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

July 26, 2005

Terri Knutson
Carson City Field Office
Bureau of Land Management
5665 Morgan Mill Road
Carson City, NV 89701

Subject: North Valleys Rights-of-Way Projects Draft Environmental Impact Statement (DEIS), Washoe County, NV

Dear Ms. Knutson:

The U.S. Environmental Protection Agency (EPA) has reviewed the above referenced document. Our review and comments on this DEIS are provided pursuant to our authorities under the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementation Regulations at 40 CFR 1500-1508, and Section 309 of the Clean Air Act.

We have rated the DEIS as EC-2 – "Environmental Concerns - Insufficient Information" (see enclosed "Summary of Rating Definitions"). Based on our review of the DEIS, we have serious concerns about the potential indirect and cumulative impacts of the proposed project on water, air, and biological resources. In our February 17, 2004, scoping letter and March 28, 2005, comment letter on the administrative DEIS for the North Valleys project, EPA provided comments and made recommendations on issues to be addressed in the DEIS, including indirect and cumulative impacts; water, air, and biological resources; and mitigation and monitoring. We reiterate several of those comments here and recommend that additional analysis and commitments to mitigation be provided in the Final Environmental Impact Statement (FEIS).

The proposed project involves Bureau of Land Management (BLM) approval of two pipeline rights-of-way to convey 8,000 acre-feet/year of water from Fish Springs Ranch (FSR) in the Honey Lake Valley and 3,500 acre-feet/year of water from Dry Valley and Bedell Flat. The DEIS acknowledges that export of up to 13,000 acre-feet/year from FSR is a reasonably foreseeable future action, and it appears that the FSR pipeline could accommodate this amount of water. We are seriously concerned about the potential cumulative impacts to wetlands, springs, and wells; vegetation and wildlife; and air quality from future exports of up to 13,000 acre-feet/year from Honey Lake Valley. However, the DEIS does not sufficiently describe and discuss the potential impacts of this foreseeable future action. The FEIS should include a detailed discussion of the potential cumulative impacts and identify measures that could be taken to avoid these impacts. We believe that, prior to any future water export from FSR exceeding

8,000 acre-feet/year, a thorough analysis of such export should be conducted by the appropriate State and/or local agencies. We also have concerns regarding water, air, and biological resources in the North Valleys service area and recommend these issues be further addressed in the FEIS. Our detailed comments are enclosed.

We appreciate the opportunity to review this DEIS. Please send a copy of the FEIS to this office at the same time it is officially filed with our Washington, DC, office. If you have any questions, please call me at (415) 972-3846 or Jeanne Geselbracht at (415) 972-3853.

Sincerely,

/S/
Nova Blazej, Acting Manager
Environmental Review Office

004246

Enclosures: Summary of Rating Definitions
EPA's Detailed Comments

cc: Nevada State Engineer
U.S. Fish and Wildlife Service
U.S. Bureau of Indian Affairs
U.S. Geological Survey
Sierra Army Depot
Susanville Indian Rancheria
California Department of Water Resources
California Department of Fish and Game
Lassen County, California
Washoe County, Nevada
Truckee Meadows Regional Planning Agency
Airport Authority of Washoe County
City of Reno
City of Sparks

**North Valleys Water Projects Draft EIS**
**EPA Comments – July, 2005**

Cumulative Impacts

The proposed project is Bureau of Land Management (BLM) approval of two pipeline rights-of-way to convey 8,000 acre-feet/year of water from Fish Springs Ranch (FSR) and 3,500 acre-feet/year of water from Dry Valley and Bedell Flat to the North Valleys service area. FSR has a legal water right granted by the Nevada State Engineer of 14,108 acre-feet/year, 13,000 acre-feet/year of which can be exported out of the Honey Lake basin. Although the current proposed project is for export of 8,000 acre-feet/year, the water pipeline could annually accommodate a volume greater than 8,000 acre-feet. Furthermore, we are unaware of any commitment that would preclude FSR from exercising its full water right. The Draft Environmental Impact Statement (DEIS) acknowledges that future water export from FSR of 13,000 acre-feet per year is reasonably foreseeable; however, the DEIS contains no quantitative analysis regarding the cumulative impacts of this future action. For example, the DEIS, *Water Resources* (p. 4-95), states, "Any increases in pumping in eastern Honey Lake Valley beyond the proposed withdrawals at Fish Springs Ranch, Smoke Creek Desert, or Pyramid Lake Valley could cumulatively add to groundwater drawdown in eastern Honey Lake Valley." The DEIS, *Vegetation* (p. 4-97), states that if additional pumping occurs in Honey Lake Valley beyond the proposed 8,000 acre-feet/year at FSR, "additional adverse impacts may occur to wetland habitat from reduced flow at springs and/or flowing wells."

