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REC'D - BLM - NSO
9:00 OCT 13 2011
A.M.

Submitted via parcel post and pdf email

**RE: Comments from Ely Shoshone Tribe on the Clark, Lincoln, and White Pine Counties
Groundwater Development Project Draft Environmental Impact Statement**

Dear Ms. Penny Woods:

The Ely Shoshone Tribe ("Tribe") has reviewed the Southern Nevada Water Authority's Groundwater Development Project Draft Environmental Impact Statement ("SNWA DEIS"). The Tribe is providing comments on the SNWA DEIS as part of this letter. The Tribe is a federally recognized Indian Tribe whose current reservation lands include a portion in Steptoe Valley and White River Valley located in eastern Nevada near Ely, and whose aboriginal homelands encompass large portions of the proposed project area since time immemorial. The Tribe has expressed serious concern about and opposition toward the SNWA's GWD Project because of the large-scale environmental impacts that will affect our Tribe. It is clear from this SNWA DEIS that there will be

widespread, severe, and irreparable environmental impacts from the proposed project. The impacts on resources are likely to be far greater than what has been stated and described in the DEIS. This DEIS, like any EIS, must balance the need of the project with environmental impacts. The analysis of groundwater drawdown impacts in particular and the associated descriptions of impacts has been clearly skewed to downplay the scale and intensity of impacts. The Tribe has serious concerns about this, especially given that the DEIS already describes serious impacts on our aboriginal territory, habitat for wild animals and plants used by tribal members, areas of traditional uses, and important sacred sites critical to our Tribe's cultural legacy and survival.

I. PURPOSE AND NEED FOR THIS FEDERAL ACTION IS OUTDATED AND FLAWED

The stated purpose and need for this federal action has been based on outdated and flawed assumptions about the population growth of the Las Vegas area, demand for water resources, and lack of other water sources to supply Las Vegas' water demand. The need is not apparent and is fatally flawed for a number of reasons.

The BLM identifies under Table 1.5-1 that the SNWA DEIS must pass a "Conformance Review of RMP's". The development and approval of an EIS must conform with applicable land use plans, especially BLM's Resource Management Plans for the affected lands in the SNWA GWD Project area. This DEIS fails to conform to the RMPs in affected areas on numerous counts, but most notably the impact analyses of all of the alternatives and proposed action are shown to have long-term groundwater drawdown that will impact large land areas, scarce surface water resources, fragile water-dependent ecosystems, and Native American uses. Such long-term impacts are not consistent with, nor in conformance with, existing RMPs.

Several serious flaws in the Purpose and Need section must be addressed before a final EIS is prepared for release and circulation to the public.

1. On Page 1-1 end of paragraph 3, the BLM must state specifically what “policy guidance...from the Secretary of the Interior’s office...” is being considered in preparing the SNWA DEIS. In other words, the BLM must identify specific and referenced policies from the Secretary’s office that were considered in drafting the SNWA DEIS.
2. On Page 1-1 end of paragraph 3, the BLM must state specifically which “land management plans currently in place for the affected public lands” were considered in drafting the SNWA DEIS. The BLM must identify specifically and reference those specific land management plans just as the BLM referenced CFRs and BLM Handbook.
3. On Page 1-2, Figure 1.1-1, the Tribe urges the BLM to include federally recognized tribal reservation boundaries just as has been done for other governmental entities, including state and county governments. The Tribe previously has urged the BLM to make this minor adjustment for this figure and other relevant figures in the SNWA DEIS.
4. On Page 1-9, second to last paragraph, the BLM’s states that the “BLM and the Tribes have worked together on the development of an Ethnographic Assessment report and are addressing potential traditional cultural properties....” This statement is inaccurate and the Tribe never approved the

Ethnographic Report for this project. The Tribe may have participated in meetings and interviews, but did not worked together with the BLM and SWCA Consultants in developing the final ethnographic report. BLM must change the language of this statement to reflect the facts. As is, the BLM has made false statements about any sort of working relationship between the BLM and the Tribes. Rather, the DOI has neglected to enter into appropriate government-to-government consultations with the Tribe.

5. On Page 1-12, the Water Conservation vs. Population Growth chart is not clear and misleading. The graphic title must reflect the actual data content, something like "Water Use vs. Population". Moreover, just as the BLM included actual GPCD data for 1999 and 2008, the BLM must include actual population numbers on the graph for pre-2000 thru 2010. Those data are available and must be used in this graph. The BLM also must indicate on the graph what data are projections vs. actual GPCD or population data from 2010 or before.
6. The BLM references CBER 2008 population projects on Page 1-12 thru 1-13, yet CBER also produced projections in 2009 as shown on Page 3.18-9 (Table 3.18-6). CBER 2009 projections are markedly lower than CBER 2008 projections. Moreover, the most recent population projections have been conducted by the Nevada State Demographer in 2010 and those projections are about 43% less than CBER 2008 projections by 2030. While the Nevada

State Demographer projected population growth under two different scenarios, low job growth vs. high job growth, both projections by 2030 are less than CBER's projection in 2008 and 2009. While BLM states that it has no regulatory or administrative authority over SNWA's population projections and water demand estimates, the BLM does have the responsibility to draw attention to these drastically different population projections in Chapter 1, Section 1.6 of the DEIS. The Tribe urges the BLM to provide a graphic in Section 1.6 that shows all of the different population projections from Table 3.18-6. This information needs to be at the forefront of the SNWA GWD EIS. It is incorrect and misleading to present only the CBER 2008 projections in Section 1.6, which are the highest population estimates/forecasts and excludes recent economic recession data.

7. In Section 1.61 on Pages 1-12 and 1-13, the BLM discusses water demand and conservation in such a way to that helps build support for the GWD Project. However, this section of the DEIS fails to mention whatsoever the fact that water use efficiency in Las Vegas could be substantially increased. Moreover, there is no mention in the DEIS that water conservation and efficiency improvements in Las Vegas/Clark County can defer or even eliminate the need for the SNWA GWD Project, even with increased drought in the Colorado River Basin. This needs to be stated in the EIS at least in Section 1.6 and Chapter 2 under Alternatives.

8. On Page 1-13, the BLM slants projections of water conservation targets and Colorado River Basin drought in favor of the GWD Project. The BLM's position in the NEPA/EIS process is not to advocate for the project or project proponent, but to develop an appropriate purpose and need for the proposed project. Because the purpose and need statement provides "a framework for issue identification" and forms "the basis for the eventual rationale for selection of an alternative" (BLM Handbook at 36), the BLM must provide an adequate framework in the purpose and need section that can address or set the stage for selecting a range of the alternatives presented. That said, the BLM must add content to the Section 1.6 that briefly describes alternative water demand and conservation projections. Such information is available from Cooley et al. (2007)¹ and Gleick and Cooley (2011)².

II. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES IS FLAWED

The range of alternatives provided in this SNWA DEIS is inadequate because all of the alternatives that have been listed and described show significant impacts on resources. None of the alternatives significantly reduce resource impacts sufficiently enough for a preferred alternative with significantly less impacts to be selected. The BLM must identify an additional alternative that would greatly reduce impacts and analyze those impacts according to NEPA requirements.

1 Cooley, H, T Hutchins-Cabibi, M Cohen, PH Gleick, M Heberger. 2007. Hidden Oasis: Water Conservation and Efficiency in Las Vegas. Pacific Institute and Western Resource Advocates.

2 Gleick PH and H Cooley. Report on the Water Use Efficiency and Conservation in the Las Vegas Valley. June 29, 2011. Prepared for the Office of the Nevada State Engineer on behalf of the Great Basin Water Network.

No alternative was provided in this DEIS that excludes groundwater pumping in Spring Valley. The BLM should add an 'Alternative F' that would analyze groundwater pumping only in Cave, Dry Lake and Delamar valleys. NEPA requires the development, study, and description of "appropriate alternatives to recommend courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources..." Moreover, the BLM is required to analyze "a reasonable number to cover the full spectrum of alternatives. . . . Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant" (BLM Handbook at 49, 50). A preliminary constraints analysis for the SNWA GWD Project would have indicated a high level of resource constraints in Spring Valley, but the DEIS failed to "identify any methodologies used" in the identification process for alternatives – a requirement under 40 CFR 1502 and an issue of noncompliance under NEPA. Further, the best available data and resource documentation that has been part of this EIS process indicates that significant impacts in Spring Valley will be imminent and potentially irreversible. While NEPA requires the formulation of alternatives to the proposed action, NEPA also requires the formulation of "appropriate alternatives" that can reduce substantial and irreversible harms to the human environment. That said, an obvious reasonable alternative must be no groundwater development in Spring Valley. This alternative should be developed and analyzed and the DEIS should be redrafted and recirculated for a second round of review and comment.

Given that groundwater pumping and construction activities would severely impact cultural resources in the valleys, the SNWA must commit to a significant number of ACMs. The Tribe is

opposed to allowing SNWA's ACMs on cultural resources to be completely embodied in a PA that the Tribe is not a party to nor has agreed to (see Page 2-42).

