WILDERNESS CHARACTERISTICS INVENTORY

UPDATE

WALL CREEK UNIT

OR-054-042

AUGUST 8, 2012

BUREAU OF A D A AGE E T

PRI E I E DISTRICT

CE TRA OREGO RESOURCE AREA

UPDATE HISTORY

10/31/2007	Initial Finding
7/8/2010	Signatory addendum added
10/13/2011	Added supplemental materials, photos, photo logs GRAIP report and new signatory addendum
8/6/2011	Added missing original signatory statement to electronic file (was missed in scanning process)
8/8/2012	Added, “Amendment to John Day Basin Road Analysis Form for Route #3408 (Graves Creek)” after page 12

WILDERNESS CHARACTERISTICS INVENTORY

PERMANENT DOCUMENTATION FILE

This permanent documentation file includes the following:

Appendix B: **Inventory Area Evaluation**

Appendix C: **Route Analysis**

Appendix D: **Photo Documentation:** Documentation could include a descriptive log and photographs.

Appendix E: **Inventory Maps:** Inventory maps used in conducting and documenting findings of wilderness characteristics inventories.

Appendix F: **Supporting Documentation: A**dditional notes, forms, and documents.

WILDERNESS CHARACTERISTICS INVENTORY

APPENDIX B
INVENTORY AREA EVALUATION

Bureau of Land Management
Prineville District

2008 John Day Basin Wilderness Character Evaluation Form

Wilderness Character Evaluation For: OR-054-042/Wall Creek Inventory Unit

1. Previous BLM wilderness inventory?

No _____ Yes _____ Partial_____X_____

a) Inventory Source: Bureau of Land Management, OR/WA Wilderness Review Initial Inventory Final Decision, August 1979.

b) Inventory Unit Name(s)/Number(s): Skookum Parcel I and II / OR-2-96

c) Map Name(s)/Number(s): 1979 Final Decision- Initial Wilderness Inventory Map

d) BLM District(s)/Field Office(s):_ Burns District Office (District boundaries were later changed and these lands became part of the Prineville District, Central Oregon Resource Area.)

Unit#/ Name	Size (historic acres)	Natural Condition? Y/N	Outstanding Solitude? Y/N	Outstanding Primitive & Unconfined Recreation? Y/N	Supplemental Values? Y/N
OR-2-96 Skookum Parcel I	160	N/A	N/A	N/A	N/A
OR-2-96 Skookum Parcel II	240	N/A	N/A	N/A	N/A

2. New Wilderness Characteristic Review

Private Recommendation: Yes __X_ No ____ by? _Oregon Natural Desert Association
Date: _December 15, 2006__

Results of BLM Analysis: (separate by subunit if appropriate)

Unit#/ Name	Size (acres)	Natural Condition? Y/N/NA	Outstanding Solitude? Y/N/NA	Outstanding Primitive & Unconfined Recreation? Y/N/NA	Supplemental Values? Y/N/NA
OR-054-	26,464	N	Y	Y	Y

042 Wall Creek Unit-Subunit A (Main)					
OR-054-042 Wall Creek Unit-Subunit B (Bacon Creek)	118	Y	N	N	Y
OR-054-042 Wall Creek Unit-Subunit C (Wickiup Creek)	78	Y	Y	Y	Y

Conclusion
Check One:

_____ Area reviewed lacks sufficient size and does not meet one of the exceptions for small size.

__X__ The area-or a portion of the area-has wilderness character. (Units B and C)

_____The area does not have wilderness character.

(1) Describe current conditions: (Include boundary features, land ownership, size, location, topography, vegetation features and summary of major human uses/activities).

The inventory unit is located in Grant County, Oregon, approximately 8 miles north of the town of Monument. The unit is bordered on the north by a combination of USFS Umatilla National Forest Roadless Area, general management Forest Service land, and private land. The unit is bordered on the south by a combination of two Grant County Roads (Monument-Heppner Rd and Wall Creek Rd.), several BLM-administered ROWs for roads and a utility line (See Maps 1), and private land. The unit is bordered on the east by a general management Forest Service land, a BLM-administered ROW road, and private land. The unit is bordered on the west by general management Forest Service land and private land. The unit is 26,464 acres in size. The 2008 inventory unit consists of three (3) separate subunits, each adjacent to a portion of USFS Umatilla National Forest Roadless Area. (See description of subunits below.)

Original 1977 Inventory

Two small parcels were inventoried during the initial inventory of BLM lands, Skookum Parcel I (160 acres) and Skookum Parcel II (240 acres). The wilderness inventory was completed by the

Burns BLM District. (District boundaries were later changed and these lands became part of the Prineville District.) The original inventory of Skookum I and Skookum II Units (both overlap 2008 inventory Subunit A) found that these areas were not of sufficient size to be considered as wilderness on their own, and while they were adjacent to a Forest Service RARE II area, that area was recommended for multiple use management. As a result, both units were dropped from further wilderness review. Inventory notes for Skookum I do not mention any man-made improvements or uses. Inventory notes for Skookum II mention a timber sale in T 6 S, R 27 E., Section 10, consisting of 98 acres partially cut in 1959, and a timber trespass in T 6 S, R 27 E., Section 15, consisting of a 20 acre clear cut totaling 100,000 board feet. A timber haul way is also mentioned.

2008 Inventory

Subunit A (Main) includes the vast majority of the Wall Creek Unit. The subunit is 26,660 acres in size. Within the subunit are two private land in-holdings and one state land inholding.

Subunit B (Bacon Creek) is 118 acres in size and is separated from the Main Subunit by private land. The subunit is bordered on the east by a USFS Umatilla National Forest Roadless Area, on the north by general management Forest Service land, and on the remaining sides by private land.

Subunit C (Wickiup Creek) is 78 acres in size and is separated from the Main Subunit by general management USFS land. The subunit is bordered on the north by a USFS Umatilla National Forest Roadless Area, on the west by general management USFS land, on the south by State of Oregon land, and on the east by private land.

Location of Unit A: Portions of or all public lands in T 6 S., R 28 E., Section 36; T 6 S., R 29 E., Section 31 and 32; T 7 S., R 27 E., Sections 9, 10, 13, 14, 15, 21, 22, 23, 24, , 25, 26, 27, 28, 34, 35 and 36; T 7 S., R 28 E., Section 1, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35; T 7 S., R 29 E., Sections 6, 7, 18, 19, and 30.

Location of Unit B: Portions of or all public lands in T 7 S., R 27 E., Sections 9 and 10.

Location of Unit C: Portions of or all public lands in T 6 S., R 29 E., Section 33.

Description

Subunit A consists of a high plateau in the north portion of the subunit that is bisected by a series or large, rugged drainages dropping to the south and east toward the North Fork John Day River canyon, including Potamus, Mallory, Graves, Cabin, Ditch, and Wall Creek. Elevations range from 3,700 feet in the north portions of the subunit near the US Forest Service boundary to 2,100 feet in the south portions of the unit along the North Fork John Day River. Horizontal layers of dark basalt line the walls of the river canyon and drainages, interspersed with slopes of grass dotted with trees. The subunit also includes scattered lands along approximately 7 miles of the North Fork John Day River between Potumus Creek and Wall Creek. Soils are generally basalt in origin. Vegetation in the area is a mix of juniper grasslands and coniferous forest, depending on soils, elevation, and aspect. Species include bluebunch wheatgrass, Idaho fescue, sagebrush, bitterbrush and juniper on the hillsides and flats, willow, dogwood, and other riparian species in the creek bottoms, and stringers of ponderosa pine and Douglas Fir trees where soils

and moisture allow. Based on the habitat mix and nearby known populations, there is potential for five special status plant species to occur within the unit, however plant inventories have not been completed.

The majority of the lands contained in Subunit A were acquired by the BLM through the Oregon Land Exchange Act of 2000 (Public Law 106-257) which was passed by Congress to meet the objectives of 1) the enhancement of public access, aesthetics, and recreation opportunities, 2) the protection and enhancement of habitat for threatened, endangered, and sensitive species, and 3) the consolidation of holdings of the BLM and Forest Service.

When BLM took ownership of the acquired lands, most of the timber had been commercially harvested by previous landowners. Evidence of past timber harvest including stumps, skid trails and slash piles, is readily apparent in many of the forested areas. The subunit contains numerous constructed vehicle routes that were used as timber haul roads.

There is a utility ROW (labeled "A" on Map 1), approximately 2.5 miles in length, located at the far western edge of the subunit in T 7 S., R 27 E., Sections 15, 21, and 28. The ROW follows a road that comes off of County Road 3 and provides access to a communications site leased by the local telephone company. A complex of ranch buildings which were part of the JV Ranch is located along the ROW about 500 feet inside the subunit. The road associated with the ROW does not completely bisect the subunit, therefore the road, the ranch buildings, and the communication site could be cherry-stemmed out of the subunit.

Three Grant County Roads bisect the subunit. County Road 3 (also called USFS # 22) winds for about 2 miles through the far southeast corner of the unit, detaching about 60 acres from Subunit A. The remaining two county roads bisect the unit into three parcels, but each of the remaining parcels is large enough to meet the size requirement or meets an exception to the size requirement. County Road 3058 is located near the center of the subunit. It begins at the Wall Creek County Road in T 7 S., R 28 E., Section 21, and travels north along the Birch Creek drainage to a BLM/private land boundary where it continues north to connect with USFS Road 2110104 on Gilman Flat. County Road 3407 is located in the northeast portion of the subunit and connects the North Fork John Day River Road with USFS Road 2104 near Potato Hill. This county road travels from the North Fork John Day River, along the Mallory Creek drainage for approximately one mile, then travels in a northwest direction to the USFS/BLM boundary where it connects with USFS Road 2104. Grant County has also identified the road along Graves Creek as Public Use Road 3408. At this time the road along Graves Creek is closed by BLM to protect the stream. However, apparently the county can require BLM to re-open the road to motorized travel at any time. (See Map 1 for county road locations.)

This subunit also includes portions of the North Fork John Day River Road (BLM-FAMS # 7569), a constructed road that travels from US Highway 395 near Camas Creek west to Wall Creek. Approximately 4 miles of this road are located on BLM land within the subunit, including about 2.2 miles which have legal public access, and 1.8 miles which have no legal public access. There is a ROW for some portions of the North Fork John Day River Road that cross through BLM land near Wall Creek. In this area, the ROW forms the boundary of the Subunit A, and the road is not included within the subunit. BLM regularly maintains this road where it is located on BLM land.

There are approximately 15 additional miles of BLM-managed constructed routes within the subunit, including about 10 miles which are currently open to public vehicle use on an interim basis until a management plan is completed for the area (See Map 3), and about 5 miles which are currently open to BLM administrative use only (See Map 1 and Road Analysis Forms). A road analysis found that maintenance would likely be approved if these routes became impassable. BLM intends to use the roads to provide administrative access for resource projects including but not limited to fuels reduction, fire suppression, vegetation treatments to benefit forest and rangeland health, road decommissioning, fence construction and resource inventories.

Many additional miles of existing vehicle routes constructed during past logging operations were not evaluated using the Road Analysis Form (shown as GTRN Roads on Map 1). Each of these existing vehicle routes has the potential to be maintained until a final transportation plan is completed for the area. There is a 40 acre parcel of private land located in T. 7 S., R 28 E., Section 13. There is currently no ROW in place to allow access to this parcel across BLM land, however it is expected that BLM will authorize a ROW for access to this parcel in the future.

Several wildfires have occurred within this unit since BLM acquired the lands in 2000. Fire protection for the North Fork John Day area is provided by Oregon Department of Forestry. Private lands adjacent to the unit contain a number of structures that must be protected from wildfire, and protection of these structures affects fire suppression decisions made on surrounding public lands. During 2001 and 2007 bulldozers were used to construct cross-country fire breaks up to 3 dozers in width in several portions of the unit. One historic fire break was re-bladed extending approximately 2.5 miles along a ridge between Mallory Creek and Potamus Creek. Based on the recent history of fire suppression, any old vehicle route deemed to be useful could be bladed and used during future fire suppression activities. Following the wildfires of 2001 and 2007, BLM completed aerial grass seedings and planted conifer seedlings in a number of areas within the unit (see Map 2).

The portion of the North Fork John Day River within this subunit is designated as an Oregon State Scenic Waterway and recommended by the BLM as eligible for Wild and Scenic River designation by Congress. Under BLM's Visual Resource Management (VRM) system the lands within the unit are rated as VRM Class II near the river and VRM Class IV in the uplands.

The subunit is popular for big game hunting and although there is a travel management system in place which limits motorized vehicle use to designated routes, unauthorized off-road vehicle use is a current and growing problem. The North Fork John Day River is popular with boaters and anglers who use rafts, kayaks or canoes to float down for a 2 or 3 day trip from Camas Creek near U. S. Highway 395. The dirt road that parallels the North Fork John Day River is accessible to the public near Potamus Creek for about 1.3 miles. The remainder of this road as it travels downstream from River Mile 36.5 to Wall Creek is closed to public use as the BLM does not have easements across the private parcels that are intermingled with public lands. So while the river is popular with bank anglers, it is only accessible to adjacent private land owners and their guests.

Subunit B includes 118 acres of public land detached from the northwest corner of Subunit A by a ¼ mile wide parcel of private lands that are intermingled with BLM lands. Subunit B meets an

exception for small size as it is bordered on the east side by a USFS Roadless Area. Soils and vegetation are similar to those found in Subunit A. Approximately ½ mile of old two-track ways were identified in Subunit B, however, these routes are closed to the public and most sections have naturally revegetated and are barely visible.

Subunit C includes 78 acres of public lands detached from the far northeast corner of Subunit A by ½ mile of USFS lands that are intermingled with BLM land. Subunit C meets an exception for small size as it is bordered on the north side by a USFS Roadless Area. Soils and vegetation are similar to those found in Subunit A. No man-made features were identified in Subunit C.

Subunits A, B and C:
Wildlife populations in all subunits of the Wall Creek inventory unit include elk, mule deer, cougar, bobcat, chukar, golden eagle, California quail, meadowlark, Lewis woodpecker, wintering bald eagle and mountain bluebird. California Bighorn sheep were re-introduced to Potamus Creek area in 2003 and current estimates indicate a population of about 50 animals. Slopes with a southern aspect provide important mule deer and elk winter range. Fish species include spring Chinook, summer steelhead trout, resident redband trout, and bull trout winter habitat (North Fork John Day River).

The Wall Creek inventory unit contains a number of historic cabins and old homestead properties. A wagon road dating to the 1870's passes through the southwest corner of Subunit A near the JV Ranch and includes intact rock retaining walls. Several prehistoric sites are known to exist in the area, associated with seasonal camps used for hunting, fishing, and gathering.

The unit is authorized for commercial grazing under BLM permits (#4108, #4139, and #4190). There is an Executive Order (07/2/1910) establishing a portion of the unit as a potential power site reserve. A portion of the lands have been leased for potential oil and gas development.

(2) Is the unit in a natural condition?
Yes __X__ No __X__ NA_____

Describe:
Subunit A is not in a natural condition. Many portions of the Subunits A and B show evidence of past timber harvest. Tree stumps and constructed haul roads are apparent in many locations. Over time the stumps will become less apparent, and the roads that are not maintained will naturally rehabilitate. At this time the unit is not in a natural condition. The level of naturalness is expected to increase over time. BLM recommends that this inventory unit be re-evaluated after the occurrence of a major fire event and/or after a final transportation plan for the area is completed, to determine whether conditions have changed.

Subunits B and C appear to be in a natural condition (See Maps 4 and 5).

(3) Does the unit have outstanding opportunities for solitude?
Yes ___X__ No ___X__ NA _____

Description:

Subunit A is a large, remote parcel with varied topography, providing outstanding opportunities for solitude.
Subunit B does not provide outstanding opportunities for solitude due to the narrow shape of the unit and the ownership and management of adjacent lands. While Subunit B borders ¼ mile of USFS Roadless Area, the remaining 1 ¾ miles of boundary perimeter are private lands or general management USFS lands, resulting in an appendage to the Roadless Area which is too narrow to make opportunities for solitude outstanding.
Subunit C provides outstanding opportunity for solitude when considered in conjunction with the adjacent USFS Roadless Area.

(4) Does the unit have outstanding opportunities for primitive and unconfined recreation?
Yes ___X_ No __X___ NA _____

Description:
Subunit A provides outstanding opportunities for primitive and unconfined recreation including hiking, backpacking, horseback riding, hunting and nature exploration due to the large size and undeveloped condition of the unit.
Subunit B does not provide outstanding opportunities of primitive and unconfined recreation due to the narrow shape of the unit and the ownership and management of adjacent lands. Although Subunit B borders ¼ mile of USFS Roadless Area, the remaining 1 ¾ miles of boundary perimeter are private lands or general management USFS lands, resulting in an appendage to the Roadless Area which is too narrow to make opportunities for primitive and unconfined recreation outstanding.
Subunit C provides outstanding opportunity for primitive and unconfined recreation when considered in conjunction with the adjacent USFS Roadless Area.

(5) Does the unit have supplemental values?
Yes __X__ No _____ NA _____

Description:
Subunits A, B and C have supplemental values as they provide important winter range for deer and elk. In addition, Subunit A contains a historical wagon road with hand-laid rock retaining walls, and provides stream habitat for the spawning and rearing of several species of special-status anadromous fish. The occurrence of special-status plants is unknown in all three subunits.

2010 Inventory Update

In the Fall of 2010, the Wall Creek Unit inventory was reviewed based on communications with interested publics as well as reviewed of Public Lands which are less than 5000 acres in size but are adjacent to other federally-administered lands. As a result of this review, two additional subunits, D and E, were identified which previously had been included within subunit A. Additionally, the historic route going north south for a distance of approximately two miles through T7S,R28E, Sec(s) 19 and 30 (ONDA route #Nfbe) has been identified as having substantial impacts to the riparian function and will not be maintained in the future. While this route was intended not to be maintained at the time of the previous inventory, it was not included in prior documentation mention is made here for the sake of clarity All other routes were constructed and would be maintained if necessary to facilitate administrative use consistent with

the original purpose of the route including: vegetation, fire, and range management. Supporting documentation including field notes, subunit descriptions and other materials were added to appendices D-F.

BLM Inventory Findings on Record:

Existing inventory information regarding wilderness characteristics (if more than one BLM inventory area is associated with the area, list each area and answer each question individually for each inventory area):

Inventory Source: ____BLM Staff_____

_____

Area Unique Identifier	**Sufficient Size (Yes/No, acres)**	**Naturalness? (Yes/No)**	**Outstanding Solitude? (Yes/No)**	**Outstanding Primitive & Unconfined Recreation? (Yes/No)**	**Supplemental Values? (Yes/No)**
OR-054-042 Wall Creek Unit- Subunit A (Main)	Y 24,896	N	Y	Y	Y
OR-054-042 Wall Creek Unit- Subunit B (Bacon Creek)	Y 118	Y	N	N	Y
OR-054-042 Wall Creek Unit- Subunit C (Wickiup Creek)	Y 78	Y	Y	Y	Y
OR-054-042 Wall Creek Unit- Subunit D (Skookum Creek)	Y 260	Y	Y	Y	Y
OR-054-042 Wall Creek Unit- Subunit E (Mallory Creek)	Y 1,303	Y	Y	Y	Y

FORM 2

Current Conditions: Presence or Absence of Wilderness Characteristics

Area Unique Identifier: **OR-054-042 Wall Creek Unit-Subunit D (Skookum Creek)**
Acreage: **260**

(If the inventory area consists of subunits, list the acreage of each and evaluate each separately).
In completing steps (1)-(5), use additional space as necessary.

(1) Is the area of sufficient size? (If the area meets one of the exceptions to the size criterion, check ―Yes‖ and describe the exception in the space provided below),

Yes No Note: If ―No‖ is checked the area does not have wilderness characteristics; check ―NA‖ for the remaining questions below.

Description (describe the boundaries of the area--wilderness inventory roads, property lines, etc.):

This unit is bounded by subunit A on the south-southeast boundary, by a small parcel of private property on the northeast portion and by a Umatilla National Forest Roadless Area on the majority of the north boundary and the entire western boundary. Subunit D was inventoried in 2008 as part of subunit A, but was made its own subunit in light of its adjacency to the Umatilla National Forest Service Skookum Roadless Area which achieves the sufficient size criteria. There are no routes in the subunit.

(2) Does the area appear to be natural?

Yes No N/A_____

Note: If ―No‖ is checked the area does not have wilderness characteristics; check ―NA‖ for the remaining questions below.

Description (include land ownership, location, topography, vegetation, and summary of major human uses/activities):

This triangular-shaped subunit consists of a small portion of grassy Gilman Flat and steep canyon sides with western and northwestern aspects descending nearly 1000 feet in elevation to perennial Skookum Creek. The canyon walls are lightly treed and topped with rim rock. Human use is highly seasonal revolving around hunting seasons.

(3) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for solitude?

Yes No N/A_____

Description (describe the area's outstanding opportunities for solitude):
Although small in size, when considered with the adjacent Forest Service Skookum Roadless Area, ample outstanding opportunities for solitude exist. A major portion of the unit is below a canyon rim which precludes the sights and sounds of vehicle use outside of the unit.

(4) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for primitive and unconfined recreation?

Yes No N/A_____

Note: If ―No‖ is checked for both 3 and 4 the area does not have wilderness characteristics; check ―NA‖ for question 5.

Description (describe the area's outstanding opportunities for primitive and unconfined recreation):

Although small in size, subunit D abuts the much larger Forest Service Skookum Roadless Area on approximately 50% of its boundary. As such, ample opportunities exist for primitive and unconfined recreation such as hunting, backpacking and nature exploration exist on the subunit.

(5) Does the area have supplemental values (ecological, geological, or other features of scientific, educational, scenic or historical value)?

Yes No N/A_____

Description: **A small segment of historic rock fence or wall exists near the southern boundary of the unit.**

Summary of Analysis*

Area Unique Identifier: OR-054-042 Wall Creek Unit-Subunit D (Skookum Creek)

Summary
Results of analysis:
(Note: explain the inventory findings for the entirety of the inventory unit. When wilderness characteristics have been identified in an area that is smaller than the size of the total inventory unit, explain why certain portions of the inventory unit are not included within the lands with wilderness characteristics (e.g. the inventory found that certain parts lacked naturalness).

1. Does the area meet any of the size requirements? ___ **Yes** ___ No

2. Does the area appear to be natural? ___ **Yes** ___ No ___ N/A

3. Does the area offer outstanding opportunities for solitude or a primitive and unconfined type of recreation? ___ **Yes** ___ No ___ N/A

4. Does the area have supplemental values? ___ **Yes** ___ No ___ N/A

Check one:

√ The area, or a portion of the area, has wilderness characteristics and is identified as lands with wilderness characteristics.

___ The area does not have wilderness characteristics.

* This form documents information that constitutes an inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative remedies under either 43 CFR parts 4 or 1610.5-3.

FORM 2

Current Conditions: Presence or Absence of Wilderness Characteristics

Area Unique Identifier**: OR-054-042 Wall Creek Unit-Subunit E (Mallory Creek)**
Acreage**: 1,303**

(If the inventory area consists of subunits, list the acreage of each and evaluate each separately).

In completing steps (1)-(5), use additional space as necessary.

(1) Is the area of sufficient size? (If the area meets one of the exceptions to the size criterion, check ―Yes‖ and describe the exception in the space provided below),

Yes No Note: If ―No‖ is checked the area does not have wilderness characteristics; check ―NA‖ for the remaining questions below.

Description (describe the boundaries of the area--wilderness inventory roads, property lines, etc.):

Subunit E is split by the Grant-Morrow county boundaries and is bounded by routes on the majority of both the eastern and western boundaries with the rest of these boundaries falling largely on subdivisions of the Public Land Survey System. The northern boundary and northern-most portion of the eastern boundary abuts the Umatilla National Forest's Potamus Roadless Area. The 0.75 mile long southern boundary traverses a minor ridge and connects the eastern and western boundary routes. Subunit E was inventoried in 2008 as part of subunit A, but was made its own subunit in light of its adjacency to the Potamus Roadless Area which achieves the sufficient size criteria. There are historic routes in some drainages within the subunit however due to hydrologic concerns, no maintenance would occur in the future.

(2) Does the area appear to be natural?

Yes No N/A_____

Note: If ―No‖ is checked the area does not have wilderness characteristics; check ―NA‖ for the remaining questions below.

Description (include land ownership, location, topography, vegetation, and summary of major human uses/activities):

This subunit is located on the northern, upper-elevation portion of the lands acquired in the late 1990s. It is surrounded by both BLM and Forest Service managed lands. Two prominent ridges dominate the subunit which is bisected by Mallory Creek. Numerous flat lava flows with near vertical rim rock edges give the ridges a layer-cake like look. Open grasslands with pockets of western juniper form the majority of the upland vegetation while the canyon bottoms are thick with riparian vegetation. Several old routes enter the subunit from its boundaries, but they are well re-vegetated and BLM does not intend to maintain these routes in the future.

(3) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for solitude?

Yes No N/A_____

Description (describe the area‘s outstanding opportunities for solitude):
Subunit E provides outstanding opportunity for primitive and unconfined recreation when considered in conjunction with the adjacent Potamus Roadless Area.

(4) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for primitive and unconfined recreation?

Yes No N/A_____

Note: If ―No‖ is checked for both 3 and 4 the area does not have wilderness characteristics; check ―NA‖ for question 5.

Description (describe the area‘s outstanding opportunities for primitive and unconfined recreation):

Although small in size, subunit E abuts the much larger Forest Service Potamus Roadless Area on approximately 40% of its boundary. Thus, ample opportunities exist for primitive and unconfined recreation such as hunting, backpacking and nature exploration exist on the subunit.

(5) Does the area have supplemental values (ecological, geological, or other features of scientific, educational, scenic or historical value)?

Yes No N/A_____

Description: **The subunit includes cliff habitat used by California big horn sheep.**

Summary of Analysis*

Area Unique Identifier: OR-054-042 Wall Creek Unit-Subunit E (Mallory Creek)

Summary
Results of analysis:
(Note: explain the inventory findings for the entirety of the inventory unit. When wilderness characteristics have been identified in an area that is smaller than the size of the total inventory unit, explain why certain portions of the inventory unit are not included within the lands with wilderness characteristics (e.g. the inventory found that certain parts lacked naturalness).

1. Does the area meet any of the size requirements? ___ **Yes** ___ No

2. Does the area appear to be natural? ___ **Yes** ___ No ___ N/A

3. Does the area offer outstanding opportunities for solitude or a primitive and unconfined type of recreation? ___ **Yes** ___ No ___ N/A

4. Does the area have supplemental values? ___ **Yes** ___ No ___ N/A

Check one:

√ The area, or a portion of the area, has wilderness characteristics and is identified as lands with wilderness characteristics.

___ The area does not have wilderness characteristics.

* This form documents information that constitutes an inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative remedies under either 43 CFR parts 4 or 1610.5-3.

Prepared by:

Team Members:
Initial Review Aug. 14, 2007 by: Heidi Mottl (Recreation/Wilderness), Teal Purrington (NEPA/Planning), Dorothy Thomas (GIS), Anna Smith (Hydrology), Mike Tietmeyer (Range), Dan Tippy (Assistant Field Manager), Rick Demmer (Riparian), Monte Kuk (Wildlife), Robert Vidourek (Forestry), Mike Williams (Planning), Berry Phelps (Recreation), Craig Obermiller (Range), John Morris (Fish), Dana Cork (Transportation), Christina M. Welch (Field Manager), Don Tschida (Fire), Gavin Hoban (GIS), John Zancanella (Cultural), JoAnne Armson (Plants).

Realty/Mineral Records researched by Timothy Finger, BLM Wilderness Specialist on detail from Richland, UT, October, 2008

September 2010 Update: Mike Williams (Wilderness), Mike Tripp (GIS)

Approved by:

H. F. "Chip" Faver
Field Manager

10.13.11
Date

This form documents information that constitutes an inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative* remedies *under either 43 CFR parts 4 or 1610.5-2.

August 8, 2012

Wall Creek Inventory Unit (OR-054-042)

Amendment to John Day Basin Road Analysis Form for Route #3408 (Graves Creek)

Summary: Route #3408 does not meet the definition of a road.

This amendment updates the John Day Basin Road Analysis Form for Route #3408, dated 09/30/07. The Prineville District BLM has determined that this route is NOT an official Grant County Road, and does NOT receive regular and continuous use.

The original BLM ID Team for the John Day Basin Resource Management Plan provided information on regular and continuous use of this route based on their local knowledge. However, team members left no supporting documentation to support this use. Based on current information, the BLM cannot find verification that regular and continuous use is occurring on this route.

In conclusion, Route #3408 does not meet the definition of a road.

Evaluator: Heidi Mottl Date: 08/08/2012

WILDERNESS CHARACTERISTICS INVENTORY

APPENDIX C
ROUTE ANALYSIS

Bureau of Land Management
Prineville District

John Day Basin RMP Road Analysis Form

(Factors to consider when determining whether a route is a road for wilderness inventory purposes.)

Wilderness Inventory Area Name and Number (UNIT_ID): Wall Creek Inventory Unit (OR-054-042)

Route Name and/or Identifier: Grant County Road #3058 (ONDA #NFbe3, #NFz and #NFy1)

I. LOCATION: Please refer to attached Map 1 and BLM corporate data (GIS). Route enters BLM land and forms a portion of the south boundary of the inventory unit in T 7 S., R 28 E., Section 30, and travels northeast for approximately 1.5 miles, passing through portions of Sections 29, 28 and 21 before turning sharply northwest and heading up the Birch Creek drainage. The route then travels approximately 3 miles to Gilman Flat, passing through portions of Sections 20, 17, and 8 before leaving BLM land and entering private land at the boundary of Sections 8 and 5. After passing through private land, the route connects with USFS Road # 2110104.

II. CURRENT PURPOSE OF ROUTE: A connector route between the city of Monument and the Umatilla National Forest to the north, asserted by Grant County to be a "public use road". Used for general access to public and private land. It is open seasonally to public motorized travel, and year-round to private land access.

III. ROAD RIGHT-OF-WAY:

Yes __X - Partial__ No _____ Unknown ____

A ROW exists on the southern 1.5 miles of the route (see map).

IV. CONSTRUCTION

Yes ___X___ No _____

Examples:
Paved _____ Bladed ____X_____ Graveled _____ Roadside Berms __X___
Cut/Fill ___X_____ Other _____

V. IMPROVEMENTS

Yes __X____ No _____

By Hand Tools_____ By Machine _X___

Culverts __X_-Two Noted_ Stream Crossings ____ Bridges ___ Drainage ___ Barriers ____ Other ___

The route has at least 2 culverts, located in T 7 S., R 28 E., Sections 17 and 20.

VI. MAINTENANCE:

A. Is their Evidence or Documentation of Maintenance using hand tools or machinery?
Yes _____X_____ No _____

Hand Tools ___(Y/N)_____ Machine ___(Y/N)___Y_____

Explain: BLM recently replaced one of the culverts. **See BLM FAMS data in reference section. Is it scheduled route to receive maintenance?** No.

B. If route is in good condition, but there is no evidence of maintenance, would mechanical maintenance with hand tools or machines be approved by BLM in the event this route became impassable?
Yes ___X___ No ____N/A _____

Comments: _____The route is not scheduled to receive regular maintenance by BLM, however spot maintenance may be completed as needed by Grant County or by BLM.

VII. REGULAR AND CONTINUOUS USE:

Yes ____X_____ No _____

VIII. CONCLUSION:

To meet the definition of a road, items IV or V, *and* VI-A or B, *and* VII must be checked yes.
Road: Yes ___X_____ No _____
Explanation: Grant County Road

Evaluator(s): __Heidi Mottl_____ Date: __9/30/07_____

* **road**: An access route which has been **improved and maintained** by **mechanical means** to insure **relatively regular and continuous use**. A way maintained solely by the passage of vehicles does not constitute a road.

a. "**Improved and maintained"** – Actions taken physically by people to keep the road open to vehicle traffic. "Improved" does not necessarily mean formal construction. "Maintained" does not necessarily mean annual maintenance.

b. **"Mechanical means"** – Use of hand or power machinery or tools.

c. **"Relatively regular and continuous use"** – Vehicular use that has occurred and will continue to occur on a relatively regular basis. Examples are: access roads for equipment to maintain a stock water tank or other established water sources; access roads to maintained recreation sites or facilities; or access roads to mining claims.

John Day Basin RMP Road Analysis Form

(Factors to consider when determining whether a route is a road for wilderness inventory purposes.)

Wilderness Inventory Area Name and Number (UNIT_ID): Wall Creek Inventory Unit (OR-054-042)

Route Name and/or Identifier: Grant County Road # 3407 (ONDA #NFbt1)

I. LOCATION: Please refer to attached Map 1 and BLM corporate data (GIS). Route begins in T 7 S., R 29 E., Section 7 (within the inventory unit) at the junction with the North Fork John Day River Road, and travels northwest for approximately 3 miles, initially up the Mallory Creek drainage, until it leaves BLM land (and the inventory unit) and connects with USFS Road #2104 in T 6 S., R 28 E., Section 36.

II. CURRENT PURPOSE OF ROUTE: Connector route between North Fork John Day River and Umatilla National Forest to the north, asserted by Grant County to be a "public use road". Used for general access to public and private land. It is open seasonally to public motorized travel.

III. ROAD RIGHT-OF-WAY:

Yes ____ No __X___ Unknown ____

IV. CONSTRUCTION

Yes ___X___No _____

Examples:
Paved _____ Bladed ___X____ Graveled _____ Roadside Berms __X___
Cut/Fill ___X_____ Other _____

V. IMPROVEMENTS

Yes _____ No _____ Unknown ___X___

By Hand Tools_____ By Machine ____

Culverts _____Stream Crossings ____ Bridges ___ Drainage ___ Barriers _____ Other ___

VI. MAINTENANCE:

A. Is their Evidence or Documentation of Maintenance using hand tools or machinery?
Yes _____X_____ No _____

Hand Tools ___**(Y/N)**_____ **Machine** ___**(Y/N)**__Y_____

Explain: **See BLM FAMS data in reference section. Is it scheduled route to receive maintenance?** No.

B. If route is in good condition, but there is no evidence of maintenance, would mechanical maintenance with hand tools or machines be approved by BLM in the event this route became impassable?
Yes ___X___ No ____ N/A _____

Comments: ___The route is not scheduled to receive regular maintenance by BLM, however spot maintenance may be completed as needed. The northern portion may be re-routed out of the in the future to protect Mallory Creek. If not re-routed, the existing road will likely need culverts and/or bridges to protect the stream.

VII. REGULAR AND CONTINUOUS USE:

Yes ____X_____ No _____

VIII. CONCLUSION:

To meet the definition of a road, items IV or V, *and* VI-A or B, *and* VII must be checked yes.
Road: Yes ____X_____ No _____
Explanation: Grant County Road

Evaluator(s): _Heidi Mottl_____ Date: ____9/30/07_____

* **road**: An access route which has been **improved and maintained** by **mechanical means** to insure **relatively regular and continuous use**. A way maintained solely by the passage of vehicles does not constitute a road.

a. "**Improved and maintained**" – Actions taken physically by people to keep the road open to vehicle traffic. "Improved" does not necessarily mean formal construction. "Maintained" does not necessarily mean annual maintenance.

b. **"Mechanical means"** – Use of hand or power machinery or tools.

c. **"Relatively regular and continuous use"** – Vehicular use that has occurred and will continue to occur on a relatively regular basis. Examples are: access roads for equipment to maintain a stock water tank or other established water sources; access roads to maintained recreation sites or facilities; or access roads to mining claims.

John Day Basin RMP Road Analysis Form

(Factors to consider when determining whether a route is a road for wilderness inventory purposes.)

Wilderness Inventory Area Name and Number (UNIT_ID): Wall Creek Inventory Unit (OR-054-042)

Route Name and/or Identifier: Grant County Public Use Road # 3408 (ONDA #NFbu)

I. LOCATION: Please refer to attached Map 1 and BLM corporate data (GIS). Route begins at junction with North Fork John Day River Road (FAMS # 7569) in T 7 S., R 29 E., Section 7 (within the inventory unit) and travels northwest for approximately 3.5 miles up the Graves Creek drainage, until it reach the BLM/USFS boundary in and connects with USFS Road #150 in T 7 S., R 28 E., Section 1.

II. CURRENT PURPOSE OF ROUTE: Connector route between North Fork John Day River and Umatilla National Forest to the north, asserted by Grant County to be a "public use road". This route is currently closed by BLM to protect Graves Creek from erosion. However, the county could require that the road be re-opened.

III. ROAD RIGHT-OF-WAY:

Yes ____ No __X__ Unknown ____

IV. CONSTRUCTION

Yes ___X___ No _____

Examples:
Paved _____ Bladed ___X____ Graveled _____ Roadside Berms __X___
Cut/Fill ___X____ Other_____

V. IMPROVEMENTS

Yes __X____ No _____

By Hand Tools_____ By Machine __X__

Culverts _____Stream Crossings __X__ Bridges ___ Drainage _X__ Barriers _____ Other X_Cattle guard_

VI. MAINTENANCE:

A. Is their Evidence or Documentation of Maintenance using hand tools or machinery?
Yes _____X_____ No _____

Hand Tools ___**(Y/N)**_____ **Machine** ___**(Y/N)**__Y_____

Explain: **See BLM FAMS data in reference section. Is it scheduled route to receive maintenance?** No.

B. If route is in good condition, but there is no evidence of maintenance, would mechanical maintenance with hand tools or machines be approved by BLM in the event this route became impassable?
Yes _____ No ____N/A __X___

Comments: ___If Grant County requires that this route be re-opened, major work will need to be done at multiple locations where the road crosses Graves Creek. If the county agrees that BLM may keep the road closed, erosion control work will need to be done before decommissioning the road.

VII. REGULAR AND CONTINUOUS USE:

Yes ____X_____ No _____

VIII. CONCLUSION:

To meet the definition of a road, items IV or V, *and* VI-A or B, *and* VII must be checked yes.
Road: Yes ____X_____ No _____
Explanation: Grant County Road

Evaluator(s): _Heidi Mottl_____ Date: ____9/30/07_____

* **road**: An access route which has been **improved and maintained** by **mechanical means** to insure **relatively regular and continuous use**. A way maintained solely by the passage of vehicles does not constitute a road.

a. "**Improved and maintained**" – Actions taken physically by people to keep the road open to vehicle traffic. "Improved" does not necessarily mean formal construction. "Maintained" does not necessarily mean annual maintenance.

b. **"Mechanical means"** – Use of hand or power machinery or tools.

c. **"Relatively regular and continuous use"** – Vehicular use that has occurred and will continue to occur on a relatively regular basis. Examples are: access roads for equipment to maintain a stock water tank or other established water sources; access roads to maintained recreation sites or facilities; or access roads to mining claims.

John Day Basin RMP Road Analysis Form

(Factors to consider when determining whether a route is a road for wilderness inventory purposes.)

Wilderness Inventory Area Name and Number (UNIT_ID): Wall Creek Inventory Unit (OR-054-042)

Route Name and/or Identifier: North Fork John Day River Road, BLM FAMS #7569 (ONDA # NFbr and #NFbv)

I. LOCATION: Please refer to attached Map 1 and BLM corporate data (GIS). Route enters the inventory unit at T 7 S., R 29 E., Section 7, and follows the John Day River downstream for approximately 15 miles to the junction of the Wall Creek County Road, passing in and out of BLM and the inventory unit.

II. CURRENT PURPOSE OF ROUTE: This route provides general public access to BLM land on the John Day River in the vicinity of Mallory Creek, and private access (and BLM administrative access) to lands between Mallory Creek and Wall Creek. It is open year round.

III. ROAD RIGHT-OF-WAY:

Yes _X -Partial___ No _____ Unknown ____

A ROW exists on approximately 5 miles of this route near Wall Creek.

IV. CONSTRUCTION

Yes ___X___ No _____

Examples:
Paved _____ Bladed ___X_____ Graveled _____ Roadside Berms __X___
Cut/Fill ___X_ ___ Other _____

V. IMPROVEMENTS

Yes ___X___ No _____

By Hand Tools_____ By Machine __X__

Culverts _____Stream Crossings ____ Bridges ___ Drainage ___ Barriers ___ Other _X-Two Cattle Guards Noted__

VI. MAINTENANCE:

A. Is their Evidence or Documentation of Maintenance using hand tools or machinery?
Yes ___X___ No _____

Hand Tools ___(Y/N)_____ Machine ___(Y/N)___Y_____

Explain: **See BLM FAMS data in reference section. Is it scheduled route to receive maintenance?** Yes.

B. If route is in good condition, but there is no evidence of maintenance, would mechanical maintenance with hand tools or machines be approved by BLM in the event this route became impassable?
Yes ___X___ No ____N/A _____

Comments: _____

VII. REGULAR AND CONTINUOUS USE:

Yes ___X___ No _____

VIII. CONCLUSION:

To meet the definition of a road, items IV or V, *and* VI-A or B, *and* VII must be checked yes.
Road: Yes ____X____ No _____
Explanation: Road is regularly maintained by BLM.

Evaluator(s): __Heidi Mottl_____ Date: ___9/30/07_____

* **road**: An access route which has been **improved and maintained** by **mechanical means** to insure **relatively regular and continuous use**. A way maintained solely by the passage of vehicles does not constitute a road.

a. "**Improved and maintained"** – Actions taken physically by people to keep the road open to vehicle traffic. "Improved" does not necessarily mean formal construction. "Maintained" does not necessarily mean annual maintenance.

b. **"Mechanical means"** – Use of hand or power machinery or tools.

c. **"Relatively regular and continuous use"** – Vehicular use that has occurred and will continue to occur on a relatively regular basis. Examples are: access roads for equipment to maintain a stock water tank or other established water sources; access roads to maintained recreation sites or facilities; or access roads to mining claims.

John Day Basin RMP Road Analysis Form

(Factors to consider when determining whether a route is a road for wilderness inventory purposes.)

