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**JUN 07 1999  
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**Subject: Comments on the Draft Hanford Remedial Action Environmental Impact Statement and Comprehensive Land Use Plan**

Dear Mr. Ferns:

On behalf of The Nature Conservancy, I am writing to comment on the U.S. Department of Energy's Draft Hanford Remedial Action Environmental Impact Statement and Comprehensive Land Use Plan (HRA EIS).

The Nature Conservancy is an international, non-profit organization dedicating to preserving the plants, animals, and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. With the support of more than 34,000 household members in Washington and over one million members worldwide, we work to identify high priority, ecologically valuable areas and build partnerships with federal and state agencies, non-profit organizations, and private landowners to protect the native species and systems found there. To date, The Nature Conservancy has helped protect more than 135,000 acres in Washington State and more than 11 million acres across North America.

In 1992 the U.S. Department of Energy (DOE) and The Nature Conservancy (TNC) entered into a Memorandum of Understanding that called for a cooperative and coordinated inventory of select native plants, animals, and ecologically significant areas at the Hanford Site. The goal of the inventory was to better identify and map occurrences of native plant communities, rare plant populations, and important animal taxa over large areas of the Hanford Site, in order to provide DOE with information useful for making resource management and land-use decisions. TNC conducted extensive field work over the course of this inventory, and submitted reports to DOE detailing the results of field activities in 1994, 1995, and 1997. TNC is currently preparing to submit to DOE a report on 1998 field activities in conjunction with a comprehensive final summary of all findings to date. These findings are not exhaustive, but do provide the most accurate, up-to-date, large-scale information on the existence, health, and location of rare native species and natural systems at Hanford.

Based on our four years of experience performing on-the-ground inventory work across the Hanford Site, plus decades of work identifying and protecting natural areas throughout Washington and elsewhere, we have reviewed the HRA EIS. For the reasons described below, we support some concepts of the DOE Preferred Alternative, subject to the modifications outlined here, as the minimum configuration designed to protect the long-term viability of rare species and communities at Hanford.

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## ECOLOGICAL VALUES OF THE HANFORD SITE

### A. Overview

The Hanford Site is located within the Columbia Basin Ecoregion, an area that historically included over 14.8 million acres (6 million hectares) of steppe and shrub-steppe vegetation across most of central and southeastern Washington, as well as portions of north-central Oregon. Historically, this area consisted primarily of shrubs, perennial bunchgrasses, and a variety of forbs. Today, an estimated 60% of the shrub-steppe vegetation once found in Washington has been permanently converted to agriculture, development and other uses. Much of what remains is in small parcels or shallow rocky soils, or has been degraded by historic land uses.

The Hanford Site, along with the U.S. Department of Defense Yakima Training Center, retains the largest remaining blocks of relatively undisturbed shrub-steppe vegetation in the Columbia Basin Ecoregion. The presence of a high diversity of physical features, including the Hanford Reach, and examples of rare, undeveloped deep and sandy soils has led to a corresponding diversity of plant and animal communities. Some areas of the Hanford Site are relatively free from non-native species and are extensive enough to retain characteristic populations of shrub-steppe plants and animals that are absent or scarce in other areas.

The portion of the Columbia River at the Hanford Site is a unique segment of the modern Columbia River system in the United States. Never dammed or dredged, the 51-mile Hanford Reach is the last free-flowing segment of the Columbia River in the United States. As a result, the Hanford Reach provides remnant habitat for aquatic organisms and riparian-dependent species and systems that were once considerably more abundant. Nearly eighty percent of the fall chinook salmon in the Columbia above McNary Dam spawn in the Hanford Reach. The Reach also serves as a critical migration corridor for coho and sockeye salmon, steelhead, and spring and summer chinook salmon, and provides resident habitat for numerous other native fish.

### B. TNC Biodiversity Inventory

The Nature Conservancy's biodiversity inventory is the only large-scale, detailed inventory of the rare species and plant communities present at the Hanford Site. The 1994 and 1995 inventory findings confirmed the significant ecological values of the Arid Lands Ecology (ALE) Reserve, Hanford Reach, and Wahluke Slope. The 1997 and upcoming 1998 inventory findings demonstrate that Central Hanford also supports significant components of biodiversity. (For the purpose of these comments, "Central Hanford" refers to all portions of the Hanford Site not included in the ALE Reserve, Hanford Reach, Wahluke Slope, McGee Ranch or Riverlands.)

