

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
BURNS DISTRICT OFFICE

CATEGORICAL EXCLUSION ENVIRONMENTAL REVIEW AND APPROVAL

CX Number: DOI-BLM-OR-B050-2012-0018-CX

Date: 1/08/2012

File Code (Project/Serial Number):

Applicant: Eastern Oregon Agricultural Research Center
(EOARC)

Preparer: Travis Miller, RMS

Title of Proposed Action: Research Project: Identifying ecological limitations to grass seedling establishment

Description of Proposed Action and Project Design Elements:

INTRODUCTION:

Rangeland ecosystems around the world sustain society with critical ecological goods and services such as food and fiber. Natural and human caused disturbances can degrade ecological systems beyond a threshold after which they no longer provide adequate goods and services. On rangelands, these disturbances include soil erosion and desertification, invasive weeds, improper grazing, wildfires, energy development, and climate change. The ability to re-establish functional plant communities on degraded rangeland is essential for protecting and conserving our natural resource base for future generations. In many cases, once ecosystems pass a critical ecological threshold, they will not recover without active intervention. Unfortunately, even with active management such as seeding, restoration is extremely difficult and restoration failure rates are high.

The broad goals of this project are to provide a systems approach for developing improved seedling establishment and restoration strategies on rangeland and to use this system to identify and overcome barriers to seedling establishment in the Wyoming big sagebrush steppe ecosystems of the western US. EOARC proposes using life-cycle population models as the basis for a systems framework. These models provide a quantitative link between plant population dynamics and management and can be used to predict long-term affects of management on vegetation.

OBJECTIVES:

- 1) Determine the degree to which demographic rates vary spatially for major restoration species along ecological gradients in Wyoming sagebrush steppe.
- 2) Conduct sensitivity analyses to determine which life stage transition most limits seedling recruitment and seeded species population growth.
- 3) Identify ecological processes limiting key life stage transitions and seeded species population growth.

METHODS:

To test these objectives EOARC will seed monocultures of crested wheatgrass, bluebunch wheatgrass, bottlebrush squirreltail, and Sandberg's bluegrass into prepared plots at 5 sites (Roundtop, Egley, Double O, Diamond, Burke Springs) in fall 2012 and a second set of plots within each of the 5 sites in fall 2013. The selected sites are dominated by cheatgrass. In half of the plots cheatgrass will be controlled using glyphosate applied in accordance with the label directions and in compliance with Burns District BLM herbicide policies (EA OR-020-98-05) and Vegetation Treatments Using Herbicides on BLM Lands in Oregon FEIS (July 2010), Volume 1, in spring 2012 and spring 2013. Each plot will be 100 m² (10 x 10 m). Plots will be tilled to a depth of 2" and the seedbed firmed using recommended methods (NRCS 2001). There will be a total of 100 plots covering an area 140 x 140 m at each site (4.8 acres). EOARC also will install micrometeorological equipment including a rain gauge, solar panel, and soil moisture sensors at 1" 6" and 12" depth. Plots will be monitored intensively during spring following planting and EOARC will continue to follow treatments for 4 growing seasons. Plots will be seeded with a compact seed drill with a light tractor or ATV.

LAND USE ACTIONS:

To accomplish the proposed study one enclosure will be constructed around each of the five sites, and will be 4 strand barbed wire 140 x 140 m with wood pole corner posts buried 2-3 feet deep and steel t-posts to span wire between corner posts. One wire gate will be installed on each enclosure. Each enclosure will be required to have fence markers, 2 placed between each t-post, to prevent bird strikes in particular sage grouse. The enclosure sites will be surveyed for cultural resources prior to construction. All equipment used during fence construction and seeding activities will be cleaned prior to entering and leaving each site to reduce the spread of noxious weed seeds.

An herbicide with glyphosate as the active ingredient placed in a tank mounted on an ATV will be used to remove cheatgrass, and will be applied once in the spring of 2012 and 2013. Glyphosate will be used in accordance with the label directions and in compliance with Oregon/Washington BLM herbicide policies (EA OR-020-98-05). EOARC will be responsible to maintain each enclosure, and remove all material from BLM land when finished with the study (2019).

Project Locations (see attached maps):

Corner points for the study site are (NAD 83) UTM

Round top		Egley		Diamond		OO		Burksprings	
Y (UTM)	X (UTM)	Y (UTM)	X (UTM)	Y (UTM)	X (UTM)	Y (UTM)	X (UTM)	Y (UTM)	X (UTM)
4823719	264093	4824341	313412	4779003	364774.7	4788537	309986.1	4689949	364257.4
4823719	264243	4824341	313562	4779003	364924.7	4788537	310136.1	4689949	364407.4
4823569	264093	4824191	313412	4778853	364774.7	4788387	309986.1	4689799	364257.4
4823569	264243	4824191	313562	4778853	364924.7	4788387	310136.1	4689799	364407.4

B. Conformance with Land Use Plan (LUP) (name): Three Rivers Resource Management Plan, September 1992 & Andrews/Steens Resource Management Plan, August 2005.

