

## Appendix E: Public Comments to the Draft Greenwater Elk Forage Management Project Decision Memo and Forest Service Responses

**Note:** As a result of comments received from the Muckleshoot Indian Tribe (MIT) Preservation Program and Fisheries Division. The Forest Service scheduled and held meetings with the Preservation Program on January 25 and February 25, 2008 and with the Fisheries Division on January 25, 2008. The Forest Service updated information in the project cultural report and sent it to the Tribe for review on February 15, 2007. The Forest also sent unit shape files to the MIT Fisheries Division for so the Tribe could overlay them on LIDAR data to estimate unit locations in regard to the Channel Migration Zone (CMZ) and Forest Plan Riparian Reserve boundaries.

### Muckleshoot Indian Tribe Preservation Program

1. Our initial review indicates that the reconnaissance and reporting methodology in the cultural resource reconnaissance report for the proposed Greenwater Elk Forage management Project may not meet professional standards or the requirements of Section 106 of the National Historic Preservation Act.

**Forest Service Response:** *The Mt. Baker-Snoqualmie National Forest fulfills its responsibilities under Section 106 of the NHPA by adhering to the terms of the Programmatic Agreement for Cultural Resources Management on National Forest Lands in Washington State among the PNW Region of the Forest Service, the Washington State Historic Preservation Office and the Advisory Council on Historic Preservation (PA, 1997). The cultural resource field and reporting methodology meet the requirements of the PA.*

*A meeting to discuss the Tribe's concerns was held on January 25, 2008. The Forest provided the Tribe with additional information to assess the adequacy of the cultural resource review completed for this project. A follow-up meeting was held on February 25, 2008. With clarification of a few questions and agreement to include a management requirement to contact the Muckleshoot Indian Tribe Preservation Division and invite the Tribe to participate in the completion of needed cultural surveys road activities (such as culvert installation/replacements, Laura Murphy, Archeologist and Laura Weeks, Attorney for the Muckleshoot Indian Tribe felt satisfied that the Tribe's cultural concerns had been met or would be met prior to implementation of the Greenwater Elk Forage Management project.*

2. We propose that the US Forest Service withdraw the Decision Memo for the project at this time, or in the alternative, extend the comment period for 90 days, in order to allow us to work with you to develop a Memorandum of Agreement. The MOA would address appropriate background sources of ethnographic information for site context appropriate survey methodology and reporting standards; inadvertent discovery and treatment plans; and similar concerns. The MOA will allow the Tribe and the Forest Service to put site appropriate cultural resources identification and treatment strategies in place throughout all phases and project areas of the project, and meet the requirements of Section 106 of the NHPA.

**Forest Service Response:** *The notice and comment period required for proposed actions in 36 CFR 215.5 provides a clearly defined period when public comments on projects and activities, analyzed and documented, are solicited. This comment period provides the opportunity to make substantive comments regarding concerns and objections known to the responsible official during a time when they can be considered and responded to efficiently and prior to a decision.*

*Comment on a proposed action are accepted for 30 days following the date of publication of the legal notice. It is the responsibility of all individuals and organizations to ensure that their comments are received in a timely manner. The time period for the opportunity to comment can not be extended (36 CFR 215. 6).*

*The 1997 Programmatic Agreement addresses discovery during project implementation in stipulation III.B.5.C. The Forest Service includes the requirements of this stipulation as a condition of the decision. Also see the second paragraph in response to comment #1.*

## **Muckleshoot Indian Tribe Fisheries Division**

3. This is a worthy project for wildlife; however, to our knowledge there has been very little funding allotted to fisheries enhancement projects. Notably, the fish habitat in Greenwater River is considered to be limited by the lack of instream wood (Kerwin 1999). We recommend that all trees equal to or greater than 6 inches DBH that are within 200 feet of the ordinary high water mark or Channel Migration Zone of the Greenwater River and its tributaries be placed into the Greenwater River to serve as fish habitat. This can readily be done due to the proximity to the Greenwater River for many of these units, and the skyline yarding equipment will be set up and available.

