Worksheet
Determination of NEPA Adequacy (DNA)
U.S Department of the Interior, Bureau of Land Management

A. Background
BLM Office: Prineville, OR NEPA Log #: DOI-BLM-OR-P060-2013-0029-DNA

Location: 4.5 miles north of Tumalo, OR (Sec. 28-33 of T15S, R12E and Sec. 5 and 6 of T16S, R12E)

Proposed Action Title: Tumalo Canal Vegetation Treatments

Description of the Proposed Action and any applicable mitigation measures:
The proposed action was developed and analyzed under Alternative 2 in the Cline Buttes Recreation Area Plan (CBRAP). The proposed action is to reduce western juniper on 1650 acres in the Tumalo area to lower the possibility of fire in the wild-urban interface (WUI); restore old-growth juniper woodlands; restore shrub-steppe plant communities; and restore heavily disturbed areas. No trees greater than 18 inches DBH (diameter at breast height), trees with stick or cavity nest, bearing trees, or trees with two or more old-growth characteristics (e.g., rounded tops, dead tops, furrowed bark, lower spreading branches, and fruticose lichen) will be cut. One to four young juniper trees per acre will be retained in old growth juniper woodland habitats (1224 acres) for recruitment to older trees. No juniper trees for recruitment purposes will be kept in shrub-steppe habitat (426 acres) which are generally more open areas within the project. Appendix B, Vegetation Types map, displays the two vegetation types in the project area and areas where the shrub steppe habitat is dominated by young junipers.

The treatment of the slash from the thinning will include one or more of the following methods: biomass removal (e.g., firewood); chipping; lop and scattering; mowing; hand piling and prescribed fire. The prescribed fire methods will include pile burning, swamper burning, and jackpot burning. On heavily disturbed areas the proposed action will decrease the abundance of cheatgrass and rabbitbrush by creating suitable conditions for native plant occupation by reducing compacted soils, and adding woody material to contribute nitrogen and nutrients to the soil and shade new developing plants (CBRAP, p.11). If indicated by post-treatment monitoring, heavily disturbed areas may be seeded with native (preferred) or non-native (last alternative) seeds, or a combination. Estimated acreage for seeding would range from 0-200 acres.

Appendix A, Tumalo Canal Vegetation Treatments DNA Map displays treatment areas, thinning prescriptions (Table 1; also includes Visual Resource Management adjustments), leave areas, and travel management routes. (Treatment areas will be flagged, where necessary, in the field prior to implementation.)

Table 1	
Tumalo Area Vegetation Treatments (Also on Appendix A Map)	**Acres**
Cut < 14 inch DBH, remove biomass and treat remaining slash	1214
Cut < 12 inch DBH, remove biomass and treat remaining slash	168
Cut < 8 inch DBH, leave marked trees, remove biomass and treat remaining slash	98
Cut < 8 inch DBH, remove biomass and treat remaining slash	90
Cut < 6 inch DBH, remove biomass and treat remaining slash	10
No treatment	70

Mitigation measures and project design features applied to the current proposed action are listed below. They are from the CBRAP (DOI-BLM-OR-P060-2006-0014-EA in Appendix 4, p. 267-275), as well as additional restrictions recommended by resource specialists:

Recreation

- The travel management map in Appendix A includes:
    - Temporary roads for vegetation removal access. They will be located outside of proposed trail corridors.
    - No full size vehicle use will be allowed on designated non-motorized trails less than eight feet wide.
- Designated trails and proposed rights-of-way (ROW) will be flagged in the field prior to vegetation treatments to allow for retention of trees that would provide shade and or protection to maintain the curvilinear nature of recreation trails.