To ensure that this information is taken into account by decision-makers as intended, we request that all of these reports (including the final report to be delivered this summer) be included in the official record for this HRA EIS and that the Record of Decision officially recognize and incorporate their findings. This is especially appropriate for the 1997 and 1998 biodiversity inventory findings for Central Hanford. *The 1996 DOE Draft Hanford Biological Resources Management Plan (BRMaP), which formed the basis for much of the analysis in the HRA EIS, did not include data from the TNC biodiversity inventory on the resources of Central Hanford.*

Our final report will summarize all of the findings to date and document some of the following highlights:

- ***The diversity and vast size of the native plant communities found at Hanford is unmatched in the ecoregion.*** A total of 17 terrestrial plant community types were identified at 48 separate locations. Only three of the 17 identified plant community types were common to the ALE Reserve, the Wahluke Slope, and Central Hanford.
- ***A tremendous number of rare plants occur at Hanford.*** The highest densities occur at the east end of Umtanum Ridge, the basalt-derived sands near Gable Mountain, the White Bluffs, Rattlesnake Mountain, and Yakima Ridge. Rare plant surveys at Hanford also led to the discovery of two plant species and one variety previously unknown to science.
- Central Hanford contains “special habitats” supporting plant species that vary over time and in response to changing weather conditions. Among the most interesting discovered were ***three previously undocumented clusters of 20 vernal pools***—a habitat little known or studied in Washington—each containing one or more rare plant species. Vernal pools were identified at the eastern end of Umtanum Ridge, near Gable Butte, and on Gable Mountain.
- The size, diversity, and relatively undisturbed condition of the native shrub-steppe habitat at Hanford supports ***significant insect biodiversity***. Over 1,500 different species of insects have been identified, with at least 500 more expected. During the course of the inventory, 41 species and two subspecies new to science were identified, along with at least 142 species not previously known to occur in Washington.
- The Hanford Site contains ***regionally significant breeding populations of shrub-steppe dependent birds***. The Hanford Reach and riparian/wetland areas on the ALE Reserve and Wahluke Slope contain the highest diversity of bird species on the Site.

These and other findings from the biodiversity inventory demonstrate that the Hanford Site is home to a spectacular, unduplicated and irreplaceable natural legacy. We encourage DOE to use the TNC biodiversity inventory findings to make sound resource management and land use decisions at Hanford. It must be remembered, however, that inventories can never be 100% complete, and that they represent merely a snapshot in time. Populations of rare plants, for example, may become larger or smaller, shift their location, or establish new populations elsewhere at the Site. To protect the status of Hanford’s biodiversity over the long term, a comprehensive land use plan must protect known ecological resources, and have the flexibility to change with access to new information or as resource conditions, or potential impacts to those conditions, change over time.

## **THE DOE PREFERRED ALTERNATIVE AND SUGGESTED MODIFICATIONS**

From a conservation standpoint, the Hanford Site is a vital—and perhaps the single most important—link to preserving and sustaining the diverse plants and animals of the Columbia Basin Ecoregion. We support some concepts of the DOE Preferred Alternative, subject to the modifications outlined here, as the minimum configuration designed to protect the long-term viability of Hanford’s biodiversity. For ease of reference, we have enclosed a map of our proposal. (Attachment 1)