The proposed action is in conformance with the applicable Three Rivers LUP, even though it is not specifically provided for, because it is clearly consistent with the following LUP decision(s):

- Soils and Biological Soil Crusts: 2-15, SM 1- Prevent deterioration of soil resources by ensuring that BLM-administered lands are in stable or upward observed trend categories as outlined in "Rangeland Monitoring in Oregon and Washington" BLM Handbook H1730-2. Protection of soil resources ensures continued biologic productivity and prevention of Federal land degradation.
- Vegetation: 2-51, V 1- Maintain, restore or enhance the diversity of plant communities and plant species in abundances and distributions which prevent the loss of specific native plant community types or indigenous plant species within the Resource Area.
- Wildlife: 2-74, WL 7- Restore, maintain or enhance the diversity of plant communities and wildlife habitat in abundance and distributions which prevent the loss of specific native plant community types or indigenous wildlife species habitat within the Resource Area.
- Biological Diversity: 2-203, BD 3- Maintain representative examples of the full spectrum of ecosystem's biological communities, habitats and their ecological processes. Provide for the increase of the scientific understanding of biological diversity and conservation.
- Cultural Resources: 2-152, CR-1 – Protect the cultural and paleontological values in the RA from accidental or intentional loss, while providing special emphasis to high value sites and conserving those resources of overriding scientific or historical importance.

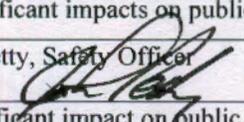
The proposed action is in conformance with the applicable Andrews/Steens LUP, even though it is not specifically provided for, because it is clearly consistent with the following LUP decision(s):

- Vegetation, Rangelands RMP – 30: Goal 1, maintain, restore or improve the integrity of desirable vegetation communities including perennial, native, and desirable introduced plant species.
- Vegetation, Noxious Weeds RMP – 32: Goal 1, control the introduction and proliferation of noxious weeds and reduce the extent and density of established populations to acceptable levels.

BLM Categorical Exclusion Reference (516 DM, Chapter 11): J-9 – Construction of small protective enclosures, including those to protect reservoirs and springs and those to protect small study areas.

DOI Categorical Exclusion Reference (516 DM 2, Appendix 1):

Screening for Exceptions: The following extraordinary circumstances (516 DM 2, Appendix 2) may apply to individual actions within the categorical exceptions. The indicated specialist recommends the proposed action does *not*:

CATEGORICAL EXCLUSION EXTRAORDINARY CIRCUMSTANCES DOCUMENTATION	
2.1	Have significant impacts on public health or safety.
Specialist – John Petty, Safety Officer	
Signature and Date:	 2/13/12
Rationale:	No significant impact on public health and safety.
2.2	Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); flood plains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas.
Migratory Birds	
Specialist – Jason Brewer, Wildlife Biologist	

Signature and Date: *Jason Bunn* 2/13/2012
Rationale: Rational. The small size of the plots and the placement of plots in communities dominated by cheatgrass suggest there is low risk of direct impacts to migratory birds. Application of herbicides would occur in the spring, but would be limited to small areas of low quality habitat where few if any birds are likely to nest. Application method would minimize drift and potential impacts to adjacent plant communities. There projected amount of ground disturbance is small (~2.5 acres total) and would spread over a large area (>20 miles between sites). Implementation of the project (seeding/spraying/fencing/monitoring) would be temporary, but may cause birds to flush from or avoid the immediate area during project activities. Construction of fences may increase the risk of injury or mortality, but the project would only add approximately 1.75 miles of fence over an area larger than 2,100 square miles. This would result in a negligible increase in the amount of fence per square area and poses low risk to migratory bird populations across this area. All fences would be removed after the study (in 2019), eliminating the threat to birds. The treatments may improve the quality of the habitat for migratory after several growing seasons, but the small amount (~0.5 acre) of habitat treated at each site would not likely have measurable effects on migratory bird populations.

Historic and Cultural Resources
Specialist – Scott Thomas, District Archeologist
Signature and Date: *Scott Thomas* 2/13/12
Rationale: Two of the plots (Burke Springs and Round Top) have been surveyed during other clearance with no sites found. The other three plots have not been inventoried and will require clearances prior to implementation of the project. If cultural or historic sites are found within or adjacent to the plots the plots will be moved slightly to avoid the sites. Based on that mitigation, no historic or cultural sites would be affected by this project.

Areas of Critical Environmental Concern/Research Natural Areas
Specialist – Caryn Meinicke, Natural Resource Specialist (Botany)
Signature and Date: *Caryn Meinicke* 2/13/12
Rationale: No RNAs or ACECs are present in the five proposed locations.

Water Resources/Flood Plains
Specialist – Lindsay Davies or Lisa Grant, Natural Resource Specialists (Riparian and Fisheries)
Signature and Date: *Lisa Grant* 2-8-2012
Rationale:
Proposed sites are not located in floodplains and would not affect water resources.

Soils, Biological Soil Crust, Prime Farmlands
Specialist – Caryn Meinicke, Natural Resource Specialist (Botany)
Signature and Date: *Caryn Meinicke* 2/13/12
Rationale: Soil disturbance will result from tilling to a depth of 2". This disturbance will be short term, approximately one growing season and will not adversely impact soils. The presence of Biological Soil Crusts is unlikely if these areas are dominated by cheatgrass because cheatgrass tends to establish and dominate the same inner spaces as BSCs. There are no prime farmlands within the proposed research areas.

Recreation/ Visual Resources
Specialist – Mike Kelly, Outdoor Recreation Specialist
Signature and Date: *Mike Kelly* 2-14-2012
Rationale:
Recreation: No effects to recreation are anticipated.
Visual Resources: The Visual Resource Management (VRM) Class for the test plots range from VRM class 2 to VRM class 4. The VRM classes are as follows:
VRM Class 2, Objective: To retain the existing character of the land. Level of change should be low.
VRM Class 3, Objective: To partially retain the existing landscape. Level of change to the existing landscape can be moderate.
VRM Class 4, Objective: To provide for activities that requires major modification of the landscape. Level of change to the landscape can be high.
The addition of these exclosures will not change the existing landscape in these areas of range use and improvements.