Soil and Water Quality

- Trees that are cut will be felled away from all stream channels, including ephemeral draws, unless explicitly prescribed to be included into the channel network.
- Equipment operations will be limited to slopes of less than 20 percent.
- Soil moisture conditions will be monitored and operations would be suspended before unacceptable limits of compaction or displacement occur.
- Soil impacts from operations (compaction, displacement) would be limited to less than 20 percent of the total acreage within the treatment unit.
- Previously disturbed areas would be used where available to establish landings.
- Areas within 300 to 600 feet of roads and other suitable travel routes will usually be managed using the existing travel systems with wheeled or track vehicles. Areas farther than 600 feet from an existing road may require use of temporary, primitive routes when removing woody material from the site. Improvements to temporary routes will be limited to thinning of woody plants and movement of large rocks if needed for haul vehicle passage (unless these routes are part of the final proposed road or trail system). Travel by haul vehicles would be limited to designated routes which may be seeded, when necessary, upon completion of the management action. Light maintenance of existing roads may occur where necessary to allow haul vehicle use.

- Temporary access routes will be closed, rehabilitated, and/or disguised following use. Mounds and berms will be smoothed to the original contour.
- Rehabilitation methods for access routes, trails and landings could include seeding, scarification, and placing woody debris and/or boulders back onto the route.
- Rutted, rocky, and degraded portions of main access routes will be improved or rerouted when needed for operations or if prescribed for long-term road network improvements.
- Access roads will be maintained to the prescribed standard needed for operations, with a final maintenance treatment at the conclusion of operations. Maintenance could include such measures as adding fill to level the grade/facilitate drainage, blading, and dust abatement.

Forestry/Biomass

- To avoid wood theft problems the biomass removal contract will be scheduled to occur as soon as possible after the thinning contract. Smaller thinning subunits will be inspected, approved and released to allow quicker commercial biomass contractor access.
- Roads identified in the CBRAP to be closed may be included in the contract with appropriate specifications for closing, disguising and rehabilitation.

Weeds

- Contractors and other project entities (Agency and cooperator crews, COR, Inspectors, etc) will be required to clean equipment and vehicles, and have them checked for weed matter prior to entering the project area. If weed matter is found, equipment and vehicles must be rewashed. Contractors and other project entities will also be required to report any weeds sighted in their work areas. Any weed sighting information will be forwarded to the District Weed Coordinator.

Visual Resources

- All vegetation treatment designs will identify existing and proposed ROWs and include measures to partially screen built features (roads, structures, utility lines) from view of key observation points (KOP). Design of vegetation management projects will assess the change in contrast due to increased visibility of these ROWs and adjacent structures and mitigate where needed to meet or exceed VRM standards.
- Vegetation management actions will use BLM contrast rating methods and include completion of the VRM Contrast Rating worksheets (form 8400-4) in project design. Treatments will be designed to mimic patterns found in the characteristic landscape as well as to improve long distance scenic view opportunities.
- Vegetation management actions would incorporate seen area mapping from KOPs as a tool to help locate actions that cause greater contrast such as landings, swamper burn piles and machine piles in order to meet or exceed VRM standards.
- In locations where trails or ROWs are visible or potentially visible as part of a wide, panoramic view, treatment design will consider locating treatment edges at or near these routes, to avoid routes bisecting cleared areas.
- Early in each treatment design process, BLM will identify and use the following in designing all vegetation treatment within or adjacent to designated non-motorized trails and designated

motorized trails and routes:

- All proposed trails and who the intended user is for each trail
- Trail head locations
- Existing and proposed ROWs
- Additional or new KOPs

- Identification and possible flagging of existing and proposed trail and ROW routes prior to vegetation management treatments would be done in order to ensure that sufficient screening vegetation may be left to meet or exceed VRM standards.
- Burn piles, landings or other major features will not be located on existing or proposed trail corridors. Cut faces of visible trees will be oriented away from the trail.
- Leave adequate junipers along fence lines to avoid strong line and color contrast between BLM and private property, unless fuels can be treated simultaneously on BLM and adjacent private property.