Wilderness Inventory Area Name and Number (UNIT_ID): Wall Creek Inventory Unit (OR-054-042)

Route Name and/or Identifier: Communication Site ROW (ONDA #NF bo2) (Labeled as A on Map 1)

I. LOCATION: Please refer to attached Map 1 and BLM corporate data (GIS). Route begins in T 7 S., R 27 E., Section 28, and travels approximately2.5 miles to the north to a communications site in T 7 S., R 27 E., Section 15.

II. CURRENT PURPOSE OF ROUTE: The route is associated with a utility ROW and provides access BLM administrative access.

III. ROAD RIGHT-OF-WAY:

Yes _X___ No _____ Unknown ____

IV. CONSTRUCTION

Yes ____X___ No _____

Examples:
Paved _____ Bladed ____X_____ Graveled _____ Roadside Berms _____
Cut/Fill _____ Other _____

V. IMPROVEMENTS

Yes _____ No ____X_____

By Hand Tools_____ By Machine ____

Culverts _____Stream Crossings ____ Bridges ___ Drainage ___ Barriers _____ Other ___

VI. MAINTENANCE:

A. Is their Evidence or Documentation of Maintenance using hand tools or machinery?
Yes _____X_____ No _____

Hand Tools ___(Y/N)_____ Machine ___(Y/N)___Y_____

Explain: **See BLM FAMS data in reference section. Is it scheduled route to receive maintenance?** No.

B. If route is in good condition, but there is no evidence of maintenance, would mechanical maintenance with hand tools or machines be approved by BLM in the event this route became impassable?
Yes ___X___ No ___ N/A _____

Comments:

VII. REGULAR AND CONTINUOUS USE:

Yes ____X_____ No _____

VIII. CONCLUSION:

To meet the definition of a road, items IV or V, *and* VI-A or B, *and* VII must be checked yes.
Road: Yes ____X_____ No _____
Explanation: The road provides access to a communications site.

Evaluator(s): __Heidi Mottl_____ Date: ____9/30/07_____

* **road**: An access route which has been **improved and maintained** by **mechanical means** to insure **relatively regular and continuous use**. A way maintained solely by the passage of vehicles does not constitute a road.

a. "**Improved and maintained"** – Actions taken physically by people to keep the road open to vehicle traffic. "Improved" does not necessarily mean formal construction. "Maintained" does not necessarily mean annual maintenance.

b. **"Mechanical means"** – Use of hand or power machinery or tools.

c. **"Relatively regular and continuous use"** – Vehicular use that has occurred and will continue to occur on a relatively regular basis. Examples are: access roads for equipment to maintain a stock water tank or other established water sources; access roads to maintained recreation sites or facilities; or access roads to mining claims.

John Day Basin RMP Road Analysis Form

(Factors to consider when determining whether a route is a road for wilderness inventory purposes.)

Wilderness Inventory Area Name and Number (UNIT_ID): Wall Creek Inventory Unit (OR-054-042)

Route Name and/or Identifier: Big Wall Creek Road (ONDA #NFbi and #NFbi2) (Labeled as "B" on Map 1)

I. LOCATION: Please refer to attached Map 1 and BLM corporate data (GIS). Route begins at the junction with County Route 3 in T 7 S., R 27 E., Section 27, and travels approximately 4 miles to the east where it leaves the unit at a public/ private land boundary in T 7 S., R 27 E., Section 31.

II. CURRENT PURPOSE OF ROUTE: The route provides season motorized public access to recreation resources as far east as East Fork Canyon. The entire route provides BLM administrative access.

III. ROAD RIGHT-OF-WAY:

Yes ____ No __X__ Unknown ____

IV. CONSTRUCTION

Yes ___X___ No _____

Examples:
Paved _____ Bladed ____X_____ Graveled _____ Roadside Berms _____
Cut/Fill _____ Other _____

V. IMPROVEMENTS

Yes _____ No ____X____

By Hand Tools_____ By Machine __X__

Culverts __X__ Stream Crossings ____ Bridges ___ Drainage ___ Barriers _____ Other ___

VI. MAINTENANCE:

A. Is their Evidence or Documentation of Maintenance using hand tools or machinery?
Yes ____X_____ No _____

Hand Tools ___(Y/N)_____ Machine ___(Y/N)____Y____

Explain: **See BLM FAMS data in reference section. Is it scheduled route to receive maintenance?** No.

B. If route is in good condition, but there is no evidence of maintenance, would mechanical maintenance with hand tools or machines be approved by BLM in the event this route became impassable?
Yes ___X___ No ___N/A _____

Comments: __

VII. REGULAR AND CONTINUOUS USE:

Yes ____X_____ No _____

VIII. CONCLUSION:

To meet the definition of a road, items IV or V, *and* VI-A or B, *and* VII must be checked yes.
Road: Yes ____X_____ No _____
Explanation: BLM intends to maintain this route as necessary.

Evaluator(s): __Heidi Mottl_____ Date: ____9/30/07_____

* **road**: An access route which has been **improved and maintained** by **mechanical means** to insure **relatively regular and continuous use**. A way maintained solely by the passage of vehicles does not constitute a road.

a. "**Improved and maintained"** – Actions taken physically by people to keep the road open to vehicle traffic. "Improved" does not necessarily mean formal construction. "Maintained" does not necessarily mean annual maintenance.

b. **"Mechanical means"** – Use of hand or power machinery or tools.

c. **"Relatively regular and continuous use"** – Vehicular use that has occurred and will continue to occur on a relatively regular basis. Examples are: access roads for equipment to maintain a stock water tank or other established water sources; access roads to maintained recreation sites or facilities; or access roads to mining claims.

John Day Basin RMP Road Analysis Form

(Factors to consider when determining whether a route is a road for wilderness inventory purposes.)

Wilderness Inventory Area Name and Number (UNIT_ID): Wall Creek Inventory Unit (OR-054-042)

Route Name and/or Identifier: West Gilman Flat Spur (ONDA #NFy2) (Labeled as "C" on Map 1)

IX. LOCATION: Please refer to attached Map 1 and BLM corporate data (GIS). Route begins in T 7 S., R 28 E., Section 8, and travels approximately 3/4 mile to the southwest into Section 7 when it is blocked by a sign and gate near at the BLM/USFS boundary.

X. CURRENT PURPOSE OF ROUTE: The route provides access to recreation resources and BLM administrative access. It is open seasonally to motorized public travel.

XI. ROAD RIGHT-OF-WAY:

Yes ____ No ___X__ Unknown ____

XII. CONSTRUCTION

Yes ____X___ No _____

Examples:
Paved _____ Bladed ____X_____ Graveled _____ Roadside Berms _____
Cut/Fill _____ Other _____

XIII. IMPROVEMENTS

Yes _____ No ____X_____

By Hand Tools_____ By Machine ____

Culverts _____Stream Crossings ____ Bridges ___ Drainage ___ Barriers _____ Other ___

XIV. MAINTENANCE:

A. Is their Evidence or Documentation of Maintenance using hand tools or machinery?
Yes _____ No _____ Unknown X

Hand Tools ___(Y/N)_____ Machine ___(Y/N)_____

Explain: **See BLM FAMS data in reference section. Is it scheduled route to receive maintenance?** No.

B. If route is in good condition, but there is no evidence of maintenance, would mechanical maintenance with hand tools or machines be approved by BLM in the event this route became impassable?
Yes ___X___ No ___ N/A _____

Comments: BLM is not planning to maintain this route on a regular basis, but if mechanical maintenance were necessary in order to accomplish a resource objective or fire suppression activities, maintenance would be approved.

XV. REGULAR AND CONTINUOUS USE:

Yes ____X_____ No _____

XVI. CONCLUSION:

To meet the definition of a road, items IV or V, *and* VI-A or B, *and* VII must be checked yes.
Road: Yes ____X_____ No _____
Explanation: BLM wishes to maintain the option to mechanically maintain this route in the future, to meet resource or fire suppression objectives.

Evaluator(s): Heidi Mottl Date: 9/30/07

* **road**: An access route which has been **improved and maintained** by **mechanical means** to insure **relatively regular and continuous use**. A way maintained solely by the passage of vehicles does not constitute a road.

a. "**Improved and maintained"** – Actions taken physically by people to keep the road open to vehicle traffic. "Improved" does not necessarily mean formal construction. "Maintained" does not necessarily mean annual maintenance.

b. **"Mechanical means"** – Use of hand or power machinery or tools.

c. **"Relatively regular and continuous use"** – Vehicular use that has occurred and will continue to occur on a relatively regular basis. Examples are: access roads for equipment to maintain a stock water tank or other established water sources; access roads to maintained recreation sites or facilities; or access roads to mining claims.

John Day Basin RMP Road Analysis Form

(Factors to consider when determining whether a route is a road for wilderness inventory purposes.)

Wilderness Inventory Area Name and Number (UNIT_ID): Wall Creek Inventory Unit (OR-054-042)

Route Name and/or Identifier: Gilman Flat High Road (ONDA #NFz) (Labeled as "D" on Map 1)

I. LOCATION: Please refer to attached Map 1 and BLM corporate data (GIS). Route begins in T 7 S., R 28 E., Section 8, and travels east for approximately 2 miles, through Section 9, and ends in Section 10 at the junction with the 2110 BLM Extension Road.

II. CURRENT PURPOSE OF ROUTE: This route is used to access recreation resources and for BLM administrative access. It is open seasonally for motorized public travel.

III. ROAD RIGHT-OF-WAY:

Yes ____ No __X___ Unknown ____

IV. CONSTRUCTION

Yes ___X____ No _____

Examples:
Paved _____ Bladed _____X____ Graveled _____ Roadside Berms _____
Cut/Fill _____ Other _____

V. IMPROVEMENTS

Yes __X____ No _____

By Hand Tools_____ By Machine ____

Culverts __X_ Stream Crossings ____ Bridges ___ Drainage ___ Barriers _____ Other ___

VI. MAINTENANCE:

A. Is their Evidence or Documentation of Maintenance using hand tools or machinery?
Yes _____X_____ No _____

Hand Tools ___(Y/N)_____ Machine ___(Y/N)____X____

Explain: **See BLM FAMS data in reference section. Is it scheduled route to receive maintenance?** No.

B. If route is in good condition, but there is no evidence of maintenance, would mechanical maintenance with hand tools or machines be approved by BLM in the event this route became impassable?
Yes ___X___ No ____ N/A _____

Comments: __This route currently serves as the public connector route to USFS Road # 2110, and will likely be maintained if needed._____

VII. REGULAR AND CONTINUOUS USE:

Yes ____X_____ No _____

VIII. CONCLUSION:

To meet the definition of a road, items IV or V, *and* VI-A or B, *and* VII must be checked yes.
Road: Yes _____X____ No _____
Explanation: Current public connector route to USFS Road # 2110.

Evaluator(s): __Heidi Mottl_____ Date: ____9/30/07_____

* **road**: An access route which has been **improved and maintained** by **mechanical means** to insure **relatively regular and continuous use**. A way maintained solely by the passage of vehicles does not constitute a road.

a. "**Improved and maintained"** – Actions taken physically by people to keep the road open to vehicle traffic. "Improved" does not necessarily mean formal construction. "Maintained" does not necessarily mean annual maintenance.

b. **"Mechanical means"** – Use of hand or power machinery or tools.

c. **"Relatively regular and continuous use"** – Vehicular use that has occurred and will continue to occur on a relatively regular basis. Examples are: access roads for equipment to maintain a stock water tank or other established water sources; access roads to maintained recreation sites or facilities; or access roads to mining claims.

John Day Basin RMP Road Analysis Form

(Factors to consider when determining whether a route is a road for wilderness inventory purposes.)

Wilderness Inventory Area Name and Number (UNIT_ID): Wall Creek Inventory Unit (OR-054-042)

Route Name and/or Identifier: Ridge Spur between Reade Canyon and Cabin Creek (ONDA #NFz2) (Labeled as "E" on Map 1)

I. LOCATION: Please refer to attached Map 1 and BLM corporate data (GIS). Route begins in T 7 S., R 28 E., Section 9 where it branches off of the Gilman Flat High Route route and travels southeast for approximately 2 miles, through Sections 16 and 15, and terminates at the end of a ridge in Section 22.

II. CURRENT PURPOSE OF ROUTE: This route is used to access recreation resources and for BLM administrative access. It is open seasonally to public motorized travel.

III. ROAD RIGHT-OF-WAY:

Yes ____ No __X___ Unknown ____

IV. CONSTRUCTION

Yes ___X____ No _____

Examples:
Paved _____ Bladed _____X____ Graveled _____ Roadside Berms _____
Cut/Fill _____ Other _____

V. IMPROVEMENTS

Yes _____ No ____X_____

By Hand Tools_____ By Machine ____

Culverts _____Stream Crossings ____ Bridges ___ Drainage ___ Barriers _____ Other ___

VI. MAINTENANCE:

A. Is their Evidence or Documentation of Maintenance using hand tools or machinery?
Yes _____ No _____ Unknown X

Hand Tools ___(Y/N)_____ Machine ___(Y/N)_____

Explain: **See BLM FAMS data in reference section. Is it scheduled route to receive maintenance?** No.

B. If route is in good condition, but there is no evidence of maintenance, would mechanical maintenance with hand tools or machines be approved by BLM in the event this route became impassable?
Yes ___X___ No ____N/A _____

Comments: ____BLM is not planning to maintain this route on a regular basis, but if mechanical maintenance were necessary in order to accomplish a resource objective or fire suppression activities, maintenance would be approved.__

VII. REGULAR AND CONTINUOUS USE:

Yes ____X_____ No _____

VIII. CONCLUSION:

To meet the definition of a road, items IV or V, *and* VI-A or B, *and* VII must be checked yes.
Road: Yes _____X____ No _____
Explanation: BLM wants to maintain the option to mechanically maintain this route in the future, to meet resource or fire suppression objectives.

Evaluator(s): ___Heidi Mottl_____ Date: ____9/30/07_____

* **road**: An access route which has been **improved and maintained** by **mechanical means** to insure **relatively regular and continuous use**. A way maintained solely by the passage of vehicles does not constitute a road.

a. "**Improved and maintained"** – Actions taken physically by people to keep the road open to vehicle traffic. "Improved" does not necessarily mean formal construction. "Maintained" does not necessarily mean annual maintenance.

b. **"Mechanical means"** – Use of hand or power machinery or tools.

c. **"Relatively regular and continuous use"** – Vehicular use that has occurred and will continue to occur on a relatively regular basis. Examples are: access roads for equipment to maintain a stock water tank or other established water sources; access roads to maintained recreation sites or facilities; or access roads to mining claims.

John Day Basin RMP Road Analysis Form

(Factors to consider when determining whether a route is a road for wilderness inventory purposes.)

Wilderness Inventory Area Name and Number (UNIT_ID): Wall Creek Inventory Unit (OR-054-042)

Route Name and/or Identifier: USFS Road 2110 South Extension between Cabin Creek and Ditch Creek (ONDA #NFx8) (Labeled as "F" on Map 1)

I. LOCATION: Please refer to attached Map 1 and BLM corporate data (GIS). Route begins in T 7 S., R 28 E., Section 10 at the USFS BLM boundary (and inventory unit boundary) and becomes a BLM extension to USFS Road 2110. The route travels southeast for approximately 5 miles, down a ridge between Cabin Creek to the west and Ditch Creek to the east, passing through Sections 15,23,16,25, and terminates at the end of a ridge in Section 24.

II. CURRENT PURPOSE OF ROUTE: This route is used to access recreation resources and for BLM administrative access. It is open seasonally to motorized public travel.

III. ROAD RIGHT-OF-WAY:

Yes ____ No ___X__ Unknown ____

IV. CONSTRUCTION

Yes ___X____ No _____

Examples:
Paved _____ Bladed _____X____ Graveled _____ Roadside Berms _____
Cut/Fill _____ Other _____

V. IMPROVEMENTS

Yes _____ No ____X_____

By Hand Tools_____ By Machine ____

Culverts _____Stream Crossings ____ Bridges ___ Drainage ___ Barriers _____ Other ___

VI. MAINTENANCE:

A. Is their Evidence or Documentation of Maintenance using hand tools or machinery?
Yes _____ No _____ Unknown X

Hand Tools ___(Y/N)_____ Machine ___(Y/N)_____

Explain: **See BLM FAMS data in reference section. Is it scheduled route to receive maintenance?** No.

B. If route is in good condition, but there is no evidence of maintenance, would mechanical maintenance with hand tools or machines be approved by BLM in the event this route became impassable?
Yes __X____ No ____N/A _____

Comments: ____BLM is not planning to maintain this route on a regular basis, but if mechanical maintenance were necessary in order to accomplish a resource objective or fire suppression activities, maintenance would be approved._____

VII. REGULAR AND CONTINUOUS USE:

Yes ___X_____ No _____

VIII. CONCLUSION:

To meet the definition of a road, items IV or V, *and* VI-A or B, *and* VII must be checked yes.
Road: Yes ____X_____ No _____
Explanation: BLM wishes to maintain the option to mechanically maintain this route in the future, to meet resource or fire suppression objectives.

Evaluator(s): __Heidi Mottl _____ Date: ___9/30/07_____

* **road**: An access route which has been **improved and maintained** by **mechanical means** to insure **relatively regular and continuous use**. A way maintained solely by the passage of vehicles does not constitute a road.

a. "**Improved and maintained"** – Actions taken physically by people to keep the road open to vehicle traffic. "Improved" does not necessarily mean formal construction. "Maintained" does not necessarily mean annual maintenance.

b. **"Mechanical means"** – Use of hand or power machinery or tools.

c. **"Relatively regular and continuous use"** – Vehicular use that has occurred and will continue to occur on a relatively regular basis. Examples are: access roads for equipment to maintain a stock water tank or other established water sources; access roads to maintained recreation sites or facilities; or access roads to mining claims.

John Day Basin RMP Road Analysis Form

(Factors to consider when determining whether a route is a road for wilderness inventory purposes.)

Wilderness Inventory Area Name and Number (UNIT_ID): Wall Creek Inventory Unit (OR-054-042)

Route Name and/or Identifier: Birch Creek Spur Road (ONDA # NFba?) (Labeled as "G" on Map 1)

I. **LOCATION:** Please refer to attached Map 1 and BLM corporate data (GIS). Route begins in T 7 S., R 28 E., Section 21, at the junction with the Birch Creek County Road and travels approximately .3 miles, crossing to the east side of Birch Creek where it ends.

II. **CURRENT PURPOSE OF ROUTE:** The route is used to access recreation resources and for BLM administrative access. It is open seasonally to public motorized travel.

III. **ROAD RIGHT-OF-WAY:**

Yes ____ No __X___ Unknown ____

IV. **CONSTRUCTION**

Yes ___X____ No _____

Examples:
Paved _____ Bladed __X_____ Graveled _____ Roadside Berms _____
Cut/Fill _____ Other _____

V. **IMPROVEMENTS**

Yes _____ No ____X____

By Hand Tools_____ By Machine ____

Culverts _____Stream Crossings ____ Bridges ___ Drainage ___ Barriers _____ Other ___

VI. **MAINTENANCE**:

A. Is their Evidence or Documentation of Maintenance using hand tools or machinery?
Yes _____ No _____ Unknown X

Hand Tools ___(Y/N)_____ Machine ___(Y/N)_____

Explain: **See BLM FAMS data in reference section. Is it scheduled route to receive maintenance?** No.

B. If route is in good condition, but there is no evidence of maintenance, would mechanical maintenance with hand tools or machines be approved by BLM in the event this route became impassable?
Yes __X____ No ____N/A _____

Comments: _____BLM is not planning to maintain this route on a regular basis, but if mechanical maintenance were necessary in order to accomplish a resource objective or fire suppression activities, maintenance would be approved.

VII. REGULAR AND CONTINUOUS USE:

Yes ____X____ No _____

VIII. CONCLUSION:

To meet the definition of a road, items IV or V, *and* VI-A or B, *and* VII must be checked yes.
Road: Yes ____X_____ No _____
Explanation: BLM wishes to maintain the option to mechanically maintain this route in the future, to meet resource or fire suppression objectives.

Evaluator(s): __Heidi Mottl_____Date: _____9/30/07_____

* **road**: An access route which has been **improved and maintained** by **mechanical means** to insure **relatively regular and continuous use**. A way maintained solely by the passage of vehicles does not constitute a road.

a. "**Improved and maintained"** – Actions taken physically by people to keep the road open to vehicle traffic. "Improved" does not necessarily mean formal construction. "Maintained" does not necessarily mean annual maintenance.

b. **"Mechanical means"** – Use of hand or power machinery or tools.

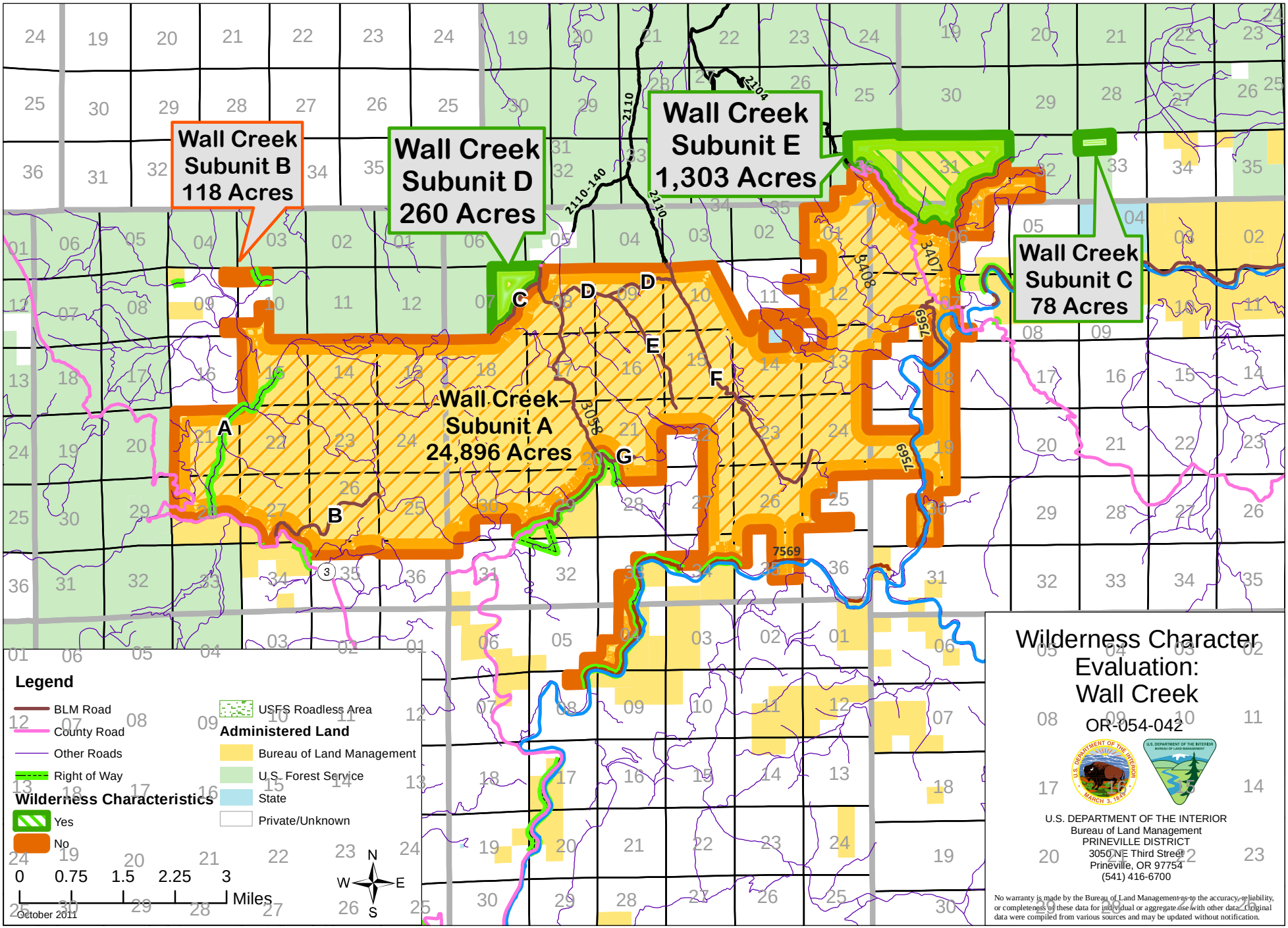
c. **"Relatively regular and continuous use"** – Vehicular use that has occurred and will continue to occur on a relatively regular basis. Examples are: access roads for equipment to maintain a stock water tank or other established water sources; access roads to maintained recreation sites or facilities; or access roads to mining claims.

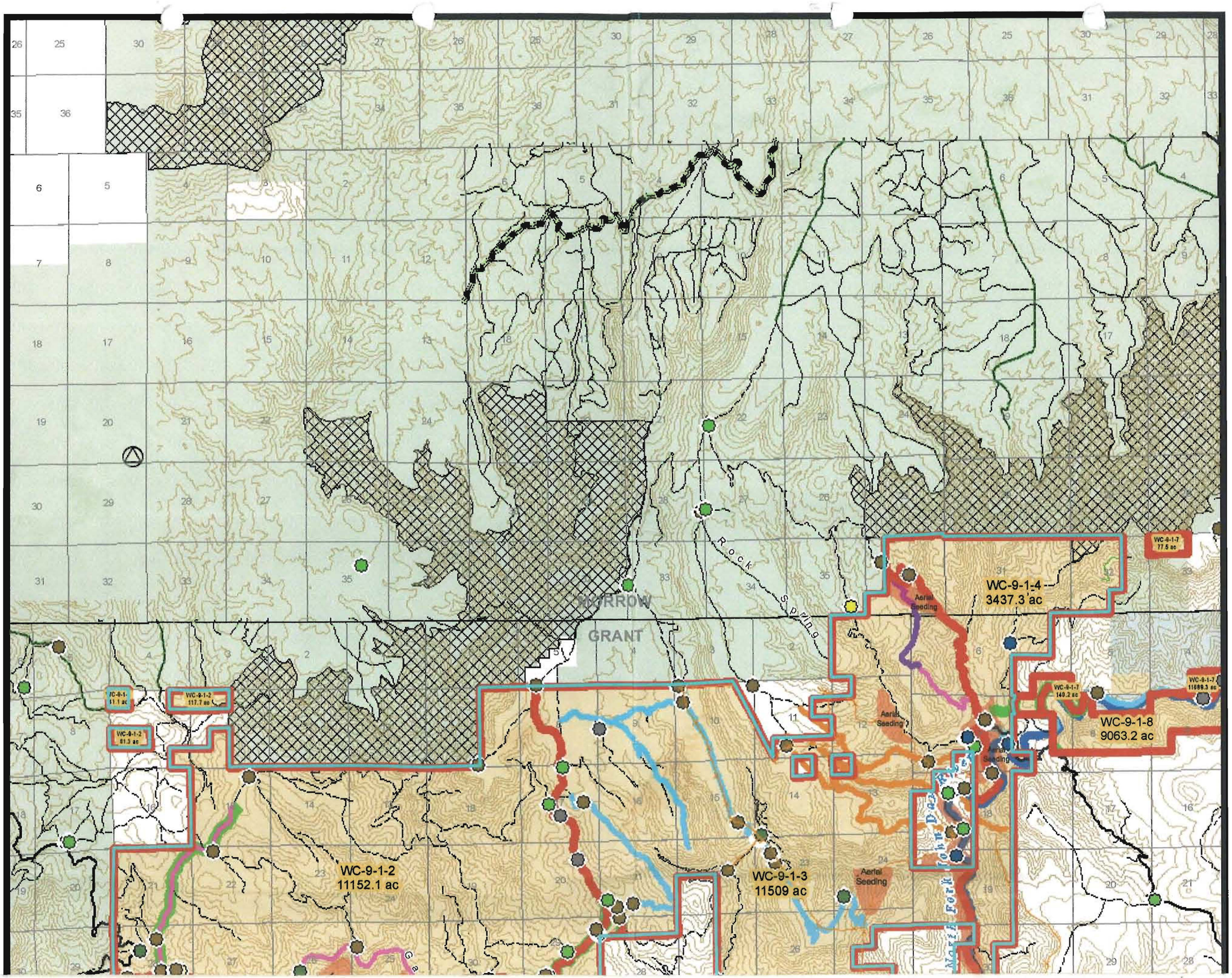
WILDERNESS CHARACTERISTICS INVENTORY

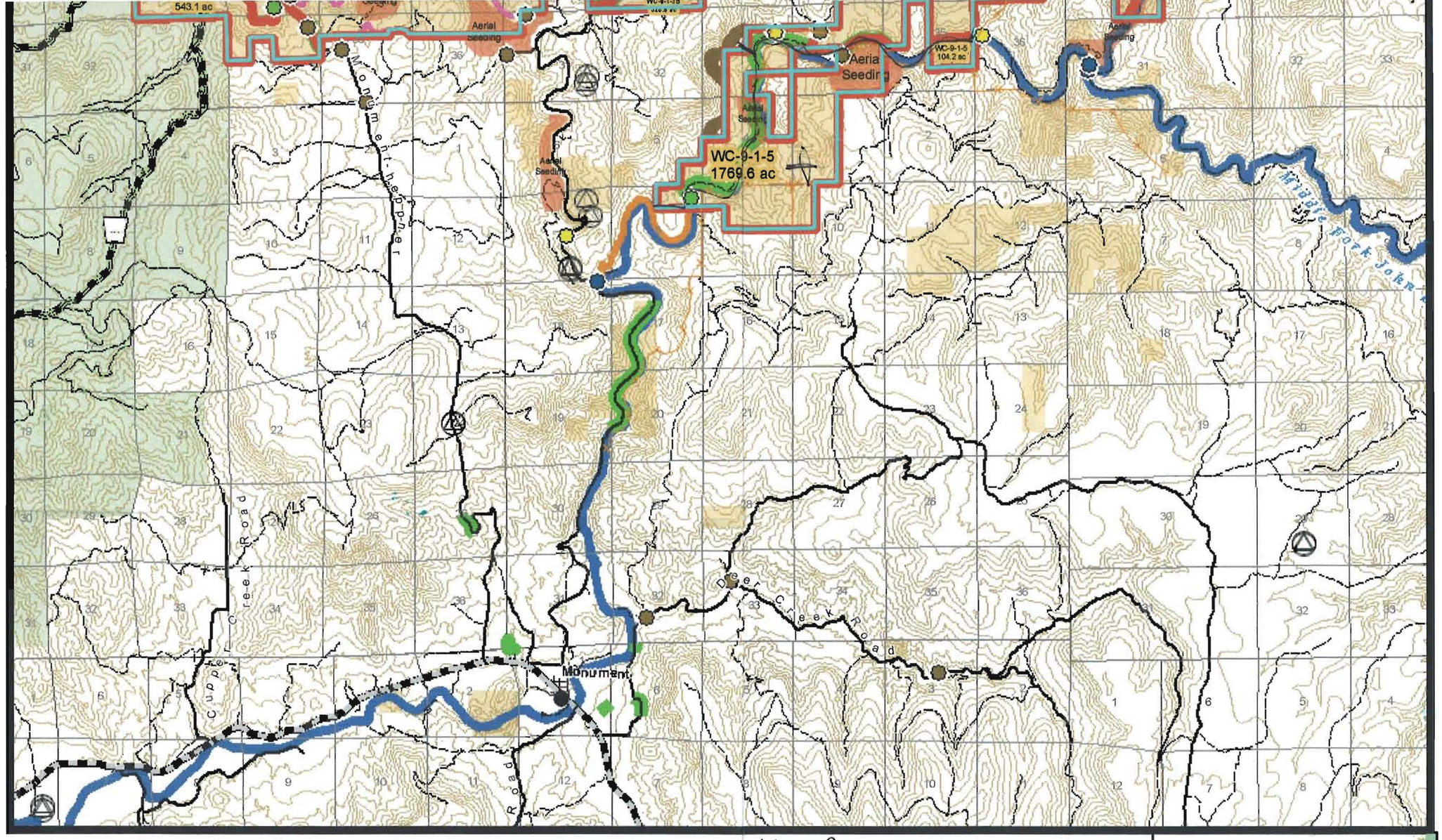
APPENDIX E
INVENTORY MAPS

Bureau of Land Management
Prineville District

Map 1


Wall Creek Subunit B 118 Acres
Wall Creek Subunit D 260 Acres
Wall Creek Subunit E 1,303 Acres
Wall Creek Subunit C 78 Acres
Wall Creek Subunit A 24,896 Acres
A
B
C
D
D
E
F
G
2104
2110
2110-140
2110
3407
3408
7557
7569
7569
3058
T 06 S
T 07 S
T 08 S
R 27 E
R 28 E
R 29 E
Legend
BLM Road
County Road
Other Roads
Right of Way
Wilderness Characteristics
Yes
No
USFS Roadless Area
Administered Land
Bureau of Land Management
U.S. Forest Service
State
Private/Unknown
0 0.75 1.5 2.25 3 Miles
N
W
E
S
October 2011
Wilderness Character Evaluation: Wall Creek
OR-054-042
U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
PRINEVILLE DISTRICT
3050 NE Third Street
Prineville, OR 97754
(541) 416-6700
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.


WC-9-1-4
3437.3 ac
WC-9-1-8
9063.2 ac
WC-9-1-2
11152.1 ac
WC-9-1-3
11509 ac
Aerial Seeding
Aerial Seeding
Aerial Seeding
Rock Spring
MORROW
GRANT



Selected Inventory Unit
Inventory Unit
Wilderness Study Areas
BLM
US Forest Service
National Park Service
State
Private or Undefined
FS roadless areas
FS Wilderness

Public Access - Interim Designations
Interim Road
Interim Trail
To Private
Admin Use Only
Build New Road
BLM Maintained Roads
Easement
Right of Way
Unknown Status

US, County, State and Local Roads
Interstate Highway
US Highway
State Highway
County Road
Municipal Road
Forest Service Roads
Arterial Road
Collector Road
Local Road

Rivers
Corrals
Mineral Resources
Water Points
Fences
Powerlines
Treatments

Culvert
Gate
Sign
Natural Barrier
Cattle Guard
Ford
End of Road
Pipe
Washout

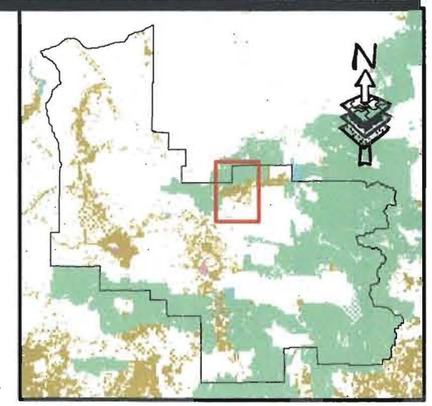
Map 2

WC-9-1
WILDERNESS CHARACTER INVENTORY

0 0.5 1 1.5 2 Miles

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
PRINEVILLE DISTRICT
5030 NE Third Street
Prineville, OR 97754
(541) 416-6700

Last Modified: 9/12/2007 1:07:59 PM



Map 2

Map 3

North Fork John Day River Interim BLM Access Map

June 1, 2002

This map shows changes in land ownership and public access routes resulting from land exchanges directed by the Oregon Land Exchange Act of 2000, Public Law 106-257. The Act directs the BLM to manage these lands for the benefit of fish, wildlife, and recreation. Interim management actions are being taken while a management plan is completed through a public planning process. Some roads crossing sensitive fish streams are closed to motorized travel year-round, and some areas that provide critical deer and elk winter range are closed to motorized travel during winter months.

- Keep ALL motorized vehicles (including ATVs) on designated "OPEN" roads
- Roads not shown on map are closed to motorized travel
- Motorized off-road travel is NOT permitted
- Please respect private property by not trespassing
- Please keep these lands clean; PACK-IT-IN, PACK-IT-OUT

LEGEND

LAND STATUS

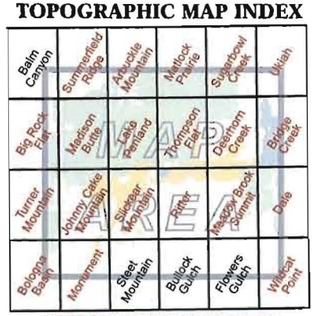
- B.L.M. Administered Lands
- U.S. Forest Service
- State Land
- Private
- ? INFORMATION

ROAD ACCESS

- Highway or County Road
- Public Access (Open year-round)
- 5320 USFS Primary Road
- BLM Seasonally Open (April 16 to November 30)
- Private Road
- End Motorized Access

395 U.S. Highway 244 State Highway 31 County Route

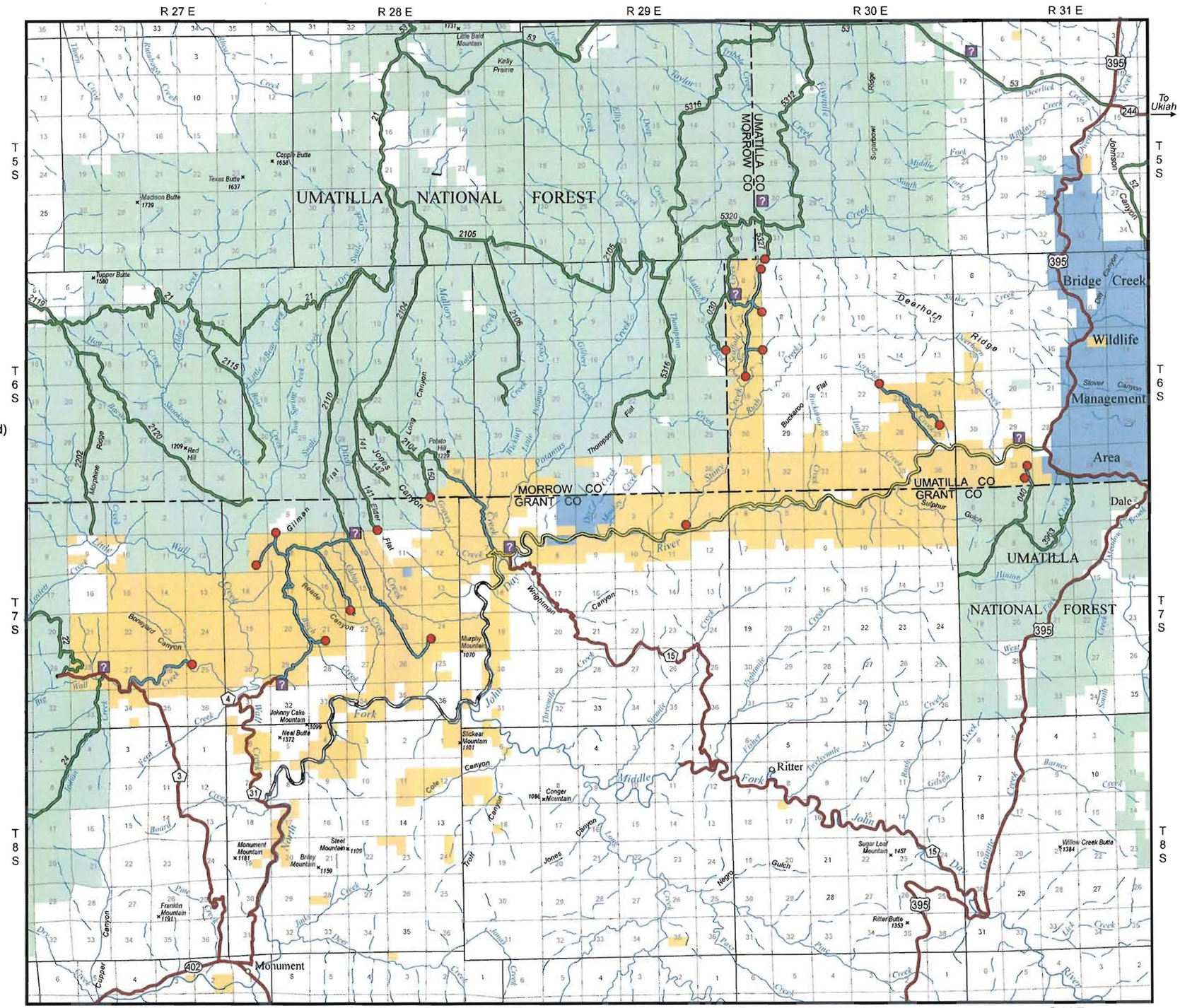
TOPOGRAPHIC MAP INDEX



U.S.F.S. Primary Base Series Quadrangles
U.S.G.S. Quadrangles

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
PRINEVILLE DISTRICT
3050 NE Third Street
Prineville, OR 97754
(541) 416-6700

