United States Department of the Interior

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November 4, 2011
File No. BLM 0711

Memorandum

To: Project Manager, Nevada Groundwater Projects Office, Bureau of Land Management, Reno, Nevada

From: State Supervisor, Nevada Fish and Wildlife Office, Reno, Nevada

Subject: Supplemental U.S. Fish and Wildlife Service Comments on the Draft Environmental Impact Statement (dated June 2011) for the Clark, Lincoln, and White Pine Counties Groundwater Development Project

This memorandum transmits additional U.S. Fish and Wildlife Service (Service) comments on the Bureau of Land Management's June 2011 Draft Environmental Impact Statement for the *Clark, Lincoln, and White Pine Counties Groundwater Development Project* (see attachment). These comments are meant to supplement the comments we submitted on October 11, 2011. As a cooperating agency, the Service appreciate the opportunity to provide BLM with supplemental comments on the DEIS for this project.

If you have any questions regarding this correspondence or require additional information, please contact myself or Jill Ralston, Deputy State Supervisor at (775) 861-6300.

(for: Edward D. Koch

Attachment

cc:

Project Leader, Fish Springs National Wildlife Refuge, U.S. Fish and Wildlife Service, Ibapah, Utah

Project Leader, Desert National Wildlife Refuge Complex, U.S. Fish and Wildlife Service, Las Vegas, Nevada (attn: Laurie Simons)
Regional Director, U.S. Fish and Wildlife Service Region 1, Portland, Oregon, attn: Tim Mayer
Regional Director, U.S. Fish and Wildlife Service Region 6, Denver, Colorado, attn: Meg Estep
Regional Director, U.S. Fish and Wildlife Service Region 8, Sacramento, California
Field Supervisor, Utah Ecological Services Office, U.S. Fish and Wildlife Service, West Valley City, Utah, attn: Amy Defreese
Assistant Field Supervisor, Nevada Fish and Wildlife Office, U.S. Fish and Wildlife Service, Las Vegas, Nevada, attn: Brian Novosak

Page	Section	Paragraph	Comment
General Comment			**Identification of the Environmentally Preferred Alternative.** The Service recommends that a combination of Alternatives E and C be identified as the environmentally preferred alternative. Specifically, the Service recommends identification of the following alternative as the scenario that would minimize impacts to water-dependent biotic resources while fulfilling the aim of providing a supplemental source of water for the project proponent: no project pumping in Snake Valley (for reasons outlined in our March 23, 2011 and October 11, 2011 letters); pumping by the project proponent in Spring Valley not limited to the LCRDA corridor, i.e., not concentrated in southern Spring Valley (also for reasons outlined in our March 23, 2011 letter); and pumping of groundwater as a whole limited to periods when municipal demand cannot be meet by the project proponent with available Lake Mead water, except for minimum flows required to maintain the pipeline and other project facilities in a ready condition.
3.3-191	3.3.3.4	1	As described in our October 11, 2011 cover letter, we are concerned that the cumulative effects analysis is limited in a number of ways, including geographically due to truncation of the Water Resources Region of Study at the Snake Valley boundary. Therefore, it appears that past and present consumptive groundwater use is not considered for many basins within the Great Salt Lake Desert flow system (Table 2.9-3), including but not limited to Pine, Wah Wah, Hamlin, and Tule valleys. Given that pumping in these basins could cumulatively affect groundwater levels and flow within the Great Salt Lake Desert Flow System, it seems reasonable to include and consider them. If no pumping currently exists in these basins, that conclusion (and how it was reached) should be presented in the document. Second, Table 2.9-4, Estimated Reasonably Foreseeable Future Groundwater Developments Included in the Cumulative Analysis, does not appear to address and consider Hamlin, Pine, Wah Wah, and Tule valleys. If there are no groundwater development projects that meets BLM's criteria for inclusion in these basins, that conclusion and supporting rationale should be presented in the document.
3.5-1	3.5.1.1	4	To provide more comprehensive vegetation community characterizations, the BLM could draw information from the relevant Districts in Utah (Fillmore and Cedar City).
3.5-1	3.5.1.1	6	It should be noted that in Service comments to the draft Natural Resources Baseline report (dated January 25, 2008), the Service voiced particular concern that Utah resources were not adequately addressed. We recommended a thorough review of all available information before finalization of the report. As described in the following comments, inadequate consideration of Utah resources remains a significant concern.

