

BLM_NV_NVSO_GWProjects

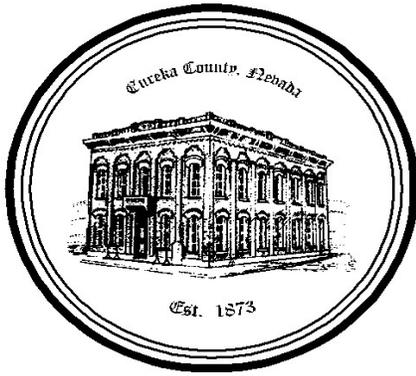
From: Jake Tibbitts <natresmgr@eureka-nv.org>
Sent: Tuesday, October 11, 2011 5:21 PM
To: BLM_NV_NVSO_GWProjects
Subject: Eureka County Comments on DEIS
Attachments: 10 10 11 Eureka County comment on SNWA DEIS.pdf

Please see attached the comments from Eureka County on the Clark, Lincoln, and White Pine Counties Groundwater Development Project.

Regards,

Jake Tibbitts
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October 10, 2011

Penny Woods, Project Manager
Bureau of Land Management
PO Box 12000
Reno, NV 89520-0006

RE: Eureka County comments on Groundwater Development Project Draft EIS

Dear Ms. Woods:

The Eureka County Board of Commissioners respectfully submits the following comments related to the Clark, Lincoln, and White Pine Counties Groundwater Development (GWD) Project Draft Environmental Impact Statement.

Eureka County supports the No Action Alternative as we feel it is the only alternative that serves proper multiple-use management of public lands and will not unduly foreclose the future long-term viability and sustainability of Nevada, economically, socially, and environmentally.

A primary reason why Eureka County is concerned about the GWD Project is that an underlying theme of the DEIS is that the granting of the Right of Way by BLM is inevitable and that the residents of east central Nevada are being told they must accept unavoidable large-scale large-impacts to the water resources required to maintain their chosen way of life in order to sustain an alien culture in Las Vegas. Nowhere is this more evident than in Chapter 3 of the DEIS, in particular in the proposed groundwater monitoring and mitigation measures listed for socioeconomic impacts provided in Table 3.20-2, not the least of which states:

"SE-8: To Promote Income Stability and Long-Term Sustainability of Local Agricultural Industry. SNWA should work cooperatively with DRI, University of Nevada - Reno, University of Utah, USDA, and others to assist farmers and ranchers to implement water conservation practices and to transition to higher value, less water consumptive crops."

An aspect of the DEIS that we find especially troubling is the emphasis on the Lincoln County Conservation, Recreation and Development Act (LCCRDA) and the various statements attesting to mandates for BLM to grant a ROW for a pipeline.

The DEIS is peppered with phrases like:

- “A ROW mandated by Congress . . .”
- “Congressionally directed by the Lincoln County Conservation, Recreation and Development Act of 2004.”
- “Pursuant to the SNPLMA and the LCCRDA, the BLM must grant the SNWA’s ROW requests in Clark County and Lincoln County.”
- “. . . although the evaluating agency [BLM] might have limited or no authority to deny project authorization.”

These various statements combine to give the impression that the purpose of the EIS is merely a paper exercise, a prologue to approval of the ROW by the BLM, particularly for the LCCRDA portion of the pipeline. This notion is further supported by the statement regarding mitigation of adverse impacts:

“Therefore, a long-term reduction in surface discharge at perennial surface water source areas is likely to occur in some areas even after implementation of the SNWA proposed adaptive management measures and proposed mitigation measures. This potential reduction in surface discharge at perennial surface water source areas is considered an unavoidable adverse impact associated with the proposed groundwater development (p 3.3-122).”

The LCCRDA actually states that the ROW will be granted "subject to compliance with NEPA before granting a right-of-way." BLM cannot leverage one Act of Congress to undermine the intent of another law, namely NEPA and FLPMA. NEPA is to be used to analyze a range of alternatives to make a reasoned choice and the BLM may choose the No Action Alternative in order to meet the intent of NEPA, FLPMA, and various other environmental and federal land-use laws.