We are seriously concerned about the potential cumulative impacts from future exports of up to 13,000 acre-feet/year from Honey Lake Valley. According to BLM's 1993 DEIS on the Bedell Flat Pipeline Right-or-Way, export of 13,000 acre-feet/year from FSR is beyond the safe yield of the aquifer. In comparison with export of 8,000 acre-feet/year, export of 13,000 acre-feet/year of groundwater from Honey Lake Valley would result in a much larger groundwater cone of depression, greater land subsidence, an increased loss of springs, wetlands, wells, and phreatophytic vegetation, other habitat modification, and impacts to wildlife. Hundreds of acres of wetlands and as many as 13,000 acres of Black Greasewood habitat in Honey Lake Valley and Smoke Creek Desert could be lost or modified. As groundwater is drawn down below its rooting depth, greasewood would die and particulate emissions would increase, degrading air quality.

The current DEIS relies on updated groundwater models, based on export of 8,000 acre-feet/year, but does not quantify the potential impacts to the source area or the service area from pumping and export of up to 13,000 acre-feet/year. Water export greater than 8,000 acre-feet/year to the North Valleys service area would result in more growth, resulting in the need for even more waste water and stormwater treatment capacity, greater effects to receiving waters, additional air emissions, and more habitat modification. These impacts are reasonably foreseeable and, consistent with 40 CFR 1508.25, are within the scope that should be analyzed in the current North Valleys EIS.

**Recommendation:** The discussions and recommendations in the sections below refer to both the BLM-preferred alternative, as well as the anticipated future scenario in which FSR exercises its full water right. The FEIS should describe and quantify all of the potential impacts, addressed below, of a scenario in which FSR exercises it full water right, both in the FSR as well as the North Valleys service area. Identify methodologies used and reference the scientific and other sources relied upon for conclusions in this regard, in accordance with 40 CFR 1502.24.

**Recommendation:** The FEIS and Record of Decision (ROD) should identify measures that could be taken to avoid adverse cumulative and indirect impacts, and discuss the probability of the mitigation measures being implemented (see the Council on Environmental Quality's memorandum regarding Forty Questions and Answers About the NEPA Regulations[1], 19b). Identify legally binding commitments that will be made to ensure that pumping beyond safe yield does not occur at any future time. The FEIS and ROD should identify the parties to such commitments and identify who would monitor and enforce them. If such commitments and/or enforcement measures are not feasible or will not be made, the FEIS should disclose this.

**Recommendation:** The FEIS should identify the maximum water carrying capacity of the proposed FSR pipeline, and discuss whether downsizing the pipe is a practicable measure to ensure against over draughting the aquifer. Other feasible measures should be identified to mitigate the potential impacts of future pumping beyond 8,000 acre-feet/year. The FEIS should indicate the feasibility and anticipated efficacy of such measures to offset impacts.

**Recommendation:** We recommend the FEIS and ROD include a recommendation to appropriate State and local agencies that a thorough analysis of the potential impacts of water export exceeding 8,000 acre-feet/year from FSR be conducted prior to such export.

Indirect Impacts

According to the DEIS (p. 4-80), indirect impacts would result from urban growth in the North Valleys service area. Without imported water into the service area, the North Valleys would be unable to grow because Washoe County requires adequate water rights as a condition of approval of any subdivision in the planning area. However, the DEIS does not sufficiently

[1]Council on Environmental Quality, *Memorandum for Federal NEPA Liaisons, Federal, State and Local Officials and Other Persons Involved in the NEPA Process,* March 16, 1981 ("Forty Questions").

address the indirect impacts of growth in the service area. Pursuant to 40 CFR 1502.16, the EIS should evaluate both the direct and indirect effects of the project. Indirect effects, which are defined at 40 CFR 1508.8(b), "are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." These effects should be evaluated and disclosed to the public and decisionmakers regardless of whether the lead agency has jurisdiction over them. The Council on Environmental Quality's "Forty Questions" (no. 18) further explains this in the case of uncertainties regarding indirect effects:

> It will often be possible to consider the likely purchasers and the development trends in that area or similar areas in recent years; or the likelihood that the land will be used for an energy project, shopping center, subdivision, farm or factory. The agency has the responsibility to make an informed judgment, and to estimate future impacts on that basis, especially if trends are ascertainable or potential purchasers have made themselves known. The agency cannot ignore these uncertain, but probable, effects of its decisions.

