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Dear Sirs:

Thank you for the opportunity to comment on the Draft Hanford Remedial Action Environmental Impact Statement (HRA-EIS) and Comprehensive Land-Use Plan. The future of the Hanford Site is of great importance to The Nature Conservancy and we appreciate being kept informed as land-use decisions are considered. The comments contained herein are based upon our review of the HRA EIS Sumamry document and Appendix M (Volume 4). Unfortunately, we did not receive the CD version of the full document until just this week.

The Nature Conservancy is a private, non-profit organization whose mission is to preserve biological diversity. We do this by working in a cooperative manner for the protection of scientifically identified high quality natural areas, expecially those that support rare and threatened native species and ecosystems. We have over 850,000 members nationwide, and over 30,000 in Washington state. We also own and manage 29 preserves statewide.

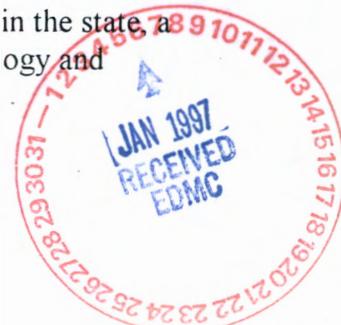
The Columbia Basin physiographic province has lost much of its original natural character. The shrub-steppe grassland ecosystem that once covered some 10.5 million unbroken acres has been reduced dramatically due largely to conversion for agricultural uses. Those few sites that remain in a relatively pristine condition are of great importance in maintaining the biodiversity of plant and animal species still present. In contrast to much of the landscape of central and eastern Washington, large portions of the Hanford Site still support sites of this character.

General Comments

The Nature Conservancy of Washington strongly supports the designation of the Fitzner-Eberhardt Arid Lands Ecology Reserve (ALE), the Saddle Mountain Wildlife Refuge/Wahluke Wildlife Recreation Area (collectively the North Slope) and the Hanford Reach of the Columbia River (Hanford Reach) as Wildlife Habitat Management Areas within the HRA-EIS. Such designation, and the permanent protection of these areas from development activities is consistent with the findings and recommendations of all the major natural resource agencies in the state, a solid majority of local public opinion, and the basic principles of conservation biology and

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ecosystem management. It is also consistent with the land stewardship policies of the Department of Energy as expressed by the Land and Facility Use Policy released in December, 1994.

However, the failure to identify other biologically significant areas within the site for such designation is an omission which should be corrected as this Draft is revised. In addition, the lack of sufficient data for some portions of the Site on which to base and defend perspective land-use decisions is a concern which should also be addressed.

Data Gaps

Accurate information is the backbone of effective land-use planning in general, and ecosystem management in particular. While the effort to compile all the known data about the Hanford Site for this document is impressive, data that do not exist can not be compiled. Major gaps in the available data regarding natural resources on Hanford weaken the justification for decisions contained in this document. These gaps need to be filled by completing critical natural resource inventories and mapping efforts on the Hanford Site.

The Central Plateau of Hanford is the largest flat, low-lying undeveloped area in the Columbia Basin. It is a remnant of the once vast lower Columbia Basin ecosystem that has now been largely converted to agriculture. Any high quality native plant communities in this area represent unique biological features worthy of conservation consideration. Decisions on the future management of this important area (especially surface disturbance activities) should be based on good biological information and analysis.

Currently, there is no accurate and qualitative map of plant communities for Central Hanford. Therefore, the lack of any high quality plant community occurrences within the Central Plateau (figure 6.7) is more likely due to the fact that no quality survey has been conducted, rather than the fact that they don't exist. It appears that many of the vegetation maps used in this document are based on aerial photograph interpretation and subsequent modeling (for example figures 6.1, 6.2, 6.6). While this method is useful for identifying rough cover types, it is not a reliable method to separate high quality from degraded shrub-steppe communities. Such qualitative analysis is the type of information that is needed to make the best possible land-use decisions.

It should be a priority to compile a ground-truthed qualitative plant community map at a geographic scale appropriate to future land-use planning decision making (10-20 acre minimum polygon size). There is also a serious lack of good information for several other important biological elements. Comprehensive surveys have yet to be conducted for such elements (rare plants, birds, and small mammals especially) on some portions of the Site. These surveys should be completed.

Areas Not Identified or Inappropriately Designated in the Draft EIS

Decisions on land-use at Hanford should be made in the wider context of land ownership and land use in the lower Columbia Basin as a whole. Hanford and the Yakima Training Center (YTC) are by far the largest single blocks of shrub-steppe remaining in the Columbia Basin. The ongoing and recently increased-use training mission at the YTC is likely to degrade the ecological quality of large portions of this site. Furthermore, while the YTC does contain blocks of functioning shrub-steppe, it is geologically a part of the Yakima Fold belt, and is physically and vegetatively quite different from Hanford, which is in the heart of the Pasco Basin. Both of these factors increase the importance of Hanford to effective long-term conservation of the Columbia Basin ecoregion.

Some areas of Hanford which have particular ecoregional significance have not been identified in the Draft EIS or are inappropriately designated therein. Three specific recommendations are listed and discussed below.

1. Designate some or all of the area west of highway 24 and south of the Columbia River a Special Use (SU) or Wildlife Habitat Management (WHM) area.

