WALLOWA-WHITMAN
SPECIAL PROJECT SPECIFICATION (2/06)

T-803F SNOW REMOVAL

803.01 Description

This Section provides for removal of snow from roads to facilitate logging operations and safe use.

803.02 Maintenance Requirements

a. If Purchaser elects to remove snow, meet the following requirements:

(1) Purchaser shall erect signs during periods when snowplowing takes place to meet the intent of B6.33.

(2) Perform work in a manner to preserve and protect roads and appurtenances, and to prevent erosion damage to roads, streams, and other Forest values.

(3) Do not undercut banks or blade gravel or other surfacing material off the road.

(4) Keep roadbed drainage ditches, drain dips, and culverts functional when needed during operations and upon completion of operations.

(5) Control snow removal to identify the usable traveled way having roadbed support. Reshape over-width plowing as necessary to define the usable width.

(6) Space, construct, and maintain drainage holes in the dike of snow or berm caused by snow removal operations. Place drain holes to obtain surface drainage without discharging on erodible fills.

(7) Close roads to wheeled vehicles at times and in the manner specified in C(T)5.12 or the Road Rules document.

(8) Upon seasonal completion of Purchaser's Operations, effectively block the road by a snow barricade, unless otherwise agreed.

(9) Remove snow for either public access or project use as established in C(T)5.31 and meet the following requirements:

(a) Removal for Public Access (Method JU) - Remove snow from all of the traveled way, including turnouts, for safe and efficient use for both timber transportation and the public. Remove intruding windfalls, debris, or slough and slide material for the full width of the traveled way and deposit out of drainage’s at agreed upon locations.

(b) Removal for Project Use (Method TS) - Remove snow from all or part of the traveled way, including sufficient turnouts for safe and efficient use for timber transportation and to protect the road. Remove intruding windfalls, debris or slough and slide material and dispose of only as necessary to provide passage for timber transportation. Removed materials may be deposited off the traveled way or outside the traveled way at agreed upon locations.

(10) Upon notice replace in kind, within sixty (60) days after the start of Normal Operating Season, any surfacing material which has been bladed off the road, unless otherwise agreed. Forest Service will notify Purchaser in writing as to the cubic meter equivalent of bladed off material by the start of the normal operating season.

803.03 Equipment

Purchaser may use any type of equipment to remove snow, providing:

a. Type or use of equipment is not restricted in C(T)5.12 or Road Rules document.

b. Equipment is of the size and type commonly used to remove snow and will not cause damage to the road.

c. The use of plows or dozers to remove snow requires written Forest Service approval. Equip plows or dozers with shoes or runners to keep the dozer blade a minimum of 50 mm (2 inches) above the road surface unless agreed otherwise.

803.04 Ice Control

Ice control may be performed by Purchaser when approved by Forest Service in writing. Such approval will include ice control materials, application rates, and any specific requirements of use.

WALLOWA-WHITMAN
SPECIAL PROJECT SPECIFICATION (2/06)

T-811F BLADING

811.01 Description -

This work consists of surface blading the traveled way to a condition to facilitate traffic and provide proper drainage. Blading includes shaping the crown or slope of traveled way, berms, and drainage dips in accordance with this specification. Compaction is required when shown on the Road Listing.

811.02 Maintenance Requirements

A. Timing - Perform surface blading during the contract period as often as needed to provide conditions stated for the maintenance level of the road.

B. General -

1. Blade and shape the existing traveled way and shoulders, including turnouts, to produce a surface which is uniform, consistent to grade, and crowned or cross-sloped as indicated by the character of the existing surface, unless otherwise shown in the Road Listing, to at least 13 mm (½ inch) per .305 meter (1 foot) of width, but not more than 19 mm (¾ inch) per .305 meter (1 foot) of width. Thoroughly loosen surfacing material to no less than 50 mm (2 inches) depth or the depth of potholes or corrugations. Scarification to facilitate cutting to the full depth of potholes or corrugations may be elected, but will be considered incidental to blading. Do not scarify deep enough to cause contamination of the surfacing.

2. Apply water during blading when sufficient moisture is not present to prevent segregation. Supply, haul, and apply water in accordance with Section T-891F.

3. Shape existing native rock or aggregate surfaced drainage dips to divert surface runoff to existing outlet devices, ditches, or discharge locations.