1. **Protect Hanford's "Crescent" of Habitats as a National Wildlife Refuge:** To protect the exceptional ecological resources of the areas surrounding Central Hanford, and to enhance the ecological value of Central Hanford itself, the following adjoined DOE lands should be designated for Preservation and established as a permanent National Wildlife Refuge under management by the U.S. Fish and Wildlife Service: the entire ALE Reserve (which should also retain its status as a federal Research Natural Area), the McGee Ranch, the Riverlands, all DOE land on the entire Wahluke Slope, the Hanford Reach, and the Columbia River islands. Undeveloped areas at the McGee Ranch and the Riverlands must be included because they provide a critical ecological connection between the ALE Reserve and the Wahluke Slope, and help bridge the distance between the Yakima Training Center and the Hanford Site. The McGee Ranch and the Riverlands are also significant because they contain bat habitat and rarely protected deep soil community types.
2. **Expedite Protection:** This "crescent" of lands surrounding Central Hanford is both ecologically valuable and uncontaminated by Hanford operations. Preservation of this area (and designation as a National Wildlife Refuge) should not be delayed by the complex decisions involving clean-up in Central Hanford. To expedite a final decision on management of uncontaminated lands, DOE should issue a separate Record of Decision for the "crescent" area mentioned above.
3. **Protect Known, High Quality, Ecologically Valuable Lands in Central Hanford:** While the ecological values of the ALE Reserve, Hanford Reach, and Wahluke Slope are well established, the biological resources of Central Hanford have not been extensively studied to date. TNC focused on Central Hanford during the 1997 and 1998 field inventories. The 1997 annual report and upcoming report for 1998 identified a number of exceptional ecological resources throughout Central Hanford. This information, at a minimum, should help guide DOE in formulating a comprehensive site conservation and land-use plan for Central Hanford and in designating specific areas for Preservation.

Taking into account the 1997 and 1998 inventory findings for Central Hanford, the areas designated for Preservation in the Preferred Alternative are inadequate. At a minimum, the following areas should be included in Preservation status:

- All plant community element occurrences (e.g., the dune fields spanning Central Hanford from the ALE Reserve to the Hanford Reach) (see TNC 1997 Annual Report, Figure 3);
- Gable Butte and Gable Mountain, along with associated rare plant populations (see TNC 1997 Annual Report, Figure 5);
- Vernal pools and other special habitat areas (see TNC 1997 Annual Report, Figure 5); and
- West Lake (one of the few aquatic areas in Central Hanford, and featuring unique insects).

Because the value of these areas is based almost entirely on recently collected data, their treatment in the 1996 DOE BRMaP and the Preferred Alternative is out of date. The attached map indicates the approximate boundaries of these known rare, high quality, ecological resources in Central Hanford.

4. **Manage Remaining Lands in Central Hanford Under Sound Ecological Principles:** The areas mentioned above and other ecological resources in Central Hanford are integral components of the vast shrub-steppe landscape at the Hanford Site. Actions taken across significant portions of this area, such as mining, grazing, industrial development, or recreation, could negatively impact

biodiversity on a regional scale—and preclude future management options for the entire Site. Because our knowledge of the biological resources of Central Hanford is far from complete, and because the issues involved in managing Central Hanford are more far complex than at other areas of the Site, we recommend designating most of the remaining lands in Central Hanford for Conservation (Additional Study). For the purposes of these comments, we define “Conservation” lands as areas requiring additional study and implementation of an integrated and adaptive conservation management plan incorporating state-of-the-art principles of conservation biology.

A sound integrated and adaptive management plan for Central Hanford would allow DOE to closely evaluate Conservation areas for their ecological, archeological, cultural, scenic, and other values before authorizing any special use, including low-intensity recreation, high intensity recreation, mining, or grazing. Such a plan would require decision-makers to evaluate species and communities present, incorporate considerations for ecosystem resiliency, and develop management strategies to accommodate unexpected events or natural disturbances, all within the context of the Hanford landscape. A similar analysis should be performed for areas targeted for expansion of industrial and research and development uses in south Central Hanford. Careful planning, monitoring, and assessment of management actions will provide the flexibility needed to meet the challenges of maintaining and enhancing the biological diversity of Hanford.