BLM/OR/WA/GI-01/028-4800



USFS

Gate

PVT

Roadless

USFS

Gate

Subunit B

9

10

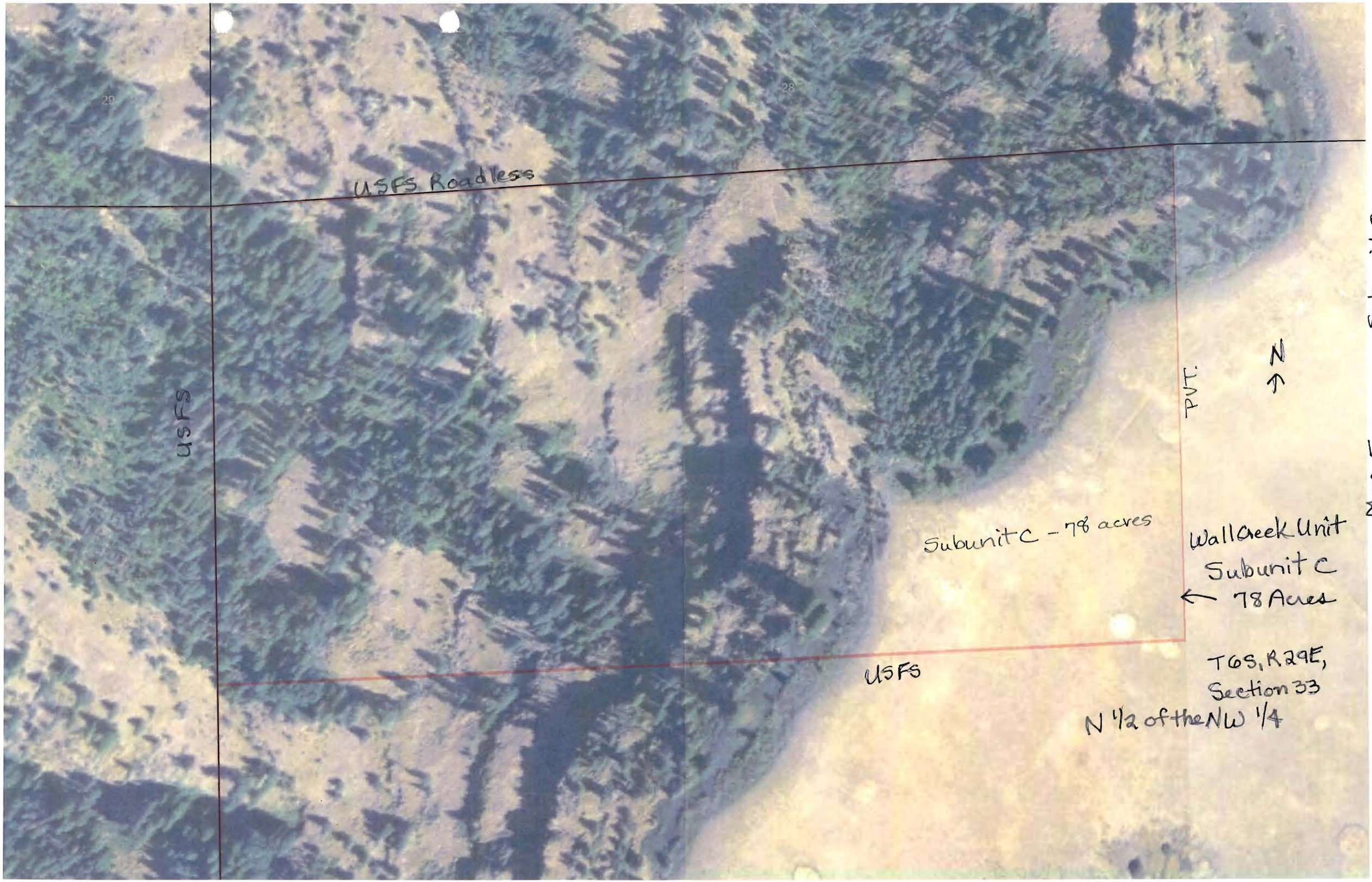
PVT

N

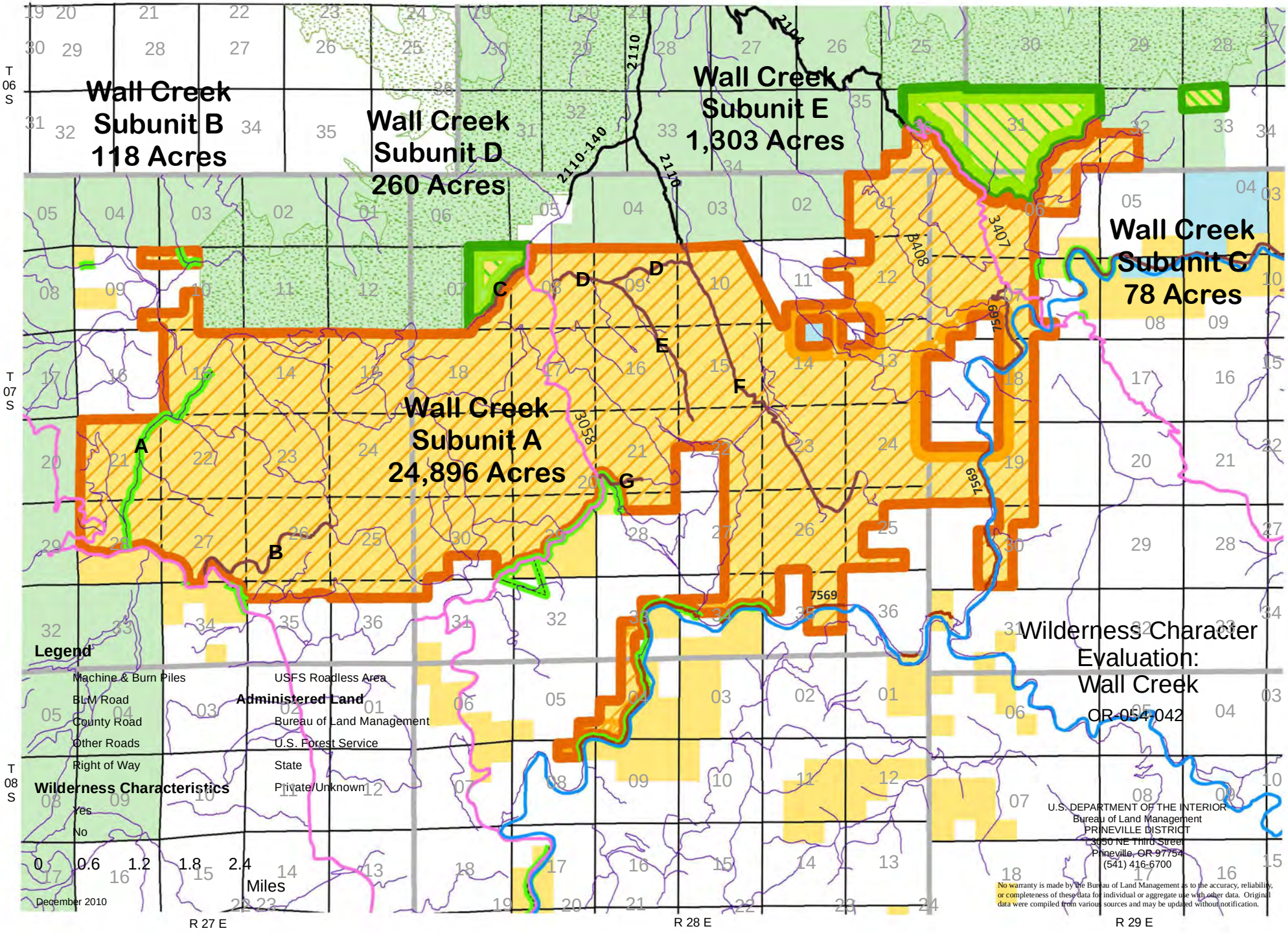
Wall Creek Unit
Subunit B
118 Acres

T7S, R27E, Section 9, NE¼ of the NE¼
Section 10, N½ of the NW¼

Map 4


29
28
USFS Roadless
USFS
PVT.
N
Subunit C - 78 acres
USFS
Wall Creek Unit
Subunit C
← 78 Acres
T6S, R29E,
Section 33
N 1/2 of the NW 1/4
Subunit
Map 5

Map 6


Wall Creek
Subunit B
118 Acres
Wall Creek
Subunit D
260 Acres
Wall Creek
Subunit E
1,303 Acres
Wall Creek
Subunit C
78 Acres
Wall Creek
Subunit A
24,896 Acres
A
B
C
D
D
E
F
G
2104
2110
2110-140
2110
3407
B408
7569
3058
7569
7569
T 06 S
T 07 S
T 08 S
R 27 E
R 28 E
R 29 E
Legend
Machine & Burn Piles
BLM Road
County Road
Other Roads
Right of Way
Wilderness Characteristics
Yes
No
USFS Roadless Area
Administered Land
Bureau of Land Management
U.S. Forest Service
State
Private/Unknown
0 0.6 1.2 1.8 2.4
Miles
December 2010
Wilderness Character Evaluation:
Wall Creek
OR-054-042
U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
PRINEVILLE DISTRICT
3050 NE Third Street
Prineville, OR 97754
(541) 416-6700
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

T06S-R27E

T06S-R28E

T06S-R29E

78 acres

1692 acres

252 acres

8 acres

107 acres

47 acres

455 acres

65 acres

845 acres

21 acres

118 acres

1 acres

352 acres

260 acres

102 acres

56 acres

105 acres

6 acres

224 acres

11 acres

518 acres

70 acres

959 acres

11 acres

2297 acres

258 acres

485 acres

226 acres

T07S-R27E

T07S-R28E

T07S-R29E

774 acres

1871 acres

769 acres

638 acres

1665 acres

2130 acres

4729 acres

206 acres

1978 acres

175 acres

0 acres

54 acres

1 acres

293 acres

94 acres

90 acres

970 acres

2 acres

2 acres

83 acres

21 acres

486 acres

T08S-R27E

T08S-R28E

T08S-R29E

Legend

Map 7

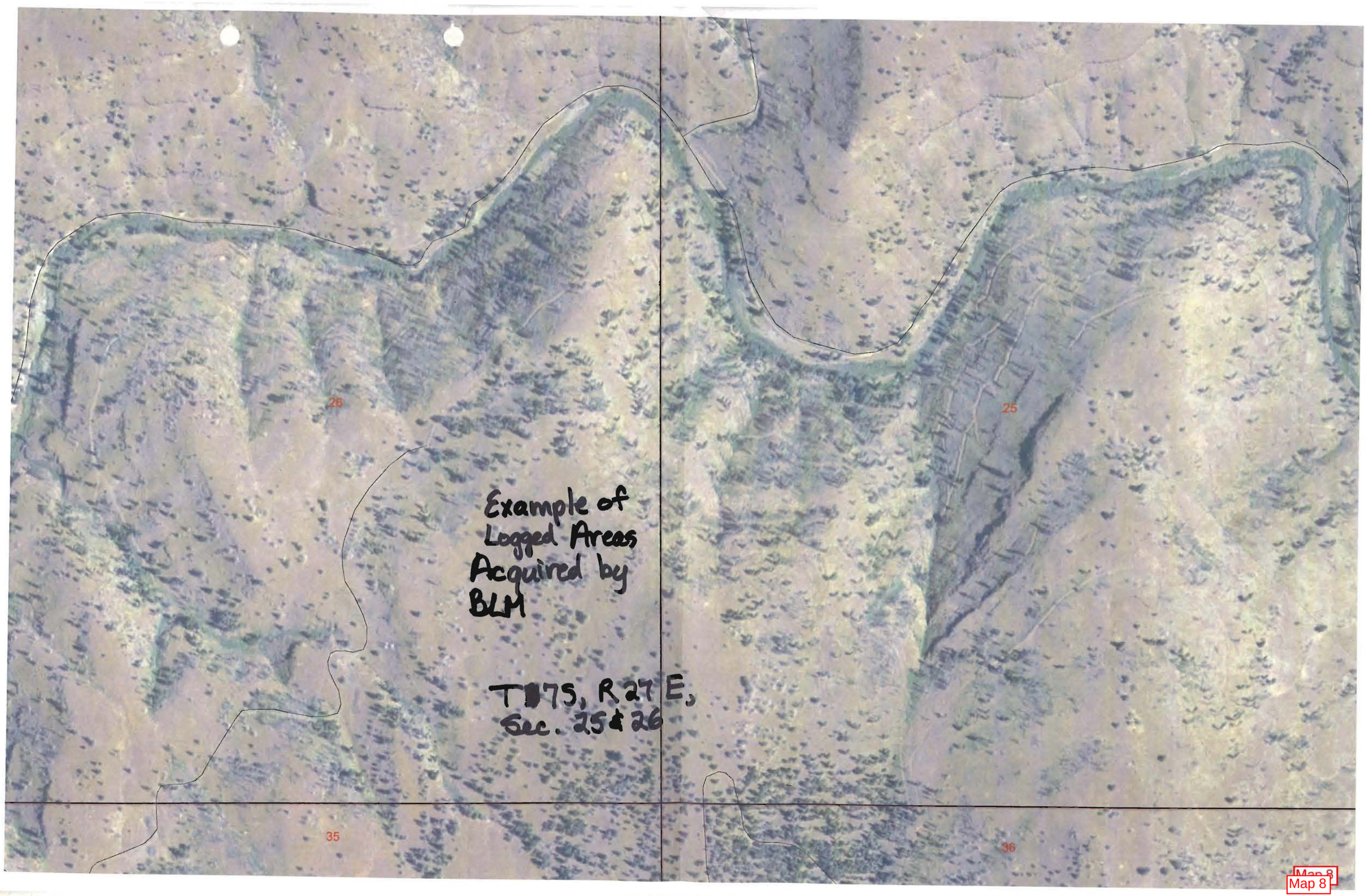
N

Treatments

- Mechanical
- Chemical
- Piles
- REVEG

- Right of Way
- Road
- County Road

- USFS Roadless Area
- Bureau of Land Management
- U.S. Forest Service
- State
- Private/Unknown


26
25
Example of
Logged Areas
Acquired by
BLM
T 75, R 27 E,
Sec. 25 & 26
35
36

Map 8

USFS

USFS

Example of
Logged Areas
Acquired by BLM

T 7 S, R 27 E
Sec. 13 & 14

Previously
BLM

Map 9

WILDERNESS CHARACTERISTICS INVENTORY

APPENDIX D
PHOTO DOCUMENTATION

Bureau of Land Management
Prineville District

John Day Basin Wilderness Characteristics – PHOTO LOG
(modify form as needed)

Photographer(s): ___John Day Planning Team Members_____

Inventory Area Name & No.: __Wall Creek Inventory Unit / OR-054-042_____

Date	Photo #	Camera Direction	Description	GPS/UTM Location	Township	Range	Sec.
5/21/01	1	SE	Old logging roads on North slope of Big Wall Creek drainage from Boneyard Cyn.		7 South	27 East	23
7/25/01	2	N	Cat (Dozer) line on Gilman Flat after 2001 wildfire		7 South	28 East	7
10/31/04	3	N	Rock wall visible on old wagon road		7 South	27 East	21
11/1/04	4	N	JV Ranch buildings, pre-fire		7 South	27 East	28
12/15/05	5	S	Gilman Flat, looking south into Birch Creek		7 South	28 East	17
12/15/05	6	E	Gilman Flat		7 South	28 East	8
5/14/07	7	W	Communications site		7 South	27 East	15

Photo # 1 Old logging roads on North slope of Big Wall Creek drainage, from Boneyard Canyon 5/21/01

Photo # 2 Cat line on Gilman Flat after 2001 fire

Photo #

Old Wagon Road

Photo #3 Rock retaining wall on old Wagon Road

Photo #

JV Ranch Buildings

Photo #4 JV Ranch Building (pre-fire)

Photo #5

Gilman Flat looking South into Birch Creek Cyn.
Note rocks pushed off of road. 12/15/05

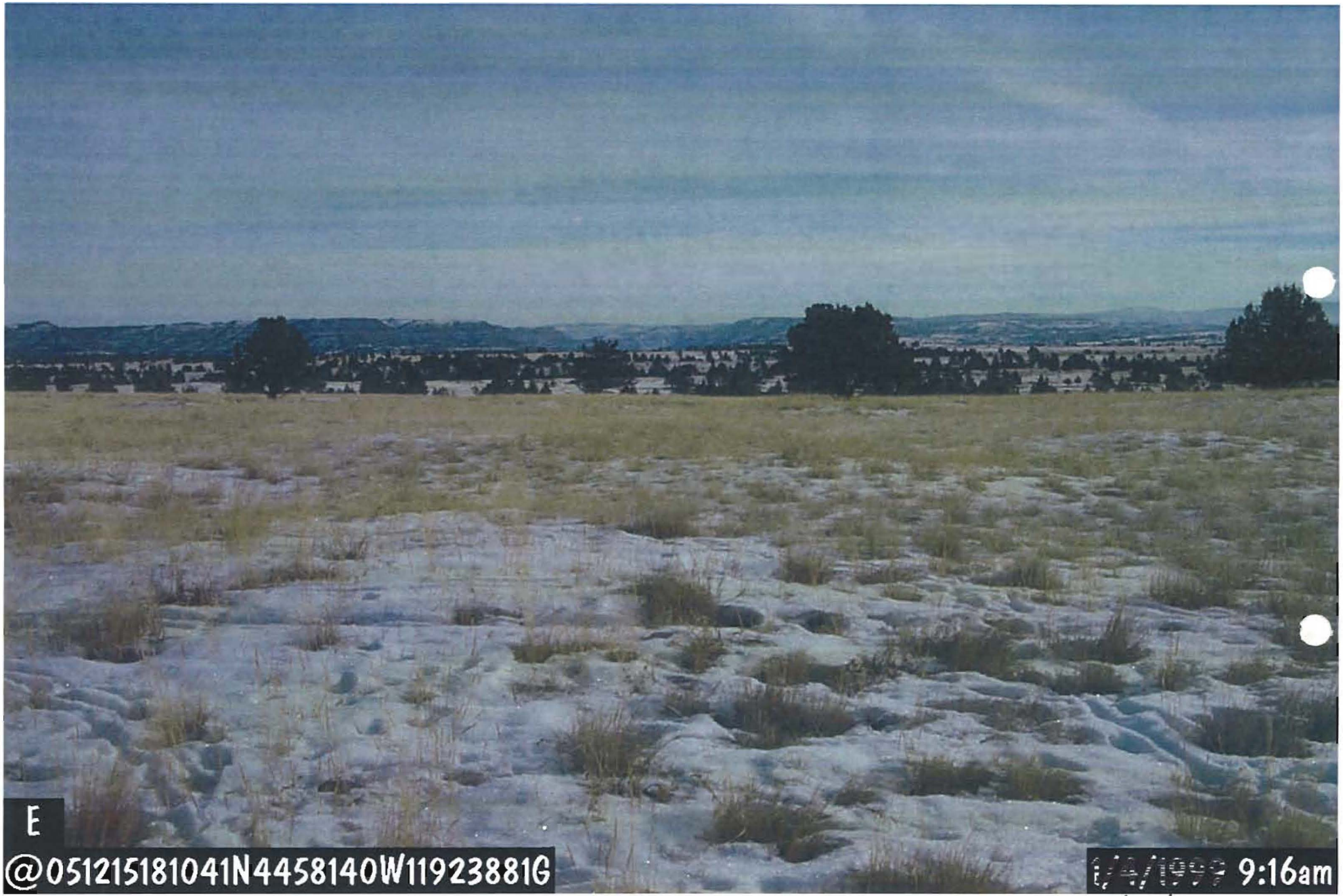


Photo #6 Gilman Flat Looking East 12/15/05

Photo # 7 Communications Site

Photo # Communications Site

Bureau of Land Management-Prineville District

WILDERNESS CHARACTERISTICS INVENTORY
Appendix D -Photo Log

Inventory Area Name: Wall Creek **Inventory Area Unique Identifier:** OR-054-042

Photographer(s): Monte Kuk

Date	Photo ID	Camera Direction	Description	Latitude (WGS84)	Longitude (WGS84)
9/3/2010	ATVHILLCLMB2.JPG		Scars on the hillside from ATV use.	44.97405885	-119.2830475
9/3/2010	FSB1.JPG	NE	Stumps visible from the creek at the Forest Service Boundary	45.0577	-119.17346
9/3/2010	FSB1B.JPG	N	Forest Service boundary.	45.0577	-119.17346
9/3/2010	FSB1C.JPG	NW	Forest Service boundary, stumps visible	45.0577	-119.17346
9/3/2010	FSB1D.JPG	NE	Zoomed view of stumps visible from the creek at the Forest Service Boundary	45.0577	-119.17346
9/3/2010	FSB1E.JPG	NE	Zoomed view of stumps visible from the creek at the Forest Service Boundary	45.0577	-119.17346
9/2/2010	P3KM16SW.JPG	SW	ONDA's KM16 GPS point, this is the direction that the route goes, in the distance you can see the route cut. Almost directly in the middle of the photo the route turns to the south.	44.96931	-119.40496
9/2/2010	P2.JPG	N	Replecation of ONDA's photo direction from their GPS point KM16. Direction taken was a skid trial that had crossed the draingage and was closed after the timber sale. Just before the drainage there is a berm blocking the skid route.	44.96931	-119.40496
	KP19.JPG	NW	User created short cut so they don't have to do a switch back. Taken from ONDA's GPS point	45.00285001	-119.30742
	KP19D.JPG	E/SE	Actual BLM route looking E/SE from ONDA's GPS point. You can barely see the winter range closure gate.	45.00285001	-119.30742
9/2/2010	KQ27.JPG	N	route bed with vegetation growing. Taken at or near ONDA's GPS point.	44.94787001	-119.35229
9/2/2010	KQ27B.JPG	N	Close up of the route cut with tire tracks in the vegetation visible in the middle of the picture. Taken at or near ONDA's GPS point.	44.94787001	-119.35229

Bureau of Land Management-Prineville District

9/2/2010	KQ27C.JPG		route cut in hill side and stumps visible on hill side. Taken at or near ONDA's GPS point.	44.94787001	-119.35229
9/2/2010	KQ27D.JPG		One four cardinal directions taken at or near ONDA's GPS point. Several stumps visible in the draw.	44.94787001	-119.35229
9/2/2010	KQ27E.JPG		Looking back down the route taken at or near ONDA's GPS point. The weed teasel is visible all along the route.	44.94787001	-119.35229
9/2/2010	P1.JPG		Evidence of a fallen tree that was cut and removed from the route bed.	44.96435545	-119.4009024
9/2/2010	P10.JPG		Evidence of route construction. Fresh ATV use below the gate. Nice location for a campground.	44.94325276	-119.3511761
9/2/2010	P10B.JPG		Logging evidence in the drainage. This general area burned recently but the stumps are still visible.	44.94325276	-119.3511761
9/2/2010	P10C.JPG		Logging evidence in the drainage. This general area burned recently but the stumps are still visible. Note the scorched trees on the ridge.	44.94325276	-119.3511761
9/2/2010	P10D.JPG		A tree that burned at the based fell over on the route. There was evidence of someone driving over part of the tree to get through.	44.94325276	-119.3511761
9/2/2010	P10E.JPG	NE	Large patch of Scotch thistle along the route.	44.94325276	-119.3511761
9/2/2010	P11.JPG		This seep may not have been here when the route was created but due to the fire killing upland veg. it may have appeared. You can see someone created ruts when they drove through.	44.93019023	-119.3555555
9/2/2010	P11B.JPG	SW	Looking SW toward BLM boundary. route is supposed to be gated but you can see the vehicle tracks.	44.93019023	-119.3555555
9/2/2010	P12.JPG	N	Looking N you can see the rock jacks for the fence along the ridge line to the left.	44.92870638	-119.3566008
9/2/2010	P12B.JPG		Close up of the rock jacks and fence. Also some Canada thistle.	44.92870638	-119.3566008
9/2/2010	P12C.JPG		Private land boundary. Note that the gate has been opened.	44.92870638	-119.3566008
9/2/2010	P12D.JPG	S	The gate has been opened.	44.92870638	-119.3566008
9/2/2010	P12E.JPG	NE	Looking back NE from the gate.	44.92870638	-119.3566008
9/2/2010	P13.JPG		Rocks have been mechanically bladed to form a route bed.	44.95282548	-119.3435846
9/2/2010	P13B.JPG	NW	L	44.95282548	-119.3435846

Bureau of Land Management-Prineville District

9/2/2010	P13C.JPG	W		44.95282548	-119.3435846
9/2/2010	P13D.JPG	E	route bed is still very driveable.	44.95282548	-119.3435846
9/2/2010	P14.JPG	N	Start of a panarama from North around and back to north. Past seeding, but still a lot of medusa head rye. Recently driven by an ATV.	44.9421533	-119.335671
9/2/2010	P14B.JPG	NE	Panarama.	44.9421533	-119.335671
9/2/2010	P14C.JPG	E	Panarama.	44.9421533	-119.335671
9/2/2010	P14D.JPG	SE	Panarama.	44.9421533	-119.335671
9/2/2010	P14E.JPG	S	Panarama.	44.9421533	-119.335671
9/2/2010	P14F.JPG	SW	Panarama, a lot of medusa visible.	44.9421533	-119.335671
9/2/2010	P14G.JPG	W	Panarama.	44.9421533	-119.335671
9/2/2010	P14H.JPG	NW	Panarama.	44.9421533	-119.335671
9/2/2010	P14I.JPG	NW	Panarama.	44.9421533	-119.335671
9/2/2010	P15.JPG	E	Depression in forground is a water bar mechanically constructed for drainage.	44.9386759	-119.3272494
9/2/2010	P15B.JPG	W	Looking back to west the fence is visible on the skyline.	44.9386759	-119.3272494
9/2/2010	P16.JPG	E	Going E route shows signs of mechanical movement of the rock to clear a route surface.	44.94045303	-119.3256148
9/2/2010	P16B.JPG	SE	You can see a route scar just above the drainage.	44.94045303	-119.3256148
9/2/2010	P16C.JPG	SW	Tracks visible are from the photographer's ATV. Rocks were clearly moved at this location to create a route bed.	44.94045303	-119.3256148
9/2/2010	P17.JPG	S	There is a route scar along the opposite ridge as well as one that runs down the drainage. Although not readily visible in the photo there were numerous visible stumps.	44.94239193	-119.3213545
9/2/2010	P17B.JPG	W	Looking just W of p17 route cuts are visible along the ridge, through the saddle, and down the drainage (although not visible a route goes beyond the saddle to the SW as well). You can also see the rock jacks in the saddle for where the fencing interfaces.	44.94239193	-119.3213545
9/2/2010	P17C.JPG	W/SW	Looking W SW of p17 showing the mechanical cut of the route bed into the hill side.	44.94239193	-119.3213545
9/2/2010	P17D.JPG	N		44.94239193	-119.3213545
9/3/2010	P18.JPG		Beginning of panarama, showing fairly dense riparian vegetation. Stumps are visible but not overly obvious.	45.00465212	-119.3034096

Bureau of Land Management-Prineville District

9/3/2010	P18B.JPG		Panarama showing fairly dense riparian vegetation. Stumps visible but not overly obvious.	45.00465212	-119.3034096
9/3/2010	P18C.JPG	NE	Looking NE up drainage, stomps visible but not overly obvious.	45.00465212	-119.3034096
9/3/2010	P18D.JPG		Panarama showing fairly dense riparian vegetation. Stumps visible but not overly obvious.	45.00465212	-119.3034096
9/3/2010	P18E.JPG		Panarama showing fairly dense riparian vegetation. Stumps visible but not overly obvious.	45.00465212	-119.3034096
9/3/2010	P18F.JPG		Panarama showing fairly dense riparian vegetation. Stumps visible but not overly obvious.	45.00465212	-119.3034096
9/3/2010	P19B.JPG	N	Looking north up the logging route used to haul logs out of the riparian area. Growing over but clear signs of being mechanically constructed.	45.00326232	-119.3039756
9/3/2010	P19C.JPG		Closer view of route bed. Still drivable, but does have a small log across the route bed.	45.00326232	-119.3039756
9/3/2010	P19D.JPG	SW	Looking back to the SW the route isn't as grown over here.	45.00326232	-119.3039756
9/3/2010	P19F.JPG	E	Stumps visible on the opposite slope.	45.00326232	-119.3039756
9/3/2010	P20.JPG		Photo of a log that was cut out and removed to unblock the route. Assume this was done by wood cutters or hunters. route appears to get ATV and pickup use.	44.99313681	-119.2914872
9/3/2010	P20B.JPG		Recent tracks of a pickup. Photographer was walking.	44.99313681	-119.2914872
9/3/2010	P21.JPG		Recent tracks over the grass. Although the route appears grown over it is just grass and the route is still passable.	44.99313681	-119.2914872
9/3/2010	P21B.JPG		Close up of tracks.	44.99313681	-119.2914872
9/3/2010	P21C.JPG		A tree stump right next to the route bed.	44.99313681	-119.2914872
9/3/2010	P21D.JPG	W	Stumps but not overly obvious.	44.99313681	-119.2914872
9/3/2010	P21E.JPG	S	Looking S down the drainage and route. The route bed is grown over but not with impassable material at this site.	44.99313681	-119.2914872
9/3/2010	P21F.JPG	NE		44.99313681	-119.2914872
9/3/2010	P21G.JPG	E	Some stumps redily visible.	44.99313681	-119.2914872
9/3/2010	P21H.JPG	SE		44.99313681	-119.2914872
9/3/2010	P21I.JPG	SW	route bed is barely discernable in the bottom left of picture. Infrequent stomps on the westen slope.	44.99313681	-119.2914872

Bureau of Land Management-Prineville District

9/3/2010	P21J.JPG	SW	Looking up slope to the SW at a thinned stand, but regrowth, time frame since logging, and sparse spacing of trees cut reduces visual impact of stumps.	44.99313681	-119.2914872
9/3/2010	P21K.JPG	NW	Looking NW the density of timber precludes the viewer from seeing the majority of stumps in this area.	44.99313681	-119.2914872
9/3/2010	P21L.JPG	S/SW	Looking S, SW down the route bed. While the route bed is overgrown here the majority of material is small enough to drive over. There are several stream crossings that have substantially grown over along this route.	44.99313681	-119.2914872
9/3/2010	P21M.JPG	NW	This stump shows the age of the past timber harvest; however it appears there has either been wood cutting or other activity because the majority of the stumps were not this decayed.	44.99313681	-119.2914872
9/3/2010	P21N.JPG	E/NE	A couple of stumps are visible on the opposite slope which is not as forested so they show up more.	44.99313681	-119.2914872
9/3/2010	P21O.JPG	N		44.99313681	-119.2914872
9/3/2010	P21P.JPG		The grass has grown over making it difficult to discern the route bed, but it is still drivable in this location.	44.99313681	-119.2914872
9/3/2010	P21Q.JPG	S	Vehicle tracks are evident in the grass.	44.99313681	-119.2914872
9/3/2010	P21R.JPG	E/NE	Looking E, NE a few stumps are visible and the corner of a fence is visible at the top of the ridge.	44.99313681	-119.2914872
9/3/2010	P23.JPG	SE	Looking SE back down the drainage. A few stumps visible.	45.00941145	-119.2890746
9/3/2010	P23B.JPG	W		45.00941145	-119.2890746
9/3/2010	P23C.JPG	W/NW	route goes through the overgrown drainage.	45.00941145	-119.2890746
9/3/2010	P23D.JPG	NE	Stumps visible on sparser vegetated west aspect.	45.00941145	-119.2890746
9/3/2010	P23E.JPG	E		45.00941145	-119.2890746
9/3/2010	P23F.JPG	SE		45.00941145	-119.2890746
9/3/2010	P24.JPG	S	Looking S. down the drainage, route bed is visible with recent tracks of vehicle activity.	45.00279344	-119.2887111
9/3/2010	P24B.JPG	W	Large stump near route bed. route is still used beyond this point.	45.00279344	-119.2887111
9/3/2010	P24C.JPG	NW		45.00279344	-119.2887111
9/3/2010	P24D.JPG	N	Up the drainge, log in the route bed.	45.00279344	-119.2887111
9/3/2010	P25.JPG		Evidence of mechanical maintanence this log was cut and moved out of the route bed.	45.00110599	-119.2895718

Bureau of Land Management-Prineville District

9/3/2010	P25B.JPG		Other end of the log that was cut out of the route bed.	45.00110599	-119.2895718
9/3/2010	P26.JPG	S	Looking S down the drainage. Grass is growing over in the route bed but evidence of recent use is visible. route bed was clearly constructed mechanically.	44.99852202	-119.2896125
9/3/2010	P26B.JPG	N	Looking N. up the drainage, route bed is visible and unobstructed.	44.99852202	-119.2896125
9/3/2010	P27.JPG	E	several stumps visible on hill side.	44.99571702	-119.2903091
9/3/2010	P27B.JPG	N	Looking N. up the drainage, route is growing over but is still getting use.	44.99571702	-119.2903091
9/3/2010	P27C.JPG	S	Looking S. down the drainage, areas where route goes through the riparian are pretty overgrown but route is still getting use to this point.	44.99571702	-119.2903091
9/3/2010	P27D.JPG		Evidence of a log that was cut with a chainsaw left next to the route, may have been wood cutting or route clearing.	44.99571702	-119.2903091
9/3/2010	P28.JPG	N	Looking N. up the drainage, grass is growing and even some small trees but the route is still being used. Close up of route bed.	44.99208597	-119.2804656
9/3/2010	P28B.JPG	N	Looking N. up the drainage (wider view), with the amount of grass it's difficult to tell where the route goes, but still passable.	44.99208597	-119.2804656
9/3/2010	P28C.JPG	S	The route went through the riparian area and is difficult to see where it is.	44.99208597	-119.2804656
9/3/2010	P28D.JPG	E	Looking E across the riparian area. Numerous stumps visible.	44.99208597	-119.2804656
9/3/2010	P29.JPG	N/NE		44.99326497	-119.2791495
9/3/2010	P29B.JPG	E		44.99326497	-119.2791495
9/3/2010	P29C.JPG	SE		44.99326497	-119.2791495
9/3/2010	P29D.JPG	S	route bed.	44.99326497	-119.2791495
9/3/2010	P29E.JPG	S	Tracks in the route and a stump right along the route.	44.99326497	-119.2791495
9/3/2010	P29F.JPG	W	An old stump.	44.99326497	-119.2791495
9/3/2010	P30.JPG	SW		44.99679937	-119.2795912
9/3/2010	P30B.JPG	E		44.99679937	-119.2795912
9/3/2010	P31.JPG	N	Stump on the left and a log on the right.	44.99814936	-119.2767473
9/3/2010	P31B.JPG	W	Old stump.	44.99814936	-119.2767473
9/3/2010	P31C.JPG	SW	Evidence of past logging blends in.	44.99814936	-119.2767473

Bureau of Land Management-Prineville District

9/3/2010	P31D.JPG	S	route bed.	44.99814936	-119.2767473
9/3/2010	P33.JPG	S/SW	Start of a panarama looking south, sw.	45.0027553	-119.272277
9/3/2010	P33B.JPG	S	Panarama looking S. There was a faint old skid route where logs were drug off the hillside to the drainage in this area.	45.0027553	-119.272277
9/3/2010	P33C.JPG	S	Panarama looking S. stump in lower right is more visible due to less forested conditions than areas on the opposite slope.	45.0027553	-119.272277
9/3/2010	P33D.JPG	S/SE	Closeup of S, SE view showing stumps are still not readily visible.	45.0027553	-119.272277
9/3/2010	P33E.JPG	S/SE	Panarama looking S, SE	45.0027553	-119.272277
9/3/2010	P33F.JPG	W/NW	Panarama W, NW	45.0027553	-119.272277
9/3/2010	P33G.JPG	W	Panarama W, several stumps visible but scattered due to open growth on this aspect.	45.0027553	-119.272277
9/3/2010	P34.JPG		Large stumps adjacent to a constructed logging route.	45.00644954	-119.2707664
9/3/2010	P34B.JPG		Although stumps are present the age of the cuts and the regrowth hide them in places.	45.00644954	-119.2707664
9/3/2010	P34C.JPG		Stump along the skid route.	45.00644954	-119.2707664
9/3/2010	P34D.JPG		While not apparent there is evidence of the old skid route here.	45.00644954	-119.2707664
9/3/2010	P34E.JPG		More decaying stumps.	45.00644954	-119.2707664
9/3/2010	P34F.JPG		Reprod within the old route way and a stump.	45.00644954	-119.2707664
9/3/2010	P34G.JPG		What the area looks like mid slope above the drainage where the easy harvest was done. There are stumps in these stands also.	45.00644954	-119.2707664
9/3/2010	P34H.JPG	N		45.00644954	-119.2707664
9/3/2010	P34I.JPG		Evidence of old stumps.	45.00644954	-119.2707664
9/3/2010	P34J.JPG	E/SE		45.00644954	-119.2707664
9/3/2010	P34K.JPG		Appears to be an old skid route going up the hill here.	45.00644954	-119.2707664
9/3/2010	P35.JPG	W	Very old stumps.	45.00041482	-119.2794511
9/3/2010	P35B.JPG	S	there are stumps in this stand but masked by regrowth.	45.00041482	-119.2794511
9/3/2010	P35C.JPG		Mid slope conditions.	45.00041482	-119.2794511
9/3/2010	P35D.JPG		Old stumps.	45.00041482	-119.2794511
9/3/2010	P35E.JPG	E	Looking down to the E. into the stand evidence of past logging but good regrowth and stumps are old.	45.00041482	-119.2794511
9/3/2010	P36.JPG		Mid slope stand with really old stumps.	44.99966967	-119.2800056

Bureau of Land Management-Prineville District

9/3/2010	P36B.JPG		Looking back down toward drainage from a mid slope stand.	44.99966967	-119.2800056
9/3/2010	P36C.JPG		Looking upslope from within a stand mid way to up the drainage sidehill.	44.99966967	-119.2800056
9/2/2010	P4.JPG	W	My camera was messing up like this all day. This is a drainage that the route crosses to the west of P3, route goes W through this thinned stand of timber.	44.96502718	-119.404034
9/2/2010	P5.JPG	E	The route was clearly cut into the hill side. There is a drainage in the middle of the picture that the route crosses and route goes to north then. Drainage is crossable by ATV or jeep. Stumps all along the route.	44.95835426	-119.4097558
9/2/2010	P5B.JPG	S	Stumps are still visible dispite the fact that this site has burned recenlty.	44.95835426	-119.4097558
9/2/2010	P6.JPG		This is a logging landing with some cull logs still remaining and a choker that was left.	44.95707108	-119.4126222
9/2/2010	P6STUMPS.JPG	W	Stumps several stumps visible from the route.	44.95707108	-119.4126222
9/2/2010	P6STUMPSB.JPG	S	A couple of stumps visible but this pocket wasn't' thinned as heavily.	44.95707108	-119.4126222
9/2/2010	P6STUMPSC.JPG		Looking another direction from P6, Stumps visible this direction also.	44.95707108	-119.4126222
9/2/2010	P6STUMPSD.JPG	W	Looking further west. route cut is visible in the middle of the pic.	44.95707108	-119.4126222
9/2/2010	P6STUMPSE.JPG		Close up of P6stumpsd, showing the route cut and stumps in a thinned stand.	44.95707108	-119.4126222
9/2/2010	P6STUMPSG.JPG		Lightly thinned stand not as many stumps visible.	44.95707108	-119.4126222
9/2/2010	P6STUMPSF.JPG	N	Looking N, not as much thinning done on the south aspects thus fewer stumps visible.	44.95707108	-119.4126222
9/2/2010	P6STUMPSH.JPG		Panning east from P6STUMPSF.	44.95707108	-119.4126222
9/2/2010	P6STUMPSI.JPG		Panning east from P6STUMPSF.	44.95707108	-119.4126222
9/2/2010	P7.JPG	W	Looking W you can see the route cut and evidence of the past burn.	44.96675595	-119.4037095
9/2/2010	P8.JPG	N	Evidence of recent use. Photographer was on an ATV not pickup. Looking N, drainage dip crosses the route in the forground.	44.97346004	-119.359312
9/2/2010	P8B.JPG	S	Evidence of recent use and an old fence.	44.97346004	-119.359312

Bureau of Land Management-Prineville District

9/2/2010	P9.JPG	N	route shows signs of use by the lack of moss, which is evident to the left of the route.	44.9563618	-119.3489692
9/2/2010	P9B.JPG	SE	There are 4 separate route scars visible from here. Also visible are some rock jacks for the fence in the saddle.	44.9563618	-119.3489692
9/2/2010	P9C.JPG	SW	route scars show evidence of past logging. This area has burnt not to long ago.	44.9563618	-119.3489692
9/3/2010	WEEDNREHAB.JPG		Flat adjacent to riparian with diffuse knapweed and scotch thistle totally dominating the site. Needs to have chemical treatment and reseeding.	44.98958096	-119.2800062
9/3/2010	WEEDNREHABB.JPG		Flat adjacent to riparian with diffuse knapweed and scotch thistle totally dominating the site. Needs to have chemical treatment and reseeding.	44.98958096	-119.2800062
9/3/2010	WEEDNREHABC.JPG		Flat adjacent to riparian with diffuse knapweed and scotch thistle totally dominating the site. Needs to have chemical treatment and reseeding.	44.98958096	-119.2800062
9/3/2010	WEEDNREHABD.JPG		Flat adjacent to riparian with diffuse knapweed and scotch thistle totally dominating the site. Needs to have chemical treatment and reseeding.	44.98958096	-119.2800062
9/3/2010	OLDCULVERT.JPG		Old culvert in the shadow.	45.00028515	-119.3026136
9/3/2010	HILLCLIMB.JPG		Area where ATVs and pickups are driving up a hill side.	44.98720125	-119.2935805
9/2/2010	KQ15.JPG	N	Picture from ONDA GPS point, shows rocks that were moved from route bed and fence.	44.95799	-119.35082
9/2/2010	KQ15B.JPG	SE	Picture from ONDA GPS point, shows rocks that were moved from route bed and a constructed route bed.	44.95799	-119.35082
9/3/2010	P32.JPG	W	Looking W up the slope from the skid route that went up the draw on the right hand side of the picture. Numerous stumps are visible on this slope.	45.00146641	-119.2745567
9/3/2010	P32B.JPG	SE	Looking back to the SE, stumps are not visible due to forested condition.	45.00146641	-119.2745567
9/3/2010	SKRDTRACK3.JPG		Picture of a skid route that is located where my track file that I made while GPS the skid route.	45.00644954	-119.2707664
9/3/2010	SKRDTRACK3B.JPG		Picture of a skid route that is located where my track file that I made while GPS the skid route.	45.00644954	-119.2707664
9/3/2010	TREEDOWN.JPG		Picture of a log that was cut out of the route in the past but there is a big tree currently stopping further use.	45.0038861	-119.2885921
9/3/2010	TREEDOWNB.JPG		Panarama from TREEDOWN location.	45.0038861	-119.2885921

Bureau of Land Management-Prineville District

9/3/2010	TREEDOWNC.JPG		Panarama from TREEDOWN location.	45.0038861	-119.2885921
9/3/2010	TREEDOWND.JPG		Panarama from TREEDOWN location.	45.0038861	-119.2885921
9/3/2010	TREEDOWNE.JPG		Panarama from TREEDOWN location.	45.0038861	-119.2885921
9/3/2010			GPS point - 6STUMPSOLD: Near FS boundary, several old stumps.	45.0090771	-119.3027872
9/3/2010			GPS point - PUBMOVDTRE: The public moved a tree out of the route bed.	45.00113198	-119.3035417
9/3/2010			GPS point- RD END: Marks the end of the route that I could find.	44.96932022	-119.4178412
9/3/2010			GPS point - RDBED2SOUT: There is a route bed that goes south from this point, not drivable.	44.99488293	-119.2968589
9/2/2010			GPS point- ROCKWALL: Rock wall or fence constructed during early settlement days.	44.97251649	-119.4127783
9/3/2010			GPS point -SKDRD: Start of a skid trail that went up from the riparian area.	45.00765259	-119.3028035
9/3/2010			GPS point -SKDRD: Start of a skid trail that went up from the riparian area.	45.00146641	-119.2745567
9/3/2010			GPS point - Numstumps: Several stumps SW of the route.	44.98982227	-119.2933707