***Forest Service Response:*** *Three notable National Forest fishery projects completed or being planned in the Greenwater include: Greenwater River Chinook Acclimation Pond (constructed Summer 2007 in cooperation with the Washington State Department of Fish and Wildlife, Puyallup Tribe of Indians, and Muckleshoot Indian Tribe); Road 7020/7021 Decommissioning, which restored fish access at Slide, Straight, and Burns Creeks (completed Summer 2004); and Greenwater River Large Woody Debris Placement and Road Removal Project (Project planning underway in cooperation with the Muckleshoot Indian Tribe--would place large woody debris in the Greenwater River and decommissioning a portion of abandoned Road 70).*

The project occurs on lands acquired in the Huckleberry Land Exchange. The land exchange Record of Decision amended the MBS Forest Plan and designated Greenwater Special Area 8E for *creating and maintaining forest openings as permanent elk forage habitat*. The Greenwater Elk Forage Management project would create 21 permanent forage openings, totaling approximately 171 acres, within inventoried elk winter range.

*As per the standards and guidelines established for Forest Plan Management Area 8E. all units are located outside of Riparian Reserves. (Decision Memo pages 15, 16, 17, Figure 7, and Appendix D (p. D-2)).*

Riparian Reserves for fish-bearing streams, such as the Greenwater River, consist of the stream and the area on each side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of two site-potential trees, or 300 feet slope distance (600 feet total, including both sides of the stream channel), whichever is greatest.

*All units have been flagged and ground verified by a Forest Service Hydrologist, Fisheries Biologist and Wildlife Biologist to assure they are located outside of Riparian Reserves. As initially proposed the Greenwater Elk Forage Management project identified approximately 237 acres of winter range for forage opening creation. As a result of this ground verification, the initial acreage has been reduced to its current 171 acres. Most of this refinement was due to ground verification of Riparian Reserve boundaries by our Hydrologist, Fish Biologist and Wildlife Biologist.*

4. Road reconstruction will facilitate vehicle access when previous access was either prohibited or limited. Allowing new access to 14.7 miles of area previously not used for recreation, target practice, ORV use, camping, and potential dumping/littering, etc, may create impacts to aquatic areas not addressed in the Decision Memo. High road densities combined with increased public vehicle access can produce adverse impacts to aquatic habitats. The Forest Service should address these potential impacts and proposed mitigation for any identified impacts to aquatic areas.

**Forest Service Response:** *Of the 14.3 miles of road maintenance and 4.26 miles of road that would be reconstructed all but 0.41 miles of road are currently open and drivable (reconstruction activities would include asphalt patching, road striping, ditch cleaning, culvert basin maintenance, guardrail maintenance, brushing, blading, aggregate surfacing treatment, and culvert replacement or installation, as needed). Road 7000118 (0.07 miles), 7000119 (0.09 miles) and 7020110 (0.25 miles) are the only roads currently closed to motorized access. Upon completion of this project these roads plus 7000115 (0.53 miles), 7200023 (0.25 miles), 7200024 (0.23 miles), 7200420 (0.46 miles), and 7270 (1.15 miles) will be placed in Maintenance Level 1---Closed to motorized access. This would result in the closure of an additional 2.62 miles of road within the project area, which would reduce public access and current road impacts to aquatic areas (DM page 2, Table 2, and ACS Objective 5 on DM page 16).*

5. More detail is needed about these activities including the type of culvert maintenance proposed, the affected water bodies, the type of culvert installation, etc for the majority of the actions proposed in this table.

**Forest Service Response:** *As included in Table 2 of the Decision Memo, culvert maintenance will include culvert basin maintenance (cleaning debris out of the basin at the head of the culvert---this is routine maintenance performed on an annual basis on National Forest System roads). The October 2007 Fisheries report, which was incorporated into the Decision Memo by reference (Decision Memo page 4) provides details of the culvert installations.*