The project will adversely affect water resources, water rights, and water-dependent resources over a very large area of east central Nevada incorporating 18 hydrographic basins. In some instances, impacts may be felt in important regional springs outside the area where drawdown is predicted. It was acknowledged that many of these adverse impacts are unavoidable and the residents should come to grips with the inevitable change to their culture to benefit SNWA. Because the POD for the project includes development of as much as 21,700 af/yr of groundwater resources from as-yet unidentified sources, we remain extremely concerned about the precedent that this project and EIS create and where the remaining 21,700 af/yr of water will be proposed to come from.

Monitoring, Management, and Mitigation Plans

Of major importance is the need for BLM to understand and follow through with the mandate to coordinate with local governments. BLM must include language in the EIS to ensure that local government agencies will be afforded active participation in any monitoring, management, and mitigation plan (3M plan) for any resource. Local government participation must be a requirement in any 3M plan due to the language in FLPMA (and 43 CFR 1610.3-1) which outlines the coordination mandate and states that BLM shall “coordinated the land use inventory, planning, and management activities of or for such lands with the land use planning and management programs of other...local

governments within which the lands are located” and “shall provide for meaningful public involvement of...local government officials, both elected and appointed...in the development of land use programs, land use regulations, and land use decisions for public lands...” (43 USC 1712). Since there will be “land use decisions” and “planning and management activities” that go into development and implementation of any 3M plan, there must be specific and explicit inclusion of local governments in the 3M plans.

Chapter 1

Page 1-5, Section 1.3.3:

The BLM NEPA Handbook (H-1790-1) states that the main goal of tiering is to “reduce paperwork and redundant analysis in the NEPA process” (p. 25). Further, CEQ regulations direct that tiering and subsequent incorporation by reference shall only be done “when the effect will be to cut down on bulk without impeding agency and public review of the action” (40 CFR 1502.21). With such a long-term timeline and so many outstanding unknowns and uncertainties related to the groundwater development project, it is premature for BLM to move forward with any analysis, even programmatic analysis. It is suspect that this programmatic NEPA process will truly serve to “reduce paperwork and redundant analysis.” Also, with the timelines of project milestones projected to reach some 37 years into the future, the tiering approach does impede agency and public review of the action because it is impossible for any entity to objectively weigh the impacts of a project that are going to occur 4 decades in the future. BLM should not move forward with issuance of a ROD on this EIS but should wait until some of the uncertainties and unknowns are better understood (e.g., receipt of water rights, actual need for water export, desalination options) and some of the incomplete and unavailable information gaps are filled (Section 3.0.3). Given such uncertainty, the supplemental NEPA analysis that will be required in addition to this programmatic EIS will likely include so much additional analysis that BLM’s current efforts will prove to be nothing more than a waste in time and resources.

Page 1-8, Section 1.4.1.1:

The same reasoning that omits Coyote Springs Valley from the DEIS and GWD Project should preclude many of the valleys because of lack of sufficient aquifer property data.

Page 1-10, Section 1.5.5:

There is a complete overlook of the obligation BLM has to coordinate management decisions with the local plans and policies of local government. The DEIS only highlights local government “issuance of permits.”

As highlighted in the BLM NEPA Handbook, BLM has an obligation to seek consistency with local government plans, policies, and management programs to the maximum extent possible. Also, CEQ regulations require that inconsistencies and “conflicts between the proposed action and the objectives of...local...land use plans, policies, and controls” be documented in the EIS (40 CFR 1502.16).

It is BLM’s responsibility to keep apprised of local land use plans, policies, and objectives, assure that proper consideration is given to these plans, policies, and objectives, and provide for meaningful involvement of local, both elected and appointed, in the development of land use decisions for public lands” (43 USC 1712(c)(9)). The DEIS shows no effort to document inconsistencies and conflicts and address how BLM would propose to mitigate these conflicts.

Page 1-16, Section 1.7.1:

It is disingenuous for the BLM to predict impacts and propose mitigation in the DEIS yet not require some type of financial assurance that mitigation will be carried out.