Regarding ACM A.2.9, 10 on Page 2-40, it is scientifically very well established that the restoration of Great Basin and Mojave vegetation and wildlife habitat requires decades to return to pre-disturbance conditions and noxious weeds can be problematic for decades as well. Thus, it is unreasonable that SNWA would only monitor restoration success and noxious weed conditions for 7 years post-construction, even with the potential for restoration activity revisions. SNWA must commit to decades of adaptive management, restoration, and monitoring on this particular ACM.

The Proposed Action and Alternatives are inherently flawed because the BLM falls back on the Stipulated Agreements as a key document that would provide mitigation and monitoring for the SNWA GWD Project. The Tribe does not agree with the Stipulated Agreements, was never consulted regarding the Stipulated Agreements, and the BIA was a party to those agreements, but acted without the Tribe's knowledge and approval. The BLM must develop at least one alternative that does not irreparably and irreversibly harm Tribal resources.

Further, there are several problems with the alternatives analysis. First, the No Action alternative assumes that an inappropriate level of future water rights would be developed. The No Action alternative should only include existing rights or pumping. Because of the BLM inappropriately designed the No Action alternative to include some future anticipated developments, the within-project impact analyses for the Proposed Action and Alternatives are skewed. The No Action alternative must be crafted so that impacts from the proposed action and various alternatives can be estimated or predicted with certainty. As is, the impact analyses for the different alternatives

cannot be solely identified to the Proposed Action or any one Alternative.

This section failed to address how minor changes to construction locations and ground disturbance can and are likely to occur following the EIS ROD. Even minor changes in construction locations and ground disturbances can have significant impacts on cultural resources and other natural resources. This portion of the DEIS failed outline a sufficient plan for minor changes in construction locations and ground disturbances and failed to include Tribal monitors and approval prior to acceptance of such changes in order to protect cultural resources and values.

The BLM failed to require any ACM or other mitigation to place groundwater wells in areas that completely avoid cultural resources or other tribal values. In the last sentence of paragraph 2, Page 2-48 under Sct 2.6.1, the BLM states that “groundwater wells would be distributed across the hydrologic basins with the objective of minimizing effects on senior water rights or areas containing water-dependent sensitive or listed species and their habitats.” The groundwater wells must be distributed in areas that minimize or avoid any impacts to cultural resources. This should be added to the BLM’s statement.

In general, the Tribe disagrees with the fact that the BLM has developed an EIS and analyzed potential impacts on resources when it is still unknown as to how much water will be appropriated to SNWA by the Nevada State Engineer. Because the SNWA’s water rights appropriations are currently undergoing NSE hearings and there has been no final ruling on SNWA’s water rights, the BLM’s analysis groundwater drawdown impacts is speculative. Therefore, the BLM must generate a DEIS for this project once the NSE has ruled on SNWA’s water rights applications.

Any consideration of alternatives prior to the final decision of the Utah-Nevada Snake Valley

Agreement on the appropriation of interstate groundwater is premature and unfair to the Tribe and general public. Moreover, the BLM cannot make a decision on the ROW until after the UT-NV agreement has been decided. The BLM must reissue the DEIS with appropriate alternatives that follow the bi-state agreement regarding Snake Valley groundwater. As is, the alternatives give only a very limited decision space regarding what will happen regarding ROW and final EIS/ROD for Snake Valley water.

III. FAILURE TO ADEQUATELY DESCRIBE AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The BLM failed to adequately describe the affected environment and the environmental consequences of the Proposed Action and various Alternatives. This failure can be attributed to at least but not limited to the following:

1. The Tribe nor its representatives were invited or permitted in participating in the Natural Resources Technical Task Group that made critical decisions on project study area boundaries, data sources, analysis techniques, reviews, and other topics.
2. The Tribe opposes the delineation of the study area boundaries without significant input and approval by the Tribe.
3. The Tribe should have been a participant in the work group process to identify and obtain relevant information on resources that would be used in collecting baseline data for the DEIS effort. As such, this DEIS has failed to gather the best available scientific and commercial data available for use in the impact analyses.
4. The BLM states that a key part of baseline data collection for Native American

Traditional Values was the preparation of an Ethnographic Assessment. The Tribe should have had a lead role in the development of any ethnographic study. The Assessment remains with major gaps in ethnographic information and is grossly inadequate for the purpose of informing the DEIS. As such, the Tribe has opposed the Ethnographic Assessment and has never approved the draft nor final Ethnographic Assessment used for this DEIS. A project of this magnitude with its potential for such catastrophic impacts on tribal resources, on and off reservation or fee-title lands, never should have allowed the assessment of the Tribes history and other ethnographic information to be conducted by non-Tribally selected persons or organizations. Thus, the Ethnographic Assessment should be rendered invalid until the Tribe has the opportunity to both provide a corrected version of the assessment and approve the use of the assessment. Because the Ethnographic Assessment is incomplete and does not disclose all available information for use in the EIS, this DEIS is still problematic for the Tribe under CEQ NEPA regulations Section 1502.22 that require an EIS to disclose any incomplete and unavailable information. The DEIS does not disclose incomplete and unavailable information regarding Native American Traditional Values.

5. Given that Wildlife Information and Species Status Species lists are not available, it is unduly restrictive to the Tribe and the general public not to have an opportunity to review and comment on potential environmental impacts on those species from this SNWA GWD project. The Tribe requests an opportunity to review and comment on

the Nevada Wildlife Action Plan and Avian Protection Plan in relation to this EIS when those documents become available prior to the release of the final EIS. Many species hold significant cultural and traditional value to the Tribe. Protection and proper management of such values is critical for our Tribe and its members.

6. This section of the DEIS is flawed because the BLM does not adhere to DOI Secretarial Order 3226. The Tribe disagrees strongly with BLM's approach and decision not to analyze potential climate change impacts associated with groundwater drawdown, required under DOI Secretarial Order 3226, when considering this DEIS. The BLM suggests that "the current state of climate change science prevents the association of specific actions with specific climate-related effects...." The BLM continues that it is not possible to "(a) analyze the climate-related effects of BLM actions nor (b) ascribe any significance to these potential effects (Zahniser et al. 2009). Interestingly, the BLM cites Zahniser et al when in fact the current state of climate change science and ecological modeling provides scientifically sound approaches to examine how specific BLM actions will impact specific resources. Just like any other analysis of environmental impacts, there is a level of uncertainty that surrounds projected impacts on resources. Impacts attributable to climate change and/or the compounding effects of BLM actions plus climate change will invariably have a level of uncertainty. For example, a large number of studies have examined how climate change is likely to impact vegetation communities, biodiversity, and species distributions. Specific BLM actions, such as permitting the groundwater

extraction of 170,000 afy of water from various basins, can be combined with down-scaled climate models to determine impacts on specific resources. A reasonable range of outcomes can be disclosed as well as the level of uncertainty in those resource impacts. Moreover, BLM must consider and disclose proposed action/alternative contributions to climate change or mitigation. The BLM must also disclose and compare their contributions or mitigation to relevant climate drivers. These recommendations by Zahniser et al. (2009) must be adhered to if the BLM has chosen a select few other recommendations from Zahniser et al.

7. Particularly regarding Figure 3.0-2 on Page 3-10, the process for analyzing groundwater pumping effects on environmental resources is flawed on several counts. Native American Concerns are only represented and analyzed regarding surface water sources. This exclusion of Native American concerns from other subcategories of analyses is incorrect and fails to adequately consider Native American Concerns. As is the above referenced figure is incorrect and is insufficient for correct representation of environmental consequences. Given that this conceptual framework for analyses appears to affect what was analyzed for a specific resource, the BLM must modify analyses as appropriate to include the multiple subcategories (surface water sources, vegetation and habitat, phreatophytic vegetation, shrubland habitat) in Native American Concerns. The Tribe must have an opportunity to further review the BLM's methods and results prior to the release of the final EIS. As is, the conceptual framework of analyses is flawed and thus the descriptions of environmental

consequences from the Proposed Action and Alternatives are also flawed.

8. The BLM mentions the stipulated agreements and adaptive management plan that identifies the goals for addressing adverse impacts, outlines baseline data collection and monitoring programs, and outlines an adaptive management decision process for determining if adverse impacts are occurring, and assessment of appropriate management responses to those adverse impacts. Because this SNWA GWD project would impact a large number of cultural, traditional, sacred, and water and wildlife resources, the Tribe must be involved in the adaptive management process. This element of the adaptive management framework was not included. Given that the BIA signed stipulated agreements without the consent of the Tribe, the Tribe was excluded from earlier decision-making regarding the stipulated agreements and appropriate adaptive management and monitoring plans. Without appropriate Tribal input, the determinations of adverse impacts to cultural and traditional values and resources are inherently flawed and represent biased decision-making processes.
9. By the same token, the assessment of mitigation effectiveness of cultural and traditional values and resources must have Tribal experts and decision-makers involved in any determinations of appropriate mitigation and mitigation effectiveness. Thus, the BLM must modify the decision-making process and update the DEIS to reflect those changes where appropriate.
10. In the project area figures, the BLM includes administrative boundaries for some entities, but excludes Tribal administrative boundaries. The BLM must include Tribal

administrative boundaries in all maps that illustrate other administrative boundaries.

