UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

November 21, 2011

John Kasbohm
Sheldon-Hart Mountain
National Wildlife Refuge Complex
P.O. Box 111
Lakeview, OR 97630

Subject: Draft Environmental Impact Statement (DEIS) and Draft Comprehensive Conservation Plan - Sheldon National Wildlife Refuge, Washoe and Humboldt Counties, Nevada, and Lake County, Oregon (CEQ # 20110302)

Dear Mr. Kasbohm:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. Thank you for agreeing to include our comments, and your responses to them, in the FEIS, per our request to submit public comments 14 days after the deadline. Our detailed comments are enclosed.

The Draft Environmental Impact Statement (DEIS) and Draft Comprehensive Conservation Plan (CCP) provide guidance for the long-term management of the Sheldon National Wildlife Refuge, located in northwest Nevada. Based on our review, we have rated the DEIS's preferred Alternative 2 as Environmental Concerns – Insufficient Information (EC-2) (see enclosed "Summary of Rating Definitions"). Our concerns regard the lack of specific information regarding the increased use of herbicides on land area ten times greater than under current management, and the lack of accompanying impact assessment for this increased use. In addition, it is not clear whether the management actions planned under the preferred alternative considered the climate change effects that are expected to occur and are already being observed on the Refuge, and we recommend additional discussion of this be included in the FEIS.

EPA appreciates the opportunity to review this DEIS. When the Final EIS is released for public review, please send one copy to the address above (mail code: CED-2). If you have any questions, please contact me at (415) 972-3521, or contact Karen Vitulano, the lead reviewer for this project, at 415-947-4178 or vitulano.karen@epa.gov.

Sincerely,

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Kathleen Martyn Goforth, Manager
Environmental Review Office

Enclosure: Summary of EPA Rating Definitions
EPA's Detailed Comments

Noxious Weed Management

The acreage of land treated for noxious weeds under the preferred Alternative 2 would increase tenfold over current management (from between 50 - 100 acres per year to 1,000 acres per year[1])(p. 2-15). The DEIS indicates that this treatment would most commonly include mechanical mowing and herbicides (p. 2-42). The DEIS discusses the solubility and leaching potential of some herbicides (picloram, glysphosate and 2,4-D as examples), and notes the soils in valley and drainage bottoms at the Refuge provide conditions such that the potential for transport of herbicides to water resources is considered high (p. 6-36). However, the DEIS does not identify the locations (whether in sandy or clay soils) or the type of herbicides likely to be used, which is critical for discerning the extent of impact to water resources. The discussion of impacts to water quality on pages 6-37 and 6-37 did not address differences among the alternatives for this impact.

The DEIS concludes that, while many of the herbicides that would be used on Sheldon Refuge are susceptible to transport in surface runoff, herbicide use presents a minor risk to the environment, stating that "most studies have shown when herbicides do enter surface waters, concentrations are very low (BLM 2007) and below thresholds that would adversely affect the health of fish, wildlife, plants, and people". The reference for this conclusion appears to be a nationwide 2007 BLM Programmatic EIS for vegetation treatment using herbicides. It is not apparent which studies from this programmatic NEPA document are supporting the above conclusion. We note that use according to pesticide labels are protective only for the soil and environmental condition for which they were evaluated, and do not consider site-specific variations, which could increase risks to water resources associated with even proper label usage.

The DEIS states that the USFWS Region 1 IPM Strategies have been evaluated and are adopted and incorporated in this Comprehensive Conservation Plan by reference (p. 2-42). It also states that refuge staff is working with cooperators to develop an IPM Plan and associated pesticide use proposals, where appropriate (p. 4-8).

> *Recommendations:* The assessment of impacts to water resources from herbicide usage should include the additional information identified above, and the impact assessment should differentiate between alternatives and present their impacts in comparative form. The treatment locations and soil conditions with leach/runoff potential should be identified so that best management practices and mitigation measures can be identified for higher risk areas. We recommend that no herbicide application occur until a site-specific IPM plan has been completed. Such a plan should identify the pest control selection hierarchy that will occur, including a preference for the least toxic method that would be effective.

Climate Change - Cumulative Effects and Integration into Planning

The DEIS includes a good discussion of the effects of climate change in the Great Basin, and many of the predictions identified to occur will interface with actions being planned under the CCP. The DEIS

[1] Page 6-57 of the DEIS states that weed treatments would increase from approximately 1,500 acres to 15,000 acres, but we assume this is a typo.

states that climate change may magnify the influences of other threats to ecosystem conservation (p. 3-1), yet it is unclear if these cumulative impacts from climate change have been considered in planning the CCP actions and alternatives, or in the impact assessment.