Chapter 2

Page 2-14, Section 2.3.2:

On page 1-7, the DEIS states that “The BLM’s role...considering the SNWA’s ROW applications is separate from the NSE process” yet this section (2.3.2) does not keep the processes separate. BLM’s negotiations, behind closed doors in a non-public way, is not the appropriate way to deal with monitoring, management, or mitigation of impacts. The BLM can impose the terms of the agreement based on the impacts analysis alone and should not have to rely on a stipulated agreement. The DEIS should disclose all potential impacts and frame mitigation to specifically reduce, minimize, or remove an adverse impact regardless of a stipulated agreement. Since SNWA already commits to the stipulated agreement on page 2-43, BLM should focus on only additional measures that would be required in addition to what the applicant has committed. BLM should delete reference in the DEIS to the stipulated agreement except in places where there is discussion on what the applicant is already committing to.

Further, the DEIS seems to elevate Public Water Reserves (PWR) above other water rights. A PWR has no elevated status above any other water right. A PWR is a claim and is not valid until adjudication by the proper authority which is not the federal government. PWRs are the same as vested water rights. Vested water claims should be included in the analysis of impacts as well regardless of being filed at the NSE office. Virtually every spring in the HSA has a vested water right on it for stockwatering (and possibly irrigation). The deeds to the base properties would back this up.

Page 2-89, Section 2.8.1:

It is evidence in itself that this NEPA process is premature given the fact that the BLM cannot even frame a Preferred Alternative from the analysis. This alone should highlight the need to gather additional information and further define the uncertainties before moving forward with any NEPA review. Also, 40 CFR 1502.14(e) directs that the EIS “...identify the agency’s preferred alternative or alternatives, if one or more exists, in the *draft statement...*” (emphasis added).

Chapter 3

Direct and Indirect Impacts

The DEIS states that chapter 3 will answer the various questions outlined on page 3-1. Yet, after reviewing chapter 3, many of the questions were not adequately answered and were even obfuscated by the analysis. For instance, the tortured description of “direct” and “indirect” impacts is hard to follow and is never clear. The “acceptable” level of impact intensity is never defined. The residual effects are vague, uncharacterized, and create questions in themselves. These questions outlined on page 3-1 must, in reality, be answered for the EIS to ever be determined adequate.

Air Resources

The DEIS addresses air quality impacts in Section 3.1 and is further supplemented by Appendix F3.1. The Affected Environment section is comprehensive and presents a summary of the available information characterizing existing air quality in the area, as well as providing a summary of applicable laws and regulations. As with most arid sparsely-populated areas, the air quality of the northern portion of the Natural Resources Region of Study is dominated by consideration of wind-blown dust. While the air quality of the southern portion of the study area is degraded to some degree by the Las Vegas population center, the northern part of the study area enjoys good air quality.

The major concerns offered here are with the Environmental Consequences Section of the air resources discussion. They correctly depict that the construction activities of the project will create a significant but short-term impact. But the greater concern lies with the long-term effects of the drawdown of the groundwater. As the DEIS correctly points out, the lowering of the height of the top of the groundwater resource, referred to as the lowering of the groundwater table, can have an unavoidable consequence on the vegetation. Both a loss of vegetation in some areas, and a shift in the type and nature of the vegetation can result in a change to the ground cover this vegetation provides. As the DEIS correctly states, this would result in an increase in wind erosion. Wind erosion results in particles of many different sizes becoming suspended, sometimes for long periods of time. Suspended particles can affect human health through respiration, and can have secondary air quality effects such as soiling or visibility degradation. Consequently, suspended particulate matter is considered a major, criteria air pollutant and is the subject of extensive air quality laws, rules and regulations at all levels of government.

The EIS quantifies these impacts solely through emission calculations. The emissions calculations are simplistic in nature, using a single value of 0.285 tons of particulate matter per acre per year of exposed area as an emission factor for one category of particulate matter (particles smaller than 10 micrometers in diameter, called PM₁₀). An additional category of particulate matter emissions (particles smaller than 2.5 micrometers in diameter, called PM_{2.5}) was estimated by an assumed ratio of 10% following federal land-manager guidance. The process then involved using the estimates from the vegetation section of the DEIS to characterize the numbers of acres of surface within the affected area that were reduced to bare soil or changed to medium-density vegetation (for acres changed to medium density vegetation, only 10% of the acreage was assumed to be subject to wind erosion) as a result of the groundwater draw down. One comment is that this is a simplistic approach to quantification of wind erosion. In fact, wind erosion is a much more complex process involving wind speed, surface change, nature of the soils, precipitation, and many other factors. However, it is recognized that the area involved is quite large and for the purposes of the DEIS, the method used can be viewed as a screening-level estimate of the quantity of emissions resulting from the groundwater drawdown.

