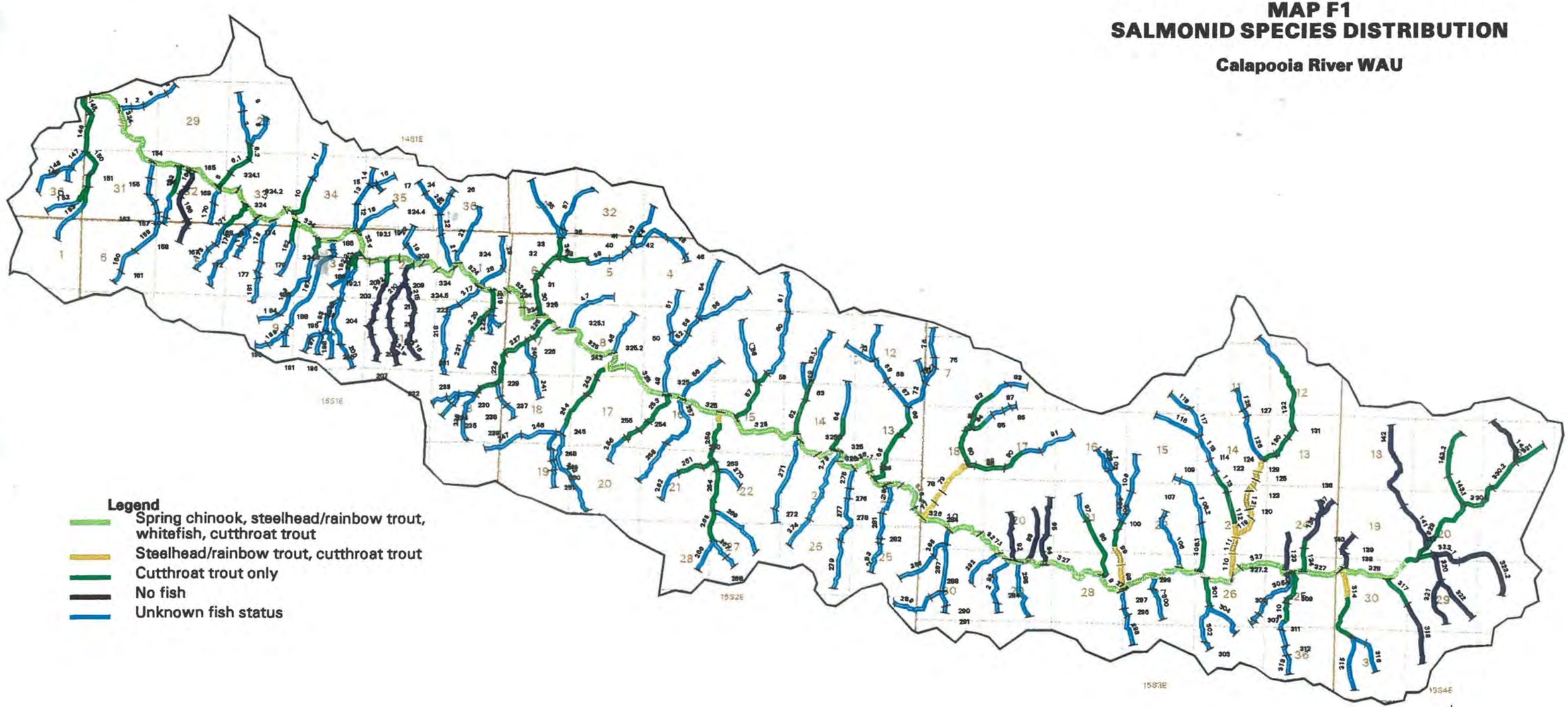
Map SF1 State Stream Classification

Weyerhaeuser

DATE: 08/18/98

MAP F1
SALMONID SPECIES DISTRIBUTION

Calapooia River WAU



Legend

- Spring chinook, steelhead/rainbow trout, whitefish, cutthroat trout
- Steelhead/rainbow trout, cutthroat trout
- Cutthroat trout only
- No fish
- Unknown fish status

1.0MI 0MI 1MI 2MI 3MI 4MI

1 : 90000

1 inch = 7500 feet

Map F1 Salmonid Species Distribution
Weyerhaeuser
DATE: 08/17/98

Table F2 Stream miles within the watershed inhabited by each salmonid species based on estimated fish distribution shown on Map F1.

Species	Stream miles per stream class			Total miles
	Large	Medium	Small	
Winter steelhead/ rainbow trout trout	27.7	1.5	0	**29.2**
Spring chinook salmon	24.7	0	0	**24.7**
Coastal cutthroat trout trout	30.1	22.4	6.2	**58.7**
Mountain whitefish	24.7	0	0	**24.7**

Presence of several native non-salmonid species has been verified in the lower portion of the WAU during Environmental Protection Agency (EPA) surveys (Appendix F1), and other unpublished data). Other species are likely to be present based on their zoogeography (Lee et al. 1980, Hughes et al. 1994 and Markle et al. 1996). Species present or likely to be present are listed in Table F3.

Table F3 List of non-salmonid species present or likely to be present in the Calapooia River WAU (Sources: EPA unpublised data, Lee et al.1980, Markle et al. 1996).

Common Name	Scientific Name	Data Source
Minnows	**Family Cyprinidae**	
Speckled dace	*Rhinichthys osculus*	EPA
Longnose dace	*Rhinichthys cataractae*	EPA
Northern squawfish	*Ptychocheilus oregonensis*	EPA
Redside shiner	*Richardsonius balteatus*	EPA
Suckers	**Family Catostomidae**	
largescale sucker	*Catostomus macrocheilus*	EPA
Sculpins	**Family Cottidae**	
mottled sculpin	*Cottus bairdi*	Lee et al.
Paiute sculpin	*Cottus beldingi*	EPA
shorthead sculpin	*Cottus confusus*	Markle et al.
reticulate sculpin	*Cottus perplexus*	EPA
torrent sculpin	*Cottus rhotheus*	EPA
Lampreys	**Family Petromyzontidae**	
pacific lamprey	*Lampetra tridentata*	EPA
western brook lamprey	*Lampetra richardsoni*	Lee et al.

Many other fish species adapted to slower flows and warmer water temperatures inhabit the lower portions of the Calapooia River below the WAU boundary. Some of these species are non-native introductions.

Table F4 Fish species of the lower Calapooia River below the watershed boundary based on 1983 sample data (Source: EPA unpublished data supplied by Bob Hughes).

Common Name	Scientific Name
Sand roller	Percopsis transmontana
Carp	Cyprinus carpio
Largemouth bass	Micropterus salmoides
Three spine stickleback	Gasterosteus aculeatus
Yellow bullhead	Ictalurus natilis
Chiselmouth	Acrocheilus alutaceus
Pacific brook lamprey	Lampetra pacifica

Salmonid Resources

Winter Steelhead

Willamette River winter steelhead are one of the few salmonid species native to subbasins above Willamette Falls. After spending two years in the ocean, winter steelhead migrate into the Calapooia River February through May. Average fork length of returning adults is 28.8 inches based on South Santiam River data (ODFW 1992). Spawning occurs in April and May, with the peak period in late April and early May (Figure F1). Juveniles overwinter for usually two years before outmigrating in the early spring.

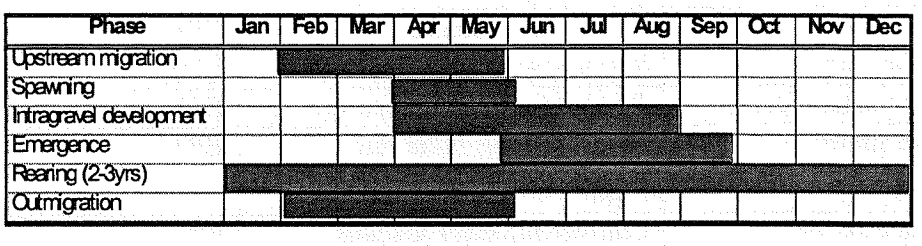
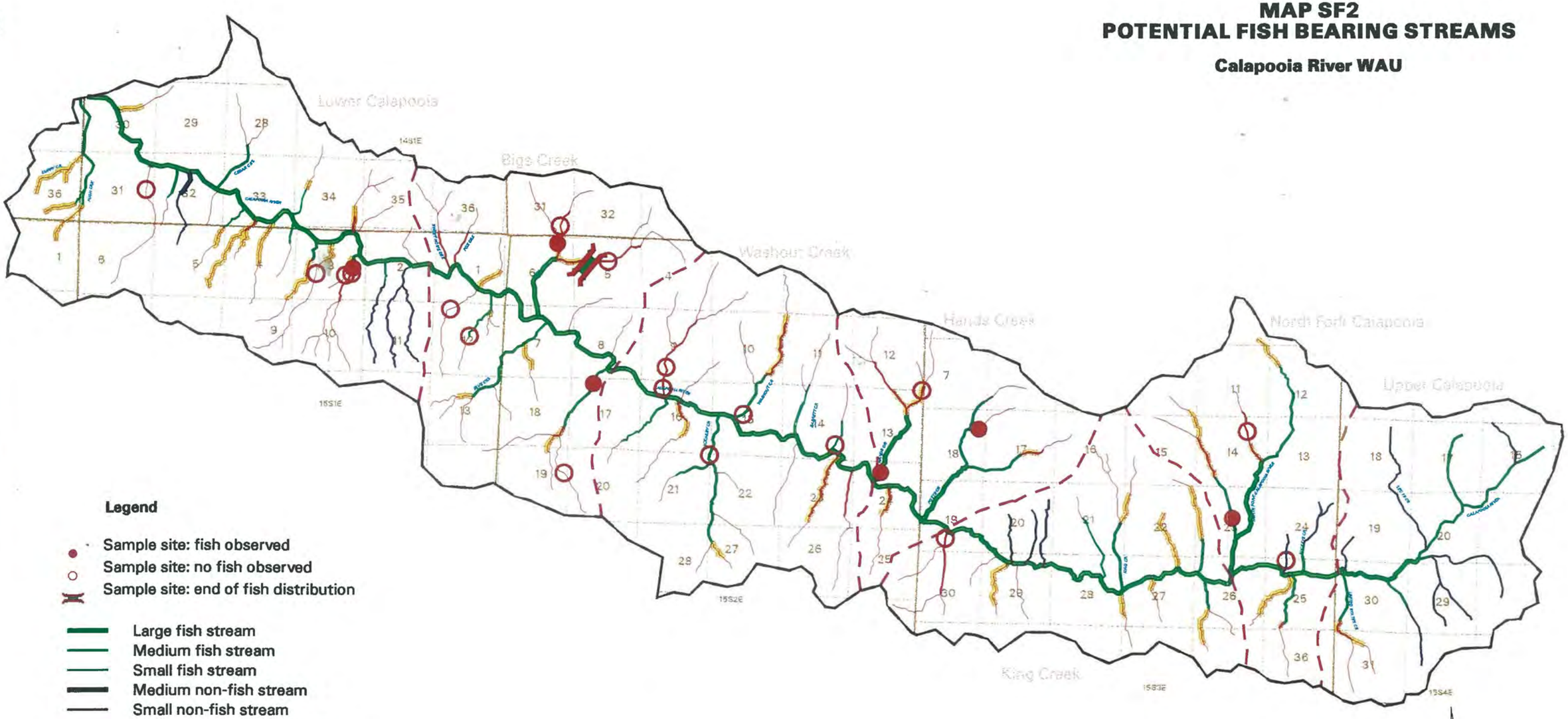


Figure F1 Timing of life history phases of winter-run steelhead within the Calapooia River Watershed (Source: ODFW 1992).

Winter steelhead use the mainstem as a migration corridor to spawning and rearing areas of the upper mainstem and its tributaries (ODFW 1992). Both Potts Creek and the North Fork Calapooia River are known spawning streams (ODFW unpublished data) and redds have been reported in lower McKinley and King creeks and an unnamed tributary east of Blue Creek (W. Hunt, ODFW, Pers. Comm. 1998). Juvenile steelhead have also been reported in Lower United States Creek (USFS unpublished data). Based on this information, estimated distribution of winter steelhead is shown on Map F1. It is likely that steelhead occur in the lower reaches of other smaller tributaries that are accessible from the mainstem including Blue, Biggs, and Cedar creeks.

MAP SF2
POTENTIAL FISH BEARING STREAMS

Calapooia River WAU



Legend

- Sample site: fish observed
- Sample site: no fish observed
- Sample site: end of fish distribution
- Large fish stream
- Medium fish stream
- Small fish stream
- Medium non-fish stream
- Small non-fish stream
- Medium unclassified stream
- Small unclassified stream
- Unclassified stream with potential for fish based on drainage area > 100 acres and gradient < 20%

1 : 90000

1 inch = 7500 feet

Map SF2 Potential Fish Streams

Weyerhaeuser

DATE: 08/18/98

Winter steelhead abundance data are available for 1980 through 1997 (Figure F2). For these years, the average number of adults returning to the Calapooia River, calculated from redd counts, was 256 adults (8.2 redds per mile). The number of returning adults has declined in this decade, but data are insufficient to develop a trend. Currently, steelhead of the Upper Willamette River Ecologically Significant Unit (ESU) (Busby et al. 1996) are proposed for threatened status under the endangered species act (Federal Register, Vol. 63, No. 53, 19 March 1998). Of the four basins above Willamette Falls (Molalla, North Santiam, South Santiam, and Calapooia), the Calapooia represents approximately 8.6% of the habitat used by spawning winter steelhead (26 miles) (ODFW unpublished data). The portion of the run supported by the WAU averages 3.3% over the sample period (Figure F3).

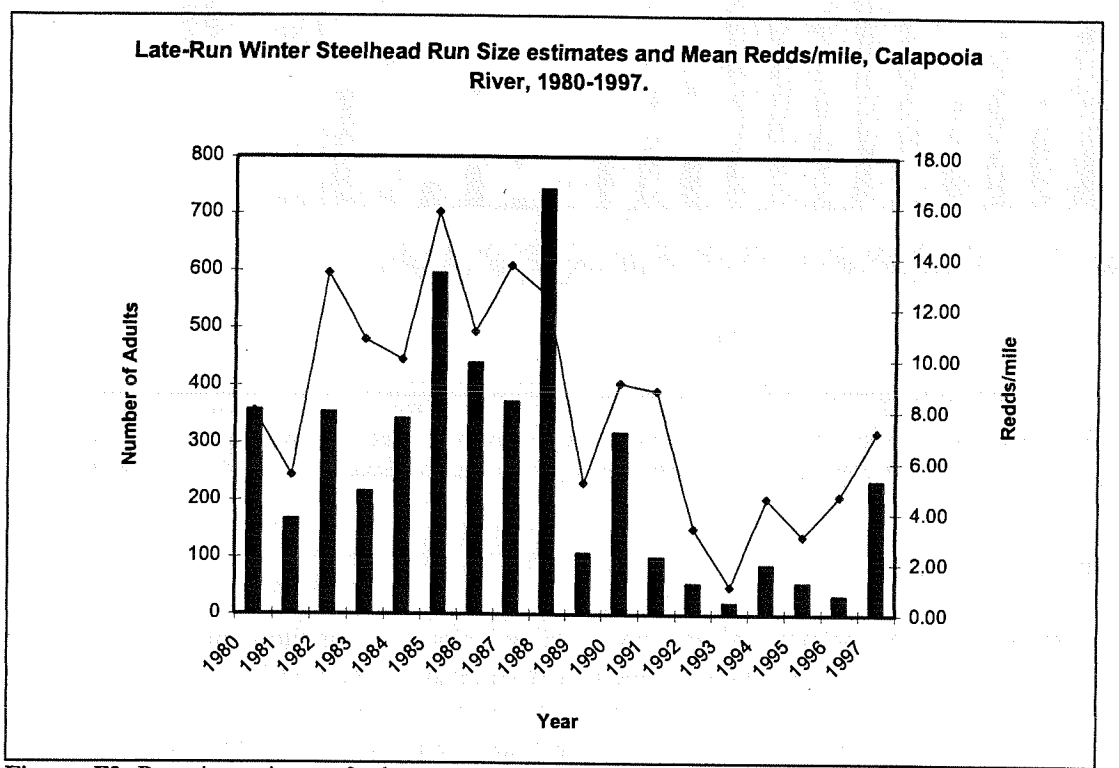


Figure F2 Run size estimates for late-run winter steelhead of the Calapooia River. Estimates based on counts at Willamette Falls, miles of habitat and redd counts. Number of redds per mile are included (Source: ODFW unpublished data, Wayne Hunt).

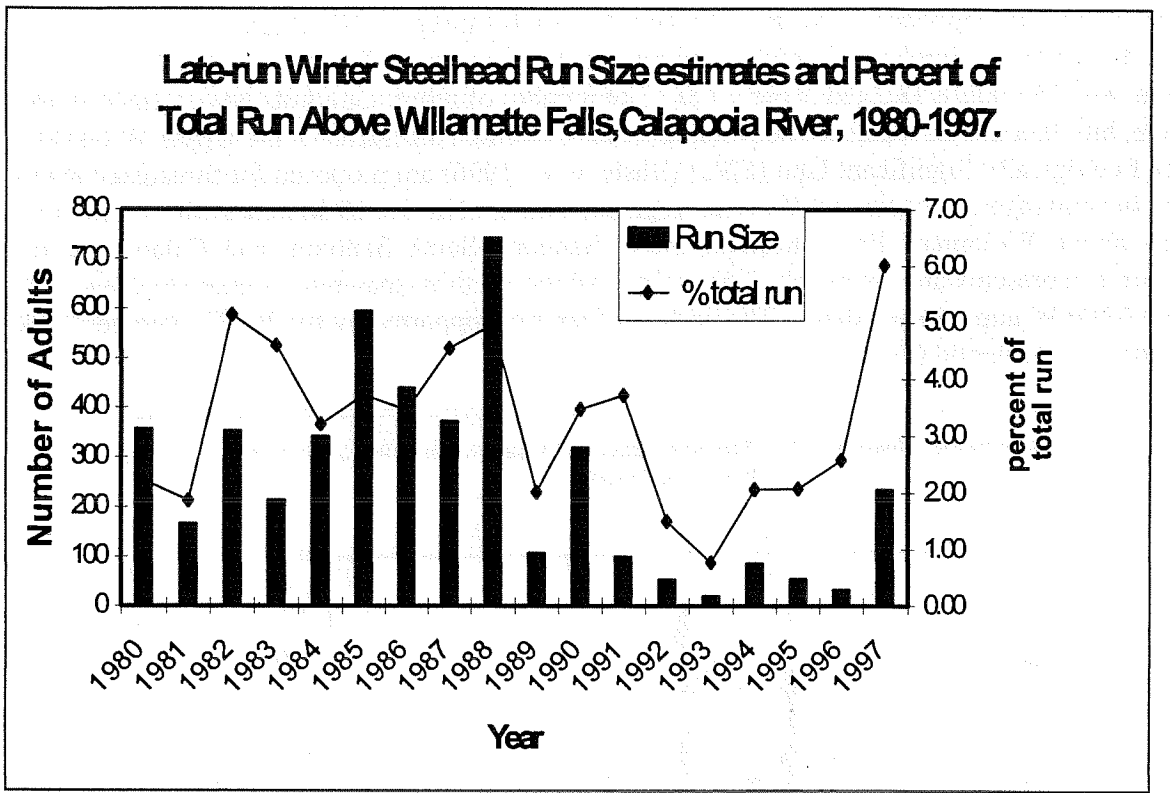


Figure F3 Late-run estimates for winter steelhead of the Calapooia River and the percent of the total run above Willamette Falls represented by this portion of the overall run. Percent of total run data are based on run size estimates of the Molalla, North Santiam, South Santiam, and Calapooia subbasins (Source: ODFW unpublished data, Wayne Hunt).

Spring chinook

Willamette spring chinook salmon salmon are a mixed stock of hatchery and native fish. Currently, 5 to 15% of the stock is thought to be of native origin. The ODFW considers spring chinook salmon as a stock of concern due to 1) small proportion of native fish in the run, 2) the related impact of genetic influence on natives by hatchery fish, and 3) habitat loss (ODFW 1992). Spring Chinook salmon have a spring run timing and fall spawning period (Figure F5). Eggs incubate through the winter and fry emerge in the spring (ODFW 1992).