Visual Resources - Tumalo Canal Area of Critical Environmental Concern (ACEC)

- No motor vehicle use is allowed on pedestrian trails in the Tumalo Canal ACEC, except on the existing road that bisects the ACEC north to south.
- Areas within the immediate foreground view of designated pedestrian/interpretive trails in the ACEC will be hand treated with no motor vehicle use allowed within 200 feet of the trail, with the possible exception of low-speed quad use in some areas outside the canal itself. In locations where designated pedestrian/interpretive trails provide elevated viewpoints, limitations on management actions will include areas greater than 200 feet if necessary to reduce visual contrast.
- All stumps will be no higher than four inches on the uphill side within 200 feet of designated trails. Based on post treatment evaluation, BLM may paint visible cut faces (stumps and stems) with an appropriate color selected from the BLM list of environmental colors and selected to match the surrounding landscape post treatment type.
- The relic canals will not be used for mechanized equipment travel used in treatment methods except at a minimum number of designated crossing points. Designated crossing points would be rehabilitated after vegetation treatments to restore the canal profile.
- Hand cutting of trees within 200 feet of designated trails will include scattering of slash and moving of tree stems outside of immediate viewshed of trails and scattering sufficiently to reduce height below or equal to surrounding shrub vegetation. If no screening shrubs exist, trees will be removed outside the trail corridor and treated by lop and scatter, chipping or other methods.
- Treatments will identify designated routes for motorized equipment and limit the density of these routes to the minimum necessary. Vehicle use will be limited to those with rubber tires. Project map in Appendix A identifies the designated routes for motorized access.
- Canal berms that need rehabilitated will be revegetated with a mixture of native grasses.
- Hand piling and burning will be done outside of the immediate foreground view of designated trails.

- Prescribed broadcast burning will not be used within the ACEC to avoid the potential to burn wood structures along the relic canal corridor and due to the presence of contiguous old-growth juniper woodlands.
- Public firewood cutting will not be used within the ACEC to avoid the creation of new travel routes and to avoid conflicts with recreational use.
- Trees will not be cut and left dead/down without trimming and scattering slash sufficient to reduce height of downed trees to equal or less than surrounding vegetation.

Wildlife

- When possible, avoid cutting during the period of April 15 – July 15
- Nest and cavity trees will not be cut.
- Snags (standing dead trees) will not be cut unless decided otherwise by the BLM for purposes of safety or fuel reduction.
- Additional leave trees may be identified to provide screening for wildlife.

Botany

- Known populations of Peck's milkvetch (*Astragalus peckii*) have been mapped and will be flagged, where necessary, on the ground prior to implementation. Removal of juniper will only be allowed in flagged areas when Peck's milkvetch plants are dormant, the period between late August and March. All felled materials will be removed from the boundaries of the flagged areas or from individually flagged plants. Contractors and other project entities will not drag downed junipers across flagged habitat and will avoid falling junipers into flagged habitat where possible.
- If it is determined, following treatment, that seeding is needed to rehabilitate disturbed areas or to reach the objectives of the CBRAP, the area will preferably be seeded with native species. If seeding with native species will not accomplish rehabilitation or meet the objective of the CBRAP, non-native seed or a combination of native and non-native seed may be used.

Cultural

- These areas have been surveyed for cultural resources and sensitive sites have been identified for protection through avoidance measures. These sites will be flagged prior to implementation. This will meet Section 106 compliance with the Oregon State Historic Preservation Office and general tribal concerns for the protection of cultural resources.
- Young juniper ($\leq$12") will be thinned in the Tumalo Canal ACEC to open up views of the canal system and return the area to a more open, old growth woodland character. Young juniper will be removed from the berm of the canal.

Range

- Range/livestock grazing will not be impacted by the proposed action beyond the effects described in the CBRAP EA. There is no active grazing in the project area at this time; therefore, a formal livestock closure during treatment activities is not required. If at some point in time, livestock grazing resumes on the allotments then a temporary grazing closure may be pursued, if deemed necessary by the BLM.

