



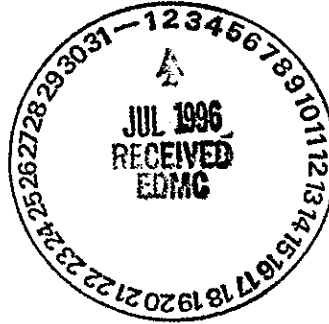
United States Department of the Interior

FISH AND WILDLIFE SERVICE

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June 18, 1996

Robert McLeod
U.S. Department of Energy
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Dear Mr. McLeod

The U.S. Fish and Wildlife Service (Service) is providing comments on the 60% draft *Mitigation Action Plan, 300-FF-1 Operable Unit Remediation* (no document number) and the *Site Restoration Plan for the 300-FF-1 Operable Unit Liquid Waste Sites, Landfills, and Burial Ground 618-4*, (BHI-00799, draft B). We received a facsimile copy of these documents on June 6 and a mail copy on June 11. While we appreciate receiving the early copy, the facsimile did not include a cover letter or otherwise provide the information that the comment deadline was June 12. Under these circumstances, we were unable to meet this comment deadline. We request that our comments be considered as if they were received within the comment period.

The Service commends the staff of the 300-FF-1 Operable Unit for developing mitigation actions early in the cleanup planning process, and for distributing the Mitigation Action Plan (MAP) for review by natural resource trustees as a 60% draft. We believe that early coordination, such as this, will minimize both impacts to natural resources and cleanup costs.

GENERAL COMMENTS

It may be that habitat removed for the specific purpose of creating a condition to release hazardous substances into the environment (i.e., a landfill or process pond) would be appropriate for consideration during an injury assessment. Unlike much of the 100 Area burial grounds and cribs, the pre-construction habitat value at the 300 Area is likely to have been fairly high, and mitigation for habitat removal may need to be addressed. In this case, all 25 acres of vegetation removed to create landfills and process trenches and ponds should be considered for off-site replacement. Additionally, the time during which the vegetation was not providing habitat services should be considered for compensatory mitigation. The Service would like to explore this issue with the project managers.

Regarding the conditions addressed in the MAP, adequate information is provided on the natural resources, the types of impacts to natural resources from cleanup, and a general

description of actions to compensate for these impacts. However, greater detail is needed for the 618-4 burial ground revegetation project. Specifically, the purpose of the 618-4 revegetation project should be stated. The stated purpose for general site restoration, "to provide soil erosion cover and limited habitat within an industrial-use scenario," is not appropriate for the 618-4 project. A more appropriate purpose would be to replace habitat value removed by cleanup. Details on monitoring procedures, success criteria, and contingency plans in the event of failures are needed. We have enclosed an outline which could be used to further develop the MAP and provide the needed details. Alternatively, the MAP could provide a commitment to develop a mitigation implementation and monitoring plan.

SPECIFIC COMMENTS

Comments for Mitigation Action Plan, 300-FF-1 Operable Unit Remediation

Page 3, paragraph 1. Here or elsewhere, the MAP should state that the revegetated burial ground would receive Level IV designation under the Biological Resources Management Plan. Consideration should be given to protection of a Level IV area that would be directly adjacent to an industrial land use area. For example, fire protection and post-planting weed control should be addressed.

Page 3, paragraph 2. In the last sentence, the phrase "early successional" should be removed. While cheatgrass and rabbitbrush are likely to become established in disturbed sites, the cheatgrass is not likely to be replaced with later successional communities, and may be a climax community.

Page 5, second set of bullets. Any existing or newly constructed roads into the 618-4 burial ground should be restored to native vegetation. We suggest including another salvage option. Depending on project timing, native plant seeds could be collected the year before vegetation removal. The seeds could either be used for revegetation of the 618-4 burial ground or another project.

Page 5, bullet 3. Consideration should be given to whether transplanting bitterbrush during its dormancy period would increase survival. Watering is presented as being optional depending on soil moisture. The plants should be watered in regardless of soil moisture so that air pockets trapped in the soil during transplanting would be removed. Finally, monitoring of a control area with non-transplanted bitterbrush would be needed to determine the effect of transplanting on the health of the shrubs.

Page 5, bullet 5. Potential contamination of the topsoil should be addressed, as it may affect the success of future revegetation or result in an exposure route to wildlife.

Page 5, last paragraph. The phrase "provide soil erosion cover" could be more accurately stated as "prevent soil erosion."

Page 6, paragraph 2. As the likely future land use of the site is industrial, recontouring to natural conditions should occur only at the 618-4 burial ground.

Page 6, paragraph 3. As mentioned above, the purpose of revegetation at the 618-4 burial ground should be stated, and more details should be provided on revegetation, maintenance, monitoring, success criteria, and contingency plans. Post-cleanup funding for these activities should be established. From casual observations during one site visit to the Horn Rapids landfill, it appears that imprinting with microrhyzae was an effective seeding method which should be considered for use at the 618-4 burial ground.

Page 7, paragraph 1. We suggest providing separate discussions on weed control for the 618-4 burial ground and other revegetated areas. For example, use of a straw mulch at Horn Rapids landfill introduced non-native species, and would be inappropriate for use at the 618-4 burial ground. Chemical weed control would also probably be inappropriate, while manual methods may be most effective.

Page 8, paragraph 2. In the last sentence, the phrase "...will be handled with other facility disturbance" is unclear and should be reworded.

Comments for Site Restoration Plan for the 300-FF-1 Operable Unit Liquid Waste Sites, Landfills, and Burial Ground 618-4

Page 1, objective 5. This objective is not useful because appropriate plant species cannot be chosen without knowing the purpose of the revegetation. The objective of revegetation should be clearly stated. The objective for the 618-4 burial ground should be different than for the rest of the site.