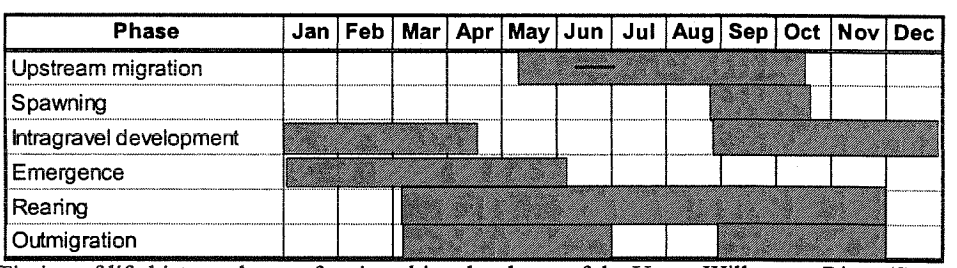


Figure F4 Timing of life history phases of spring chinook salmon of the Upper Willamette River (Sources: ODFW 1992).

The spring chinook salmon run in the Calapooia River is very small and the chinook salmon of the Upper Willamette basin are currently proposed for listing under the endangered species act with the final decision and critical habitat designations due in March 1999 (Federal Register, Vol. 63, No. 45, 9 March 1998). Sport catch was small prior to 1975, with average annual catch of 13 adults. No angler harvest has been recorded since 1977 and the basin has been closed to angling since 1988. Blockage by small dams and loss of outmigrating juveniles to unscreened diversion channels have contributed to the decline of runs and prevented their re-establishment (ODFW 1992). In the past, spring chinook salmon used the Calapooia River mainstem reach between the town of Holley river-mile (RM) 45 and the Treadwell Creek confluence for spawning and rearing (ODFW 1992). Estimated distribution is shown on Map F1.

The current management policy is to manage for a naturally sustained stock after the run is re-established (ODFW 1992). Efforts to restore the run were begun in 1981 with the planting of fry, juveniles and smolts in 1981 through 1985, and 1993 through present (ODFW unpublished data). In fall 1998, ODFW plans to stock the Calapooia with 500 adults (Wayne Hunt, ODFW, Pers. Comm. 1998). During limited snorkel surveys in August 1996 and 1997, live chinook salmon were observed in survey reaches from 1 mile above the 3350 road crossing down to McKinley Creek. Live chinook salmon adults averaged 6.5 and 2.4 fish per mile in each year (ODFW unpublished data).

Table F5 Spring chinook salmon planting record for the Calapooia River 1981-1997. Source: ODFW unpublished data supplied by W. Hunt.

Year	Date	Number of fish/pound	Pounds. Stocked	Number stocked
1997	5/13	157-185	2,800	505,660
1996	3/06	185-187	5,149	960,660
1996	3/19	212	253	53,636
1996	--	--	5,402	1,014,296
1995	5/16	182-184	3,200	585,870
1994	5/17	165-173	4,334	728,850
1993	5/18	155-190	3,923	722,835
1985	5/03	373	537	200,276
1985	3/11	7.8-9.2	2,479	20,821
1984	5/16	220-283	638	149,845
1983	3/23	594-716	166	100,094
1983	11/07	6.2-6.5	3,934	24,868
1982	11/08	6.1-6.3	4,076	25,439
1981	11/09	7.0	3,624	25,368

Cutthroat trout

Cutthroat trout are the most broadly distributed salmonid species in the watershed due to their ability to inhabit high gradient small streams (Map F1). Cutthroat trout trout spawning occurs in the spring generally from as early as January to as late as July depending on location within the watershed (Nicholas 1978). Anadromous cutthroat trout populations do not occur in the Willamette basin due to Willamette falls. The following three other life history patterns of cutthroat trout trout have been identified within the basin (Dimick and Merryfield 1945, Nicholas 1978, and Moring and Youker 1979):

1. Migratory riverine populations (potamodromous). Adults primarily use the mainstem moving into tributaries for spawning. Juveniles rear in the natal streams and outmigrate to mature in the mainstem.

2. Unrestricted resident populations. Adults reside in the lower portions of tributaries (below barriers) and may move within the mainstem of the river. Spawning and rearing occur in the tributaries but movement to the mainstem for rearing is possible.

3. Reproductively isolated populations. All life history phases are restricted to stream reaches above barriers and fish movement is limited. These fish generally spawn later, grow slower, and mature at a smaller size than populations that have river accesses due to higher elevation and colder water temperature.

Reproductively isolated populations are known to occur in several streams of the WAU (**Map F2**). The most significant is the headwaters that are blocked by a mainstem waterfall above United States Creek. Isolated populations of cutthroat trout trout are a common occurrence in the Cascades mountain range and there is no evidence to suggest that populations of the Calapooia River are a product of human activity (i.e., people planted these fish rather than being naturally occurring populations). Cutthroat trout trout distribution (Map F1) is based on Oregon Department of Forestry (ODF) fish-bearing status (Map SF1) and fish sampling during this assessment.

Rainbow trout

Rainbow trout trout are distributed in many portions of the upper Willamette River basin. Typically, this species is not found in steeper headwater reaches used by resident cutthroat trout trout. In the Calapooia River it is likely that most or all of the rainbow trout are residualized steelhead (ODFW 1992), thus, they are shown as having the same distribution until more information is available (Map F1).

Since the 1920s, the Calapooia River has been stocked with hatchery rainbow trout trout to provide a sport fishery (ODFW 1992). Fish are released April through July between RM 33 and RM 56 (town of Brownsville and Bigs Creek). The current annual stocking goal for the Calapooia River is 6,000 fish.

Whitefish

Whitefish are native to the Calapooia River and are fall to early winter spawners maturing in 3 to 4 years. These fish have been found in the mainstem to at least 1.5 miles upstream of Potts Creek (ODFW unpublished data, source Wayne Hunt) and it is likely that they are distributed throughout the mainstem to the barrier below Treadwell Creek (Map F1).

Bull trout

Bull trout do occur in the Willamette River basin but populations have never been large (ODFW 1992). Bull trout historically ranged in the upper portions of the Santiam but the last observation was in the North Santiam in 1945. Currently, bull trout are not found in the Calapooia subbasin and it is unknown if the river was ever part of the species former range.

Introduced Salmonids

Summer Steelhead

Non-native summer steelhead of Skamania stock origin were first introduced into the Willamette River basin in the 1960s following passage improvements at Willamette Falls and improved water quality of the Willamette River (ODFW 1992). Although this stock has been planted in portions of the Santiam subbasin, they have never been introduced into the Calapooia subbasin. The Santiam fishery is managed for production and harvest of hatchery fish to reduce the likelihood of development of wild stocks that could negatively impact winter steelhead. The establishment of a wild summer steelhead stock in the Calapooia River from straying of introduced fish is believed to be extremely unlikely (ODFW 1992).

Coho Salmon

Coho salmon were introduced into the upper Willamette basin in the 1960s and 1970s (ODFW 1992). Although planting efforts were frequent and widespread, wild stocks have not been established. Wild coho salmon salmon spawning was documented in the Calapooia River in the 1970s, but this no longer occurs. Remnant populations may occur in tributaries of the North Fork of the Santiam River.

Fall chinook salmon

As with summer steelhead and coho salmon, non-native fall chinook salmon were planted in the Upper Willamette Basin in the 1960s and 1970s following passage and water quality improvements of the Willamette River. Both hatchery and wild fall chinook salmon spawn and rear in Mill Creek (a Willamette River tributary) and in the Santiam River system. Although fall chinook salmon did spawn in the Calapooia River in the past (average run size 18 fish, 1969-1974), redds have not been reported since 1974 and the population is thought to be minimal or non-existent (ODFW 1992). As with native spring chinook salmon, the Thompson Mill barrier, warm water temperatures and low flows have precluded establishment of a population.

Brook trout

Brook trout populations have been established in lakes and headwater streams within the Upper Willamette basin. Brook trout have not been reported in the Calapooia River and currently there are no releases of hatchery brook trout into the Calapooia subbasin.

HABITAT ASSESSMENT

Methods

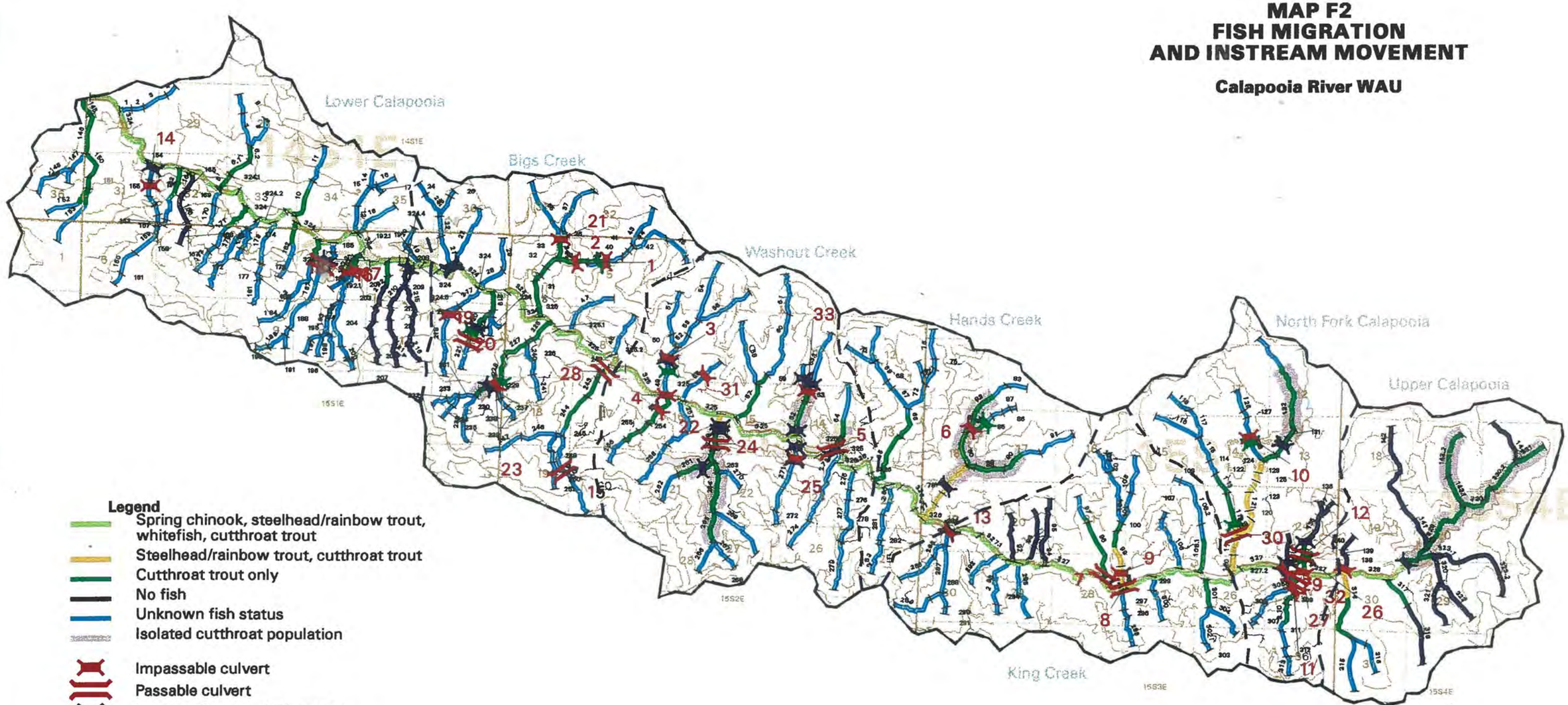
Fish habitat conditions within the Calapooia River WAU were analyzed using the methods developed for Washington State's Watershed Analysis (Washington Forest Practices Board, 1997). The segments visited are listed in Appendix F1 and summarized quantitative data, including habitat value rating, are in Appendix F2. ODFW stream survey data were also used to assess current condition (ODFW 1993). Key data from this ODFW report is summarized in Appendix F4

Dominant species use within the watershed is partitioned into two fish use zones: 1) Calapooia River mainstem and portions of major tributaries used by steelhead, spring chinook salmon, and whitefish and 2) small tributaries and upper tributaries used by resident cutthroat trout trout (**Map SF3**). As previously discussed, the distribution of steelhead/rainbow trout trout is unclear and is likely intermediate between known steelhead and resident cutthroat trout trout distribution.

The two fish use zones are shown in relation to the Geomorphic Map Units (GMUs) (Stream Channel Assessment, Appendix E) on Map SF3. Because most of the habitat concerns are related to channel processing of inputs of wood, sediment, and water, the GMUs are useful for extrapolating fish habitat concerns across other portions of the WAU. These will be referred to in the habitat concerns section. Most of the anadromous use zone reaches are within GMU 1. The resident use zone is mostly in GMUs 3 and 5. The colluvial channels (GMU 2) are generally out of the fish-bearing network.

MAP F2
FISH MIGRATION
AND INSTREAM MOVEMENT

Calapooia River WAU



Legend

- Spring chinook, steelhead/rainbow trout, whitefish, cutthroat trout
- Steelhead/rainbow trout, cutthroat trout
- Cutthroat trout only
- No fish
- Unknown fish status
- Isolated cutthroat population
- Impassable culvert
- Passable culvert
- Impassable waterfall/cascade
- Impassable jam
- Driveable roads

1.0MI 0MI 1MI 2MI 3MI 4MI

1 : 90000

1 inch = 7500 feet

Map F2 Fish Migration

Weyerhaeuser

DATE: 08/18/98

Table F6 Miles of fish-bearing waters of each GMU based on GIS calculations from Map SF3.

GMU	All salmonid species	Steelhead/cutthroat trout only	Cutthroat trout trout only	Total
1	25.1	--	--	**25.1**
3	0	0	5.4	**5.4**
4	0	2.5	0.9	**3.4**
5	0	1.9	22.9	**24.8**

Barriers to movement are shown on Map F2 and areas of concern for fish habitat are summarized on **Map F6**. The habitat concerns map (Map F6) incorporates information from other modules to show locations of habitat concerns related to land management. Map F6 provides a direct illustration of land management activities related to fish habitat concerns as an aid to the prescription team.

Downstream Fisheries Issues

Salmonid habitat quality in the lower portion of the Calapooia River, below the watershed boundary, is adversely affected by several factors including low summer flows, high water temperatures, bank erosion, and barriers to movement. Agricultural and industrial water withdrawals result in decreased flows in the river, primarily in the summer. Removal of riparian vegetation for agricultural purposes results in increased summer water temperatures – a condition that is aggravated by lowered flows. Summer water temperatures are reported to commonly exceed 75°F in the lower Calapooia River (ODFW 1992). Other downstream impacts include removal of riparian vegetation resulting in bank erosion and decreased shading.

Barriers to adult and juvenile salmonid movement from water diversion structures are a major habitat concern in the lower Calapooia River. The following is a description of the major passage hindrance situations downstream of the WAU. These structures have been in place since the 1950s (Willis et al. 1960). Location and summary information are in Table F7..

- Sodom diversion ditch and the Thompson diversion ditch. Downstream of the town of Brownsville (RM 28) water flows through the Sodom diversion ditch during high flows. Winter steelhead migrating in the late winter and early spring must negotiate a fishway (ladder on 8 ft high dam) at the upper end, which is an impediment to passage. As flow declines, water flows through the Calapooia River and the Thompson Diversion Ditch. Spring chinook salmon salmon migrating during this period are unable to pass the diversion weir at the head of the ditch (5 ft high dam with fish ladder). Also, the unscreened diversions of Sodom and Thompson ditches, as well as the other ditches and canals, result in the loss of downstream migrating juveniles (ODFW 1992). In recent years this situation has been greatly improved by the screening of the Thompson mill ditch (W. Hunt, ODFW, Pers. Comm. 1998).

- The Brownsville Diversion ditch is located in the town of Brownsville. During higher flows when the boards to divert flow are not in place, the reach is passable to migrating adult steelhead (W. Hunt, ODFW, Pers. Comm. 1998). During irrigation periods later in the season, fish must pass through a rock cut fishway that hinders chinook salmon salmon passage. Three meters above the dam the Brownsville ditch diverges from the mainstem (Willis et al. 1960). This unscreened ditch formerly caused the loss of outmigrating juveniles until it was screened the late 1990s (W. Hunt, ODFW, Pers. Comm. 1998).

Table F7 Locations of impeded fish passage on the Calapooia River (source: ODFW 1992).

Structure	Location	Adult migration	Juvenile outmigration
Thompson Ditch Dam	RM 22.5	Impeded passage of winter steelhead and spring chinook salmon (spring flows)	---
Thompson Diversion Ditch	RM 22	Low flow blockage to late migrating spring chinook salmon at the Thompson Mill diversion weir	In recent past unscreened diversion resulted in juvenile mortality/injury
Sodom Ditch Dam fishway	RM 28.5	Hindrance to winter steelhead (winter flows)	---
Sodom Ditch Diversion	RM 19.5	---	Unscreened diversion results in juvenile mortality/injury
Brownsville Diversion Ditch and fishway	RM 35	Impeded passage of spring chinook salmon (spring flows)	In recent past diversion resulted in juvenile mortality/injury

WAU Habitat Overview

Based on field observations, fish distribution information, discussions with other biologists, and fish data, the following is the general description of the fish habitat in the WAU.

Lakes and Ponds

Lentic habitat is rare and is a relatively minor habitat feature in the WAU. Beaver have created some pond habitat in areas above McKinley Creek. These ponds are probably not inhabited by fish due to small size and lack of connection to a fish-bearing tributary.

Anadromous Habitat

The Calapooia mainstem is characterized by a confined single-threaded channel dominated by bedrock in many reaches interspersed with more loosely confined cobble/boulder dominated sections. Anadromous fish en route to spawning areas use the deep pools (>1m residual depth) formed in bedrock.

MAP SF3
FISH USE ZONES WITH GMUS

Calapooia River WAU

Legend

- GMU 1: Calapooia Valley Mainstem - confined
- GMU 1: Calapooia Valley Mainstem - loosely confined
- GMU 2: Benches
- GMU 3: Hummocky earthflow hillslopes
- GMU 4: Low gradient narrow valley floor
- GMU 5: Steep mountains

- Spring chinook, steelhead/rainbow trout, whitefish, cutthroat trout
- Steelhead/rainbow trout, cutthroat trout
- Cutthroat trout only
- No fish
- Unknown fish status

1.0MI 0MI 1MI 2MI 3MI 4MI

1 : 90000

1 inch = 7500 feet

Map SF3 Fish Use Zones with GMUs
Weyerhaeuser
DATE: 08/17/98

Reaches with accumulations of spawning-sized gravel are interspersed throughout the mainstem (Plate F1). These are typically located downstream of constrictions. Although the location of these reaches is dispersed, significant spawning gravel patches are more common in the reach above Potts Creek. Areas of sorted gravel suitable for anadromous spawning are also available in Potts Creek and the North Fork Calapooia River but these are not considered areas with abundant gravels (W. Hunt, ODFW, Pers. Comm. 1998).

Photo F1 Typical gravel accumulation area used by spawning anadromous fish in the mainstem of the Calapooia River.

Although there are substantial amounts of spawning habitat, rearing areas adjacent to spawning are not common. Bedrock pools in the thalweg are the primary summer rearing areas. These pools have little overhead cover and lateral complexity. The abundance of coarse substrate provides rearing area in riffles. Overwintering habitat is not abundant in the mainstem because of the moderate to high confinement, lack of side channel and off-channel areas, and high responsiveness to flow events. Also, channel complexity is generally low, contributing to low quantity of hydraulic refuge.

Resident habitat

In most of the smaller channels within the resident fish zone, there is evidence of catastrophic channel alteration due to debris torrents. The signature of recent (<10 year old) debris torrents is abundant coarse sediment, poor pool development, no lateral or overhead cover features, and lack of riparian shading Photo F2). In streams where these events occurred in the past (>20 years) channels have recovered (Photo F3). Cobbles and boulders are forming pools, banks have become more stable providing cover and riparian alder corridors are shading the streams and contributing allochthonous inputs. As with more recently torrented streams LWD is very rare in these channels.

Photo F2 Typical resident fish stream that experienced a debris torrent during the storm in winter 1996.

Photo F3 Typical resident fish stream that experienced a debris torrent in the past.

Inchannel/Historical Modifications

The following is a list of occurrences within the basin that affected stream channels.

- In 1847, The Finley Dam was built at RM 45 (near Crawfordsville). This 3m high dam was a complete migration block until it washed out in winter of 1948 (Willis et al. 1960).

- In the early 1900s, logs were driven down the Calapooia mainstem to the mill in Crawfordsville (Reppeto, 1970). Channel scour and simplification resulted from this practice (Photo F4) and the effects are evident today. Streams of the WAU were never splash dammed, although a splash dam was located downstream of the watershed.

- In 1959, large log jams were removed from an 8 mi. reach of the mainstem Calapooia River above Dollar and from lower North Fork by the State engineering division (Willis et al. 1960).

- In the late 1960s, the mainstem Calapooia River between North Fork Calapooia Creek and King Creek was channelized with a bulldozer to protect the mainline road (K. Baitis, Weyerhaeuser, Pers. comm. 1998).

