BLM_NV_NVSO_GWProjects

From: Kimberly Barnett <KBarnett@slco.org>
Sent: Tuesday, October 11, 2011 1:21 PM
To: BLM_NV_NVSO_GWProjects
Subject: Salt Lake County's Comments on draft Environmental Impact Study for Clark, Lincoln, and White Pine Counties Groundwater Development Project
Attachments: Salt Lake County Comments on draft EIS.pdf

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Please accept the attached comments from Salt Lake County Mayor Peter Corroon on the Bureau of Land Management's draft Environmental Impact Study for Clark, Lincoln, and White Pine Counties Groundwater Development Project.

I have also mailed a copy of these comments. **Thank you.**

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October 10, 2011

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To Whom It May Concern:

Enclosed are Salt Lake County's comments on the Bureau of Land Management's draft Environmental Impact Study for Clark, Lincoln, and White Pine Counties Groundwater Development Project.

Thank you for the opportunity to comment on this important matter. Please feel welcome to contact Kimberly Barnett at 801-468-2678 with any questions.

Sincerely,

Peter M. Corroon
Mayor, Salt Lake County

Salt Lake County's Comments on BLM's Draft EIS
Clark, Lincoln, White Pine Counties Groundwater Development Project

The Bureau of Land Management ("BLM") has prepared a draft environmental impact statement (June 2011) in response to a right-of-way application submitted by the Southern Nevada Water Authority ("SNWA") for the construction of a pipeline to convey groundwater to Clark County Nevada from five hydrologic basins ("Project"). BLM is the federal land manager for the area traversed by the pipelines and must evaluate all associated environmental impacts and conditions in determining whether to grant the right-of-way applications.

I. NEPA Requires an Evaluation of All Potential Impacts

The National Environmental Policy Act ("NEPA")[1] requires federal agencies such as BLM to analyze the impacts of federal actions on the human environment, including impacts to air quality.[2] Impacts to air quality can be assessed through qualitative or quantitative analysis. A qualitative description without a quantitative analysis is inadequate.[3] To comply with NEPA's "hard look" requirement, BLM must explain how its actions will or will not comply with environmental laws and policies. BLM's June 2011 draft environmental impact statement ("EIS") contains numerous unsupported conclusions regarding impacts to air quality in Salt Lake County.[4] Without a quantitative analysis and modeling, BLM's conclusions are inadequate.

II. Irreversible & Irretrievable Commitment of Resources

The draft EIS contains a summary of Irreversible and Irretrievable Commitments of Resources associated with constructing, operating and maintaining the proposed action. The report states that a commitment of resources is "irreversible" when the effects of the proposed activities result in limiting the future options for resource development or management. An irretrievable commitment refers to the lost production or use of a resource that would cause the

[1] 42 U.S.C. §§4321-4337.
[2] 40 C.F.R. §4332(2)(C).
[3] *National Audubon Society v. Kempthorne*, No. 1:05-CV-00008-JKS (D. Alaska, Sept. 25, 2006).
[4] For example, the unsupported statement that: "Only a very small fraction of wind erosion emissions from the project area is expected by transported into Salt Lake County" appears throughout the document.

resource to be unavailable for use by future generations.[5] Table 4.0-1 summaries the following limitations on resources from groundwater pumping among others:

A. Air and Atmospheric Values

The EIS states there is a risk that there may be a long-term increase in fugitive dust from pumping basins where pumping drawdown may result in a decrease in vegetation cover and density. These potential air quality changes will limit future options for resource and economic development in Utah.

B. Soils

Groundwater drawdown will reduce the source of water that sustains hydric soils on a long term basis, which is an irreversible and potentially irretrievable commitment of soil resources.

C. Vegetation

The long term reductions or compositional change in wetland/wet meadow and phreatophytic shrub/medium vegetation cover types, and vegetation associated with springs and streams will be irretrievable within the modeled time frames. Because of the very long time frames, and potential vegetation community changes over large geographic areas, the effects are irreversible within any reasonable time frame (likely more than 500 years).

D. Land Use

Future groundwater drawdown will result in groundwater level reductions that will adversely affect surface water and vegetation on public lands available for disposal and private agricultural lands. These effects will be irreversible and potentially irretrievable impacts.