11. The BLM failed to provide justification as to why the 75 and 200-year intervals after full build out were selected for analysis in the EIS Affected Environment section.

Similarly, the BLM failed to disclose any and all drawbacks of using the 75 and 200 year intervals versus other time intervals.

IV. FAILURE TO ADEQUATELY DISCLOSE AIR AND ATMOSPHERIC VALUES

The BLM failed to adequately disclose and describe impacts on air and atmospheric values.

The BLM failed on several counts to adequately disclose key information:

1. Table 3.1-1 data are 13-18 years old. BLM did not justify the use of these data, e.g., no other data available, best data to show variations and exceptional events, or the like.
2. The BLM did not identify exact locations of air quality monitoring station in Great Basin National Park. Locations of air monitoring stations influence the data recorded and BLM failed to identify such key information.
3. BLM failed to state why different years of data are displayed for each monitoring station in Tables 3.1-2 thur 3.1-4. BLM must provide the same data in each of those tables to allow for appropriate comparison between sites, PM size concentrations, and years, etc. If those comparisons are not possible due to data availability, BLM must state the appropriate justification in text or tables.
4. BLM failed to define Class I, II, and III air quality categories according to applicable data.

5. BLM also failed to provide a measure of time for current nitrogen deposition trends, which it states is 2 kg/ha. Is this annually? Must provide clarification here.

In the Climate Change subsection, BLM states that the projected effects from climate change are likely to occur over several decades to a century, but stated thereafter that projected changes associated with climate change may not be discernible within the reasonably foreseeable future. Several decades would seem to be the reasonably foreseeable future. The BLM failed to disclose an specific cut-off for reasonably foreseeable future in number of years. The scientific literature is replete with examples of projected environmental changes associated with climate change in the 100–200 year time frame. For the BLM to state otherwise is incorrect and not based on the best available scientific and commercial data.

The BLM relies heavily on climate change research papers published in 2007. The Tribe suggests supplementing those references with more current references, especially given the rapidity of changes in climate research and more current publications available now. Moreover, the BLM seems to rely heavily on the Redmond Report (2009). BLM states on page 3.1–11 that Redmond Report analyzed different “climate models for a grid cell containing Spring Valley.” This statement is overly vague and carries essentially no meaning, given that any grid cell size would “contain” Spring Valley. BLM should simply state plainly what the grid cell size actually was that Redmond used in his models.

In addition to problems with the climate subsections, the BLM failed to either provide information, failed to underestimate impacts, or produced complications for readers to make proper comparisons of data, and makes misleading statements. The following examples illustrate this point:

1. On Page 3.1-19, BLM states that ACMs that will reduce windblown dust include the development of a Restoration Plan. The development of a written plan in and of itself does not reduce windblown dust; it is the implementation of the plan via various on the ground actions that can reduce windblown dust. If the BLM means that the implementation of that Restoration Plan should help to reduce windblown dust, the Tribe suggests the appropriate language change.
2. On Page 3.1-33, the BLM seems to rely Papendick (2004) to estimate air impacts based on possible changes in vegetation cover and soil structure, indicating that the soil loss ratio is predicted to be 10% of bare soil conditions. The BLM continues that based on that 10% of surface area composed of the particular ET unit, only 10% of surface area of the project site would be susceptible to wind erosion from groundwater drawdown. It is unclear as to how Papendick's work on wind erosion and air quality on the Columbia Plateau directly translate to the Great Basin in eastern and southern Nevada. Instead of using data from a different geographic region, the BLM must use available data to more accurately predict wind erosion and air quality impacts within the proposed project area. Where are the air studies that were used to make predictions of windblown dust emissions from groundwater drawdown? The Tribe is not convinced that only a 10% area within the project site boundaries will be altered via groundwater pumping whereby ground surfaces become more susceptible to wind erosion because of changes in vegetation community composition or changes to bare soils. The reliance of Papendick's work (2004) from the Columbia Plateau is

not sufficient to make the estimates that the BLM has provided.

3. On Page 3.1-37 and 38, BLM failed to quantify and state specifically the greenhouse gas emissions that would be offset by installing solar panels to power monitoring wells and hydroturbines. The BLM failed to provide this information in subsequent similar sections for each alternative.
4. Under sections 3.1.2.15 and 3.1.2.16, the BLM provides a very misleading comparison of windblown dust emissions across alternatives. By definition, the total amount of windblown dust emissions for the Proposed Action and Alternatives A-E include emissions from the No Action Alternative. Concentrating on “project-alone impacts” or the contributions from alternatives in excess of the No Action emission estimates provides a misleading portrait of impacts. The BLM must provide text and tables that illustrate the combined emissions, not provide footnotes or parenthetical statements are highly significant in understanding the emissions data. The combined emissions from the No Action alternative and the other alternatives is key; as such, the BLM must illustrate those data, rather than have the public work to add or create their own tables of emissions data to figure out the numbers that should really be compared.
5. On Page 3.1-60, the BLM makes overly vague statements such as: “very small fraction of wind erosion emissions from the cumulative project area” that is expected to be transported to Salt Lake County, Utah.

6. Throughout this air resources section, the BLM states that potential impacts on air resources, or windblown dust emissions from groundwater pumping effects, are highly uncertain. This is not necessarily true. There are numerous ways to model the effects of groundwater pumping and climate change on windblown dust emissions, such as process-based numerical modeling for vertical moisture flow in the unsaturated zone. While there will be some degree of uncertainty in any model, it is very unlikely appropriate methods would produce a result that simply says the model is “highly uncertain”, especially given that previous modeling efforts of the same type have yielded results with an acceptable or low level of uncertainty. Models can be calibrated using climate station data. Almost invariably, research on the effects of groundwater withdrawal in the range of 3–10 or more meters and or effects of climate change indicate that groundwater drawdown of 10m or more results in dust emissions that are close to their maximum value. Further, research has demonstrated that small increases in water-table depth result in large, nonlinear increases in windblown dust emissions. Rather than making statements that the groundwater drawdown effects on windblown dust emissions will be highly uncertain, or that results are only for comparative purposes, the BLM must provide additional statements regarding how small decreases in groundwater are likely to cause large increases in dust emissions.
7. Cumulative impacts section does not contain any statements of the combined impacts of groundwater drawdown and climate change on windblown dust emissions, even after both sections are provided. BLM failed to provide the appropriate

cumulative effects analysis. BLM must provide an analysis of those cumulative impacts. There is sufficient data to analyze those effects. Because groundwater drawdown itself or climate change itself are likely to cause nonlinear increases windblown dust emissions for the region, the BLM must list what those combined effects will be on air resources.

8. Instead of providing the analyses mentioned in the above statements, the BLM tends to focus on making statements that downplay dust emission that are likely to result from groundwater pumping. BLM also avoids the necessary analyses as mentioned above with filling this cumulative effects section with statements of the “adaptive management program for Snake Valley is currently under development. As currently proposed, the adaptive management program would include continuous air quality monitoring...to assess air pollutant transport more accurately and develop thresholds....” This statement about the potential for air quality adaptive management in Snake Valley is absolutely unnecessary for each Alternative; rather, it should be stated once in its own subsection and BLM should focus the cumulative effects section on concrete or predicted changes in air quality/dust emissions as a result of groundwater drawdown and climate change for the project area. An analysis of cumulative effects is incorrect if it does not focus on cumulative effects, which this section does.
9. In Figures 3.1-7 and 3.1-8, the BLM makes it ambiguous as to how the tons of PM per year relate to National, Nevada, and Utah ambient air quality standards.

Measurements in the figures are provided in tons of PM per year; whereas National and State standards are given in micrograms per meter.

The cumulative effects analysis for Air and Atmospheric Values failed to address reasonably foreseeable future actions, mitigation, and regulatory caps, including for emissions from right of way construction, fugitive dust and tailpipe emissions from construction and facility maintenance, climate change, and from visibility subsection. These issues must be provided in the EIS prior to release to the public in order for the public to have a reasonable opportunity to review the cumulative impacts on air and atmospheric values.

V. GEOLOGIC RESOURCES SECTION IS FLAWED

The geologic section makes clear that there is insufficient information to correctly evaluate the potential impacts on paleo resources, subsidence, caves, etc. Even still, using averaging of other southwestern regions, the potential for ground subsidence is significant over the long term, especially in Spring Valley, for many of the Alternatives and Proposed Action. Preventing such catastrophic ground subsidence is a major issue and the BLM should provide guidelines for mitigating subsidence impacts. In several places throughout the section, BLM stated mitigation measures for subsidence do not occur, or do not occur in RMPs, BMPs, or ACMs. BLM should develop mitigation measures and offsets for subsidence impacts.