Wilderness/Wild and Scenic River Resources
Specialist – Eric Haakenson, Outdoor Recreation Specialist
Signature and Date: *Eric Haakenson* 2-13-12
Rationale: There is no wilderness, WSA or WSR present, or Lands with Wilderness Characteristics.

2.3 Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2) (E)].

Specialist – Rhonda Karges, District Planning and Environmental Coordinator
Signature and Date: *Rhonda Karges* 2/14/12
Rationale: There are no known highly controversial environmental effects or unresolved conflicts concerning alternative uses of available resources. Implementation would be in sites dominated by cheatgrass and fence construction would be temporary and short-term (2019). Research projects commonly occur on BLM-administered lands and the use of glyphosate is an approved chemical commonly used by BLM for noxious weed control/eradication.

2.4 Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.

Specialist - Rhonda Karges, District Planning and Environmental Coordinator
Signature and Date: *Rhonda Karges* 2/14/12

Rationale: There are no known highly uncertain or potentially significant environmental effects or unique or unknown environmental risks. Implementation would be in sites dominated by cheatgrass and fence construction would be temporary and short-term (2019). Research projects commonly occur on BLM-administered lands and the use of glyphosate is an approved chemical commonly used by BLM for noxious weed control/eradication.

2.5 Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.

Specialist – Rhonda Karges, District Planning and Environmental Coordinator

Signature and Date: *Rhonda Karges* 2/14/12

Rationale: Implementation would not establish a precedent for future action or represent a decision in principle about future actions with potentially significant effects. Implementation would be in sites dominated by cheatgrass and fence construction would be temporary and short-term (2019). Research projects commonly occur on BLM-administered lands and the use of glyphosate is an approved chemical commonly used by BLM for noxious weed control/eradication.

2.6 Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.

Specialist – Rhonda Karges, District Planning and Environmental Coordinator

Signature and Date: *Rhonda Karges* 2/14/12

Rationale: Implementation would not have any known direct relationship to other actions with individually insignificant but cumulatively significant environmental effects. Implementation would be in sites dominated by cheatgrass and fence construction would be temporary and short-term (2019). Research projects commonly occur on BLM-administered lands and the use of glyphosate is an approved chemical commonly used by BLM for noxious weed control/eradication.

2.7 Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by either the bureau or office.

Specialist – Scott Thomas, District Archeologist

Signature and Date: *Scott Thomas* 2/13/12

Rationale: See the Historic and Cultural Resources section.

2.8 Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species.

Endangered or Threatened Species-Fauna

Specialist – Jason Brewer, Wildlife Biologist

Signature and Date: *Jason Brewer* 2/13/2012

Rationale: There are no Threatened or Endangered species or Designated Critical Habitat in the project area and none would be influenced off-site from implementation of this project.

Endangered or Threatened Species-Aquatic

Specialist – Lindsay Davies or Lisa Grant, Natural Resource Specialists (Riparian and Fisheries)

Signature and Date: *Lisa Grant* 2-8-2012

Rationale:

Aquatic T&E species or critical habitat are not present in the proposed treatment areas.

Endangered or Threatened Species-Flora

Specialist – Caryn Meinicke, Natural Resource Specialist (Botany)

Signature and Date: *Caryn Meinicke* 2-13-12

Rationale: No Federally listed T&E or special status species of flora or associated Critical Habitat are present.

2.9 Violate a Federal law, or a State, local, or tribal law or requirement imposed for the protection of the environment.

Specialist – Rhonda Karges, District Planning and Environmental Coordinator

Signature and Date: *Rhonda Karges* 2/14/12

Rationale: Implementation would not violate any known federal law or requirement imposed for the protection of the environment. Implementation would be in sites dominated by cheatgrass and fence construction would be temporary and short-term (2019). Research projects commonly occur on BLM-administered lands and the use of glyphosate is an approved chemical commonly used by BLM for noxious weed control/eradication.

2.10 Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).

Specialist – Rhonda Karges, District Planning and Environmental Coordinator

Signature and Date: *Rhonda Karges* 2/14/12

Rationale: Implementation would not have a disproportionately high or adverse effect on low income or minority populations as such populations do not exist in the project area.

2.11 Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007).

Specialist – Scott Thomas, District Archeologist

Signature and Date: *Scott Thomas* 2/13/2012

Rationale: Access to or integrity of Indian sacred sites would not be affected by this project.

2.12 Contribute to the introduction, continued existence, or spread of noxious weeds or nonnative invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious

Weed Control Act and Executive Order 13112).

Specialist – Lesley Richman, Natural Resource Specialist (Weeds)

Signature and Date: *Lesley Richman 2/13/2012*

Rationale: The areas under study already have cheatgrass infestations and this project will not exacerbate the problems.

Additional review (As determined by the Authorized Officer):

RMP conformance and CX review confirmation:

Specialist: *Rhonda Karges*, District Planning and Environmental Coordinator

Signature: *Rhonda Karges*

Date: *2/14/12*

Management Determination: Based upon review of this proposal, I have determined the Proposed Action is in conformance with the LUP, qualifies as a categorical exclusion and does not require further NEPA analysis.

Authorized Officers: *Richard Roy*, Three Rivers Field Manager & *Joan Suther*, Andrews Field Manager

Signature: *William Gray*

Date: *2/14/2012*

Signature: *Joan M. Suther*

Date: *2/14/12*

Decision: It is my decision to implement the Proposed Action with Project Design Elements as described above.