4. Establish a blading pattern which provides a uniform driving surface, retains the surfacing on the roadbed, and provides a thorough mixing of the materials within the completed surface width. Upon final blading, no disturbed rock shall protrude more than 50 mm (2 inches) above the adjacent surface unless otherwise provided in the contract. Remove and place outside the roadbed material not meeting this dimension so as not to obstruct drainageways or structures. This material may be scattered off the roadbed if there is free drainage.

C. Routine Blading -

1. Conform to the dimensions SHOWN IN CONTRACT PROVISION C(T)5.31#.

2. Shape roadbed width in excess of the dimensions shown only as needed to provide drainage away from the traveled way. Do not remove established grasses and other vegetation from the excess width except as incidental to providing drainage or unless otherwise provided in the contract.

D. Compaction -

When compaction is required, the method of compaction will be as shown in the Road Listing [C(T)5.31#]. Compaction shall commence immediately following blading.

Compaction methods are:

Compaction Method A: By breaking track while operating equipment on the traveled way.

Compaction Method B: 7-9 metric ton (7-10 ton) pneumatic, steel, or equivalent vibratory roller, operated to cover the full width two (2) times.

E. Undercutting - Undercutting roadway back slope is not permitted.

F. Intersections

1. At intersections, blade the roadbeds of side roads which are not closed or restricted from vehicular use to ensure smooth transitions. Maximum distance not to exceed 15 m (50 feet) onto adjacent roads.

2. Blading shall not be required of intersecting roads if roads are listed under C(T)5.31 Sections T-838F, or T-839F. This includes any roads with signing, cross ditching in the road surface (traveled way), earth berms, or other devices placed to discourage or eliminate use.

G. Cleaning of Structures - Do not allow materials resulting from work under this Section to remain on or in structures, such as bridges, culverts, cattle guards, or drainage dips.

H. Berms - Maintain existing berms to the condition of adjacent segments. Do not create new berms (windrows).

I. Smooth blading - Smooth blading may be used as an interim measure to remove loose surfacing material from the wheel paths, and store removed materials in a recoverable windrow, until blade processing as described in this section is feasible. Watering will not be required for smooth blading. Accomplish smooth blading without distorting the existing cross-slope or crown of the traveled way.

Move and store loose surfacing materials on the high side of super-elevated curves and sections with uniform inslope or outslope. In crowned sections, store the material on either or both sides as elected. Windrow and place stored materials to provide not less than 3.6 meters (12 feet) of smooth traveled way on one-lane segments, or 6 meters (20 feet) of smooth traveledway on two-lane segments, or segments with turnouts. Cut holes through windrows, which may collect water on the road, for drainage at least every 150 meters (500 feet).

WALLOWA-WHITMAN
SPECIAL PROJECT SPECIFICATION (1/07)

T-813F SURFACING

813.01 Description

This work consists of placing surface aggregate as staked on the ground, or designated by the Government. It includes preparing the area, furnishing, hauling, and placing all necessary materials and other work necessary to blend with the adjacent road cross section.

813.02 Materials

A. Materials will be Government-furnished unless otherwise stated in C(T) 5.31#. The codes shown in the road listing will be defined as follows:

GFM: government furnished material. Material Source is located:_____.

P: Purchaser is required to place this gradation of rock, obtained from a commercial source.

D: Purchaser is required to pay deposits to the Forest Service in lieu of placement of surfacing.

D3: Purchaser is required to pay deposits to a third party in lieu of placement of surfacing.

B. Materials furnished by the Purchaser shall reasonably conform to the gradation shown in C(T)5.31# and Section 703 of the "Forest Service Standard Specifications for Construction of Roads and Bridges," EM-7700-100, August 1996. Material shall be approved in writing by the Forest Service prior to placement.

C. Quantities shown in C(T)5.31# are measured in place.

813.03 Maintenance Requirements

A. Thoroughly loosen the area to be surfaced to a minimum depth of 25 mm (1 inch) prior to placement of aggregate.

B. Mixing and Placing

1. Mix surfacing and existing aggregate. Apply water in accordance with Section T-891F during blading when sufficient moisture is not present to prevent segregation. Uniformly mix-aggregate prior to final shaping and compaction.