- In the 1960s and 1970s, removal of LWD from stream channels was a common practice. Inchannel wood removal has been discontinued for over 20 years on Weyerhaeuser ownership, except in situations where large jams threaten bridges or other structures (M. Atkinson, Weyerhaeuser Company, Pers. Comm. 1996).

- Besides upgrading of culverts through time, the only instream project to modify fish habitat is the installation of a log gabion on King Creek (ODFW 1992).

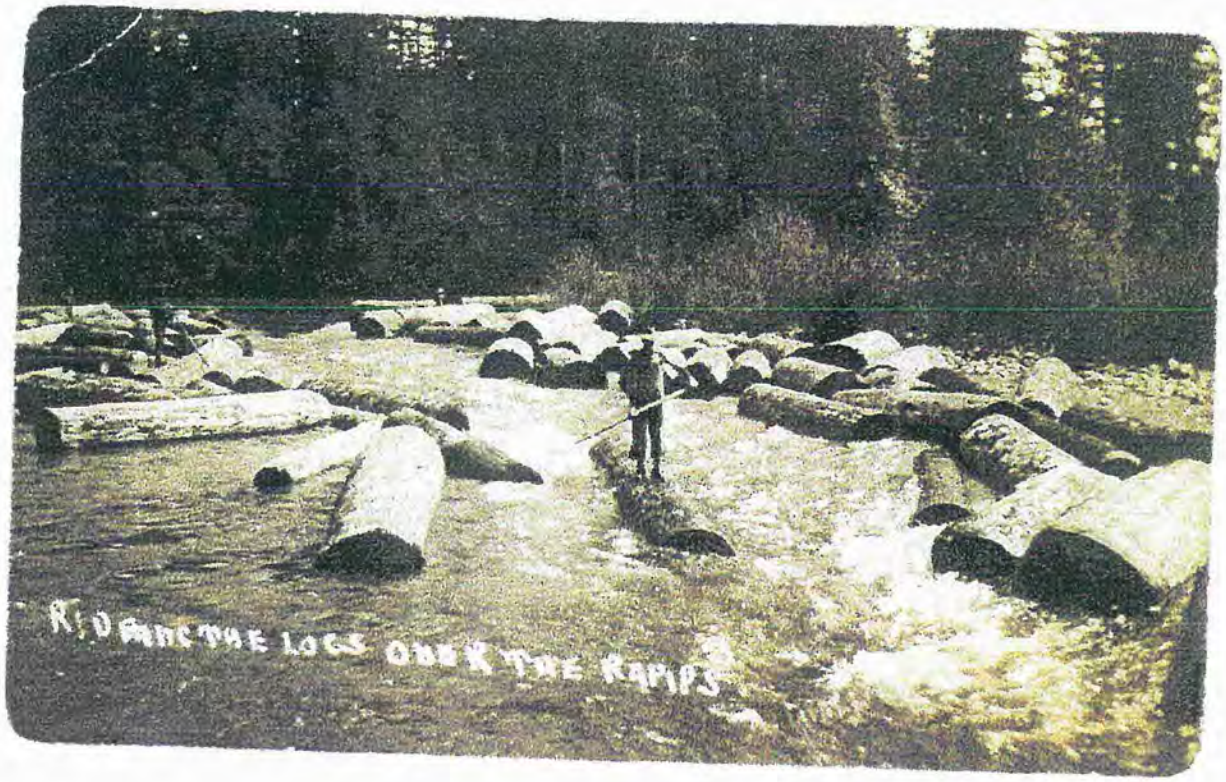


Photo F4 Example of log driving operation in rivers of the Willamette basin. Source: Brownsville Historical Museum.

Habitat Concerns by Life History Phase

This section will answer the critical question: *Where are the areas of degraded habitats in the WAU?* This question addresses the quality and quantity of key physical aspects of salmonid habitat within this WAU. This discussion is organized by life history phase.

Upstream Migration/Instream Movement and Adult Holding

Natural Barriers to Movement

Ecologically, natural barriers to fish movement can be an important mechanism for maintaining aquatic communities and species diversity, especially where species are vulnerable to competitive interaction. Currently, 32 natural barriers that hinder fish movement have been identified in the WAU (Map F2, Appendix F5). Most (24) are bedrock waterfalls or chutes that hinder movement of cutthroat trout trout or form the upward extent of anadromous fish distribution. The remaining eight hindrances are from log/debris jams. This type of barrier is the outcome of natural disturbance; although, management related mass wasting events and debris torrents can form jams beyond the natural magnitude and frequency of these events. These barriers are not permanent as they degrade through time, allowing for passage. Also, debris jams are usually porous, and may not completely block fish passage.

Isolated populations

In situations where resident cutthroat trout trout exist above impassable falls or cascades, populations are considered isolated, as upstream gene flow and recolonization are not possible. Based on fish sampling, current FIRS map and known barriers, seven isolated populations were identified (Map F2). It is unlikely that all isolated populations are known because inventories of fish-bearing waters and natural barriers are currently incomplete.

Isolated populations vulnerable to catastrophic events, such as debris flows, would be those located above impassable, relatively permanent barriers (not beaver dams, or minor debris jams) and not accessible to other fish-bearing waters (thus no areas to escape to during such events). Of the seven populations identified all but the Calapooia River WAU with its numerous tributaries, met these criteria. According to the Mass Wasting Module (Appendix A), there is a high potential for catastrophic habitat change in all reaches inhabited by these isolated populations (see Map F6).

A minor fish sampling effort was conducted by Weyerhaeuser in 1996 (Weyerhaeuser Company, Unpublished Data, 1997) following a very large winter storm that resulted in many debris torrents within the WAU. We compared this post storm data to sample data collected during this assessment to look for areas of fish population recovery. It is likely that some populations have already been lost in the WAU due to catastrophic events, which occurred prior to 1996.

- The isolated population in McKinley Creek (segment 259) appears to have been lost as no fish were sampled in either the 1996 or the 1998 sample effort.
- As with McKinley Creek, no fish have been found above the barrier in segment 64 (tributary next to Barrett Creek) in either sample period. The debris torrent may have eliminated this population but the only documentation that a population existed prior to the storm is the Oregon Department of Forestry map classification (Map SF1).
- One stream that lacked fish following the debris torrents appears to be recolonizing (segment 243, Map SF1). Because this stream lacks barriers, re-colonization is possible.
- Currently, fish appear to have not repopulated Washout Creek although there are no migration barriers. Washout (segment 57) is a former fish-bearing stream.

Road-crossing impediments to movement

During fieldwork, we surveyed 33 culverts for fish passage in various stream types, including reaches that have unknown/no fish according to the FIRS database (Map F2). Of these, 23 are impassable. Seven of the 23 impassable culverts occur in close proximity to natural fish barriers making them a low priority for modification. Descriptions of these culverts and there priority for modification are listed in Appendix F6. Although this survey covered a significant number of culverts, it was not undertaken as a complete survey of the WAU. It is likely that other road crossings are hindering fish movement in the WAU.

Other migration habitat concerns

The remaining habitat concerns for upstream migration are related to inputs of LWD, sediment, and water. These issues are discussed by GMU in the section 'Fish habitat vulnerabilities related to channel inputs' (Table F9). Thermal radiation inputs, which result in increased water temperature, are an issue for spring chinook salmon salmon, which migrate during periods of elevated water temperatures. This discussion is expanded in the section on rearing fish.

Spawning and Incubation

Salmonid embryos or alevins within redds can be impacted by movement of the substrate during high flows in the following ways: 1) scour of the redd results in mechanical damage, 2) deposition of substrate following a high flow event buries redds, resulting in entombment, and 3) channel abandonment, where the channel carves a new course, resulting in dewatering of redds. Species that incubate during high flow periods are susceptible to impacts of gravel instability associated with peak flows. Salmonid species are adapted to the naturally occurring frequency of high flow events, which results in occasional poor recruitment. However, increased frequency of occurrence or magnitude of channel changing events (scour, deposition and channel shift) could negatively impact populations.

In the WAU, spring chinook salmon and to some extent cutthroat trout trout have overlap of incubation period with high flow periods (Figure F5). Thus, their redds would be susceptible to effects of peak flow events. Areas where peak flows are a concern are discussed by GMU in the section 'Fish habitat vulnerabilities related to channel inputs' (Table F9). The Hydrology Assessment (Appendix C) predicts areas where peak flows could be substantially increased due to harvest levels. Under current stand conditions, all subbasins except for Hands Creek have a minor potential (<10%) for increases in two-year events (Table F8). If subbasins were converted to a completely immature stand condition, all would have a substantial (>10%) likelihood of increased peak flows under a two-year event. However, this scenario is not possible under current state rules regulating green-up and clear-cut size.

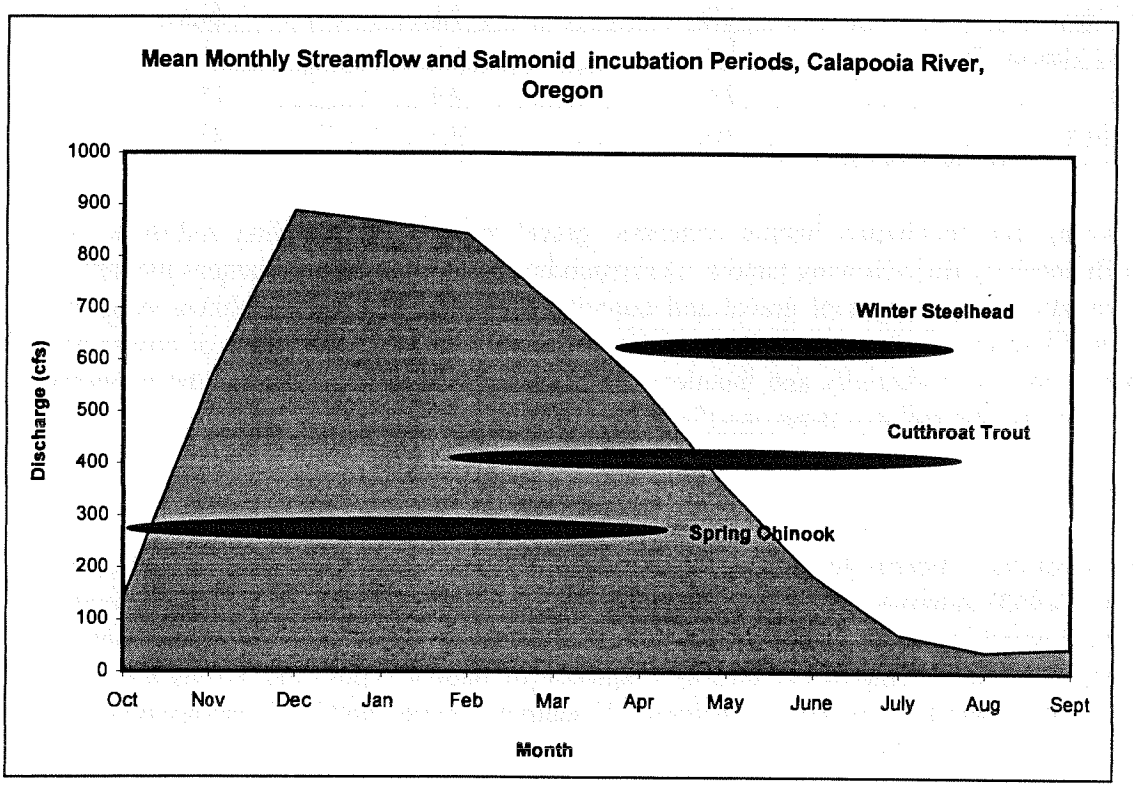


Figure F5 Calapooia River hydrograph and incubation periods of salmonid species. Hydrograph based on USGS gage (station14172000) at Holley, operating in water years 1935-1987.

Table F8 Changes in amount of runoff during a 2-year return interval hydrological event under current and fully open canopy conditions in subbasins of the Calapooia River WAU. Data based on model result from the Hydrological Condition Module (Appendix C).

Hydrologic Analysis Unit	2-year runoff (cfs) under fully forested conditions*	% increase under current conditions	%increase under fully open conditions
Bigs Creek	291	5.0	24.0
Blue Creek	185	2.7	24.7
Hand Creek	228	10.0	25.0
McKinley Creek	249	7.6	24.5
North Fork Calapooia Creek	612	1.4	24.0
Potts Creek	270	2.4	25.4
Calapooia River	714	4.5	23.7

*Based on USGS regional regression equations.

Other spawning and incubation habitat concerns, gravel availability and fine sediment, are strongly influenced by the following factors: 1) surrounding geology which influences the size of material available (i.e., competent gravel and quantity of fines); 2) large roughness elements which sort and trap gravel; 3) channel function that influences routing and storage of coarse and fine sediment, and, 4) availability and function of roughness elements. These habitat concerns are addressed in the channel inputs section (Table F9).

Summer Rearing

The primary habitat concerns for summer rearing are those related to habitat simplification. Reeves et al. (1993) summarized habitat simplification as a reduction of the following stream features: 1) range and variety of hydraulic conditions, 2) variety of substrate size, 3) structural elements (for cover and complexity), and 4) frequency of habitat types (i.e., riffles and pool sequences). These conditions related to the inputs of sediment, water, and LWD are addressed in the channel inputs section (Table F9).

During the summer, there is potential for adults and rearing juveniles to be exposed to elevated water temperatures, especially in July and August (Sullivan et al. 1990). Depending on the amount and duration of increased temperatures, salmonids may be stressed (Bjornn and Reiser 1991). Stream shade contributed by riparian canopy cover is important for maintaining cold water temperatures. Currently, riparian shade is considered low in many portions of the WAU according to the Riparian Assessment (Appendix D). Besides harvest of trees in close proximity to the stream channel, debris torrents remove stream adjacent vegetation that provided stream shade when intact. The fish-bearing reaches with low riparian canopy are shown on Map F6.

Debris torrents (either dam break floods or debris flows) are a common stream disturbance mechanism that alters rearing habitat. These events often result in reduced habitat complexity due to either deposition of sediment resulting in a homogeneous bedform of coarse substrate with low pool development, or scour of the channel resulting in bedrock dominated channel. Although this is a natural landscape process that is important for habitat development, increased magnitude and frequency of these events can result in long term reduction in habitat complexity. Based on field observations, many of the fish-bearing channels have had debris torrents in the past. The potential for habitat loss due to catastrophic events is addressed by GMU in the habitat concerns related to channel inputs section (Table F9). Areas of potential hazard from debris flow are shown on Map F6.

Winter Rearing

In both anadromous and resident fish use zones, physical habitat features important to summer rearing remain important in winter. Stream channel characteristics that create habitat complexity, such as low velocity microhabitat and cover, are consistent between seasons. These habitat concerns are discussed in the channel inputs section (Table F9). High winter flows can entrain fine particles, resulting in turbidity that can be detrimental to fish by reducing feeding and growth, and inducing physiological stress (reviewed by Waters 1995). Although turbidity was not observed during the survey period, the Surface Erosion module (Appendix B) estimates that the western portion of the WAU (GMU 3) would be more likely to have turbid conditions during high flows due to soil type. Currently, possible impacts to fisheries resources are not known.

Fish Habitat Vulnerabilities to Channel Inputs

Table F9, summarizes the habitat vulnerabilities to channel inputs for each of the Geomorphic Map Units (GMUs) that are fish-bearing (GMUs 1, 3, 4, and 5). These vulnerabilities are the degree to which the fish would be susceptible to habitat loss due to changes in inputs of sediment, water, and LWD and catastrophic events. Because fish habitat vulnerabilities to inputs are directly linked to channel function, I included a description of each GMU (from the Stream Channel Module, Appendix E) and the sensitivities of each GMU to the inputs.

Supporting data are from surveys conducted during this analysis (Appendix F2) and those conducted by ODFW and USFS as summarized in Appendix F3 and Appendix F4, respectively. These are referred to in the table as simply F2, F3 and F4. For each vulnerability "call," supporting data and observations are presented. The channel analyst's comments on stream function related to each of the inputs are also included.

Table F9 Fish habitat vulnerabilities and channel sensitivity to inputs of sediment, water, LWD, and catastrophism in each of the Geomorphic Map Units (GMUs). Comments supported with summary statistics from Appendices F2, F3, and F4.

GMU 1: Calapooia Mainstem

Salmonid Species	All species, entire GMU in range of anadromous salmonids.
Habitat Use	Anadromous migration corridor, spawning and rearing for all species.
Dominant Stream Morphology	0-2% gradient with moderate to high confinement and channel entrenchment. Dominant bedform is bedrock forced pool riffle/pool riffle. Loss of roughness results in abundant reaches of planebeds.
Land Use Influence	Stream cleaning, stream adjacent harvest, roads, railroad, mining, and log driving
Segments visited	324 324.1 325 326 327 328

	Sensitivity	**Channel Module Comments**
Input	**Vulnerability**	**Fish Module Current Condition and Comments**
Coarse sediment	Low-Moderate	Stream energy sufficient to transport sediment load, yet temporary storage can occur in loosely confined reaches. High deliveries of coarse bedload from upstream source and transport reaches are migrating through GMU 1
	High	• Bedrock and coarse sediment are the primary pool formers and cover features. • Although system does effectively transport coarse sediment through time, abundant input results in accumulations that limit deep-water areas in deposition areas. • Currently, gravel available for spawning is relatively abundant. Quantity was moderate to high (>50% of habitat units with gravel as the dominant or subdominant substrate size, F2). Gravel composed 29-35% of surface substrate size in mainstem (F3).
Fine sediment	Low-Moderate	Channel processes fine sediment due to high energy. Fines are evident on margins and gravel bars of loosely confined reaches and fine sediment deposition is possible in localized areas.
	High	• Some accumulations in expected locations, redds are susceptible to accumulations. • Spawning gravel quality high to moderate in all sample reaches (F2) and sand was never the dominant or subdominant substrate size over the sample reaches. Surface silt/sand fraction 14 – 24% in the mainstem (F3).
Peak flows	High	Channel not susceptible to planform shifts, but channel scour does occur. Scour would decrease with more roughness elements.
	High	• Chinook salmon salmon redds are susceptible to entombment, or disruption during high flows.
LWD	Moderate	Obstructs flow, traps sediment, and creates pools
	High	• Very rare in this GMU as either a cover or pool forming features. LWD was never the primary pool former (F2) • LWD quantity was low in all samples (<1piece/channel) width except in reaches with jams (F2) (0.1 to 0.9 pieces/cw, F3)
Catastrophic	Moderate	Sediment is directly routed to these reaches and dam break floods may occur locally.
	High	• Past timber driving has resulted in scoured channel with very little complexity and very little structure to attenuate high flows. Transport of debris (during floods) from modern torrents is unimpeded in this GMU except of areas with remnant debris accumulations.

Table F9 continued. Fish habitat vulnerabilities and channel sensitivity to inputs of sediment, water, LWD, and catastrophism in each of the Geomorphic Map Units (GMUs). Comments supported with summary statistics from Appendices F2, F3, and F4.

GMU 3: Hummocky Earthflow Hillslopes

Salmonid Species	Cutthroat trout trout only. Some steelhead use possible in the lower ends.
Habitat Use	All life history phases of cutthroat trout trout.
Dominant Stream Morphology	Small channels 4-20% gradient and moderate to high confinement. Forced-pool and step/pool morphology. High sediment source from weathered parent material. High clay component.
Land Use Influence	Stream adjacent timber harvest, roads
Segments visited	155 187 192

	Sensitivity	Channel Module Comments
Input	Vulnerability	Fish Module Current Condition and Comments
Coarse sediment	Moderate	Coarse is not naturally abundant. Large influx would result in channel aggradation due to low stream energy.
	High	• low pool development with poor sorting of coarse material. Channels susceptible to pool filling
Fine sediment	High	High fine accumulations due to geology and low gradient. Pool filling and bank erosion observed.
	High	• Abundant fine sediment forms surface substrate and pool filling was observed. Additional inputs would contribute to decreased habitat quality
Peak flows	Moderate	Frequent areas of eroding bank. Smaller substrate sizes are prone to entrainment and filling of pools.
	High	• Loss of pool habitat and lateral habitat would result from increase in peak flow events.
LWD	High	Malleable bed and banks are highly responsive to influence of LWD forcing flow and trapping sediment.
	High	• Currently, low pool formation and cover from LWD observed.
Catastrophic	Low	Low gradient reaches receive numerous inputs from upstream source reaches and tributaries. Dam break floods might propagate through some reaches.
	Low	• Primarily issue of routing of coarse and fine sediment from upstream events. Catastrophic habitat change is unlikely.