E. Visual Resources

Future groundwater drawdown will gradually alter landscape views in areas where wetland, wet meadow, and basin shrubland vegetation composition and structure are changed on

[5] Draft EIS (June 2011), Chapter 4, "Irreversible and Irretrievable Commitments of Resources", page 4-1.

a long term basis. These changes will be irretrievable and may be irreversible, if water sources are not replaced.

III. Air Quality Impacts

The Clean Air Act ("CAA")[6] vests EPA and the states with authority to regulate emissions of air pollutants and enforce air quality standards. Federal regulations explicitly require federal land managers, in consultation with EPA, to consider "whether a proposed source or modification would have an adverse impact on air quality related values."[7]

A. Particulate Emissions

The BLM's preliminary draft project EIS[8] (2009) described regional air quality impacts due to windblown dust associated caused by groundwater pumping.[9] The project will create a permanent source of windblown particulate pollution in Salt Lake County. The Utah Department of Environmental Quality's ("DEQ") Division of Air Quality ("DAQ") has determined that the project will result in unacceptable and permanent harm to the environment and human health from excessive PM_{10} and $PM_{2.5}$ fugitive emissions.[10]

The June 2011 draft EIS states that fugitive dust emissions caused by soil crust disturbance and erosion will be transported into Salt Lake County. The report confirms that "changes in Salt Lake City's air quality due to the effects of groundwater pumping on soils and vegetation"[11] will occur. Groundwater pumping in Snake Valley will create an uncontrolled anthropogenically derived particulate emissions source. Sparse vegetation,[12] erosion of bare surfaces and wild land fires resulting from groundwater draw down will generate windblown dust, haze and climate impacts. The draft EIS[13] estimates that windblown dust emissions after full build out under the proposed option will be 180 tons per year and will *increase over* time

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[6] 42 U.S.C. §§7401-7671.
[7] 40 C.F.R. §51.166(p)(2).
[8] Preliminary draft EIS, December 2009.
[9] Preliminary draft EIS, December 2009, Section 3.1 "Air and Atmospheric Values".
[10] DEQ/DAQ August 18, 2011 Memorandum to John Harja, Director, Public Lands Policy Coordination Office.
[11] Draft EIS (June 2011), Chapter3, Section 3.1, Air and Atmospheric Values Affected Environment, subsection 3.1.4 "Cumulative Impacts" – Proposed Action.
[12] The soil binding properties of plants may diminish due to the increased depth to groundwater caused by pumping.
[13] Draft EIS, Chapter3, Section 3.1, Air and Atmospheric Values Affected Environment, subsection 3.1.4 "Cumulative Impacts" – Proposed Action.

from 24,000 to 34,700 tons per year.[14] The draft EIS acknowledges that $PM_{2.5}$ emissions will follow the same pattern.

B. Non-Attainment Designation

EPA recently rejected Utah's proposed revisions to the State Implementation Plan ("SIP") in part because Salt Lake County continues to violate the particulate standards and the SIP fails to address the necessary controls.[15] On November 13, 2009, EPA published its final area designations for the 2006 National Ambient Air quality Standards ("NAAQs"). Salt Lake County and Tooele County are designated as non-attainment for particulates and are included in a single non-attainment area. Based on its current and future non-attainment status, any increase in regional air pollution will have a direct impact in Salt Lake County. Impacts from air pollution outside the county will further restrict emissions from sources inside the county, resulting in far reaching social and economic consequences in the county and the state.

The Utah SIP for particulate matter[16] does not account for anthropogenic dust storms from the southwest desert. The Division of Air Quality notes that if the PM_{10} NAAQs is exceeded due to anthropogenic dust storms resulting from the proposed action, DEQ will be required to develop a new PM_{10} SIP to reduce PM_{10} from all sources in Utah. Significant reductions from permitted point sources along the Wasatch Front will likely be overwhelmed by the impacts of dust storms originating in Snake Valley.[17] The BLM has failed to take a "hard look" at these impacts as required by NEPA.