2. Spread the material on the prepared area in layers no more than 100 mm (4 inches) in depth. When more than one (1) layer is required, shape and compact each layer before the succeeding layer is placed. Upon completion, the surfacing shall reasonably conform to the adjacent cross section and provide smooth transitions in the road profile.

3. Accomplish compaction by one of the following methods, as shown in C(T) 5.31#:

Compaction Method A: By breaking track while operating equipment on the traveled way.

Compaction Method B: 7-9 metric ton (7-10 ton) pneumatic, steel, or equivalent vibratory roller, operated to cover the full width two (2) times.

WALLOWA-WHITMAN
SPECIAL PROJECT SPECIFICATION (2/06)

T-831F DITCH MAINTENANCE

831.01 Description

This Section provides for routine maintenance of various types of ditches to provide a waterway which is unobstructed, as shown on the road listing or marked on the ground.

831.02 Maintenance Requirements

A. Maintain ditches by removing rock, soil, wood, and other materials. Maintained ditches shall function to meet the intent of the original design.

B. Undercutting backslopes during removal operations is not permitted.

C. Suitable material up to 100 mm (4 inches) in greatest dimension removed from the ditches may be blended into existing native road surface and shoulder or placed in designated berm.

D. Do not blend material from ditch cleaning operations into aggregate surfaced roads. Do not blade material across aggregate or bituminous surfaced roads, unless approved in writing by the Government.

E. Haul material in excess of 831.02 D or subject to 831.02 E to a designated waste area under Section T-832F. Remove excess materials temporarily stored on the ditch slope or edge of the shoulder daily.

F. Remove limbs and wood chunks in excess of 300 mm (12 inches) in length or 75 mm (3 inches) in diameter from ditches and place outside the roadway.

G. Clean paved surfaces of all materials resulting from ditch maintenance work.

H. Shape lead-off ditches to drain away from the traveled way.

WALLOWA-WHITMAN
SPECIAL PROJECT SPECIFICATION (2/06)

T-834F DRAINAGE STRUCTURE MAINTENANCE

834.01 Description

This work consists of cleaning and reconditioning culverts and other drainage structures.

834.02 Maintenance Requirements

A. Clean drainage structures, inlet/outlet structures, culverts, catch basins, and outlet channels when there are obvious obstructions, impediments, or diversions to water flow. Material shall be removed from catch basins in accordance with Drawing #CB-1. All removed material shall be disposed of in accordance with T-832F.

B. Clean the transition from the ditch line to the catch basin a distance of 3 meters (10 feet) from the catch basin. Clean outlet channels and lead-off ditches a distance of 2 meters (6 feet). Remove and place debris and vegetation so as to not enter the channel or ditch, or obstruct traffic. Haul debris and vegetation to a designated disposal area in accordance with Section T-832F.

C. Hydraulic flushing of drainage structures is not allowed unless approved in writing by the Forest Service.

D. Cleaning and reconditioning are limited to the first 1 meter (3 feet) of inlet and outlet, determined along the top of the structure. Recondition culvert inlet and outlet by field methods such as jacking out or cutting away damaged metal which obstructs flow. Treat cut edges with a zinc rich coating to reduce or eliminate rusting, in accordance with manufacturer's recommendations.

E. Specific drainage maintenance requirements are shown on the Drainage Maintenance Listing (DML):

DML Attached	☐
No DML Attached	X

* Performance of the maintenance shown the DML, unless specifically stated, does not relieve the contractor of the requirement to perform maintenance as shown in A, above.

WALLOWA-WHITMAN
SPECIAL PROJECT SPECIFICATION (3/08)

T-836F MAINTENANCE FOR LIMITED USE

836.01 Description

This work consists of making limited use roads passable for JOINT use by Purchaser and high clearance vehicles, and providing drainage from the traveled way and roadbed.