The principal issue raised here is that the statement of emissions does not define the environmental consequence of the action. While an increase in emissions is clearly an impact and the increase in emissions by many thousands of tons is clearly a very significant impact, air quality is quantified by concentrations of pollutants in the atmosphere and the DEIS fails to make any conclusion as to the affect these emissions may have on airborne concentrations of particulate matter. As the DEIS states on page 3.1-2, there is a National Ambient Air Quality Standard (NAAQS) for 24-hour average PM₁₀ concentrations of 150 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$). The DEIS has failed to determine if the increase in PM₁₀ emissions of, for some alternatives, many thousands of tons per year, will create a potential violation of this NAAQS. Without this determination, the DEIS fails to establish the environmental consequence of the proposed action or any of the alternatives.

The BLM is well-familiar with air quality models and their common use to estimate changes in ambient concentrations resulting from increased emissions. Since it is unlikely this project will be required to go through air quality permitting, this may be the only opportunity for the air quality impacts of the proposed action to be modeled. We believe that an air quality modeling analysis should be conducted and the results summarized in the DEIS. The main purpose of an EIS is to disclose the air quality consequences of a proposed action. At a minimum, a screening-level analysis needs to be conducted to allow the BLM to disclose the environmental consequences of the proposed project.

We have conducted a brief screening-level analysis to estimate potential impacts from a 100 acre area of exposed land. This is a minimal effort, since Table 3.1-15 discloses that at full build out there will be 4,901 acres of bare soil/sparse vegetation created as a result of groundwater drawdown. Using the emission factor from the DEIS of 0.285 tons per acre per year for PM₁₀ and the EPA's SCREEN3 model, we estimate that 24-hour concentrations of PM₁₀ could increase by 243 µg/m³ from just this small 100 acre area. Without even accounting for existing concentrations, this exceeds the NAAQS by 62%. If concentrations increase beyond NAAQS, the area could risk becoming a non-attainment area for PM₁₀ which would necessitate the state to develop an implementation plan to bring the area back into compliance.

This is not a far-fetched notion. The case of Owens Lake in California is an important example of the consequences of failure to appreciate the effect changes in water resources can have on air quality. The diversion of large quantities of water to Southern California resulted in Owens Lake, a natural salt-water lake, to recede to almost the point of non-existence. The resulting loss of water from the now dry lakebed has resulted in large-scale increases in wind erosion and associated increase in particulate concentrations. As a result many millions of dollars are being expended to mitigate the impacts of the fugitive dust and the area has been seriously impacted by wind-blown dust. Although the mechanism is different—lake withdrawals rather than groundwater drawdown—the cause and effect are the same, dust comes from areas that can now no longer support vegetation.

The current DEIS needs to go to the final conclusion of determining the air quality consequences of the drawdown of a wide area of groundwater in the study area. Without such an analysis, the DEIS has failed to disclose the potential air quality impacts of the proposed project.

Replacement of Loss of Phreatophytes and Increased Dust

There needs to be a better description on how “large scale seeding” will work to “assist with vegetation transition from phreatophytic communities.” What level of NEPA will need to take place to implement this large scale seeding? What type of seeds would be used? Given the usual saline and alkaline condition of soils in phreatophyte areas, there will be a limit on the success of seeding. What is the threshold for implementation of mitigation measure C.2.5? There needs to be analysis and discussion on what seed mixes, soil amendments, and reclamation measures would be successful in vegetating these phreatophytic areas. These questions need to be answered in order to rationally and adequately determine if mitigation of these areas can be effective and the reality of the residual impacts.

Further, with the possibility of a decrease in vegetation cover of phreatophytes due to groundwater pumping, and the increase in fugitive dust (Musick, H.B., and Gillette, D.A., 1990, "Field Evaluation of Relationships Between a Vegetation Structural Parameter and Sheltering Against Wind Erosion", Land Degradation and Rehabilitation, v.2, p. 87-94), there must be installation of wind eroding mass sensors and fugitive dust catchers (e.g., BSNE catchers) co-located with many vegetation transects, shallow groundwater wells, and meteorological stations in the phreatophyte vegetation communities. Otherwise, there will be no way to link groundwater withdrawals to increased particulates in the air and loss of topsoil. There will be no way to tie the effect of project pumping on the decrease in phreatophytic vegetation without a more robust monitoring system. One air quality monitoring station located in locations both upwind and downwind are inadequate.