3.5-2	3.5.1.1	1	The description of the Region of Study for vegetation is unclear. It appears that the Region of Study for vegetation resources is the same as the Natural Resources Region of Study, yet this is not specifically stated. It is also confusing because the analysis of pumping effects to groundwater-dependent vegetation seems to be constrained to an area that is considerably smaller than the Natural Resources Region of Study.
3.5-2	3.5.1.1	1	Without a hydrological model to support effects analyses in Pine, Wah Wah, and Tule valleys, it is unclear how one can analyze project effects to vegetation in these valleys. Yet, these valleys are included in the Natural Resources Region of Study. This inconsistency should be better explained and addressed in this paragraph, specifically regarding the consequences of two different regions of study (Water Resources vs. Natural Resources). There are a number of reasons to believe there may be project effects to groundwater resources in these valleys: 1) The 10' contours for the Proposed Action and cumulative effects at 200 years after FBO are truncated at the boundaries between Hamlin Valley and Pine Valley, and Snake Valley and Pine Valley. As a result, the reader is left to guess how many more valleys could be affected by drawdown; 2) The effects analysis is incomplete in that drawdown is only considered where it is 10' or greater (or where a spring was specifically modeled); 3) From Table 3.3.2-6 of the Water Resources section, a 10% reduction in flow from Snake Valley to Pine, Wah Wah and Tule valleys is predicted at FBO + 200 years; and, 4) No springs or ET areas in Pine, Wah Wah or Tule valleys were included in the model, so one cannot conclude there will be no effects to these basins from pumping without additional explanation.
3.5-3	3.5.1.2	Figure 3.5-1	This Figure should depict the entire Natural Resouces Region of Study. As it stands, the Figure does not depict vegetation land cover for Deep Creek Valley, northern Snake Valley or Fish Springs Flat.

3.5-10	3.5.1.4	Figure 3.5-3 and 3.5-4	It is unclear why no springs of biological interest are mapped and inventoried in Deep Creek, Tule, Pine, and Wah Wah Valleys because all of these valleys lie within the Natural Resources Region of Study. The document should address this discrepancy and provide information that explains how springs in these valleys were considered. There are a number of reasons to believe there may be project effects to groundwater resources in these valleys: 1) The 10' contours for the Proposed Action and cumulative effects at 200 years after FBO are truncated at the boundaries between Hamlin Valley and Pine Valley, and Snake Valley and Pine Valley. As a result, the reader is left to guess how many more valleys could be affected by drawdown; 2) The effects analysis is incomplete in that drawdown is only considered where it is 10' or greater (or where a spring was specifically modeled); 3) From Table 3.3.2-6 of the Water Resources section, a 10% reduction in flow from Snake Valley to Pine, Wah Wah and Tule valleys is predicted at FBO + 200 years; and, 4) No springs or ET areas in PIne, Wah Wah or Tule valleys were included in the model, so one cannot conclude there will be no effects to these basins from pumping without additional explanation.
3.5-12	3.5.1.4	Table 3.5-5	This table neglects to include vegetation characteristics for spring systems in Hamlin Valley, Pine or Wah Wah Valleys, yet all are within the Natural Resources Region of Study and presumably contain spring systems with vegetation. We recommend that BLM identify spring systems in these valleys and the vegetation they support.
3.5-16	3.5.1.4	3	There is an unexplained disconnect between the boundaries of the Natural Resources Region of Study and the valleys actually mapped for phreatophytic vegetation. Because Figure 3.5-3 relies on corresponding ET data from the Water Resources section, a number of valleys were left out of the analysis. These valleys are Pine, Wah Wah, Tule, and Deep Creek. We recommend that BLM map phreatophytic vegetation in these valleys as there is reason to believe groundwater resources will be affected in these areas.
3.5-16	3.5.1.4	3	There is an inaccurate and confusing sentence in this paragraph: "The same ET areas are illustrated by individual basin in Section 3.3, Water Resources." This is incorrect as the only basins mapped for ET areas in Section 3.3, Water Resources, are Spring, Snake Valleys, Dry, Delamar and Cave Valleys. Therefore, it is unclear what information was used to establish the presence and extent of phreatophytic vegetation in Hamlin Valley.