C. Regional Haze

The Division of Air Quality notes that Utah's regional haze SIP[18] may also be affected by anthropogenic dust storms.[19] The Clean Air Act[20] establishes a national goal of remedying any existing impairment and preventing any future impairment of visibility in Class I federal areas

[14] Draft EIS, Chapter 3, "Groundwater Pumping", page 3.1-36.
[15] "Feds Reject One Utah Plan to Clean Up Air", Salt Lake Tribune, December 1, 2009.
[16] Utah State Implementation Plan, Section VIII Prevention of Significant Deterioration.
[17] DEQ/DAQ August 18, 2011 Memorandum to John Harja, Director, Public Lands Policy Coordination Office.
[18] Utah State Implementation Plan, Section XX "Regional Haze".
[19] Id.
[20] 42 U.S.C. §169A.

which results from man-made air pollution. EPA's regional haze rule[21] requires states to develop plans that show improvement in visibility for the most impaired days and also ensure no degradation in visibility for the least impaired days. Utah's SIP[22] identifies a clean air corridor which includes most of Nevada and the western portion of Utah, as a geographic region that contributes clean air to the Class I areas along the Colorado Plateau, including Capital Reef and Bryce Canyon National Parks. The regional haze rule requires Utah to track emissions in the clean air corridor to ensure that visibility does not degrade on the least impaired days at any of the Class I areas along the Colorado Plateau.

The Division of Air Quality believes that anthropogenic dust storms from the southwest desert will undermine the visibility improvements made over the last twenty years in Utah's designated Class I areas. As a result, Utah will be required to implement emission reduction strategies at a significant cost to industry and the public for all sources that contribute to regional haze to offset the increase in anthropogenic dust emissions.[23] The BLM has failed to take a "hard look" at these impacts as required by NEPA.

D. Ozone

The draft EIS acknowledges that concentrations of ground level ozone are likely to increase due to climate change and increasing temperatures in the region. EPA is proposing more restrictive NAAQs for ozone. Areas currently designated as "maintenance" status for ozone are likely to have added difficulty meeting EPA's more restrictive ozone standard.

Salt Lake County has previously been designated a "maintenance" area for ozone. The report confirms that concentrations of ground level ozone are likely to increase due to increasing temperatures. On January 5, 2010, EPA proposed to strengthen the NAAQs for ground level ozone.[24] EPA is proposing to strengthen the 8 hour "primary" standard designed to protect public health. The proposal to strengthen the primary standard places more weight on key scientific and technical information showing effects in health adults at 0.060 ppm. Salt Lake

[21] 40 C.F.R. 51.309(d)(3)(iv).
[22] Utah State Implementation Plan, §XX.C.
[23] DEQ/DAQ August 18, 2011 Memorandum to John Harja, Director, Public Lands Policy Coordination Office.
[24] Proposed Rule, 40 C.F.R. Parts 50 and 58.

County and Tooele County currently exceed the proposed primary public health standard.[25] EPA is also proposing to establish a distinct cumulative, seasonal secondary standard, designed to protect sensitive vegetation and ecosystems. The BLM has failed to take a "hard look" at these impacts as required by NEPA.

E. Urban Transportation

Urban transportation generates particulates and contributes to the air quality problem in Salt Lake County. Additional particulates generated by anthroprogenic sources outside the county will jeopardize efforts to achieve transportation controls in the county and may jeopardize federal funding for highways and mass transit.[26]

The existence of other emission sources, together with the cumulative impacts of the drawdown on groundwater, surface erosion and greenhouse gas emissions associated with pumping, will have reasonably foreseeable impacts, resulting in increased levels of ozone and particulates, which will result in regional air pollution, haze and public health impacts in Salt Lake County. Specifically, the draft EIS fails to consider recent actions by EPA, including: (1) issuing an endangerment finding for greenhouse gas emissions; (2) disapproving proposed revisions to the Utah SIP; and (3) proposing more restrictive health based NAAQs for ozone. The BLM has failed to take a "hard look" at these impacts as required by NEPA.