836.02 Maintenance Requirements

A. Traveled Way

Purchaser may smooth or fill existing cross ditches and waterbars and by agreement modify existing road junctions to enable vehicle access. Prior to beginning haul and resumption of haul after an extended stoppage:

1. Remove brush, fallen trees, rocks, and other debris from traveled way, including turnouts, turnarounds, and other locations that interfere with needed maintenance as follows:

a. No object extending over 100 mm (4 inches) above the road surface shall remain within the 3.6 m (12 feet) usable traveled way and 3 m (10 feet) turnout widths. Center the usable width on the roadbed or position away from the fill slope.

b. Cut and remove standing or down trees, logs, brush, and limbs from within the area described in 1 (a) above. Remove encroaching limbs to a height of 4.2 m (14 feet) above the traveled way surface. Scatter material not meeting utilization standards outside and below the roadbed on the fill side. Limb and buck timber meeting utilization standards in accordance with contract provisions and deck at approved locations. Volume shall be estimated and documented prior to a written agreement for removal in accordance with contract provisions.

c. Place all removed materials away from drainage's.

d. During use, maintain drainage structures, including dips, ditches and culverts in a useable condition.

2. Clean and recondition drainage facilities in accordance with: Section T-831F and T-834F.

B. Slough and Slides

1. Slough and slides may be left in place, provided surface drainage is provided and at least 3.6 m (12 feet) of width is available for vehicle passage.

2. Purchaser may reposition or ramp over slides and slough when the traveled way is less than 3.6 m (12 feet) providing the material is capable of supporting vehicles. Limit outslope to no more than six percent.

3. Reposition slough or slide materials on the roadbed which are not capable of supporting a vehicle to provide the 3.6 m (12 feet) width. When directed by Forest Service, slough or slide material will be removed under Section T-832F.

C. Slumps and Washouts

1. Drain the roadbed immediately upgrade of slumps and longitudinal cracks to prevent water from entering slump area.

2. Slumps and longitudinal cracks at the edge of the roadbed shall not be considered a part of the usable width. Usable width may be reduced to 3 m (10 feet) in the area of the slump.

3. Unless Forest Service agrees to material being placed on slumps, ramp the slumps on both ends into undisturbed roadbed to provide at least 3 m (10 feet) usable width. Use removed materials to guide vehicles to the ramp location or to aid in draining the area.

4. Washouts may be filled with suitable material.

D. Posthaul

At the end of hauling or prior to entering into seasonal shutdowns or a period of extended inactivity:

1. Shape the traveled way and disturbed roadbed to provide functional drainage.

2. Reinstall removed cross ditches and waterbars and provide any additional drainage structures necessary to offset changes caused through use and maintenance. Reference drawing(s) as indicated in C(T) 5.31#.

3. Leave roads useable for high clearance vehicles. Remove or reshape purchaser modifications at road junctions to leave the entrance as it was before use, or as agreed at the time of improvement.

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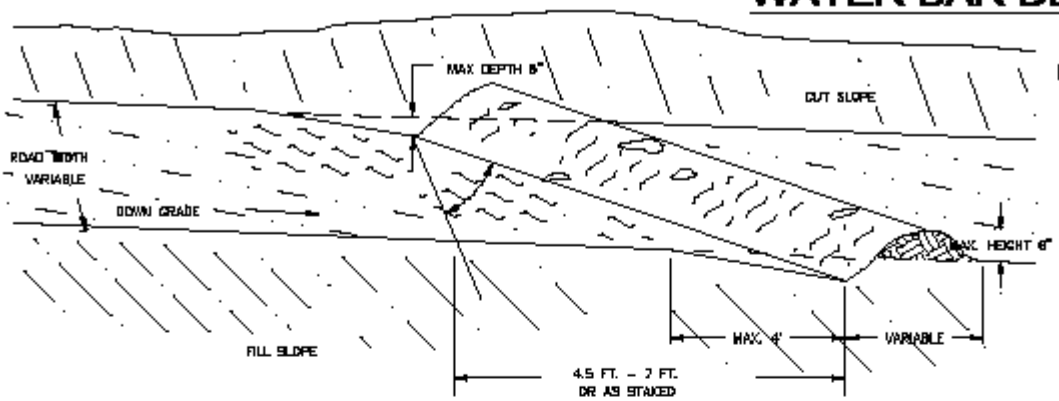
DRAWING #WB-6

WATER BAR DETAIL

NO SCALE



NOTES

1. ALL WATER BARS SHALL BEGIN AT THE INTERSECTION OF THE ROADBED AND CUT SLOPE AND RUN ACROSS THE ENTIRE WIDTH OF THE ROADBED.
2. ALL WATER BARS SHALL HAVE FREE FLOWING OUTLETS.
3. WHEN STAKES ARE USED, THEY SHALL DESIGNATE THE OUTLET LOCATION.
4. **UNLESS LOCATIONS ARE STAKED BY THE FOREST SERVICE,** THE FOLLOWING TABLE SHALL BE USED AS A GUIDE.

