



Wildlife Program: 600 Capitol Way N, Olympia, Washington 98501-1091 - (360) 902-2534

ENVIRONMENTAL CHECKLIST

(WAC 197-11-960)

A. BACKGROUND

1. Name of proposed project, if applicable:

Methow Wildlife Area Bear Creek Forest Habitat Restoration Project

2. Name of Applicant:

Washington Department of Fish and Wildlife (WDFW) Methow Wildlife Area

3. Address and phone number of applicant and contact person:

Washington Department of Fish and Wildlife
350 Bear Creek Rd.
Winthrop, WA 98862
Contact: Tom McCoy
Ph # (509-996-2559)

4. Date checklist prepared: December 31st, 2009

5. Agency requesting checklist: *Washington Department of Fish and Wildlife*

6. Proposed timing or schedule (including phasing, if applicable):

Contract bid date: Proposed fourth week of January, 2010
Commence thinning operations by late January, 2010 and complete by March 15, 2014

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Yes, the following:

- A. Site preparation: Limbs and tops will be piled and burned the winter following harvest.
- B. Any prescribed broadcast burns carried out in association with this project will be conducted by the USFS according to their protocols but incorporating WDFW management requirements.
- C. Regeneration method: natural regeneration will occur.
- D. Re-close or abandon all re-opened roads after project completion (including burns).

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal:

1. WDFW Priority Species and Habitat Management Recommendations.
2. Department of Natural Resources (DNR) TRAX (Threatened, Rare and Endangered Species).
3. WDFW Heritage Database.
4. GIS generated WAU maps showing: Soil type, erosion potential, soil stability, and hydrologic maturity from NRCS Okanogan County Soil Survey.
5. Any prescribed broadcast burns carried out in association with this project will be conducted by the USFS according to their protocols but incorporating WDFW management requirements.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

The Methow Ranger District of the USFS is planning a prescribed burn on lands adjacent to WDFW lands near Cougar Lake. They have asked to include approximately 500 acres of WDFW lands so that our roads could be used as control lines. USFS personnel anticipate the planning and permitting process to be complete and ready for implementation in 2011 or 2012.

10. List any government approvals or permits that will be needed for your proposal, if known.

- A. DNR Forest Practice Application (FPA).
- B. Road Maintenance and Abandonment Plan (RMAP) for Methow Wildlife Area.
- C. USDI-USFWS/USDC-NOAA Section 7 Informal Consultation.
- D. State and tribal cultural/archaeological clearance.
- E. WDFW director approval.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.

The proposal will:

- Use hand felling to reduce the density of small diameter Ponderosa Pine stands from their current 400 to 1,500 trees per acre to 30 to 50 trees per acre. Stand reconstruction sampling indicates that historic Ponderosa Pine density in the project area was approximately 11 to 30 trees per acre. At present there are essentially 2 cohorts of Ponderosa Pine trees, pre (> 125 yrs., i.e. old growth) and post fire suppression (most 70 to 90 yrs). We will retain 100% of the pre-fire suppression trees and snags, and enough of the largest and most likely to survive of the post-fire suppression trees to meet our target density, including snags. Our sampling indicates that 25% to as high as 42% of the trees in these stands are dead as a result of Pine Beetle attacks and the remainder of the trees, including relic old growth, are at risk of further beetle attacks and catastrophic fire.
- The project will use thinning prescriptions based on the predetermined ecological site potential to reduce hazard from fire and insect damage, and improve wildlife habitat.
- Remove encroaching Ponderosa Pine trees from declining aspen stands (Aspen stands have been designated a priority habitat by the WDFW). Will improve vigor of remnant aspen trees and favor recovering aspen stands to their pre-fire suppression era extent.
- The project area is approximately 80 acres in 2 sections.
- Thinning slash will be piled in approximately 4'x4'x4' piles and burned in the late fall following harvest.
- Incorporate thermal cover and hiding patches for wildlife into prescriptions and create additional snags for cavity nesters.
- All trees will be felled by hand and skidded with a tracked cable skidder.
- To the greatest degree possible operations will be conducted on frozen ground with a snow pack of at least 12" to minimize soil compaction and surface disturbance.
- No new road construction, but some closed/abandoned roads will be temporarily re-opened.
- In conjunction with USFS, WDNR, Okanogan Fire District 6 and other agencies, conduct controlled broadcast burns to reduce fire hazard and improve regeneration of fire dependent species for browse. Burns would only be conducted if sufficient additional resources are available from the above mentioned agencies or outside funding sources
- Controlled burns would be contained by various control lines including hand-lines and existing roads and ignited by hand.
- Plant native grasses and shrubs in areas impacted by the project to reduce encroaching weeds.
- Monitor and evaluate progress and effectiveness of treatments with photo-monitoring and vegetative cover/density plots.
- Use signs and guided field trips to illustrate sustainable environmental benefits to the public.

