Soil and Water Question 2a Appendix

Best Management Practices Implementation and Effectiveness Monitoring Wrangell Ranger District Road Storage Trip Report – Whale Trail Road September 25, 2012

Summarized by Julianne Thompson and Ashley Hom

The interdisciplinary trip was conducted on Zarembo Island on the Wrangell Ranger District in September 2012. The intent of the BMP trip was to evaluate the road storage project on Whale Trail Road 6587, Zarembo Island. The assessment focused on water quality issues associated with road storage techniques. Participants on the trip included: Keith Appleman (FS Project COR Recreation and Lands Staff Officer), Ron Schmohl (FS Engineer), Dennis Reed (Fish Biologist), Julianne Thompson (hydrologist), Ashley Hom (FS Hydrologist), Teague Mercer (Hydrologist).

Background

Road storage projects were randomly selected for monitoring by Carol Seitz Warmuth, Tongass National Forest Monitoring Coordinator. The road was initially stored in 2008 for non-motorized used (foot trail). The 2008 project was authorized by the Decision Notice (DN) for the Environmental Assessment (EA) and Revised EA for the Wrangell Access and Travel Management (ATM) signed August 2007.

The road was stored again in August 2012 to convert the road from a foot trail to an OHV trail. The most recent storage project treated all existing water bars and stream crossings to accommodate OHV vehicles and apply erosion control measures (i.e. slope stabilization and seeding). The total length of road stored was 3.112 miles. The 2012 project was approved by the Zarembo ATV Trails Categorical Exclusion (CE) signed July 2012. The project was proposed by the Wrangell Ranger District though the Wrangell-Petersburg-Kake Resource Advisory Committee (RAC) project nomination, a public process. The road access a remote recreation site and beach access on Zarembo Island along Snow pass. The CE states "trail improvements will prevent erosion and water quality impacts while reducing future road maintenance needs."