DRAINAGE SPACING TABLE

SPACING ALONG D(BASED ON SOIL EROSION GROUP 3)

DOWN GRADE (IN %)	UNSURFACED (IN SMU*)	1/ SURFACED (IN SMU*)	2/ SURFACED/UNSURFACED (OUTSIDE SMU*)
2	105 FT.	160 FT.	USE ENGINEERING SPACING GUIDE (BUT IN NO PLACE MORE THAN 500 FT. ALONG ß). OR AS STAKED BY THE FOREST SERVICE
4	90 FT.	140 FT.	
6	80 FT.	125 FT.	
8	75 FT.	115 FT.	
10	65 FT.	100 FT.	
12	55 FT.	85 FT.	
14	45 FT.	70 FT.	
16	35 FT.	55 FT.	
18	30 FT.	45 FT.	
>20	30 FT.	30 FT.	

1/ PIT RUN OR GRID ROLLED > 25% FINES

2/ CRUSHED ROCK, PIT RUN, OR GRID ROLLED W/ < 25% FINES

* SMU = STREAMSIDE MANAGEMENT UNIT:

SMU WIDTH

Class I through IV Streams — 150 Ft. each side for sideslopes < 30%; 200 Ft. each side for sideslopes > 30%

SMU GUIDELINES

When a road is within 25 Ft. of a stream and parallels stream for more than 300 feet, decrease spacing by 25%.

Where a road is grading down towards a stream, locate the last cross-drain at about 10–30 Ft. from stream (depending upon filtering capability at the outlet); place the next cross-drain upgrade at 75% of the spacing guide value.

If road has drainage ditch, extend cross-drains to intercept the runoff.

T-842F CUTTING ROADWAY VEGETATION

842.01 Description

This work consists of cutting all vegetative growth, including trees and other vegetation less than 100 mm (4 inches) in diameter measured 150 mm (6 inches) above the ground, on roadway surfaces and roadsides.

842.02 Maintenance Requirements

A. General

1. Cut brush, trees, and other vegetation within each area treated to a maximum height of 150 mm (6 inches) above the ground surface or obstruction such as rocks or existing stumps. When work is performed under this Section, remove all limbs which extend into the treated area (shown in the Road Listing, C(T)5.31#), or over the roadbed, to a height of 4 m (14 feet) above the traveled way surface elevation.

    a. When approved in advance by the Forest Service, a limited number of larger (greater than (4 inches) in diameter measured 150 mm (6 inches) above the ground) may be designated for cutting. If these trees meet utilization standards, they will be limbed and decked in areas designated by the Forest Service.

2. Items to remain will be marked on the ground.

3. Work may be performed either by hand or mechanically unless specifically shown in the Road Listing. Self-propelled equipment is not allowed on cut and fill slopes or in ditches.

4. Correct damage to trunks of standing trees caused by Purchaser's operation as directed by the Government.

5. Limb trees within the cutting limits which are over 100 mm (4 inches) - measured at 150 mm (6 inches) above the ground in lieu of cutting, unless otherwise designated by the Forest Service.

6. When trees are limbed, cut limbs flush with the trunk.

B. Cutting Side Vegetation

1. Show the width of vegetation to be removed in the Road Listing.

2. Unless otherwise approved or marked on the ground, commence work at the edge of the traveled way and proceed away from the road centerline.

3. The points for establishing cutting limits are as follows:

a. Fill and daylighted (wide roadbed) section cutting commences at the edge of the traveled way and proceeds away from the road center line.

b. Drainage ditched section cutting commences at the edge of the traveled way and proceeds away from the road center line.

c. Unditched cut section cutting commences at the intersection of the cutbank and the roadbed and proceeds away from center line.

C. Debris

1. Materials resulting from the cutting operation in excess of 300 mm (12 inches) in length or seventy-five (75) mm (3 inches) in diameter is not allowed to remain on roadway, slopes within the treated area, in ditches, or within water courses.