The BLM failed to utilize all of the best available scientific and commercial data for paleo resources. The records search for paleontological resources was limited, only the San Bernardino County Museum (Scott 2008), Page 3.2-9. Other sources of information exist that should have been included in the records search.

It is unclear as to whether or not construction monitoring for fossils or other paleontological resources will occur. Construction monitoring should be required in addition to any BLM BMPs and ACMs to provide opportunities for fossil/paleontological resource discoveries, proper documentation once discovered, proper curation, and overall reduced impact on paleo resources. Construction monitoring of post-excitation materials is important because it allows for additional discoveries than would be possible from ACM A.6.1 field surveys that only observe surface exposures. Buried fossils are likely to be uncovered from construction activities, and thus construction monitors are required to examine excavated/construction areas.

The BLM is recommending subsidence monitoring and modeling in the event that the Project moves forward. Because subsidence may impact resources that are culturally significant to our Tribe, the Tribe must be consulted on any sort of subsidence monitoring and modeling efforts.

VI. WATER RESOURCES ANALYSIS IS FLAWED AND BLM FAILED TO ADEQUATELY DISCLOSE AND MITIGATE IMPACTS ON WATER RESOURCES AND RIGHTS

The analysis of water resources in the DEIS is flawed on numerous counts, including but not limited to the following based on Myers (2011) "Review of evidence reports submitted by the Southern Nevada Water Authority in support of water rights applications for Spring, Cave, Dry Lake, and Delamar valleys":

1. Flawed recharge estimates for the groundwater model. The SNWA groundwater model bases available water within a specific basin based almost solely of recharge within that same basin. Estimated discharges are used to calculate recharge. This approach is flawed because the analysis fails to take into account that inflow to a basin

(including recharge and interbasin flow) must equal outflow of the basin (including groundwater evapotranspiration and interbasin flow). The SNWA groundwater model incorrectly treats groundwater evapotranspiration and interbasin inflow/outflow as known values. Moreover, the SNWA model allows for recharge anywhere in the basin to satisfy discharge anywhere in the basin. This is incorrect and is substantiated from numerous research reports, including BARCAS. It is inappropriate to treat a single basin as a single cell or unit (i.e., closed system) because basin and interbasin flows are dynamic, not confined to just the single subject basin. As a result, the SNWA model's power function coefficients were established in such a way that allowed for efficiencies and PRISM precipitation estimates to yield SNWA's necessary recharge anywhere in the subject basin, no matter the location of recharge in that basin.

2. Flawed interbasin flow estimates. The SNWA model estimates flow based on Darcy's law. Three sources of error exist regarding the interbasin flow analysis approach: hydraulic gradient, hydraulic conductivity, and cross-sectional area. SNWA incorrectly used straight lines between two wells to determine hydraulic gradient. SNWA used cross-sectional area estimates as assumptions with no justification. SNWA does not constrain flow estimates based on water budgets. BARCAS found that recharge far exceeded discharge in Steptoe Valley, that discharge from Snake Valley required interbasin flow to satisfy discharge, and that inbasin recharge was also needed to meet discharge in Snake Valley. SNWA groundwater model does not consider this interbasin flow, resulting in a model that requires more recharge to be

generated to satisfy their discharge in subject basins. The SNWA model also prevents or limits interbasin flow, which was based on geological assessments that made hydrologic conclusions with no hydrologic data or modeling.

3. Flawed estimates of flow from Steptoe Valley. The SNWA model assumes that there is no interbasin flow from Steptoe Valley based on geologic arguments. The BARCAS estimate of flow from Steptoe Valley into White River Flow System is 8000afy. Both BARCAS and Laczniak et al (2008) showed that 52600 afy of groundwater was available for discharge from Steptoe Valley as interbasin flow. This 52600 afy was in excess of the 101500 afy discharged via ET. SNWA completely dismisses this type of information in constructing their groundwater flow model. This reduces the water available for discharge in the White River Flow System and Spring Valley. Furthermore, SNWA dismisses interbasin flow between Steptoe Valley to Lake Valley. BARCAS indicated that such flow was permissible. Indeed, BARCAS estimates were such that 20000 afy flows to Lake Valley and 4000 afy flows to Spring Valley from Steptoe. These examples are only for a few subject basins, but there is substantial further evidence for interbasin flow between other basins within the project area that were not considered in groundwater model used in this DEIS.
4. Numerous critical geologic features failed to be part of the groundwater model. Further, the reliance upon faults and transverse zones are used to erroneously develop rationale for lack of flow across certain flow paths. The analysis fails to actually use hydrologic data to support conclusion of fault-groundwater interactions.

5. Precipitation estimates are flawed. SNWA used PRISM 1970–2000 data for annual precipitation data for the subject basins. PRISM data have greatly overestimated precipitation in eastern Nevada. This fact has been admitted by SNWA and its contractors at Desert Research Institute and elsewhere several times during the 2011 NSE hearings for Spring, Cave, Dry Lake, and Delamar Valleys. Overestimations range from 4–7 inches per year of precipitation. Even estimations of a half inch of precipitation greatly overestimate basin precipitation levels. Such overestimations greatly skew water balance and groundwater availability calculations by SNWA for the DEIS. These overestimations also greatly skew the groundwater drawdown levels and all groundwater associated resources reviewed in this DEIS.

6. Spring Valley groundwater evapotranspiration is overestimated by underestimating precipitation and assuming an average discharge that is not representative of longterm averages. SNWA adjusted PRISM grids, but did so by adding the average difference, effectively decreasing precipitation in the groundwater evapotranspiration estimate (and increasing the proportion of ET assigned to groundwater). Yet, precipitation was distributed among basins, which incorrectly resulted in estimating more recharge in basins with overestimations of precipitation. Moreover, SNWA's model ignores runoff, again causing an overestimation of groundwater evapotranspiration in most years. The model discussion on groundwater evapotranspiration incorrectly integrates spring discharge, particularly in Spring Valley where a large number of springs exist that feed riparian or wet meadow

vegetation or open water. The water balance method used by SNWA is likely to be completely incorrect for entire portions of Spring Valley due to those reasons.

The groundwater models failed to address numerous other critical issues. First, the models do not incorporate how predicted changes in surface water will affect groundwater recharge. Second, the models assume that SNWA will simply pump water amounts that will be lost due to evapotranspiration. The groundwater models failed to address that some vegetation will remain and ET will still occur.

The BARCAS study by Welch et al (2008) demonstrated that interbasin flow does occur into and out of Steptoe Valley, the White River Flow System, and in various directions into and out of Spring Valley and Snake Valley. The groundwater model's approach to restrict an flow into or out of these basins is flawed given that research has demonstrated varying amounts of interbasin flow. A single valley cannot be assumed to be a single unit or cell for the analysis. In other words, the analysis cannot constrain the flow estimate based on the water budget of a single basin, or based on the source or receiving basin.

The SNWA groundwater model also is flawed because of the 10-foot groundwater drawdown contour that is sufficiently coarse. This coarse scale is problematic for several reasons. First, groundwater models for the region have been developed for the region that use a 1-foot drawdown contour. Those models are scientifically valid for use in this DEIS impact analysis. Second, the 10-foot contour provides a basis to misrepresent a large number of impacts that would be observed with a model parameterized with the 1-foot contour. It is scientifically unjustifiable to rely on the coarse scale of 10-foot contour for the groundwater model. Moreover, the impact analyses are skewed

because the use of the 10-foot contour fails identify any impacts that exist within the 10-feet to 1-foot level. Even groundwater drawdown of several feet can cause spring discharges to be reduced or be eliminated altogether. Thus, the DEIS underestimates the impacts on essentially all resources from groundwater drawdown.

The BLM failed to adequately disclose and mitigate impacts on water resources. The DEIS underestimates the impacts of water resources from the Proposed Action and Alternatives due to the above outlined reasons. Moreover, the project relies heavily on Stipulated Agreements for mitigation. The Stipulated Agreements and other “mitigation” in this section call on “monitoring” and “management plan” as mitigation for impacts on water resources and water rights. Monitoring and planning are not mitigation measures. Thus the BLM has failed to provide adequate mitigation on water resources for this project.

The Department of Interior entered into a Stipulation for Withdrawal of Protests on September 8, 2006 regarding the applications filed by the SNWA in Spring Valley Hydrographic Basin before the Nevada State Engineer. A similar Stipulation for Withdrawal of Protests was entered into by the Department of Interior regarding the applications filed by the SNWA in Delamar, Dry Lake, and Cave Valley Hydrographic Basins in January 2008 before the Nevada State Engineer. The Department of Interior entered into the Stipulations on behalf of the Bureau of Indian Affairs, the Bureau of Land Management, the National Park Service, and the Fish and Wildlife Service (collectively the “DOI Bureaus”). The DOI Bureaus had previously filed protests to the granting of the SNWA Applications pursuant to the DOI Bureaus’ responsibilities to protect their state and federal water rights and other water-dependent resources.