The DEIS states that "It is predicted from model simulations that pumping drawdowns of 10 feet or greater would potentially lead to changes in vegetation that would increase windblown dust emissions. The level and extent of these impacts is highly uncertain?" (p. 3.1-38). We argue that water level drawdowns of far less than 10 feet could also contribute to increased windblown dust emissions. Some phreatophytes are accessing groundwater with the extreme "extinction depth" of their roots (i.e., 50 feet for greasewood and 15 feet for salt grass). Less than 10 feet of water drawdown in a phreatophyte community that is already at the limits of being able to access the groundwater with its roots will create a decline in vegetation cover. Take for example the southern end of the Diamond Valley playa. The phreatophytes in this area have exhibited stress and decline in ground cover, resulting in increased soil exposure, with less than 5 foot of drawdown in 40 years.

Water Resource Impacts and Conflicts with State Controls

While the DEIS is very comprehensive, it tends to underemphasize potential impacts with respect to water resources. This is particularly the case for surface-water resources. Also, this tendency is also illustrated in the DEIS by "explaining away" the impacts to phreatophytic communities. This capture of discharge for beneficial use is a fundamental tenet of Nevada's prior appropriation doctrine, and it should be stated as such.

The DEIS assumes that groundwater right applications will be approved and acknowledges that where the streams are connected to the aquifer(s) exploited by SNWA, a reduction in stream flow must occur. The April 2010 ruling by the U.S. Court of Appeals, 9th Circuit (USA vs. Orr Ditch Company) states the Nevada State Engineer cannot grant applications to appropriate groundwater that will impact decreed water rights. There is no mention or separation of decreed water rights in the DEIS, but no reduction of flow arising from groundwater extractions is permissible. CEQ regulations and FLPMA require that inconsistencies between the proposed action and state, local or tribal land use plans and policies be documented in the EIS. "The environmental consequences section of the EIS] shall include discussions of...(c) Possible conflicts between the proposed action and the objectives of Federal, regional, state and local...land use plans, policies and controls for the area concerned" (40 CFR 1502.16 (CEQ). These are a couple of those inconsistencies that conflicts with NSE controls and should be acknowledged and discussed in the DEIS.

Water Resources Monitoring, Management and Mitigation

It is stated that an adaptive management approach will be applied to managing the resources and mitigating adverse impacts. In other words, if an adverse impact attributable to the project is identified through monitoring, an appropriate mitigation measure will be initiated and the effectiveness of the mitigation measure will be evaluated. If the initial mitigation is ineffective, additional measures might be initiated. However, it is recognized in the DEIS that it may not be possible to mitigate some adverse impacts. For example, "Therefore, a long-term reduction in surface discharge at perennial surface water source areas is likely to occur in some areas even after implementation of the SNWA proposed adaptive management measures and proposed mitigation measures. This potential reduction in surface discharge at perennial surface water source areas is considered an unavoidable adverse impact associated with the proposed groundwater development" (p 3.3-122). We disagree with this particular statement. "Unavoidable adverse impacts" can be avoided simply by not approving the ROW request.

The problems we see with the adaptive management measures applied to a project of this magnitude are:

1. It may take some time for these impacts to show up at distant sensitive areas, particularly those in far-off hydrographic basins.
2. Years may be spent arguing over the cause of the impact, before a decision is made to act.
3. Some of these mitigation measures themselves may require lengthy environmental analysis, during which time the impact continues to get worse.
4. It may take several years to evaluate the effectiveness of the adaptive management (*i.e.*, mitigation) measure, during which the impact may be further exacerbated, perhaps to the point of no return.
5. Finally, if the measure fails, the impact might be written off as an "unavoidable adverse impact."
6. We find it hard to believe that the NSE or the BLM would revoke a primary source of water supply to the Las Vegas area (curtail pumping) due to the potential political ramifications.
7. It is impossible to fully evaluate the project and mitigation effectiveness when we don't even know what is being proposed. This further highlights the necessity of having the locally affected citizens represented through active participation of the local government.