2. Remove limbs and chunks in excess of seventy-five (75) mm (3 inches) in any dimension from the traveled way and shoulders.

3. Materials shall be scattered downslope from the roadbed, outside of the work area and drainages.

WALLOWA-WHITMAN
SPECIAL PROJECT SPECIFICATION (2/06)

T-851F LOGGING OUT

851.01 Description

This work consists of removal of fallen trees and snags which encroach into the roadway.

851.02 Maintenance Requirements

A. Limb and remove timber which meets Utilization Standards, or deck at agreed locations.

B. For material within 1 meter (3 feet) of the traveled way which does not meet utilization standards, cut into lengths suitable for handling and scatter outside of the traveled way on the fill slope side (without damaging trees, or improvements), unless otherwise shown below.

Road No.	Disposal Method	Logging Out Distance from Shoulder	
		Left	Right
All Roads Listed in CT5.31#	Scatter	5’	5’

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C. Notwithstanding B(T)2.3, blowdown timber outside Sale Area required to be removed, which meets Utilization Standards in A(T)2, when agreed is Included Timber subject to requirements of B(T)2.2.

D. Do not leave woody debris and slash in concentrations which may plug ditches or culverts, drainage channels, or on traveled way, shoulders, or turnouts.

WALLOWA-WHITMAN

SPECIAL PROJECT SPECIFICATION (2/06)

T-854F TREATMENT AND DISPOSAL OF DANGER TREES

854.01 Description

This work consists of felling and disposal of designated live or dead danger trees sufficiently tall to reach roads used (including temporary roads) by the Purchaser. Any removal of logs is subject to prior agreement between the Forest Service and the Purchaser.

Road use for purchaser's operations and haul is contingent upon the required treatment of all danger trees regardless of when identified or marked for treatment.

854.02 Requirements

A. Designation of danger trees.

Danger trees to be felled will be designated in advance of commercial operations commencing. Identification of these trees may be made by the purchaser and/or the Forest Service. Marking of the designated trees shall be conducted by the Forest Service.

Falling, bucking and treatment for disposal.

Use controlled felling to ensure the direction of fall and prevent damage to property, structures, roadway, residual trees, and traffic. Stump heights, measured on the side adjacent to the highest ground, must not exceed 12 inches or 1/3 of the stump diameter, whichever is greater. Higher stump heights are permitted when necessary for safety.

Felled snags and trees, which are not designated for removal, will be left in a stable condition such that they will not roll or slide. Position logs away from standing trees so they will not roll, are not on top of one another, and are located out of roadway and drainage structures.

Fell, limb and, remove trees, which are Marked for removal, that equal or exceed the utilization standards as listed in the Timber Sale contract or Special Project Specifications. Dispose of merchantable timber designated for removal in accordance with B/BT2.32 Construction Clearing, of the Timber Sale Contract, or as described in Special Project Specifications.

C. Slash treatment.

Within the roadway, remove limbs, chunks, and debris in excess of 12 inches in length and 3 inches in diameter, and concentrations that may plug ditches or culverts, and water courses.

Dispose of slash by scattering outside the roadway limits without damaging trees, or improvements.

WALLOWA-WHITMAN
SPECIAL PROJECT SPECIFICATION (2/06)

T-891F WATER SUPPLY AND WATERING

891.01 Description

This work consists of providing facilities to furnish an adequate water supply, hauling and applying water.

891.02 Materials

If the Purchaser elects to provide water from other than designated sources, the Purchaser is responsible to obtain the right to use the water, including any cost for royalties involved.
Suitable and adequate water sources designated available for Purchaser's use under this contract are as follows:

Map Key No.	Location Road	Location Milepost	Use Restrictions
See attached map	2100580	2.6 miles west of 2155	None