Table F9 continued Fish habitat vulnerabilities and channel sensitivity to inputs of sediment, water, LWD, and catastrophism in each of the Geomorphic Map Units (GMUs). Comments supported with summary statistics from Appendices F2, F3, and F4.

GMU 4: Low Gradient Narrow Valley Floor

Salmonid Species	Steelhead/rainbow trout trout in tributary reaches of Lower North Fork and Potts Creek. Cutthroat trout trout throughout.
Habitat Use	Anadromous spawning and rearing habitat. All life history phases of cutthroat trout trout
Dominant Stream Morphology	2-4% response reaches with moderate to high confinement. Moderately sized response reaches with forced pool riffle morphology.
Land Use Influence	Stream adjacent timber harvest, roads, and stream cleaning.
Segments	79 119 329

	Sensitivity	**Channel Module Comments**
Input	**Vulnerability**	**Fish Module Current Condition and Comments**
Coarse sediment	Moderate-Low	Large inputs of coarse sediment result in planform shifts and some braiding. Sufficient stream energy to process inputs.
	High	• Channel processing of abundant coarse sediment results in poorly defined, shallow pools (mean depth .3-.7m, F2) and poorly sorted gravels. the abundant coarse sediment load contributes to low pool quantity (4.4-10.9 cw/pool, F3).
Fine sediment	Moderate	3-4% gradient transports fines downstream
	Moderate	• Gravel composes 23-39% of surface substrate in sample reaches (F3). These small lateral gravel patches used by cutthroat trout susceptible to fine accumulation. • Sand/silt forms 20-58% of surface substrate in sample reaches (F3). Due to lack of structure fines are moving through system.
Peak flows	High	Pool scour likely under current loading of large roughness elements. Banks are prone to erosion.
	High	• Redds of steelhead and cutthroat trout less susceptible to alteration from peak flows due to timing of spawning. Loss of spawning sized gravel due to scour.
LWD	High	Wood forces pools, protects banks, stores sediment, causes planform shifts
	High	• LWD quantity is variable ('absent to present', F3). LWD rarely forms pools contributing to low pool depths (≤0.7m, F3).
Catastrophic	Moderate	Routes debris flows during floodstage.
	High	Routing of sediment from upstream debris torrents. Deposition of abundant coarse sediment contributes to wide shallow channel, low pool development and reduction of habitat quality.

Table F9 continued Fish habitat vulnerabilities and channel sensitivity to inputs of sediment, water, LWD, and catastrophism in each of the Geomorphic Map Units (GMUs). Comments supported with summary statistics from Appendices F2, F3, and F4.

GMU 5: Steep Mountains

Salmonid Species	Most in the cutthroat trout trout zone, steelhead lower portions of U.S. Creek (seg. 314) and may be present in other accessible tributaries.
Habitat Use	All life history phases of cutthroat trout trout, some steelhead spawning and rearing.
Dominant Stream Morphology	4-20% transport reaches coarse bedded small sized, most with high confinement forced pool and step-pool form. Cobble and gravel are dominant substrate.
Land Use Influence	Stream adjacent timber harvest, roads
Segments visited	21 36 38 39 49 56 57 62 63 64 65 81 82 84 96 98 112 126 130 133 134 138 141 218 220 228 229 242 243 247 252 253 259 271 284 308 309 314

Table F9 continued. Fish habitat vulnerabilities and channel sensitivity to inputs of sediment, water, LWD, and catastrophism in each of the Geomorphic Map Units (GMUs). Comments supported with summary statistics from Appendices F2, F3, and F4.

GMU 5: Steep Mountains continued

Input	Sensitivity Vulnerability	Channel Module Comments Fish Module Current Condition and Comments
Coarse sediment	Low	High deliveries of coarse bedload from upstream source and transport reaches are migrating through this GMU. Moderate confined areas experience planform shifts from aggradation; temporary storage can occur, filling pools.
	High	• Areas that have recently received abundant supplies of coarse sediment have low pool development. Pools are shallow (.2-.4m, F2, .4-.7, F3, and .6, F4) and are susceptible to coarse sediment filling. • Spawning-sized gravels are present in most sample reaches (18-36% of surface substrate, F3, dominant substrate in most units in all sample reaches, F2) although sorted gravel patches were typically in lateral areas.
Fine sediment	Low	• Fines are rapidly transported through these high energy reaches. Deposition in velocity shadows is common.
	Moderate	• Sand/silt composed 17-58% of the surface substrate (F3) and was never the dominant substrate type in sample reaches (F2). • Fines are accumulating in lateral areas where patches of spawning sized gravel are also deposited. Also, fines reduce interstitial spaces in velocity shadows.
Peak flows	Low	Limited potential of planform shift, due to high confinement and erosion resistant banks
	Moderate	• Movement of high sediment loads during peak flows could result in the rearrangement of the channel. Disturbance and burial of redds only moderately likely based on spawning periods of cutthroat trout and steelhead.
LWD	High-moderate	LWD obstructs flow, traps sediment, and forms pools.
	High	• LWD was absent to very low abundance (F3). Still, LWD is primary pool former in half of the sample sites (F2). • Lack of LWD contributes to low pool depth (.2-.4m, F2, .4-.7, F3, and .6, F4)
Catastrophic	High	Moderately steep deposition zones for debris torrents
	High	• Impacts of catastrophic events include loss of isolated population in McKinley Creek. Currently, many of these reaches are radically altered due to deposition of coarse sediment from debris torrents. • Areas of scour to bedrock and some of debris accumulation. Both effects result in reduced habitat complexity. Loss of fish populations in the short term and permanent loss of isolated populations can result.

Summary of Habitat Concerns

The following (Table F10) is a summary of salmonid habitat concerns by life history phase. Areas of concern are summarized on Map F6 in terms of land management related inputs, including fine sediment from mass wasting and surface erosion, low LWD recruitment and low riparian canopy.

Table F10 Habitat Concerns by Life History Phase within the Calapooia River WAU.

Habitat Characteristic	Habitat Issue
Upstream migration and instream movement	
Low flow barriers	Some reaches with large accumulations of sediment from debris torrents have subsurface flow in the summer which limits fish movement as well as rearing habitat
Road crossing barriers	Six culverts are considered high priority for correction of fish passage hindrances. Several others were identified in areas that may be fish-bearing (see Appendix F6). More may occur as not all of culverts were surveyed.
Natural barriers	Waterfalls/cascades and debris jams hinder or prevent upstream movement throughout the WAU (Map F 2). Six isolated populations were identified in the WAU. These populations are vulnerable to catastrophic events.
Spawning and incubation	
Sensitivity to peak flows and catastrophic events, resulting in redd disturbance.	Increased frequency of redd disturbance due to management related increases in peak flows is remote, as entire subbasins would have to be converted to immature stand condition. Management related catastrophic events (debris torrents and floods) would disturb redds. Areas highly vulnerable to these events occur in GMUs 1, 4, and 5.
Gravel availability.	Gravel size substrate is common in the WAU particularly in areas with abundant coarse sediment. Except in large pool tailouts (such as in the mainstem Calapooia River), gravel sorting is usually poor. This is attributed to lack of LWD and to the abundance of newly deposited coarse sediment due to debris torrents.
Fine sediment	In most of the WAU fine sediment accumulation was minor, observed in stream margins without evidence of pool filling. Because these are also the areas where the only sorted spawning-sized gravels were accumulated this is a management concern. GMU 4 has abundant fine sediment and has a high vulnerability.
Summer Rearing	
LWD	Low quantities of LWD were observed in most of the fish-bearing reaches. This contributes to low pool frequency, low pool depth, and lack of overhead cover.
Canopy	Riparian harvest and debris torrents have reduced canopy cover in may reaches resulting in the likelihood of elevated water temperatures. Areas with reduced canopy cover are shown on Riparian Assessment Map D2.
Winter Rearing	
Off-channel areas and hydraulic refuge areas	The relatively confined and steep characteristic of this headwater system is not conducive to the formation of off-channel and side channel areas. Only one significant side-channel was observed in the mainstem. Without large roughness elements in the form of LWD, the availability of low velocity microhabitat is reduced.
Turbidity	Water quality is likely to be good in winter in most of the WAU. GMU 4 is likely to be turbid during storms due to naturally abundant fine sediment. Turbidity may be an issue in some locations receiving inputs from landslide scars.

CONFIDENCE IN WORK PRODUCTS

Fisheries Resources—Moderate

The extent of the fish-bearing network is based on the ODF map and sampling during this assessment. Modeling based on map characteristics suggests that few areas remain to be checked for fish presence. Distribution of both adult and juvenile anadromous fish in tributaries is based on information from ODFW and unpublished Weyerhaeuser data, and USFS surveys in U.S. Creek. It is likely that steelhead use the lower reaches of other tributaries but this has not been verified by sampling. Information on non-salmonid species is limited but the species list is considered robust due to sample data from EPA and the report from the lower Calapooia River.

Barriers—Moderate

Barrier data came from many different sources but most were identified during our fieldwork. Natural barriers and hindrances are known in the mainstem and larger tributaries but an inventory of barriers affecting the distribution of species in the tributaries is incomplete. Thus, the existence of isolated populations of cutthroat trout trout is also only partially established. We were able to assess 33 culverts for passage, including all of those currently of concern to the road system manager. This was not a comprehensive survey. It is likely that more culverts should be checked once the complete extent of fish distribution is known.

Habitat Sampling—High

The watershed was sampled during September 1997 and May 1998. Under these low flow conditions most waters were wadeable and visibility was very good. Stream survey data was collected from 12 sites and 37 other sites were visited (reconnaissance level). Most data were from GMU 5; thus, confidence was highest for this area. This data was most useful for assessing the quality and quantity of pool habitat, LWD contribution to fish habitat, and substrate composition. ODFW and USFS data helped corroborate our findings and clarify questions where we did not collect stream habitat data.

Habitat Assessment—Moderate

Confidence in determining areas of concern by life history phase based on the two fish use zones was high because this was a more conservative approach than attempting to assign these based on individual species distribution. This conservative approach is necessary because: 1) the uncertainty of distribution of species (see above), 2) the apparent overlap of distribution of species, 3) the lack of specific data on habitat use by species, and 4) the gross scale of the methodology where the analysis focuses on several key physical habitat parameters. Habitat use by life history phase was inferred from fish distribution rather than quantitative data. The exception is some of the anadromous spawning and rearing areas are known. Habitat concerns were based on generalized knowledge of salmonid habitat applied to these areas rather than actual cause and effect linkages. Therefore, the habitat evaluation is at a coarse level.

Past Habitat Influences

The habitat assessment is based on the current conditions. Past events, such as stream wood removal, rafting of timber through the mainstem, and different timber harvest practices, have probably left their signature in the watershed. The contribution of these to the current condition is speculative.

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Appendices F1- F6

Appendix F1 Fish sample data from three streams within the Calapooia River WAU. Source: U.S. Environmental Protection Agency Unpublished Data.

STRM_ID	LOCATION	ABUND	LENG_MAX	LENG_MIN	SPECIES NAME	YEAR
ORC07	Potts trib.	30	145	32	PACIFIC GIANT SALAMANDER	1993
ORC07	Potts trib.	75	200	41	CUTTHROAT TROUT TROUT	1993
ORC07	Potts trib.	15	240	65	PACIFIC GIANT SALAMANDER	1996
ORC07	Potts trib.	23	143	55	CUTTHROAT TROUT TROUT	1996
ORC09	Calapooia R. headwaters trib.	3	48	43	TAILED FROG	1996
ORC09	Calapooia R. headwaters trib.	28	185	68	PACIFIC GIANT SALAMANDER	1996
ORC09	Calapooia R. headwaters trib.	14	185	50	CUTTHROAT TROUT TROUT	1996
ORST97-444	Calapooia R. near Holley	2	403	190	LARGESCALE SUCKER	1997
ORST97-444	Calapooia R. near Holley	6			RETICULATE SCULPIN	1997
ORST97-444	Calapooia R. near Holley	10	110	35	TORRENT SCULPIN	1997
ORST97-444	Calapooia R. near Holley	14	285	167	CUTTHROAT TROUT TROUT	1997
ORST97-444	Calapooia R. near Holley	4	270	127	RAINBOW TROUT TROUT	1997
ORST97-444	Calapooia R. near Holley	18	107	89	CHINOOK SALMON SALMON	1997
ORST97-444	Calapooia R. near Holley	25	274	90	NORTHERN SQUAWFISH	1997
ORST97-444	Calapooia R. near Holley	14	80	36	LONGNOSE DACE	1997
ORST97-444	Calapooia R. near Holley	31	78	54	SPECKLED DACE	1997
ORST97-444	Calapooia R. near Holley	31	107		REDSIDE SHINER	1997

Appendix F2 Habitat survey data collected from reaches within segments of the Calapooia River WAU. Data is summarized by segment.

GMU	Seg.	Survey Length (m)	Bankfull Width	# Channel widths	# Habitat Units	% Grad.	Con-fine-ment	Mean Pool Depth (m)	Mean pool area (m^2)	# Pools	Primary Pool Former	LWD Pieces (Small)	LWD Pieces (Med & Lg)	% Pools w/ >5% Cover	Dom. Subst.	Sub dom. Subst.	Jams
1	324	650	27.7	23.5	10	0-2	UC	2.0	261	5	Boulder	7	1	20	Gravel	Boulder	0
1	324.1	610	27.0	22.6	9	1-3	UC	0.9	135	4	Meander	6	3	0	Gravel	Bedrock	0
1	325	441	21.3	20.7	24	2-4	TC	0.8	126	14	Bedrock	1	2	50	Cobble	Gravel	0
1	327	441	22.8	19.3	10	2	MC	0.7	60	5	Meander	6	16	80	Gravel	Cobble	1
1	328	252	12.6	20.1	21	4	TC	0.5	18	11	Bedrock	3	39	55	Bedrock	Gravel	1
4	79	185.5	6.2	29.8	19	2-4	MC	0.4	9	11	Bedrock	2	4	27	Gravel	Boulder	0
5	96	129.8	5.9	22.0	17	10-12	TC	0.2	2	9	Boulder	4	34	56	Gravel	Cobble	0
5	98	162	7.5	21.7	24	8 - 10	TC	0.3	6	13	Boulder	1	21	62	Gravel	Cobble	0
5	112	163	6.7	24.3	14	5-7	MC	0.3	5	8	LWD	39	15	50	Gravel	Cobble	0
5	229	175	4.8	36.5	21	8 - 12	TC	0.3	2	11	LWD	1	31	55	Gravel	Cobble	0
5	243	156.2	7.2	21.6	20	8-10	TC	0.4	9	11	Boulder	2	10	45	Gravel	Boulder	0
5	308	171.5	6.8	25.2	19	6-8	TC	0.4	9	10	LWD	29	61	90	Gravel	Cobble	0

Appendix F2 continued. Habitat survey data collected from reaches within segments of the Calapooia River WAU. Data is summarized by segment. Associated habitat value ratings (V.R.) are based on criteria described in WFPB 1995.

Spawning habitat

Use Zone	GMU	Seg.	% Grad.	% Units w/ Gravels	Gravel Quantity V.R.	Dom. Subst.	Subdom. Subst.	Spawning Habitat Quality V.R.
A	1	324	0-2	90%	high	Gravel	Boulder	high
A	1	324.1	1-3	89%	high	Gravel	Bedrock	high
A	1	325	2-4	63%	moderate	Cobble	Gravel	moderate
A	1	327	2	90%	high	Gravel	Cobble	high
A	1	328	4	52%	moderate	Bedrock	Gravel	moderate
A	4	79	2-4	79%	high	Gravel	Boulder	high
R	5	96	10-12	76%	high	Gravel	Cobble	high
R	5	98	8 - 10	83%	high	Gravel	Cobble	high
R	5	112	5-7	86%	high	Gravel	Cobble	high
R	5	229	8 - 12	67%	high	Gravel	Cobble	high
R	5	243	8-10	90%	high	Gravel	Boulder	high
R	5	308	6-8	79%	high	Gravel	Cobble	high

Appendix F2 continued. Habitat survey data collected from reaches within segments of the Calapooia River WAU. Data is summarized by segment. Associated habitat value ratings (V.R.) are based on criteria described in WFPB 1995.

LWD Quantity

Use Zone	GMU	Seg.	Primary Pool Former	LWD /CW	LWD Quantity V.R.	LWD (Med and Lg.)/100m	Total LWD/100m
A	1	324	Boulder	0.3	low	0.2	1.2
A	1	324.1	Meander	0.4	low	0.5	1.5
A	1	325	Bedrock	0.1	low	0.5	0.7
A	1	327	Meander	1.1	moderate	3.6	5.0
A	1	328	Bedrock	2.1	high	15.5	16.7
A	4	79	Bedrock	0.2	low	2.2	3.2
R	5	96	Boulder	1.7	moderate	26.2	29.3
R	5	98	Boulder	1.0	moderate	13.0	13.6
R	5	142	LWD	2.2	high	9.2	33.1
R	5	229	LWD	0.9	low	17.7	18.3
R	5	243	Boulder	0.6	low	6.4	7.7
R	5	308	LWD	3.6	high	35.6	52.5

Appendix F2 continued. Habitat survey data collected from reaches within segments of the Calapooia River WAU. Data is summarized by segment. Associated habitat value ratings (V.R.) are based on criteria described in WFPB 1995.

Pool Habitat

Use Zone	GMU	Seg.	CW/Pool	Pool Freq. V.R.	Mean pool area (m^2)	% Pools	Pool Length V.R.	Primary Pool Former	% Pools w/ >5% Cover	Cover Quantity V.R.
A	1	324	4.7	high	261.0	54%	high	Boulder	20	low
A	1	324.1	5.6	high	134.6	39%	high	Meander	0	low
A	1	325	1.5	high	126.2	64%	high	Bedrock	50	mod
A	1	327	3.9	high	59.5	32%	high	Meander	80	high
A	1	328	1.8	high	18.0	36%	moderate	Bedrock	55	mod
A	4	79	2.7	high	9.3	38%	high	Bedrock	27	low
R	5	96	2.4	high	1.6	17%	low	Boulder	56	mod
R	5	98	1.7	high	5.7	36%	high	Boulder	62	mod
R	5	112	3.0	high	4.9	25%	moderate	LWD	50	mod
R	5	229	3.3	high	2.4	20%	low	LWD	55	mod
R	5	243	2.0	high	9.4	50%	high	Boulder	45	mod
R	5	308	2.5	high	8.6	39%	high	LWD	90	high

Appendix F3. Summary statistics of key habitat parameters from ODFW stream survey data, Calapooia River WAU (Source: ODFW 1990 and 1991 unpublished data).

Potts Creek				
	Reach (ODFW)	1	2	3
	Segment[1]	77,78,79	80,81	82
	GMU	4	5	5
Parameter				
Channel characteristic				
Length (m)		1502	489	387
Bankfull width (m)		7.7	2.8	3.3
Gradient %		2.4	3.8	2.7
Spawning and incubation indices				
Surface substrate size composition (%)	Silt	36	37	32
	Sand	22	21	24
	Gravel	23	18	21
	Cobble	12	10	13
	Boulder	6	15	4
	Bedrock	--	--	--
Bank erosion (%)		2	16	39
Rearing habitat indices				
Habitat unit area (%)	Pool	10.2	11.1	25.5
	Riffle	71.8	38.7	45.1
	Rapid/cascade	13.6	48.7	27.8
	Step/falls	4.5	1.5	1.5
Pool frequency (cw/pool)		8.3	29.1	7.8
Mean res. pool depth		.7	.7	.4
LWD rating		Absent/very low	Absent/very low	Very low
Open sky (mean: range %)		0	0	26: 0-42

1. Segment number from habitat assessment corresponding to the ODFW reach number.

Appendix F3 continued. Summary statistics of key habitat parameters from ODFW stream survey data, Calapooia River WAU (Source: ODFW 1990 and 1991 unpublished data).

North Fork Calapooia River				
	Reach (ODFW)	1	2	3
	Segment[1]	110,111	119,120,121	122,123,124,125,129
	GMU	4	4	5
Parameter				
Channel Characteristic				
Length (m)		836	642	806
Bankfull width (m)		11.3	10.8	9.4
Gradient %		3.8	4.0	5.3
Spawning and incubation indices				
Surface substrate size composition (%)	Silt	9	13	5
	Sand	11	11	12
	Gravel	39	37	36
	Cobble	41	35	41
	Boulder	1	3	6
	Bedrock	--	--	--
Bank erosion (%)		90	93	90
Rearing habitat indices				
Habitat unit area (%)	Pool	6.0	21.7	27.4
	Riffle	35.8	27.2	17.7
	Rapid/cascade	45.1	48.3	47.0
	Step/falls	3.1	2.7	7.9
Pool frequency (cw/pool)		10.9	4.4	3.0
Mean residual pool depth		.5	.3	.5
LWD score		Very low	Very low/present	Very low
Open sky (mean: range%)		26:0-67	7:0-22	19:0-64

1. Segment number from habitat assessment corresponding to the ODFW reach number.

Appendix F3 continued. Summary statistics of key habitat parameters from ODFW stream survey data, Calapooia River WAU (Source: ODFW 1990 and 1991 unpublished data).