Wall Creek Inventory Unit OR-054-042

ATVHILLCLMB2.JPG

FSB1.JPG

Wall Creek Inventory Unit OR-054-042

FSB1B.JPG

FSB1C.JPG

Wall Creek Inventory Unit OR-054-042

FSB1D.JPG

FSB1E.JPG

Wall Creek Inventory Unit OR-054-042

HILLCLIMB.jpg

KP19.JPG

Wall Creek Inventory Unit OR-054-042

KP19D.JPG

KQ15.JPG

Wall Creek Inventory Unit OR-054-042

KQ15B.JPG

KQ27.JPG

Wall Creek Inventory Unit OR-054-042

KQ27B.JPG

KQ27C.JPG

Wall Creek Inventory Unit OR-054-042

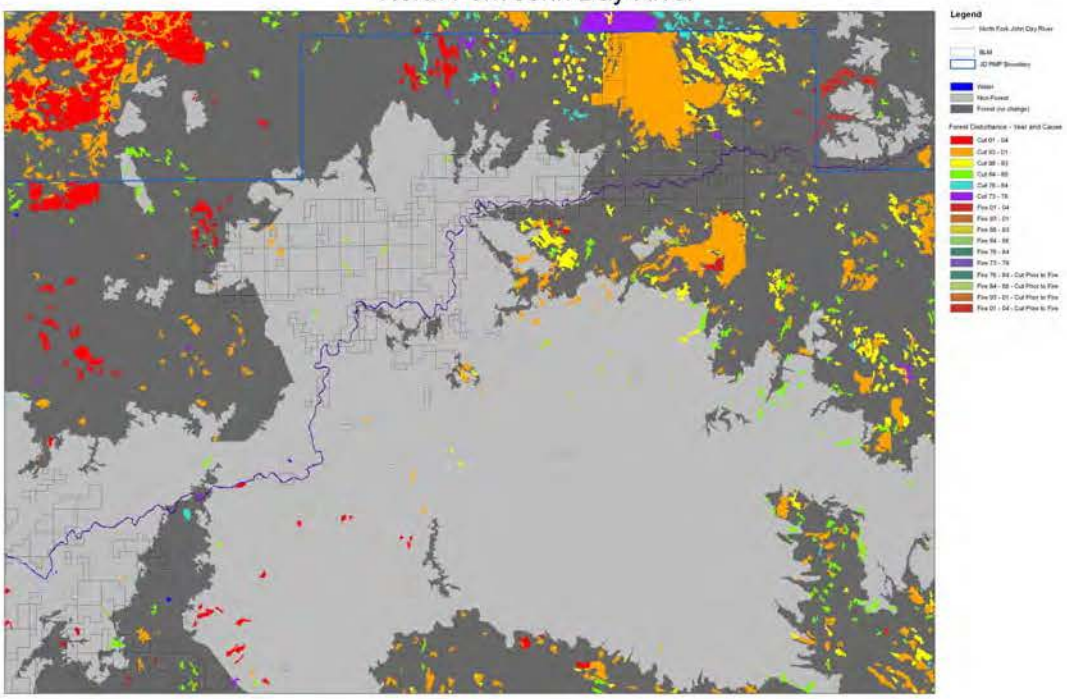
KQ27D.JPG

KQ27E.JPG

Wall Creek Inventory Unit OR-054-042

Harvest 1973 - 2004

North Fork John Day River



NorthForkHarvest.jpg

OLDCULVERT.JPG

Wall Creek Inventory Unit OR-054-042

P1.JPG

P10.JPG

Wall Creek Inventory Unit OR-054-042

P10B.JPG

P10C.JPG

Wall Creek Inventory Unit OR-054-042

P10D.JPG

P10E.JPG

Wall Creek Inventory Unit OR-054-042

P11.JPG

P11B.JPG

Wall Creek Inventory Unit OR-054-042

P12.JPG

P12B.JPG

Wall Creek Inventory Unit OR-054-042

P12C.JPG

P12D.JPG

Wall Creek Inventory Unit OR-054-042

P12E.JPG

P13.JPG

Wall Creek Inventory Unit OR-054-042

P13B.JPG

P13C.JPG

P13D.JPG

P14.JPG

Wall Creek Inventory Unit OR-054-042

P14B.JPG

P14C.JPG

Wall Creek Inventory Unit OR-054-042

P14D.JPG

P14E.JPG

Wall Creek Inventory Unit OR-054-042

P14F.JPG

P14G.JPG

Wall Creek Inventory Unit OR-054-042

P14H.JPG

P14I.JPG

Wall Creek Inventory Unit OR-054-042

P15.JPG

P15B.JPG

Wall Creek Inventory Unit OR-054-042

P16.JPG

P16B.JPG

Wall Creek Inventory Unit OR-054-042

P16C.JPG

P17.JPG

Wall Creek Inventory Unit OR-054-042

P17B.JPG

P17C.JPG

Wall Creek Inventory Unit OR-054-042

P17D.JPG

P18.JPG

Wall Creek Inventory Unit OR-054-042

P18B.JPG

P18C.JPG

Wall Creek Inventory Unit OR-054-042

P18D.JPG

P18E.JPG

Wall Creek Inventory Unit OR-054-042

P18F.JPG

P19B.JPG

Wall Creek Inventory Unit OR-054-042

P19C.JPG

P19D.JPG

Wall Creek Inventory Unit OR-054-042

P19F.JPG

P2.JPG

Wall Creek Inventory Unit OR-054-042

P20.JPG

P20B.JPG

Wall Creek Inventory Unit OR-054-042

P21.JPG

P21B.JPG

Wall Creek Inventory Unit OR-054-042

P21C.JPG

P21D.JPG

Wall Creek Inventory Unit OR-054-042

P21E.JPG

P21F.JPG

Wall Creek Inventory Unit OR-054-042

P21G.JPG

P21H.JPG

Wall Creek Inventory Unit OR-054-042

P21I.JPG

P21J.JPG

Wall Creek Inventory Unit OR-054-042

P21K.JPG

P21L.JPG

Wall Creek Inventory Unit OR-054-042

P21M.JPG

P21N.JPG

Wall Creek Inventory Unit OR-054-042

P21O.JPG

P21P.JPG

Wall Creek Inventory Unit OR-054-042

P21Q.JPG

P21R.JPG

Wall Creek Inventory Unit OR-054-042

P23.JPG

P23B.JPG

Wall Creek Inventory Unit OR-054-042

P23C.JPG

P23D.JPG

Wall Creek Inventory Unit OR-054-042

P23E.JPG

P23F.JPG

Wall Creek Inventory Unit OR-054-042

P24.JPG

P24B.JPG

Wall Creek Inventory Unit OR-054-042

P24C.JPG

P24D.JPG

Wall Creek Inventory Unit OR-054-042

P25.JPG

P25B.JPG

Wall Creek Inventory Unit OR-054-042

P26.JPG

P26B.JPG

Wall Creek Inventory Unit OR-054-042

P27.JPG

P27B.JPG

Wall Creek Inventory Unit OR-054-042

P27C.JPG

P27D.JPG

Wall Creek Inventory Unit OR-054-042

P28.JPG

P28B.JPG

Wall Creek Inventory Unit OR-054-042

P28C.JPG

P28D.JPG

Wall Creek Inventory Unit OR-054-042

P29.JPG

P29B.JPG

Wall Creek Inventory Unit OR-054-042

P29C.JPG

P29D.JPG

Wall Creek Inventory Unit OR-054-042

P29E.JPG

P29F.JPG

Wall Creek Inventory Unit OR-054-042

P30.JPG

P30B.JPG

P31.JPG

P31B.JPG

Wall Creek Inventory Unit OR-054-042

P31C.JPG

P31D.JPG

Wall Creek Inventory Unit OR-054-042

P32.JPG

P32B.JPG

Wall Creek Inventory Unit OR-054-042

P33.JPG

P33B.JPG

Wall Creek Inventory Unit OR-054-042

P33C.JPG

P33D.JPG

P33E.JPG

P33F.JPG

Wall Creek Inventory Unit OR-054-042

P33G.JPG

P34.JPG

Wall Creek Inventory Unit OR-054-042

P34B.JPG

P34C.JPG

Wall Creek Inventory Unit OR-054-042

P34D.JPG

P34E.JPG

Wall Creek Inventory Unit OR-054-042

P34F.JPG

P34G.JPG

Wall Creek Inventory Unit OR-054-042

P34H.JPG

P34I.JPG

Wall Creek Inventory Unit OR-054-042

P34J.JPG

P34K.JPG

Wall Creek Inventory Unit OR-054-042

P35.JPG

P35B.JPG

Wall Creek Inventory Unit OR-054-042

P35C.JPG

P35D.JPG

Wall Creek Inventory Unit OR-054-042

P35E.JPG

P36.JPG

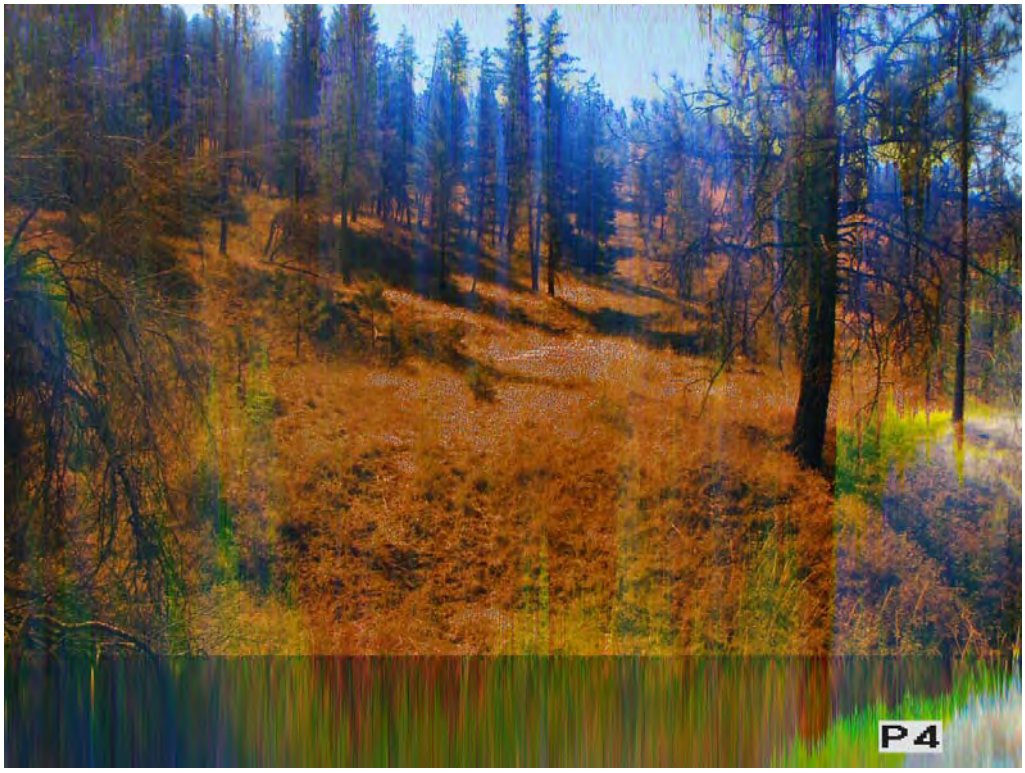
Wall Creek Inventory Unit OR-054-042

P36B.JPG

P36C.JPG

Wall Creek Inventory Unit OR-054-042

P3KM16SW.JPG



P4.JPG

Wall Creek Inventory Unit OR-054-042

P5.JPG

P5B.JPG

P6.JPG

P6STUMPS.JPG

Wall Creek Inventory Unit OR-054-042

P6STUMPSB.JPG

P6STUMPSC.JPG

Wall Creek Inventory Unit OR-054-042

P6STUMPSD.JPG

P6STUMPSE.JPG

Wall Creek Inventory Unit OR-054-042

P6STUMPSF.JPG

P6STUMPSG.JPG

Wall Creek Inventory Unit OR-054-042

P6STUMPSH.JPG

P6STUMPSI.JPG

Wall Creek Inventory Unit OR-054-042

P7.JPG

P8.JPG

Wall Creek Inventory Unit OR-054-042

P8B.JPG

P9.JPG

Wall Creek Inventory Unit OR-054-042

P9B.JPG

P9C.JPG

Wall Creek Inventory Unit OR-054-042

SKRDTRACK3.JPG

SKRDTRACK3B.JPG

Wall Creek Inventory Unit OR-054-042

TREEDOWN.JPG

TREEDOWNB.JPG

Wall Creek Inventory Unit OR-054-042

TREEDOWNC.JPG

TREEDOWND.JPG

Wall Creek Inventory Unit OR-054-042

TREEDOWNE.JPG

WEEDNREHAB.JPG

Wall Creek Inventory Unit OR-054-042

WEEDNREHABB.JPG

WEEDNREHABC.JPG

Wall Creek Inventory Unit OR-054-042

WEEDNREHABD.JPG

Bureau of Land Management-Prineville District

WILDERNESS CHARACTERISTICS INVENTORY

Appendix D -Photo Log

Inventory Area Name: Wall Creek **Inventory Area Unique Identifier: OR-054-042**

Photographer(s) Michael Tripp and Trish Denny

Date	Photo ID	Camera Direction	Description	Latitude (WGS84)	Longitude (WGS84)
9/1/2010	P1000003_tag.jpg	228.0	Looking over Little Wall Creek drainage, logging trails, stumps	44.967871	-119.421616
9/1/2010	P1000004_tag.jpg	228.0	Logging trails, stumps	44.967871	-119.421616
9/1/2010	P1000005_tag.jpg	172.7	Visible logging roads and stumps	44.967732	-119.421591
9/1/2010	P1000006_tag.jpg	172.7	Visible logging roads and stumps, severely dissected slope	44.967732	-119.421591
9/1/2010	P1000007_tag.jpg	292.1	Skid trails, stumps	44.968044	-119.422857
9/1/2010	P1000008_tag.jpg	292.1	Logging trails, stumps	44.968044	-119.422857
9/1/2010	P1000009_tag.jpg	292.1	Logging activity visible	44.968044	-119.422857
9/1/2010	P1000010_tag.jpg	292.1	Logging activity visible	44.968044	-119.422857
9/1/2010	P1000011_tag.jpg	292.1	Logging activity visible, logging roads on slopes	44.968044	-119.422857
9/1/2010	P1000017_tag.jpg		Ranches in distance, slopes dotted with roads	44.968073	-119.423028
9/1/2010	P1000018_tag.jpg		Slopes heavily roaded	44.968073	-119.423028
9/1/2010	P1000019_tag.jpg	4.5	Slopes heavily roaded	44.968243	-119.423009

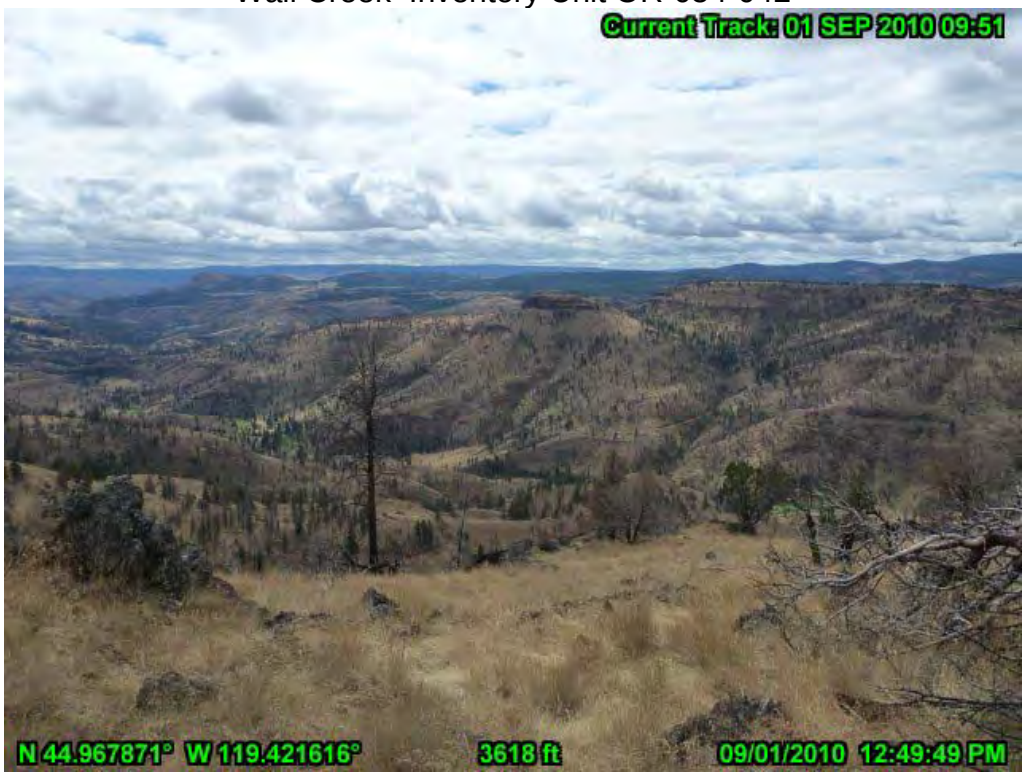
Bureau of Land Management-Prineville District

9/1/2010	P1000024_tag.jpg		Stumps on slopes, logging trails	44.968348	-119.423347
9/1/2010	P1000025_tag.jpg	251.6	Little Wall Creek, burned from past fire	44.968835	-119.43617
9/1/2010	P1000026_tag.jpg	251.6	Little Wall Creek, burned from past fire	44.968835	-119.43617
9/1/2010	P1000027_tag.jpg	251.6	Little Wall Creek, stumps visible	44.968835	-119.43617
9/1/2010	P1000028_tag.jpg	283.4	Stumps very visible and abundant	44.968865	-119.436348
9/1/2010	P1000029_tag.jpg	129.9	Stumps very visible and abundant	44.967825	-119.434722
9/1/2010	P1000030_tag.jpg	138.0	Stumps evident from past logging	44.9677	-119.434563
9/1/2010	P1000031_tag.jpg	130.0	Logging road with fallen timber	44.96758	-119.434361
9/1/2010	P1000032_tag.jpg	187.5	Freshly cut log in road for access	44.965507	-119.438372
9/1/2010	P1000033_tag.jpg	187.5	Stumps very visible and abundant	44.965507	-119.438372
9/1/2010	P1000034_tag.jpg	227.3	Logging road	44.96489	-119.438665
9/1/2010	P1000035_tag.jpg	227.3	Looking at hillside from logging road, stumps	44.96489	-119.438665
9/1/2010	P1000036_tag.jpg	294.4	Logging road and stumps on hillside	44.963908	-119.440497
9/1/2010	P1000037_tag.jpg	294.4	Dead trees, stumps	44.963908	-119.440497
9/1/2010	P1000038_tag.jpg	280.2	Piece of cut log partially burnt	44.966335	-119.442691
9/1/2010	P1000039_tag.jpg	278.1	Burnt trees and stumps	44.966627	-119.443522
9/1/2010	P1000040_tag.jpg	277.8	Rusted blade/part from chainsaw	44.966649	-119.443749
9/1/2010	P1000041_tag.jpg	219.8	Stumps very visible and abundant	44.967257	-119.448167
9/1/2010	P1000042_tag.jpg	219.8	Stumps very visible and abundant	44.967257	-119.448167
9/1/2010	P1000043_tag.jpg	330.2	Logging road and stumps on hillside	44.967378	-119.448891

Bureau of Land Management-Prineville District

9/1/2010	P1000044_tag.jpg	330.2	Logging road and stumps on hillside	44.967378	-119.448891
9/1/2010	P1000045_tag.jpg	330.2	Freshly cut log in road for access	44.967378	-119.448891
9/1/2010	P1000046_tag.jpg	273.5	Blazed bearing tree	44.969132	-119.452105
9/1/2010	P1000047_tag.jpg		Monument boundary marker with PLSS labels	44.969151	-119.452152
9/1/2010	P1000048_tag.jpg		Monument boundary marker with PLSS labels	44.969151	-119.452152
9/1/2010	P1000049_tag.jpg		Logging road, no stumps visible	44.969151	-119.452152
9/1/2010	P1000050_tag.jpg	261.4	Fresh OHV/Vehicle ground disturbance	44.969093	-119.453019
9/1/2010	P1000051_tag.jpg	253.5	Stumps on slopes	44.965289	-119.458259
9/1/2010	P1000052_tag.jpg	253.5	Stumps on slopes	44.965289	-119.458259
9/1/2010	P1000053_tag.jpg	253.2	No stumps, scenic	44.966149	-119.46938
9/1/2010	P1000054_tag.jpg	265.2	Above Little Wall Creek, no stumps, scenic	44.966136	-119.469597
9/1/2010	P1000055_tag.jpg	265.2	Above Little Wall Creek, no stumps, scenic	44.966136	-119.469597
9/1/2010	P1000056_tag.jpg	308.2	Lush grasses	44.968427	-119.48097
9/1/2010	P1000057_tag.jpg	273.2	Scenic views	44.968434	-119.481149
9/1/2010	P1000058_tag.jpg	273.2	Scenic views	44.968434	-119.481149
9/1/2010	P1000059_tag.jpg	273.2	Scenic views	44.968434	-119.481149
9/1/2010	P1000060_tag.jpg	273.2	Scenic views	44.968434	-119.481149
9/1/2010	P1000061_tag.jpg		Forest Service and BLM boundary fence	44.969055	-119.48254
9/1/2010	P1000062_tag.jpg	280.8	No stumps, scenic	44.969079	-119.482718
9/1/2010	P1000063_tag.jpg	280.8	No stumps, scenic	44.969079	-119.482718
9/1/2010	P1000064_tag.jpg	168.8	Little Wall Creek, stumps visible, logging trails on hillside	44.965421	-119.433537
9/1/2010	P1000065_tag.jpg	168.8	Little Wall Creek	44.965421	-119.433537
9/1/2010	P1000066_tag.jpg	168.8	Little Wall Creek, few stumps, burned	44.965421	-119.433537
9/1/2010	P1000067_tag.jpg	59.3	Stumps on hillside	44.964195	-119.418688
9/1/2010	P1000068_tag.jpg	59.3	Stumps on hillside	44.964195	-119.418688

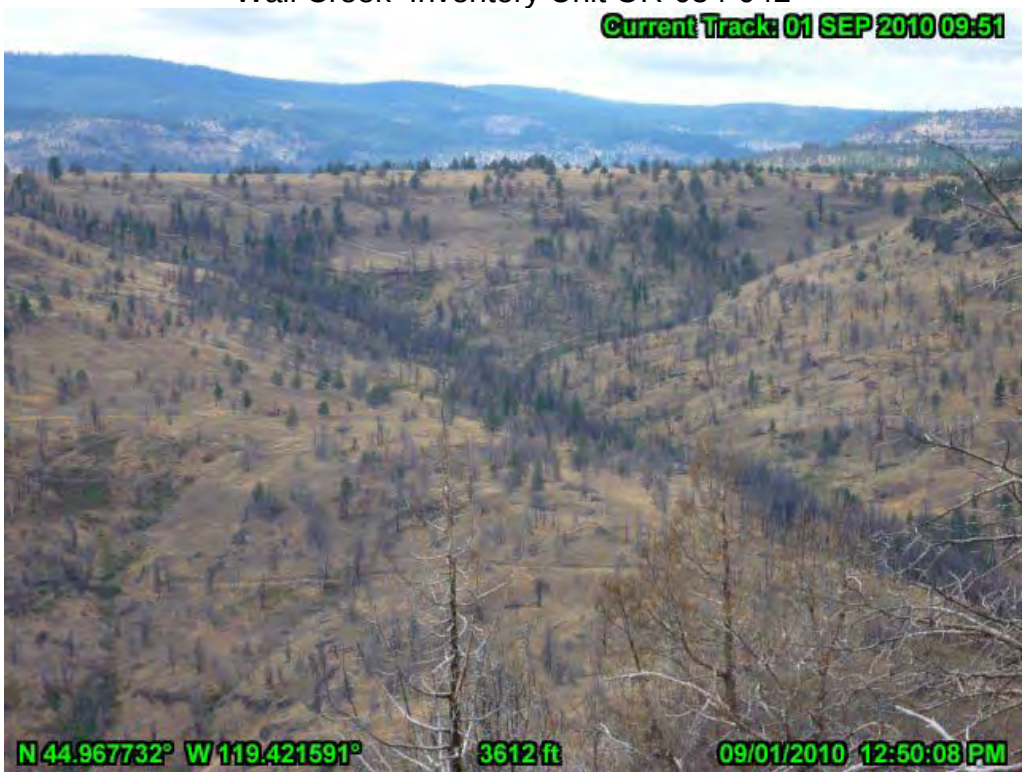
Wall Creek Inventory Unit OR-054-042



P1000003_tag.jpg

P1000004_tag.jpg

Wall Creek Inventory Unit OR-054-042



P1000005_tag.jpg

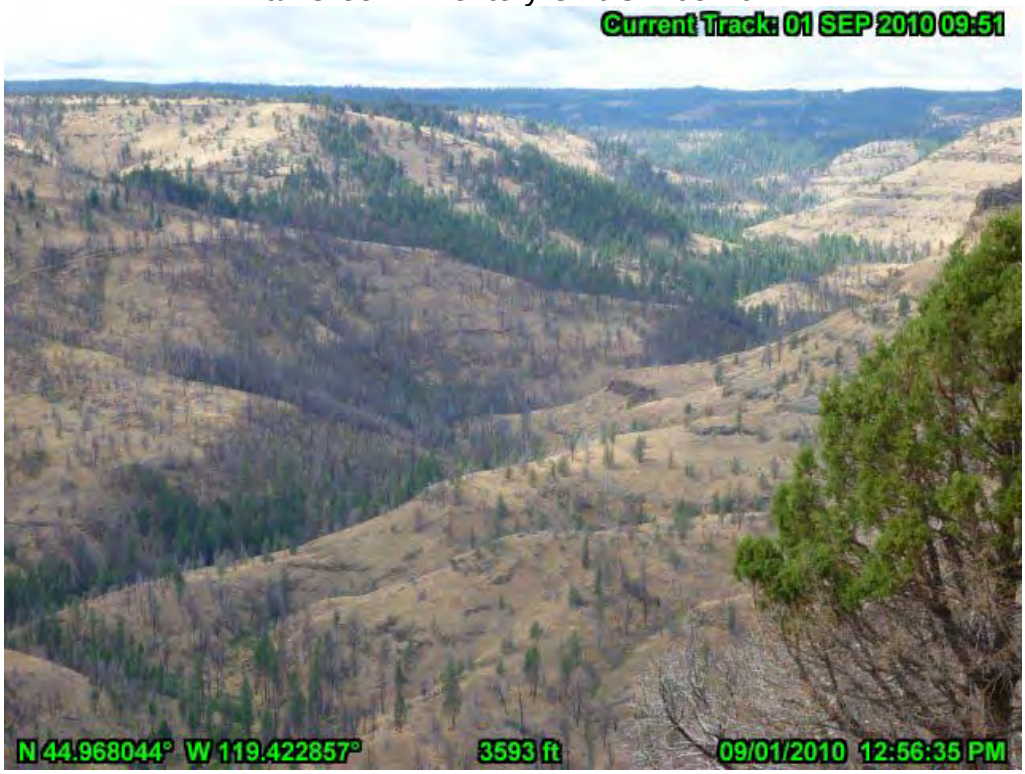
P1000006_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000007_tag.jpg

P1000008_tag.jpg

Wall Creek Inventory Unit OR-054-042

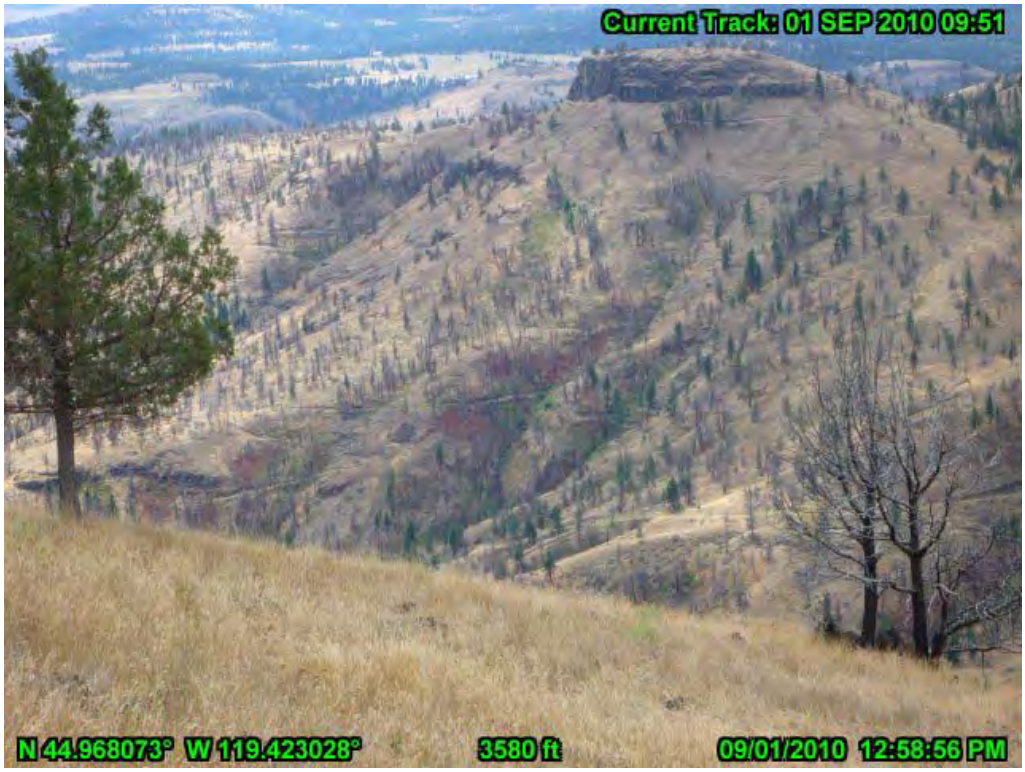


P1000009_tag.jpg

P1000010_tag.jpg

Wall Creek Inventory Unit OR-054-042

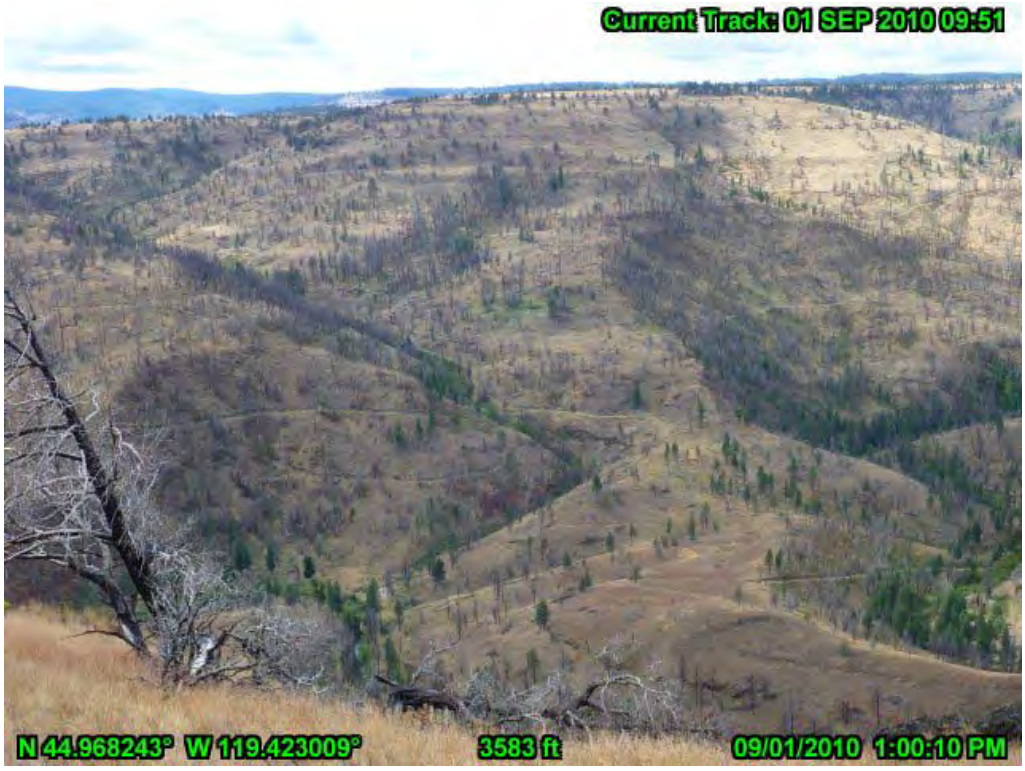
P1000011_tag.jpg



P1000017_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000018_tag.jpg



P1000019_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000024_tag.jpg

P1000025_tag.jpg

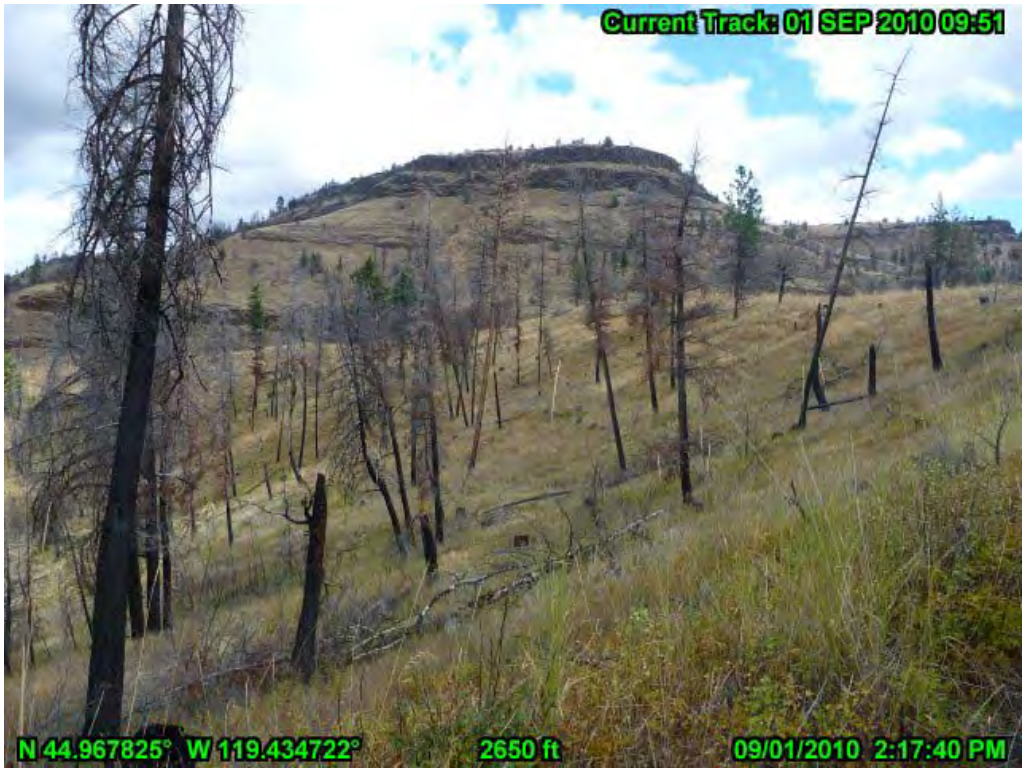
Wall Creek Inventory Unit OR-054-042

P1000026_tag.jpg

P1000027_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000028_tag.jpg



P1000029_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000030_tag.jpg

P1000031_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000032_tag.jpg

P1000033_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000034_tag.jpg

P1000035_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000036_tag.jpg

P1000037_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000038_tag.jpg

P1000039_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000040_tag.jpg

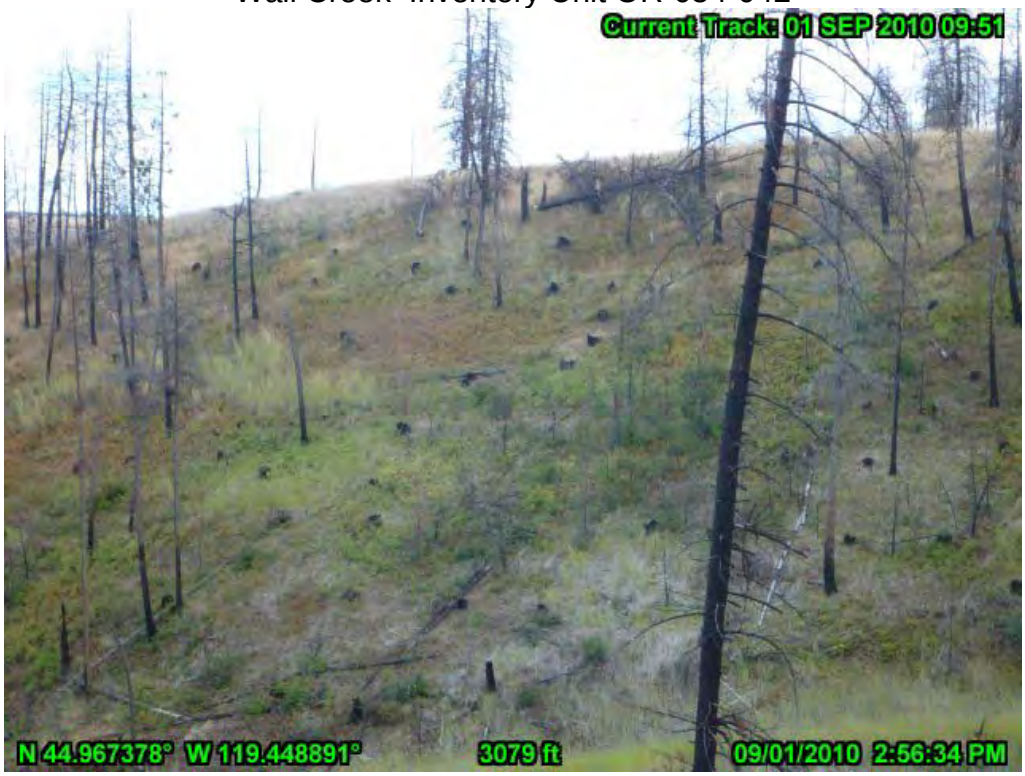
P1000041_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000042_tag.jpg

P1000043_tag.jpg

Wall Creek Inventory Unit OR-054-042



P1000044_tag.jpg

P1000045_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000046_tag.jpg

P1000047_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000048_tag.jpg

P1000049_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000050_tag.jpg

P1000051_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000052_tag.jpg

P1000053_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000054_tag.jpg

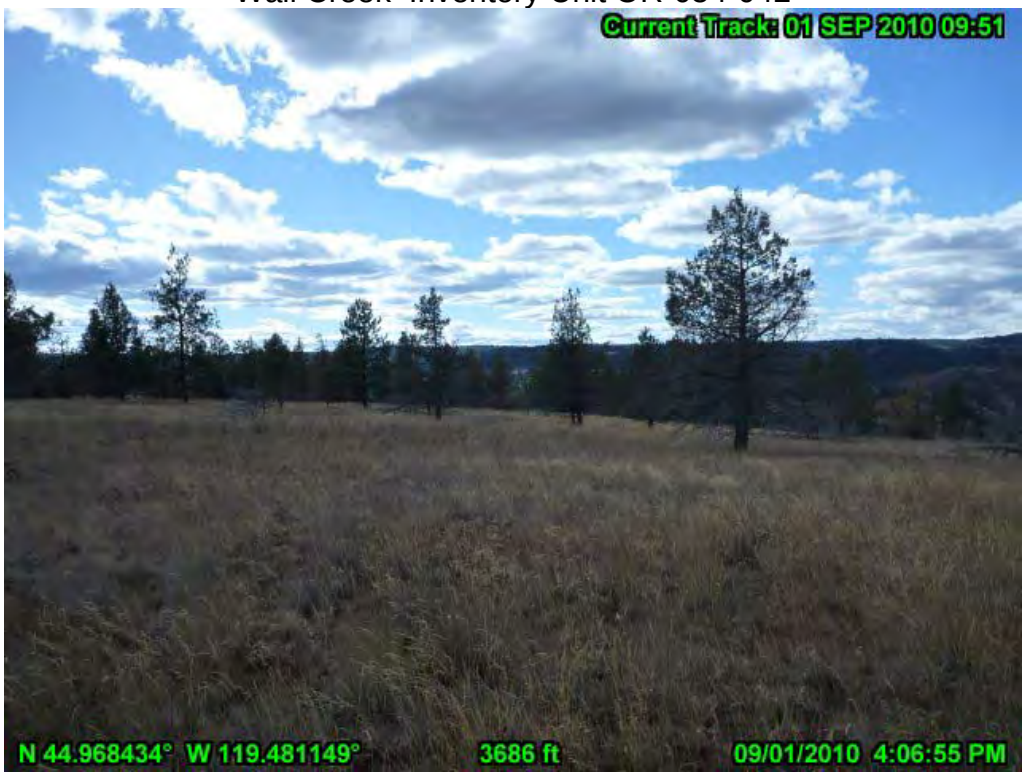
P1000055_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000056_tag.jpg