12. Location of the proposal. Give sufficient information for a person to understand the precise

location of your proposed project, including street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The proposal lies within portions of Sections 31 and 32 of Township 35 North, Range 22 East; Willamette Meridian. The sale area is approximately 3 miles east of Winthrop.

B. Environmental Elements

1. Earth

a. General description of the site (check one): Flat, X rolling, hilly, steep slopes, mountainous, other _____.

This portion of the Methow Wildlife Area is characterized by flat to rolling benches changing to steep mountain foothills to the east. The project area lies along the forest edge transition to shrub-steppe. Elevation ranges from 2,300 feet to 2,500 feet. Precipitation ranges from 14" to 18" with most falling as snow. The primary timber species is Ponderosa pine. The proposed activities are located primarily on the flat to rolling benches.

b. What is the steepest slope on the site (approximate percent slope)?

The steepest slopes in the project area are approximately 30% over 5% of the project area and it would average under 10 percent for the entire project area.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

According to the USDA Soil Survey of Okanogan County the following soils comprise approximately 85% of the project area:

- Katar ashy sandy loam 3-15% slope
- Wapal Stony ashy loam 0-15% slope
- Newbon gravelly loam 8-25% slope

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No, not in this area.

e. Describe the purpose, type and approximate quantities of any filling or grading proposed. Indicate source of fill.

No filling anticipated.

f. Could erosion occur as a result of clearing, construction or use? If so generally describe.

Erosion could occur on reopened roads however it is not anticipated due to primary activities taking place on snow covered frozen soils. Water bars will be installed if there is any evidence of erosion on reopened roads. All surface disturbance will be seeded following project activities.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

None

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Disturbed soil will be seeded with native species to bring back vegetation quickly and prevent invasion of noxious weeds. Upon completion of the proposal, signing will be used to restrict unauthorized access.

2. Air

a. What type of emissions to the air would result from the proposal (i.e., dust automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

This proposal will involve vehicle emissions logging, yarding and hauling equipment. There should be no significant impact to air quality. The broadcast/slash burning will adhere to the State of WA's Smoke Management Program.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None known.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Insure equipment operators have safety mufflers for emission control. When necessary, require use of vegetable oil in the hydraulic systems to reduce impacts of blown hoses or oil spill.

3. WATER

a. Surface

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes ponds or wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

WDNR forest practice base maps indicate 2 Type F streams, Bear and Cougar Creeks, and 4 unnamed type Np creeks. Bear and Cougar Creeks have perennial flow and will have a 200 foot no entry buffer, the other streams are mapped as intermittent but flow has not been observed in these channels except under the most extreme flood/runoff events, thus they will have a 50' no entry buffer.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Yes, thinning will occur near the Type F and Np streams. Trucks will use the main roads with existing improved culverts for access. Buffers described above will be maintained.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No

**5) Does the proposal lie within a 100-year floodplain? ____ YES. X NO.
If so, note location on the site plan.**

6) Does the proposal involve any discharges of waste material to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No

3. WATER

b. Ground

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description purpose, and approximate quantities, if known.

No water withdrawals will occur as a result of this project

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Not applicable

c. Water Runoff (including storm water):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (including quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Spring runoff from snow melt, and rain the rest of the year will be channeled through culverts, cross drains. Runoff intercepted by roads and ditches will be diverted to the undisturbed forest floor, where possible. As there will be no new roads constructed during this project there are no anticipated changes from current conditions.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

Only from fuel or oil spills associated with equipment operations. Contract will require oil changes to have catch basin under equipment and to notify sale administrator of any spills.

d. Proposed measures to reduce or control surface, ground and runoff water impacts, if any:

Activities associated with this proposal will meet or exceed Forest Practice rules and regulations. Maintain drainage structures during operations, construct erosion bars, re-vegetate with native seed, hire responsible contractors. When necessary, require the contractors to use vegetable oil in the hydraulic systems to reduce impacts to soil and water.