The DEIS (p. 2-2) states that the North Valleys Plan guides growth by recognizing critical conservation areas, establishing existing and future land use and transportation patterns, and identifying current and future public services and facility needs.

> **Recommendation:** The FEIS should describe the indirect impacts to each resource which could result from the proposed project, including the accommodated future growth in the North Valleys and other affected parts of the project area. Resource-specific impacts (e.g., air emissions, stormwater and sanitary sewage disposal, vegetation and wildlife) that should be included in the FEIS are addressed in the sections below.

Water Resources

EPA is concerned about the potential impacts of the project on surface water and groundwater quality and quantity in the service area. However, the DEIS does not sufficiently address impacts to these resources under either the proposed alternative (i.e., delivery of 11,500 acre-feet/year to the service area) or a scenario that involves delivery of up to 16,500 acre-feet/year (i.e., 13,000 acre-feet/year from FSR and 3,500 acre-feet/year from Dry Valley and Bedell Flat). Several of the cooperating agencies on this DEIS should have information regarding the potential impacts to water resources in the service area, as well as measures that could be implemented to mitigate adverse impacts.

> **Recommendation:** The FEIS should describe and discuss how growth in the service areas will affect surface water and groundwater quality and quantity after build out. We recommend that BLM work with the appropriate local agencies to obtain information on

the project's potential impacts to the following resources, and mitigation measures to avoid or minimize those impacts. The FEIS should address the following issues:

- Truckee River and Pyramid Lake water quality and quantity;
- Existing and future groundwater quality resulting from septic tanks and waste water treatment facilities in the North Valleys where project water will be distributed;
- Waste water treatment and discharge capacity and the impacts of waste water discharges on receiving waters, including domestic wells in the distribution areas;
- The transport and fate of stormwater and stormwater dissipation and discharge capacity in the service area.

We understand that Intermountain Water Supply's current water right in Dry Valley probably exceeds the sustainable yield there. In addition, the DEIS indicates that the potential impacts of the proposed action on springs, flowing wells, and riparian areas in the Honey Lake Valley and Smoke Creek Desert are unknown. The FEIS should include reasonable mitigation measures that can be implemented should groundwater in Honey Lake Valley, Smoke Creek Desert, Dry Valley or Bedell Flat be overdrawn. The DEIS indicates that monitoring will be ongoing to verify the groundwater modeling results. If impacts occur, one mitigation measure is to reduce the pumping rate in the production wells or pump intermittently to allow recovery (page 4-43). EPA does not believe this is a realistic or reliable measure once the water has been committed and/or delivered to North Valleys developments.

**Recommendation:** The FEIS should discuss whether this mitigation measure is practicable and the probability of it being implemented. The discussion should address how this measure could be implemented once the water has been committed and/or delivered to North Valleys developments. If non-pumping periods would be implemented, the FEIS and ROD should identify how long they could be, how they would be triggered, what the reasonable water levels would be for each well, how the water export amount would be guaranteed in light of the need to rest the wells, who would be responsible for replacing the water supply, and who would enforce non-pumping periods.

Another mitigation measure identified in the DEIS involves adding more production wells that would pump at lower rates to distribute groundwater drawdown over a larger area and reduce the magnitude of drawdown surrounding each well.

**Recommendation:** The FEIS should analyze scenarios using this measure to determine whether other impacts could result. For example, the FEIS should discuss whether phreatophytes would be affected over a larger area, as well as the probability of implementing this measure.

Another mitigation measure identified in the DEIS involves constructing water enhancement structures at spring or flowing well sites affected by groundwater drawdown. However, the potential impacts and benefits are not analyzed in the DEIS.

**Recommendation:** The FEIS should discuss how this measure could be accomplished without exacerbating the overdraught problem or reducing the volume that is contracted for export out of the basin. The FEIS and ROD should also identify who would be legally responsible for these measures, and who would enforce them.

According to the DEIS (p. 3-31), the Nevada State Engineer determined the safe yield of Bedell Flat groundwater basin to be 300 acre-feet per year and has granted 144 acre-feet per year to Intermountain Water Supply (IWS).