B. Land Use Plan Conformance

Land Use Plan Name: Upper Deschutes Resource Management Plan (UDRMP)
Record of Decision September 2005

The proposed action is in conformance with the applicable plan, even though it is not specifically provided for, because it is clearly consistent with the following land use plan decisions (objectives, terms, conditions): "In the wildland urban interface, live and dead vegetation will be managed so that a wildland fire would burn with fire behavior where firefighters can be safe and successful in suppression efforts under hot, dry summer weather conditions. Treatments will be designed for human safety while still considering recreation opportunities, wildlife habitat and corridors, visual quality, air and water quality, and public access." (UDRMP p. 62)

C. Identify applicable National Environmental Policy Act (NEPA) documents and related documents that cover the proposed action

The following NEPA documents (EA, DEIS, FEIS) and related document cover the proposed action:

- Cline Buttes Recreation Area Plan and Environmental Assessment (CBRAP)
  September 2009
- Upper Deschutes Resource Area Plan Final Environmental Impact Statement
  January 2005

D. NEPA Adequacy Criteria

1. Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?

- Yes. The proposed action is covered by alternative 2 in the Decision Record of the CBRAP which is essentially similar to the current proposed action. (CBRAP, p. 11-12)
  - "The proposed action is focused on achieving the overall vegetation objectives identified in Chapter 1 to reduce the possibility of fire in the Wildland Urban Interface (WUI); restore old-growth juniper woodlands; restore shrub-steppe plant communities; and restore heavily disturbed areas. (CBRAP, p. 11)
  - "The following types of actions would be implemented in order to reach the above objectives.
    - Cut young juniper
    - Cut, crush or mow shrubs and trees
    - Pile and burn cut juniper and shrubs on site
    - Prescribed broadcast burn
    - Remove cut trees from the site (via firewood cutting permits or commercial sales)
    - Seed with native or non-native seed, or a combination"

- Methods analyzed under alternative 2 that may be utilized for the current proposed action include hand pile and burn, lop and scatter, portable chipper, wood cutter commercial, chainsaw and swamper burn (CBRAP, table 1 p. 18)

- Yes. The current project is within the same analysis area and the geographic and resource conditions are sufficiently similar to those analyzed in the CBRAP (p. 10).

2. *Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the new proposed action, given current environmental concerns, interests, and resource values?*

Yes, the CBRAP EA considered a range of alternatives including no action and the thinning of young juniper trees. The alternatives remain adequate for the type and scale of treatment currently proposed.

3. *Is the existing analysis valid in light of any new information or circumstances (such as rangeland health standard assessment, recent endangered species listings, and updated lists of BLM sensitive species)? Can you reasonably conclude that all new information and new circumstances would not substantially change the analysis of the new proposed action?*

- Yes. The CBRAP EA was completed in September 2009. At that time, all current issues of concern including greenhouse gases and wilderness characteristics were analyzed. There are no new circumstances or information that would modify that analysis.

4. *Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document(s)?*

- Yes. The direct, indirect, and cumulative effects on hydrology, water quality, special status plant species, soils, air quality, fire management, visual resources, heritage, old growth juniper woodlands, shrub-stepp habitats, recreation, wildlife, transportation, right of ways, and range management were analyzed in the CBRAP EA pages 111-213.
    - The proposed action is a mechanical treatment of juniper and is similar to the following statement. "Mechanical treatment would, to some degree, mimic the natural role of fire which, though infrequent in old-growth juniper woodlands, historically contributed to ecological diversity by creating variable tree densities and gaps in the woodlands. Thinning young juniper would relieve competition for limited soil, water and nutrients and thus increase the health and longevity of the remaining trees." (CBRAP, p. 149)
    - The CBRAP EA analyzed the effects over a 32,000 acre project area. The current proposed project is limited to 1,660 acres within that 32,000 acres and would therefore be within the range of predicted effects.

5. *Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?*

- Yes. The Upper Deschutes Resource Management Plan and more recently the Cline Buttes

Recreation Area Plan covered public involvement and interagency review of the current action.

- According to the CBRAP, "Public input would be solicited periodically from partners, local residents, adjacent communities, and through the community wildfire protection plans." (CBRAP EA pg. 16). We currently have solicited public input twice since the signing of CBRAP. Future public involvement will be determined by the BLM when deemed necessary. BLM is also working with Deschutes County in developing their wildfire protection plans for the greater Redmond area which includes projects in the Cline Buttes area.