Mainstem Calapooia River				
	Reach (ODFW)	1	2	3
	Segment [1]	324	325,326(p)	326(p),327,328
	GMU	1	1	1
Parameter				
Channel Characteristic				
Length (m)		16064	11027	12099
Bankfull width (m)		19.2	16.9	10.1
Gradient %		.9	1.3	2.0
Spawning and incubation habitat indices				
Surface substrate size composition (%)	Silt	5	2	1
	Sand	19	12	16
	Gravel	35	32	29
	Cobble	24	33	29
	Boulder	5	14	16
	Bedrock	12	6	8
Bank erosion (%)		6	4	6
Rearing habitat indices				
Habitat unit area (%)	Pool	20.6	23.5	21.9
	Riffle	73.4	56.1	51.0
	Rapid/cascade	5.0	18.7	23.3
	Step/falls	.4	.6	2.2
Pool frequency (cw/pool)		6.1	4.9	6.6
Mean residual pool depth		1.2	1.0	.9
Total wood pieces/100m		.7	2.5	8.8
LWD pieces/channel width		.1	.4	.9
LWD score		Absent/very low	Absent/very low	Absent/very low
Open sky (mean: range%)		49:0-89	45:0-78	38:0-89

1. Segment number from habitat assessment corresponding to the ODFW reach number.

Appendix F4. Summary statistics from habitat survey conducted in the reaches of the Calapooia River WAU by the US Forest Service. (Source: US Forest Service Unpublished Data 1992, 1997).

Stream Name	**US Creek**		**Mainstem Calapooia River**	
GMU	5	5	1, 4	5
Segment #	314(p)	314 (p)	328,329	330
FS reach#	1	2	1	2
% Gradient	10	8	4	12
Survey Length (ft)	3545	1610	13963	5286
LWD/mi	113	187	14	17
LWD/100m	7	11.6	0.9	1.1
Pools/mi.	62	26	36	31
Ave. max. pool depth (ft)	2	1.8	1.9	2.0
Dominant Substrate	Cobble	Cobble	--	--
Subdom. Substrate	Gravel	Gravel	--	--
%Pool habitat	17	7.2	30.7	15.2
%Riffle habitat	79.3	92.5	67.1	84.8
%Glide habitat	0	0	0	0
%Side channel	3.7	0.3	2.2	0
Dominant cover	Substrate	Substrate	--	--
Subdominant cover	Overhang	Overhang	--	--

Appendix F5. Description of natural barriers located in the Calapooia River WAU. Barriers are shown on Map F2 (Sources: Fieldwork, ODFW Unpublished Data, Weyerhaeuser Unpublished Data)

Seg	Stream name	Fish status	Passage Status	Description
21	Sweet Home Cr.	unk	I	Waterfalls (2)
39	Biggs Cr. (east fork)	unk	I	Debris jam
49	Noname trib. north side	unk	I	Waterfall 3m
49	Noname trib. north side	unk	I	Debris jam
62	Barrett	MF	I	Waterfall
63	Barrett Cr.	SF/unk	I	Waterfall
64	noname north side Trib.	SF	I	bedrock falls
79	Potts Cr.	LF	I (res)	1.5 m Bedrock drop
84	Potts trib.	unk	I	Debris jam
112	North Fork trib.	unk	unknown	Debris jam
126	North Fork trib.	unk	I	Debris jam
130	North Fork	MF	I	barrier (odfw)
133	noname trib. north side	NF	I	Waterfall
133	noname trib. north side	NF	I	Waterfall
134	Buckeye Cr.	MF	unknown	Debris jam
141	Section 19 Cr.	NF	I	1m bedrock drops
187	noname trib. South side	unk	I	Waterfall
187	noname trib. South side	unk	I	Waterfall
220	noname trib. South side	SF	I	Waterfall
220	noname trib. South side	SF	I	Debris jam
228	Blue Cr.	MF	I	Debris jam
229	Blue Cr.	MF	I	2m Bedrock drop
259	McKinley	MF	I	Waterfall
259	McKinley	MF	I	Waterfall
271	trib. East of McKinley	unk	I	Waterfall
271	trib. East of McKinley	unk	I	Waterfall
284	noname trib. South side	unk	I	Waterfall/cascade
328	Upper Mainstem	MF	I	Waterfall 3m
--	Barrett trib.	NF	I	Waterfall
260	McKinley tributary	MF	I	Waterfall
208	noname trib. South side	NF	I	40ft waterfall
135	Buckeye Cr.	NF	I	100ft waterfall

Appendix F6 Fish passage status of culverts checked in the Calapooia River WAU. Priority codes assigned as follows: 1) High priority--within fish-bearing zone (based on field sampling or ODF stream type map. 2) Moderate priority--require more verification of fish-bearing status above culvert. Currently have unknown status above culvert or have known fish below. Includes culverts with non-permanent natural hindrances to movement (i.e., debris jams). 3) Low priority--have a natural barrier to movement (i.e., waterfall) or no fish below. FIRS fish-bearing status/stream size: unk=unknown, SF=small fish, MF=medium fish, NF=no fish, asterisk indicates if the reach was sampled for fish. Outcome of sampling is given in the fish sampling column. Passage Status column codes are I=impassable and P=passable. Asterisk indicates other barriers are in close proximity to the culvert (see explanation in last column).

Priority code	ID	Seg.#	Road #	Stream name	FIRS status	fish sampling	Pass. Status	struct. Type	Pool dpth(m)	Pool lgth (m)	outlet drop (m)	strct. Grad.(%)	upstr. Grad.(%)	dwnstr. Grad. (%)	Hydr. Control (m)	Explanation
1	1	38	3040	trib. To Biggs	unk*	fish above	I	RCP	1.5	4	3	5	12	18	0.3	3m drop
1	6	81	600	Potts Cr.(west fork)	MF*	Fish in trib. (seg.84)	I (res.)	RCP	1	4	0.6	11	10	7	0	Drop
1	9	98	3370	King Cr.	MF		I (res.)	RCP	2	7	0.3	8	10	9	0	Drop/gradient
1	11	309	3400	noname trib. South side	MF		I	RCP	0	0	0.9	7.5	7	15	0.3	Drop
1	27	134	3000	Buckeye Cr.	MF*	fish above	I (res.)	RCP	0.45	3.5	0.8	5	8.5	16	0.1	outlet drop
1	29	308	3400	noname trib. South side	MF		I (res.)	RCP	--	--	0.3	--	--	--	--	outlet drop
2	10	126	3300	North Fork Trib.	Unk*	none above	I*	RCP	1.5	4	1	5	8	--	0.6	Drop, jam below
2	14	155	102b	noname trib. South side	unk*	none above	I	RCP	0.75	3	0.9	7	15	11	0.1	drop/bent in center
2	16	--	3830	noname trib. South side	unk*	none above/yes below	I (res.)	RCP	0.8	1.5	1.3	7	5	5	0.2	drop to rocks
2	17	192	3830	noname trib. South side	unk*	none above/yes below	I (res.)	RCP	0.4	3.5	2.5	--	5	14	0.2	drop
2	21	36	3040	Biggs Cr. Upper	unk*	none above/yes below	I (res.)	RCP	0.55	2.3	1.3	--	12	12	0.8	drop to rocks
2	23	228	3000	Blue Cr.	MF		I*	RCP	--	--	1	>5	8	20	0.6	outlet drop, downstream debris deposit

Appendix F6 continued Fish passage status of culverts checked in the Calapooia River WAU. Priority codes assigned as follows: 1) High priority--within fish-bearing zone (based on field sampling or ODF stream type map. 2) Moderate priority--require more verification of fish-bearing status above culvert. Currently have unknown status above culvert or have known fish below. Includes culverts with non-permanent natural hindrances to movement (i.e., debris jams). 3) Low priority--have a natural barrier to movement (i.e., waterfall) or no fish below. FIRS fish-bearing status/stream size: unk=unknown, SF=small fish, MF=medium fish,, NF=no fish, asterisk indicates if the reach was sampled for fish. Outcome of sampling is given in the fish sampling column. Passage Status column codes are I=impassable and P=passable. Asterisk indicates other barriers are in close proximity to the culvert (see explanation in last column).

Priority code	ID	Seg.#	Road #	Stream name	FIRS status	fish sampling	Pass. Status	struct. Type	Pool dpth(m)	Pool lgth (m)	outlet drop (m)	strct. Grad.(%)	upstr. Grad.(%)	dwnstr. Grad.(%)	Hydr. Control (m)	Explanation
2	25	271	3030	trib. east of Mckinley	unk		I (res.)	RCP	0.3	2	2.5	8	26	17	0.1	outlet drop/steep gradient below
3	2	39	3060	trib. To Biggs	unk*	none above	I*	RCP	--	--	2	5	--	--	0.4	drop, debris jam
3	3	49	3100	noname trib. North side	unk*	none below	I	RCP	2	5	0.7	14	15	14	0.25	grad./drop
3	4	49	3000	noname trib. North side	unk*	none above	I*	RCP	0.3	1.7	0.5	6	12	20	0.4	drop, 3m falls below
3	12	133	3000	noname trib. North side	NF*	none	I	RCP	0	0	1	3	12	30	0.25	Drop
3	13	284	3351	noname trib. South side	unk*	none above	I*	RCP	0	0	0	9	13	40	0.2	bedrock falls below
3	19	218	3020	noname trib. South side	unk*	none below	I (res.)	RCP	--	--	4	--	--	20	--	drop
3	22	253	3030	trib. West of Mckinley	MF		I*	RCP	0.15	0.9	0.4	5	8.5	20	0.15	outlet drop, steep cascade downstream
3	31	56	1300	trib. W. of Washout	unk*	dry in 1997	I (res.)*	RCP	--	--	3	--	--	--	--	outlet drop, dry sum. 97
3	32	138	3100	Trib. E. of Buckeye Cr.	NF		I (res.)	RCP	--	--	1	--	--	--	--	outlet drop
3	33	63	3190	Barrett Cr.	SF		I*	RCP	--	--	--	--	--	--	--	Drop, falls 30m above rd,steps below
--	5	64	main	noname trib. North side	unk		P*	RCP	0	0	0	12	17	47	0.1	bedrock falls below
--	7	96	3000	noname trib. North side	SF		P	SCP	0	0	0	--	--	--	--	
--	8	98	3000	King Cr.	MF		P	RCP	0.3	0	0	--	--	--	0.3	
--	15	252	2600	noname trib. South side	unk*	none above	P*	RCP	0.6	0.5	0	12	17	34	0.1	series of falls below
--	18	187	3830	noname trib. South side	unk*	none above	P	RCP	0.35	1.3	0	7	9	10	0.1	bent in center
--	20	220	3020	noname trib. South side	unk*	none below	P	RCP	0.25	1.5	0	5	18	10	0.25	bent in center
--	24	259	3030	McKinley	MF*	none above	P	SCP	0	0	0	5	4	<8	0	--
--	26	134	3500	Buckeye Cr.	M/SF		P	RCP	0.35	1.5	0.2	5	4	--	0.2	--
--	28	242	3030	Trib. East of Blue Cr.	MF		P	RCP	--	--	--	--	--	--	--	--
--	30	112	700	North Fork Trib.	NF*	fish above	P	RCP	--	--	--	--	--	--	--	

APPENDIX G

Calapooia River Watershed Analysis
Water Quality Assessment

Lillian Herger and Maryanne Reiter
Weyerhaeuser Company

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INTRODUCTION

This report documents the water quality assessment results for the Calapooia River Watershed Administrative Unit (WAU). This assessment was conducted in accordance with the Water Quality Module (approved June 20, 1997) of the Watershed Analysis Manual, Version 4.0 (Washington Forest Practices Board 1997). The purposes of this water quality assessment are to determine: 1) location and type of waterbodies in the WAU; 2) vulnerability of waterbodies to potential changes in input variables based on current and past water quality conditions, and; 3) sources of inputs to vulnerable waterbodies to establish hazard calls.

METHODS

This assessment follows the module protocols outlined in the Water Quality Assessment Module. Only minor deviations from the standard methodology were made including:

- A simplified equation presented during the Water Quality Module training session (June 20, 1997; instructor Dave Parks) was used to determine Potential Skyview. Where: $\alpha=\tan^{-1}(2h/w)$ and Skyview=$1-\alpha/90$

- The Reference Temperature relation to View-to-Sky Difference in Figure G4 is different than that calculated in Figure G1 (Appendix G, Water Quality Assessment). Numeric data provided in the Manual suggests that Figure Ga12 is more accurate. Vulnerabilities were determined from the reference temperature from Figure G4 and its related vulnerability from Figure Ga12.

- Figure G1, provided by Chris Earle (Beak Consultants), is a combination of the two module figures and was used to determine vulnerability.

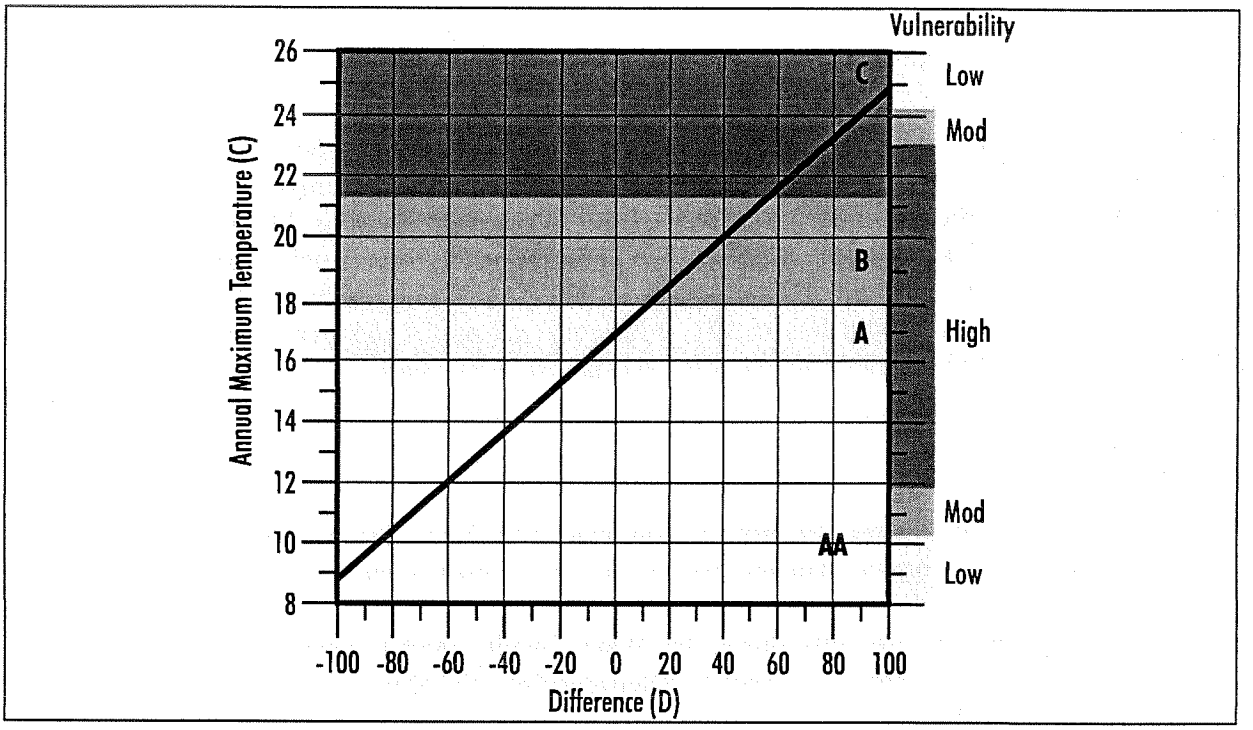


Figure G1 Graph of relation of difference in view-to-sky and maximum allowable view-to-sky and the vulnerability to temperature increase based on Module Manual Figures Ga12 and G4 (source: Chris Earle, Beak Consultants).

Data sources

Several data sources were used in preparing this report including aerial photographs, field data and water quality data collected outside the WAU. These sources are listed in Table G1.

Table G1 Sources of data used in water quality assessment.

Type	Description	Source
Photos	Aerial photos 1:12000 scale; July 1997	Weyerhaeuser
Photos	Orthophoto maps 1:24000	Weyerhaeuser
Map	7.5 minute topographic maps	United States Geological Survey
Map/GIS	National Wetlands Inventory, USFWS	Weyerhaeuser
Map/GIS	Soil types and soil series	Soil Conservation Service (now Natural Resources Conservation Service), Linn Co. Soil Survey
Map/GIS	Weyerhaeuser biotope classification	Weyerhaeuser
Map/GIS	Land ownership map	Weyerhaeuser
Water quality standard	303(d) List	Department of Environmental Quality (DEQ)
Data	Ambient monitoring at the Calapooia River near Albany, Oregon	DEQ

REGULATORY SETTING

The majority of the Calapooia River WAU is covered by second growth forests and is managed for timber production (Map 1 in Synthesis Section shows ownership patterns). Industrial forest lands are in the middle and lower portion of the WAU while the upper portion of the WAU is managed by the United States Forest Service (USFS). The Forest Service lands have interspersed old growth and 2nd growth forests. There is some agricultural usage in the lower portion of the WAU. Since the majority of land is used for timber production, Oregon Department of Forestry (ODF) rules governing the protection of water quality apply (ODF 1994). These rules address sediment, temperature and nutrients (nitrogen from fertilization). Federal rules addressing water quality apply to the Forest Service lands in the headwater reaches.

Water quality standards

The primary water quality ambient monitoring station along the Calapooia River (DEQ Station 402860) is located near the mouth of the Calapooia River (River Mile 3) near Albany. The period of record for this station is from May, 1972 to present. Some data were collected from a station on the lower Calapooia River near Highway 34 (DEQ Station 402681), though this station was only in operation from may, 1971 to August, 1975. Table G2 shows standards for selected water quality parameters monitored at the lower Calapooia River station.

Table G2 Standards for water quality parameters monitored near the mouth of the Calapooia River.

Parameter	Department of Environmental Quality Standard
Water Temperature (°F)	Mean 7 day maximum of 64 °F
Chlorophyll a	Waterbodies that do not thermally stratify: 0.015 mg/l
pH	Willamette River Basin 6.5 to 8.5
Dissolved oxygen (mg/l)	Cool-water streams at least 6.5 mg/l.
Fecal coliform colonies/ml)	Geometric mean greater than 200 per 100 milliliters in more than 10% of the samples and a minimum of at least 2 exceedances greater than 400 per ml during the season of interest

The water quality of the lower Calapooia River is considered poor by the DEQ (Cude 1998) based on data collected at the mouth of the Calapooia River, which is approximately 46 river miles (RM) below the WAU boundary. Most of the water quality issues in the lower part of the river are related to the extensive agricultural usage in the lower 35 miles of the basin (Cude 1998). The water quality is considered poor in the fall, winter and spring months due to high concentrations of nitrate and ammonia nitrogen, biochemical oxygen demand, total phosphates, fecal coliforms and total solids. In the summer, high stream temperatures combine with high concentrations of total phosphates, nitrate and ammonia nitrogen and total solids to lower water quality and cause eutrophication of the river (Cude 1998).

Calapooia River 303(d) list status

The Calapooia River is on the 303(d) list (DEQ 1996) for fecal coliform and temperature standard exceedences (Table G3). The listing extends from the mouth of the Calapooia River near Albany to Brush Creek, which is approximately 6 miles below the WAU boundary (see Synthesis Map 1).

Table G3 Calapooia River 303(d) list water quality parameters, season of impact and data source.

Parameter	Season	Data Source
Water Temperature (°F)	Summer	USGS Data (90); DEQ Data (Temperature Issue Paper 1994)
Fecal coliform colonies/ml	Annual	DEQ Data-Ambient monitoring (305(b), 1994)

WATERBODY INVENTORY

Wetlands and streams of the WAU are shown on **Map G1**. The inventory of wetlands is on Form G1, cross-referenced with Map G1 by identification number. The following section summarizes the landscape setting of wetlands in the Calapooia River WAU.

Soils

The soils of the Calapooia River WAU range from moderately well-drained deep clay loams associated with earthflows in the lower portion of the watershed to well-drained silt loams and gravelly loams in upslope areas (Table G4). More information on the soils of the WAU can be found in Appendix B. Surface Erosion Assessment.

Table G4 General soil characteristics of the Calapooia River WAU (based on Langridge 1987).