*As stated in the Fisheries Report, there will be ten culverts replaced in perennial streams on the roads used to access the timber harvest units. Due to their small sizes, shallow depths, and steep gradients in some reaches, it is unlikely that any of these streams provide habitat for any salmon species or native charr. It is possible that some reaches of some streams provide marginal habitat for resident trout. None of these very small streams have been electro shocked, so it is not possible to definitively state if they are fish-bearing. Surveys for fish passage barriers were made previously on only one of these streams, Midnight Creek, which is the only named stream among the ten crossings. A description of the location and nature of each crossing follows below. The final sizes of all the culverts planned to be replaced is still to be determined. It will be based upon the size estimated to pass 100-year flow events and all associated sediment load. If the stream is known or suspected to support fish, the culvert will also be sized and placed in order to provide fish passage for all life stages of all species likely to occur. The Washington State stream simulation method will be used to make this determination. It basically sizes pipe so that they are at least as wide as then average local geomorphic bankfull width of the undisturbed channel.*

*Two 24-inch diameter culverts will be replaced at mile posts 0.76 and 0.89 on USFS Road 7013. Both of these pipes are on the same unnamed, well defined stream channel. Both pipes are under-sized and will likely be replaced with 36-inch or larger culverts. The upper pipe is currently perched - the new pipe will not be. The average channel gradient at both locations is 20% or greater. There is currently a low water ford at mil post 0.04 on USFS Road 7140. This will likely be replaced with a 36-inch pipe. This is the same un-named channel as the one just described on Road 7130, and channel gradient averages over 20% at this location.*

*At mile posts 0.31 and 0.55 on USFS Road 72 the existing 24-inch culverts will be replaced with 36-inch or larger pipes. There is known use by cutthroat trout of a different, larger stream further up Road 72, but the small channel crossing at these two mileposts has not been shocked. The channel passing at milepost 0.55 on Road 72 also passes under Road 7270 at mileposts 0.07 and 0.55. Channel gradient average 30% at both latter locations. The current 24-inch pipe at milepost 0.07 will be replaced with a 36-inch or larger pipe. The culvert at milepost 0.55 will likely be replaced with a 48-inch pipe.*

*There is currently a 36-inch culvert on Midnight Creek at milepost 1.95 on Road 7010. This will be likely be replaced with a 60-inch culvert. It is known that Midnight Creek supports cutthroat trout below this crossing, but a fish passage survey conducted previously estimated that there is only 0.07 mile of potential habitat upstream of the crossing, hence it is not crucial that this culvert be passable to all life stages of cutthroat due to the very short length of potential habitat upstream of the crossing. The channel averages over 30% slope in the area. The current pipe is 82 feet long, with a 16.7% slope.*

*A small 18-inch culvert on an unnamed stream is located at milepost 0.18 on Road 7020-050. This will likely be replace with a 36-inch or larger pipe. The channel averages about 30% downstream of this crossing, and shallower upstream. Bedload has aggraded near the inlet of this current pipe, which has been plugged in the past. It is located about 500 feet away from the Greenwater River. Due to the steep channel gradient below the crossing it is unlikely that trout can pass from the Greenwater up to this location. A second 18-inch culvert is located at milepost 0.06 on Road 7020-110. This is the same stream as the one at milepost 0.18 on Road 7020-050. It will also likely be replaced with a 36-inch pipe. The average channel gradient at this site is 15-20%.*

*There will also be 1.0 mile of temporary new road constructed, which shall be obliterated after use. Access to these temporary roads will be via a temporary bridge over Slide Creek, which is a perennial stream that supports coho and resident trout, and potentially Chinook and steelhead at it mouth where it flows into the Greenwater River (about 0.2 mile downstream of the bridge site). The bridge to be installed is a 60-feet long portable bridge that will be supported by ecology blocks at a previous bridge site. The ecology blocks will not be placed within the wetted width of the channel. The only likely entry into the wetted channel will be when an excavator crosses the channel at summer baseflow to install the bridge, and once again after the timber sale is complete to remove the bridge. If possible, the excavator will even be walked over logs placed temporarily in the channel to protect the channel bottom. Slide Creek at summer baseflow will be only a few inches deep.*

*In addition to the stream crossings discussed above, there will be a total of approximately 60 ditch relief culverts inserted or replaced during the course of this project. None of these culverts include channels that potentially provide habitat for any life stage of fish species.*

6. The definition for fish passage should include all life stages of salmonids and at a range of flows that may affect their passage. As written, culverts could be built to a standard that precludes juvenile passage and/or at times when they need refuge from high flows.