While concerned that the proposed groundwater withdrawals may injure Federal Water Rights and/or affect Federal Resources, the DOI Bureaus still entered into the Stipulations. Prior to signing the Stipulations, the DOI Bureaus did not consult with the Ely Shoshone Tribe. This is a clear violation of the Trust Responsibility owed to the Tribe.

The Stipulations call for Monitoring, Management and Mitigation Plans. This is not an adequate mitigation plan. Once impacts are observed and the plans are followed for consideration of the various committees, there may be significant amounts of time that elapses between observation and any action by the Nevada State Engineer to halt pumping. At that time, it will be too late to properly mitigate the effects. Moreover, the monitoring and mitigation plans are toothless – they require unanimous agreement among all members of the committees that would make decisions about whether hydrological and/or biological measurements are having adverse impacts on resources. At least one member of those committees must be a SNWA representative. Thus, if the SNWA representative fails to agree that pumping should be slowed or halted, the committee body cannot move forward with developing reports or other preparations to recommend pumping changes. That said, there is essentially no mechanism in the monitoring plans would require SNWA to halt or slow pumping if SNWA decides to not recognize impacts or agree to do so.

The Water Resources section is also flawed because the BLM failed to adequately describe the connection between SNWA's Coyote Spring Pipeline and the SNWA GWD Project that is at issues in this DEIS. The BLM fails to state whether the Coyote Spring Pipeline project is connected to the SNWA GWD Project, whether it is dependent upon the GWD Project for any justification of permitting, construction and operational components, and whether and to what extent the project is

cumulative. While the BLM does address the Coyote Spring Valley pipeline in the cumulative impacts analysis, the BLM fails to adequately describe those cumulative impacts and fails to present a finding on whether the Coyote Spring Valley project actions are connected or cumulative.

Moreover, the cumulative effects analysis is fatally flawed because the DEIS ignores water rights applications within the project area. A large amount of water rights that are in application status should have been, but were excluded from, reasonably foreseeable future actions. These water rights include nearly 500,000 afy and should likely to constitute future uses given that many of the water rights would be owned various major water users, including Lincoln County and Vidler Water Company.

The cumulative effects analyses are inadequate on several other counts. First, analysis of rights of way effects on surface water does not include description of affect environment, issues caused by reasonably foreseeable future actions, mitigation, nor a regulatory cap.

VII. IMPACTS ON SOIL RESOURCES ARE NOT ADEQUATELY DISCLOSED

On Page 3.4-6, BLM states that soils that are saline, sodic, or alkaline have low potential for successful plant re-establishment and growth. While this may be true to some extent, there is an array of options for revegetating areas with saline or alkaline tolerant plants. BLM should require SNWA to develop and implement plant re-establishment/rehab programs that will utilize native species that are tolerant to those types of soil conditions. Wording by the BLM that says soils have low potential for plant rehabilitation sets the stage for uncertain mitigation and reclamation requirements. BLM should add to their statement that although those saline/alkaline soils have a low potential for plant-reestablishment, particular approaches and plants can be used to greatly

increase reestablishment. BLM states that SNWA will submit a detailed reclamation plan to BLM prior to the commencement of construction activities. Given that those construction activities will impact areas that are culturally significant to the Tribe and that reclamation is an essential part of healing those disturbances on our aboriginal lands, the Tribe must have an opportunity to review and comment on any reclamation plans/activities.

While BLM provides an analysis of the total ground surface soil-type that would be disturbed from groundwater drawdown, the BLM fails to provide an additional yet necessary analysis of impacts on soils. That impact analysis on soils must quantify the loss of soil. While there are dust emission estimates in Section 3.1, those emissions estimates do not analyze the total loss of soil that would be likely from groundwater drawdown.

No proposed mitigation measures for soil impacts are provided. Even while BMPs and ACMs would be implemented, mitigation and offsets for impacts on soils must be required, especially given impacts on hydric soils. SNWA must be required to protect in perpetuity or restore other hydric soils and other soil types.

Throughout the Cumulative Impacts section, BLM states that “adaptive management measures...would reduce effects on hydric soils” and that “SNWA’s use of agricultural water rights in Spring Valley (184)” would “offset changes in spring discharges needed to maintain wet meadows....” While such an effort may retain hydric soils to some extent, that same effort is likely to result in a changes of biodiversity and species composition for both plants and animals given potentially different water chemistry and temperatures. BLM must require SNWA to address those issues and this should be documented and analyzed in the DEIS.

VIII. FAILURE TO ADEQUATELY DISCLOSE AND MITIGATE IMPACTS ON VEGETATION RESOURCES

The BLM failed to adequately disclose culturally significant plant resources. While the Tribe provided a list of culturally significant plants to the BLM for informational and planning purposes for the BLM Ely District, the Tribe (1) did not intend that the list of plant species that was submitted would be inserted into the DEIS, (2) did not intend that the list be a comprehensive list of culturally significant plants, (3) did not know that the list of plants we provided would be displayed in the DEIS in the manner shown in Table 3.5-8. This Table 3.5-8 is incorrect because it implies that each species of plant that is not marked with an “X” is not culturally significant to a particular Tribe. The BLM must coordinate and consult appropriately with the Tribe to ensure that an appropriate plant list for this EIS is provided, whereby a complete and comprehensive list of plant species of cultural significance to the Tribe and its members will be submitted. Furthermore, the “Ely Shoshone Culturally Sensitive Plants” list identifies that “this list augments the list submitted by CTGR!” As a result, all plants identified by the CTGR as culturally sensitive should be marked with an “X” for Ely Shoshone. The combined list of CTGR and Ely Shoshone cannot and shall not be construed as a final list of culturally sensitive plants, and that list for Ely Shoshone that would be included in the FEIS is not a final and complete list until approved by the Tribe.

The BLM has failed to adequately mitigate impacts on vegetation resources. The BLM identifies on Page 3.5-24 that “pipeline, power facility, aboveground facility ROW, construction access roads, and temporary construction areas would remove vegetation for the long-term from

approximately 12,300 acres. Of this amount the land cover types that would be most affected include: sagebrush shrubland (48 percent); Mojave mixed desert shrubland (25 percent); and greasewood/saltbush shrubland (24 percent).” In the following paragraph, the BLM states that restoration techniques presented in the SNWA POD “would minimize the duration of vegetation disturbance and provide the framework for a successful vegetation restoration program.” The SNWA’s proposed restoration plan and monitoring protocols are minimalistic, stating in Appendix E that restoration monitoring would occur for up to seven (7) years. A seven-year monitoring framework to evaluate the success of a vegetation monitoring program in the Great Basin and Mojave Desert would be completely unable to evaluate the success of a restoration program, especially given the vegetation community recovery times for those particular ecoregions and vegetation types. BLM even identifies in Table 3.5-9 that the estimated vegetation community recovery time for (1) sagebrush shrubland is 20-50 years, (2) Mojave mixed desert shrubland is 100-200 years, and greasewood/saltbush shrubland is 20-50 years. Sagebrush shrublands in the Great Basin, for example, are known to enter multiple premature stable states during restoration/reclamation efforts, greatly prolonging the ability of such vegetation communities to be fully restored to pre-existing conditions within the 20-50 year time frame. A 7-year restoration monitoring program that would only be able to evaluate the very beginning of the restoration. Therefore, the proposed 7-year monitoring program is completely insufficient to evaluate successful restoration of vegetation communities that require anywhere from 20-200 years to be restored. The BLM must require the appropriate time needed for restoration monitoring.

Given the cultural significance of the proposed project area, the cultural significance of

particular vegetation communities, and the cultural significance of a large list of plant species important to Tribal members, the Tribe must review and participate in restoration planning and monitoring efforts. The Tribe must review the specific thresholds and criteria for what would be considered successful restoration.

The Tribe is concerned about the vegetation data sources used in this DEIS. There are limitations to the data that the DEIS fails to disclose and discuss.

The BLM makes false assumptions about restoration for mitigation efforts, thus providing additional inadequate mitigation measures. For example, on Page 3.5-25, BLM states that over 11,100 acres of native shrublands and woodlands would be available for restoration, given that 1,004 acres would be permanently converted to industrial facilities or surfaces. Restoration efforts in the Great Basin and Mojave deserts are typically unable to be fully restored, leaving a permanent mark on the landscape. BLM makes the assumption that the 11,100 acres will be restored without question even given the long recovery times. There is no mention in this DEIS that the restoration or recovery of Great Basin sagebrush shrublands has been severely limited over the last 100+ years and non-native species are becoming more problematic for those recovering communities. BLM must provide a realistic assessment of the likelihood of no recovery, partial recovery, and full recovery of the various vegetation communities. Without such an assessment or as the DEIS stands, the BLM makes unrealistic assumptions about restoration and evades any mitigation and offset requirements.

In the restoration plan submitted by SNWA that would be approved by the BLM, as mentioned in this section and Appendix E, the BLM must add a stipulation to the restoration

agreement whereby if restoration of vegetation communities is unsuccessful within an allotted time, then the SNWA must be required to mitigate and/or offset those damages to vegetation communities via various actions, including the protection of off-site vegetation/habitat areas in at least a 1:1 ratio of unrestored to protected. The BLM must consult with the Tribe on this matter.