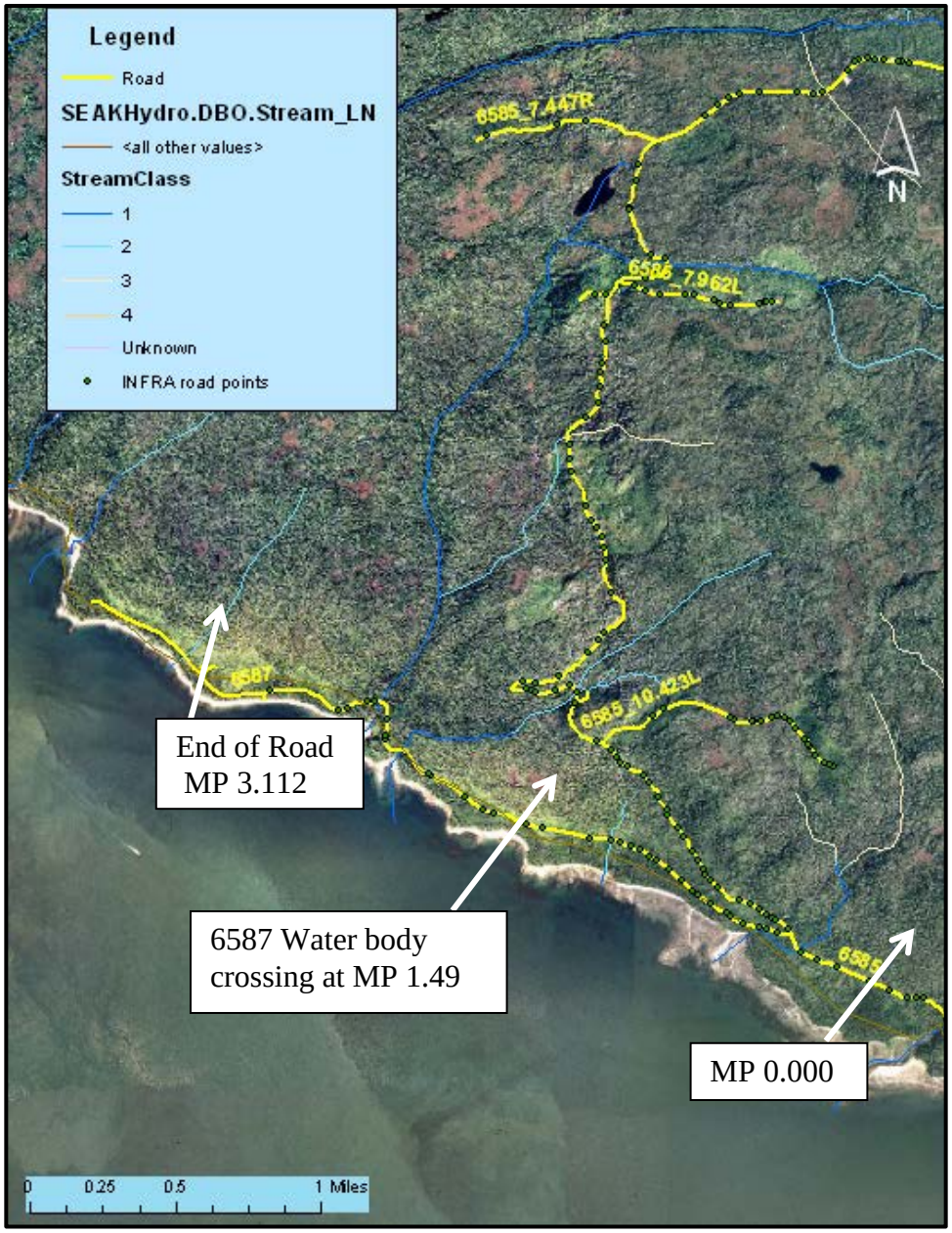
Monitoring Results

With respect to treatment of stream crossings as OHV fords, three streams were evaluated, each is stable reaches with bony cobble substrate likely to withstand the occasional OHV crossing. This is not a high use area. We have been relatively stringent about designating Class I streams as OHV fords. We noted that these crossings met the following criteria:

1. All road fill was removed to restore natural channel width and grade through road prism. If road fill is not completely removed, flow and fish barriers may occur
2. Final approaches were near 3H to 1V (3:1) on all three streams (we verified with clinometer). Steeper approaches are likely to cause kick-back of material into stream and rutting.
3. Approaches are mainly shot rock with minimal fine content, and beginning to revegetate with grass where fines are present. Approaches with finer material can erode or rut with traffic.
4. Stream substrate is cobble or large cobble, which can withstand occasional OHV crossings; finer substrate will rut with tire traffic.
5. Channels are stable, with no evidence of potential headcutting that could be compounded by disturbance to substrate.

There is potential for OHV travel downstream to the beach. These fords should be monitored for unacceptable levels of use or disturbance and water quality impacts. The design drawings (typicals), though different than the ones that were reviewed at the forest level, appeared to work well at these three sites.

Figure 1. Map of Road Storage BMP Monitoring Trip, 2012



Picture 1. Culvert removal at MP 0.710 and verified fish stream.

The slopes going into and out of the crossing in picture 1 are about eighteen percent, which is well within the desired 3:1 slope. However, due to the low angled slopes, width of road, and the lack of a barrier at the start of the road, there is evidence of a pickup truck. The objective of this road was to restrict the usage to only OHVs and foot traffic. The motorized vehicle has caused some sedimentation and erosion into the stream.

Picture 2. Bridge removal at MP 1.740 and verified fish stream.

Road slopes in picture 2 meet the desired 3:1. No signs of erosion or sedimentation. There is evidence of seeding (part of the road storage contract); native grasses are germinating on the road surface.

Picture 3. Road 6587 water bar shows wide travel way that does not exclude pickup traffic.

Width of excavated material at water bars (picture 3) was intended to provide a four to six foot OHV travel way. The width tended toward six feet or wider, and this was not effective in excluding pickup traffic. Even at six feet, it is likely that high clearance vehicles could drive over the excavated material and cross the water bars and a few fish streams (see picture 1).

The stream in picture 4 is a verified fish stream. The slopes were very close to the 3:1 ratio, at about thirty-one percent. There was no sign of erosion. There was sign of seeding.

Corrective actions needed

An ATM change analysis needed for change from non-motorized use to OHV trail. The decision memo did not address the ATM or Forest Plan Standards and Guides for Old Growth Reserves (page 3-60): "Designation of motorized routes for off-highway vehicles is generally not allowed. Designation may only occur where documented local traditional use has occurred and the route does not degrade water quality or flow. Barriers and signs need to be installed to exclude pickup traffic. The current travel way allows for pickup access across first fish stream and potentially across second fish stream.

Picture 4. Bridge removal at MP 1.490

Adaptive management actions needed

The contract included drawings and specifications for use of silt fences, which were not employed and probably not needed since only minor disturbance occurred adjacent to streams. However, the use of an erosion control plan (as described in the contract 917.03) could have clarified when and where the silt fence was expected. We recommend a broader use of the silt fence drawings as a tool available during road construction and storage (we have not seen it used on other districts). Enforcement of the erosion control plan for all road-related projects (we rarely see it enforced and think it is a powerful tool to communicate expectations for erosion control). The issue of signage and traffic barriers comes up on every road storage project and appears to be inconsistently applied across the forest. Recreation staffs are generally supportive of both. Engineers and District Rangers are generally un-supportive of either signs or barriers. We recommend engaging interdisciplinary dialogue to resolve this issue at the district and forest levels. ML-1 policy is to prohibit motor vehicle use except where roads are dual-designated as motorized trails. We also recommend appropriate barriers and signage should be applied to enforce this policy. We recommend continued dialog with engineering and recreation about the application of OHV fords, criteria for stream compatibility with fords to minimize aquatic impacts, and expectations for monitoring and maintenance of OHV trails with stream fords. We agreed that it is better to store a road once, and do it right the first time, rather than return four years later and do it again.