4. PLANTS

a. Check or circle types of vegetation found on the site:

deciduous tree: , black cottonwood and aspen, other

evergreen tree: Doug fir, Ponderosa Pine

shrubs: ceanothus, snowberry, oceanspray, wild rose, willow, elderberry, serviceberry

grass: bluebunch wheatgrass, Idaho fescue, Pinegrass

pasture

crop or grain food

wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other

water plants: waterlily, eelgrass, milfoil, other

___ other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

Douglas fir and Ponderosa Pine will be thinned to variable density spacing prescriptions (leaving from 25 to 60 trees per acre). Up to 10 trees per acre will be topped to create snags for cavity nesters.

c. List threatened and endangered species [of plants] known to be on or near the site.

WDFW contracted a rare plant survey of the project area in 2006. No species of concern were found.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Reseeding of the area with native vegetation. The project proposal was planned to increase native, fire dependent species key to mule deer winter range and blue grouse nesting/brood rearing.

5. ANIMALS

a. Place an x before any birds or animals which have been observed on or near the site or are known to be on or near the site:

Birds: X northern goshawk, heron, X bald and golden eagle, X songbirds, other: x Ruffed and blue grouse, x Vaux's swift, x prairie falcon

Mammals: X deer, x bear, elk, beaver, x cougar, x coyote, x bobcat,

Fish: bass, salmon, x rainbow and cutthroat trout, herring, shellfish, other:

List any threatened or endangered species known to be on or near the site.

None known

c. Is the site part of a migration route? If so, explain.

Yes, the general area is used as mule deer migration route and winter range. This vegetation manipulation proposal is to increase the winter browse for mule deer, thus would increase the area's carrying capacity and importance as a wintering area.

d. Proposed measures to preserve and enhance wildlife, if any:

The primary objective of the project is to reduce fire hazard and fuel buildup with a secondary goal to enhance reproduction and increase vigor of fire dependent species like ceanothus, serviceberry, elderberry, willow, aspen, bitterbrush and snowberry for mule deer winter forage. All snags will be left for cavity nesters, in addition up to 10 snags per acre either scattered or in clumps, depending on the prescription. Cull logs will be left in the woods for amphibians, reptiles and small mammals. Prior to the thinning operation, leave trees will be marked and any nesting platforms, cavity nests, or special areas used by wildlife will be protected (bear dens, rub trees, etc.)

6. ENERGY AND NATURAL RESOURCES

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Fuels to operate equipment for harvesting, loading and hauling timber and any related road work.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Does not apply.

7. ENVIRONMENTAL HEALTH

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill or hazardous waste that could occur as a result of this proposal.

There could be fuel spills when refueling equipment or oil spills while performing equipment maintenance. There is always the risk of fire from equipment operation in the woods. There will be a controlled burn of the slash produced. Precautions will be taken to consider soil moisture, wind, weather forecasts etc.

1) Describe special emergency services that might be required.

The contractor must maintain fire fighting equipment on the job and be in compliance with WDNR fire equipment codes.

Washington State Department of Ecology and WDFW will be notified if any spills occur.

2) Proposed measures to reduce or control environmental health hazards, if any:

All equipment will have spark arresters on mufflers. Catch basins under equipment when fueling or doing maintenance.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Minimal recreational traffic.

2) What types and levels of noise would be created by or associated with the project on an short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

During harvest activities there will be some noise associated with chainsaws, skidder, loader and trucks. Typically these would be daylight only and weather dependent. Heavy equipment noise can easily exceed 100 decibels.

3) Proposed measures to reduce or control noise impacts, if any:

Maintain mufflers on equipment. Ear protection is recommended.

8. LAND AND SHORELINE USE

a. What is the current use of the site and adjacent properties?

Forest management and wildlife recreation activities.

b. Has the site been used for agriculture? If so describe?

There was livestock grazing in the past.

c. Describe any structures on the site.

There is a developed campground adjacent to the project area.

d. Will any structures be demolished? If so what?