Postponing gathering of essential data and framing of mitigation only when impacts occur belies the purpose of NEPA which is to disclose *potential* impacts up front and analyze mitigation measures that will reduce, minimize, or remove adverse impacts as much as possible.

Specific mitigation citing new water sources without new water rights and without a specific plan to offset loss of riparian and aquatic habitat is inadequate. The groundwater model, the basis for decision making, clearly indicates impact to these lower stream segments yet the mitigation is simply a new water source that currently doesn't exist. Additionally how would the new water source be used to re-establish not only existing stream flow but cottonwood trees, willows, other riparian vegetation and macro-invertebrate habitat? What is the flow regime and how would it mimic upstream/historic conditions?

Proposed mitigation strategies have not been carefully considered, especially the need to assess the potential environmental impacts or potential unintended consequences of implementing these strategies. For example, if the flow in a stream decreases, one proposed mitigation measure entails installing a well to provide a source of water to augment the flow of the stream. No analysis of the

feasibility of this strategy was provided, the source of the water rights, or an assessment of whether this strategy will produce some unintended consequences. Other mitigation strategies such as injecting water into the aquifer to minimize the extent of the cone of depression or installing new wells to provide a source of water to augment flow in the creek will require additional groundwater appropriations over and above the water arguably needed for municipal purposes will be the subject of the upcoming administrative hearing before the Nevada State Engineer. The source of the water rights associated with these mitigation strategies must be addressed. At present, there is no guarantee the State Engineer will approve new appropriations necessary for these mitigation measures.

Mitigation should not be contingent on whether impacts are significant in nature. Both NEPA regulations and the BLM NEPA Handbook clarify that “Mitigation may be used to reduce or avoid adverse impacts, whether or not they are significant in nature” (NEPA Handbook p. 61). In the DEIS, mitigation measures are discussed in terms of impacts that are “adverse” and “significant” where it is clear that the definition of both terms is not the same. This creates arbitrary implementation of mitigation and overlooks mitigation that could reduce or avoid adverse impacts and other measures as highlighted in 40 CFR 1508.20.

Additionally, the mitigation is not analyzed and described in sufficient detail in the DEIS. The BLM NEPA Handbook states that “[d]uring impact analysis, analyze the impacts of the proposed action (including design features) and with all mitigation measures (if any) applied, as well as any further impacts caused by the mitigation measures themselves. Address the anticipated effectiveness of these mitigation measures in reducing or avoiding adverse impacts in you analysis. Describe the residual effects of any adverse impacts that remain after mitigation measures have been applied” (p. 62). The Handbook further clarifies “If mitigation measures are identified, those measures must be analyzed ‘even for impacts that by themselves would not be considered significant’ (See Question 19b, CEQ, *Forty Most Asked Questions Concerning CEQ’s NEPA Regulations, March 23, 1981*)”.

The bulk of the mitigation spelled out in the DEIS contains vague and contingent mitigation strategies that have not been carefully and adequately considered especially the cascading environmental impacts or unintended consequences of implementing these strategies and the effectiveness of the mitigation in avoiding or significantly reducing potential adverse impacts. The 9th Circuit opinion on the Cortez Hills EIS makes it clear that mitigation must be spelled out in sufficient detail to “assess the effectiveness of the mitigation measures...” One such example (of the many), proposes mitigation through “augmentation of a water supply.” No assessment of the feasibility of this strategy was provided, nor was there any assessment that this strategy will not produce additional adverse effects. The mitigation is simply a shell game of creating an imaginary “new” water source that doesn’t exist and begs further analyses such as 1) how would the “new” water source be used to re-establish not only existing stream flow but riparian vegetation and macro-invertebrate habitat?; 2) what is the flow regime and how would it mimic upstream/historic conditions?; and 3) the mitigation measure must have the State Engineer’s approval to work and there is no guarantee that water rights (or the water itself regardless of the right) will be available for mitigation. The same shortcomings regarding mitigation are apparent throughout the document among all the issues and resources analyzed (water resources is just one example). Proper mitigation of all impacted resources, including socioeconomics, must be assessed and spelled out in great detail in the EIS.