E. Persons/Agencies/BLM Staff consulted

Specialist Name	Resource or Function Represented
Theresa Holtzapple	Cultural / Historic / Paleontology
Kristin Williams	Botany/ Special Status Plants/ Invasive Non-native Species
Jenni Moffitt	Soils/ Vegetation/ ESI
Guy Chamness	Fire/ Fuels
Steve Castillo	Forestry / Timber / Biomass
Mike McKay	Hydrology/ Flood Plains/ Wetlands/ Riparian Zones
Molly Galbraith	Range / Livestock Grazing
Berry Phelps	Recreation Motorized
Greg Currie	Recreation Non-Motorized/ Visual Resources
Cassandra Hummel	Special Status Animals/ Migratory Birds/ Wildlife
Jim Eisner	Special Status Fish/ Fisheries
Lisa Clark	Public Information Officer
William Dean	Assistant Field Manager
Teal Purrington	Environmental Coordinator

*A complete list of team members that participated in the Cline Buttes Recreation Area Plan and Environmental Analysis is available on p. 216 of the CBRAP.

Conclusion

Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the existing documentation fully covers the proposed action and constitutes BLM's compliance with the requirements of the NEPA.

Signature
Responsible Official: Molly Brown 9/15/14

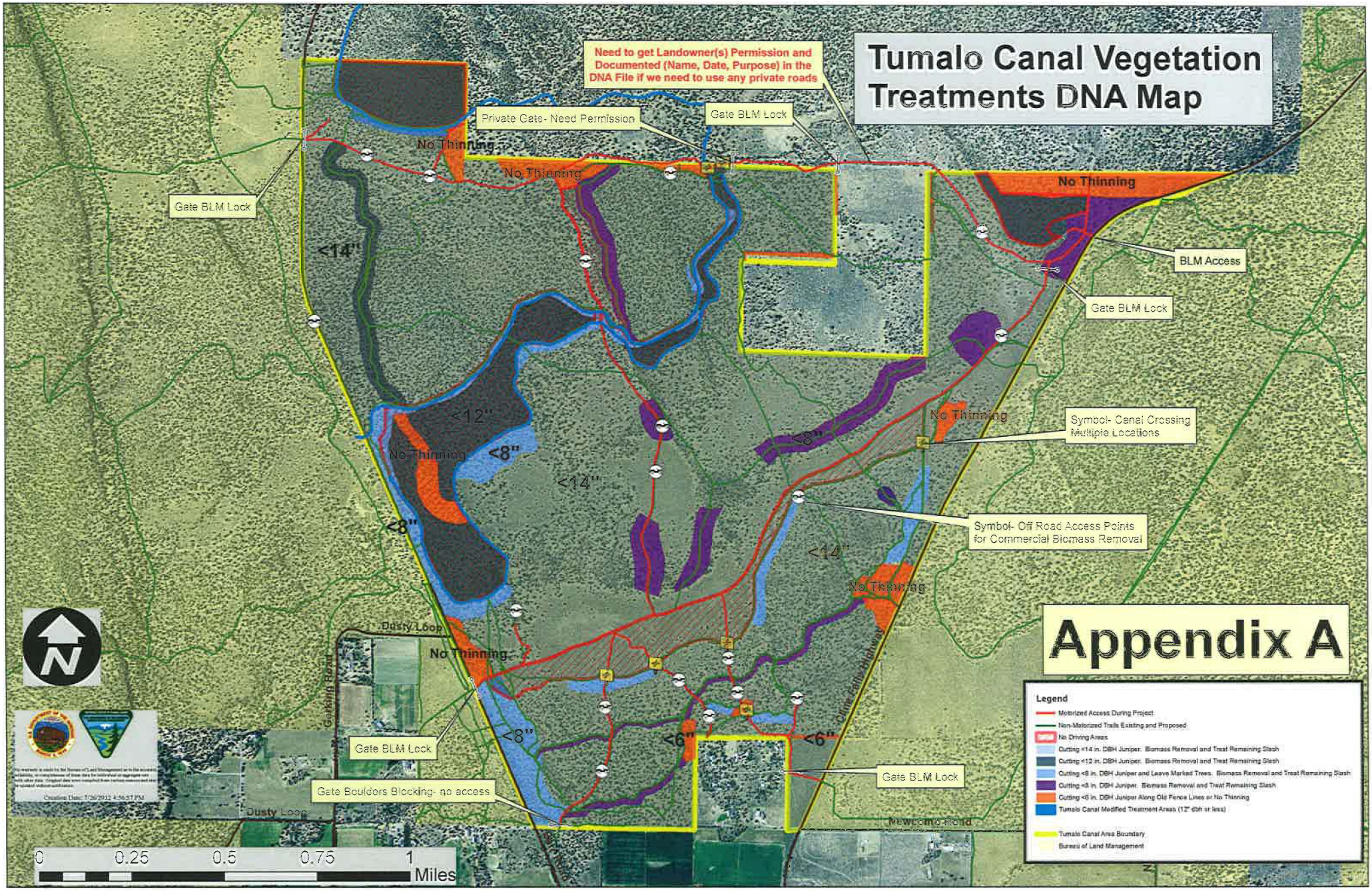
Molly Brown
Deschutes Field Manager

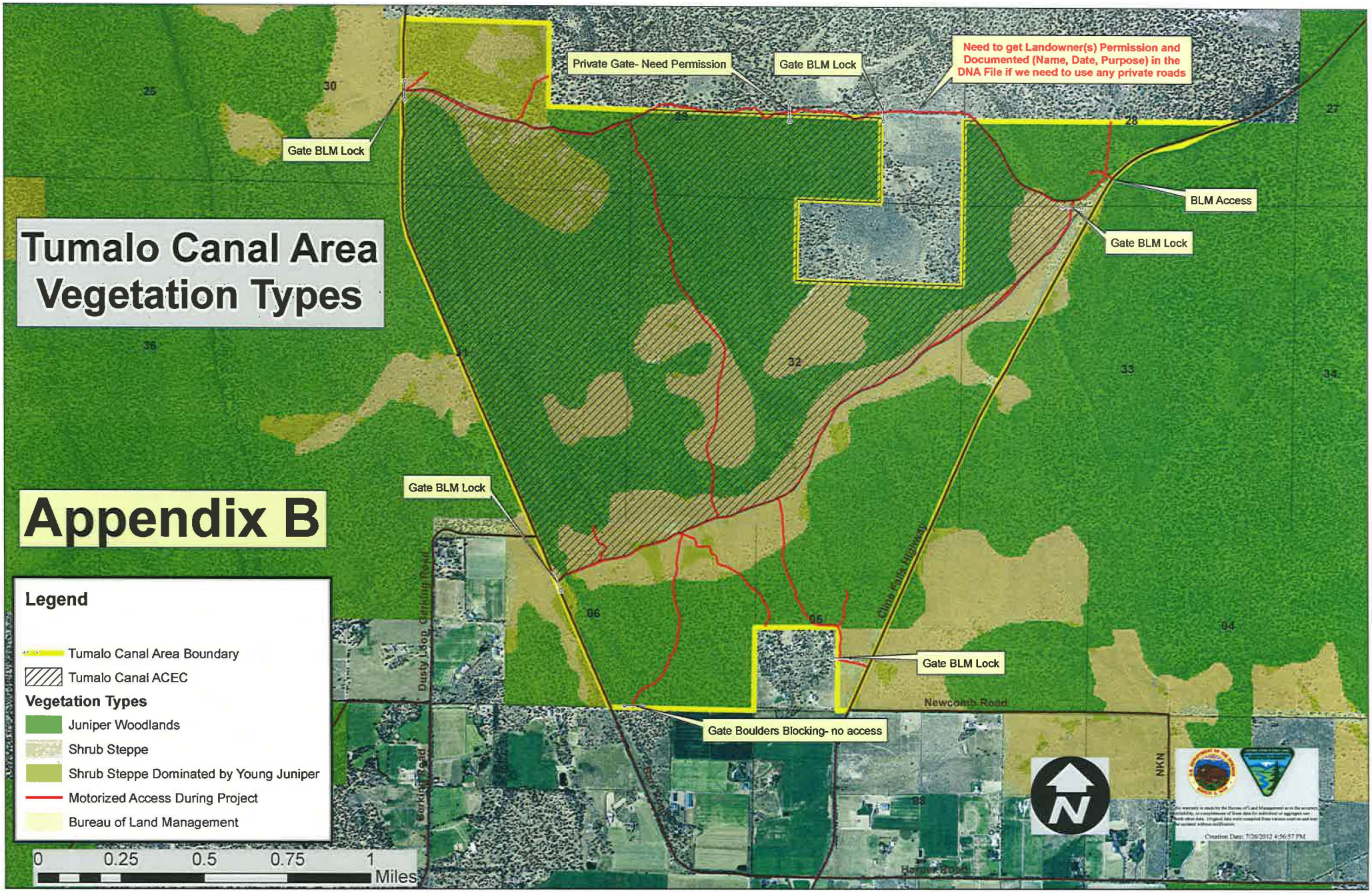
Date

Note: The signed Conclusion on this Worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision.

Contact Person

For additional information concerning this review, contact: Guy Chamness, Fire Management Specialist, Prineville Field Office, 3050 NE 3rd Street, Prineville, OR 97754, telephone (541) 416-6719. gchamnes@blm.gov.


Tumalo Canal Vegetation Treatments DNA Map
Need to get Landowner(s) Permission and Documented (Name, Date, Purpose) in the DNA File if we need to use any private roads
Private Gate- Need Permission
Gate BLM Lock
Gate BLM Lock
No Thinning
No Thinning
No Thinning
<14"
BLM Access
Gate BLM Lock
<12"
No Thinning
<8"
<14"
<8"
No Thinning
Symbol- Canal Crossing Multiple Locations
<8"
<14"
No Thinning
Symbol- Off Road Access Points for Commercial Biomass Removal
Dusty Loop
No Thinning
Gerking Road
Gate BLM Lock
<8"
<6"
<6"
Gate BLM Lock
Gate Boulders Blocking- no access
Dusty Loop
Newcomb Road
Appendix A
Legend
Motorized Access During Project
Non-Motorized Trails Existing and Proposed