F. FLPMA Requirements

The Federal Land Policy Management Act ("FLPMA")[27] directs the Secretary of the Interior and BLM to manage public lands "under principals of multiple use and sustained yield."[28] The statute explicitly includes air resources in its list of purposes and values to be protected.[29] BLM is obligated to analyze impacts to air quality pursuant to NEPA, at each stage of its right-of-way review process. If the results of this analysis show pollution levels above CAA standards, questions arise about whether FLPMA allows BLM to authorize a project right-of-way. Section 202(c)(8) of FLPMA requires the Secretary to "provide for compliance with

[25] March 2008 EPA tightened the 8 hour standard to .075 ppm.
[26] DEQ/DAQ August 18, 2011 Memorandum to John Harja, Director, Public Lands Policy Coordination Office.
[27] 42 U.S.C. §§7401-7671.
[28] 52 U.S.C. §1732(a).
[29] 43 U.S.C. §1701(a)(8).

applicable pollution control laws, including State and Federal air...pollution standards or implementation plans."[30] When a NEPA analysis indicates that a BLM action will result in a violation of a CAA standard, it raises the question of whether section 202(c)(8) of FLPMA allows BLM to approve the action as proposed.

IV. Cumulative Impacts

Cumulative effects are impacts on the environment which result from the incremental impact of an action when added to other past, present and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over time.[31]

The draft EIS acknowledges the existence of other sources within the effected groundwater drawdown area with the potential to contribute to regional air quality impacts, including: wildfires, mining, agriculture, industry, transportation and construction. Impacts from air pollution sources outside the county will further restrict emissions from sources inside the county, resulting in far reaching social, economic and health impacts. The EIS fails, however, to acknowledge the additional burden the anthroprogenic air quality impacts of the proposed groundwater development project will impose on pre-existing regional activities, including:

A. Cornerstone Project

Kennecott recently announced plans to expand its mining operations in Salt Lake County by thirty two percent. The expansion will "push back" the south wall of the mine and deepen the pit. The project will extend the life of the copper mine to at least 2034.[32] The Utah Division of Air quality has approved Kennecott's request to amend the Utah SIP by changing the volume of material moved at the Bingham Canyon Mine from 197,000,000 tons to 260,000,000 tons annually.[33] This increase in production will have an impact of the particulates released into the atmosphere in the county. The amendment to the SIP to allow for increased production may

[30] 43 U.S.C. §1712(a).
[31] 40 C.F.R. §1508.8(b).
[32] The Cornerstone Project is projected to secure more than 2,000 jobs. Salt Lake Tribute, "Kennecott Seeks to Extent Life of Utah Mine", August 16, 2010.
[33] Utah Air Quality Board Meeting, May 4, 2011.

have to be revisited in the future, however, due to an increase in anthropogenic dust emissions from the southwest desert.

B. Other BLM Resource Management Priorities

The BLM's Salt Lake Office has identified five resource management priorities in the region effected by the project, including: Blue Springs Wildlife Habitat Area, Bonneville Salt Flats, Central Pacific Railroad, Donner/Bettridge Creek, Horseshoe Springs, Lake Town Canyon, and Salt Wells Wildlife Area. The summary of irreversible and irretrievable commitments contained in the EIS acknowledges that groundwater drawdown could adversely affect surface water and vegetation on public lands, including these BLM resource management priorities.[34] The BLM has failed to take a "hard look" at these impacts as required by NEPA.

V. Climate

Climate change impacts must be measured when assessing a project's environmental impact. The Council on Environmental Quality believes that it is appropriate and necessary to consider the impact of significant federal actions on greenhouse gas emissions and the potential for climate change to affect federal activities evaluated under NEPA.[35]

In addition to particulate emissions, the EIS acknowledges that the generation of electricity necessary to operate the pump stations is estimated to release approximately 327,000 tons of greenhouse gas ("GHG") emissions per year. This volume is comparable to the GHG emissions produced to generate electricity for 35,000 homes for one year.[36] It is interesting to note that the preliminary draft EIS (December 2009) estimated the release of 468,000 tons of CO_2 per year comparable to the electricity use of nearly 65,000 homes for one year.[37] The 2011 draft EIS does not explain the reason for the reduction in numbers from the 2009 preliminary EIS.