P1000057_tag.jpg

Wall Creek Inventory Unit OR-054-042

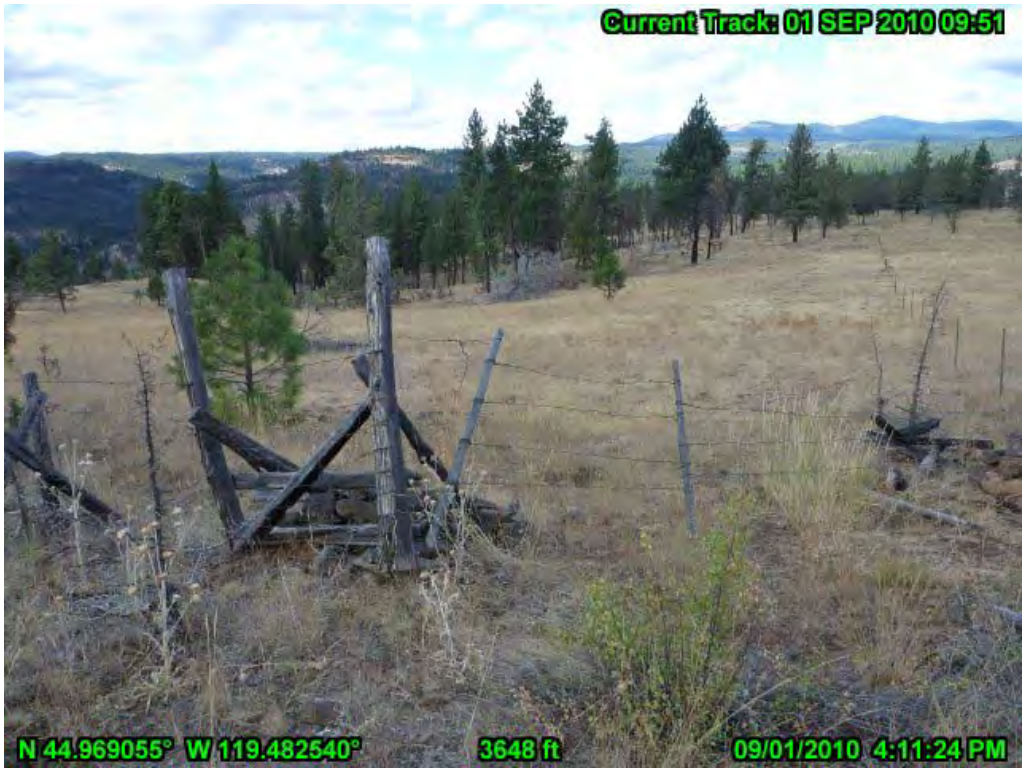


P1000058_tag.jpg

P1000059_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000060_tag.jpg



P1000061_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000062_tag.jpg

P1000063_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000064_tag.jpg

P1000065_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000066_tag.jpg

P1000067_tag.jpg

Wall Creek Inventory Unit OR-054-042

P1000068_tag.jpg

Bureau of Land Management-Prineville District

WILDERNESS CHARACTERISTICS INVENTORY

Appendix D -Photo Log

Inventory Area Name: Wall Creek Unit **Inventory Area Unique Identifier: OR-054-042**

Photographer(s) Mike Williams

Date	Photo ID	Camera Direction	Description	Latitude (WGS84)	Longitude (WGS84)
8/21/2010	01WP3	NW	Overview, with structures.	44.967213	-119.265924
8/21/2010	02WP4	W	Potamus Creek	44.976854	-119.276857
8/21/2010	03WP5	NNE	Disturbed ground	44.97711	-119.278264
8/21/2010	04WP5	W	Lower Potamus	44.97711	-119.278264
8/21/2010	05WP5	NNE	Modified Terrain/4 wheeler tracks	44.97711	-119.278264
8/21/2010	06WP6		Native Plant	44.978883	-119.279785
8/21/2010	07WP7		Native Plant	44.978886	-119.279791
8/21/2010	08WP8	N	Ponderosa Flat just before pvt fence	44.980025	-119.279843
8/21/2010	09WP10	NW	Native Thistle/fence	44.980928	-119.279984
8/21/2010	10WP12		Knapweed	44.98087	-119.280537
8/21/2010	11WP13	SW	Grass in Creek	44.98088	-119.280541
8/21/2010	12WP14	N	Non native in routebed , n of pvt land	44.989383	-119.279643

Bureau of Land Management-Prineville District

8/21/2010	13WP15	E	Old bridge on 500 rd	44.989492	-119.27974
8/21/2010	14WP16	NW	Natural Reprod on routegrade	44.99209	-119.275846
8/21/2010	16WP17	SE	routegrade, cut, stump, reprod	44.992098	-119.277264
8/21/2010	17 btw 17- and 18 elk trail, stump.JPG		Looking NE, stump		
8/21/2010	18 btw 17 wp 18 another stumpp.JPG		stump		
8/21/2010	19 btwn 17 and WP 18 more stumps.JPG		stump		
8/21/2010	20WP18	N	Little Potamus-mid, Potamus--rt	44.994022	-119.275242
8/21/2010	21WP18	N	detail	44.994022	-119.275242
8/21/2010	22WP18	N	Detail to w of previous	44.994022	-119.275242
8/21/2010	23WP18	NNW	Detail w of previous	44.994022	-119.275242
8/21/2010	24WP18	NNW	Detail w of previous	44.994022	-119.275242
8/21/2010	25WP19	E	Ditch	44.991213	-119.277507
8/21/2010	26WP20	SSW	Wheatgrass	44.98965	-119.280464
8/21/2010	27wp21 corner of pvt fencing.JPG	ESE	Fence corner intruding into public lands at least 100 meters (see map)	44.989583	-119.280501
8/21/2010	27WP22Ridge between Mallory and Potamus.JPG		Ridge between mallory and potamus.	44.97439949	-119.2834696
8/21/2010	28WP24 Skid or fire route.JPG		Skid or fire route	44.97737934	-119.2886919

Bureau of Land Management-Prineville District

8/21/2010	29WP25.JPG		Past dozer line	44.98261015	-119.2920812
8/21/2010	30WP26.JPG		Vehicle hill climb	44.98716219	-119.2936292
8/21/2010	31WP27.JPG		stumps	44.98975388	-119.2931363
8/21/2010	32WP28.JPG		stumps that burned partially	44.98978732	-119.2932975
8/21/2010	33WP28.JPG		stumps visible due to lack of other veg.	44.98978732	-119.2932975
8/21/2010	33WP29.JPG		Hillside	44.99303481	-119.2935295
8/21/2010	34WP30.JPG		old logging route in draingage	45.00244911	-119.3040282
8/21/2010	35WP31.JPG		Panarama	45.0030827	-119.3075149
8/21/2010	36WP31.JPG		Panarama	45.0030827	-119.3075149
8/21/2010	37WP31.JPG		Seasonal gate.	45.0030827	-119.3075149
8/21/2010	38WP31.JPG		Area picture from the gate.	45.0030827	-119.3075149
8/21/2010	39WP32.JPG		User made route	45.00252957	-119.3076262
8/21/2010	40WP33 Native Grass.JPG		grass	45.00392181	-119.3121326
8/21/2010	41WP33.JPG		Public land sign and fence.	45.00392181	-119.3121326
8/21/2010	42WP33.JPG		Old fence	45.00392181	-119.3121326
8/21/2010	43WP33.JPG		Off route vehicle use	45.00392181	-119.3121326
8/22/2010	WP 34Trailer Gilman Flat for LE.jpg		Hunting trailer, with an atv	44.98118766	-119.4035554
8/22/2010	WP 35 Window Rock Rim of Skookum.jpg		Overview of Skookum area from the rim	44.98177456	-119.4086417
8/22/2010	WP 35 NW from Rim.jpg		View NW from rim	44.98177456	-119.4086417
8/22/2010	WP 35 S from Rim.jpg		View south from rim	44.98177456	-119.4086417
8/22/2010	WP 35 SW from Rim.jpg		View SW from rim	44.98177456	-119.4086417
8/22/2010	WP 35 SW-Fire Killed trees.jpg		View to SW - fire killed trees	44.98177456	-119.4086417

Wall Creek Inventory Unit OR-054-042

01wp3-Overview of Potamus.JPG

02WP4 Potamus Creek from Bridge.JPG

Wall Creek Inventory Unit OR-054-042

03wp5 modified terrain.JPG

04WP5 w across Potamus.JPG

Wall Creek Inventory Unit OR-054-042

05wp5-Modified terrain 4 wheeler tracKss.JPG

06WP6 Native Grass (photo not recorded at this location) due to camera error.JPG

Wall Creek Inventory Unit OR-054-042

07WP7 Native440.JPG

08WP8 Pondo Flat before pvt land 443.JPG

Wall Creek Inventory Unit OR-054-042

09WP10 native thistle449.JPG

10wp12 Knapweed 454.JPG

Wall Creek Inventory Unit OR-054-042

11WP13 Grass in Creek.JPG

12WP14 roadbed just beyond pvt fencing.JPG

Wall Creek Inventory Unit OR-054-042

13wp15 Old bridge.JPG

14WP16 Natural Reprod on Roadgrade.JPG

Wall Creek Inventory Unit OR-054-042

15Scattered stumps below road grade between wp 16 and 17.JPG

16wp17 roadgrade, cut, stump, reprod.JPG

Wall Creek Inventory Unit OR-054-042

20wp18 -Little Potomas mid Potamus rt.JPG

21wp18 detail41.JPG

Wall Creek Inventory Unit OR-054-042

22wp18detail slightly w 641.JPG

23wp18 detail further w 641.JPG

Wall Creek Inventory Unit OR-054-042

24wp18 furthest w642.JPG

25wp19 ditch.JPG

Wall Creek Inventory Unit OR-054-042

26WP20 Wheatgrass.JPG

27wp21 corner of pvt fencing.JPG

27WP22Ridge between Mallory and Potamus.JPG

28WP23 Great Horned Owl.JPG

Wall Creek Inventory Unit OR-054-042

28WP24 Skid or fire road.JPG

29WP25.JPG

Wall Creek Inventory Unit OR-054-042

30WP26.JPG

31WP27.JPG

Wall Creek Inventory Unit OR-054-042

32WP28.JPG

33WP28.JPG

Wall Creek Inventory Unit OR-054-042

33WP29.JPG

34WP30.JPG

Wall Creek Inventory Unit OR-054-042

35WP31.JPG

36WP31.JPG

Wall Creek Inventory Unit OR-054-042

37WP31.JPG

38WP31.JPG

Wall Creek Inventory Unit OR-054-042

39WP32.JPG

40WP33 Native Grass.JPG

Wall Creek Inventory Unit OR-054-042

41WP33.JPG

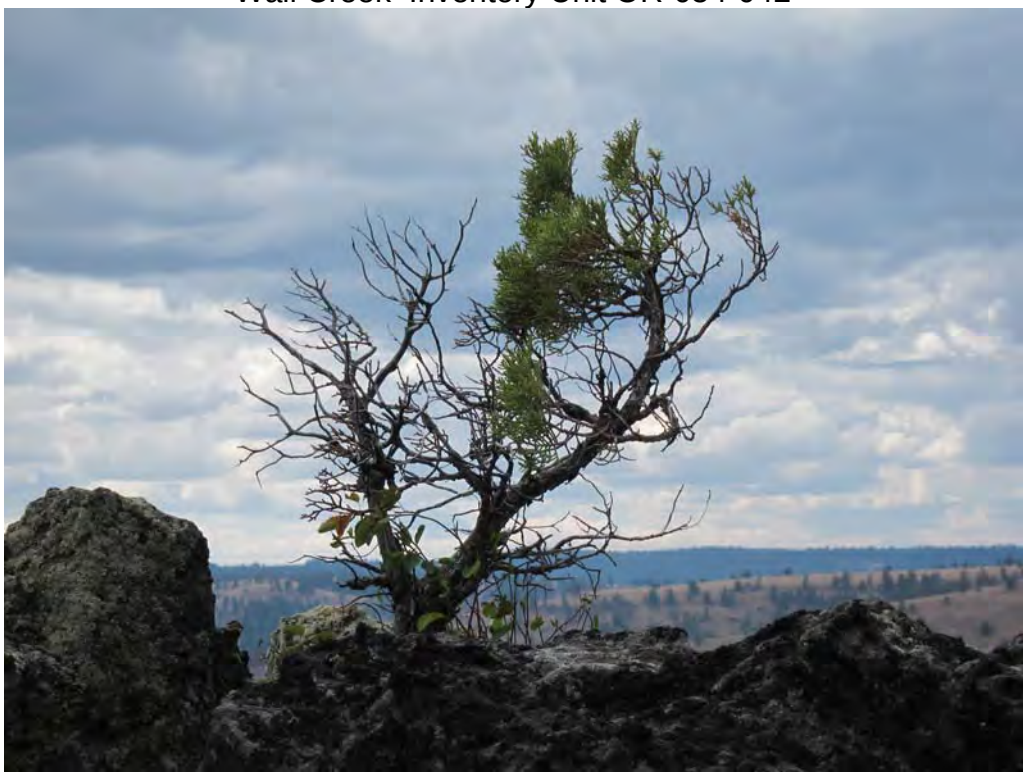
42WP33.JPG

Wall Creek Inventory Unit OR-054-042

43WP33.JPG

WP 34Trailer Gilman Flat for LE.JPG

Wall Creek Inventory Unit OR-054-042



WP 35 Bonsai rim ofSkookum.JPG

WP 35 NW from Rim.JPG

Wall Creek Inventory Unit OR-054-042

WP 35 S from Rim.JPG

WP 35 SW from Rim.JPG

Wall Creek Inventory Unit OR-054-042

WP 35 SW-Fire Killed trees.JPG

WP35 Window Rock Rim of Skookum.JPG

WILDERNESS CHARACTERISTICS INVENTORY

APPENDIX F
SUPPORTING DOCUMENTATION

- Supplemental Unit descriptions, support data and field notes, August -September 2010
- Letter from BLM to landowner granting short-term road access across Gilman Flat
- Realty, master title plats and rights-of-way references, mineral program information and spatial sources of information
- Wall Creek Geomorphic Road Analysis and Inventory Package (GRAIP) Report
- Addendum Signature Page

Wall Creek Wilderness Characteristics Inventory Unit (OR-054-042)

Additional support data for inventory determinations

Based on questions from Aaron Kilgore of ONDA about the naturalness issue in the Wall Creek unit Monte Kuk helped wilderness specialist Heidi Mottl pull together additional data to substantiate the input provided by the specialists on the team that made the original naturalness determination. Since the original inventory the direction regarding surrounding lands had also changed so a closer review of those lands adjacent to the Forest Service roadless areas was warranted.

Data obtained included:

Type of Data	Description of data	Summary of findings as they relate to WC
GRAIP (Geomorphic Road Analysis and Inventory Package) See Appendix F	The BLM and Forest Service paid to have a GRAIP inventory done of all linear features in the North Fork. This data was used to establish the origin of the road and noted structures within the road.	This data set resulted from extensive field review of routes for hydrological purposes. Data is substantiated by GPS locations, photographs, and GIS data sets. This is data source provides documented evidence that the roads were constructed and in some cases maintained.
Harvest pile locations	This data is evidence of human activities and appear unnatural. They also allow one to infer that there was logging activities in the surrounding vicinity.	The number of routes in an area is justification for not meeting the naturalness criteria. Each of these piles while appearing unnatural themselves also have roads going to them. In whole the prevalence of these pile substantiates the lack of naturalness in these areas.
Sub Unit review	I asked GIS to break the Wall Creek Unit into smaller sections based on the known roads to see if any of them met the minimum 5,000 ac. criteria and thus could be looked at on their own merits.	There were no smaller areas within the unit that met the 5,000 acre minimum on their own when the identified roads were used as boundaries within the Wall Creek Unit.
Field review of naturalness September 2010	Since there is not a road along the border of the BLM and Forest Service lands where the Forest Service lands are in a roadless condition and were identified as potential wilderness field review of conditions on BLM lands were conducted (see attached notes by Mike Williams, Mike Tripp, and Monte Kuk).	Field review noted unnatural conditions due to extensive road scarring and numerous stumps all along the boundary with the Forest Service in T7S,R27E,Sec(s) 13, 14, & 15 and T7S,R28E,Sec 18. Two separate field reviews in T7S,R28E,Sec. 7 and 8 (newly created Unit D – See map 6) noted natural conditions north of a road up to the Forest Service roadless area. Two separate field reviews occurred in T6S,R28E,Sec. 36 and T6S,R29E,Sec. 31. (Unit E) while many unnatural features were noted it was determined that the area sufficiently met the naturalness criteria to contain wilderness characteristics north of identified roads up to the Forest Service roadless area.
Wild Fires in the area over the last 10 years	Two large wild fires burned portions of the Wall Creek Unit since the logging was completed. These burn unit boundaries were reviewed to assess the potential for a change in naturalness of past timber harvest activities.	Burn intensities varied greatly throughout the fires; however, in general these were light to moderate severity burns. Field data and the subunit review indicated that substantially noticeable stumps still exist within the burns and the majority of the inventory unit is still unnatural and doesn't meet the minimum size criteria anyway.

Scott Cooke interview (12/9/2010)	Visited with Scott Cooke a former wildlife biologist on the District and one of the people that helped make the initial road and naturalness determinations. Scott provided historic information about road use and maintenance as well as the history of cooperation with ODFW and OSP. Scott was responsible for several large projects in the area: installing gates, post fire seeding efforts, and fence reconstruction.	Scott confirmed the use levels on roads and provided additional information regarding maintenance of the roads by hunters, OSP wildlife officers, ODFW, and BLM employees using chainsaws to clear roads. When I explained to Scott what was found in the Potamus drainage (Unit E) he indicated that he thought this was the only area out that that in his mind fit for wilderness characteristics.

Results of the review of this additional information:
Additional information in all but two locations provided further evidence that substantiated the original findings that Units A and B do not possess wilderness characteristics.

Two areas not previously considered on their own merits due to size were determined to have wilderness characteristics based on their adjacency to Forest Service lands and a lack of logging activity within the last 30 years. These units are identified as unit D and E in the inventory report.

Notes from Monte Kuk wilderness characteristics inventory data collection (September 2nd and 3rd, 2010) within the Wall Creek Unit.

Unit E -Mallory/Potamus Creeks:
While walking old logging roads in the Mallory and Potamus drainages I stopped at intervals of approximately 500 feet to look around and see if I found the impacts of human activity, including past logging. At every stop I was able to locate one or more stumps and at times several at each location I stopped. Some of these stumps appeared very distinctly cut, others appeared to have weathered and look more natural. I was very unsure of how much unnaturalness would disqualify an area.

Mike Williams had been contracted to review this area previously and was not able to finish. Mike's documentation substantiated what I found, but as you got further up toward the Forest Service boundary the signs of past logging became less and less evident. Mike did not feel this area had wilderness characteristics. Mike was a wilderness ranger for many years and an avid wilderness hiker and camper. Mike had not had sufficient time to review some of the uplands and the areas closer to the Forest Service boundary, so I went out to look at these areas. I agreed with Mike's determination for the small portion of the unit that he looked at; however in looking at the rest of the unit I wasn't sure if as a whole the unit was unnatural. Areas further into the unit had regrown more and the human activity had occurred longer ago thus had more time to blend in from a naturalness stand point. When I got back from the field I wasn't sure exactly what call to make regarding naturalness. I shared the photos I had taken and visited with Heidi Mottl and Jerry Magee about what I found. They too felt that it was a close call on naturalness but that the common observer would not likely notice the stumps since they were older and the vegetation had grown back. We also discussed the extent of the logging which was predominantly in the drainages and didn't appear to be on the upper slopes. The roads in places were still very visible and even drivable (I found recent ATV traffic going up Potamus creek) but other areas were overgrown and difficult to tell there was a road there. Based on the feedback from Heidi and Jerry who have more experience determining the subjective line between natural and unnatural as it relates to wilderness characteristics we decided that the area does possess wilderness characteristics.

Unit D – Skookum Creek/ Gilman Flat:
In the Gilman Flat area I walked out from the existing road and looked over toward the Forest Service roadless area. I did find a historic rock wall that was constructed but saw no additional evidence of roading, buildings, or logging activity. The road that forms the southern boundary had received recent use. I continued following the tracks that were created beyond the point where my map and GPS indicated that the road ended. I did not continue to follow the tracks due to the amount of grass and the risk of fire. I saw no evidence that would cause me to not believe that the area from the road to the Forest Service roadless area had wilderness characteristics. I reviewed the files that Mike Williams created when I got back to the office and he came to the same conclusion.

Remainder of Unit A:
While the primary objective of this additional field work was to review areas adjacent to the Forest Service roadless areas I took the opportunity to look at several other roads and areas west of the Gilman Flat road primarily.

I began by driving the road that accesses Gilman Flat with my pickup. There were numerous side routes and I noted stock watering ponds. I parked the pickup and began traveling on the ATV because it was a quicker way to collect data. I collected GPS'd photo documentation of specific points (see App. D). It was very clear to me that the routes I drove were constructed with mechanical equipment due to the number of hill cuts, drainage dips, etc. There were instances where it appeared the users have driven beyond the constructed limits of the route specifically on the SW flank of Inventory Unit D. There was evidence of past logging along almost every segment of route with forested vegetation.

Road scars on hill sides were visible from the majority of vantage points, and there were numerous side routes that I simply didn't have time to travel down. Due to the relatively open nature of the vegetation in the Four Mile gap area road scaring, fences, and stumps were visible for long distances.

In addition to the logging activity, signs, fences, routes, skid trails, and other human activity seen the area had an appalling amount of non-native grass and weeds. Large expansive flats were dominated by cheat grass and medusa head rye. The majority of drainages had teasel, diffuse knapweed, Scotch and Canada thistle, and other weed species prevalent and in places totally dominating the site.

Anecdotal evidence acquired from local residence of Monument suggests that the operator that logged the lands in the North Fork just prior to BLM acquiring them in the Northeast Oregon Assembled Land Exchange used high impact logging techniques. References were made that a skid road was bladed with a bull dozer to each tree cut. While these routes were not considered roads from an inventory perspective the amount of scaring created on the hillsides was well beyond substantially unnoticeable.

Notes from Mike Williams wilderness characteristics inventory data collection (August 21-22, 2010) within the Wall Creek Unit.

The boundaries of the area observed were bounded on the N by the Umatilla National Forest Boundary, on the west by the Ritter Road, on the S. by the North Fork Road, and on the East by the mostly abandoned 500 Rd.

All areas observed showed substantial evidence of human activity (primarily logging, livestock grazing, and Fire suppression). Evidence included: roadgrades with sidehill cuts, dragtrails, culvert, decaying bridge, widespread stumps, fences, a large ditch and invasive species of vegetation. These were visible on the 500 road network displayed on the map plus spurs not marked on the map. A drag trail or abandoned road was observed heading up Mallory Creek off of the Ritter Road where the road turns away from Mallory Creek. This is displayed as a trail on the 1990 provisional Slickear Mt. USGS map. About 1 mile further up the Ritter Road another drag trail or abandoned road was observed heading due north up the drainage. Due to time limitations exploration of routes directly up creek drainages was not undertaken.

Except for the Ritter Road and perhaps the River road, roads constructed in the area were to facilitate logging. Maps indicate a road continuing up Potamus Creek to beyond the forest boundary and it can be inferred that the road itself and stumps are visible given what was observed with other roads in the area. It is also possible that, given the grade of Little Potamus that a least a drag road was constructed some distance up that creek. Many of the steep slopes above Mallory, Potamus, and little Potamus appear to be free of logging activity. Time precluded actually walking up the creeks any distance beyond what can be clearly seen from the Ritter Road or the route taken up the 500 Road. It must be assumed that any area to which a road or drag trail has reached has been impacted by logging and dragtrail construction and that it is likely that there are more bridges, culverts, disturbed areas and stumps in areas not observed.

This corner of the world is seldom visited except during hunting season even though there is road access to the boundary of the area observed. Even though closed to off road travel the lower reaches of this are occasionally traveled by OHV users. Given the terrain it is possible to travel the ridge between Mallory Creek and Potamus Creek and then drop into Potamus Creek about 1 mile above the Potamus Creek Bridge on the River Road.

The upper reaches of Mallory and Potamus creeks are, except for the remains of decaying roads and associated infrastructure and stumps from past logging, mostly natural and undeveloped and out sight and sound of a more modern world.

This is an example of an area that was relatively lightly logged. No slash piles remain. Stumps are decaying and enough young and middle-aged trees were left that to the untrained eye it may appear to be an area of mostly old trees. Maybe it is a better example of good logging practices than of wilderness.

The lower portion of the area (roughly south of the N end of the Slickear Mt. Quad) shows extensive impacts from human use. South of a line running e. from where the Ritter Road cuts away from Mallory creek , the Mallory creek side of the area provides no expectation of solitude due the presence of the Ritter Road.

500 Road--Provides Access to pvt property. Ritter road—provide access to Umatilla National Forest

Lower ½ mile of 500 road. Access to pvt. Land. All of Ritter Road—Seasonal Access to Forest/easy route for 4X4 recreational use.

NORTH FORK JOHN DAY WILDERNESS CHARACTER

Michael Tripp
GIS/Cartographic Technician
U.S. Department of the Interior
Prineville District Office
3050 Third Street
Prineville, OR 97754

On September 1, 2010, I hiked, in the company of BLM recreation technician Trish Denny, the boundary between BLM and USFS administered lands near the vicinity of Little Wall Creek, T07S-R28E, Sections 07, 18 and T07S-R27E, Sections 11, 12, 13, 14, and 15. We began our hike at 12:33 P.M. Skies were partly cloudy to mostly sunny and the temperature was approximately 85 degrees Fahrenheit. The total length of the hike in and out was 10.5 miles.

The goal of this project was to record/verify wilderness character of BLM lands along the shared boundary with USFS mentioned above. GPS data along with digital photo documentation was collected. GPS coordinates were linked to digital photos in order to visualize photo locations on a map.

Equipment: Trimble Juno SB GPS unit, Garmin Oregon 550 GPS unit, and Panasonic DMC-TS1 Digital Camera.

Refer to digital photos, field notes, and field map for reference. Unit numbers starting at 1, ending at 5, were added to the field map for reference. This map was used in the field to locate and traverse the units.

Unit 1 = 959 acres

- The surrounding area of this unit is heavily roaded on both sloped and level areas. Roads can be clearly seen on hillsides and flats (refer to photos P1000004.JPG and P1000005.JPG).
- OHV use is visible as tire tracks leaving the road to circumvent fallen timber.
- Fresh cut logs on road allowing access to this area indicate OHV utilization.
- Evidence of logging is apparent from the abundance of stumps on both sloped and level areas (refer to photo P1000024.JPG).
- Houses and ranches are visible from upper rim of this unit (refer to photo P1000017.JPG).
- Signs of human activity such as litter and human settlement limit the feeling of solitude.
- Large numbers of roads on surrounding hillsides and flats hinders the sense of solitude.
- Primitive and unconfined recreation are possible within this unit, however, the human impacted landscape limits solitude potential.
- Steep topography of this unit offers a challenge for recreation activities such as hiking, backpacking, and hunting.

Unit 2 = 226 acres

- The surrounding area of this unit is heavily roaded on both sloped and level areas.
- Logging is very visible throughout the unit (refer to photo P1000029.JPG).
- OHV use is evident from fresh tire tracks, beer bottles, and litter.
- Signs of human activity limit the feeling of solitude.
- Solitude seems improbable due to the abundance of roads and likelihood of other recreationalists using the area.
- Primitive and unconfined recreation seems possible within this unit.
- Steep topography of this unit offers a challenge for recreation activities such as hiking, backpacking, and hunting.

Unit 3 = 70 acres

- This unit is heavily roaded and logged (refer to photo P1000031).
- Many stumps can be seen on hillsides and flats (refer to photos P1000032 to P1000037.JPG).
- Signs of human activity limit the feeling of solitude.
- Potential for solitude is low because of logging roads, OHV use, and litter (refer to photo P1000040).
- This unit's steep topography offers a challenge to many types of recreation.

Unit 4 = 485 acres

- Eastern portion of this unit has evidence of logging including roads, cut logs, stumps, and skid trails (refer to photos P1000050 and P1000051).
- Visible OHV tracks on roads (refer to photo P1000049).
- Higher elevations of this unit do not appear to be logged and support mostly Western Juniper.
- This area seems to be used for hunting evidenced by OHV tracks, litter, shotgun shells, bullet casings, and cut logs.
- Open space on the upper flats along with steep topography provides a challenge and opportunity for primitive and unconfined recreation.

Unit 5 = 518 acres

- North facing slopes were logged with visible stumps on hillsides (refer to photo P1000052).
- Upper flats containing Western Juniper do not appear to be logged (refer to photo P1000053 to P1000060).

- The presence of OHV tracks, stumps, litter, and cut logs in limits the potential for solitude in this unit.
- Open space provide ample opportunities for many types of recreation.

Unit I: 959 Acres

9 - 1 - 2010
MTripp

(2) Is the unit in a natural condition?
Yes _____ No __X__ N/A_____

Description:

- Surrounding area is heavily roaded on both slopes and level areas.
- Visible logging can be seen on both slopes and level areas.
- Stumps can be seen at far distances on hillsides
- Evidence of OHV use including fresh tire tracks, tracks leaving road to by-pass fallen timber on road, cut logs that block road
- skid trails are visible leaving logging roads.

(3) Does the unit have outstanding opportunities for solitude?

Yes _____ No __X__ N/A_____

Description:

- Houses and ranches visible from upper elevations of this area
- Signs of human activity limit the feeling of solitude
- Visible human structures from the distance make solitude seem unrealistic
- Large numbers of roads on surrounding hillsides and flats spoils the feeling of solitude because with so many roads it seems a high probability that someone else will be using the area.

Unit 2 - 226 Acres

9 - 1 - 2010
MTripp

(2) Is the unit in a natural condition?
Yes _____ No X N/A_____

Description:

- This unit has areas that are heavily roaded on both slopes and level areas
- logging is very visible on both slopes and level areas
- Evidence of logging abounds, including cut logs, stumps, skid trails
- Off road use can be seen, including tire tracks, cut logs removed from roads
- Litter in form of trash, beer bottles, paper, and plastic

(3) Does the unit have outstanding opportunities for solitude?

Yes _____ No X N/A_____

Description:

- Signs of human activity extremely limit the feeling of solitude
- Solitude seems improbable due to so many roads and the likelyhood of coming across another person.

(4) Does the unit have outstanding opportunities for primitive and unconfined recreation?

Yes X No _____ N/A_____

Description:

- Primitive and unconfined recreation opportunities are possible here, but the landscape being heavily roaded limits solitude potential.

- The areas steep topography allows a challenge for recreation activities such as hiking, backpacking, hunting, and bird watching.

(5) Does the unit have supplemental values?

Yes _____ No _____ N/A_____

Description:

Unit 3 - 70 Acres

9-1-2010
M Tripp

(2) Is the unit in a natural condition?
Yes _____ No X N/A_____

Description:

. This unit is heavily roaded and logged evidenced by cut logs, stumps from logging, skid trails, and OHV use with fresh tracks

(3) Does the unit have outstanding opportunities for solitude?

Yes _____ No X N/A_____

Description:

. Signs of human activity extremely limit the feeling of solitude

. Solitude seems hard to find because of high probability of other recreationists using the area.

Unit 4: 485 Acres

9-1-2010
M Tripp

(2) Is the unit in a natural condition?
Yes _____ No X N/A_____

Description:

- Eastern part of Unit 4 has evidence of logging including, logging roads, cut logs, stumps, and skid trails.
- Visible OHV tracks on roads
- Upper, higher level areas of unit 4 do not appear to logged because the higher and drier and only support Juniper
- Western part of Unit 4 is a few of being natural

(3) Does the unit have outstanding opportunities for solitude?

Yes _____ No X N/A_____

Description:

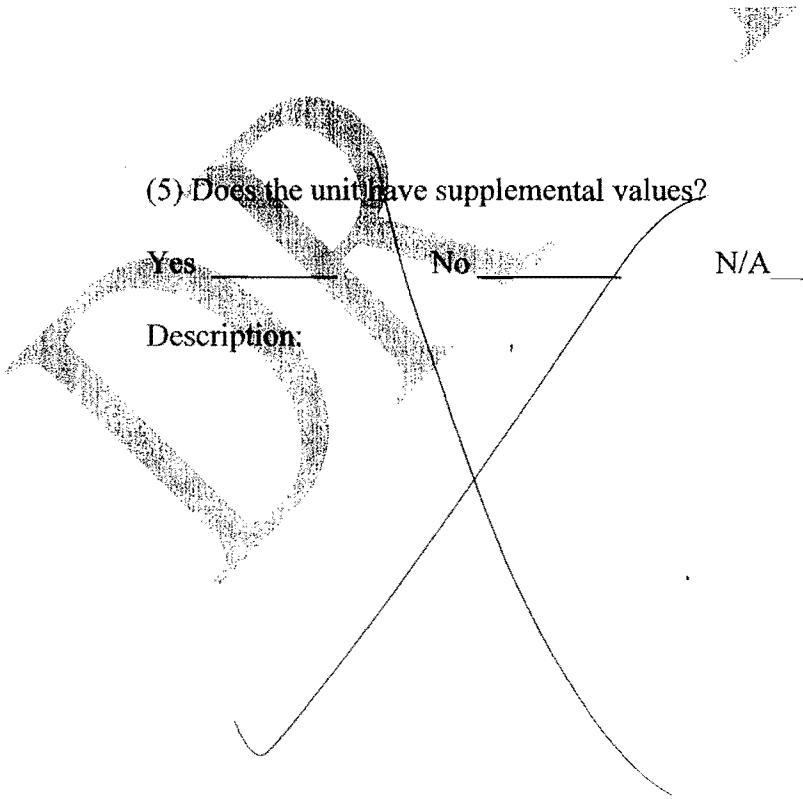
- This area seems to be used for hunting evidenced by OHV tracks, litter, shotgun shells, bullet casings, and cut logs.
- Recent use of roads by OHVs

(4) Does the unit have outstanding opportunities for primitive and unconfined recreation?

Yes X No _____ N/A_____

Description:

- Open space on the upper flats along with steep topography provides a challenge and opportunity for primitive and unconfined recreation



(5) Does the unit have supplemental values?

Yes _____ No _____ N/A_____

Description:

Unit 5 : 518 Acres

9-1-2010
M Tripp

(2) Is the unit in a natural condition?
Yes _____ No X N/A_____

Description:

- Sloped areas that are North facing appear to be logged evidenced by cut logs, stumps, roads, and skid trails
- Upper flats containing Juniper do not appear to be logged.
- Less roads than other Units

(3) Does the unit have outstanding opportunities for solitude?

Yes _____ No X N/A_____

Description:

Solitude seems possible, however, the presence of OHVs, logging, litter, and cut logs in roads limits its potential

(4) Does the unit have outstanding opportunities for primitive and unconfined recreation?

Yes X No _____ N/A_____

Description:

Roads and open space provide ample opportunities for this type of recreation.

(5) Does the unit have supplemental values?

Yes _____ No _____ N/A_____

Description:

Dan - Your Copy

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Prineville District Office
3050 N.E. 3rd Street
Prineville, Oregon 97754

RECEIVED
FEB 17 2005
BLM PRINEVILLE DISTRICT

IN REPLY REFER TO: 2800

FEB 09 2005

AE Huff, LLC
Bill Huff
PO Box 61
Bend, OR 97709

Dear Mr. Huff:

This letter is in response to your request to access your property in Township 7 South, Range 28 East, Section 5, on Gilman Flat. This area is in crucial mule deer and elk winter range and public access is seasonally closed from December 1 through April 15 each year.

The BLM has decided to grant short-term access to the south end of your property based on the following stipulations. This will be an interim authorization until the John Day Resource Management Plan is complete. At such time, an extension of this authorization may be granted. Any violation of these stipulations could result in termination of access through BLM property during the seasonally closed period.

- The only road that shall be used is the main road from the end of the Wall Creek County Road heading North/Northwest along Birch Creek and ending at the property boundary in the SW ¼ of Section 5, the southern boundary your property (see attached map). Travel on *any road or area*, other than the access route shown on the map, by any motorized vehicle (including ATV's and snowmobiles) shall not occur.

- If road conditions are such that travel by vehicle will cause rutting or damage to the existing road, ATV's or snowmobiles must be used for access. If conditions are bad enough that road damage by ATV's will occur, the road shall not be used.

- No harassment of wildlife may occur.

- BLM will be notified before each entry into the closure area with an estimated time of stay disclosed. Please call Scott Cooke 541-416-6727, Ron Lane 541-416-6752, or Dan Tippy 541-416-6729 when notifying the BLM.

- To minimize wildlife disturbance, there shall be no more than two vehicles accessing the property at any one time. Trips will be minimized during the winter range closure period.

- A copy of this letter should be carried in the vehicle while traveling through the closure area.

Any changes or modifications to this agreement shall be written and signed by both yourself and the BLM.

Please Sign, date, and return the original copy of this letter to confirm receipt of letter, map, and understanding of stipulations. Please keep a copy of this letter to carry in your vehicle.

Sincerely,

Acting for
Christina M. Welch
Field Office Manager
Central Oregon Resource Area

I have read and understand the above-mentioned stipulations and have received a copy of the access map that shows which road can be used to access my property.

Bill Huff 2/14/05

Bill Huff Date

REFERENCES

Wall Creek Subunits A, B and C

1. **Realty program**

a. Master Title Plats
T 6 S., R 28 E., 29 E.
T 7 S., R 27 E., 28 E., 29 E.
T 8 S., R 28 E.

b. There is an Executive Order (07/2/1910) establishing a portion of the unit as a potential power site reserve.
c. There are several parcels of public lands proposed for a land exchange present in T. 7 S., R. 27 E., sections 10, 13, 15, 21, 22, 23, 24, 26, 28, and 34. OR 51858, 6/22/2000.
d. There is a utility ROW in T 7 S., R 27 E., Sections 15, 21, and 28 (OR 57533) which provides access to a communications site leased by the local telephone company.
e. There are two ROWs in T. 7 S., R. 27 E., Section 34 (OR 02944 and OR 40270) which form a portion of the southern boundary but which are not within the unit.
f. There is a ROW in T. 8 S., R. 28 E., Sections 4, 5, and 8 and T. 7 S., R 28 E., Sections 33, 34, and 35 (OR 63579) which form a portion of the southern boundary but which are not within the unit.
g. There is a ROW (OR 44605) in T. 7 S., R. 29 E., Sections 5, 6, and 8 which form a portion of the eastern boundary of the unit but which are not within the unit.
h. BLM LR 2000 Record data.

2. **Mineral Program**

A portion of the lands have been leased for potential oil and gas development.
BLM LR 2000 Record

3. **GIS Program**

USGS National Map project
BLM GIS data
BLM Upper John Day River public lands map, June 1991
Umatilla National Forest Map, 2003

The BLM has identified the following man-made features:

There is a utility ROW in T 7 S., R 27 E., Sections 15, 21, and 28 (OR 57533) which provides access to a communications site leased by the local telephone company.

There are two ROWs in T. 7 S., R. 27 E., Section 34 (OR 02944 and OR 40270) which form a portion of the southern boundary but which are not within the unit.

A portion of the lands have been leased for potential oil and gas development.

TOWNSHIP 6 SOUTH RANGE 28 EAST OF THE WILLAMETTE MERIDIAN, OREGON

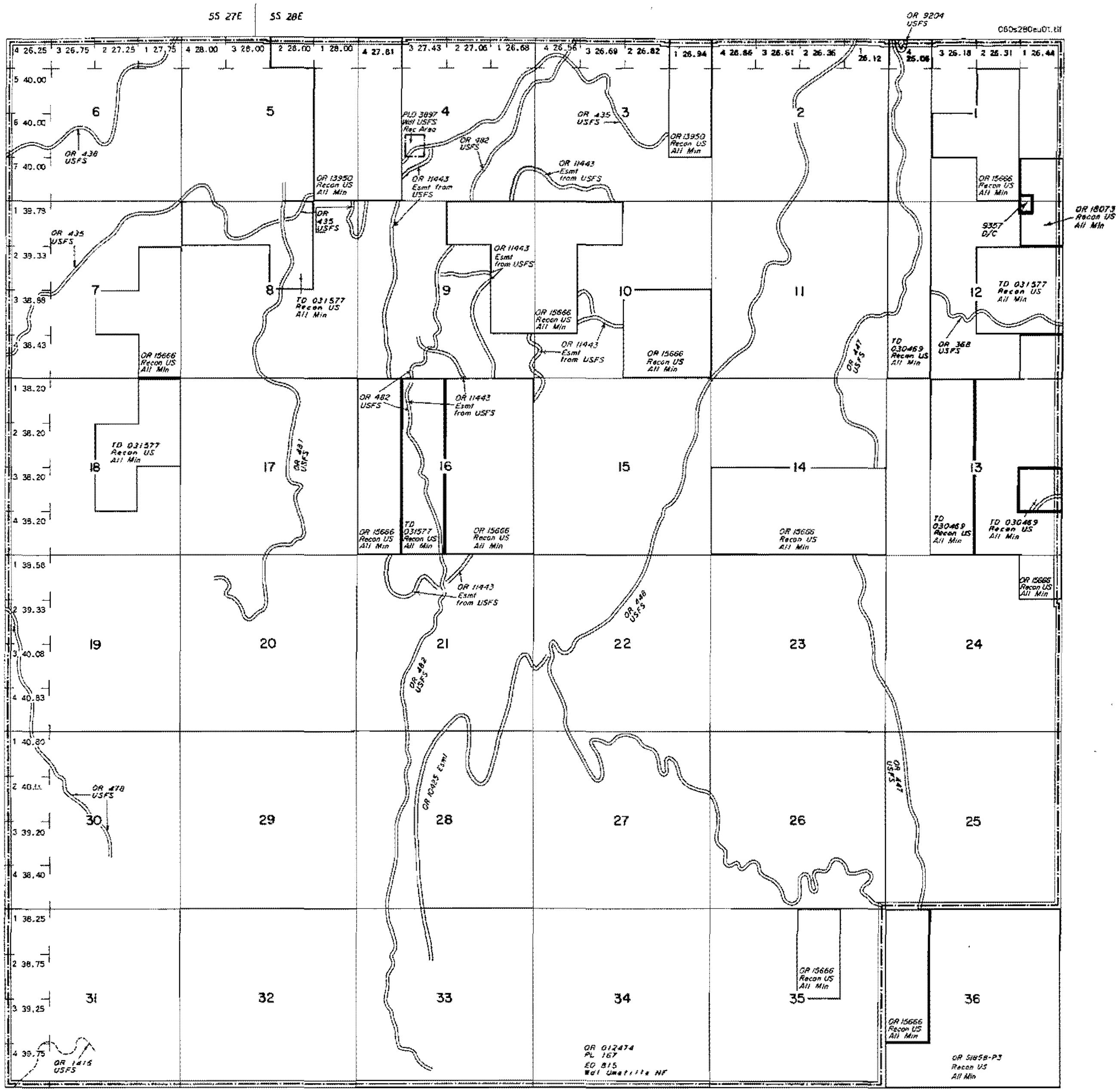
BAKER RA - VALE DISTRICT

MORROW COUNTY

WALL CREEK UNIT

STATUS OF PUBLIC DOMAIN LAND AND MINERAL TITLES

MT/USE PLAT



INDEX TO SEGREGATED TRACTS				
RESURVEY	ORIGINAL SURVEY			
TRACT NO	T	R	SEC	SUBDIVISION

FOR ORDERS AFFECTING DISPOSAL OR USE OF UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION, MINERAL, WATER AND/OR OTHER PUBLIC PURPOSES, REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.