The BLM failed to adequately disclose and describe “highly specific plant gathering areas.” On Page 3.5-30, the BLM states that no “highly specific plant gathering areas” were revealed from ethnographic interviews that would be affected by the proposed project disturbances. There are no specific criteria that must be met in order for areas to be qualified for inclusion in “highly specific plant gathering areas.” If such criteria were to exist, it would be criteria set forth by the Tribe. The Tribe was not notified that the type of information we provided to the BLM would be considered not sufficient for identifying gathering areas and therefore no impacts and mitigation measures could be associated with those gathering sites. The problem is at least two-fold. First, in supplying the BLM with a list of culturally significant plants, the BLM never informed the Tribe of any criteria that would be required in making a “highly localized traditional plant gathering area” determination. The BLM did not give the Tribe appropriate information on how the list of plants would be used in the EIS process. Second, the other problem lies with the ethnographic assessment methods that were used and the lack of information that was provided to the Tribe and Tribal members regarding how the information would be used by the BLM and SNWA for the purposes of this groundwater project or other projects that might impact our aboriginal territory and associated natural resources. The BLM has erred in determining that no highly localized or highly specific traditional plant gathering areas exist for Tribal members based on an ethnographic assessment that was never approved by

the Tribe. This comment is intended for the Proposed Action and all alternatives under Sections 3.5.2.1 Rights of Way and 3.5.2.8 Groundwater Development and Groundwater Pumping.

The BLM did not inform the Tribe of their plan to use the list of culturally important plants in this DEIS, nor did the BLM inform the Tribe that any impact analyses would be conducted based on the plant list provided, nor were specifics provided to the Tribe on the type of information needed by the BLM for the impact analyses.

Estimated impacts on vegetation resources do not describe the intensity of impacts. The BLM describes acreages, mileages, or other numbers, but does not describe intensity as required under NEPA regulations (40 CFR 1508.27). For example, BLM must consider and analyze the direct, indirect, and cumulative impacts for any BLM proposal and its alternatives (40 CFR 1508.25(c)). “To help decision-makers understand how a resource will be affected,” the BLM must “focus the discussion of effects on the context, intensity, and duration of these effects” (BLM NEPA Handbook at 55). NEPA requires the consideration of both context and intensity, or the severity of an effect.

The BLM failed to analyze impacts of how groundwater drawdown, decreased plant cover, and decreased evapotranspiration would impact precipitation patterns in areas down-gradient in airstreams. Because evapotranspiration and evaporation from wet playas impact down-gradient environment precipitation patterns, the BLM must analyze those impacts on down-gradient environments. The BLM’s analyses are thus incomplete and insufficient for this DEIS.

IX. FAILURE TO ADEQUATELY DISCLOSE, ADDRESS, AND MITIGATE IMPACTS ON WILDLIFE RESOURCES

The BLM failed to adequately address and disclose significant, adverse impacts on wildlife resources. This error is based on a number of fundamental problems, including but not limited to the following issues:

1. The Tribe was not represented in the Natural Resources Group and was not appropriately consulted on matters regarding wildlife resources. As such, the BLM failed to include significant information on wildlife resources that the Tribe may provide in any type of planning efforts on our Tribal aboriginal lands. The BLM incorrectly deemed wildlife information from the Tribe as not the best available scientific and commercial data available.
2. While the BLM identifies a few “Culturally Significant Wildlife Species”, that list (e.g., Page 3.6–28) is in no way a comprehensive list of wildlife species that are culturally important to the Tribe. The BLM did not fully and appropriately list and describe culturally significant wildlife species. A substantial body of literature is available on wildlife species significant to the Tribes for the region. Instead of conducting a more substantial review of that literature, the BLM provides only a very brief note about culturally significant species; thus leaving the public and other readers of this DEIS to assume that only the species listed are significant to the Tribes. That said, the information provided by the BLM here is inadequate and must be changed to accurately list and describe wildlife species that are culturally significant to the Tribes.

3. Under “Groundwater Pumping” effects starting on Page 3.6–71, the BLM does not adequately describe the intensity of wildlife impacts. Rather, the BLM makes vague statements of impacts. The BLM must identify and describe impact intensity for wildlife.
4. Descriptions of cumulative impacts are vague or not stated at all. Moreover, intensity of cumulative impacts is not described in the text.
5. Overall, the BLM’s analysis of impacts on wildlife resources tends to be downplayed and their descriptions of impact intensity are either vague or not described at all. The impacts to wildlife species that are culturally significant to Tribes are largely absent from the BLM’s analysis and the BLM failed to recognize a large list of culturally important wildlife species and analyze impacts on those species.

The BLM also failed to adequately mitigate significant adverse impacts:

1. Proposed mitigation measure on Page 3.6–31 is insufficient. The BLM stated as a conclusion that “construction water use could adversely affect water resources for wildlife”. However, BLM suggested that only the Construction Water Supply Plan is needed for mitigation. Additional mitigation is needed for the impacts described and BLM should detail such appropriate mitigation measures that would be used if wildlife habitats are affected as previously described.
2. At the top of Page 3.6–35, the BLM states that “Impacts...would be reduced given the protections provided by the RMPs and the ACMs. While the BLM does list the ACM that apply here, the BLM fails to state any specific protections in the RMPs

that would apply here. The BLM must state which protection measures in the RMPs would apply in this case. The same should be applied to all areas where the BLM provides a blanket statement of RMP protection measures will be applied.

3. On Page 3.6-35, the BLM states that the ROW-WL-1 mitigation measure would be “moderately to highly effective in mitigating for impacts to big game key habitats.” However, the BLM states that restoration can range from 20-200 years for shrublands and woodlands in big game ranges disturbed by ROW construction. It is unclear as to how a mitigation measure can be highly effective if the timeframe for that restoration is up to 200 years. The 20-200 year timeframe would be more closely associated with natural successional change toward reaching climax vegetation communities. The BLM must define what is meant by low, moderate and high effectiveness in terms of mitigation. Without specific criteria or definitions for effectiveness, the BLM’s analysis of mitigation effectiveness is speculative. The BLM must address and change this in the DEIS for this particular ROW-WL-1 and those mitigation measures that follow.
4. The BLM briefly describes potential impacts to special status species and the potential mitigation measures. Again, the BLM relies on a vague statement of protection measures afforded in the RMPs. The BLM must state specifically which protection measures in the RMPs they refer to for each species.
5. Mitigation recommendations for wildlife impacts often relies on surveys or monitoring. Surveys or monitoring is not mitigation and does not in and of itself mitigate impacts.

Mitigation for wildlife impacts is largely insufficient in this DEIS.

X. FAILURE TO ADEQUATELY DISCLOSE AND MITIGATE IMPACTS ON AQUATIC BIOLOGICAL RESOURCES

The BLM failed to adequately disclose significant, adverse impacts on aquatic biological resources for a number of reasons. First, the classification of springs that are biologically significant is flawed. On Page 3.7-8, The BLM classified springs as “springs with aquatic biological resources”. That classification of springs is flawed. The classification assumes other springs have no biological importance and it errs in terms of having no input from the Tribe. The Tribe was not involved in that decision-making process for these springs even though these springs throughout the project area are highly significant to the Tribe for religious and traditional purposes. The springs biological features are important for the Tribe no matter whether special status species occur or not. Moreover, the BLM’s classification of springs of aquatic biological resources results in a reduction in the number of springs that are considered in the DEIS; thus, the impacts described in the DEIS are only a fraction of real impacts. The BLM does not disclose this. The BLM is required to disclose all impacts, not just impacts that are subjectively decided. The BLM must identify what proportion or number of springs are not included in the impact analyses of Aquatic Biological Resources.

Second, the 10-foot drawdown contour is too coarse of a scale to appropriately assess impacts on the large number of springs and their aquatic biological resources. While the 10-foot drawdown contour may suffice for particular broad-scale impact analyses, it is insufficient to rely upon that same scale for very fine-scale impact analyses that are needed especially for spring resources. It is possible to conduct these analyses at the 1-foot level and the BLM should do so to

appropriately assess impacts on springs, other water resources, and associated biological resources.

Third, the BLM fails to illustrate and describe the intensity of pumping effects on springs, streams and their associated biological resources. The BLM should not only map the 10-foot drawdown contours for full build out, full build out + 75 years, and full build out + 200 years, but the BLM must include the predicted depths of drawdown for those build out time frames.

Fourth, the BLM failed to sufficiently describe the intensity of impacts on aquatic biological resources. Instead, the BLM simply identified the number of springs/ponds/lakes predicted to be impacted. This number is a gross underestimation of the total number of springs/ponds/lakes to be impacted given that these ecosystems are only a subset of the total spring/pond/lake systems based on the BLM's classification as to which springs/ponds/lakes contain special status species and/or "important biological resources". The BLM identifies only a small subset of springs (6) where estimated percent flow reductions were calculated and displayed in the DEIS.