No.

e. What is the current zoning classification of the site?

Forest land

f. What is the current comprehensive plan designation of the site?

Maintain as forest land with emphasis on managing habitat for wildlife.

g. If applicable, what is the current shoreline master program designation of the site?

Not applicable.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

WDFW considers the riparian buffers as sensitive.

i. Approximately how many people would reside or work in the completed project? None

j. Approximately how many people would the completed project displace? None

k. Proposed measures to avoid or reduce displacement impacts, if any:

Does not apply

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Part of Methow Wildlife Area Plan.

9. HOUSING

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None

c. Proposed measures to reduce or control housing impacts, if any:

Does not apply

10. AESTHETICS

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Does not apply

b. What views in the immediate vicinity would be altered or obstructed?

With the reduced density of trees, the sight distances will increase resulting in more area being viewable from a single location.

c. Proposed measures to reduce or control aesthetic impacts, if any:

Management prescriptions include leaving all snags and creating more for cavity nesters and retaining all large diameter Ponderosa pine and Douglas fir which would make good wildlife trees. Disturbed areas (if any are created) will be seeded after the harvest/prescribed burn is complete.

11. LIGHT AND GLARE

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Possibly light or glare from flames on the day the slash piles are burned. Timing will be dependent on weather and ground conditions.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No

c. What existing off-site sources of light or glare may affect your proposal?

Does not apply.

d. Proposed measures to reduce or control light and glare impacts, if any:

None

12. RECREATION

a. What designated and informal recreational opportunities are in the immediate vicinity?

Hunting, fishing, camping, hiking, viewing wildlife.

b. Would the proposed project displace any existing recreational uses? If so, describe.

Depending on weather conditions and timing of harvest, some forms of recreational activities, like hunting, horse riding or viewing wildlife or use of campgrounds, could be temporarily impacted, but it is unlikely given the small scale of this operation.

c. Proposed measures to reduce or control impacts on recreation, including recreational opportunities to be provided by the project or applicant, if any:

The public will not be allowed access to the project site while work is in progress

d. Positive impacts of the proposal.

WDFW anticipates increasing the habitat's carrying capacity through this forage development, increased vegetative vigor and diversity, and snag creation.

13. HISTORIC AND CULTURAL PRESERVATION

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

The cultural/archaeological survey detected no places or objects of note. Given that the majority of this project will take place on frozen ground and snow we anticipate no disturbance to undetected sites if they exist.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

A detailed cultural/archaeological survey was conducted and found no sites or artifacts of significance.

c. Proposed measures to reduce or control impacts, if any:

To the greatest degree possible, conduct operations on snow covered frozen ground to eliminate surface disturbance.

14. TRANSPORTATION

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Existing on-site roads will be used to directly access the project area. Hauling off the site will be on USFS Road 100 and the Upper Bear Creek Rd.

b. Is site currently served by public transit? If no, what is the approximate distance to the nearest transit stop?

No, school bus stops approximately miles south at the end of Upper Bear Creek Rd..

**c. How many parking spaces would the completed project have? _____
How many would the project eliminate? _____**

The only parking spaces affected are in camping/hunting areas. The numbers shouldn't change after the project is completed.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No road construction or improvement will be required.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

This proposal should result in no increase in vehicle trips per day upon completion of the timber sale. During the harvest and log hauling, contractors, sale administrators and log truck drivers may exceed 5 vehicles per day.

g. Proposed measures to reduce or control transportation impacts, if any:

Given the low timber volumes generated by this project and minimal traffic in the vicinity of the project we anticipate no impacts to transportation.

15. PUBLIC SERVICES

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? IF so generally describe.

No.

b. Proposed measures to reduce or control direct impacts on public services, if any:

Opening the stand, leaving fire resistant older Ponderosa pine will reduce the chance of wild fire and particularly crown fires.

16. UTILITIES

a. Circle utilities currently available at the site: ELECTRICITY, NATURAL GAS, WATER, REFUSE SERVICE, TELEPHONE, SANITARY SEWER, SEPTIC SYSTEM, OTHER.

Campfire pits and permanent restrooms in camping area adjacent to project.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

None

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

SIGNATURE: ON FILE_____

DATE SUBMITTED: December 31, 2009_____