**Forest Service Response:** *The second management requirement bullet under Fish has been revised to say, “ The culverts of all roads utilized in the analysis or for any actions associated with this project shall be adequately sized and positioned so that both downstream and upstream passage is possible by all fish species for all life stages that are likely to be encountered at the site. In all cases culverts will accommodate at least 100-year flood events, including associated bedload and debris.”*

7. Eliminating fish passage on streams that have less than 0.1 mi (528 feet) of potential habitat may result in a lost access to a significant amount of habitat in a stream system and may cumulatively

amount to a substantial loss of fish production if multiple stream habitats are inaccessible. For example, many Greenwater tributaries contain less than several hundred feet of accessible habitat, however, these small areas are used extensively for spawning rearing. To minimize the potential loss of fish habitat access, there should be a maximum value to this standard such that there will not be a cumulative loss of greater than 1% of potential fish habitat over the project area when installing or replacing culverts.

**Forest Service Response:** *See response to comment 6. The culverts of all roads utilized in the analysis or for any actions associated with this project shall be adequately sized and positioned so that both downstream and upstream passage is possible by all fish species for all life stages that are likely to be encountered at the site.*

8. For the second bullet under “Fish” the design standard should also include the passage of all wood in the 100-year flood in addition to water and sediment. Allowing all wood to pass will facilitate the passage of habitat-forming wood to downstream reaches, reduces the risk of fish passage blockage due to wood debris, and reduces the risk of road failure that could potentially result in a debris flow.

**Forest Service Response:** *As stated in the response to Comment 6, the second bullet under “Fish” has been revised to say, “In all cases culverts will accommodate at least 100-year flood events, including associated bedload and debris.”*

9. Without better maps or GIS information, it is difficult to determine the proximity of the forage units to the flood plain or even the riparian areas. Regardless, the proposed forage units should be excluded from the Channel Migration Zone (CMZ) in order to minimize potential impacts to the Greenwater River and its streams. To determine the extent of the CMZ to proposed units, we recommend using a temporal scale ample enough so that a riparian area has the potential to grow a “key piece” (WFPB 1997) which is approximately 200 years on the Greenwater River and approximately 100-years on its tributaries. Using this timeframe, one can better determine the extent of the CMZ based on the rate of channel migration and inundation frequency using flood probabilities.

**Forest Service Response:** *Decision Memo Figure 7 shows the proposed Greenwater Elk Management Project units in relation to Riparian Reserves. As per the standards and guidelines established for Forest Plan Management Area 8E, all units through ground verification would be located outside of Riparian Reserves (Decision Memo pages 15, 16, and 17, Figure 7, and Appendix D (p. D-2)). Also see response to comment #3.*

*As defined in the Forest Plan, as amended (USDA USDI page C-30 and C-31), Riparian Reserves for fish-bearing streams consist of the stream and the area on each side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of two site-potential trees, or 300 feet slope distance (600 feet total, including both sides of the stream channel), whichever is greatest.*

*Riparian Reserves for permanently flowing nonfish-bearing streams consist of the stream and the area on each side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of one site-potential trees, or 150 feet slope distance (300 feet total, including both sides of the stream channel), whichever is greatest.*

*For seasonally flowing or intermittent streams, wetlands less than 1 acre, and unstable and potentially unstable areas, the Riparian Reserves must include:*

- *The extent of unstable and potentially unstable areas (including earthflows)’*

- *The stream channel and extend to the top of the inner gorge,*
- *The stream channel or wetland and the area from the edges of the stream channel or wetland to the outer edges of the riparian vegetation, and*
- *Extension from the edges of the stream channel to a distance equal to the height of one site-potential tree, or 100 feet slope distance, whichever is greatest*

10. We are concerned that if funding is not available, then these sites could become infested with noxious plants that require chemical control to the detriment of aquatic resource areas. Please describe the plan to ensure that noxious plants will not invade the site adjacent to water bodies.