This decision may be appealed to the Interior Board of Land Appeals (IBLA), Office of the Secretary, in accordance with regulations contained in 43 Code of Federal Regulations (CFR), Part 4 and Form 1842-1. If an appeal is filed, your notice of appeal should be mailed to the Burns District Office, 28910 Highway 20 West, Hines, Oregon 97738, within 30 days of receipt of the decision. The appellant has the burden of showing the decision appealed is in error.

A copy of the appeal, statement of reasons, and all other supporting documents should also be sent to the Regional Solicitor, Pacific Northwest Region, U.S. Department of the Interior, 805 SW Broadway, Suite 600, Portland, Oregon 97205. If the notice of appeal did not include a statement of reasons for the appeal, it must be sent to the Interior Board of Land Appeals, Office of Hearings and Appeals, 801 North Quincy Street, Arlington, Virginia 22203. It is suggested appeals be sent certified mail, return receipt requested.

Request for Stay

Should you wish to file a motion for stay pending the outcome of an appeal of this decision, you must show sufficient justification based on the following standards under 43 CFR 4.21:

- The relative harm to the parties if the stay is granted or denied.
- The likelihood of the appellant's success on the merits.
- The likelihood of immediate and irreparable harm if the stay is not granted.
- Whether or not the public interest favors granting the stay.

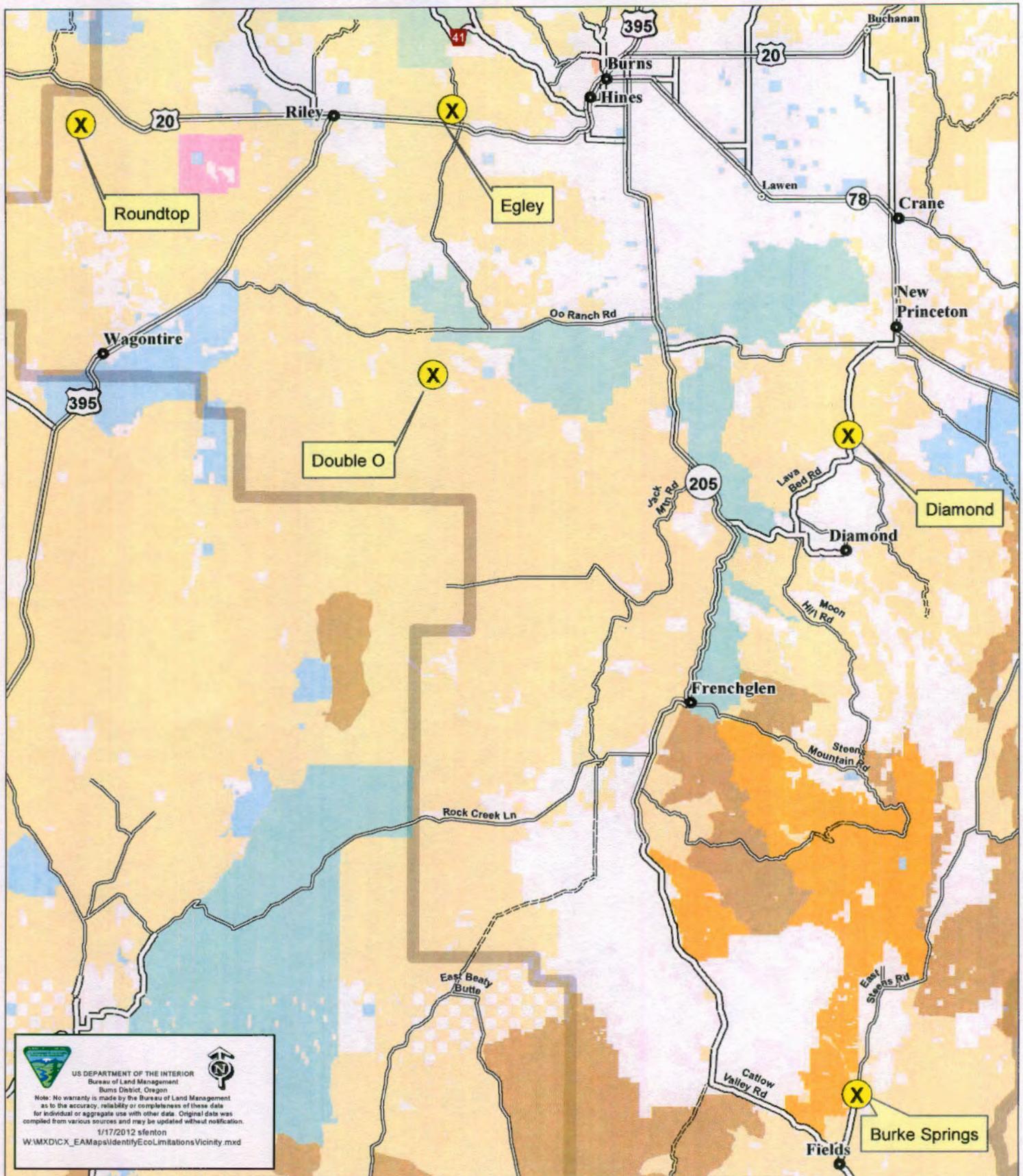
As noted above, the motion for stay must be filed in the office of the authorized officer.