No Driving Areas
Cutting <14 in. DBH Juniper. Biomass Removal and Treat Remaining Slash
Cutting <12 in. DBH Juniper. Biomass Removal and Treat Remaining Slash
Cutting <8 in. DBH Juniper and Leave Marked Trees. Biomass Removal and Treat Remaining Slash
Cutting <8 in. DBH Juniper. Biomass Removal and Treat Remaining Slash
Cutting <6 in. DBH Juniper Along Old Fence Lines or No Thinning
Tumalo Canal Modified Treatment Areas (12" dbh or less)
Tumalo Canal Area Boundary
Bureau of Land Management
0 0.25 0.5 0.75 1 Miles


Tumalo Canal Area Vegetation Types
Appendix B
Private Gate- Need Permission
Gate BLM Lock
Need to get Landowner(s) Permission and Documented (Name, Date, Purpose) in the DNA File if we need to use any private roads
Gate BLM Lock
BLM Access
Gate BLM Lock
Gate BLM Lock
Gate BLM Lock
Gate Boulders Blocking- no access
Dusty Loop
Dunkley Road
Bull Road
Cline Falls Highway
Newcomb Road
Herron Road
NKN
Legend
Tumalo Canal Area Boundary
Tumalo Canal ACEC
Vegetation Types
Juniper Woodlands
Shrub Steppe
Shrub Steppe Dominated by Young Juniper
Motorized Access During Project
Bureau of Land Management
0 0.25 0.5 0.75 1 Miles
N