OR 012474 Del PL 167 (Act of Cong 07/23/1955) completed 03/22/1963, all NF surface Mgmt by FS

FILE REF: 060s280eu01.tif	AutoMAP2000/STX RasterCAD 6.0
CONVERT JPEG: 01/11/2000	BY: H. BISCH
LAST UPDATE: 06/14/2006	BY: R LIGONS
POSTED TO PUBLIC RECORDS: 09/01/2006	

SURVEYED TOWNSHIP
SURVEYED COORDINATE SOURCE:
GCDB NAD 83 CURRENT TO: N/A
IMAGE SOURCE: SCANNED ORIGINAL MTP
PROJECTION: N/A
COORDINATE ELEVATION: N/A
SOURCE FOR METES & BOUNDS: N/A

NOTES

USE PLAT: Lsbl Min

T. 6 S.
R. 28 E.

SCALE in Chains
SCALE in Feet

WARNING STATEMENT

This plat is the Bureau's Record of Title, and should be used only as a graphic display of the township survey data. Records search do not reflect title changes which may have been effected by lateral movements of rivers or other bodies of water. Refer to the cadastral surveys for official survey information.

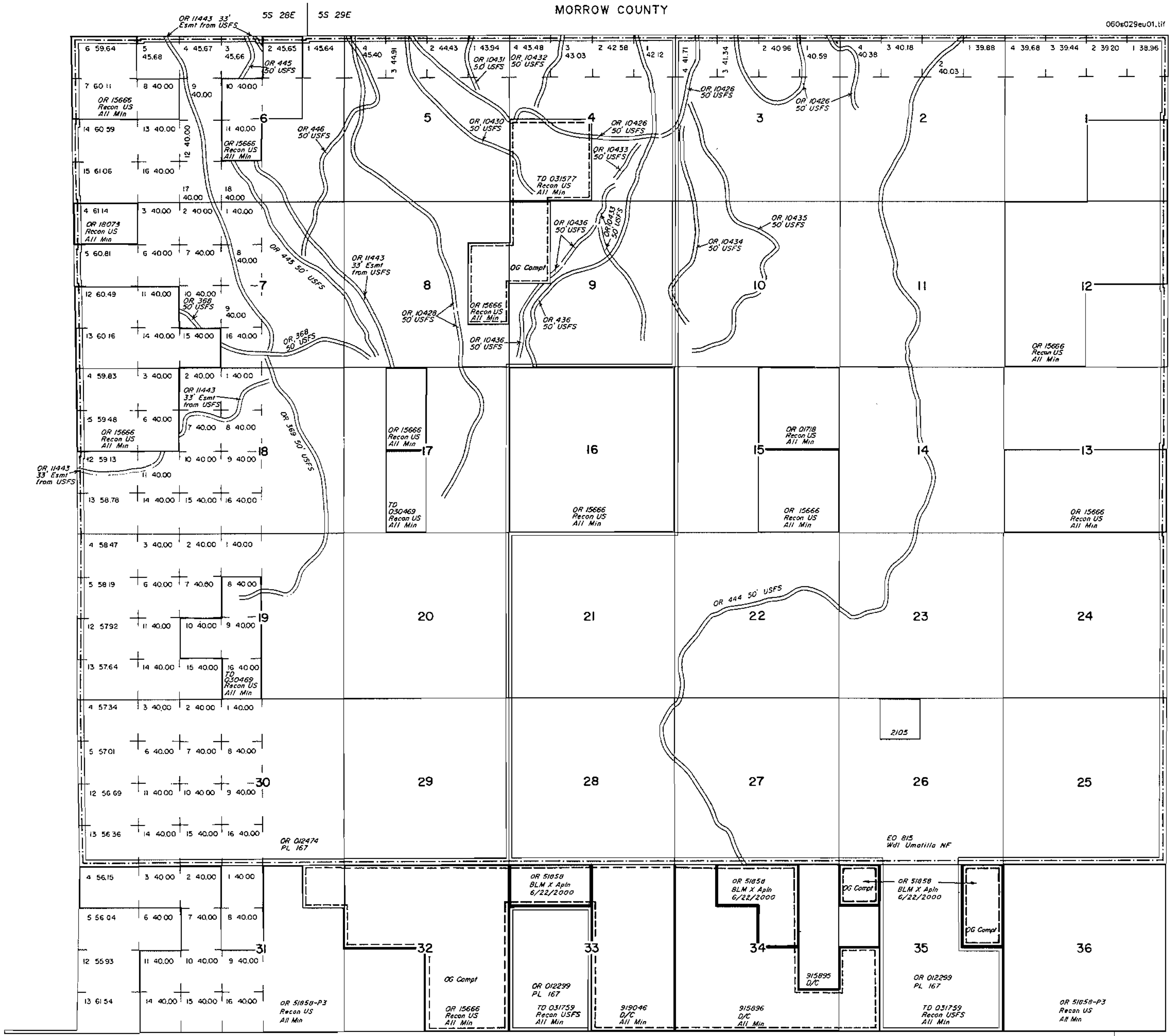
TOWNSHIP 6 SOUTH, RANGE 29 EAST, OF THE WILLAMETTE MERIDIAN, OREGON

VALE-BAKER DISTRICTS

MORROW COUNTY

060s029eu01.tif

Wall Creek & Stoney Creek



SCALE in Chains

SCALE in Feet

WARNING STATEMENT

This plat is the Bureau's Record of Title, and should be used only as a graphic display of the township survey data. Records herein do not reflect title changes which may have been effected by lateral movements of rivers or other bodies of water. Refer to the cadastral surveys for official survey information.

STATUS OF PUBLIC DOMAIN
LAND AND MINERAL TITLES

MT/USE PLAT

INDEX TO SEGREGATED TRACTS

RESURVEY	ORIGINAL SURVEY			
TRACT NO	T	R	SEC	SUBDIVISION

FOR ORDERS AFFECTING DISPOSAL OR USE OF UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION, MINERAL, WATER AND/OR OTHER PUBLIC PURPOSES, REFER TO INDEX OF MISCELLANEOUS DOCUMENTS

OR 012299 Det PL 167 (Act of Cong 7/23/1955) completed 3/14/1963, all NF surface Mgmt by USFS

OR 012474 Det PL 167 (Act of Cong 7/23/1955) completed 3/22/1963, all NF surface Mgmt by USFS

OR 6108 SD O Cl Multi Use
All unappropriated public lands
Sec 31. lots 1,5,6,8,12,13, NE1/4NE1/4
Sec 33. N1/2NW1/4
Sec 34 W1/2NE1/4, NE1/4NW1/4
Sec 35. E1/2NE1/4, NW1/4NW1/4

FILE REF 060s290eu01.tif		AutoMAP2000/GTX RasterCAD 6.0
CONVERT JPEG 04/18/2000		BY H GISCH
LAST UPDATE 11/14/2001		BY O LEAVENWORTH
POSTED TO PUBLIC RECORDS 11/14/2001		
SURVEYED TOWNSHIP		
SURVEYED COORDINATE SOURCE		
GCDB NAD 83 CURRENT TO	N/A	
IMAGE SOURCE	SCANNED ORIGINAL MTP	
PROJECTION	N/A	
COORDINATE ELEVATION	N/A	
SOURCE FOR METES & BOUNDS	N/A	
NOTES		
USE PLAT Lsbl Min		

T 6 S
R 29 E

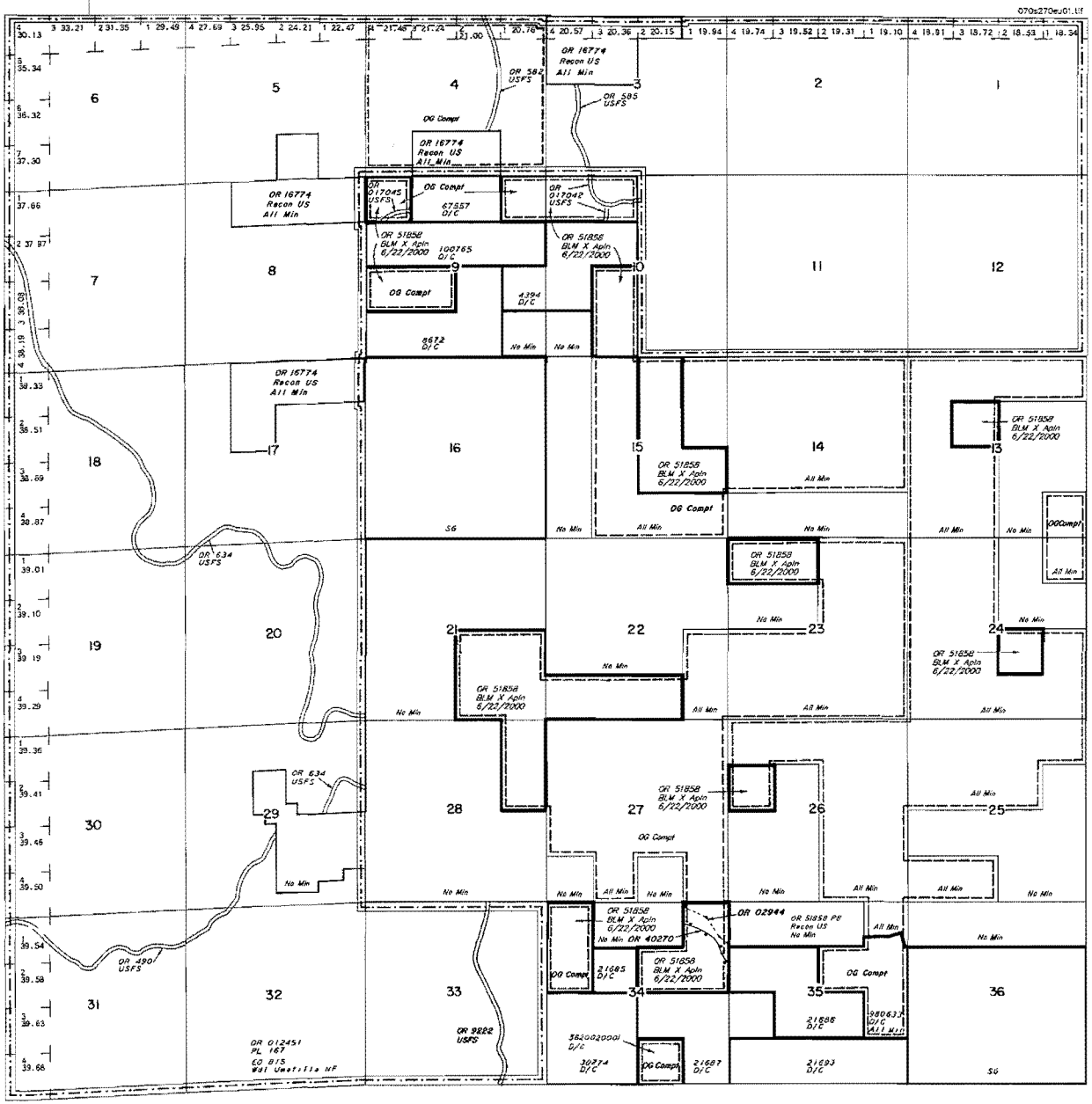
TOWNSHIP 7 SOUTH RANGE 27 EAST OF THE WILLAMETTE MERIDIAN, OREGON

PRINEVILLE DISTRICT

GRANT COUNTY

6S 26E | 6S 27E

070s270eu01.tif



SCALE in Chains

SCALE in Feet

WARNING STATEMENT

This plat is the Bureau's Record of Title, and should be used only as a graphic display of the township survey data. Records hereon do not reflect all title changes which may have been effected by lateral movements of rivers or other bodies of water. Refer to the additional surveys for official survey information.

WALL CREEK UNIT

STATUS OF PUBLIC DOMAIN LAND AND MINERAL TITLES

MT/USE PLAT

INDEX TO SEGREGATED TRACTS				
RESURVEY	ORIGINAL SURVEY			
TRACT NO.	T.	R.	SEC.	SUBDIVISION

FOR ORDERS AFFECTING DISPOSAL OR USE OF UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION, MINERAL, WATER AND/OR OTHER PUBLIC PURPOSES, REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.

OR 012451 Del PL 167 (Act of Cong 7/23/1955) completed 3/13/1963, all surface Mgmt by FS

FILE REF: 070s270eu01.tif	AutoMAP2000/6TX RasterCAD 6.0
CONVERT JPEG: 04/18/2000	BY: H. GISCH
LAST UPDATE: 08/14/2000	BY: R. LIGONS
POSTED TO PUBLIC RECORDS: 09/01/2000	
SURVEYED TOWNSHIP	
SURVEYED COORDINATE SOURCE:	
GCDB NAD 83 CURRENT TO:	N/A
IMAGE SOURCE:	SCANNED ORIGINAL MTP
PROJECTION:	N/A
COORDINATE ELEVATION:	N/A
SOURCE FOR METES & BOUNDS:	N/A
NOTES:	
USE PLAT: Lubl Min	

T. 7 S.
R. 27 E.

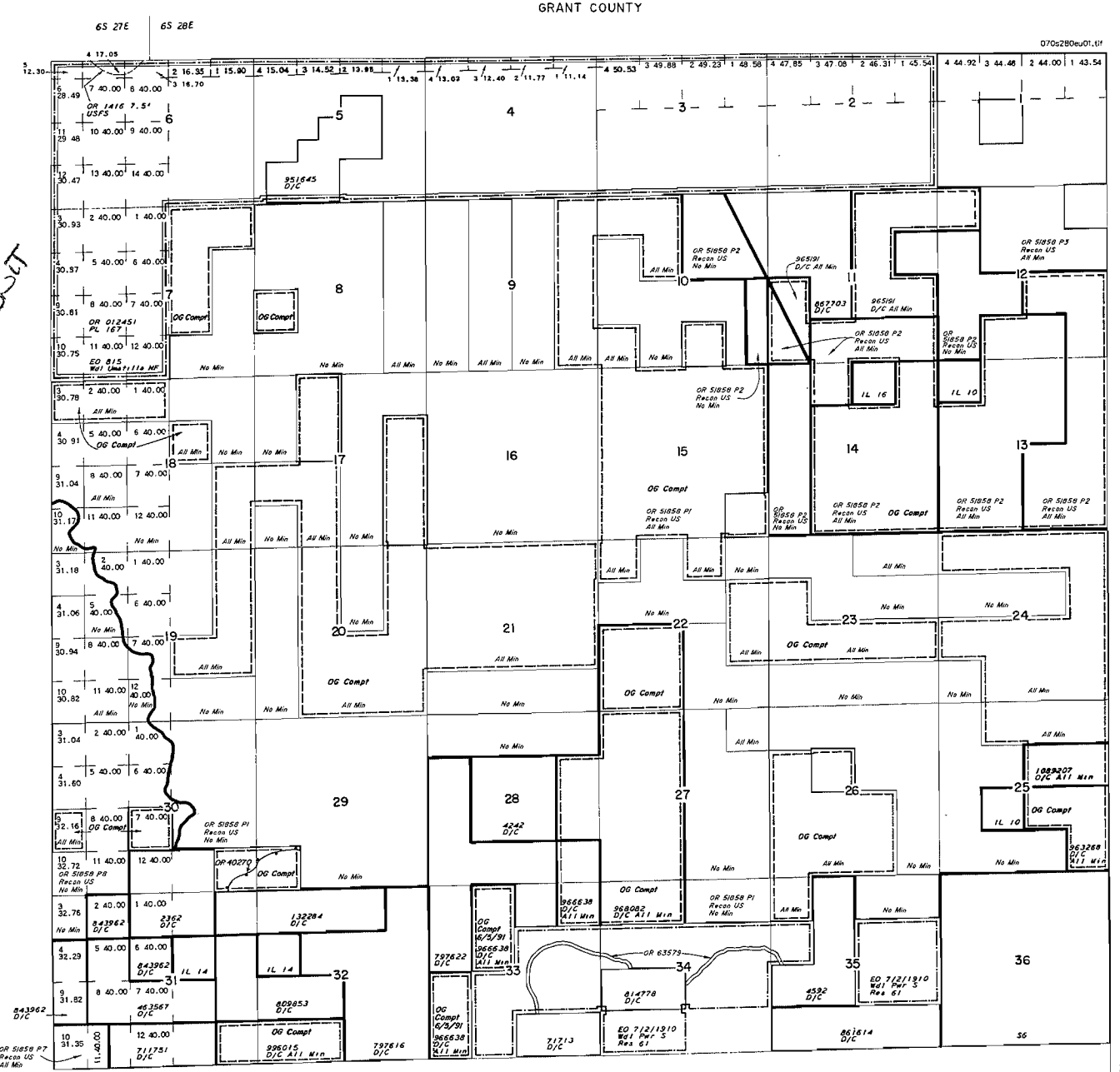
TOWNSHIP 7 SOUTH RANGE 28 EAST OF THE WILLAMETTE MERIDIAN, OREGON

PRINEVILLE DISTRICT

GRANT COUNTY

STATUS OF PUBLIC DOMAIN LAND AND MINERAL TITLES

MT/USE PLAT



INDEX TO SEGREGATED TRACTS

RESURVEY	ORIGINAL SURVEY			
TRACT NO	T	R	SEC	SUBDIVISION

FOR ORDERS AFFECTING DISPOSAL OR USE OF UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION, MINERAL, WATER AND/OR OTHER PUBLIC PURPOSES, REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.

OR 012451 Det PL 167 (Act of Cong 7/23/1955) completed 3/13/1963, all NF surface mgmt by FS

FILE REF: 070s280eu01.tif	AutoMAP2000/GTX RasterCAD 6.0
CONVERT JPEG: 02/27/2001	BY: H. GISCH
LAST UPDATE: 12/19/2006	BY: D. LEAVENWORTH
POSTED TO PUBLIC RECORDS 12/20/2006	
SURVEYED TOWNSHIP	
SURVEYED COORDINATE SOURCE.	
GCDB NAD 83 CURRENT TO.	N/A
IMAGE SOURCE:	SCANNED ORIGINAL, MTP
PROJECTION:	N/A
COORDINATE ELEVATION:	N/A
SOURCE FOR METES & BOUNDS.	N/A
NOTES	
USE PLAT: Lebl Min	

T. 7 S.
R. 28 E.

SCALE in Chains

SCALE in Feet

WARNING STATEMENT

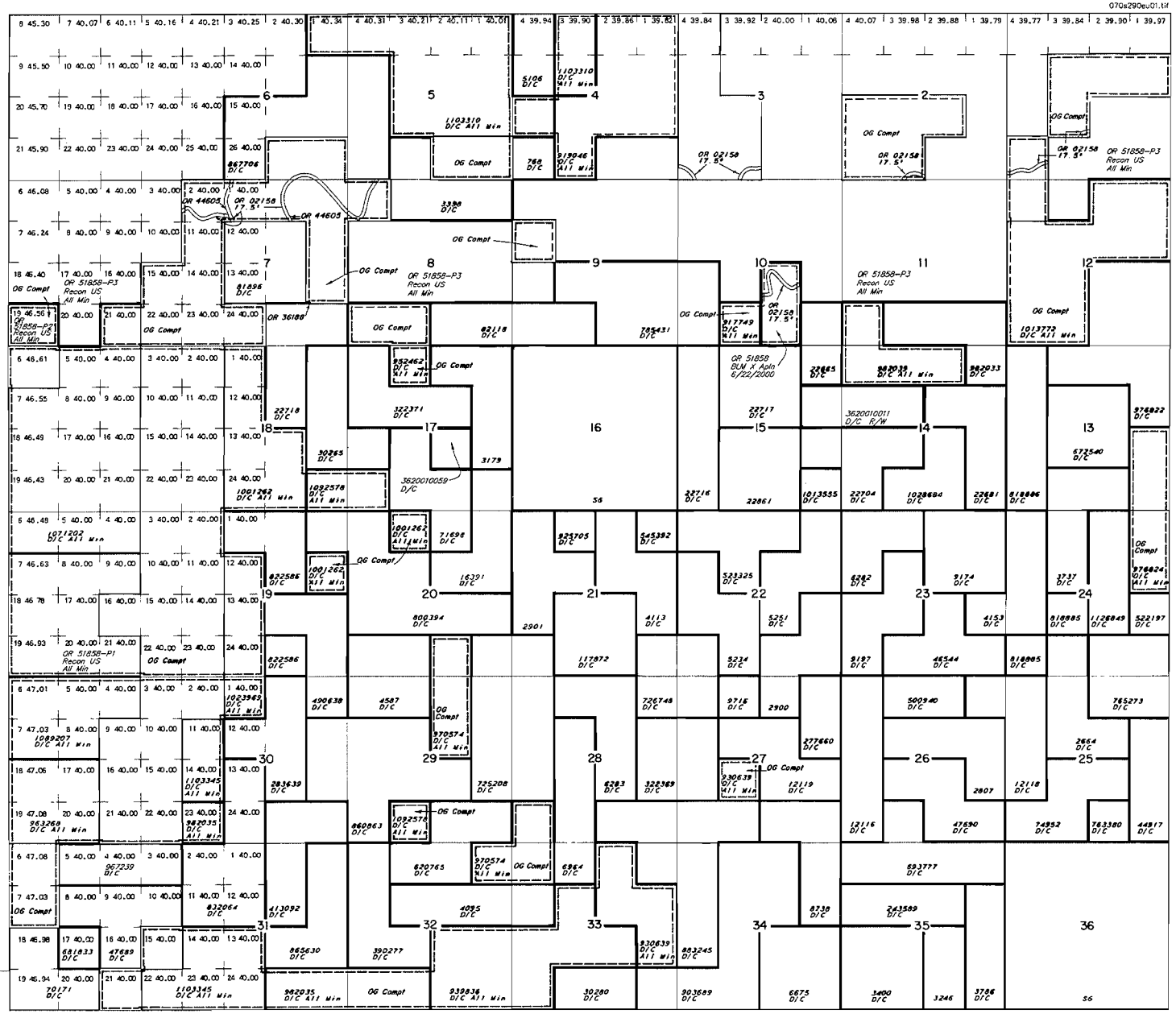
This plat is the Bureau's Record of Title, and should be used only as a graphic display of the township survey data. Records hereon do not reflect title changes which may have been affected by lateral movements of rivers or other bodies of water. Refer to the cadastral surveys for official survey information.

TOWNSHIP 7 SOUTH, RANGE 29 EAST, OF THE WILLAMETTE MERIDIAN, OREGON

PRINEVILLE DISTRICT

GRANT COUNTY

070s290eu01.tif



SCALE in Chains

10 5 0 10 20 30 40 60 80

660 0 660 1320 2640 3960 5280

SCALE in Feet

WARNING STATEMENT

This plat is the Bureau's Record of Title, and should be used only as a graphic display of the township survey data. Records hereon do not reflect title changes which may have been affected by lateral movements of rivers or other bodies of water. Refer to the cadastral surveys for official survey information.

STATUS OF PUBLIC DOMAIN LAND AND MINERAL TITLES

MT/USE PLAT

INDEX TO SEGREGATED TRACTS				
RESURVEY	ORIGINAL SURVEY			
TRACT NO.	T.	R.	SEC.	SUBDIVISION

FOR ORDERS AFFECTING DISPOSAL OR USE OF UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION, MINERAL, WATER AND/OR OTHER PUBLIC PURPOSES, REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.

FILE REF 070s290eu01.tif	AutoMAP2000/GTX RasterCAD 6.0
CONVERT JPEG 04/19/2000	BY H. GISCH
LAST UPDATE 11/15/2001	BY D. LEAVENWORTH
POSTED TO PUBLIC RECORDS 11/15/2001	
SURVEYED TOWNSHIP	
SURVEYED COORDINATE SOURCE	
GCDB NAD 83 CURRENT TO	N/A
IMAGE SOURCE	SCANNED ORIGINAL MTP
PROJECTION	N/A
COORDINATE ELEVATION	N/A
SOURCE FOR METES & BOUNDS	N/A
NOTES	
USE PLAT Last Min	

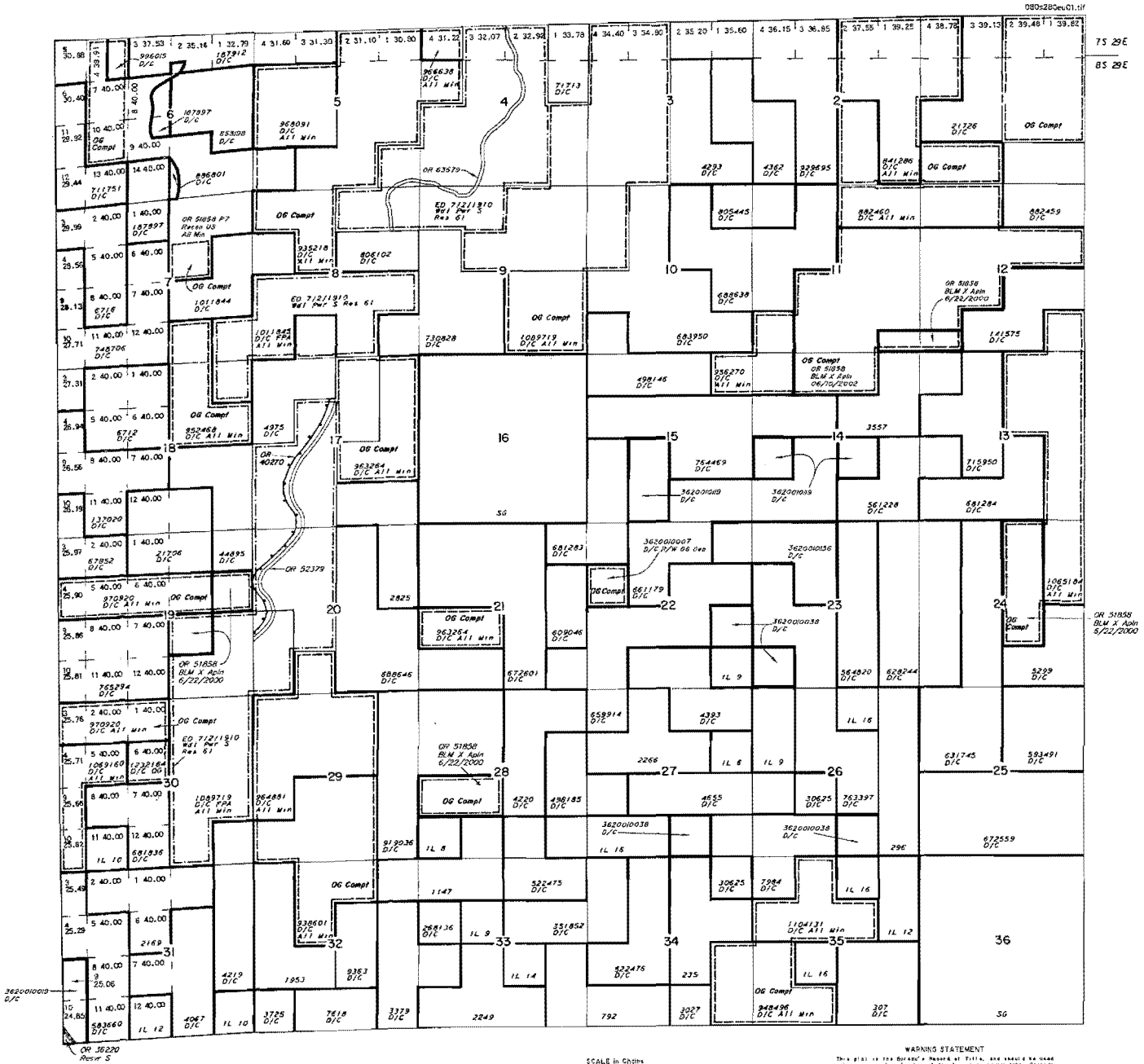
T 7 S
R 29 E

TOWNSHIP 8 SOUTH RANGE 28 EAST OF THE WILLAMETTE MERIDIAN, OREGON

PRINEVILLE DISTRICT

GRANT COUNTY

Lyall Creek on ct



STATUS OF PUBLIC DOMAIN LAND AND MINERAL TITLES

MT/USE PLAT

INDEX TO SEGREGATED TRACTS

RESURVEY			ORIGINAL SURVEY	
TRACT NO	T	R	SEC	SUBDIVISION

FOR ORDERS AFFECTING DISPOSAL OR USE OF UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION, MINERAL, WATER AND/OR OTHER PUBLIC PURPOSES, REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.

SO 5/2/1928 Pwr S Res 61 Open to Entry subj to
Sec 24 FPA
Sec 19. SE¼
Sec 20. W½SW¼
Sec 30. NE¼, N½SE¼, SW¼SE¼

FILE REF: 080s280ex01.tif	AutoMAP2000/GTX RasterCAD 6.0
CONVERT JPEG: 04/25/2000	BY: H. GISCH
LAST UPDATE: 12/20/2006	BY: D LEAVENWORTH
POSTED TO PUBLIC RECORDS 12/29/2006	
SURVEYED TOWNSHIP	
SURVEYED COORDINATE SOURCE.	
GCDB NAD 83 CURRENT TO.	N/A
IMAGE SOURCE.	SCANNED ORIGINAL MTP
PROJECTION:	N/A
COORDINATE ELEVATION:	N/A
SOURCE FOR METES & BOUNDS.	N/A
NOTES	
USE PLAT: Lubi Mtn	

T. 8 S.
R. 28 E.

WARNING STATEMENT

This plat is the Bureau's Record of Title, and should be used only as a graphic display of the township survey data. Records surveys do not indicate title changes which may have been effected by natural movements of rivers or other bodies of water. Refer to the cadastral surveys for official survey information.

OID	OBJECTID	Serial_Num	Name	Type	Document_T	Width
0	17	OR 44605	GC 3407	RD	RIGHT OF WAY	12
1	76	OR 57533	CENTURY TEL	TEL	RIGHT OF WAY	15
2	190	OR 63579		RD	RIGHT OF WAY	20
3	198	OR 40270		TEL	RIGHT OF WAY	20
4	199	OR 60143		RD	RIGHT OF WAY	15

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page

Run Date: 06/06/10

01 10-21-1976;090STAT2776;43USC1761
Case Type 286203: ROW-TEL & TELEG,FLPMA
Commodity 971: NON-ENERGY FACILITIES
Case Disposition: AUTHORIZED

Total Acres 21.240

Serial Number ORORE- - 040270

Serial Number: ORORE- - 040270

Name & Address			Int Rel	% Interest
CENTURYTEL OF EASTERN OREGO	890 SOUTH SECOND	LEBANON OR 97355	HOLDER/BILLEE	100.000000000
PTI COMMUNICATIONS	PO BOX 337	LEBANON OR 97355	PREVIOUS INT PARTY	0.000000000

Serial Number: ORORE- - 040270

Mer Twp Rng Sec	STyp	SNr Suff	Subdivision	District/Resource Area	County	Mgmt Agency
33 0090S 0250E 024	ALIQ		SWSW;	PRINEVILLE CENTRAL ORE	WHEELER	BUREAU OF LAND MGMT
33 0090S 0250E 025	ALIQ		NWNW;	PRINEVILLE CENTRAL ORE	WHEELER	BUREAU OF LAND MGMT
33 0090S 0260E 022	ALIQ		SWNE,SWSE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0090S 0260E 025	ALIQ		NWSW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0090S 0260E 031	ALIQ		E2SW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0100S 0260E 007	ALIQ		SWNE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0100S 0260E 018	ALIQ		E2W2;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0100S 0260E 019	ALIQ		SESW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0100S 0260E 030	ALIQ		SENW,NESW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0110S 0260E 018	ALIQ		SENE,NESE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0110S 0260E 020	ALIQ		NESE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0110S 0260E 021	ALIQ		NWSW,SWSE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0110S 0260E 025	ALIQ		SENE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0110S 0260E 028	ALIQ		NWNE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0270E 034	ALIQ		NWNW,E2NE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0080S 0270E 025	ALIQ		NWSE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 029	ALIQ		SWSW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 030	ALIQ		SESE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0080S 0280E 017	ALIQ		SW,SENW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0080S 0280E 019	ALIQ		SENE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0080S 0280E 020	ALIQ		W2NW,NENW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0090S 0280E 006	LOTS		3,6;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0090S 0280E 020	ALIQ		NWSW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0090S 0280E 029	ALIQ		NENW,NESE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT

Serial Number: ORORE- - 040270

Act Date	Code	Action	Action Remark	Pending Office
03/17/1986	124	APLN RECD		
05/09/1986	307	ROW GRANTED-ISSUED		
05/09/1986	503	LENGTH IN MILES	8.76;	
05/09/1986	504	WIDTH IN FEET (TOTAL)	20;	
09/12/1990	974	AUTOMATED RECORD VERIF	PW;	
11/30/1997	140	ASGN FILED	PTI COMM TO CENTURY	
12/01/1997	139	ASGN APPROVED		
05/08/2016	763	EXPIRES		

Serial Number: ORORE- - 040270

Line Nr	Remarks
0001	BURIED TELEPHONE CABLE

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page

Run Date: 06/06/10

01 10-21-1976;090STAT2776;43USC1761
Case Type 281001: ROW-ROADS
Commodity 971: NON-ENERGY FACILITIES
Case Disposition: AUTHORIZED

Total Acres 2.550

Serial Number ORORR-- - 044605

Serial Number: ORORR-- - 044605

Name & Address	Int Rel	% Interest
	HOLDER	50.000000000

Serial Number: ORORR-- - 044605

Mer Twp Rng Sec	STyp	SNr Suff	Subdivision	District/Resource Area	County	Mgmt Agency
33 0070S 0290E 006	ALIQ		S2SE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0290E 007	ALIQ		N2NE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0290E 007	LOTS		1;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0290E 008	ALIQ		NWNW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT

Serial Number: ORORR-- - 044605

Act Date	Code	Action	Action Remark	Pending Office
12/05/1988	124	APLN RECD		
12/05/1988	971	COST RECOV (PROC) RECD	$300;	
12/06/1988	065	COST RECOV (MON) RECD	$75;	
12/29/1988	111	RENTAL RECEIVED	$120;	
01/09/1989	307	ROW GRANTED-ISSUED		
01/09/1989	503	LENGTH IN MILES	1.75;	
01/09/1989	504	WIDTH IN FEET (TOTAL)	12;	
06/28/1989	974	AUTOMATED RECORD VERIF	PW	
12/16/1993	111	RENTAL RECEIVED	$144;	
01/09/1994	853	COMPL/REVIEW DUE DATE		
12/21/1998	111	RENTAL RECEIVED	$179.01;	
12/30/2003	111	RENTAL RECEIVED	$194.31;1	
11/24/2008	111	RENTAL RECEIVED	$150.30;1	
01/08/2019	763	EXPIRES		

Serial Number: ORORR-- - 044605

Line Nr	Remarks
0001	ACCESS ROAD

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page

Run Date: 06/06/10

01 10-21-1976;090STAT2776;43USC1761
Case Type 286203: ROW-TEL & TELEG,FLPMA
Commodity 971: NON-ENERGY FACILITIES
Case Disposition: AUTHORIZED

Total Acres 5.100

Serial Number ORORE- - 057533

Serial Number: ORORE- - 057533

Name & Address			Int Rel	% Interest
CENTURYTEL OF OREGON	890 SOUTH SECOND	LEBANON OR 97355	HOLDER/BILLEE	100.000000000

Serial Number: ORORE- - 057533

Mer Twp Rng Sec	STyp	SNr Suff	Subdivision	District/Resource Area	County	Mgmt Agency
33 0070S 0270E 015	ALIQ		SWNE,NESE,S2SW,NWSE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0270E 021	ALIQ		NENE,S2NE,SE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0270E 022	ALIQ		NWNW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0270E 028	ALIQ		N2NE,SWNE,NWSE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT

Serial Number: ORORE- - 057533

Act Date	Code	Action	Action Remark	Pending Office
06/24/2002	124	APLN RECD		
06/27/2002	065	COST RECOV (MON) RECD	$75.00;1	
06/27/2002	841	CAT 2 COST RECOVERY-PROC		
06/27/2002	971	COST RECOV (PROC) RECD	$300.00;1	
09/24/2002	307	ROW GRANTED-ISSUED		
09/24/2002	502	LENGTH IN FEET	14815;	
09/24/2002	504	WIDTH IN FEET (TOTAL)	15;	
09/24/2002	852	RENTAL EXEMPT		
09/24/2017	853	COMPL/REVIEW DUE DATE		
09/24/2032	763	EXPIRES		

Line Nr **Remarks** **Serial Number: ORORE- - 057533**

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page

Run Date: 06/06/10

01 10-21-1976;090STAT2776;43USC1761
Case Type 281001: ROW-ROADS
Commodity 971: NON-ENERGY FACILITIES
Case Disposition: AUTHORIZED

Total Acres 9.700

Serial Number ORORR-- - 063579

Serial Number: ORORR-- - 063579

Name & Address			Int Rel	% Interest
			HOLDER/BILLEE	100.000000000
BLM-PRINEVILLE DO	3050 NE 3RD ST	PRINEVILLE OR 97754	ADMIN MGT ENTITY	0.000000000

Serial Number: ORORR-- - 063579

Mer Twp Rng Sec	STyp	SNr Suff	Subdivision	District/Resource Area	County	Mgmt Agency
33 0070S 0280E 033	ALIQ		S2NE,NWSE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 034	ALIQ		S2N2,NWSE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 035	ALIQ		SWNW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0080S 0280E 004	ALIQ		W2NE,E2NW,E2SW,SWSW,NWSE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0080S 0280E 005	ALIQ		SESE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0080S 0280E 008	ALIQ		NENE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0080S 0280E 009	ALIQ		N2NW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT

Serial Number: ORORR-- - 063579

Act Date	Code	Action	Action Remark	Pending Office
05/12/2006	065	COST RECOV (MON) RECD	$100;2	
05/12/2006	971	COST RECOV (PROC) RECD	$100;1	
05/15/2006	124	APLN RECD		
05/15/2006	840	CAT 1 COST RECOVERY-PROC		
08/11/2006	111	RENTAL RECEIVED	$65;1	
08/22/2006	307	ROW GRANTED-ISSUED		
08/22/2006	503	LENGTH IN MILES	4;	
08/22/2006	504	WIDTH IN FEET (TOTAL)	20;	
12/26/2006	111	RENTAL RECEIVED	$162.09;1	
11/15/2007	111	RENTAL RECEIVED	$167.13;1	
01/08/2009	111	RENTAL RECEIVED	$560.70;1	
08/23/2036	763	EXPIRES		

Line Nr **Remarks**

Serial Number: ORORR-- - 063579

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page

Run Date: 06/06/10

01 10-21-1976;090STAT2776;43USC1761
Case Type 281001: ROW-ROADS
Commodity 970: OTHER ENERGY FACILITIES
Case Disposition: AUTHORIZED

Total Acres 5.000

Serial Number ORORE- - 060143

Serial Number: ORORE- - 060143

Name & Address	Int Rel	% Interest
	PREVIOUS INT PARTY	0.000000000
	HOLDER	100.000000000

Serial Number: ORORE- - 060143

Mer Twp Rng Sec	STyp	SNr Suff	Subdivision	District/Resource Area	County	Mgmt Agency
33 0070S 0280E 021	ALIQ		S2SW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 028	ALIQ		N2NW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 029	ALIQ		E2NE,SWNE,E2SW,SWSW,NWSE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 030	ALIQ		SESE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT

Serial Number: ORORE- - 060143

Act Date	Code	Action	Action Remark	Pending Office
03/04/2004	065	COST RECOV (MON) RECD	$50.00;1	
03/04/2004	124	APLN RECD		
03/04/2004	971	COST RECOV (PROC) RECD	$125.00;1	
04/23/2004	111	RENTAL RECEIVED	$57.15;1	
04/28/2004	307	ROW GRANTED-ISSUED		
04/28/2004	503	LENGTH IN MILES	2.75;	
04/28/2004	504	WIDTH IN FEET (TOTAL)	15;	
04/28/2004	840	CAT 1 COST RECOVERY-PROC		
05/20/2004	140	ASGN FILED		
06/28/2004	347	FILING FEE RECEIVED	$50.00;1	
06/29/2004	139	ASGN APPROVED		
04/04/2005	111	RENTAL RECEIVED	$389.50;1	
01/01/2010	097	NEXT BILLING DATE	400.00;5	
04/28/2019	853	COMPL/REVIEW DUE DATE		
04/28/2034	763	EXPIRES		

Line Nr **Remarks**

Serial Number: ORORE- - 060143

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page

Run Date: 06/06/10

01 03-04-1911;036STAT1253;43USC961
Case Type 285002: ROW-POWER TRAN LINE
Commodity 970: OTHER ENERGY FACILITIES
Case Disposition: AUTHORIZED

Total Acres 1.000

Serial Number ORORE- 0 002944

Serial Number: ORORE- 0 002944

Name & Address			Int Rel	% Interest
COLUMBIA PWR COOP	OREGON 37 WHEELER	MONUMENT OR 97864	HOLDER	100.000000000