3.5-16	3.5.1.4	4	The information provided in this paragraph may be inaccurate and misleading in 1) its reference of the 2007 BIO-WEST reports; and 2) the representation of BIO-WEST's work. While the DEIS reports that "BIO-WEST conducted habitat surveys for this species in spring-fed meadows in *several project and adjacent hydrologic basins,* " the surveys did not cover a representative portion of those valleys in the Natural Resources Region of Study. SNWA only contracted with BIO-WEST to review 32 springs in Spring and Snake Valleys for Ute ladies'-tresses; only one of those springs occurs in Utah (Clay Springs). No surveys were conducted in Hamlin Valley, Pine Valley, Tule Valley, Wah Wah Valley, or Deep Creek Valley for the species, and only one spring was visited in Snake Valley, Utah.
3.5-16	3.5.1.4	4	This paragraph does not accurately represent the status of *Spiranthes diluvialis* across the Natural Resources Region of Study, specifically within Utah valleys. There is very little information that can be drawn from the 2007 BIO-WEST *Spiranthes* report because, as the author states, it is "...impossible to eliminate the possibility of the species for these springs after peak flowering or during a single visit." BIO-WEST visited Clay Springs in Utah to conduct surveys only once. USFWS must assume that if habitat exists and surveys for the plant have not been conducted according to protocol, then there is potential for the species to exist at the site. This paragraph should be revised to reflect this information.
3.5-16	3.5.1.4	4	The population of *Spiranthes diluvialis* referenced in this paragraph for northern Snake Valley, Utah (Callao) is presumed extant.
3.5-16	3.5.1.4	4	It is unclear if any special status species, other than *Spiranthes* , were considered for groundwater pumping effects. At a minimum, the BLM-Nevada Sensitive Species List and BLM-Utah 2011 Interim Sensitive Plant Species List should be referenced. We recommend that BLM review those lists for species that may be affected by groundwater drawdown and include them in this section (if not already).
3.5-39	3.5.2.8	1	It would benefit the document and subsequent vegetation analysis to provide a reference for the following assumption: an index drawdown contour of 10 feet is a reasonable estimate of the point at which long-term changes in plant community vigor and composition would begin to appear. Of the references provided, BLM should specifically state which support(s) this assumption.