General Location	Dominant Soil Group	Common series and textural class
Floodplains, terraces (low areas in watershed)	Deep clay loams associated with earthflows	• Fluvents and Fluvaquents* • Saturn clay loam* • McAlpin silty clay loam • Peavine silty clay loam
Upland Benches	Shallow upland silt loams	• Keel gravelly silt loam • Hummington very gravelly loam
Headwater slopes	Shallow, rocky upland gravelly loams	• similar to upland benches but steeper slope class
Midslope areas	Midslope cobbly loams	• Kinney cobbly loam • Klickitat stony loam

* may have hydric inclusions

The amount of wetland (hydric) soil is limited in this watershed. There are only 67 acres of Fluvents-Fluvaquents complex of which approximately 35% (SCS estimate for series) or 23 acres are Fluvaquents, mapped which are hydric soils. The Saturn series has inclusions of the hydric Fluvents-Fluvaquents complex, though these are not extensive. Throughout the WAU, the majority of the wetlands are not necessarily associated with mapped hydric soils.

Waterbody types

The only waterbody types in the WAU are streams and wetlands, no lakes are present. The extent of wetlands identified in this assessment is small, comprising only 0.15% of the total WAU area. Five hydro-geomorphic types (WFPB 1997) were identified: riverine flow-through, depressional flow-through, depressional closed, slope connected and slope unconnected wetlands (Figure G2 and Map G1).

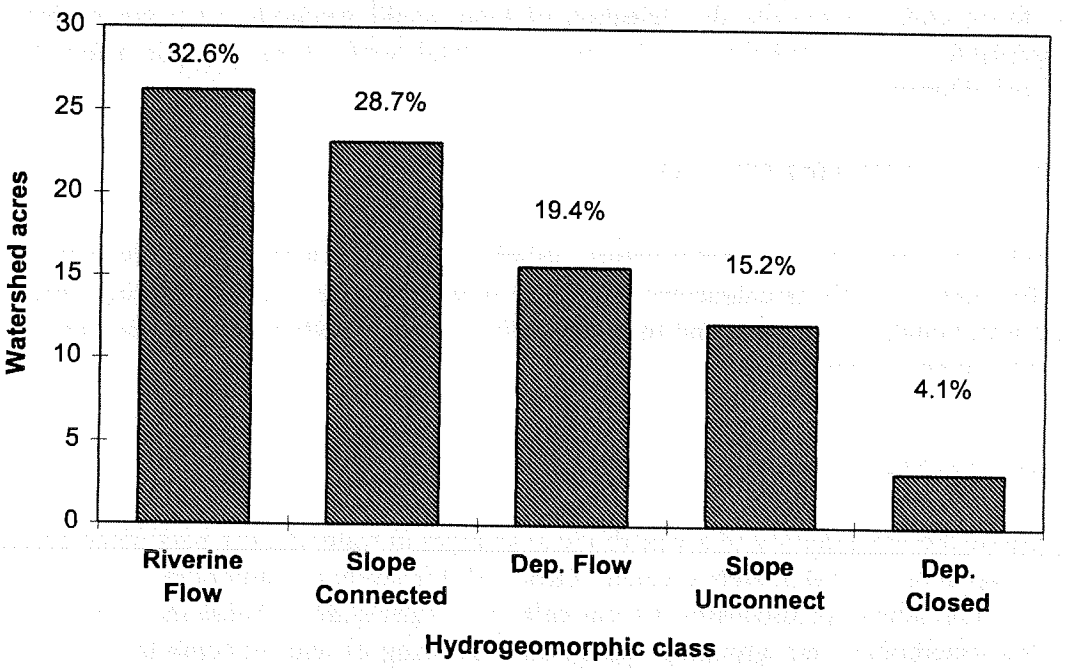


Figure G2 Total acreage of each of the five wetland types of the Calapooia River WAU with percentage of each indicated above column.

Though the riverine flow-through type has the most acreage, it is second most common in frequency. Depressional flow-through are most common in the WAU (19 mapped) while slope unconnected wetlands are the least common (5 mapped). Other findings from the wetland assessment include:

- Wetlands are found in areas ranging from low elevation stream-adjacent areas to higher elevation upland areas.
- Most wetlands are associated with flowing water. The reason that flow-through wetlands are common here is the generally steep topography and relatively confined stream channels.
- Many riverine flow-through wetlands were mapped along the mainstem of the Calapooia River. These wetlands occur on the National Wetlands Inventory (NWI) map, which is based on the Cowardin system (Cowardin et al. 1979). Photo interpretation and field visits indicate that these areas are fluvially influenced, but may lack the soil and vegetation characteristics to be classified as wetlands under the hydrogeomorphic scheme used in this assessment. However, these wetlands were still included as riverine flow-through wetlands until a more comprehensive inventory is conducted.

- The presence of some wetlands is strongly influenced by forest roads. For example, wetlands Township 15S Range 2E Section 19 have apparently formed in low gradient areas behind forest roads. The larger of these areas were then colonized by beaver (*Castor canadensis*) which constructed dams across culverts. These wetlands are typically small and most are classified as slope-type wetlands.
- Major portions of the watershed are underlain by large persistent deep-seated landslides (see Mass Wasting Module, Appendix A), which create small slope-type wetlands in slumps. Because forest canopy prevents the detection of these small wetlands, they are probably under-represented in this inventory. However, the total actual area of these features is probably not substantial.

WATERBODY VULNERABILITY CALLS

The vulnerability of a waterbody to temperature, sediment and other water quality constituents depends on the input as well as characteristics of the receiving water. The following section describes the water quality map units and the vulnerability of waterbodies in those map units to changes in water quality parameters.

Water Quality Map Units

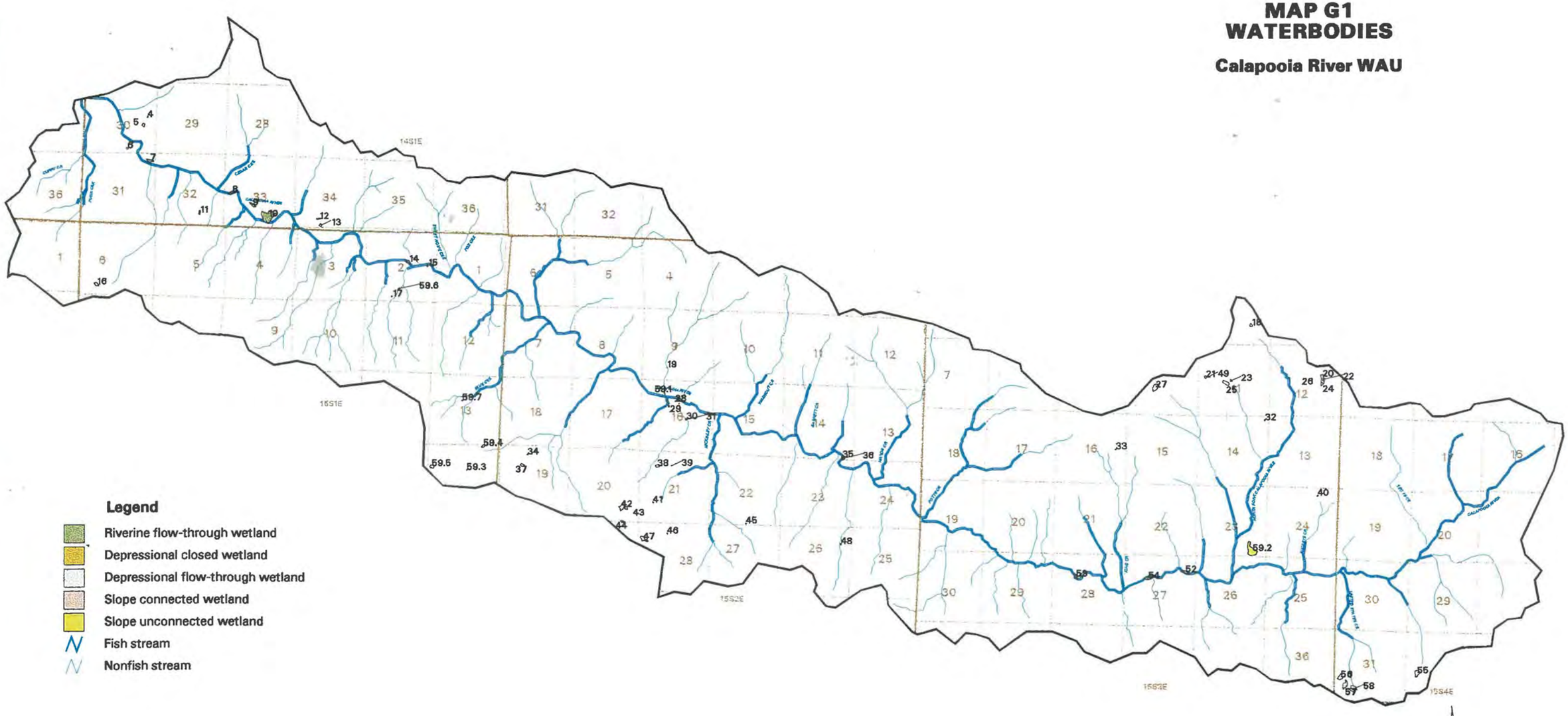
To help determine the vulnerability of a waterbody to changes in water quality parameter inputs, water quality map units (WQMU) were created. These WQMUs group waterbodies in areas that are subject to similar landscape processes that can influence water quality. These map units serve to organize the waterbodies into groupings based on processing of and vulnerability to inputs such as heat, sediment and other potential contaminants. The following six water quality map units (WQMUs) were defined based on the previously described waterbody inventory and the vulnerability to selected water quality constituents (discussed in upcoming section). Geomorphic Map Units (GMUs) were used as the basis for determining these groupings since similar processes that determine stream morphology also determine wetland type. Complete GMU descriptions are in Appendix E. Stream Channel Assessment (Table G5).

Table G5 Description of water quality map units (WQMU).

WQMU	Water Type	GMU	Description
1	Wetland	1	Calapooia River floodplain and adjacent terraces
2	Wetland	2	Upland benches (gentle slopes)
3	Wetland	3	Gentle to moderately sloping lowlands
4	Wetland	4 and 5	Upland slopes
5	Streams	1	Mainstem Calapooia River
6	Streams	3, 4 and 5	Tributary streams

MAP G1
WATERBODIES

Calapooia River WAU



Legend

- Riverine flow-through wetland
- Depressional closed wetland
- Depressional flow-through wetland
- Slope connected wetland
- Slope unconnected wetland
- Fish stream
- Nonfish stream

1:90000

1 inch = 7500 feet

Map G1 Waterbodies

Weyerhaeuser

DATE: 08/17/98

Vulnerability calls for all WQMUs are summarized and described in Form G2. Supporting information is in Form G1 (Wetland Temperature Vulnerability Worksheet) and Form G3 (Stream Temperature Vulnerability Worksheet). Reference temperatures are displayed on **Map G2**. Determinations of wetland vulnerability to input parameters were based on field observations, temperature and chemistry assessments and on discussion with other assessment team members. Vulnerabilities of individual assessments are discussed below.

Temperature

Aerial photographs taken during the summer of 1997 were used to quantify the amount of open water in each wetland, because field work was mainly done during a very wet spring (rainfall at a nearby climate station was 230% above normal for May, 1998). Only a small percent of open water (5.7% of the total wetland acreage) was observed in the 1997 aerial photographs. All wetlands that appear to lack open water during the standard TFW peak temperature monitoring interval of 15 July to 15 August (Schuett-Hames et al. 1994) were assigned a low vulnerability to temperature standard exceedance. The justification for this can be found in a previous water quality assessment (Weyerhaeuser Company 1997). That report found that shallow water tables are not significantly affected by solar radiation in hydric soils.

Temperature vulnerabilities of wetlands in the WAU are listed in Form G1. Most wetlands are directly connected to the stream network (47 out of 59), being either riverine flow-through, depressional flow-through or slope connected. These areas are typically small in size (average range from 0.8 to 2.1 total acreage) and have a high potential sky view if adjacent trees are removed. Due to the presence of open water in some of these wetlands, exposure to solar radiation can result in temperature criterion exceedances. In addition, there is a potential for water warmed from stream-connected wetlands to be delivered to downstream reaches, most of which have a high vulnerability to temperature criterion exceedances (Form G3 and **Map G3**).

Temperature vulnerabilities for fish-bearing streams vary throughout the watershed since there is a wide range of elevations (average from 618 to 3540 ft) and a corresponding wide range in maximum allowable view-to-sky (37 to 100%). Many (41%) streams in the WAU have a Low vulnerability to stream temperature standard exceedances, while 36% have a High vulnerability. The majority of the stream segments with High vulnerability are in WQMU 1.

Sediment

Wetlands can be vulnerable to sediment accretion from both chronic and catastrophic inputs of coarse and fine sediment depending on the magnitude and frequency of sediment deposition and characteristics of the receiving wetland. The following table lists hydro-geomorphic types of wetlands in the WAU and their vulnerability to sediment accretion (Table G6) The rationale behind these vulnerability calls can be found in the Manual. Within the Calapooia River WAU, sediment vulnerability is low for WQMU 1, 2 and 3, regardless of the hydro-geomorphic type due to the gentle topography and low risk of mass wasting for the map units.

Table G6 Vulnerability of wetlands to sediment accretion based on the Manual (WFPB 1997) and percent of total wetland numbers in vulnerability category.

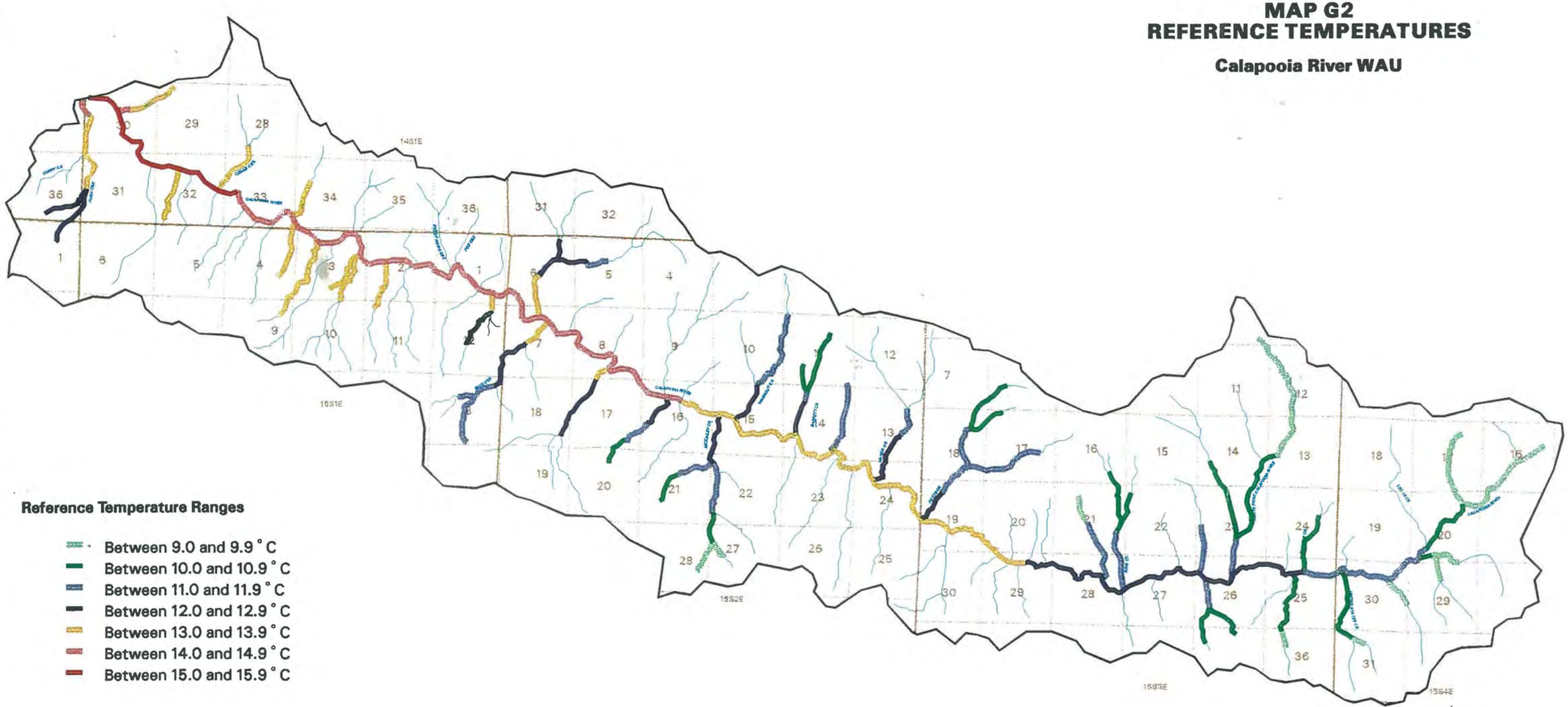
Hydrogeomorphic classification	Vulnerability to sediment accretion	Percent of total wetlands
Depressional flow-through, slope connected, slope unconnected	LOW	59
Riverine flow-through	MODERATE	29
Depressional closed	HIGH	12

Phosphorus and nitrogen

Vulnerabilities to nutrients are based on the likelihood of nutrient loading from forest practices resulting in nuisance aquatic growth (WFPB 1997). The nutrient loading is based on routing to eutrophic lakes, which would prevent recovery or worsen the condition. This vulnerability does not occur within the WAU, because there are no lakes in the WAU. In addition, there are no lakes immediately downstream from the WAU.

MAP G2
REFERENCE TEMPERATURES

Calapooia River WAU



Reference Temperature Ranges

- Between 9.0 and 9.9 ° C
- Between 10.0 and 10.9 ° C
- Between 11.0 and 11.9 ° C
- Between 12.0 and 12.9 ° C
- Between 13.0 and 13.9 ° C
- Between 14.0 and 14.9 ° C
- Between 15.0 and 15.9 ° C

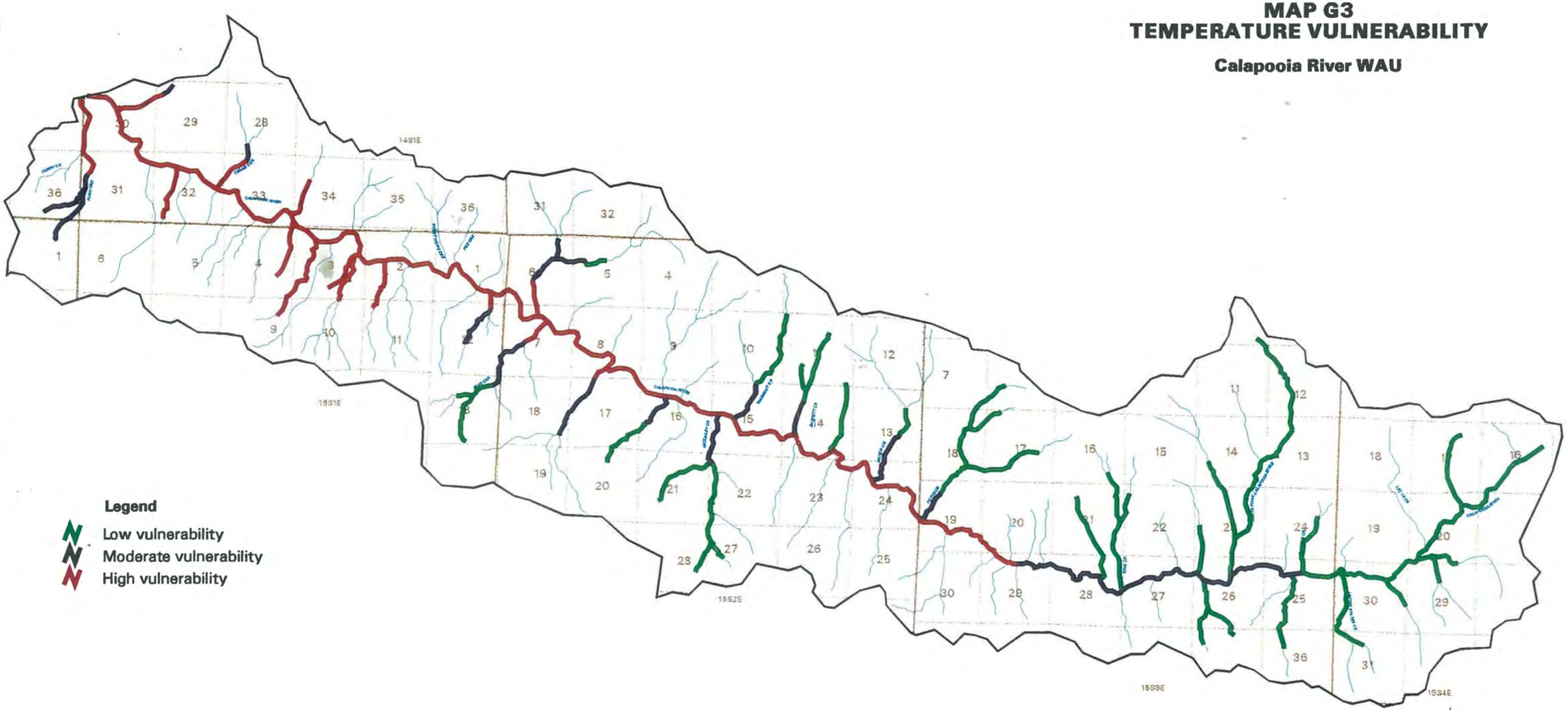
1 : 90000

1 inch = 7500 feet

Map G2 Reference Temperatures
Weyerhaeuser
DATE: 08/17/98

MAP G3
TEMPERATURE VULNERABILITY

Calapooia River WAU



Legend

- Low vulnerability
- Moderate vulnerability
- High vulnerability

1.0MI 0MI 1MI 2MI 3MI 4MI

1 : 90000

1 inch = 7500 feet

Map G3 Temperature Vulnerability
Weyerhaeuser
DATE: 08/14/98

pH

The pH of a waterbody can have direct and indirect effects on fish and other aquatic organisms if it is less than 6.5 or greater than 9 (MacDonald et al. 1991). pH can change in response to environmental conditions such as temperature and flow. For example, pH is lower during high rainfall and runoff periods due to the reduction of base mineral concentrations. Thus, in the summer, the pH is higher from greater amounts of dissolved materials in the water (MacDonald et al. 1991). This weak inverse relationship of pH with discharge for the Calapooia River near Albany is shown in Figure G2.