**Recommendation:** Given that 35 domestic wells already exist in Bedell Flat, the FEIS should identify the amount of water that is currently pumped in this basin. The FEIS should also describe how the project could change if the State Engineer does not grant IWS water rights beyond 144 acre-feet per year, including whether the project would continue to include the Bedell Flat well.

FSR has indicated its intent to discontinue irrigating its alfalfa fields when water is exported to the North Valleys. However, more information is needed in the FEIS regarding how this would be accomplished.

**Recommendation:** The FEIS should describe the timeline for transition from irrigation to water export. The FEIS and ROD should describe specific commitments made by FSR regarding this transition and identify how these commitments would be enforced.

It does not appear from the DEIS that the existing groundwater contamination at the Sierra Army Depot would be affected by extraction and export of 8,000 acre-feet/year in FSR. However, no information is provided regarding the potential impact of extraction and export of up to 13,000 acre-feet/year.

**Recommendation:** The FEIS should discuss how export of up to 13,000 acre-feet/year from FSR would affect the trichloroethylene (TCE) plumes at the Sierra Army Depot, as well as the Depot's existing and future efforts to contain, treat, and monitor the plumes. The FEIS should discuss any potential changes to FSR groundwater quality over time as a result of movement of the TCE plumes. The FEIS should include a map depicting the existing contaminant plumes and the predicted future plumes under the proposed alternative, no action, a no-effect threshold scenario, and a scenario in which FSR exercises all of its water right.

Clean Water Act Section 404

The DEIS indicates great uncertainty regarding the potential impacts to wetlands, riparian areas, flowing wells, and stream channels from the proposed project. Notwithstanding uncertainties in the groundwater models, the DEIS indicates the potential for substantial impacts to springs and wetland habitat in the pumping basins. Twenty to 70 acres of riparian and wetland habitat associated with springs and flowing wells could be affected by the proposed project in the southern Smoke Creek Desert. However, these impacts have not been well quantified in the context of acres, functions, or values, and the DEIS does not sufficiently discuss the importance of these areas as wildlife or livestock watering areas in these arid basins.

> **Recommendation:** The FEIS should quantify the acres, and describe in detail the values and functions of the streams, springs, riparian areas, and flowing wells in the project impact area. Waters of the U.S. should be identified. The FEIS should quantify and describe the potential impacts to these resources from the proposed project, including the 13,000 acre-feet/year export scenario. The FEIS should identify appropriate mitigation and estimate the environmental benefit of adopted mitigation measures.

The DEIS includes a map of the points at which the pipelines would cross stream channels. However, the DEIS does not provide a map that depicts waters of the U.S., including wetlands, in the project impact area. Information on these sensitive and important resources should be included in the FEIS. Some mitigation measures are identified in the DEIS. However, without sufficient detail on the potential impacts, it is unclear how well these measures will avoid, minimize, or compensate for losses.

> **Recommendation:** The FEIS should include a map depicting all streams and wetlands in the project area. This map will be useful in depicting channel orientation vis a vis pipeline and road orientation for purposes of identifying potential impact areas and selecting alignments to minimize/avoid crossings.

> **Recommendation:** The FEIS should quantify the acreages, values, and functions of waters of the U.S. in the service area that could be indirectly affected by the project as a result of induced growth there. The FEIS should identify appropriate mitigation and estimate the environmental benefit of adopted mitigation measures.

The DEIS does not discuss Clean Water Act Section 404 permitting or indicate whether the project will need an individual permit or qualifies for one or more authorizations under Nationwide Permit 12.

> **Recommendation:** The FEIS should discuss coordination with the U.S. Army Corps of Engineers for Section 404 permitting and indicate whether the project will need an

individual permit or qualifies for one or more authorizations under Nationwide Permit 12. The FEIS should discuss the permit requirements.

Air Quality

The DEIS does not analyze the indirect impacts the project would have on air quality in the service area or discuss whether the service area growth related to the project conforms with the State Implementation Plan (SIP).

**Recommendation:** The FEIS should provide projected growth-related air emissions in the service area during and after build out under both the proposed project and a project in which both water exporters exercise their full water right, and discuss how that growth would conform with the SIP.