3.5-40	3.5.2.8	8	**Methodology for Analysis,** *Groundwater Pumping* : We recommend that BLM analyze effects to wetland/meadow and basin shrubland within the Utah basins included in the Natural Resources Region of Study (if BLM believes there will be no effects to phreatophytic vegetation in these areas, document these reasons). We further recommend that BLM include a Methodology for Analysis for groundwater pumping effects to plant communities in basins outside the hydrologic Region of Study, but within the Natural Resources Region of Study.
3.5-44 through 3.5-66	3.5.2.9 through 3.5.2.15	Figures 3.5-6 through 3.5-12	We recommend further separating the yellow layer in these Figures to distinguish between phreatophytic vegetation communities outside of the Project 10' drawdown and those more than 50' above groundwater. It is unclear, for example, whether the phreatophytic vegetation in mid- and northern Snake Valley (Utah) and White River Valley (Nevada) is more than 50' above groundwater or outside the 10' drawdown contour.
3.5-44 through 3.5-66	3.5.2.9 through 3.5.2.15	Figures 3.5-6 through 3.5-12	The various chapters of the document are inconsistent in the assessment of groundwater pumping effects to springs in mid and northern Snake Valley. In these Figures, the Gandy system, the Bishop Springs complex, the Fish Springs complex and Callao springs are all presented as "Impacts likely." Yet, these spring systems and the aquatic flora and fauna they support are not addressed as such in the water resources and aquatic resources sections.
3.5-44 through 3.5-66	3.5.2.9 through 3.5.2.15	Figures 3.5-6 through 3.5-12	These figures illustrate three categories of springs (Valley floor - Impacts Likely, Valley Margin - Impacts Possible and Other Springs). Springs that fall under the first category, Valley floor - Impacts Likely, include many in mid and northern Snake Valley. Some of these springs include the Gandy system, Bishop Springs complex, Callao and those at Fish Springs National Refuge. It stands to reason that if these valley floor and valley margin springs are likely to experience impacts from groundwater pumping, then the phreatophytic vegetation will be affected as well. If not, then the BLM should provide an explanation.
3.5-45 through 3.5-66	3.5.2.9 through 3.5.2.15	Page 3.5-45, paragraph 2	Absent *Spiranthes diluvialis* surveys (according to Service protocol) in areas of suitable habitat, the Service cannot assume that the species does not occur at the site. We are not aware of such surveys in the Utah portion of the Natural Resources Region of Study, other than the one survey conducted in 2007 at Clay Springs. The text in this paragraph should reflect this conclusion and disclose how BLM will address pumping effects to this species.

3.5-67	3.5.3.2	4	The study area for groundwater pumping is defined here and is referenced as "the boundary for the groundwater model simulations (Figure 3.0-2)." First, it is not clear why the cumulative effects study area (which we assume is also the region of study) is smaller than the region of study referenced in the beginning of the Vegetation Resources chapter. It should be the same, if not larger. Second, there may be a typo here as Figure 3.0-2 depicts a process, not a map.
3.5-67 through 3.5-89	3.5.3	All	One purpose of a cumulative effects analysis is to put project effects into context for the public. We recommend that BLM provide additional information to: 1) identify existing conditions and trends in the persistence and sustainability of vegetation resources; and 2) identify thresholds for the assessment of resource degradation. For example, how much succession has already occurred across varying scales (Great Basin region, Nevada, Utah, by valley)? How much wetland acreage has already been lost? How much loss is acceptable on public lands? Significant information is available that documents the status of sensitive habitat in Utah. The Utah Division of Wildlife Resources described the ten most at risk habitat types found in Utah and ranked each by the degree of threat it faces due to various stressors. Ultimately, the BLM must determine and disclose if the resource will be degraded to unacceptable levels given the existing condition of the resource and additive/interactive effects. The public should be given enough information to form an opinion about an acceptable level of resource degradation and provide meaningful comment.
3.5-72	3.5.3.5	1	BLM does not provide enough information to conclude that a loss of 3,065 acres of basin shrubland habitat is a "relatively low level." What percentage of total basin shrubland habitat in Hamlin Valley does that number represent? In the Great Salt Lake desert flow system? What flora and fauna depend on that habitat? This type of information is critical to draw a meaningful conclusion about the loss of basin shrubland in Hamlin Valley under the Proposed Action, Cumulative Effects. This comment applies to all project alternatives in addition to the proposed action.
3.5-74	3.5.3.5	2	For Snake Valley, BLM predicts effects (gradual loss) to 49,068 acres of basin shrubland and 1,927 acres of wetland/meadow. What percentage of total basin shrubland habitat in Snake Valley (and the Great Salt Lake Desert Flow System) does that number represent? What flora and fauna depend on that habitat? This type of information is critical to draw a meaningful conclusion about the loss of basin shrubland in Snake Valley under the Proposed Action, Cumulative Effects. This comment applies to all project alternatives in addition to the proposed action.