The area west of highway 24 and south of the Columbia River separates ALE from both the extensive shrub-steppe lands of the Yakima Training Center to the west and the North Slope and publicly owned wildlife areas and refuges north of Hanford. This area forms the eastern end of Umtanum Ridge, one of only two landforms in eastern Washington that run unimpeded from the central Columbia Basin to the Cascade Mountains; thus providing a unique corridor across most of the range of climatic variation in the lower Columbia Basin. In contrast to the other major ridge systems (Yakima Ridge, Rattlesnake Ridge, the Frenchman Hills, or the Horse Heaven Hills), Umtanum Ridge is almost entirely in public ownership.

This portion of the Hanford Site has great potential to serve as an effective connection between existing conservation areas. It should be recognized as having this important value and managed to retain the native shrub-steppe vegetation that remains. There is great value in having adequate "connectivity" across the landscape. This concept is central to successful ecosystem management as it is connection and continuity across the landscape that provide for ecosystem functions such as natural disturbance and recovery patterns, gene flow, maintenance of genetically diverse populations, and effective animal migration and dispersion.

2. Connect Umtanum Ridge with Gable Mountain and Gable Butte via Special Use or Wildlife Habitat Management Areas.

Gable Mt. and Gable Butte are directly east of the end of Umtanum Ridge, and provide an ecological corridor across the heart of central Hanford. Furthermore, rare native birds and numerous populations of rare plants have been found on and around Umtanum Ridge and Gable Mt. and Butte, including several species known in Washington only from these sites and one newly discovered *Eriogonum* (buckwheat) species known globally only from this area. These natural resource values, combined with the cultural importance of Gable Mountain and Gable

Butte should compel DOE to provide stronger land-use designations and management restrictions for these areas.

3. Designate high quality habitats and sensitive species locations within the Central Plateau as Special Use or Wildlife Habitat Management Areas after completing appropriate inventories.

Protection of key portions of the Central Plateau needs to be considered separately and in addition to ALE, Umtanum Ridge, and the North Slope because they provide examples of the vegetation and topography of that part of the Columbia Basin which has been most adversely affected by agricultural use and development. Although precise figures do not exist, examination of satellite imagery suggests the remaining area of shrub-steppe that is flat and supports native deep or sandy soil communities is probably less than 5%. Refer to Data Gaps section for discussion on the need for appropriate inventory.

Biological Minor, Moderate and Major Constraints Map (figure 7.1)

The failure to identify all of the ALE Reserve and the North Slope as having moderate if not major biological constraints is a fault. Although portions of these areas have lost much of their native vegetation, each supports characteristic shrub-steppe flora and/or fauna, even in areas that do not meet the strict element occurrence standards. Reducing the size of these protected areas and increasing the distance between them would be a sure way to decrease biodiversity and overall ecosystem function within them and throughout the Hanford Site as a whole.

Potential Mitigation Measures

The best mitigation is avoidance and protection of ecologically significant areas. However, since significant ground disturbing activities are likely to be a part of clean-up, locating both burial and source material sites in a manner that minimizes negative impacts to the environment is the best and least expensive policy. The best place to locate ground disturbing clean-up activities is in places which already lack native vegetation and which do not contribute substantially to overall shrub-steppe ecosystem conservation.

Because areas will be disturbed in conducting clean-up and other future land-uses on Hanford and since intensive disturbance sites tend to be foci for exotic and invasive plant colonization and expansion, such sites should receive appropriate restoration, monitoring and active management (especially appropriate weed control) attention. This document should make a commitment to do so.

Since cost effective methods for restoring xeric shrub-steppe habitat to "pristine" (or even highly functional) status are unproven, the possibility of acquisition of shrub-steppe land outside Hanford should be considered as part of an overall mitigation strategy, especially if shrub-steppe lands on Hanford are "surplussed" to private ownership, converted to agriculture or industrial use, or badly degraded during clean-up activities.

Summary and Conclusions

The land use plan put forward in this Draft EIS identifies some important areas for protection but fails to identify and designate other important areas. There is a lack of sufficient biological information to produce an adequate land-use plan given the size, complexity, and importance of the Hanford Site. Our recommendations are summarized as follows:

1. Compile a ground-truthed, qualitative plant community map for the Central Plateau at a geographic scale appropriate to future land-use planning decision making (10-20 acre minimum polygon size).
2. Complete comprehensive inventories for biological elements (rare native plants, birds, and small mammals especially) on those portions of the Site which have not been adequately surveyed.
3. Designate some or all of the area west of highway 24 and south of the Columbia River a Special Use or Wildlife Habitat Management area.
4. Maintain the ecological connection between Umtanum Ridge, Gable Mountain and Gable Butte via Special Use or Wildlife Habitat Management Area designation.
5. Designate high quality habitats and sensitive species locations within the Central Plateau as Special Use or Wildlife Habitat Management Areas after completing appropriate inventories.
6. Identify all of the ALE Reserve and the North Slope as having moderate or major biological constraints.
7. Consider the acquisition and conservation of shrub-steppe lands outside the Hanford Site as part of an overall mitigation strategy, and make a commitment to the restoration, monitoring and active management of sites physically disturbed by clean-up and other future land-use activities.

Thanks again for the opportunity to provide input. We realize the difficulty and complexity of compiling a comprehensive land-use plan and EIS for such a large and significant site and hope that our comments are useful to you as you continue the process. Please contact me if you would like clarification on any of our comments.

Sincerely,



Curt Soper
Director of Agency Relations