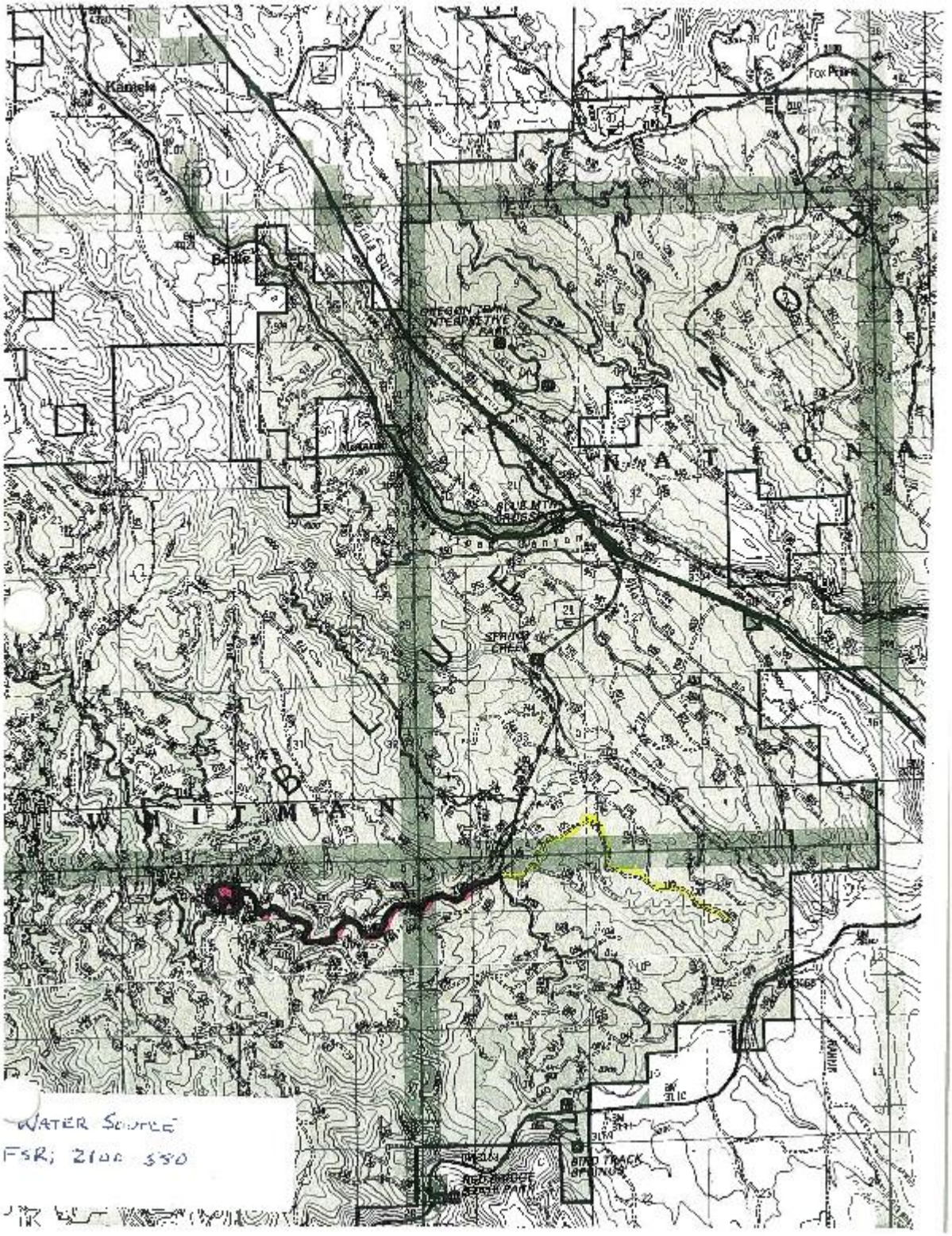
* Purchaser to obtain a Limited Water Use License with the Oregon Department of Water Resources prior to use.

891.03 Equipment

A. Positive control of water application is required. Equipment shall provide uniform application of water without ponding or washing.

B. An air gap or positive anti-siphon device shall be provided between the water source and the vehicle being loaded if the vehicle has been used for other than water haul, if the source is a domestic potable water supply, or the water is used for tank mixing with any other materials.

C. The designated water sources may require some work prior to their use. Such work may include cleaning ponded areas, installing temporary weirs or sandbags, pipe repair, pump installation, or other items appropriate to the Contractor's operations. Flowing streams may be temporarily sandbagged or a weir placed to pond water, provided a minimum flow of _N/A____ cu.m/s (cu. ft/sec) is maintained. Obtain approval on improvements for sandbags or weirs prior to placement.


Kamela
Battle
Fox Peters
SPRING CREEK
WATER SOURCE
FSR; 2100 350
BIRD TRACK SPRINGS