Serial Number: ORORE- 0 002944

Mer Twp Rng Sec	STyp	SNr Suff	Subdivision	District/Resource Area	County	Mgmt Agency
33 0070S 0270E 034	ALIQ		NENE,SENE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT

Serial Number: ORORE- 0 002944

Act Date	Code	Action	Action Remark	Pending Office
09/02/1953	124	APLN RECD		
10/04/1956	307	ROW GRANTED-ISSUED		
10/04/1956	502	LENGTH IN FEET	2692.8;	
10/04/1956	504	WIDTH IN FEET (TOTAL)	UNK;	
10/04/1956	506	POWERLINE VOLTAGE (KV)	14.4;	
09/10/1970	287	PROOF CONST/USE ACPT		
07/25/1989	974	AUTOMATED RECORD VERIF	PLP;	
10/04/2006	763	EXPIRES		

Serial Number: ORORE- 0 002944

Line Nr	Remarks
0001	DISTRIBUTION LINE

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Input Parameters for MC Geographic Report

System Id = MC

Admin State = OR

Geo State =

Mer Twp Rng =

Section =

Mtrs = 33 0060S 0280E 036, 33 0060S 0290E 031, 33 0060S 0290E 032, 33 0070S 0270E 009, 33 0070S 0270E 010, 33 0070S 0270E 013, 33 0070S 0270E 014, 33 0070S 0270E 015, 33 0070S 0270E 021, 33 0070S 0270E 022, 33 0070S 0270E 023, 33 0070S 0270E 024, 33 0070S 0270E 025, 33 0070S 0270E 026, 33 0070S 0270E 027, 33 0070S 0270E 028, 33 0070S 0270E 034, 33 0070S 0270E 035, 33 0070S 0270E 036, 33 0070S 0280E 001, 33 0070S 0280E 007, 33 0070S 0280E 008, 33 0070S 0280E 010, 33 0070S 0280E 011, 33 0070S 0280E 012, 33 0070S 0280E 013, 33 0070S 0280E 014, 33 0070S 0280E 015, 33 0070S 0280E 016, 33 0070S 0280E 017, 33 0070S 0280E 018, 33 0070S 0280E 019, 33 0070S 0280E 020, 33 0070S 0280E 021, 33 0070S 0280E 022, 33 0070S 0280E 023, 33 0070S 0280E 024, 33 0070S 0280E 025, 33 0070S 0280E 026, 33 0070S 0280E 027, 33 0070S 0280E 028, 33 0070S 0280E 029, 33 0070S 0280E 030, 33 0070S 0280E 031, 33 0070S 0280E 033, 33 0070S 0280E 034, 33 0070S 0280E 035, 33 0070S 0280E 036, 33 0070S 0290E 006, 33 0070S 0290E 007, 33 0070S 0290E 018, 33 0070S 0290E 019, 33 0070S 0290E 030

Adm Agency Begins With

Aliquot Part contains

Case Disp Txt = ACTIVE, CLOSED, PENDING, VOID

Total Rows Returned: 62

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MINING CLAIM GEOGRAPHIC REPORT
LIST OF MINING CLAIMS BY SECTION

MER TWP RNG SEC
33 0070S 0290E 006

Serial Num	Quad	Claim Name/Number	Claimant(s)	Lead File	Case Type	Status	Loc Dt	Last Assessment
ORMC96786	SE	BUCK HORN #3	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/26/1987	1992
ORMC96786	SE	BUCK HORN #3	MEDLOCK ALOHA	ORMC96767	384201	CLOSED	10/26/1987	1992
ORMC96786	SE	BUCK HORN #3	MEDLOCK MILO F	ORMC96767	384201	CLOSED	10/26/1987	1992
ORMC96786	SE	BUCK HORN #3	POTTER GAIL	ORMC96767	384201	CLOSED	10/26/1987	1992

MER TWP RNG SEC
33 0070S 0290E 007

Serial Num	Quad	Claim Name/Number	Claimant(s)	Lead File	Case Type	Status	Loc Dt	Last Assessment
ORMC21177	SW	GO BROKE	O'CONNOR ELTON R		384201	CLOSED	09/04/1979	0000
ORMC21177	SW	GO BROKE	O'CONNOR PATSY J		384201	CLOSED	09/04/1979	0000
ORMC21178	SW	FARNEY BARNEY	BRIGHT JULIE C		384201	CLOSED	09/04/1979	0000
ORMC21178	SW	FARNEY BARNEY	BRIGHT MICHAEL J		384201	CLOSED	09/04/1979	0000
ORMC43875	NE	BIG SANDY #4	KILBY ROBERT	ORMC43875	384201	CLOSED	07/06/1981	1982
ORMC43875	NE	BIG SANDY #4	MONROE BERTHA E	ORMC43875	384201	CLOSED	07/06/1981	1982
ORMC43876	NE	O #2	KILBY JANET	ORMC43875	384201	CLOSED	07/02/1981	0000
ORMC43876	NE	O #2	KILBY ROBERT	ORMC43875	384201	CLOSED	07/02/1981	0000
ORMC43876	NE	O #2	MONROE BERTHA E	ORMC43875	384201	CLOSED	07/02/1981	0000
ORMC43876	NE	O #2	MONROE GALE	ORMC43875	384201	CLOSED	07/02/1981	0000
ORMC43877	NE	O #3	KILBY JANET	ORMC43875	384201	CLOSED	07/02/1981	0000
ORMC43877	NE	O #3	KILBY ROBERT	ORMC43875	384201	CLOSED	07/02/1981	0000
ORMC43877	NE	O #3	MONROE BERTHA E	ORMC43875	384201	CLOSED	07/02/1981	0000
ORMC43877	NE	O #3	MONROE GALE	ORMC43875	384201	CLOSED	07/02/1981	0000
ORMC43878	NE	O #4	KILBY JANET	ORMC43875	384201	CLOSED	07/02/1981	0000
ORMC43878	NE	O #4	KILBY ROBERT	ORMC43875	384201	CLOSED	07/02/1981	0000
ORMC43878	NE	O #4	MONROE BERTHA E	ORMC43875	384201	CLOSED	07/02/1981	0000
ORMC43878	NE	O #4	MONROE GALE	ORMC43875	384201	CLOSED	07/02/1981	0000
ORMC45893	NE	BIG SANDY #3	KILBY ROBERT	ORMC45891	384201	CLOSED	07/06/1981	1982
ORMC45893	NE	BIG SANDY #3	MONROE BERTHA E	ORMC45891	384201	CLOSED	07/06/1981	1982

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MINING CLAIM GEOGRAPHIC REPORT
LIST OF MINING CLAIMS BY SECTION

Serial Num	Quad	Claim Name/Number	Claimant(s)	Lead File	Case Type	Status	Loc Dt	Last Assessment
ORMC45894	NE	BIG SANDY #5	KILBY ROBERT	ORMC45891	384201	CLOSED	07/06/1981	1982
ORMC45894	NE	BIG SANDY #5	MONROE BERTHA E	ORMC45891	384201	CLOSED	07/06/1981	1982
ORMC96780	SW	GREENSTONE #17	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/14/1987	1992
ORMC96781	SW	GREENSTONE #18	KENNEDY THAIS C	ORMC96767	384201	CLOSED	10/15/1987	1992
ORMC96781	SW	GREENSTONE #18	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/15/1987	1992
ORMC96782	SW	GREENSTONE #19	KENNEDY THAIS C	ORMC96767	384201	CLOSED	10/16/1987	1992
ORMC96782	SW	GREENSTONE #19	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/16/1987	1992
ORMC96784	NE	BUCK HORN #1	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/24/1987	1992
ORMC96784	NE	BUCK HORN #1	MEDLOCK ALOHA	ORMC96767	384201	CLOSED	10/24/1987	1992
ORMC96784	NE	BUCK HORN #1	MEDLOCK MILO F	ORMC96767	384201	CLOSED	10/24/1987	1992
ORMC96784	NE	BUCK HORN #1	POTTER GAIL	ORMC96767	384201	CLOSED	10/24/1987	1992
ORMC96785	NE	BUCK HORN #2	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/25/1987	1992
ORMC96785	NE	BUCK HORN #2	MEDLOCK ALOHA	ORMC96767	384201	CLOSED	10/25/1987	1992
ORMC96785	NE	BUCK HORN #2	MEDLOCK MILO F	ORMC96767	384201	CLOSED	10/25/1987	1992
ORMC96785	NE	BUCK HORN #2	POTTER GAIL	ORMC96767	384201	CLOSED	10/25/1987	1992
ORMC96787	NE	BUCK HORN #4	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/27/1987	1992
ORMC96787	NE	BUCK HORN #4	MEDLOCK ALOHA	ORMC96767	384201	CLOSED	10/27/1987	1992
ORMC96787	NE	BUCK HORN #4	MEDLOCK MILO F	ORMC96767	384201	CLOSED	10/27/1987	1992
ORMC96787	NE	BUCK HORN #4	POTTER GAIL	ORMC96767	384201	CLOSED	10/27/1987	1992

MER TWP RNG SEC
33 0070S 0290E 018

Serial Num	Quad	Claim Name/Number	Claimant(s)	Lead File	Case Type	Status	Loc Dt	Last Assessment
ORMC96775	SW	GREENSTONE #12	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/09/1987	1992
ORMC96776	SW	GREENSTONE #13	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/10/1987	1992
ORMC96777	NW	GREENSTONE #14	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/11/1987	1992
ORMC96778	NW	GREENSTONE #15	KENNEDY THAIS C	ORMC96767	384201	CLOSED	10/12/1987	1992
ORMC96778	NW	GREENSTONE #15	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/12/1987	1992
ORMC96778	NW	GREENSTONE #15	MEDLOCK ALOHA	ORMC96767	384201	CLOSED	10/12/1987	1992
ORMC96778	NW	GREENSTONE #15	MEDLOCK MILO F	ORMC96767	384201	CLOSED	10/12/1987	1992
ORMC96779	NW	GREENSTONE #16	KENNEDY THAIS C	ORMC96767	384201	CLOSED	10/13/1987	1992
ORMC96779	NW	GREENSTONE #16	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/13/1987	1992

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MINING CLAIM GEOGRAPHIC REPORT
LIST OF MINING CLAIMS BY SECTION

Serial Num	Quad	Claim Name/Number	Claimant(s)	Lead File	Case Type	Status	Loc Dt	Last Assessment
ORMC96779	NW	GREENSTONE #16	MEDLOCK ALOHA	ORMC96767	384201	CLOSED	10/13/1987	1992
ORMC96779	NW	GREENSTONE #16	MEDLOCK MILO F	ORMC96767	384201	CLOSED	10/13/1987	1992

MER TWP RNG SEC
33 0070S 0290E 019

Serial Num	Quad	Claim Name/Number	Claimant(s)	Lead File	Case Type	Status	Loc Dt	Last Assessment
ORMC96771	SW	GREENSTONE #8	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/05/1987	1992
ORMC96772	SW	GREENSTONE #9	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/06/1987	1992
ORMC96773	NW	GREENSTONE #10	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/07/1987	1992
ORMC96774	NW	GREENSTONE #11	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/08/1987	1992

MER TWP RNG SEC
33 0070S 0290E 030

Serial Num	Quad	Claim Name/Number	Claimant(s)	Lead File	Case Type	Status	Loc Dt	Last Assessment
ORMC96767	SW	GREENSTONE #4	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/01/1987	1992
ORMC96768	SW	GREENSTONE #5	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/02/1987	1992
ORMC96769	NW	GREENSTONE #6	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/03/1987	1992
ORMC96770	NW	GREENSTONE #7	KENNEDY WILFERD D	ORMC96767	384201	CLOSED	10/04/1987	1992

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page

Run Date: 06/22/10

01 02-25-1920;041STAT0437;30USC226
Case Type 311111: O&G LSE NONCOMP PUB LAND
Commodity 459: OIL & GAS L
Case Disposition: CLOSED

Total Acres 1,932.820

Serial Number ORORE- - 028573

Serial Number: ORORE- - 028573

Name & Address			Int Rel	% Interest
MATHIS BILL	PO BOX 2414	MIDLAND TX 79702	APPLICANT	100.000000000

Serial Number: ORORE- - 028573

Mer Twp Rng Sec	STyp	SNr Suff	Subdivision	District/Resource Area	County	Mgmt Agency
33 0070S 0280E 019	ALIQ		NESE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 019	LOTS		4,8-11;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 020	ALIQ		SENE,E2W2,SE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 021	ALIQ		N2,N2S2;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 022	ALIQ		SENE,NWNE,NWNW,SW,NESE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 027	ALIQ		NENE,W2;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 028	ALIQ		SENE,E2SE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 029	ALIQ		SWSW;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT
33 0070S 0280E 030	ALIQ		SESE;	PRINEVILLE CENTRAL ORE	GRANT	BUREAU OF LAND MGMT

Serial Number: ORORE- - 028573

Act Date	Code	Action	Action Remark	Pending Office
08/03/1981	124	APLN RECD		
04/16/1982	130	APLN WITHDRAWN		
04/16/1982	970	CASE CLOSED		
02/02/1998	885	CASE DESTROYED		

Line Nr **Remarks**

Serial Number: ORORE- - 028573

CORA FAM Roads

Route Name	Parent Eq. #	Seg.	Child Eq. #	Location T-R-Sec Aliquot	County	Length	Ave. Width	Surface Material	Maint. level	Use Period	Condition	DO Priority	Grade	Pull Ditches	Cut Brush	Clean Culverts	Cattle-Guards	Last Maint.	Other
6207 SF John Day	1392338	OO	1515160	14-26-12 NWSW	Grant	23.11	18	Aggregate	4	All year	Fair	2	x	x		x		2007	place aggregate - 2450 CY
					Total =	**23.11**													
6203 Franks-Holmes Cr.	1392334	OO	1515157	10-26-6 SENW	Grant	30.11	14	Natural - Grade/Drain	3	May-Oct	Good	3	26 mi	x				2007	
7569 NF John Day	1400528	OO	1517683	6-31-35 SESE	Umatilla	18.8	16	Natural - Grade/Drain	3	all year	FAIR	4	x	as need				2007	
7548 Old Logging Rd	1392510	OO	1515199	11-21-21 NENW	Wheeler	3.75	24	Natural - unimproved	3	May-Oct	FAIR							2007	
7559 Priest Hole	1392520	OO	1515203	10-20-02 SWSW	Wheeler	1.34	14	Natural - Grade/Drain	3	May-Oct	FAIR							2007	
6578 South Boundry	1392468	OO	1513041	16-20-34 NESE	Crook	22.11	16	Aggregate	3	Mar-Dec	Good	10	8 mi	as need				2007	
GI Ranch Road	MOU	to	maintain	23-22-10 NESW	Lake	7.5	20	Natural - Grade/Drain	3			8	x	as need				2007	
					Total =	**83.61**													
6203 Ridge RD	1392333	BO	1515156	11-26-12 NWNE	Grant	10.11	12	Natural - unimproved	2	May-Oct	Good								
6206 Battle Creek	1392335	OO	1512810	12-26-34 SWNE	Grant	8.11	10	Natural - Grade/Drain	2	May-Oct	Fair								
6583 Un-named	1392476	OO	1515192	13-21-35 NWSE	Crook	2.5	10	Natural - unimproved	2	May-Oct	Fair								
7540 Squaw Creek	1392496	OO	1513460	11-26-30 NWSE	Grant	6.51	14	Natural - Grade/Drain	2	May-Oct	Fair	5				*			*install roll dip @ double culverts
7542 Un-named	1392497	AE	1515194	11-25-8 NWSE	Wheeler	0.6	10	Natural - unimproved	2	May-Oct	Fair								
7542 Un-named	1392498	AO	1513461	11-25-3 NWNE	Wheeler	0.9	12	Natural - unimproved	2	May-Oct	Fair								
7542 Black Snag Spring	1392499	BO	1513462	10-25-34 NWSE	Wheeler	2.3	10	Natural - unimproved	2	May-Oct	Fair								
7542 Vortac	1392500	CO	1513463	10-25-33 SWSW	Wheeler	2.1	10	Natural - unimproved	2	May-Oct	Fair								
7542 Un-named	1392501	DO	1513464	10-25-33 NESW	Wheeler	0.4	10	Natural - unimproved	2	May-Oct	Fair								
7542 Un-named	1392502	EO	1515195	10-25-8 SENW	Wheeler	0.9	10	Natural - unimproved	2	May-Oct	Fair								
7542 McGinnis Cr	1392503	OO	1513465	11-25-17 NENW	Wheeler	5.11	12	Natural - Grade/Drain	2	May-Oct	Fair								
7543 Un-named	1392504	AO	1515196	11-24-1 NWNW	Wheeler	0.3	10	Natural - unimproved	2	May-Oct	Fair								
7543 Un-named	1392505	BO	1515197	10-25-30 NESE	Wheeler	0.4	10	Natural - unimproved	2	May-Oct	Fair								
7543 Johnson Creek	1392506	OO	1513466	11-25-4 SWNE	Wheeler	3.61	10	Natural - Grade/Drain	2	May-Oct	Fair								
7546 Cottonwood Creek	1392507	OO	1513467	12-26-29 SESW	Grant	6.05	10	Natural - Grade/Drain	2	May-Oct	Poor								
7547 Un-named	1392508	AO	1515198	13-25-16 NWNW	Wheeler	1	10	Natural - Grade/Drain	2	May-Oct	Poor								
7547 Birch Creek	1392509	OO	1513468	12-25-34 NENW	Wheeler	4.9	10	Natural - Grade/Drain	2	May-Oct	Poor								
6207 Dear Creek	1392336	FO	1515158	16-27-7 SWSE	Grant	3.01	12	Natural - Grade/Drain	2	May-Oct.	Fair								
6207 Indian Creek	1392337	HO	1515159	16-27-33 NWSW	Grant	4.46	14	Natural - Grade/Drain	2	May-Oct.	Good								
6562 un-named	1392450	DO	1513028	19-23-7 NWSE	Crook	2.81	10	Natural - unimproved	2	May-Oct.	Poor								
6562 North End	1392451	OO	1513029	17-22-13 SWNW	Crook	4.7	10	Aggregate	2	May-Oct.	Good								
6562S South End	1392452	OO	1515185	19-23-21 NESE	Crook	3.41	10	Natural - Grade/Drain	2	May-Oct.	Poor								
6564 Un-named	1392453	OO	1513030	17-24-22 NWSW	Crook	3.86	10	Natural - Grade/Drain	2	May-Oct.	Fair								
7569 Skull Canyon Road	1400527	DO	1517682	6-29-3 SESE	Umatilla	1	14	Natural - Grade/Drain	2	all year	FAIR								
7549 Un-named	1392511	AO	1515200	11-21-14 NWNW	Wheeler	1.62	10	Natural - unimproved	2	May-Oct	FAIR								
7549 Meyers Canyon	1392512	OO	1515201	11-21-16 SENE	Wheeler	1.75	18	Natural - Grade/Drain	2	May-Oct	FAIR								
7559 Un-named	1392519	BO	1515202	10-20-02 NWNE	Wheeler	2.52	14	Natural - unimproved	2	May-Oct	FAIR								
Clarno Homestead Road				7-19-32 NESW	Wasco	3	10	Natural - unimproved	2	May-Oct	Poor	12	x						Install Gate
6528 Stoffard Road	1392382	OO	1512973	23-22-7 SWNW	Lake	9.06	16	Natural - Grade/Drain	2	May-Oct	Good								
6539 Un-named	1392407	AO	1512997	22-21-32 NESE	Deschutes	4.26	10	Natural - Grade/Drain	2	May-Oct	Fair								
6539 Un-named	1392408	BA	1515173	23-20-10 SWNE	Lake	2.11	10	Natural - unimproved	2	May-Oct	Poor								
6539 Un-named	1392409	BO	1515174	23-20-11 NWSE	Lake	3.55	10	Natural - Grade/Drain	2	May-Oct	Poor								
6539 Un-named	1392410	CO	1515175	23-21-20 NWNW	Lake	7.36	10	Natural - Grade/Drain	2	May-Oct	Poor								
6539 Un-named	1392411	DO	1515176	23-21-22 NWNW	Lake	9.06	10	Natural - Grade/Drain	2	May-Oct	Fair								
6539 Three Wells	1392412	OO	1512998	22-21-8 SESE	Deschutes	17.35	12	Natural - Grade/Drain	2	May-Oct	Good								
6540 Un-named	1392413	AO	1512999	20-22-16 NENE	Crook	3.36	10	Natural - Grade/Drain	2	May-Oct	Poor								
6540 Un-named	1392414	BO	1513000	23-22-25 SESE	Lake	4.56	10	Natural - Grade/Drain	2	May-Oct	Fair								
6540 Un-named	1392415	CO	1513001	24-22-01 SENW	Lake	5.41	10	Natural - Grade/Drain	2	May-Oct	Poor								
6540 Glass Buttes	1392416	OO	1513002	23-22-12 SWSW	Lake	9.11	12	Natural - Grade/Drain	2	May-Oct	Good	9	6.5 miles						Upto Priv. Prop. T23-R22-S35
6545 Un-named	1392425	AO	1515179	21-21-34 SENW	Crook	1.6	10	Natural - Grade/Drain	2	May-Oct	Poor								
6545 Un-named	1392426	OO	1513009	22-21-08 NWSW	Deschutes	11.85	10	Natural - Grade/Drain	2	May-Oct	Fair								

Wall Creek GRAIP Report

North Fork John Day TMDL

Umatilla National Forest

September 29, 2009

Kari Grover-Wier[1], John Thornton[2], Chase Fly[3], and Tom Black[4]

[1]Hydrologist [3]Hydrologic Technician US Forest Service Boise National Forest Lowman Ranger District Highway 21 HC-77, Box 3020 Lowman, Idaho, 83637 USA	[2]Forest Hydrologist US Forest Service Boise National Forest 1249 S. Vinnell Way, Suite 200 Boise, ID 83709 USA	[4]Hydrologist US Forest Service Rocky Mountain Research Station 322 East Front Street, Suite 401 Boise, Idaho, 83702 USA	

Table of Contents

List of Tables

List of Figures

Executive Summary

1.0 Background

The National Forest Transportation System is vast and represents an enormous investment of human and financial capital. This road and trail network provides numerous benefits to forest managers and the public, but can have adverse effects on water quality, aquatic ecosystems, and other resources. There is currently a large backlog of unfunded maintenance, improvement, and decommissioning work on national forest roads, and many critical components of the network (e.g., culverts) are nearing or have exceeded their life-expectancy. This significantly elevates risks to aquatic resources.

Sediment has been identified as the pollutant of concern in three stream segments within the Bear Valley Creek and Elk Creek watershed on the IDEQ's 2008 Integrated Report. In addition, two additional segments are listed as not fully supporting beneficial uses, but a pollutant has not been identified. Table X lists the IDEQ's assessment units of concern in the Bear Valley and Elk Creek watersheds, as described in the 2008 Integrated Report. In the Bear Valley and Elk Creek watersheds, like any other watershed where roads exist, it is known that roads have some impact on aquatic resources, particularly in terms of sediment delivery to streams. However, to what degree or where this delivery is occurring is largely unknown or speculative given the vast amount of roads in the area. In order to specifically quantify the amount and location of sediment contributions from roads to streams, the EPA funded a site-specific road-sediment inventory in 2009 for the Bear Valley and Elk Creek watersheds using the Geomorphic Road Analysis and Inventory Package (GRAIP, Prasad et al. 2007, http://www.fs.fed.us/GRAIP).

The GRAIP data collection method provides forest managers with real data that captures the extent to which roads affect stream channels. Precise locations where sediment delivery is occurring, drainage features are compromised, or road maintenance issues that need to be addressed to minimize adverse aquatic impacts from roads are identified during the GRAIP process.

Table X. IDEQ's 2008 Integrated Report Assessment Units listed as "not fully supporting" beneficial uses in the Bear Valley and Elk Creek watersheds (http://www.deq.idaho.gov/water/data_reports/surface_water/monitoring/integrated_report_2008_final_entire.pdf)

Assessment Unit	Stream Name	Pollutant	Miles
17060205SL012_05	Bear Valley Creek – 5th order	Sediment, Temperature	11.24
17060205SL012_04	Bear Valley Creek – 4th order	Sediment	7.36
17060205SL013_03	Bearksin Creek – 3rd order	Sediment	1.83
17060205SL013_04	Elk Creek – 4th order	None	8.94
17060205SL016_02	Cache Creek and tributaries – 1st & 2nd order	None	16.05

All roads in the Wall Creek watershed were targeted in the road inventory. However, due to time, access, and resource constraints, certain roads were given priority based on assessments made in the field by a crew leader. There are six sub-watersheds within the greater Wall Creek watershed; four of these six were targeted at the beginning of the summer and work was begun in the Lower Big Wall and Middle Big Wall sub-watersheds. Roads appearing in GIS coverages were specifically targeted, though some of these roads did not exist (decommissioned or otherwise not there), were not accessible (private land), or were determined to have no stream connections by the crew leader; these roads were removed from the priority list. Table X contains completion statistics for each sub-watershed and the watershed as a whole. Some roads outside the watershed were included for simplicity.

The road inventory took place between 20 May 2009 and 4 October 2009.

Table X: Road completion by sub-watershed.

as of 4 December 2009 (After road straightening and preprocessing)					
Sub-Watershed	**Road Length (m)**	**Road Length (mi)**	**Road Comp (m)**	**Road Comp (mi)**	**Percent Done**
Middle Big Wall	139577	87	144931	90	104
Swale Creek	103888	65	2514	2	2
Wilson Creek	214485	133	168501	105	79
Lower Big Wall	85690	60	130873	81	136
Little Wall	167353	104	159166	99	95
Skookum Creek	114823	71	98685	61	86
Total	**825816**	**520**	**704671**	**438**	**84**
All Roads			725616	451	

2.0 Study Objectives

GRAIP is designed to assess the geomorphic and hydrologic activity of roads as well as the physical condition of roads and their associated drain points. Field crews surveyed roads within the Wall Creek watershed in an effort to better understand the overall effect of roads on key watershed processes. Specifically, the project is intended to address the following questions.

1. What is the existing level of fine sediment delivery from roads to streams within the Wall Creek Watershed?
    a. How do road-related sediment contributions compare to background sediment levels?
2. Where do the largest contributions of road-related sediment occur and why?
    a. Can these sites be reconstructed to eliminate or minimize delivery?
3. What unknown geomorphic or hydrologic issues exist in Bear Valley's road system that could help forest managers make decisions and plan more effectively?

3.0 Methods

GRAIP is being used to inventory and model the risk profile of each of the road segments included in the study. The GRAIP system consists of a detailed, field-based road inventory protocol combined with a suite of geographic information system (GIS) models. The inventory is used to systematically describe the hydrology and condition of a road system using Geographic Positioning System (GPS) technology and automated data forms (Black and Luce, 2007). The GIS models use these data to analyze road-stream hydrologic connectivity, fine sediment production and delivery, upstream sediment accumulation, stream sediment input, shallow landslide potential with and without road drainage, gully initiation risk, and the potential for and consequences of stream crossing failures. Detailed information about the performance and condition of the road drainage infrastructure is also supplied.

4.0 Monitoring Location

Wall Creek Watershed

The Wall Creek Watershed is located within the Interior Columbia River Basin on the western edge of the Blue Mountains and comprises just over 200 square miles. Most of the watershed is underlain by one of two geologic units consisting of layered basalt flows with interbedded sediments. Higher elevations in the northeastern portion of the watershed are underlain by basalt/andesite or mudstone/clastics/volcanics (Figure 1). Terrain within the watershed consists primarily of mid-elevation, basalt-capped plateaus with deeply incised canyons. A more mountainous, high-elevation area exists in the northeastern portion of the watershed (Figure 2). Annual precipitation varies with elevation from 12 to 32 inches per year, with most of the watershed receiving between 14 and 20 inches per year.

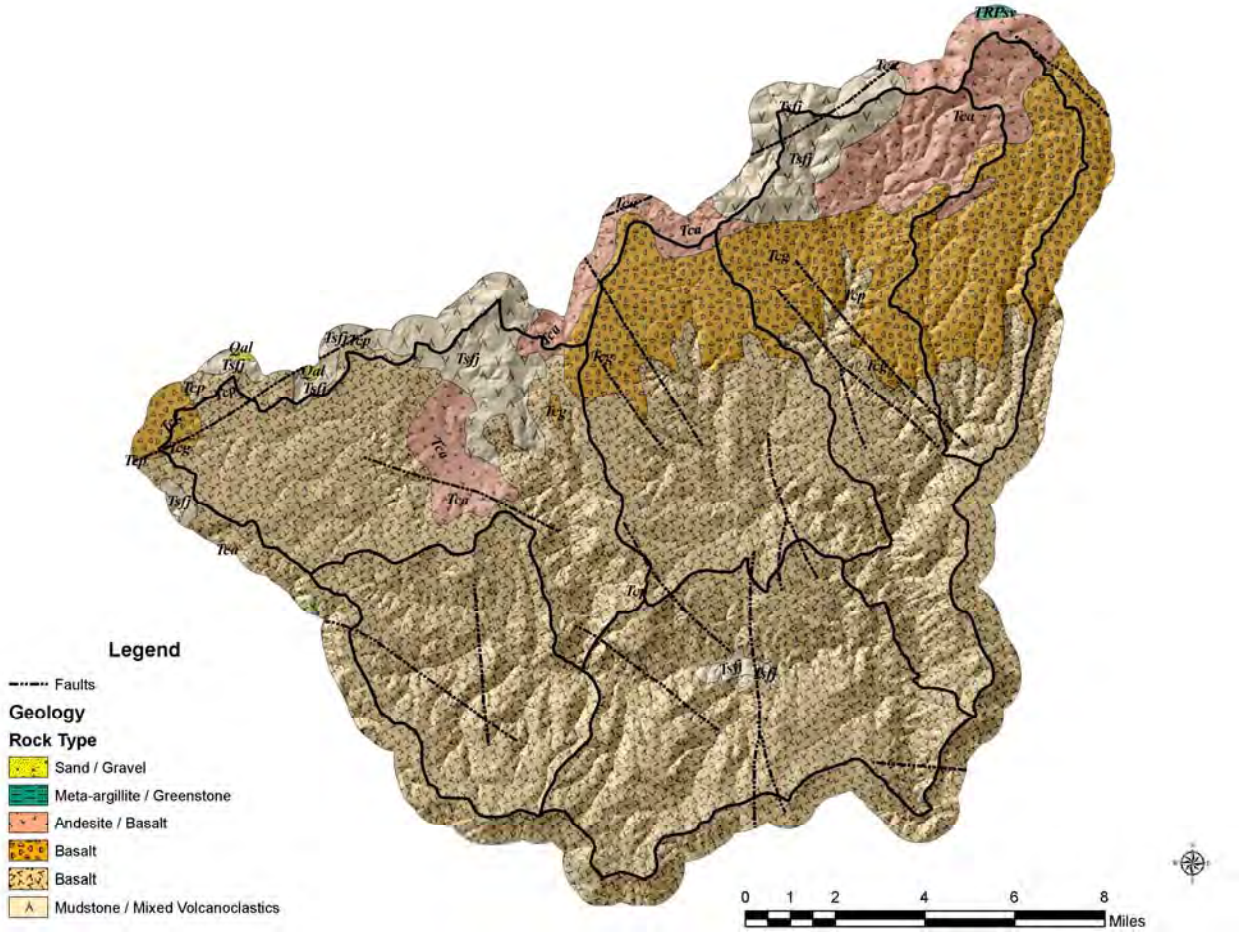


Figure 1: Geologic map of the Wall Creek Watershed showing sub-watershed boundaries.

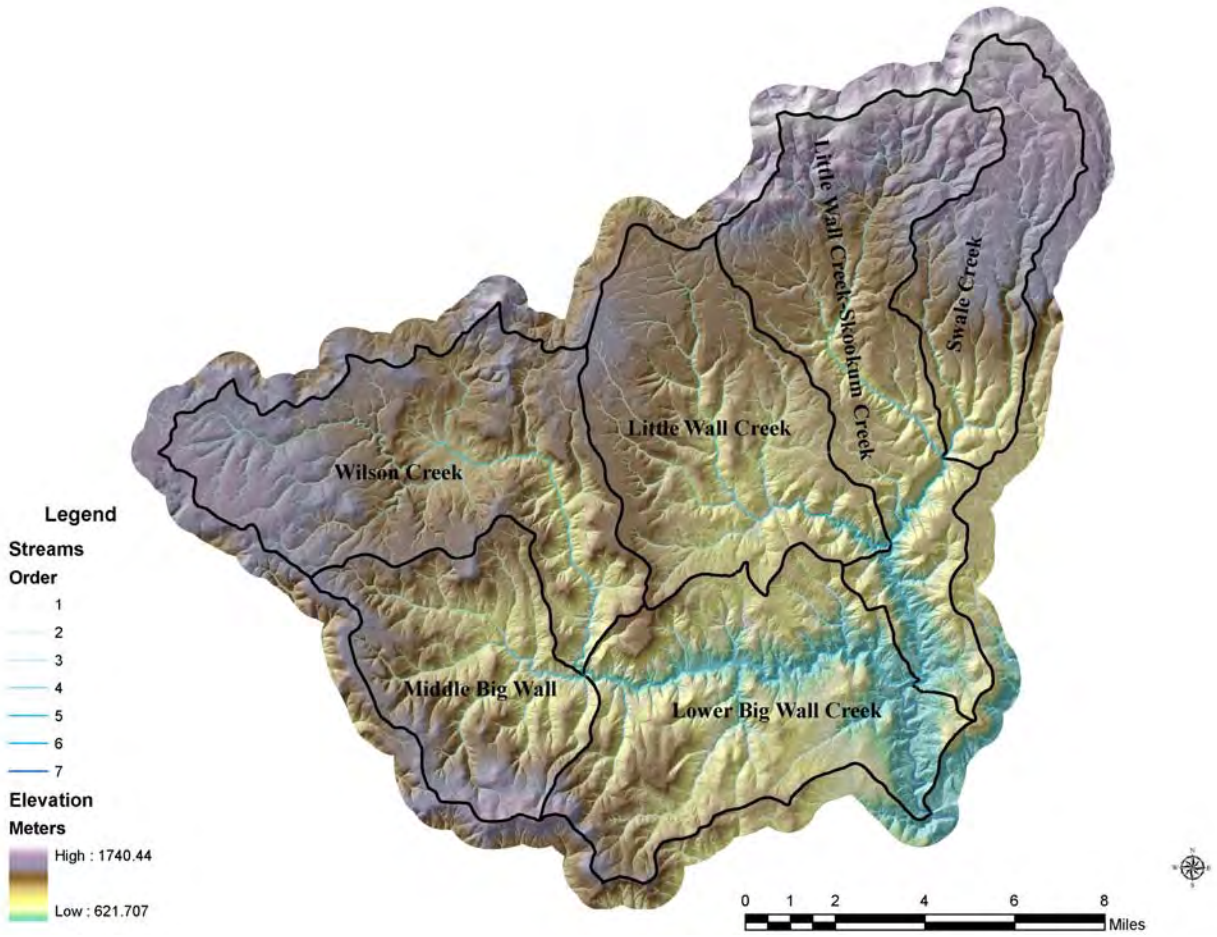
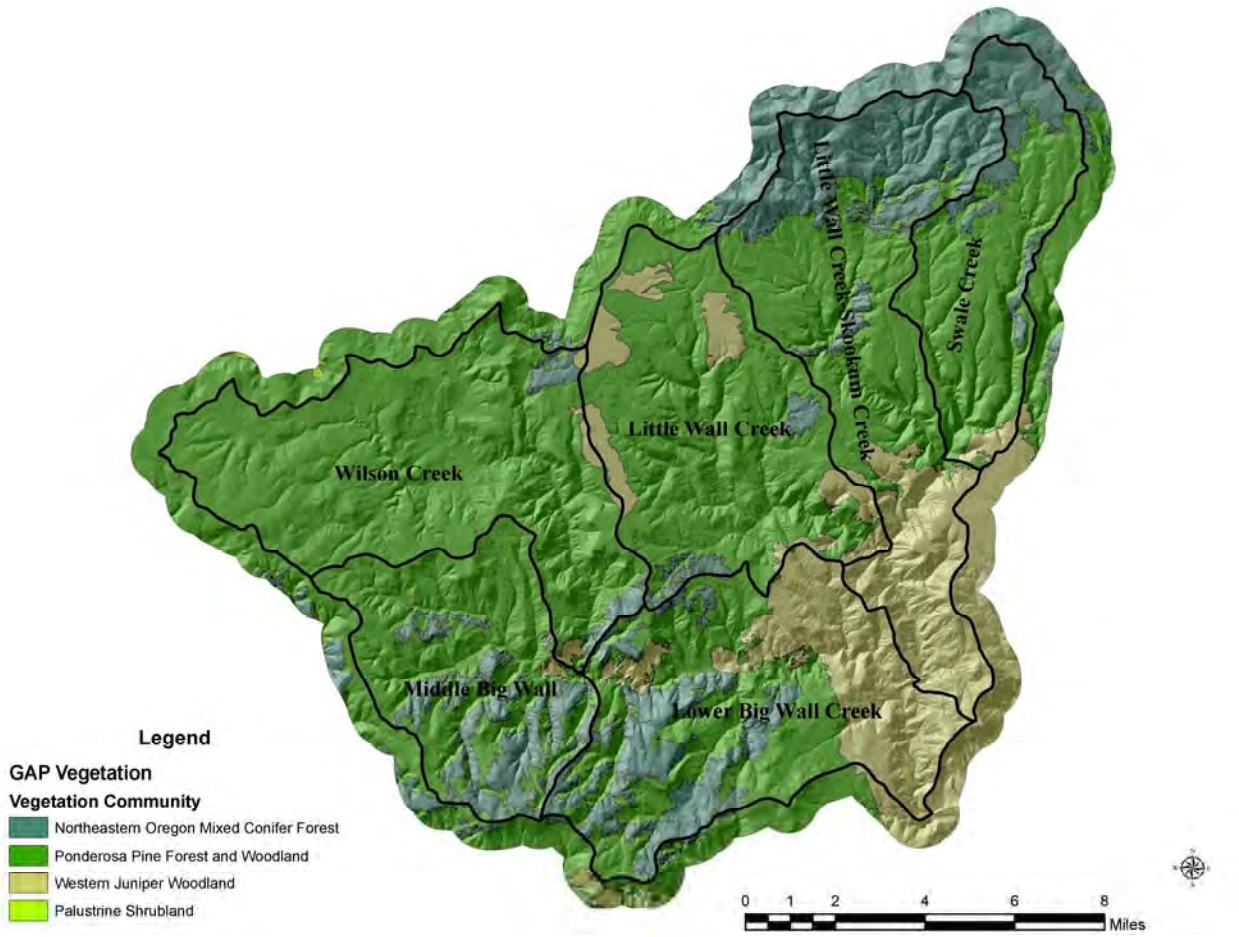


Figure 2: Shaded-relief map showing elevations and streams within the Wall Creek Watershed. Streams layer is derived from the 10m DEM.



The Wood Creek watershed is home to many plant and wildlife species. The watershed is dominated by Ponderosa pine forests and woodlands. Lower elevations and drier sites on high, flat tables are dominated by western juniper woodlands. Higher elevations and moist, north-aspect slopes are dominated by mixed conifer forests. These mixed conifer forests are diverse and include ponderosa pine (*Pinus ponderosa*), Douglas fir (*Pseudotsuga menziesii*), western larch (*Larix occidentalis*), and some Engelmann spruce (*Picea engelmannii*) and western juniper (*Juniperus occidentalis*). Wildlife species include deer, bear, bobcat, turkey, grouse, antelope, elk, and many others. The streams are home to trout and provide spawning beds for steelhead.

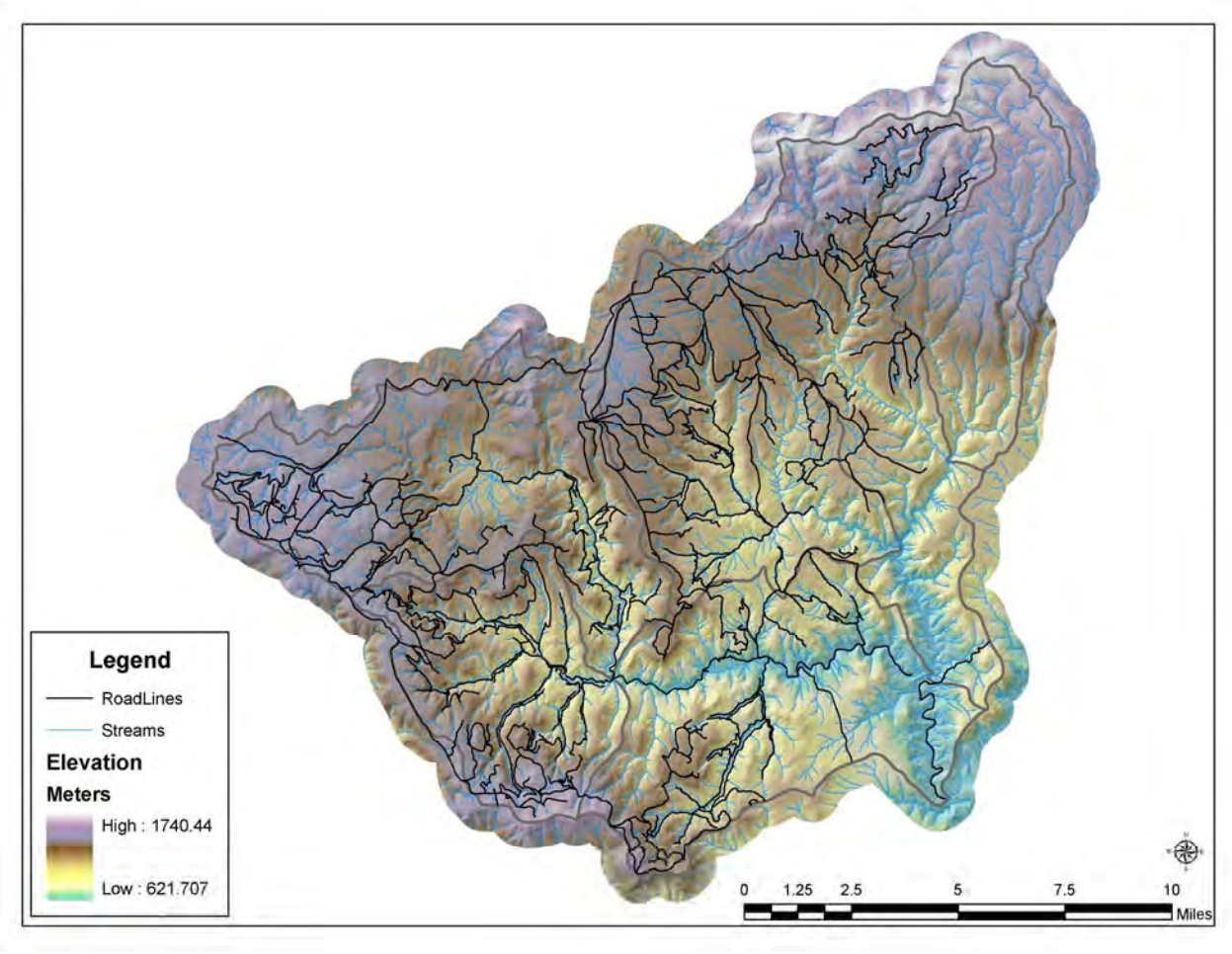


Figure 3: Wall Creek watershed map including roads surveyed.