Page 2, paragraph 2. The last sentence states that no borrow areas will be developed on site. The MAP states that borrow areas will be used for backfill (page 5, bullet 1). This apparent contradiction should be corrected. If existing borrow sites are to be used, the documents should provide an estimate of the amount of volume needed from the borrow areas, and if expansion impacts native vegetation, this impact should be mitigated.

Page 2, paragraph 4. The last sentence states that "Small depressions will be filled, except for those specifically excluded for wildlife habitat." Depressions used by wildlife are not described in either document. Please provide this information.

Page 3, paragraph 1. Fertilizing should be avoided as it tends to promote the growth of cheatgrass and other invasive weedy species to the detriment of the native species. Depending on the purpose of revegetation, mulch also may not be appropriate.

Page 3, paragraph 2. Much of this information is inconsistent with the information in the MAP, and should be corrected. If native seeds are not available for revegetation of the 618-

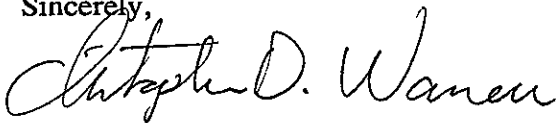
4 burial ground, we suggest the use of sterile cultivars to control soil erosion and weed infestation until native seeds are available.

Page 3, paragraph 3. This section states that other areas will be seeded with non-native species, while page 5, bullet 6 of the MAP states that the other areas will be seeded with native grasses if available. This inconsistency should be corrected. The statement is also made that predominantly gravel or cobble areas will be seeded with a mixture of sagebrush and rabbitbrush. Observations of other areas suggests that Sandberg's bluegrass does very well in this type of substrate. The rabbitbrush will reseed itself naturally. We suggest seeding gravel and cobble areas with a mixture of sagebrush and bluegrass.

The Service is interested in meeting with you to discuss the potential need for additional habitat restoration, as described in the first paragraph of the General Comments section. We remind the U.S. Department of Energy that, as a federal agency, we would not be involved in a damage assessment claim. Our purposes in bringing up this issue are to provide technical assistance on determining potential natural resource injury to help minimize future restoration and liability costs, and to protect and restore shrub steppe habitat to the extent possible at Hanford.

Thank you for the opportunity to comment on these documents. Please contact us if you require any technical assistance with revegetation and mitigation issues. Contact Liz Block at the letterhead phone number if you have any questions or concerns regarding these comments.

Sincerely,



KRC: Kurt R. Campbell
Assistant Field Supervisor

cc: U.S. Department of Interior, Portland (Preston Sleeper)
U.S. Bureau of Land Management, Spokane (Jake Jakobosky)
U.S. Department of Energy, Richland (Jamie Zeisloft)
U.S. Fish and Wildlife Service, Othello (Dave Goeke)
U.S. Environmental Protection Agency, (Larry Gadbois)
Oregon Department of Energy, Salem (Susan Hughs)
Washington Department of Ecology, Olympia (Geoff Tallent)
Washington Department of Fish and Wildlife, Kennewick (Jay McConnaughey)
Washington Department of Fish and Wildlife, Olympia (John Carleton)
Confederated Tribes of the Umatilla Indian Reservation, Pendleton (Chris Burford)
Nez Perce Tribe, Lapwei (Dan Landeen)
Yakama Indian Nation, Union Gap (Bill Beckley)

DRAFT
Hanford Natural Resource Trustee Council
Recommended Contents for Terrestrial Mitigation or Restoration Plans
Page 1 of 2

EXECUTIVE SUMMARY**PROJECT DESCRIPTION**

- Project location, maps
- Responsible parties
- Description of project
 - Impacts and extent of disturbance to natural resources
 - Existing and proposed land uses

ECOLOGICAL ASSESSMENT OF IMPACT SITE

- Vegetation (structure and species composition)
- Water regime
- Soils
- Fauna
- Water quality
- Functions and values
- Position and function of impact site in the landscape and region
- Habitat value based on HEP or other habitat evaluation procedure

MITIGATION GOALS, OBJECTIVES, AND PERFORMANCE STANDARDS

- Mitigation sequencing followed (avoid, minimize, rectify, etc.)
- Goals (natural resources and habitat functions to be restored)
- Objectives
 - Soil structure to be restored
 - Vegetation structure to be restored
 - Habitat values to be restored
- Performance standards to assess objectives (tied to contingency plan)

PROPOSED MITIGATION SITE

- Site description (location, size, maps)
- Ownership
- Rationale for choice
- Ecological assessment of mitigation site
- Site constraints

FINAL SITE PLAN

- Site survey and topography
- Water regime
- Soil amendments
- Landscape plans
 - Drawings of proposed topography
 - Soil amendments
 - Drawings of proposed plant distribution
 - Location of habitat structures or other enhancement features
 - Location of site protection buffers
- Construction specifications

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Recommended Contents for Terrestrial Mitigation or Restoration Plans
Page 2 of 2

MONITORING PLAN

- Soils
- Cryptogams
- Vegetation
- Fauna
- Habitat value
- Water quality
- Buffers
- Timetable for reporting monitoring results

SITE PROTECTION

- Physical site protection
- Legal protection
- Buffers

IMPLEMENTATION PLAN

- Tri-Party Agreement Milestones
- Construction schedule
- Monitoring schedule
- Reporting schedule

OPERATION AND MAINTENANCE PLAN

- Maintenance activities
- Maintenance schedule

CONTINGENCY PLAN

- Criteria which trigger contingency actions
- Proposed contingency actions
- Initiating procedure
- Funding
- Responsible parties

MITIGATION AGREEMENT