Furthermore, a recent study has found that particulates settling on mountain tops create a dark layer that absorbs sunlight causing snow to melt earlier. Researchers at the University of

[34] Draft EIS, Chapter 4, "Irreversible and Irretrievable Commitments of Resources", Table 4.0-1.
[35] CEQ Director Nancy Sutley, Greenwire, January 15, 2010.
[36] Id.
[37] Preliminary Draft EIS, Chapter 3, page 3.1-18.

Utah have determined that dust storms in 2006 that originated hundreds of miles away coated the snow pack with a brown layer of dust.[38] The dust heated the surface and caused the snow to melt as much as a month early. The environmental and economic consequences of early melting are enormous affecting everything from water supplies to recreational activities. A shortened ski season in the Wasatch mountains would have a severe economic impact in Salt Lake County.

The EIS acknowledges that the following resources among others are anticipated to be affected by climate change: air quality, vegetative communities, water resources and wild-land fire ecology and management.[39] Climate change will, therefore, add to the cumulative impacts to air quality from other sources. The BLM has failed to take a "hard look" at these impacts as required by NEPA.

VI. EIS Claims Future Agreements May Mitigate Impacts

A. Utah/Nevada Agreement

The Preliminary Draft EIS (2009) notes that the Lincoln County Land Act (2004) required the states of Utah and Nevada to enter into an agreement allocating water resources between the states prior to the diversion from groundwater basins located within both states. A draft agreement was issued in August 2009. The draft Utah/Nevada agreement includes a monitoring and management plan if groundwater pumping begins. In addition, the agreement provides for the development of an air monitoring program to assess the air quality impacts of pumping. Only one monitoring station situated in the Snake Valley basin is proposed.

There is no legal commitment to monitor, however, until the agreement is final.[40] The Utah/Nevada agreement is "on hold" due in part to opposition by the Utah Legislature in the 2010 general session. In fact, the Utah Legislature enacted legislation requiring the creation of a Snake Valley Advisory Committee to evaluate the project.[41] Furthermore, a 2010 ruling by the Nevada Supreme Court found the Nevada State Engineer failed to adequately address

[38] "Hydrologic Observations in the Great Salt Lake Basin: Interactions Between Particulate Transport and Hydrologic Response".
[39] Id., Chapter 3, page 3.1-12.
[40] Id., Chapter 3, page 3.1-37.
[41] Snake Valley Aquifer Advisory Council, Utah Code §§63C-12-101 to 108.

environmental issues further jeopardizing the agreement.[42] For these reasons, any references to the agreement in the EIS should be deleted.

It should be noted that the State of Utah has a dual role as a cooperating agency in the BLM's EIS and as a party to the proposed Utah/Nevada agreement. A meeting of the Snake Valley Advisory Committee was held on September 19, 2011. Two motions were passed by the Committee, including a motion to advise Governor Herbert to hold off on the Utah/Nevada agreement until the environmental impact review of the project is complete and a record of decision and a final EIS are issued.[43]

B. Adaptive Management Plan

The draft EIS (2011) also notes that an adaptive management program is currently under development. Appendix B describes a monitoring, management and mitigation plan ("3M plan") which will be developed and implemented by SNWA. The 3M plan is, however, a conceptual document that does not currently exist. The proposed adaptive management plan "...will include continuous air monitoring of PM_{10} to assess air pollutant transport more accurately and develop thresholds at which specific mitigation measures would be required of SNWA in order to avoid further impacts to air quality".[44] However, Appendix B Supplement 2 states that BLM cannot enforce mitigation measures on lands owned by other parties and cannot ensure that the funding and land access necessary to implement these measures will be made available.[45] The conclusion that SNWA will be required to take action necessary to mitigate impacts to air quality is, therefore, inaccurate.