Road surfaces in Wall Creek are most commonly described as crushed rock (35%), native (35%), or herbaceous vegetation (26%). Paved roads make up three percent of the total road surface. Most (85%) of the roads are in good condition and a further twelve percent are classed as rocky. Flowpaths are primarily wheel tracks (63%), with diffuse (19%) and ditch (18%) making up the bulk of the remainder. About 90% of the flowpaths do not have any problems.

Bear Valley roads vary in appearance and drainage features, but most have a native surface. Major roads such as the 582, 579, and 563 roads were originally crowned with an inboard ditch and diffuse drainage off the fillslope, but often have an outside berm with frequent non-engineered drainage features where water cut through a berm and off the road prism. The north end of the Bearskin road (FR 563) had frequent, effective engineered berm drains that acted like lead off ditches, diverting flow away from the road and streams. Many roads in Bear Valley pass through vast meadows and wetland areas surrounded by flat terrain and sensitive vegetation and wildlife habitat areas. Such roads did not always have clearly defined flowpaths or stream connection.

Mid- to upper-slope roads at higher elevations and in the south end of the watershed generally had steeper gradients and were constructed with various periodic drainage

features. Concentrated flow and clearly defined flowpaths were more common in steeper terrain. Many unclassified, closed, or decommissioned roads existed in these upper-slope areas which drained largely by means of waterbars or diffuse drainage. The usage and maintenance level of upper-slope roads in the Bear Valley watershed is generally lower than that of lower-slope roads.

Live stream crossings were especially frequent on lower-slope roads, although they did exist at all slope positions. The watershed has relatively flat topography with limited steep terrain, so stream crossing fills, cutslopes, and fillslopes are typically small. Roads often run parallel to stream channels, especially at lower elevations in the watershed (e.g. FR 582 on Bear Valley Creek, FR 563 on Bearskin Creek, and FR 579 on Elk Creek). Data suggest, however, that the majority of forest roads in Bear Valley pose little to no risk to aquatic resources.

5.0 Results

GRAIP inventory and modeling tools were used to characterize the following types of impacts and risks:

- Road-stream hydrologic connectivity
- Fine sediment production and delivery
- Drain point condition
- Upstream sediment accumulation
- Stream sediment input
- Stream crossing failure risk
- Gully initiation risk
- Landslide risk

5.1 Road-stream Hydrologic Connectivity

Roads can intercept shallow groundwater and convert it to surface runoff, resulting in local hydrologic impacts when that water is discharged directly to channels (Wemple et al. 1996). Additional runoff is also produced from the compacted road surface. Basin-scale studies in the Oregon Cascades suggests that a high degree of integration between the road drainage system and the channel network can increase peak flows (Jones and Grant 1996).

GRAIP calculates the hydrologically-connected portion of the road using the field assessment of drain point connection and a road segment flow routing system. The flow path below each drain point is followed until evidence of overland flow ceases or the flow path reaches a natural channel. A total of 29 km (18 mi) out of the 235 km (146 mi) of inventoried road in Bear Valley (12.5%) were hydrologically connected to a stream.

5.2 Fine Sediment Production & Delivery

Fine sediment production for a road segment (E) is estimated based on a base erosion rate and the properties of the road (Luce and Black 1999), as shown below.

$$E = B \times L \times S \times V \times R$$

B is the base erosion rate[1] (kg/m)
L is the road length (m) contributing to the drain point
S is the slope of the hillslope (m/m) below the drainpoint
V is the vegetation cover factor for the flow path
R is the road surfacing factor

Delivery of eroded sediment to the channel network is determined by observations of each place that water leaves the road. Each of these drain points is classified as delivering, not delivering, or uncertain. No estimate of fractional delivery is made because there is insignificant hillslope sediment storage in locations where there is a clear connection to the channel under most circumstances. For this analysis, uncertain observations were treated as delivering. A map of the road surface sediment delivery and the accumulated sediment delivered through drain points is shown for portions of roads 569, 502, 563, and 579 (Figure 3). These road segments have high levels of stream connectivity and sediment delivery. Most other roads have low to moderate levels of sediment delivery.

Figure 3. Fine sediment delivery to channels by road segment and drain point. The road line is colored to indicate the mass of fine sediment that is generated on the road and delivered to the channel. The size and color of the circle indicates the accumulated mass of sediment delivered through each drain point.

Drain Point Analysis

Delivery of fine sediment occurs through a mix of road drainage features including ditch relief culverts, non-engineered drain points, stream crossings and others. In Table 3, sediment delivery is broken out by drain type to assess their effectiveness in preventing sediment from entering the channel. A total of 3,826 drain points were documented, 414 of which (11%) were hydrologically connected to stream channels. However, only 282 of these stream-connected drain points (7% of all drain points) were observed to be

[1] For this analysis, a base erosion rate of 79 kg/m of road length was assumed, based on observations in the Oregon Coast Range (Luce and Black 1999). Further work could determine if this rate is appropriate for this climate, geology and road system.

actively delivering sediment to a channel (see Table 4).These points deliver 288.4 tons/year of sediment, or 10% of the sediment generated by the road surfaces and ditches. Existing drain points are always recorded when spotted in the field, but field crews may determine that a drain point is not actively receiving any water flow from the road based on observed evidence. In this case, the drain point is noted to be an "orphan" drain point and no flow is routed to it.

There are eight different types of drain points defined in the GRAIP model: broad based dips, diffuse drainage, ditch relief culverts, lead off ditches, non engineered drainage features, stream crossings, sumps, and water bars. The three drain types which delivered the most sediment to a stream channel are stream crossings, non-engineered drains, and ditch reliefs with sediment deliveries of 95.4 tons/yr, 71.7 tons/yr, and 65.9 tons/yr, respectively. This means that 33% of all 288.4 tons of road sediment delivered to a stream annually is delivered directly to a stream crossing at a road/stream intersection. Similarly, 25% of all sediment delivered leaves the road prism at a non-engineered drain and 23% at a ditch relief culvert. The other five drain types deliver considerably less sediment to the stream channels, each at less than 7% of total sediment delivered (see Figure X).

Table 3. Summary of sediment production and delivery at drain points.

Drain Type	Count	Σ Sediment Production (kg/yr)	Σ Sediment Delivery (kg/yr)	% Sediment Delivery	% Length[1] Connected
Broad Based Dip	488	479,541	18,851	4%	4%
Diffuse Drain	1077	548,721	20,147	4%	2%
Ditch Relief Culvert	388	470,358	65,850	14%	15%
Lead Off Ditch	90	101,897	7,730	8%	7%
Non-Engineered	501	383,420	71,698	19%	20%
Stream Crossing	191	95,439	95,439	100%	100%
Sump	14	2,597	0	0%	0%
Waterbar	1077	679,433	8,662	1%	2%
All Drains	**3826**	**2,761,406**	**288,377**	**10%**	**11%**

Figure X. Distribution of total sediment delivered by drain type.

Reasons behind the large difference between the three highest producers and the other five may be that many stream crossings, non-engineered drains, and ditch reliefs exist on lower-slope roads that are close to a stream channel. Many of the lower maintenance level, unclassified, less-travelled, decommissioned, or closed roads are located far from streams, covered by vegetation, or have not seen traffic for a number of years. Such roads are often mid- to upper-slope and are drained by closely spaced water bars or broad based dips, or they drain diffusely. Consequently, these low-maintenance, low-traffic roads tend to deliver less sediment to the stream channel. Further analysis could be done using GRAIP data to validate or reject these observations and to better understand other variables surrounding the effectiveness of different drain types in a given location. Geographical location of drain types, slope

position, the surface type of adjacent road segments, or other factors that play into sediment production and delivery could be investigated.

[1] *ELength* was used to calculate this figure. It is the effective length of road that was draining to a particular drain point. If a road segment has two distinct flowpaths assigned to different drain points, the ELength for that drain point will be equal to one half of the total length of the corresponding road segment

The drain types with the highest percentage of features that actively deliver sediment to a stream channel are stream crossings, ditch relief culverts, and non-engineered drains. Any road segment draining directly to a live stream crossing is automatically going to be delivering its produced sediment to that stream. Therefore, 49% of stream crossings in Bear Valley are “orphan” drain points. Sediment delivery from non-engineered drains could likely be mitigated through road maintenance, such as removing the outside berm and re-establishing diffuse drainage off the fillslope. Ditch relief culverts delivering sediment may require the installation of more frequent road drainage features uproad in order to decrease the volume and energy of water flowing down the road or ditch and through the pipe.

Table 4. Summary of drain point connectivity to streams and observed active sediment delivery at drain points (i.e. orphan drain points may be connected to the stream, but do not actively drain water or sediment from the road surface).

Drain Type	Count	Drain Points Connected to Stream	% of Drain Points Connected	Drain Points Actively Delivering Sediment to Stream	% of Drain points Actively Delivering Sediment to Stream
Broad Based Dip	488	23	5%	18	4%
Diffuse Drain	1077	22	2%	19	2%
Ditch Relief Culvert	388	67	17%	54	14%
Lead Off Ditch	90	6	7%	6	7%
Non-Engineered	501	87	17%	72	14%
Stream Crossing	191	191	100%	98	51%
Sump	14	0	0%	0	0%
Waterbar	1077	18	2%	15	1%
All Drains	**3826**	**414**	**11%**	**282**	**7%**

The precise percentage of all drain points contributing 100% of the sediment to the stream system in Bear Valley is 7.37%. Figure 5 displays the distribution of these drain points contributing sediment on a cumulative scale. The data confirm that 1.2% of all drain points contribute 50% of all the sediment. This is equal to a total of 46 drain points causing half of the problem. Furthermore, 116 drain points (3%) account for 80% of the sediment, 157 (4.1%) for 90% of the sediment, and so on. These figures suggest a scalable amount of maintenance that could drastically diminish the impact of roads on Bear Valley Creek and its tributaries.

Figure 5. Percentage of the total amount of fine sediment delivered to a stream channel explained by the the percentage of the total quantity of drain points.

Sediment delivery from roads in Bear Valley appears to be dispersed throughout the watershed. Specific locations where clusters of drain points with high sediment delivery exist are few with varying characteristics. Initial analysis suggests that the data do not show patterns of consistently similar characteristics among separate areas of high sediment delivery. Further analysis of slope position, gradient of road segments producing sediment, or other factors could be done to help predict locations of problematic drain points. One observation made in reviewing the GRAIP data is that

stream delivery often occurred at or near live stream crossings. When a road bends around a draw where a stream is present, whether at the stream crossing or at a nearby ditch relief culvert, water bar, broad based dip, diffuse, or non-engineered drainage feature, road sediment often reaches the stream in close proximity to the crossing.

Drain points draining extended lengths of road, if connected to the stream, are likely to deliver a large quantity of sediment. Figure 9 shows a map of the top 24 sediment-delivering drain points throughout the entire Bear Valley watershed. The average *ELength* of road draining to the top 24 sediment-delivering drain points was 184 meters compared to an overall average of 61 meters. The average slope of the hillslope directly below each of the top 24 sediment-delivering drain points was the same as the overall average at 14%. All 24 features were within less than 200 meters of a stream crossing or a stream running parallel to the road.

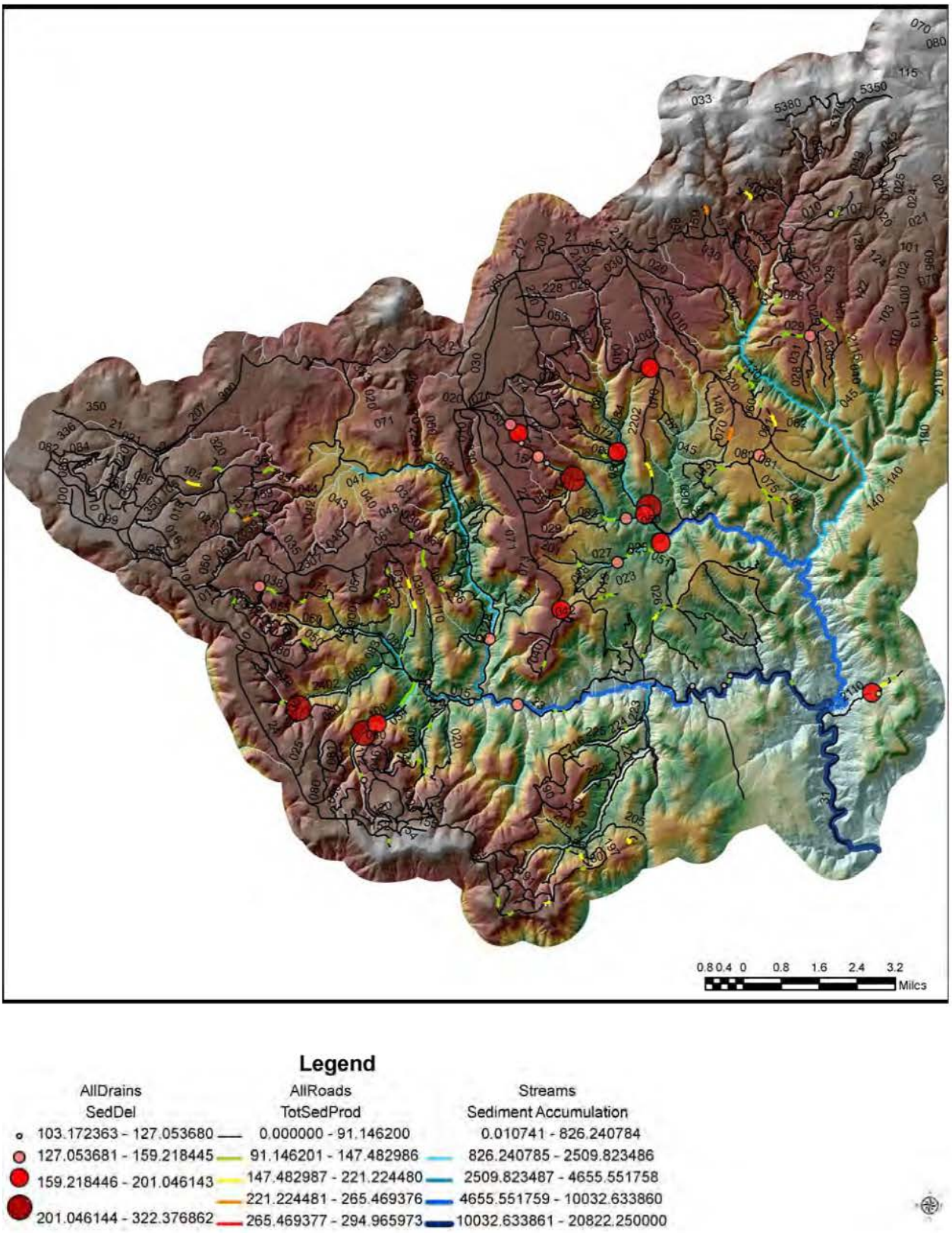


Figure 9. Map showing the 33 highest sediment delivery points and top 100 sediment producing road segments. These 33 drainpoints account for 25% of the delivered sediment; the top 100 road segments account for 15.3% of the produced sediment.

Road Segment Analysis

The fraction of sediment delivered can also be broken down in terms of road length. Figure 6 displays the distribution of individual road segments contributing fine sediment to a channel by road length. Of the 235,229 meters of total road length, 7,167 meters (3%) are generating 50% of the sediment delivered to streams. That amounts to approximately 4.5 miles of road out of 146 miles surveyed that are generating half of the road sediment load found in Bear Valley streams. Less than 6% (13,848 m or 8.6 mi) of road length generates 80% of sediment delivered, 7.6% (17,930 m or 11.1 mi) generates 90%, and 12.5% (29,409 m or 18.3 mi) generate 100% of sediment delivered.

Figure 6. Percentage of the total amount of fine sediment delivered to a stream channel explained by the the percentage of the total road length.

These data suggest that fine sediment delivery from roads could be substantially reduced with the implementation of a feasible amount of project work. The GRAIP data could be used to identify the specific location of sediment delivering road segments. Various road improvements could be made to these segments to decrease or eliminate sediment delivery including constructing additional drainage features or re-surfacing roads.

The total number of road segments is not meaningful for many analytical puposes because each road segment varies in length and other characteristics. However, it is useful to note the number of road segments that would require attention or repair for management purposes. Not all problematic road segments are adjacent to each other, which may necessitate detailed logistical planning for the implementation of project work. Figure 7 demonstrates the relationship between the percentage of total sediment delivery to streams and the percentage of all road segments contributing sediment. Out of a total of 3,175 individual road segments, 338 (11%) are delivering sediment to streams. Of these segments, 59 (1.9%) are contributing 50% of the sediment, 145 (4.6%) account for 80% of the sediment, and 198 (6.2%) generate 90% of delivered sediment.

Figure 7. Percentage of the total amount of fine sediment delivered to a stream channel explained by the the percentage of the total quantity of road segments.

The dominant surface type found on Bear Valley roads was native material (see Figure 8). Many decommissioned, closed, or otherwise lightly-used roads were found to have grasses and other types of herbaceous vegetation growing abundantly on the once native road surface. Small lengths of decommissioned roads had significant amounts of brush growing on the surface. A short stretch of the 568 road to Dagger Falls was paved surrounding the Bear Valley Creek crossing. Native surfaced roads generate

considerably more sediment than other surface types, with paved roads generating the least amount of sediment. The GRAIP model calculates that native surfaced roads produce 10 times as much sediment as paved roads, and 5 times that of any other surface type.

Figure 8. Distribution of road surface types found in Bear Valley by road length.

Vegetation in the flowpath also figures into the equation when calculating sediment production on a road segment. Vegetation can act as a filter, thereby impeding erosion and sediment transport. GRAIP significantly reduces its prediction of sediment production when vegetation in the flowpath is recorded to be any figure greater than 25%. Field data reported that 27% of the total flowpath length was observed to be more than 25% obstructed by any sort of vegetation. The remaining 73% of total flowpath length in the watershed had 25% or less vegetated cover, resulting in no reduction of sediment production estimates.

5.3 Drain Point Condition

The GRAIP inventory involves an assessment of the condition of each drain point and a determination of how well it is performing its intended function. Problems with drain point condition are pre-defined for each drain type. Broad based dips are considered to be in poor condition if they are insufficiently outsloped and pond water on the road. Culverts are defined to be in poor condition if they have more than 20% occlusion of the inlet by sediment, substantial inlet crushing, significant rust, or flow around the pipe. Lead off ditches are considered problematic if they have excess deposition or are gullied. Non-engineered features are almost always a problem due to a blocked ditch, a gully, or a broken outside berm. Stream crossings are considered a problem if they are blocked by sediment or wood, crushed or rusted significantly, incising, scouring or loosing much water from flow around the pipe. Sumps are a problem if they pond water on the road surface or cause fill saturation. Waterbars that are damaged, under sized, or do not drain properly are defined as problematic. Diffuse drains (outsloped roads) are rarely observed to have drain point problems.

Figure 6. Examples of drain point condition problems including erosion at a broad based dip, a rusted and damaged ditch relief culvert, a stream crossing with flow around and possibly over the pipe, and a non-engineered feature where the stream is cutting into the road fill material.

In Bear Valley, non-engineered features were observed to have the highest rate of problems (43%), while lead off ditches or berms and diffusely drained roads were least likely to have problems (Table 1). Any drain point that causes erosion of fill material at its outlet is considered problematic. Drain point features that most often eroded fill material at the outlet or away from the fillslope were non-engineered features and water bars (both at 4%).

Table 7. Drain point condition problems and fill erosion below drain points.

	TOTAL	CONDITION PROBLEMS		FILL EROSION	
Drain Type	Count	Count	Percentage	Count	Percentage
Broad Based Dip	488	23	5%	6	1%
Diffuse Drain	1077	0	0%	2	0.2%
Ditch Relief	388	48	12%	11	3%
Lead Off	90	0	0%	0	0%
Non-Engineered	501	215	43%	19	4%
Stream Crossing	191	15	8%	5	3%
Sump	14	2	14%	0	0%
Waterbar	1077	76	7%	45	4%
Total	**3826**	**379**	**10%**	**88**	**2%**

Features other than actual drain points were often observed and recorded during the field inventory on Bear Valley roads. Gates, ends of roads, gullies, landslides, photo points, road closure features, and road hazards are among these additional features. Given that these features are not the focus of the GRAIP model, it is likely that more of these features exist than what was recorded. Of these additional collected features, some were noted to be damaged, hazardous, or in need of maintenance or attention. Two out of seven gates were noted to be damaged or dysfunctional. Four road hazards were recorded where various circumstances pose a risk to vehicles or people using the road.

5.4 Upstream Sediment Accumulation

5.5 Stream Sediment Input

5.6 Stream Crossing Failure Risk

Besides contributing fine sediment to streams through surface erosion, stream crossings may fail catastrophically when blocked and deliver large sediment pulses to stream channels. Stream crossing failure risks were assessed using the Stream Blocking Index (SBI, Flanagan et al. 1998). The SBI characterizes the risk of plugging by woody debris by calculating the ratio of the culvert diameter to the upstream channel width (w*) and the skew angle between the channel and the pipe inlet.

Field crews recorded a total of 191 stream crossings in Bear Valley. Of these stream crossings, 45 (24%) did not have a round culvert pipe present and were not included in the SBI calculations. These crossings were designed with a bridge or an oval pipe, were decommissioned and excavated, or did not include a pipe in the design. Risk of pipe plugging does not exist at most of these stream crossing types.

The SBI values for Bear Valley stream crossings were relatively high with an average value of 2 for the 146 assessed stream crossings (Figure 7). This is out of a range of 1 to 4, where 1 suggests minimal to no risk of blockage. The stream crossings with values of 3 and 4 all had culvert to channel width ratios equal to or less than 0.75. Approximately one third of these crossings had a channel angle (angle at which the channel enters the pipe) greater than 25 degrees.

Figure 7. Distribution of Stream Blocking Index values.

a) b)

Figure 8. SBI values on the 2300-100 and 2300-130 road stream crossings. a) pre-treatment; b) post-treatment

The risk of a stream crossing failure can also be viewed in the context of the consequences of failure (Flanagan et al. 1998). A consequence of concern at these stream crossings is the erosion of fill material into the stream channel. We calculated the fill material that would likely be excavated in an overtopping type failure. We modeled the prism of fill at risk as bounded at the base by an area 1.2 times the channel width, with side slopes climbing to the road surface at an angle of 33%. The fill volume at risk in the pre-treatment road configuration was approximately 4,098 m^3. All of this material and a great deal more was excavated during the restoration work.

A second, and perhaps greater, consequence of concern at failed stream crossings is the diversion of stream flow onto road surfaces and unchannelled hillslopes. Once a crossing becomes occluded and begins to act as a dam, failure can occur in several ways. If the road grade dips into and rises out of the crossing, the failure is likely to be limited to a localized overtopping of the stream crossing. However, if the road grades away from the stream crossing in one or more directions, the flow may be diverted down the road and ditch and onto adjacent hillsopes, where it can cause gullying and/or landsliding (Furniss et al. 1998, Best et al. 1995). In these situations, volumes of sediment far exceeding those at the crossing can be at risk.

GRAIP addresses this issue by classifying the potential for stream crossings to divert streamflow down the adjacent road as: no potential, potential to divert in one direction, or potential to divert in two directions. At this site, 60% (9 of 15) of the stream crossings on the original roads had the potential to divert streamflow down the road in at least one direction. The restoration treatments eliminated these risks at all but one site. The sole remaining site with diversion potential was observed on the 2355-100 road to trail conversion, where a 2-foot wide ephemeral channel crosses the travel surface via an un-armored waterbar near the start of the project. Although a stream ford cannot be blocked in a manner similar to a culvert a failure of the drainage structure here is possible

5.7 Gully Initiation Risk

Gullies are always considered a problem and those recorded in this survey generally occur at outlets of drain points. No landslides were observed in this survey.

Gullying at drain points below roads can be a substantial source of sediment to stream channels. Gully initiation occurs when the shear stress applied by runoff exceeds the strength of the soil surface on the hillslope. GRAIP computes the Erosion Sensitivity Index (ESI) (Istanbulluoglu et al. 2003), as shown below, at each drainage point.

$ESI = L \times S^2$, where:

L is the road length contributing to the drain point
S is the slope of the hillslope below the drain point

Calculated ESI values are then compared to a critical ESI threshold (ESI_{crit}) to identify areas with a high risk of gully formation (i.e., where ESI > ESI_{crit}). ESI_{crit} is empirically-derived for each study area using inventoried gullies. Here, $ESI_{crit} = 5$, as the risk of gully initiation increases by a factor of 3-4 above that value (Table 6).

Table 6. ESI values for all concentrated drain points at the control and pre-treatment sites. At this site $ESI_{crit} = 5$, as gully frequency increases significantly above that value.

ESI Value	<1.25	1.25-5	5-23	>23
# of sites with gullies	2	1	8	6
# of sites without gullies	28	17	33	33
% Gullied	7%	6%	24%	18%

The average pre-treatment ESI was 14.2, with an average contributing road length of 82 m. 53% (33 of 62) of the pre-treatment drain points fell into this high risk group (Figure 6). Post-treatment ESI values had a mean of 7.6, due to increased drainage frequency and decreased contributing road length to each drain point. While the average length of road delivering water to these points was reduced to 21 m, 39% of them (32 of 62 total points) still had ESI values in excess of 5. Therefore, using the conservative assumption that the post-treatment value of ESI_{crit} is the same as the pre-treatment condition, the total number of drain points with a high risk of gully initiation was calculated to have been reduced by only one as a result of the decommissioning treatments. Thus, the risk of gully initiation may still be high on much of the sampled landscape.

Actual performance of the restoration treatments may exceed these initial predictions, however. The assumption that ESI_{crit} remains the same after treatment is conservative because hydrologic theory suggests that the treated roads may not deliver runoff at the same rate as the pre-existing road, which was gravel-surfaced and compacted. Unfortunately, we do not yet know whether and to what degree this is this case at this site. Post-storm validation monitoring will help address this unresolved question.

a) b)

Figure 6. ESI values for drain points concentrating discharge on the 2354-200.

a) pre-treatment and b) post-treatment. Drains with high risk of gullying (ESI >5) are shown in orange and red. The slope map in the background indicates the component of gully risk due to hillslope gradient.

5.8 Landslide Risk

Existing Landslides

The Skokomish area has a high incidence of shallow landsliding due to the combination of steep slopes and high rainfall. Landslide volume was estimated for all landslides visible from the road that are greater than a minimum threshold of 6 feet in slope length and slope width. The pre-treatment road inventory recorded 33 road related landslides: 12 cutslope failures with an estimated volume of 8,000 yd^3, 19 fillslope failures totaling 92,000 yd^3 and a single hillslope failure that generated 39,000 yd^3. One road contained the majority (13) of the landslides in the decommissioning study area. Many failures were related to gullies, landslides and diverted drainage from the two upslope roads, much of which occurred during the last decade (R. Stoddard personal communication) (Figure 4).

Figure 4. Landslide locations on road 2355-100. These were caused by several upslope roads that routed water and sediment through gullies.

Changes in Landslide Risk

The risk of shallow landslide initiation is predicted using SINMAP 2.0 (Pack et al., 2008, http://hydrology.neng.usu.edu/sinmap2/), modified to account for contributions of road runoff. An example from the 2354-200 road is shown in Figure 5 to illustrate the change in risk in an area where the inherent landslide risk is high. SINMAP was run initially to determine the intrinsic stability of the slopes over which the road traverses and to identify locations that are at high risk of failure without a road (Figure 5a).

A second stability index (SI) run was performed to address the effects of road water contribution to drain points on the original road network. The grid cells with increased risk of landsliding due to the original road drainage are shown in Figure 5b. This example illustrates the redistribution of intercepted groundwater to a waterbar that discharges to a swale. The swale location (shown in orange and red) was previously mapped as within the area of highest risk and the additional drainage expanded the area at risk of failure. Further down the road there was a non-engineered drainage feature that discharged to a concave slope position with high SI values. Below this point on the road there were two stream crossings and a non-engineered drain point that did not discharge enough water to change the stability. The landsliding risk was not

increased in these areas because the water was mostly routed from the road directly to the channel, without impacting the hillslope.

A third model run was performed to illustrate the change in risk of shallow landsliding with the modified road drainage system resulting from the restoration treatments (Figure 5c). Three waterbars were added to the road above the high risk swale location, one just upslope of the problem location. This resulted in a net reduction in risk at the pre-existing, non-engineered point due to a reduction in discharge. Further down the road, the addition of four new waterbars resulted in small localized increases in SI values as more water was added to steep locations. The net effect of the decommissioning treatments, which increased road drainage frequency, achieved the goal of reducing risk at the two highest risk locations in the sample area. However, risks were slightly increased in other locations because in steep, dissected terrain, it is difficult to redirect discharge from one location without elevating the risk in others. These findings are consistent with Madej (2001), who concluded that decommissioned roads in high risk areas commonly experience failures after treatment because their effects cannot always be fully mitigated.

The inventory and modeling done here should help better characterize the needs for treatment in these locations and quantify potential risks to downslope resources. For example, in some areas, recontouring may be more important, or new waterbars and other drainage features may need to be spaced more closely and placed more strategically to reduce the risk of shallow landslides. Post-storm monitoring will help calibrate the SI values used in this analysis and refine these initial results. Questions to be evaluated include the amount of runoff still intercepted by cutslopes and runoff generated from ripped surfaces following treatment.

a) b) c)

Figure 5. Stability index for hillslopes in the vicinity of road 2354-200.

a) SI values in an un-roaded condition. b) Increases in SI due to the addition of drainage from the original road. c) Difference in SI values between the original and decommissioned road. Orange and red colors indicate increased risk. Blue colors indicate lower risk.

6.0 Quality Assurance and Quality Control

Three road sections were selected for Quality Assurance and Quality Control (QAQC) analysis. Each of these roads were completed by each crew and by an expert crew. Sediment production and sediment delivery results were compared to measure precision and bias. One of these sections was chosen based on having high sediment production and high sediment delivery. Another section was specifically chosen to have only a few sediment delivery points. The third section was chosen by convenience and is more representative of the average road conditions within the watershed.

Precision is a measure of repeatability and consistency. Since sediment production and delivery values were so low, absolute precision was measured by calculating the standard deviation:

$$s = \sqrt{\frac{\sum_{i-1}^{n}\left(x_i - \overline{X}\right)}{n}}$$

where,

x_i = individual estimate of sediment production or delivery (replicate)

$\overline{X}$ = mean of all replicates, including estimates derived from measurements by expert crew

N = number of replicates

Bias is a measure of accuracy. Absolute bias was calculated as:

$$B = \overline{X} - T$$

where,

T = estimated sediment production or delivery based on measurements obtained by expert crew

$\overline{X}$ = mean of all replicates, not including results of expert crew

Precision and bias were calculated for each of the three road segments and for all three in combination. For individual road segments, precision ranged from 0.01 T/km/yr to 0.10 T/km/yr and bias ranged from -0.09 T/km/yr to 0.16 T/km/yr. When all three segments area analyzed together, precision is 0.04 T/km/yr for both sediment production and delivery; bias is 0.02 T/km/yr for sediment delivery and 0.04 T/km/yr for sediment production. These values are well below the target values of 1 T/km/yr for sediment delivery and 2 T/km/yr for sediment production.

Table Y: QAQC statistics for Wall Creek.

QAQC1					
	Experts	Crew 1	Crew 2	Abs_Prec	Abs_Bias
Sum DP_SedDel	1415	892	1272		
Sum DP_SedProd	1440	1258	1438		
Sum_RD_Length	3598	3592	3617		
SedDel/Length (T/km)	0.39	0.25	0.35	0.06	-0.09
SedProd/Lemgth (T/km)	0.40	0.35	0.40	0.02	-0.03

QAQC2					
	Experts	Crew 1	Crew 2	Abs_Prec	Abs_Bias
Sum DP_SedDel	118	399	712		
Sum DP_SedProd	454	688	1220		
Sum_RD_Length	3163	3161	3157		
SedDel/Length (T/km)	0.04	0.13	0.23	0.08	0.14
SedProd/Lemgth (T/km)	0.14	0.22	0.39	0.10	0.16

QAQC3					
	Experts	Crew 1	Crew 2	Abs_Prec	Abs_Bias
Sum DP_SedDel	306	235	513		
Sum DP_SedProd	540	486	580		
Sum_RD_Length	3185	3172	3173		
SedDel/Length (T/km)	0.10	0.07	0.16	0.04	0.02
SedProd/Length (T/km)	0.17	0.15	0.18	0.01	0.00

All					
	Experts	Crew 1	Crew 2	Abs_Prec	Abs_Bias
Sum DP_SedDel	1839	1525	2496		
Sum DP_SedProd	2434	2432	3237		
Sum_RD_Length	9946	9925	9948		
SedDel/Length (T/km)	0.18	0.15	0.25	0.04	0.02
SedProd/Length (T/km)	0.24	0.25	0.33	0.04	0.04

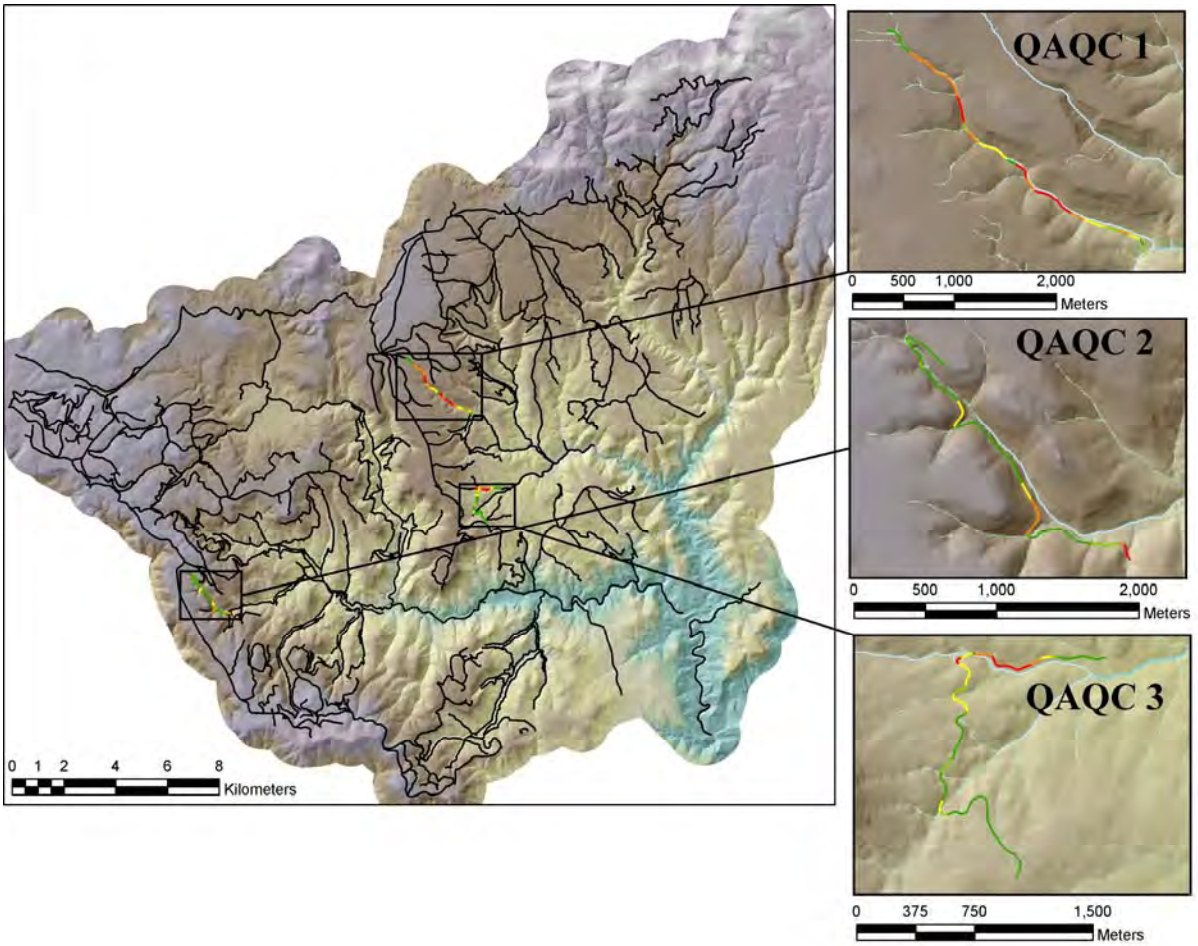


Figure Y: Map showing locations of the three QAQC segments.

7.0 Summary & Conclusions

References

Best, D. W., Kelsey, H. M., Hagans, D.K. and M. Alpert. 1995. Role of fluvial hillslope erosion and road construction in the sediment budget of Garret Creek, Humboldt County, California. In Geomorphic Process and Aquatic Habitat in the Redwood Creek Basin, Northwestern California. Nolan, K. M., Kelsey, H. M., and Marron, D. C. editors. USGS professional paper #1454. pp m1-m9.

Black, T. A., and Luce, C. H. 2007. The Geomorphic Road Analysis and Inventory Package (GRAIP) Data Collection Method. USDA Forest Service Rocky Mountain Research Station, Boise Aquatic Science Lab.

Flanagan, S. A., Furniss, M. J., Theisen, S., Love, M., Moore, K., and J. Ory. 1998. Methods for Inventory and Environmental Risk Assessment of Road Drainage Crossings. USDA Forest Service Technology and Development Program 9877-1809-SDTDC 45pp.

Furniss, M. J., Love, M., and S. A. Flanagan. 1997 Diversion Potential at Road Stream Crossings. USDA Forest Service Technology and Development Program 9777-1814-SDTDC 12pp.

Istanbulluoglu, E., Tarboton, D.G., Pack, R.T., Luce, C.H. 2003. A sediment transport model for incision of gullies on steep topography. Water Resources Research. 39(4): 1103-1117.

Jones, J. A., and G. E. Grant, 1996. Peak flow responses to clear-cutting and roads in small and large basins, western Cascades, Oregon, Water Resour. Res., 32, 959-974.

Luce, C.H., and T. Black. 1999. Sediment production from forest roads in western Oregon. Water Resources Research. 35(8): 2561-2570.

Madej, Mary A. 2001. Erosion and Sediment Delivery Following Removal of Forest Roads, Earth Surface Landforms and Processes, 26(2) pp.175-190.

Pack, R. T., Tarboton, D.G., Goodwin, C.N. and A. Prasad, 2005. SINMAP 2. A Stability Index Approach to Terrain Stability Hazard Mapping, technical description and users guide for version 2.0, Utah State University.

Prasad, A. 2007. A tool to analyze environmental impacts of road on forest watersheds. MS Thesis. Utah State University, USA.

Prasad, A,, Tarboton, D. G., Schreuders, K. A., Luce, C.H., and T.A. Black. 2007. GRAIP1.0 Geomorphic Road Analysis and Inventory Package: A tool to analyze the environmental impact of roads on forested watersheds. Tutorial and Reference Manual. http://WWW.engineering.usu.edu/dtarb/graip.

Wemple, B. C., Jones, J. A., and Grant, G. E. 1996. Channel network extension by logging roads in two basins, western Cascades, Oregon, Water Resources Bulletin, 32, 1195-1207.

OR-054-042/Wall Creek Inventory Unit

PURPOSE:

This addendum provides signatory authority across gaps in supervisory oversight in the preparation process.

DISCUSSION:

Further study has been conducted to validate the findings approved by the original signator, Christina Welch. As the new Field Manger for the Resource Area and Ms. Welch's replacement I have been briefed by the specialists assigned on the contents and underlying rationale for the findings contained in this document. I approve these findings with my signature below.

APPROVED BY:

SIGNATURE

Thursday, July 08, 2010

Prepared by:

Team Members:
Initial Review Aug. 14, 2007 by: Heidi Mottl (Recreation/Wilderness), Teal Purrington (NEPA/Planning), Dorothy Thomas (GIS), Anna Smith (Hydrology), Mike Tietmeyer (Range), Dan Tippy (Assistant Field Manager), Rick Demmer (Riparian), Monte Kuk (Wildlife), Robert Vidourek (Forestry), Mike Williams (Planning), Berry Phelps (Recreation), Craig Obermiller (Range), John Morris (Fish), Dana Cork (Transportation), Christina M. Welch (Field Manager), Don Tschida (Fire), Gavin Hoban (GIS), John Zancanella (Cultural), JoAnne Armson (Plants).

Realty/Mineral Records researched by Timothy Finger, BLM Wilderness Specialist on detail from Richland, UT, October, 2008

Approved by:

Christina M. Welch
Field Manager

Oct. 31, 2007
Date

This form documents information that constitutes an inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative* remedies *under either 43 CFR parts 4 or 1610.5-2.