Richard Roy
Richard Roy, Three Rivers Field Manager

2/14/2012
Date

Joan M. Suther
Joan Suther, Andrews Field Manager

2/14/12
Date

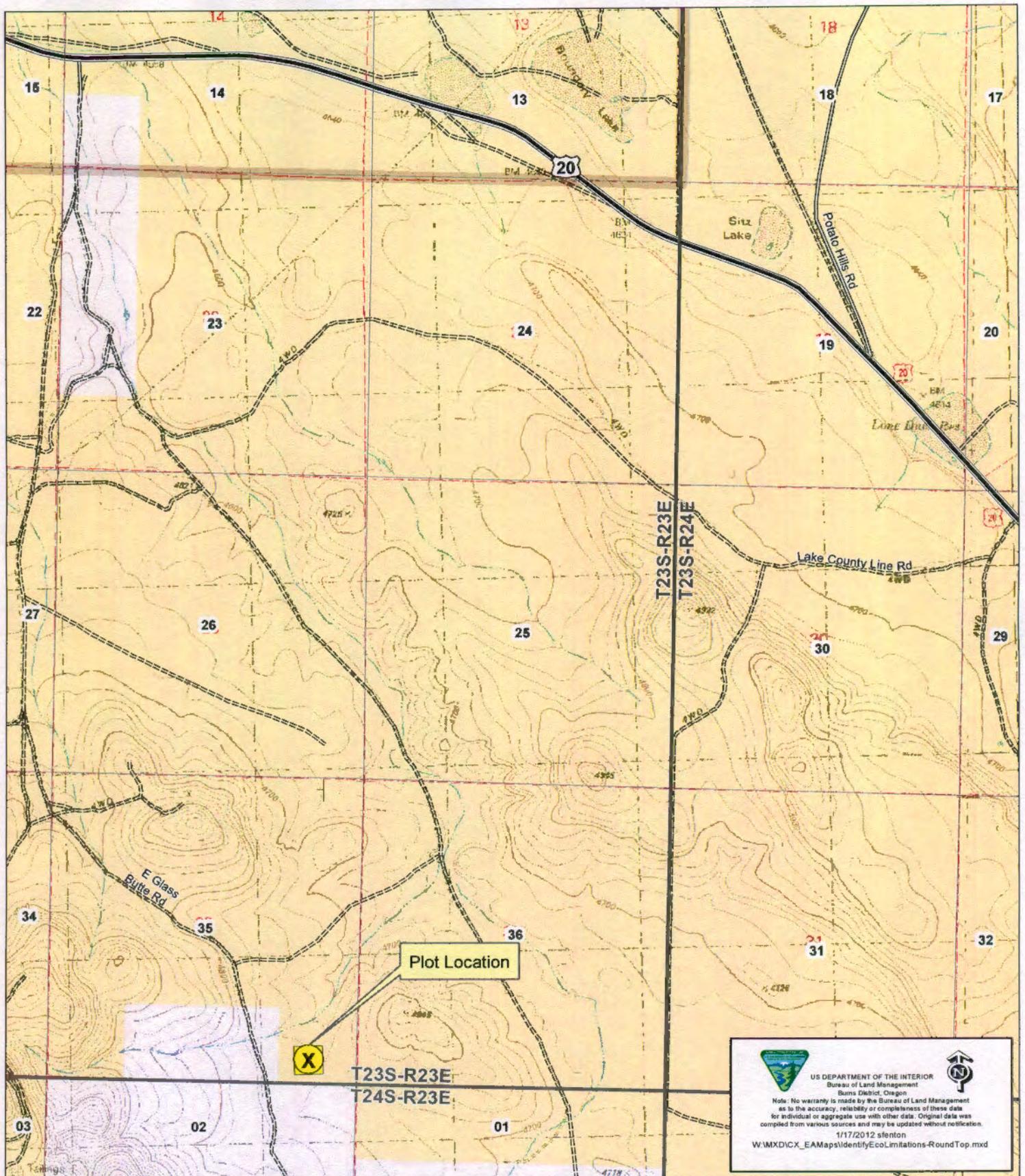



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Identifying Ecological Limitations to Grass Seedling Establishment STUDY PLOT VICINITY MAP

- | | | | |
|-------------------------|------------------------------|--------------------------------|---------------------------|
| Study Plot Locations | Highways | Bureau of Land Management | Bureau of Indian Affairs |
| Burns District Boundary | Paved Road | U.S. Forest Service | Other Federal |
| | Non-Paved Improved Road | U.S. Fish and Wildlife Service | Private/Unknown |
| | Natural/Unknown Road Surface | State | BLM Wilderness Study Area |
| | | | Steens Mtn Wilderness |

20 Miles



Identifying Ecological Limitations to Grass Seedling Establishment ROUND TOP STUDY PLOT