Fifth, the BLM's cumulative effects sections failed to describe the intensity of impacts on springs and streams and associated biological resources. Instead the BLM simply states numbers of miles of streams or numbers of springs that will be impacted based on predictions.

The BLM failed to adequately mitigate impacts on aquatic biological resources. The BLM relies at least partially on Stipulated Agreements that contain a monitoring program to mitigate impacts on springs and aquatic biological resources. Several serious flaws exist in the monitoring programs that are part of Stipulated Agreements. First, the Tribe was not party to or represented in the Stipulated Agreements. The BIA, a party to those agreements, acted without the Tribe's approval. The Tribe therefore provided no input on the monitoring plan and thereby the plan does

not address appropriate thresholds for a large number of spring discharges that are important for tribal traditional use and important in sustaining appropriate levels of culturally important resources. Second, the Stipulated Agreement monitoring program assumes that if SNWA reduces or ceases groundwater withdrawals, then water discharge will return in subject areas in very short order. The BLM does not provide any predictions of how long it will take for springs or other water dependent ecosystems to return to above threshold levels once groundwater pumping at a particular well or set of wells is reduced or stopped altogether. This is a major short-coming of the Stipulated Agreement's monitoring program and is based on flawed assumptions that will not translate into immediate return of water discharge to subject ecosystems to sustain biological resources. Third, the Stipulated Agreement's monitoring program is seriously flawed because it does not address how pumping will impact down-gradient resources. If the monitoring data demonstrates that a threshold is reached and SNWA is therefore required to reduce or stop pumping, the groundwater cone-of-depression will move down-gradient. The monitoring program does not address how that cone-of-depression will affect down-gradient environments, but rather the program only addresses a particular spring or other ecosystem where monitoring data has been collected. Given the groundwater pumping project, cones-of-depression will occur in large number of areas and move down-gradient affecting resources that are not being monitored.

Mitigation measures described under this section of the DEIS are insufficient to appropriately mitigate impacts. No matter which alternative is examined, there is a large number of springs/ponds/lakes and their associated biological resources that will be impacted. The BLM never addresses how or to what extent (intensity) the threshold levels in the monitoring program will

impact aquatic biological resources. In fact, it is likely in some instances that threshold levels may irreversibly harm biological resources. Mitigation measures simply assume that all biological resources will bounce back once pumping is reduced or stopped. Additional mitigation measures must be implemented to prevent significant reductions in water resources of springs/ponds/lakes. And the Tribe must be consulted as to which springs/ponds/lakes will be monitored, as to what thresholds will be used, and as to which springs/ponds/lakes will be considered biologically important.

XI. LAND USE IMPACTS ARE NOT ADEQUATELY ADDRESSED

The BLM's analysis of impacts on land uses is flawed in part because the BLM does not consider land uses for the entirety of the groundwater development project area. Instead, the BLM focuses its impact analyses on ROWs and groundwater development areas. In previous sections of this DEIS, the BLM illustrated that the predicted groundwater drawdown would extend well beyond the groundwater development areas. Therefore, the BLM must include an impact analysis of land uses for all areas that are predicted to experience groundwater drawdown at full buildout, full buildout + 75 years, and full buildout +200 years as would be consistent with other resource impact analyses in previous sections of this DEIS.

The BLM also failed to include Tribal lands in the impact analysis for land use.

XII. FAILURE TO ADEQUATELY DISCLOSE AND MITIGATE IMPACTS ON SPECIAL DESIGNATIONS AND LANDS WITH WILDERNESS CHARACTERISTICS

Under Table 3.14-14, the BLM identified that impacts on Swamp Cedars ACEC will range from 0 – 3163 acres depending on the alternative and time frame of groundwater drawdown impacts.

For Shoshone Ponds, the BLM estimates that 0 – 1021 acres would be impacted depending on the alternative and time frame of groundwater drawdown impacts. These acreages are underestimations because the Tribe considers the ACECs to be much more expansive than the boundaries that the BLM has currently applied to these ACECs. Moreover, the Tribe is strictly opposed to any impact on these ACECs given their religious and other cultural significance to our Tribe and other regional Tribes.

The BLM has predicated that 0-5 springs at Shoshone Ponds ACEC are predicted to be impacted by groundwater pumping from SNWA. The Tribe is strictly opposed to any alteration of spring flows at this site or any other religious site. Moreover, the cumulative impacts for Shoshone Ponds indicates that 923-1023 acres of wetland meadow and phreatophytic vegetation would be impacted with project full build out by 200 years. The Tribe is opposed to such degradation of Tribally significant sites that are already extremely rare.

The BLM referenced mitigation measures in previous sections of the DEIS. The BLM should state specifically which mitigation measures would effectively mitigate impacts on our Tribal religious sites. There are no mitigation measures in this DEIS that would appropriately mitigate impacts on our Tribal religious sites, such as Swamp Cedars and Shoshone Ponds.

XIII. VISUAL RESOURCES ARE NOT ADEQUATELY DISCLOSED AND MITIGATED

The BLM failed to adequately disclose and mitigate impacts of visual resources important to the Tribe. The SNWA GWD Project would impact visual resources important to the Tribe and the Tribe's traditional and religious practices in several ways, including from the construction and operation of the pipeline and from groundwater drawdown in both short-term and long-term.

Degradation of viewscapes near or within Tribal sacred sites or other areas of traditional and cultural uses also degrades our Tribal spirituality and ability to retain our cultural heritage.

XIV. FAILURE TO ADEQUATELY DISCLOSE AND MITIGATE SIGNIFICANT AND ADVERSE IMPACTS ON CULTURAL RESOURCES

The BLM has failed to adequately disclose and mitigate significant and adverse impacts on cultural resources. Numerous major flaws exist in the BLM's Cultural Resource section:

1. The BLM describes the regulatory framework regarding federal historic preservation legislation that provides the legal environment for documentation, evaluation, and protection of historic properties that may be affected by a federal project. Specifically, 36 CFR 800.14 allows federal agencies to adopt alternative programs such as Programmatic Agreements. The Tribe has not agreed to the PA and opposes the PA as it currently stands.
2. The BLM fails to describe the context and intensity of impacts on cultural resources. Instead, the BLM makes overly vague statements that project construction, operation, and groundwater drawdown may impact cultural resources. Appropriate mitigation measures cannot be evaluated without an understanding of which resources, historic sites, etc will be impacted. The BLM has not adequately consulted with the Tribe on cultural resource impacts and mitigation measures.
3. The DEIS identifies that the number of historic properties that could be affected by the project is unknown. The DEIS provides no information on the numbers or types of culturally significant properties/historic properties that may be impacted by the

SNWA GWD Project. Moreover, the DEIS fails to address reasonably foreseeable future action impacts other than vandalism and looting. The DEIS also fails to provide mitigation; rather, the DEIS relies on the programmatic agreement that has not been approved by the Tribe, nor has the Tribe been a party to any such agreement.

The PA fails to appropriately lay out a framework for compliance with federal law, and in addition to the letter of the law, the intent/spirit of the law. The duties of the BLM and other federal agencies under section 106 of the National Historic Preservation Act (NHPA); 16 U.S.C. 470f, are set forth in 36 CFR Part 800. Section 106 and the implementing regulations do not require Tribes to enter the draft programmatic agreement with the BLM and SNWA. The federal agencies' trust responsibility and obligation to consult with affected Tribes exists independent of the PA. The federal trust responsibility, Executive Order 13175 (11/6/2000), and President Obama's 11/5/2009 Memorandum for Head of Executive Departments and Agencies require the BLM, BIA, and other federal agencies to consult with affected tribes and protect Tribal natural resources and cultural resources regardless of whether the tribes enter a programmatic agreement. The draft PA acknowledges that at this point the full effects of the proposed groundwater project "cannot be fully determined" (p.1) and contemplates "delegating" to the SNWA "major decision-making responsibilities" (p.1). The BLM acknowledges that important tribal historic properties may be affected (p.2). However, the draft only suggests that the tribes "may" attach religious and cultural significance to affected project areas that "may" be affected. It is undisputed that Spring Valley is an area of critical cultural importance to the tribes. This language fails to acknowledge that important resources and areas will certainly be affected by any construction of the proposed project.

The numerous Tribal concerns regarding the proposed SNWA project are set forth in detail in the multiple protests filed by the Tribes with the Nevada State Engineer. Those protests are incorporated into these comments by this reference. The PA purports to give affected Tribes an opportunity to consult with the BLM about affected properties, but the BLM has refused to disclose to the Tribes full cultural information known by the BLM without first placing conditions and restrictions on the Tribes ability to utilize this information in appropriate forums to protect these important tribal cultural resources. How can the tribes effectively consult with the BLM about affected tribal cultural resources and protect those resources when the BLM will not provide the Tribes information it possesses and allow the tribes to utilize the information in appropriate forums? The PA does not allow for consultation "in a manner respectful of both tribal sovereignty and the unique government-to-government relationship between Indian tribes and the United States government." (p.2). The PA unwisely asks for the tribes to approve an ambiguous and unclear "process" for addressing facilities "identified but not yet designed, or whose location has yet to be determined, and those that may be added in the future." (p.3). How can the tribes understand and consult regarding the effects of the project on historic properties when the scope of the proposed facilities is not defined and the information known by the proponent and federal agencies is not shared fully with the affected tribes?