The proposed 3M plan to be developed by SNWA will include provisions for air monitoring but the proposed monitoring plan is inadequate.[46] The Division of Air Quality recommends a minimum of two monitoring stations in Utah to accurately quantify the impact of the project on the Wasatch front. The Division also recommends that the data from all monitoring stations associated with the project be available in real time and include

[42] Carter-Griffin
[43] September 19, 2011 meeting of the Snake Valley Advisory Committee, Motion #2.
[44] Id, page 3.1-60.
[45] Appendix B, Draft Monitoring, Mitigation and Monitoring Plan for Snake Valley, Page B-8.
[46] Draft EIS (2011), Chapter 3, "Monitoring and Mitigation", page 3.1-37.

meteorological data. All of the described data is necessary to identify impacts from the project on the Wasatch Front.[47]

The draft EIS relies on *proposed* plans as a method of identifying adverse impacts to air quality and then implementing mitigation measures *after* the adverse impacts to air quality have occurred. However, *neither* the draft Utah/Nevada agreement nor the proposed SNWA adaptive management plan are in effect. As previously noted, the Snake Valley Advisory Committee has instructed the governor not to sign the agreement until such time as the environmental impact review is complete. Any conclusions regarding actions which may be taken in the future are speculative. For these reasons, it is arbitrary and capricious for the BLM to conclude that the proposed agreements can or will mitigate the foreseeable adverse impacts to air quality in Salt Lake County.

VII. Public Health Impacts

On December 7, 2009, EPA announced its "endangerment finding" on greenhouse gasses.[48] After a great deal of debate and analysis, the EPA concluded that scientific evidence supports its decision to classify the greenhouse gases as pollutants which endanger public health and welfare. The direct human health risks linked to climate change in the endangerment finding are wide ranging. In simple terms, deteriorating air quality will exacerbate respiratory disorders.

Appendix F3.1 summarizes federal and state air quality regulations.[49] The summary of state regulatory authority mentions that political subdivisions of the state may also enact controls. However, the Utah Air Conservation Act[50] specifically grants authority to any political subdivision of the State to enact ordinances to control air pollution. In addition, counties in Utah have specific statutory authority[51] to adopt ordinances regulating air quality independent of the Air Conservation Act. Based on this authority, Salt Lake County has adopted a comprehensive

[47] DEQ/DAQ August 18, 2011 Memorandum to John Harja, Director, Public Lands Policy Coordination Office.
[48] EPA Endangerment Finding. 74 Fed. Reg. 66496 (2009) (codified at 40 CFR Ch.I).
[49] Appendix F3.1, Air and Atmospheric Values References, pages F3.1-1 to F3.1-5.
[50] Utah Code, §19-2-121.
[51] Utah Code, §17-53-223(c).

air pollution control ordinance to protect public health.[52] The air pollution control ordinance is contained in Title 9 "Health and Safety" of the Salt Lake County Code of Ordinances.

The cumulative project impacts on groundwater drawdown, surface erosion and greenhouse gas emissions will increase particulate emissions, ozone, haze, and climate change. The Utah Division of Air Quality has determined that the project will result in unacceptable and permanent harm to the environment and human health from excessive PM_{10} and $PM_{2.5}$ fugitive dust emissions.[53] Salt Lake County is located in a nonattainment area for particulates and will likely be designated as nonattainment for ozone. Any additional concentrations of particulates and ozone associated with the project will exceed the health based NAAQs standards and adversely affect public health in Salt Lake County. The BLM has failed to take a "hard look" at these impacts as required by NEPA.

VIII. Alternative "E"

The Snake Valley Advisory Committee passed two motions at its meeting on September 19, 2011, including a motion advising Governor Herbert to urge the BLM to adopt Alternative E, known as the "No Snake Valley Alternative". Under Alternative E, the BLM would grant a right-of-way for the proposed project pipeline and groundwater wells in the White Pine Canyon portion of Spring Valley but would deny a right-of-way for any pipeline and groundwater wells in the Snake Valley portion of White Pine County.[54]

Based on the comments summarized herein and as a member of the Snake Valley Advisory Committee, Salt Lake County concurs in the committee's recommendation that BLM adopt Alternative E. The Public Lands Coordination Office is the official agency point of contact for the SNWA groundwater development project in the State of Utah. As the official point of contact, the Public Lands Coordination Office has a fiduciary obligation to ensure that the County's comments on the draft EIS are submitted to and considered by the BLM.

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[52] Chapter 9.72 "Air Pollution Control" Salt Lake County Code of Ordinances.
[53] DEQ/DAQ August 18, 2011 Memorandum to John Harja, Director, Public Lands Policy Coordination Office.
[54] September 19, 2011 meeting of the Snake Valley Advisory Committee, Motion #1.