***Forest Service Response:*** *As stated in Appendix B – Habitat Monitoring Plan, harvest / post-harvest implementation and compliance monitoring will be conducted to identify and evaluate intensity of invasive and noxious weeds in the forage sites. As identified action will be taken to control spread. An inventory of weed locations within the area will be maintained to help develop priority control objectives and methods.*

*Management Requirements identified on pages 4 and 5 of the Decision Memo will be implemented to prevent the transport of weed seeds onto the project area or from existing infestations to non-infested areas. Also as stated on Decision Memo pages 5 and 6 existing infestations of herb Robert in Unit 18, tansy ragwort in Units 18 and 31-36 and Scot's broom that has infested roads that access units will be controlled annually as needed*

11. It is not apparent how potential wind throw impacts to trees in the riparian areas were evaluated and what measures will be taken if wind throw occurs within riparian reserves. Loss of riparian or CMZ trees will likely cause adverse impacts to aquatic habitats. If trees in the riparian reserves or CMZ buffer area blowdown after completion of this project, then these trees should be placed into the adjacent affected streams as appropriate and the subsequent areas reforested to mitigate for windthrow impacts caused by this project.

***Forest Service Response:*** *The Huckleberry Land Exchange ROD (2001) specified sideboards for the creation of the units in terms of size, location, resource protection, a range of total acres for forage creation, and distribution of the openings within the MA 8E boundaries. These specifications reflect the standards and guidelines of the Mt. Baker-Snoqualmie NF Forest Plan, as amended. Individual or group tree blowdown, aside from catastrophic events, is a reasonable means of recruiting standing dead and downed woody material.*

*Maintaining these openings may increase the risk of blowdown along the edges of adjacent stands. It is expected that this may feather the edges of the openings and may contribute to “natural-appearing openings” rather than creating a hard line between opening and timber along the perimeters of openings. It is not expected to be a major effect in terms of blowdown potential (Decision Memo - Appendix C, Response to Comment 16, page C-8).*

12. If it is unknown if fish are present in a stream by acceptable methods used to verify fish absence, all culverts should be designed at a minimum to meet the State “Stream Simulation” standards. If fish presence has not been determined through multiple surveys, streams meeting the physical criteria for fish use (WAC 222-16-031) should be regarded as fish-bearing streams.

***Forest Service Response:*** *See response to Comments 5 and 6. Culverts on all streams that are known or suspected to contain fish will be adequately sized and positioned so that both downstream and upstream passage is possible by all fish species for all life stages that are likely to be encountered at the site.*

13. The culvert at Midnight Creek should be made fish passable.

**Forest Service Response:** See response to Comment 6.

## **Muckleshoot Indian Tribe Wildlife Program**

14. One of our concerns with the Stage 1 proposal is that only 171 acres are proposed to be created with no mention of what will happen in Stage 2. We would assume that Stage 2 will include at least 229 acres and up to 329 acres on winter range and 100 to 130 acres on summer range to be consistent with the Huckleberry Land Exchange ROD.

**Forest Service Response:** *As originally proposed Phase 1 of the Greenwater Elk Forage Management project identified approximately 237 acres of winter range for forage opening creation. As refined for logging systems feasibility, Riparian Reserves boundary adjustment and Forest Plan visual quality requirements the acreage was dropped to its current 171 acres.*

*Trough initial reconnaissance the Forest Service has delineated approximately 150-200 acres of potential winter range and 205 acres of summer range for consideration in Phase 2. This estimated acreage may vary, as proposed units are ground verified to assure they are located outside of Riparian Reserves and are feasible.*

15. Our second concern is the statement “Openings will be maintained as funding is available.” This project was mandated by the Huckleberry Land Exchange ROD 10 years ago, and funding has been the issue since then. This project will not succeed if funding is not ensured for the maintenance of the openings. The USFS should identify and secure the necessary funding to complete the project and live up to their obligation outlined in the Huckleberry land Exchange ROD.

**Forest Service Response:** *In accordance with the Huckleberry Land Exchange ROD (page R-7) the Forest will accomplish type conversion and maintenance of forage openings as funding---including funding for the environmental analysis ,and monitoring plan---is available. (Decision Memo Appendix D, page D-2 and Huckleberry Land Exchange ROD page R-7).*

-End-