Use of the ten-foot drawdown contour for identifying the full range of environmental impacts is too great and we do not accept the rationale provided in the DEIS that tries to justify why a ten-foot drawdown contour is appropriate. If the NEPA process is to identify and disclose the full range of *potential* impacts, then a drawdown contour of at least five-foot is necessary. Failure to disclose impacts that could occur at less than ten-feet of drawdown limits the ability of the public to weigh the impacts and the ability of the BLM to fully understand and mitigate the real, full range of impacts.

Further, it is misleading to show only a single drawdown outcome rather than a range of possible outcomes based on model accuracy and a variety of possible drawdown results. Other possible drawdown extent outcomes may have greater or lesser impacts in the region, but were not evaluated.

Figure ES-21 shows predicted drawdown at Build Out plus 75 and 200 years for the Proposed Action. Pumping for the GWD Project will cause widespread drawdown over most of Delamar Valley, Dry Lake Valley, Cave Valley, Spring Valley and southern Snake Valley extending into Utah. The greatest drawdown, more than 200 feet is predicted for Cave Valley and more than 100 feet of drawdown is projected for southern Spring Valley, Southern Snake Valley and Dry Lake Valley. In addition, drawdown of more than 10 feet is predicted to propagate into 13 neighboring basins (Steptoe, Lake, Tippet, Hamlin, Patterson, Spring (Basin 201), Panaca, White River, Pahrnagat, Pahroc, and Coyote Springs valleys and Lower Meadow Valley Wash). When the DEIS states that "The results indicate that shifting these aquifer parameters within a plausible range would expand the areal extent of the area encompassed within the 10-foot drawdown contour" (p. 3.3-85), it appears probable that impacts could be greater than predicted and this is not fully apparent in the DEIS and should be. Furthermore, these predicted drawdown impacts are in addition to any drawdown that will result from current and reasonably foreseeable pumping. This additional pumping includes 99,996 af/yr of past and present groundwater development and 47,465 af/yr groundwater development that is reasonably foreseeable.

The hydrographs of predicted drawdown do not indicate a steady-state condition will be reached even after 200 years of pumping after Build Out occurs. The series of hydrographs in the DEIS represent predicted drawdown at selected monitoring wells in Spring, Cave, Dry Lake and Delamar valleys. Each clearly shows that predicted drawdown trends for the Proposed Action and alternatives do not achieve steady state conditions 200 years after Build Out. In other words, most of the water pumped in the first 200 years of the project comes from storage. Only in Spring Valley is pumping predicted to capture the vast majority of discharge. As a result, the drawdown effects should be expected to increase beyond that time and should be stated so in the DEIS.

Socioeconomics

The socioeconomic section does not adequately address the other economic costs and impacts related to the groundwater development project. Many of these costs are related to potential impacts to well owners and other water users and reduced AUMs that return quantifiable economic value to livestock producers and the community. Cross references should be made to sections in the ADEIS discussing economic costs, impacts and mitigation. Specifically, the socioeconomic section should analyze or reference other sections of the EIS where the analysis can be found concerning impacts to well owners and the additional costs associated with water drawdown; ranches which operate in the drawdown area and how water drawdown will affect the viability and value of their operations; potential impacts to land

values and output from declines in water levels and possible stigma effects; and economic activity associated with water based recreational activity.

The DEIS also fails to acknowledge that the economic development in the various basins has been held hostage since 1989 when the original applications for water appropriation were filed.

Further, the importance of agriculture in the basins to be exploited is downplayed. There is reliance on and citation of the 2007 Census of Agriculture, but the Census of Agriculture does not provide the indirect and induced socioeconomic benefits related to agriculture. This information is readily available through the University of Nevada, Reno.

Also, the socioeconomic analysis of the alternatives is limited. To the extent practical, differences in the alternatives should be shown and compared so that BLM and all stakeholders can better understand the full impact associated with the various proposals of the DEIS.

Conclusion

We ask that BLM consider all of our comments and concerns we have highlighted above when making a decision on the path forward. The Eureka County Board of Commissioners believes that BLM should not move forward with any alternative other than the No Action Alternative.

Sincerely,

A handwritten signature in black ink, appearing to read "Leonard J. Fiorenzi". The signature is fluid and cursive, with the first name being the most prominent.

Leonard J. Fiorenzi, Chairman
Eureka County Board of Commissioners