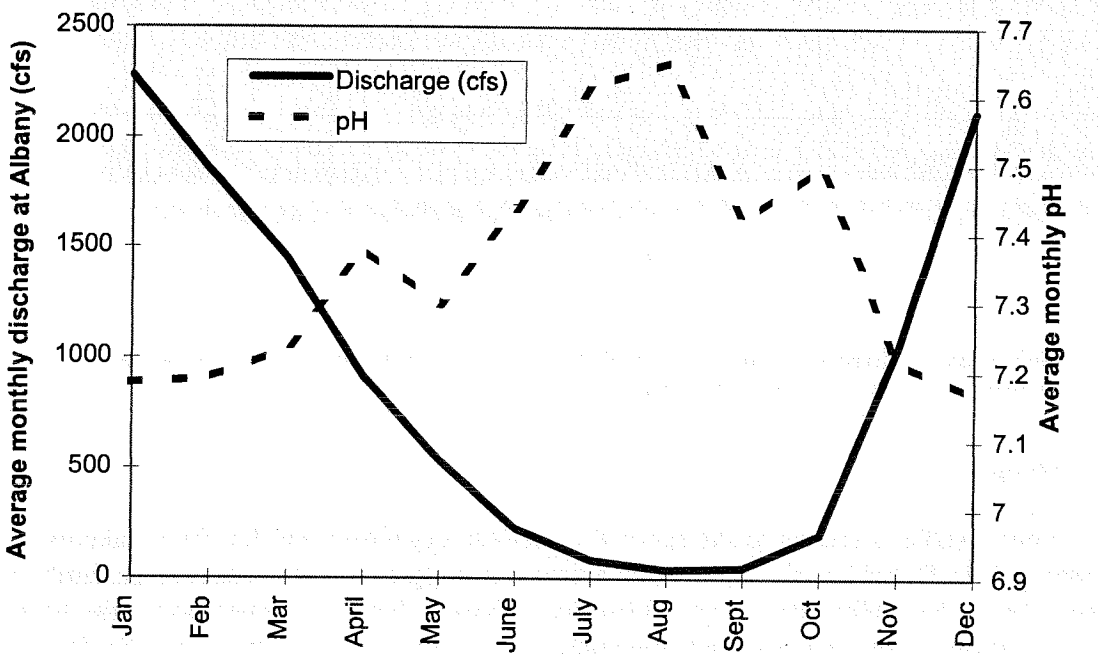


Figure G3 Average monthly pH and discharge (cfs) of the Calapooia River near Albany. Discharge data from the USGS gaging station at Albany (Station 14173500) and the DEQ ambient water quality monitoring station near Albany (DEQ station 402860).

The Calapooia River WAU has a low vulnerability to acidity/alkalinity (pH) exceedances. This low vulnerability call is supported by DEQ water quality data (1972 to 1998) from lower in the watershed where the range of pH is from 6.7 to 8.1, which is within the required range from 6.5 to 8.5 (Figure G3).

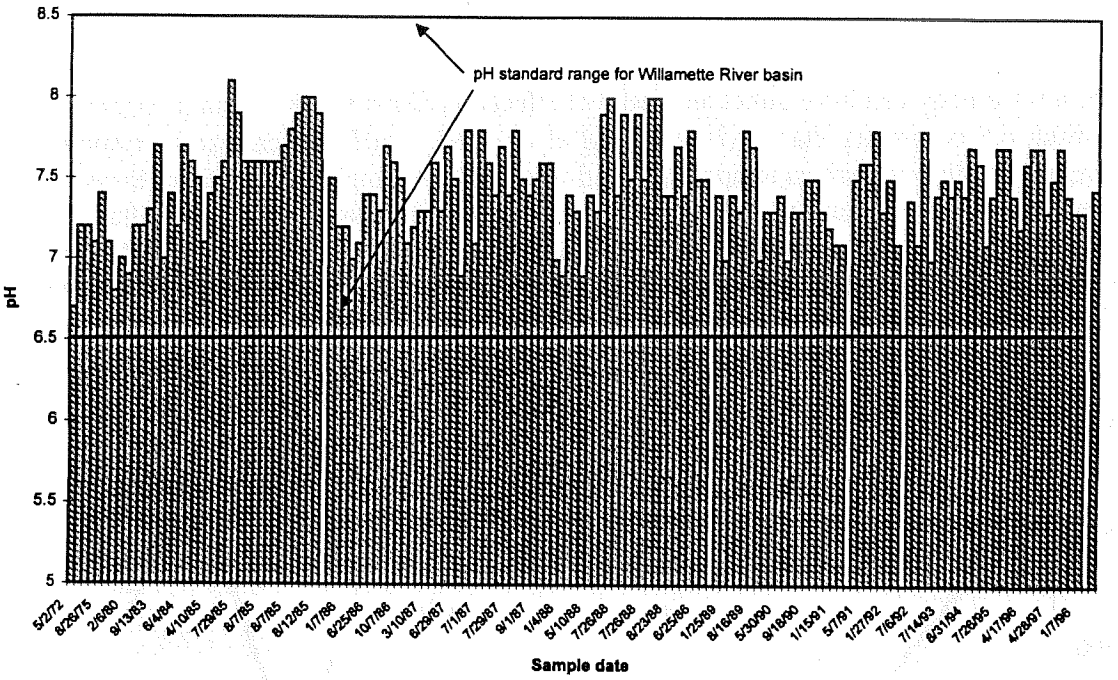


Figure G4 DEQ Calapooia River near Albany (station 402860) monitoring station pH levels for the period of record. The pH standard for the Willamette River basin is indicated.

Dissolved Oxygen

Dissolved oxygen (DO) is critical to the survival of aquatic organisms and for the breakdown of organic matter (MacDonald et al. 1991). The amount of oxygen in water depends primarily on temperature, but is also influenced by the biochemical oxygen demand of materials in the water. The inverse relationship between DO and temperature can be seen in the average monthly DO and water temperature for the Calapooia River near Albany (Figure G4).

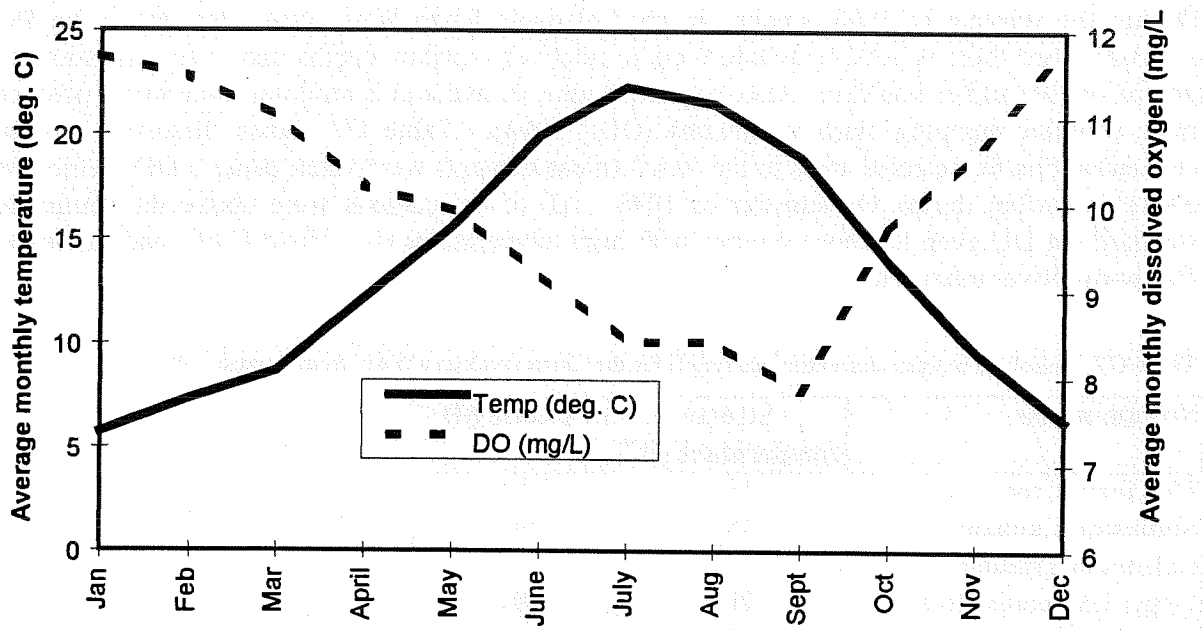


Figure G5 Average monthly temperature (°C) and average monthly DO (mg/l) for the Calapooia River near Albany. Data from DEQ ambient water quality monitoring station near Albany (DEQ station 402860).

The Calapooia River is classified as a cool-water resource with a dissolved oxygen (DO) standard of not less than 6.5 mg/l. Since there was only 1 sample date where DO was below this standard (Figure G5), the river was not listed as being water quality limited for DO (DEQ 1996).

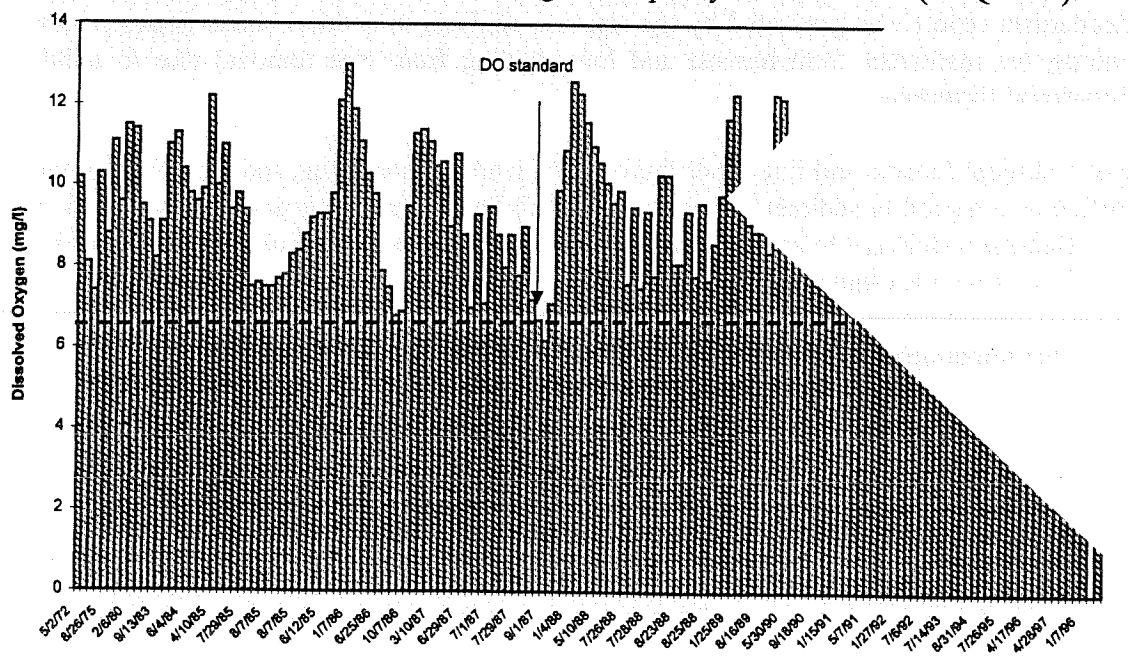


Figure G6 DEQ Calapooia River near Albany (station 402860) monitoring station DO (mg/l) for the period of record. The DO standard for the Calapooia River is indicated.

During the summer of 1998, streams in the Calapooia River WAU were also above the DO standard since there is good re-areation due to relatively shallow depths and coarse substrate of gravel, cobble and/or boulders. Also, organic loading of material is minimal since forest practice rules prohibit dumping slash in streams (ODF 1994). Table G7 shows dissolved oxygen concentrations for selected areas in the WAU (measurements were taken using a DO membrane electrode probe) during the summer of 1998. All of the stations were above the minimum standard for DO even for those stations with high temperatures (i.e., Hand Creek and the lower Calapooia River mainstem).

Table G7 Dissolved oxygen concentrations (mg/l) for the Calapooia River WAU from August, 1998.

Stream name	Stream temperature (°C)	DO (mg/l)
McKinley Creek	18.3	9.2
Southside Unnamed Calapooia Tributary	18.7	9.3
Upper Calapooia River	20.6	9.1
Potts Creek	17.5	9.5
Hand Creek	24.3	8.1
Middle Calapooia River	22.3	8.9
Lower Calapooia River	25.9	8.3

WATER QUALITY HAZARD ASSESSMENT

Water temperature hazard is addressed by the riparian function assessment (Appendix D). One causal mechanism report was generated by the riparian analysis to address shade issues of low shading along the mainstem from harvest and low shading from tree removal due to debris torrents in several tributaries.

Delivery of sediment (coarse and fine) contributed from landslides and fine sediment from roads was identified as a hazard to sediment accretion vulnerability in depressional closed wetlands in WQMU 4. Sediment delivery to stream-related water quality map units is addressed in the fish (Appendix F) and channel (Appendix E) assessments.

Hazards to other water quality constituents (N, P, DO, pH) were not identified in the WAU.

CONFIDENCE

Data sources-high
Confidence in data sources is high due to the presence of a DEQ water quality station lower in the Calapooia River basin and the collection of dissolved oxygen data within the WAU.

Waterbody inventory—moderate
Based on the overlap of the wetlands identified from photo interpretation and fieldwork with other maps developed in the area (NWI map and Weyerhaeuser biotope map), confidence is moderate that most of the wetlands have been inventoried. Some wetlands that cannot be observed through the canopy or have difficult access may have been missed. Area of most wetlands was calculated by GIS from the mapped polygons.

Temperature assessment—moderate
Thirty-six percent of the entire stream network was found to be highly vulnerable to increases in water temperature, although reference temperatures estimated in the water quality assessment were well below the state standard. Because fieldwork was conducted in the spring, it is difficult to predict if some of these wetlands will be dry in the summer, though aerial photographs were useful as a preliminary call. Therefore, the vulnerability of each wetland (Form G1) should be considered as a preliminary call until further detailed data are collected.

Water chemistry—high
The confidence is high that water chemistry vulnerabilities were adequately determined due to over 20 years of data from a station lower down in the Calapooia River watershed as well as water quality monitoring within the WAU.

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FORMS

Form G1 List of wetlands identified in the Calapooia River WAU and vulnerability to temperature increases. Identification number (ID) indicates wetland shown on Map G1. Abbreviations for each column are at end of table.

WQMU	ID	BASIN	TWP-RNG	SEC	NWI code* or biotope	HGM code**	Total acres	Open Water area (acres)	Temperature vulnerability
1	7	Lower Calapooia	14S1E	31	PEMC	RF	1.6	0	Low
1	8	Lower Calapooia	14S1E	33	PSSC	RF	1.3	0	Low
1	9	Lower Calapooia	14S1E	33	PEMC	RF	1.5	0	Low
1	10	Lower Calapooia	14S1E	33	PFOC	RF	13.7	0	Low
1	14	Lower Calapooia	15S1E	2	PSSC	RF	0.9	0	Low
1	15	Lower Calapooia	15S1E	2	PSSA	RF	0.4	0	Low
1	35	Washout Creek	15S2E	14	PFOA	RF	0.3	0	Low
1	52	King Creek	15S3E	27	PSSA	RF	1.6	0	Low
1	53	King Creek	15S3E	28	PSSA	RF	0.8	0	Low
1	54	King Creek	15S3E	27	PSSA	RF	2.3	0	Low
2	44	Washout Creek	15S2E	20	PSSB	DC	1.0	0	Low
2	47	Washout Creek	15S2E	28	PSSB	DF	2.5	0	Low
2	59.3	Bigs Creek	15S1E	24	Biotope	DF	0.1	0	Low
2	59.4	Bigs Creek	15S1E	13	Biotope	DF	0.6	0.2	High
2	59.5	Bigs Creek	15S1E	24	Biotope	DF	1.6	0.0	Low
2	34	Bigs Creek	15S2E	19	PUBF	SC	0.2	0.2	High
2	37	Bigs Creek	15S2E	19	PSSB	SC	1.1	0.5	High
2	42	Washout Creek	15S2E	20	PSSB	SC	3.2	0.5	High
2	43	Washout Creek	15S2E	20	PSSB	SC	0.8	0	Low
2	16	Lower Calapooia	15S1E	6	PSSC	SU	1.5	0	Low
2	46	Washout Creek	15S2E	28	PUBFh	SU	0.2	0	Low
3	4	Lower Calapooia	14S1E	30	PUBFh	DC	0.2	0.2	High
3	5	Lower Calapooia	14S1E	30	PUBFx	DC	1.1	1.1	High
3	6	Lower Calapooia	14S1E	30	PEMF	DF	0.5	0.5	High
3	11	Lower Calapooia	14S1E	32	PSSB	DF	0.6	0	Low
3	12	Lower Calapooia	14S1E	34	PEMC	DF	0.6	0.6	High
3	13	Lower Calapooia	14S1E	34	PSSC	DF	0.7	0.7	High
4	17	Lower Calapooia	15S1E	2	PUBF	DC	0.1	0	Low
4	23	North Fork Calapooia	15S3E	11	PEMC	DC	0.5	0	Low
4	32	North Fork Calapooia	15S3E	14	PUBF	DC	0.3	0	Low
4	33	King Creek	15S3E	16	PUBF	DC	0.1	0	Low
4	45	Washout Creek	15S2E	22	PSSB	DF	0.2	0	Low
4	20	North Fork Calapooia	15S3E	12	PFOC	DF	1.5	0	Low
4	22	North Fork Calapooia	15S3E	12	PUBF	DF	0.7	0	Low

WQMU	ID	BASIN	TWP-RNG	SEC	NWI code* or biotope	HGM code**	Total acres	Open Water area (acres)	Temperature vulnerability
4	24	North Fork Calapooia	15S3E	12	PFOC	DF	1.0	0	Low
4	25	North Fork Calapooia	15S3E	11	PSSB	DF	2.4	0	Low
4	26	North Fork Calapooia	15S3E	12	PUBF	DF	0.8	0	Low
4	29	Washout Creek	15S2E	16	PEMC	DF	0.1	0	Low
4	38	Washout Creek	15S2E	21	PEMB	DF	0.9	0	Low
4	40	North Fork Calapooia	15S3E	24	PUBFh	DF	0.3	0	Low
4	59.1	Washout Creek	15S2E	16	Biotope	DF	0.3	0	Low
4	59.7	Bigs Creek	15S1E	13	Biotope	DF	0.2	0	Low
4	19	Washout Creek	15S2E	9	PUBFx	RF	0.1	0	Low
4	30	Washout Creek	15S2E	16	PUBF	RF	0.1	0	Low
4	31	Washout Creek	15S2E	16	PEMC	RF	0.2	0	Low
4	36	Washout Creek	15S2E	14	PSSC	RF	0.2	0	Low
4	41	Washout Creek	15S2E	21	PUBFh	RF	0.3	0	Low
4	48	Washout Creek	15S2E	26	PUBF	RF	0.4	0	Low
4	59.6	Lower Calapooia	15S1E	2	Biotope	RF	0.5	0	Low
4	28	Washout Creek	15S2E	16	PEMC	SC	0.1	0.1	High
4	18	North Fork Calapooia	15S3E	2	PUBFh	SC	0.9	0	Low
4	27	North Fork Calapooia	15S3E	10	PSSB	SC	4.0	0	Low
4	55	Upper Calapooia	15S4E	32	PSSB	SC	3.2	0	Low
4	56	Upper Calapooia	15S4E	31	PSSB	SC	2.4	0	Low
4	57	Upper Calapooia	15S4E	31	PSSB	SC	3.2	0	Low
4	58	Upper Calapooia	15S4E	31	PSSB	SC	4.0	0	Low
4	21	North Fork Calapooia	15S3E	11	PSSB	SU	0.9	0	Low
4	39	Washout Creek	15S2E	21	PUBF	SU	0.0	0	Low
4	59.2	North Fork Calapooia	15S3E	23	Biotope	SU	9.6	0	Low

*NWI Code First letter: P= Palustrine 2nd two letters: SS=scrub shrub, FO=Forested, UB=Unconsolidated bottom, EM=Emergent. 4th letter: B= Saturated, C=Seasonally flooded, F=Semi-permanently flooded. Special qualifiers: h=diked/impounded, x=excavated

**HGM: rf=riverine flow-through, dc=depressional closed, df=depressional flow-through, sc=slope connected

Form G2 Waterbody identification and vulnerability calls.