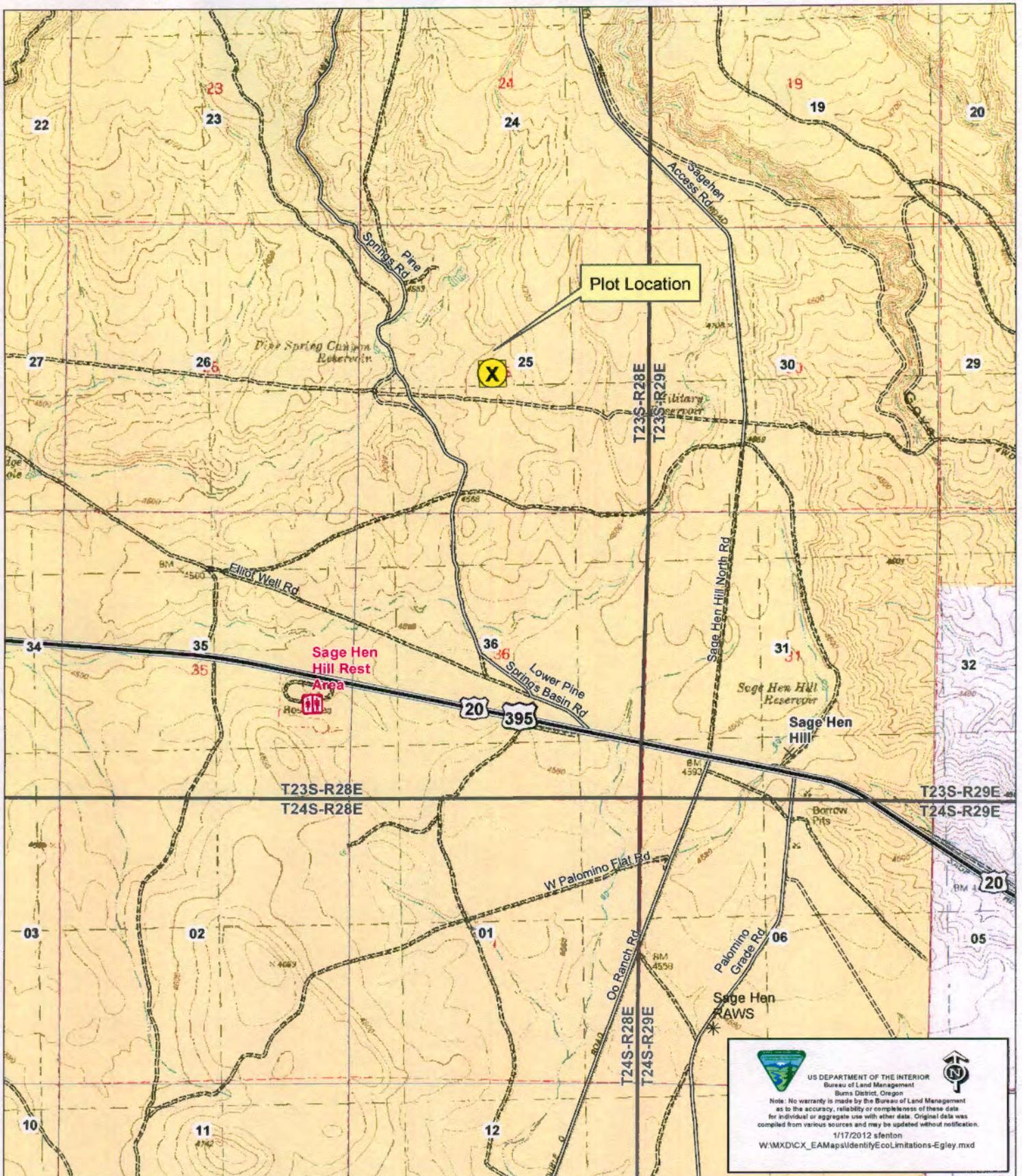
Legend

- Study Plot Locations
- Burns District Boundary
- Bureau of Land Management
- Private/Unknown
- Paved Road
- Non-Paved Improved Road
- Natural/Unknown Road Surface
- Highways



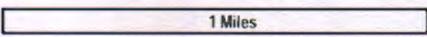
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Identifying Ecological Limitations to Grass Seedling Establishment EGLEY STUDY PLOT