What mechanisms should be included in the PA to ensure that the Goshute have a real voice in the process? There should be a mechanism that provides for a full understanding of the proposed project effects on Tribal cultural resources, traditional uses, and water resources BEFORE permitting, construction, and pumping occurs. At present, the impact of the proposed project on

Tribal cultural and water resources is unknown without further study and analysis. The PA also presupposes the construction and operation of the GWD Project. There should be a mechanism in the PA that provides for termination of construction and later any pumping if Tribal cultural or water resources are impacted.

The PA is problematic for a large number of reasons, including but not limited to the following:

1. State that any information known by the BLM, any federal agency, or the proponent regarding tribal natural or cultural resources that may be significant to a tribe will be fully disclosed to the tribe immediately, including information obtained in the past and the future. This should occur before the Tribes sign the amended agreement.
2. That no consultation may be said to occur without a resolution of the Tribal Council with participation of Tribal attorneys. The DEIS inaccurately cites informal meetings as government to government consultation.
3. That the BLM and BIA will renegotiate the previously-entered stipulations regarding impacts to Tribal resources by the proposed SNWA groundwater project. This should include an appropriate appearance in the present proceeding before the Nevada State Engineer and termination of the stipulations.
4. That the federal agencies will assist the Tribes (funding and staff participation) to quantify and obtain a legal recognition of the affected tribe's reserved water rights, prior to any construction of the proposed groundwater project. The federal agencies and proponent should assist the Tribes in construction of necessary infrastructure to

develop and utilize their water rights prior to any construction of the proposed project.

5. That the federal agencies will withhold any approvals related to the proposed project until the tribes water rights are quantified and legally recognized.
6. Tribal cultural resources personnel should have equal and full access and participation with federal agency staff, with full funding for their expenses and work.
7. The federal agencies should not enter the agreement until the affected tribes approve the terms by Tribal Council resolution.
8. The affected tribe should participate in determining and documenting areas of potential effects (APE's).
9. Section D.1.c should be changed. Federal law requires the BLM to consult with affected tribes regardless of whether the tribe enters the draft agreement.
10. The BLM should enter the data sharing agreements proposed by the Tribes, which require the BLM to share fully cultural information and allow the tribe to utilize the information as the tribe deems appropriate to protect tribal resources. See Section D.4.
11. Section D.1.e. Any contacts with the tribes by the proponent or federal agency regarding NHPA compliance should be copied to the Tribal Councils and Tribal attorneys assigned to this issue.
12. Any discovery of cultural resources should be communicated to the tribe and not just the BLM for determination of significance. See Section I.2. Tribes should be able to

evaluate for themselves the significance of the discovery. The time periods in Section I are too short.

13. The failure of a tribe to respond should not be interpreted as a concurrence to any action or activity. Section J.5.
14. Consulting tribes should participate fully in monitoring. Section L. Funding for all monitoring activities (staff and legal expenses) should be provided by the proponent.
15. Information on location and nature of all cultural resources should be made fully available to tribes. See section N.7.
16. Dispute resolution provisions should provide for a neutral decision-maker with binding authority. The agreement should also include provisions that tribal participation or signing does not waive tribal sovereign immunity in any way.
17. A tribe should be able to terminate participation by written notice and without prejudice or waiver of any rights or obligation of the federal agencies.
18. Termination of a tribe's participation in any agreement will not impact or limit the federal agencies' consultation obligations or trust responsibility in any manner.

Why is the PA as it currently stands insufficient to protect cultural resources? Tribal cultural resources cannot be adequately protected where the impacts of the proposed project are unknown, where SNWA denies a significant hydro-graphic connection between the affected basins and important sources for tribal water resources, and where the Tribes have not real power to limit pumping activity the negatively impacts Tribal cultural resources.

Government-to-government consultation has not properly occurred. Informal meetings with

the Council or informational meetings on the proposed GWD project should not be counted as government to government consultation. For example, Tribal representatives were told that the meetings in Ely with the BLM regarding the proposed project were specifically not going to be considered consultation. The BLM should consult with at least a quorum of the Tribal Council during formal session with Tribal attorneys and appropriate Tribal staff present. The Tribes should have advance notice that the proposed project is considered a government to government consultation.

XV. SIGNIFICANT AND ADVERSE IMPACTS ON NATIVE AMERICAN TRADITIONAL VALUES ARE NOT ADEQUATELY DISCLOSED AND MITIGATED

The BLM has failed to disclose significant and adverse impacts on Native American traditional values. First, The BLM's Figure 3.17-1 shows the landscape area that was assessed for Native American traditional values. This spatial area of analysis does not incorporate large and important areas that will be adversely impacted by groundwater drawdown. Thus, the BLM's delineation of area of analysis in Figure 3.17-1 only a fraction of the total area that must be evaluated for Native American values, especially when predicated groundwater drawdown areas are not encompassed within Figure 3.17-1. As a result of the BLM's misrepresentation of the appropriate area to analyze for Native American traditional values, any impact assessment on those values is in error. BLM's analysis here must be corrected by providing analysis for all areas that may be impacted by the SNWA project (ROWS and groundwater development areas and areas predicted to have groundwater drawdown over 200+ years.

Second, the BLM identified that an Ethnographic Assessment was produced "to identify

tribal places of cultural and spiritual importance and traditional practices that may be affected by the proposed Project.” The Tribe examined the draft Ethnographic Assessment prepared for this SNWA DEIS, but the Tribe never approved the final Ethnographic Assessment because of its incompleteness and failure to address a number of important issues and sites. Therefore, any reliance on the Ethnographic Assessment in this SNWA DEIS is a failure to adequately disclose impacts and adequately consult with the Tribe.

The DEIS fails to account for the significance of the affected region to the Tribe and insufficiently evaluates impacts to tribal use of the region. The DEIS fails to consider important information sources regarding tribal use and history of the region. The DEIS relies on the Ethnographic Assessment, but the Tribe has not approved of the contents of that document. The DEIS and Ethnographic Assessment fail to effectively claim that large portions of the affected region, especially areas where groundwater drawdown is predicted to be greatest, are areas most critical to the Tribe in terms of cultural resources, religious sites, and traditional values that are key for our Tribal legacy and survival.

The BLM also failed to adequately mitigate impacts on Native American traditional values. The DEIS Native American traditional values section is replete with examples of inadequate mitigation. For example, mitigation ROW-NAM-1 as providing Tribal Monitors is not appropriate mitigation for impacts that are likely to be sustained from project construction and facility maintenance. While the Tribe does not oppose Tribal Monitors per se, the Tribe does oppose the fact inadequate mitigation for the destruction of tribal values or displacement of tribal values and resources. The BLM must provide proper and sufficient mitigation for the impacts on Native

American values.

The BLM also failed to provide any mitigation for impacts on Native American values from groundwater pumping, and from construction and operation of the project. The BLM indicated that “mitigation measures would be developed based on tribal consultation established in the PA.” The Tribe is not a party to the PA, nor has the Tribe approved the PA in any way. The BLM must provide mitigation measures here and cannot assume Tribal participation in the PA as a mitigation measure.

The BLM admits that there is likely to be widespread impacts on water resources, especially for water resources that are not monitored as part of the Adaptive Management Plan and Measures. Further, the BLM states that mitigation for such impacts will be “none.” The BLM must provide mitigation to water resources impacted by groundwater drawdown not only to a small subset of water resources, but to the entirety water resources within drawdown areas. This SNWA DEIS failed to adequately mitigate these Native American traditional values.

XVI. FAILURE TO UNDERGO ADEQUATE GOVERNMENT-TO-GOVERNMENT CONSULTATION WITH THE TRIBE

The BLM failed to adequately consult with the Tribe in a government-to-government consultation as is required under NHPA. The BLM incorrectly used update meetings regarding the SNWA GWD Project as government-to-government consultation. The Tribe made clear at these meetings that such updates of the SNWA project could not be used to claim consultation with the Tribe. However, the BLM dismissed Tribal requests and used those meetings to incorrectly claim consultation (see Table F3.17-1 in SNWA DEIS).

In summary, this SNWA DEIS is failed to meet many NEPA requirements. Many impacts have not been fully disclosed, the alternatives are flawed, and appropriate mitigation has not been provided in many sections of the DEIS. The Tribe is greatly concerned that this DEIS underestimates impacts.

Please feel free to contact the Tribe if you have questions regarding this review of DEIS.

Sincerely,

A handwritten signature in blue ink that reads "Alvin Marques". The signature is fluid and cursive, with the first name "Alvin" and last name "Marques" clearly distinguishable.

Alvin Marques
Tribal Chairman
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