Increases in particulate air pollution have resulted in areas where irrigation was discontinued and crop cover is gone, and where groundwater drawdown has resulted in die off of natural vegetation. For example, BLM's 1993 Bedell Flat DEIS projected a maximum increase in PM10 (particulate matter smaller than ten microns) emissions of 14.4 micrograms per cubic meter in the Honey Lake area.

**Recommendation:** The FEIS should describe and quantify the potential increased dust emissions in the Honey Lake Valley, Smoke Creek Desert, Fish Springs Ranch, Dry Valley, and Bedell Flat which could result from vegetation changes affected by irrigation modifications and groundwater drawdown with the proposed project, as well as if both exporters exercise their full water right. The FEIS should discuss measures to mitigate these effects, indicate their probability, and identify who would be responsible for implementing and enforcing them. The FEIS should estimate the environmental benefit of adopted mitigation measures.

The DEIS (p. 4-8) identifies a few general mitigation measures to reduce project air emissions and indicates that State of Nevada and Washoe County requirements will be implemented. The FEIS should include more specific mitigation measures for construction activities.

**Recommendation:** The FEIS should identify mitigation measures for construction activities, including dust reduction measures in the applicants' Dust Control Plans that will be filed with the Washoe County District Health Department, Air Quality Management Division. At a minimum, we recommend the following measures be referenced in the FEIS and adopted in the ROD:

- Water active construction sites as needed, including nights, weekends, and holidays, and especially with windy conditions; or apply a non-toxic soil stabilizer;

- Vehicles hauling soil or other loose materials will be covered with tarp or other means;
- Cover or apply soil stabilizers to exposed stock piles;
- Use track-out elimination devices before entering paved public roads;
- Wash or vacuum-sweep paved public road surfaces to remove visible track-out;
- Limit traffic speeds in the construction area and along access roads;
- Cover or apply soil stabilizers to disturbed areas within five days of completion of the activity at each site; and
- Reclaim and revegetate disturbed areas as soon as practicable after completion of activity at each site.

**Recommendation:** BLM and the project applicants should develop and implement a plan complying with best practices for mitigating exhaust emissions from construction equipment. Some best practices are listed below. The FEIS should evaluate the feasibility of measures such as these to reduce construction emissions, referencing any which will be adopted in the ROD.

- Use particle traps and other appropriate controls to reduce emissions of diesel particulate matter (DPM) and other air pollutants. Traps control approximately 80 percent of DPM, and specialized catalytic converters (oxidation catalysts) control approximately 20 percent of DPM, 40 percent of carbon monoxide emissions, and 50 percent of hydrocarbon emissions;
- Use diesel fuel with a sulfur content of 500 parts per million or less, or other suitable alternative diesel fuel, substantially reducing DPM emissions;
- Visible emissions from all heavy duty off road diesel equipment should not exceed 20 percent opacity for more than three minutes in any hour of operation;
- Minimize construction-related trips of workers and equipment, including trucks and heavy equipment;
- Minimize construction equipment idling time by turning off engines when vehicles are stopped for more than a few minutes;
- Lease or buy newer, cleaner equipment (1996 or newer model);
- Employ periodic, unscheduled inspections to ensure that construction equipment is properly maintained at all times and does not unnecessarily idle, is tuned to manufacturer's specifications, and is not modified to increase horsepower except in accord with established specifications.

Biological Resources

The DEIS does not discuss the potential cumulative impacts to vegetation and wildlife from export of 13,000 acre-feet/year out of Honey Lake Valley. According to BLM's 1993 Bedell Flat DEIS, these impacts could be significant and adverse.

**Recommendation:** The FEIS should describe and quantify these potential impacts, and identify monitoring and mitigation measures to avoid or minimize these impacts. Discuss the feasibility and probability of implementing these measures. The FEIS and ROD should identify all mitigation measures that would be required and specify who would implement and enforce them. The FEIS should estimate the environmental benefit of adopted mitigation measures.

The DEIS does not discuss the potential indirect and cumulative impacts of the proposed project on the vegetation and wildlife resources in the service area.

**Recommendation:** The FEIS should describe and quantify the reasonably foreseeable future impacts to these resources in the service area. For example, the FEIS should address how many acres of vegetation and wildlife habitat would be modified in the North Valleys at build out, according to the Regional Plan and how wildlife would be affected. The FEIS and ROD should identify measures to mitigate these impacts (e.g., wildlife corridors and conservation areas) and specify who would be responsible for implementing them. The FEIS should estimate the environmental benefit of adopted mitigation measures.