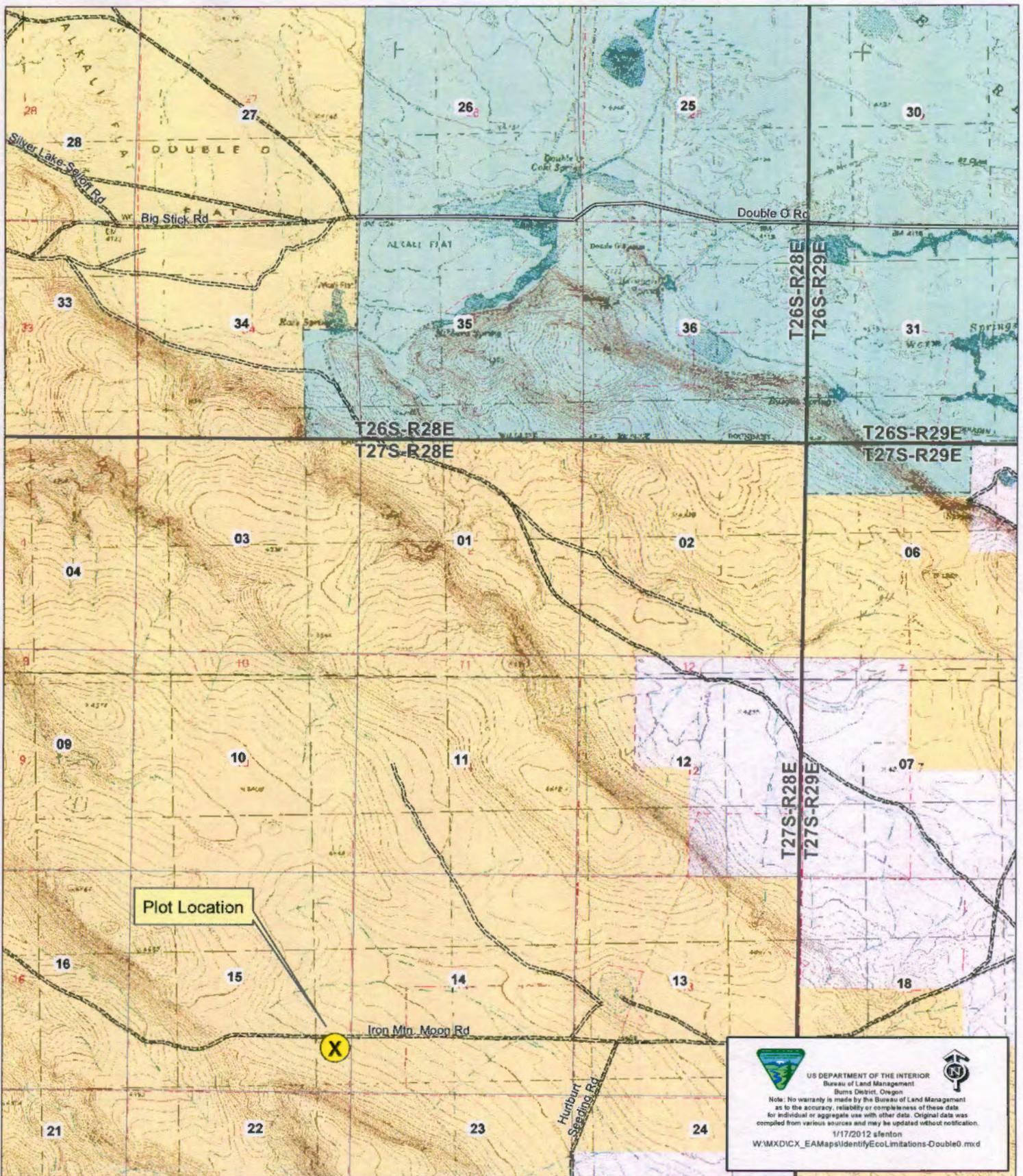
- Legend
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|----------------------|--|---------------------------------------|--|
| Study Plot Locations | Bureau of Land Management
Private/Unknown | Paved Road
Non-Paved Improved Road | Natural/Unknown Road Surface
Highways |
|----------------------|--|---------------------------------------|--|



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Identifying Ecological Limitations to Grass Seedling Establishment DOUBLE O STUDY PLOT

Legend

- | | | |
|--|---|--|
| Study Plot Locations | U.S. Fish and Wildlife Service | Paved Road |
| | State | Non-Paved Improved Road |
| | Bureau of Land Management | Natural/Unknown Road Surface |
| | Private/Unknown | |

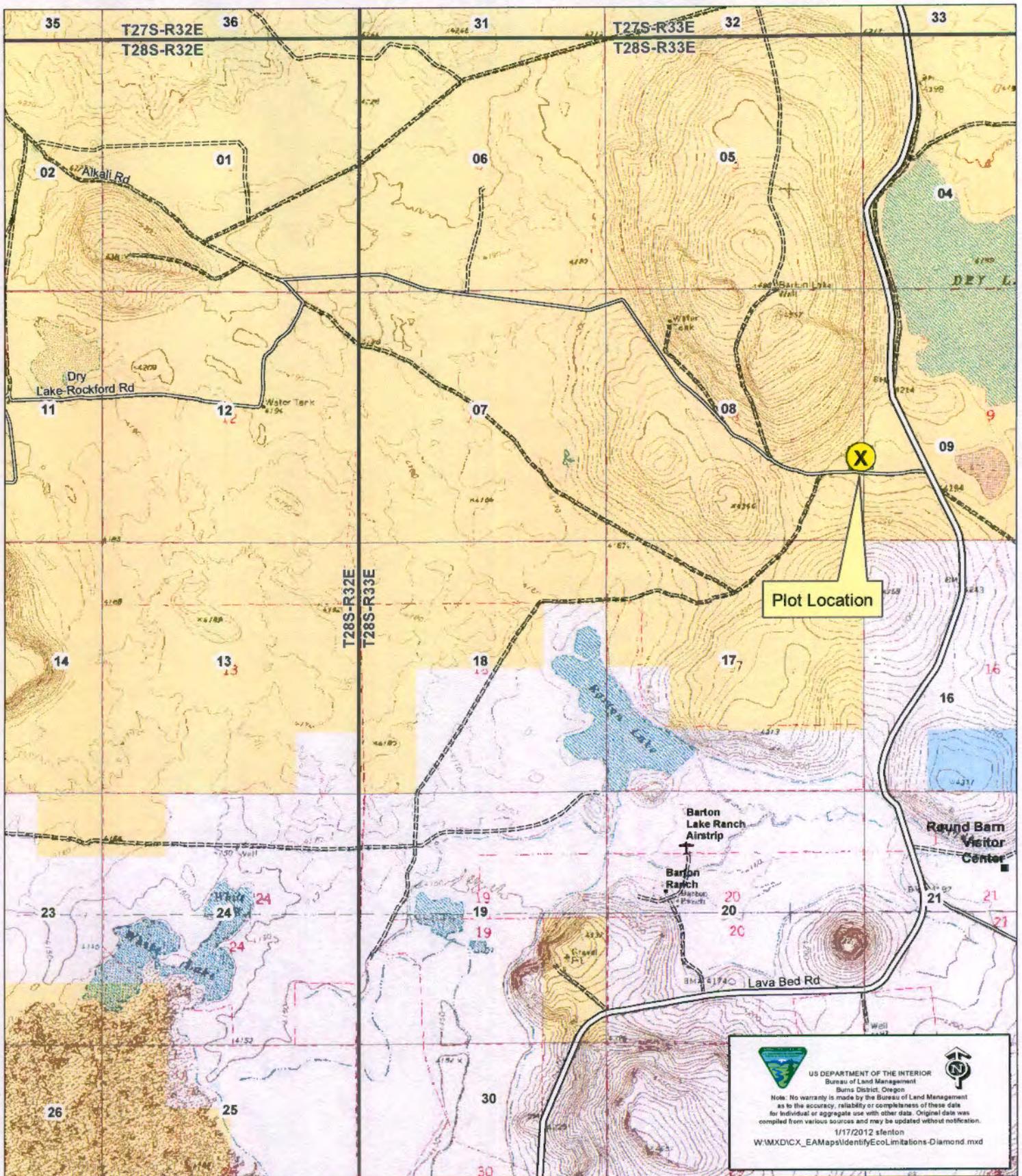
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Identifying Ecological Limitations to Grass Seedling Establishment DIAMOND STUDY PLOT