## CONCLUSION

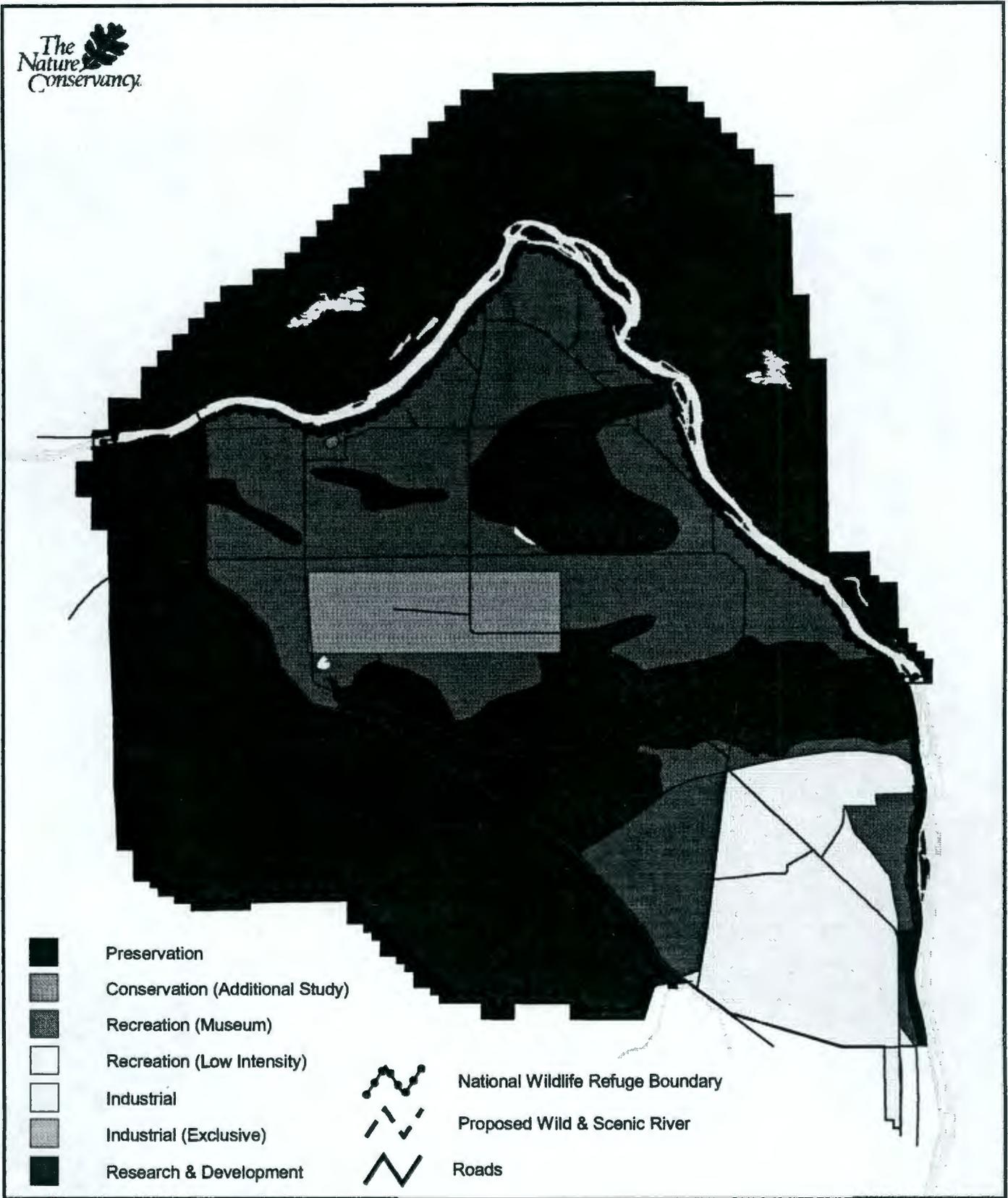
While we support some concepts of the Preferred Alternative, we urge DOE to take the actions suggested here to better protect the long-term viability of the rare species and communities found at Hanford. Adoption of a more protective configuration, especially one that takes into account all of the results from the TNC biodiversity inventory, would be a critical step toward creating an appropriate permanent national, natural legacy at Hanford for all Americans.

Finally, we thank you for the opportunity to comment on the Draft Hanford Remedial Action Environmental Impact Statement and Comprehensive Land Use Plan. The Nature Conservancy values its work with the Department of Energy, and appreciates the opportunity we have had to help develop and provide extensive biological information on the Hanford Site. We look forward to further assisting in efforts to better understand and protect the exceptional ecological values of the Hanford Site.

Sincerely,



Elliot Marks  
Vice President, Northwest and Hawaii Division and  
Director, Washington Chapter of The Nature Conservancy



Attachment 1 to 6/4/99 Letter, The Nature Conservancy to the U.S. Department of Energy

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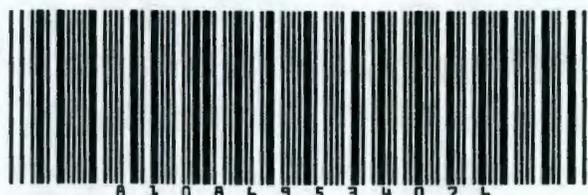
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