WQMU number and description	Water type	GMU	Variable	Vulnerability	Rationale
1	Riverine flow-through wetlands	1	Temperature	Low	No open water apparent in summer
			N/P (for all waterbodies)	Low	No downstream lakes vulnerable to delivery.
			DO (for all waterbodies)	Low	Though low gradient downstream water quality data show within standard of >6.5 mg/L.
			Sediment	Low	Low for riverine wetlands since sediment is generally transported through
2	Wetlands	2	Temperature	High	Wetland numbers 34, 37, and 42 and 59.4 due to small areas of open water. The rest are low.
			Sediment	Low	Flat upland benches, low sediment transport few roads contributing
3	Wetlands	3	Temperature	High	Most have open water (<3 acres), wetland number 11 only one with no apparent open water and low vulnerabilty
			Sediment	Low	Lower gradient hillslopes
4	Wetlands	4 and 5	Temperature	Low	All low because there is no open water, except wetland 28 which is high.
			Sediment	Low to High	Only ones with high vulnerability are depressional closed wetlands #17, 23, 32 and 33
5	Mainstem Calapooia River	1	Temperature	Low to High	Variable (see Map G4)
			Sediment	Low to Moderate	Varies by confinement within GMU, see Appendix E. Stream channel Assessment
6	Tributary streams	3, 4 and 5	Temperature	Low to High	Varies by segment
			Sediment	Low to High	Varies by GMU, see Appendix E. Stream Channel Assessment

Form G3 Stream temperature vulnerability worksheet.

Segment number	GMU	Bankfull Width (m)	Stand height (m)	Potential skyview (%)	Elevation (m)	Max. allowable skyview (%)	Shade difference (d=p-m)*	Referncee temp (°C)	Vulner-ability
1	3	4	39.6	3.21	205	39	-35.50	14.0	High
2	3	4	39.6	3.21	223	41	-37.40	13.8	High
3	3	4	39.6	3.21	275	46	-42.85	13.4	High
4	5	6.4	33.5	6.06	352	54	-48.06	13.0	Moderate
5	3	4	39.6	3.21	220	40	-37.16	13.8	High
6.1	3	4	39.6	3.21	261	45	-41.35	13.5	High
6.2	3	4	39.6	3.21	315	50	-47.06	13.0	Moderate
10	3	4	39.6	3.21	269	45	-42.28	13.4	High
30	5	6.4	33.5	6.06	310	50	-43.72	13.3	High
31	5	6.4	33.5	6.06	345	53	-47.31	13.0	Moderate
32	5	6.4	33.5	6.06	358	55	-48.70	12.9	Moderate
33	5	6.4	33.5	6.06	382	57	-51.17	12.7	Moderate
34	5	6.4	33.5	6.06	430	62	-56.22	12.3	Moderate
38	5	6.4	33.5	6.06	446	64	-57.87	12.2	Moderate
39	5	6.4	33.5	6.06	536	73	-67.31	11.4	Low
57	5	6.4	33.5	6.06	415	61	-54.66	12.4	Moderate
59	5	6.4	33.5	6.06	508	70	-64.36	11.7	Low
60	5	6.4	33.5	6.06	557	76	-69.56	11.2	Low
62	5	6.4	33.5	6.06	449	64	-58.22	12.1	Moderate
63	5	6.4	33.5	6.06	534	73	-67.15	11.4	Low
63.1	5	6.4	33.5	6.06	646	85	-78.86	10.5	Low
64	5	6.4	33.5	6.06	492	69	-62.75	11.8	Low
65	5	6.4	33.5	6.06	407	60	-53.88	12.5	Moderate
65	5	6.4	33.5	6.06	445	64	-57.82	12.2	Moderate
66	5	6.4	33.5	6.06	513	71	-64.87	11.6	Low
77	4	6.5	39.6	5.21	432	62	-57.27	12.2	Moderate
78	4	6.5	39.6	5.21	447	64	-58.91	12.1	Moderate
79	4	6.5	39.6	5.21	471	67	-61.33	11.9	Low
80	5	6.4	33.5	6.06	516	71	-65.19	11.6	Low
81	5	6.4	33.5	6.06	542	74	-68.00	11.4	Low
82	5	6.4	33.5	6.06	618	82	-75.86	10.7	Low
84	5	6.4	33.5	6.06	616	82	-75.70	10.7	Low
85	5	6.4	33.5	6.06	688	89	-83.24	10.1	Low
88	5	6.4	33.5	6.06	500	70	-63.61	11.7	Low
89	5	6.4	33.5	6.06	529	73	-66.62	11.5	Low
90	5	6.4	33.5	6.06	588	79	-72.73	11.0	Low
96	5	6.4	33.5	6.06	586	79	-72.60	11.0	Low
97	5	6.4	33.5	6.06	729	94	-87.53	9.8	Low
98	5	6.4	33.5	6.06	521	72	-65.78	11.5	Low
99	5	6.4	33.5	6.06	577	78	-71.65	11.1	Low
100	5	6.4	33.5	6.06	614	82	-75.54	10.8	Low
101	5	6.4	33.5	6.06	642	84	-78.39	10.5	Low
104	5	6.4	33.5	6.06	631	83	-77.26	10.6	Low
108.1	5	6.4	33.5	6.06	571	77	-71.04	11.1	Low
110	4	6.5	39.6	5.21	536	73	-68.21	11.3	Low
110	4	6.5	39.6	5.21	547	75	-69.29	11.3	Low

Segment number	GMU	Bankfull Width (m)	Stand height (m)	Potential skyview (%)	Elevation (m)	Max. allowable skyview (%)	Shade difference (d=p-m)*	Referncee temp (°C)	Vulner-ability
111	4	6.5	39.6	5.21	563	76	-71.00	11.1	Low
112	5	6.4	33.5	6.06	606	81	-74.61	10.8	Low
113	5	6.4	33.5	6.06	661	86	-80.42	10.4	Low
114	5	6.4	33.5	6.06	688	89	-83.20	10.1	Low
119	4	6.5	39.6	5.21	584	78	-73.22	10.9	Low
120	4	6.5	39.6	5.21	601	80	-75.00	10.8	Low
121	4	6.5	39.6	5.21	617	82	-76.69	10.7	Low
122	5	6.4	33.5	6.06	633	84	-77.52	10.6	Low
123	5	6.4	33.5	6.06	643	85	-78.54	10.5	Low
124	5	6.4	33.5	6.06	663	87	-80.61	10.4	Low
125	5	6.4	33.5	6.06	684	89	-82.84	10.2	Low
129	5	6.4	33.5	6.06	705	91	-84.97	10.0	Low
130	5	6.4	33.5	6.06	738	95	-88.49	9.7	Low
131	5	6.4	33.5	6.06	770	98	-91.76	9.5	Low
132	5	6.4	33.5	6.06	890	100	-93.94	9.3	Low
134	5	6.4	33.5	6.06	602	80	-74.20	10.9	Low
135	5	6.4	33.5	6.06	649	85	-79.16	10.5	Low
143.1	5	6.4	33.5	6.06	789	100	-93.85	9.3	Low
143.1	5	6.4	33.5	6.06	828	100	-93.94	9.3	Low
143.2	5	6.4	33.5	6.06	973	100	-93.94	9.3	Low
145	3	4	39.6	3.21	191	37	-34.05	14.1	High
146	3	4	39.6	3.21	219	40	-37.03	13.8	High
150	3	4	39.6	3.21	280	47	-43.43	13.3	High
151	3	4	39.6	3.21	323	51	-47.93	13.0	Moderate
152	3	4	39.6	3.21	359	55	-51.67	12.7	Moderate
153	3	4	39.6	3.21	364	55	-52.23	12.6	Low
162	3	4	39.6	3.21	251	44	-40.38	13.6	High
182	3	4	39.6	3.21	245	43	-39.70	13.6	Moderate
183	3	4	39.6	3.21	269	45	-42.28	13.4	Moderate
192.1	3	4	39.6	3.21	250	43	-40.25	13.6	Moderate
192.1	3	4	39.6	3.21	280	47	-43.35	13.3	Moderate
192.2	3	4	39.6	3.21	286	47	-44.00	13.3	Moderate
201	3	4	39.6	3.21	260	45	-41.32	13.5	High
202	3	4	39.6	3.21	293	48	-44.72	13.2	Moderate
219	5	6.4	33.5	6.06	310	50	-43.64	13.3	High
220	5	6.4	33.5	6.06	407	60	-53.86	12.5	Moderate
225	5	6.4	33.5	6.06	308	50	-43.51	13.3	High
226	5	6.4	33.5	6.06	338	53	-46.65	13.1	High
227	5	6.4	33.5	6.06	366	56	-49.49	12.8	Moderate
228	5	6.4	33.5	6.06	421	61	-55.30	12.4	Moderate
229	5	6.4	33.5	6.06	483	68	-61.81	11.9	Low
230	5	6.4	33.5	6.06	518	72	-65.49	11.6	Low
231	5	6.4	33.5	6.06	547	75	-68.46	11.3	Low
236	5	6.4	33.5	6.06	551	75	-68.90	11.3	Low
242	5	6.4	33.5	6.06	327	52	-45.51	13.2	High
243	5	6.4	33.5	6.06	370	56	-49.99	12.8	Moderate
243	5	6.4	33.5	6.06	392	58	-52.22	12.6	Moderate
244	5	6.4	33.5	6.06	434	63	-56.64	12.3	Moderate

Segment number	GMU	Bankfull Width (m)	Stand height (m)	Potential skyview (%)	Elevation (m)	Max. allowable skyview (%)	Shade difference (d=p-m)*	Referncee temp (°C)	Vulner-ability
253	5	6.4	33.5	6.06	395	59	-52.57	12.6	Moderate
254	5	6.4	33.5	6.06	498	69	-63.34	11.7	Low
255	5	6.4	33.5	6.06	567	77	-70.56	11.2	Low
256	5	6.4	33.5	6.06	610	81	-75.03	10.8	Low
259	5	6.4	33.5	6.06	389	58	-51.93	12.6	Moderate
259	5	6.4	33.5	6.06	445	64	-57.79	12.2	Moderate
260	5	6.4	33.5	6.06	502	70	-63.78	11.7	Low
261	5	6.4	33.5	6.06	590	79	-72.94	11.0	Low
262	5	6.4	33.5	6.06	640	84	-78.22	10.5	Low
263	5	6.4	33.5	6.06	473	67	-60.69	11.9	Low
264	5	6.4	33.5	6.06	538	74	-67.52	11.4	Low
265	5	6.4	33.5	6.06	648	85	-79.05	10.5	Low
266	5	6.4	33.5	6.06	727	93	-87.26	9.8	Low
267	5	6.4	33.5	6.06	725	93	-87.10	9.8	Low
301	5	6.4	33.5	6.06	555	75	-69.27	11.3	Low
302	5	6.4	33.5	6.06	598	80	-73.83	10.9	Low
304	5	6.4	33.5	6.06	598	80	-73.87	10.9	Low
308	5	6.4	33.5	6.06	600	80	-74.02	10.9	Low
309	5	6.4	33.5	6.06	637	84	-77.92	10.6	Low
310	5	6.4	33.5	6.06	680	88	-82.41	10.2	Low
311	5	6.4	33.5	6.06	720	93	-86.58	9.9	Low
314	5	6.4	33.5	6.06	600	80	-74.04	10.9	Low
314	5	6.4	33.5	6.06	712	92	-85.70	9.9	Low
317	5	6.4	33.5	6.06	716	92	-86.13	9.9	Low
319	5	6.4	33.5	6.06	686	89	-82.99	10.2	Low
320	5	6.4	33.5	6.06	716	92	-86.18	9.9	Low
323.1	5	6.4	33.5	6.06	711	92	-85.64	9.9	Low
324	1	21	39.6	16.50	188	37	-20.52	15.2	High
324	1	21	39.6	16.50	198	38	-21.54	15.1	High
324	1	21	39.6	16.50	209	39	-22.64	15.0	High
324	1	21	39.6	16.50	210	39	-22.80	15.0	High
324	1	21	39.6	16.50	212	39	-22.98	15.0	High
324	1	21	39.6	16.50	212	39	-22.99	15.0	High
324	1	21	39.6	16.50	214	40	-23.19	14.9	High
324	1	21	39.6	16.50	214	40	-23.25	14.9	High
324	1	21	39.6	16.50	224	41	-24.21	14.9	High
324	1	21	39.6	16.50	226	41	-24.45	14.8	High
324	1	21	39.6	16.50	227	41	-24.59	14.8	High
324	1	21	39.6	16.50	230	41	-24.92	14.8	High
324	1	21	39.6	16.50	236	42	-25.47	14.8	High
324	1	21	39.6	16.50	238	42	-25.75	14.7	High
324	1	21	39.6	16.50	239	42	-25.77	14.7	High
324	1	21	39.6	16.50	240	42	-25.90	14.7	High
324	1	21	39.6	16.50	243	43	-26.22	14.7	High
324	1	21	39.6	16.50	249	43	-26.84	14.7	High
324	1	21	39.6	16.50	256	44	-27.62	14.6	High
324	1	21	39.6	16.50	257	44	-27.68	14.6	High
324	1	21	39.6	16.50	262	45	-28.26	14.5	High

Segment number	GMU	Bankfull Width (m)	Stand height (m)	Potential skyview (%)	Elevation (m)	Max. allowable skyview (%)	Shade difference (d=p-m)*	Referncee temp (°C)	Vulner-ability
324	1	21	39.6	16.50	267	45	-28.70	14.5	High
324	1	21	39.6	16.50	267	45	-28.77	14.5	High
324	1	21	39.6	16.50	270	46	-29.01	14.5	High
324	1	21	39.6	16.50	286	47	-30.71	14.3	High
324.1	1	21	39.6	16.50	209	39	-22.72	15.0	High
324.2	1	21	39.6	16.50	218	40	-23.63	14.9	High
324.2	1	21	39.6	16.50	220	40	-23.86	14.9	High
324.3	1	21	39.6	16.50	241	42	-25.99	14.7	High
324.4	1	21	39.6	16.50	244	43	-26.38	14.7	High
324.5	1	21	39.6	16.50	252	44	-27.16	14.6	High
324.5	1	21	39.6	16.50	255	44	-27.46	14.6	High
324.6	1	21	39.6	16.50	280	47	-30.12	14.4	High
325	1	21	39.6	16.50	285	47	-30.62	14.4	High
325	1	21	39.6	16.50	293	48	-31.43	14.3	High
325	1	21	39.6	16.50	303	49	-32.47	14.2	High
325	1	21	39.6	16.50	322	51	-34.48	14.0	High
325	1	21	39.6	16.50	329	52	-35.23	14.0	High
325	1	21	39.6	16.50	329	52	-35.28	14.0	High
325	1	21	39.6	16.50	340	53	-36.38	13.9	High
325	1	21	39.6	16.50	350	54	-37.46	13.8	High
325	1	21	39.6	16.50	365	55	-38.96	13.7	High
325	1	21	39.6	16.50	384	57	-40.99	13.5	High
325	1	21	39.6	16.50	390	58	-41.61	13.5	High
325	1	21	39.6	16.50	400	59	-42.69	13.4	High
325	1	21	39.6	16.50	411	60	-43.81	13.3	High
325.1	1	21	39.6	16.50	288	47	-30.95	14.3	High
325.2	1	21	39.6	16.50	312	50	-33.41	14.1	High
325.2	1	21	39.6	16.50	312	50	-33.41	14.1	High
325.2	1	21	39.6	16.50	313	50	-33.54	14.1	High
325.3	1	21	39.6	16.50	396	59	-42.26	13.4	High
326	1	21	39.6	16.50	406	60	-43.28	13.3	High
326	1	21	39.6	16.50	407	60	-43.41	13.3	High
326	1	21	39.6	16.50	408	60	-43.46	13.3	High
326	1	21	39.6	16.50	409	60	-43.65	13.3	High
326	1	21	39.6	16.50	416	61	-44.29	13.3	High
326	1	21	39.6	16.50	421	61	-44.83	13.2	High
326	1	21	39.6	16.50	421	61	-44.91	13.2	High
326	1	21	39.6	16.50	422	61	-44.93	13.2	High
326	1	21	39.6	16.50	425	62	-45.32	13.2	High
326.1	1	21	39.6	16.50	411	60	-43.78	13.3	High
326.2	1	21	39.6	16.50	417	61	-44.46	13.2	High
327	1	21	39.6	16.50	439	63	-46.70	13.1	High
327	1	21	39.6	16.50	445	64	-47.33	13.0	High
327	1	21	39.6	16.50	448	64	-47.67	13.0	Low
327	1	21	39.6	16.50	449	64	-47.80	13.0	Low
327	1	21	39.6	16.50	455	65	-48.39	12.9	Low
327	1	21	39.6	16.50	478	67	-50.78	12.7	Moderate
327	1	21	39.6	16.50	548	75	-58.10	12.2	Moderate

Segment number	GMU	Bankfull Width (m)	Stand height (m)	Potential skyview (%)	Elevation (m)	Max. allowable skyview (%)	Shade difference (d=p-m)*	Referncee temp (°C)	Vulner-ability
327	1	21	39.6	16.50	554	75	-58.79	12.1	Moderate
327	1	21	39.6	16.50	561	76	-59.55	12.0	Moderate
327	1	21	39.6	16.50	565	76	-59.90	12.0	Moderate
327	1	21	39.6	16.50	568	77	-60.25	12.0	Moderate
327	1	21	39.6	16.50	578	78	-61.27	11.9	Moderate
327	1	21	39.6	16.50	588	79	-62.28	11.8	Low
327.1	1	21	39.6	16.50	434	63	-46.17	13.1	Moderate
327.2	1	21	39.6	16.50	493	69	-52.44	12.6	Moderate
327.2	1	21	39.6	16.50	496	69	-52.66	12.6	Moderate
327.2	1	21	39.6	16.50	503	70	-53.46	12.5	Moderate
327.2	1	21	39.6	16.50	515	71	-54.70	12.4	Moderate
327.2	1	21	39.6	16.50	522	72	-55.44	12.4	Moderate
327.2	1	21	39.6	16.50	527	72	-55.93	12.3	Moderate
327.2	1	21	39.6	16.50	533	73	-56.57	12.3	Moderate
327.2	1	21	39.6	16.50	536	73	-56.87	12.3	Moderate
327.2	1	21	39.6	16.50	539	74	-57.19	12.2	Moderate
328	1	21	39.6	16.50	592	79	-62.77	11.8	Low
328	1	21	39.6	16.50	613	81	-64.94	11.6	Low
328	1	21	39.6	16.50	636	84	-67.38	11.4	Low
328	1	21	39.6	16.50	649	85	-68.69	11.3	Low
328	1	21	39.6	16.50	661	86	-70.00	11.2	Low
328	1	21	39.6	16.50	673	88	-71.23	11.1	Low
329	1	21	39.6	16.50	699	90	-73.94	10.9	Low
329	1	21	39.6	16.50	740	95	-78.21	10.5	Low
330.1	5	6.4	33.5	6.06	804	100	-93.94	9.3	Low
330.2	5	6.4	33.5	6.06	880	100	-93.94	9.3	Low
330.2	5	6.4	33.5	6.06	945	100	-93.94	9.3	Low
331	5	6.4	33.5	6.06	1079	100	-93.94	9.3	Low