Legend

Study Plot Locations

State

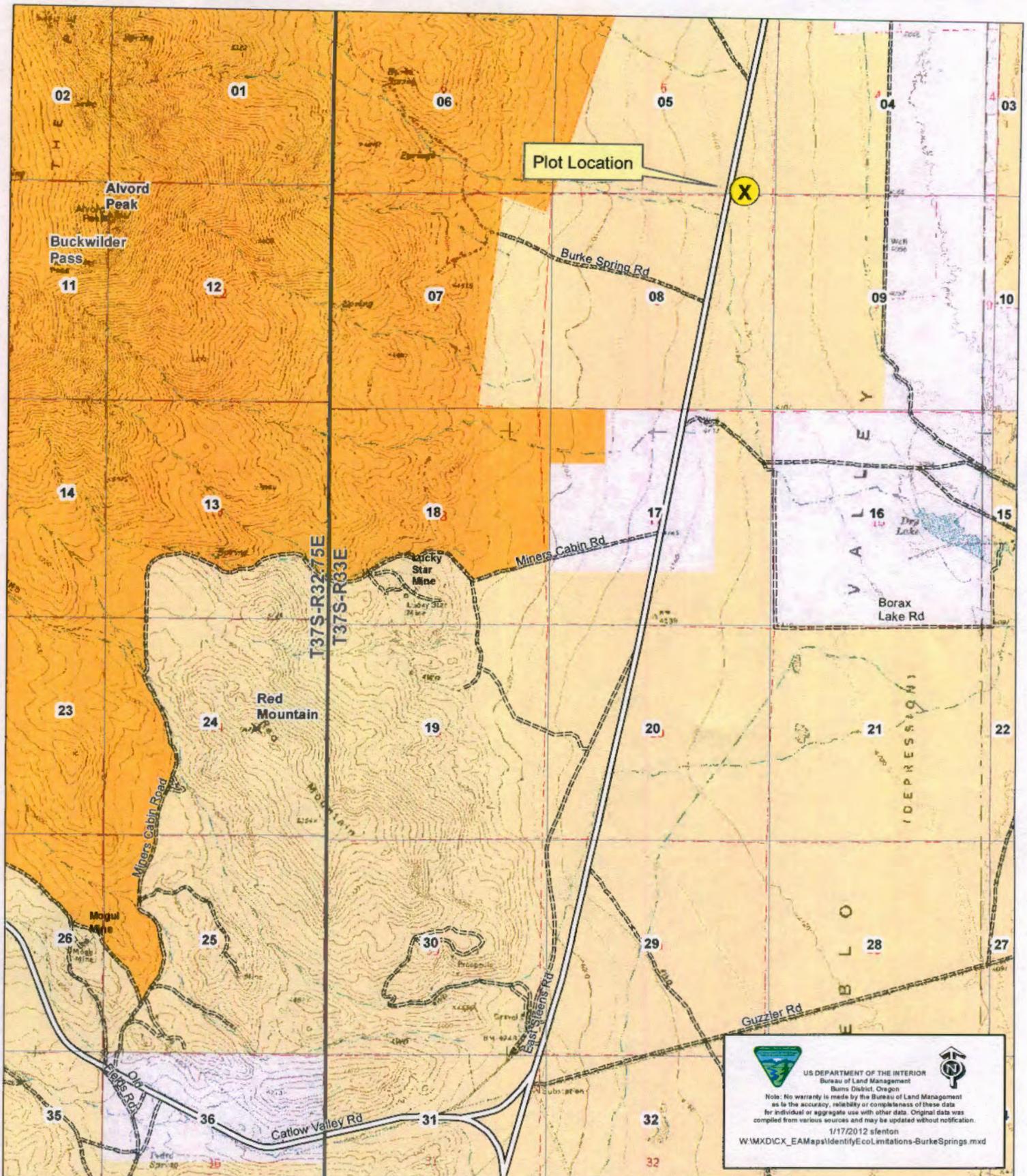
Bureau of Land Management
Private/Unknown

Paved Road

Non-Paved Improved Road

Natural/Unknown Road Surface

1 Miles



Identifying Ecological Limitations to Grass Seeding Establishment BURKE SPRINGS STUDY PLOT

Legend

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| <ul style="list-style-type: none"> Study Plot Locations | <ul style="list-style-type: none"> Bureau of Land Management Private/Unknown Steens Mtn Wilderness | <ul style="list-style-type: none"> Paved Road Non-Paved Improved Road Natural/Unknown Road Surface |
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1 Miles

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