The climate discussion in the DEIS identifies factors that will likely extend fire seasons, with more fires occurring earlier and later, thereby increasing the total areas burned. Fire management is a large component of the CCP and fire suppression has caused severe impacts to habitat condition and ecological function (p. 5-25). It is not clear how the extended fire season as a result of climate change and the more extensive burned areas will affect the fire management strategy of the preferred alternative, as it is not discussed. Similarly, the DEIS indicates that plant invaders may be advantaged by higher levels of CO_2 (p. 3-2), yet how this factor will affect the strategy for noxious weed management in the preferred alternative, including the increased quantities of herbicide use, is not explicit. Section 3.2 states that, for the Great Basin, documented climate change effects from the last 100 years include region-side warming, increase in precipitation, and decline in snow pack. The DEIS indicates that the Refuge water supply is dependent on snow pack, and the size of the winter snowpack and its persistence into the early summer determines how much water will accumulate in playas and reservoirs and how much will flow through the creeks (p. 3-3). Will these factors influence the strategy for removal of unused water developments, or the strategy for maintaining wildlife guzzlers under the CCP? Potable water at the Headquarters Office and surrounding facilities is obtained from wells and the DEIS states that if development increases, water resources could be impacted quickly, especially in the Virgin Valley Mining Area. Were climate change effects on water supply considered when planning for a new visitor contact station and new volunteer housing on the Refuge, and were they included in the impact assessment?

For Sheldon Refuge, simulations indicate that the potential range of big sagebrush, a dominant and vital species in the areas, may shift northward and grow smaller (p. 3-3). How is this information being considered in this conservation plan? Climate change will also shift ranges for wildlife (p. 3-3), which will require migration corridors and concurrent movement of forage and prey. Are migration corridors being planned for in the CCP? Roads, development and habitat fragmentation present significant barriers to species range shifts (p. 3-3). Has the CCP planning effort considered these corridors when planning the road system, for example?

> *Recommendation:* We recommend the FEIS discuss how the information regarding climate change effects – both observed and predicted – was used in the formulation of alternatives and management actions in the CCP. If climate change effects are significant, they should be accounted for in the impact assessment.

Feral Horse and Burro Removal

The DEIS well documents the significant threat to habitat condition and ecological function presented by the approximately 800 feral horses and 90 burros present at the Refuge, and the preferred alternative proposes to completely remove all horses and burros within 5 years, which is a change from the current management of removing only annual increases to maintain a stable population. We understand that the presence of the horses and burros detracts from the mission of the Refuge.

The DEIS acknowledges the public concern about wild horses (p. 1-2), and this concern is further expressed in the scoping report. The DEIS indicates that the preferred Alternative 2 would remove all

feral horses and burros, and that the FWS determined that the use of lethal control would be unnecessary to meet horse and burro population objectives (p. 2-1). The gathered horses/burros would be shipped to private facilities for adoption. Under preferred Alternative 2, the DEIS states that sale or auction of horses could be implemented as a last resort if adoption is ineffective (p. 2-6, 2-19). It is not clear how sale of horses would be more effective than adoption, or whether this is implying that it is possible that horses could be sold for slaughter. Since the DEIS indicates that the current wild/feral horse and burro adoption market is relatively saturated (p. 6-63), the FWS should ensure that the public is fully informed of the likely consequences of its actions.

Recommendation: Identify in the FEIS the potential, if any, which exists for horses to be sold for slaughter under the preferred alternative.

Additional Comments

- Alternative 2 would replace rainbow trout with native Lahontan cutthroat trout and "breed out the rainbow trout genome if possible" (p. 5-11). If this is not possible and FWS anticipates the future use of piscicides to enable replacement of non-native trout species, we recommend additional NEPA analysis occur at that time. We recommend that the FEIS clearly indicate that the use of piscicides is not currently part of the CCP.
- Appendix E, p. 2 (Table E.1) indicates that all alternatives replace the Visitor Center, but the DEIS identifies only Alternative 2 with this component.
- Appendix E, p. E-2 (Table E.1) lists the relocation of some campgrounds, which the DEIS indicates are impacting sensitive riparian habitats, as a low priority. Since riparian habitats in western rangelands have exceedingly high values for human society, fish, and wildlife, we recommend this action be given a higher priority.
- Page 3-6 is missing in both the hard copy and on-line version. Page 3-5 is duplicated instead.
- Text on page 5-2 implies that Figure 5-1 shows all the water control structures, but it does not appear to.