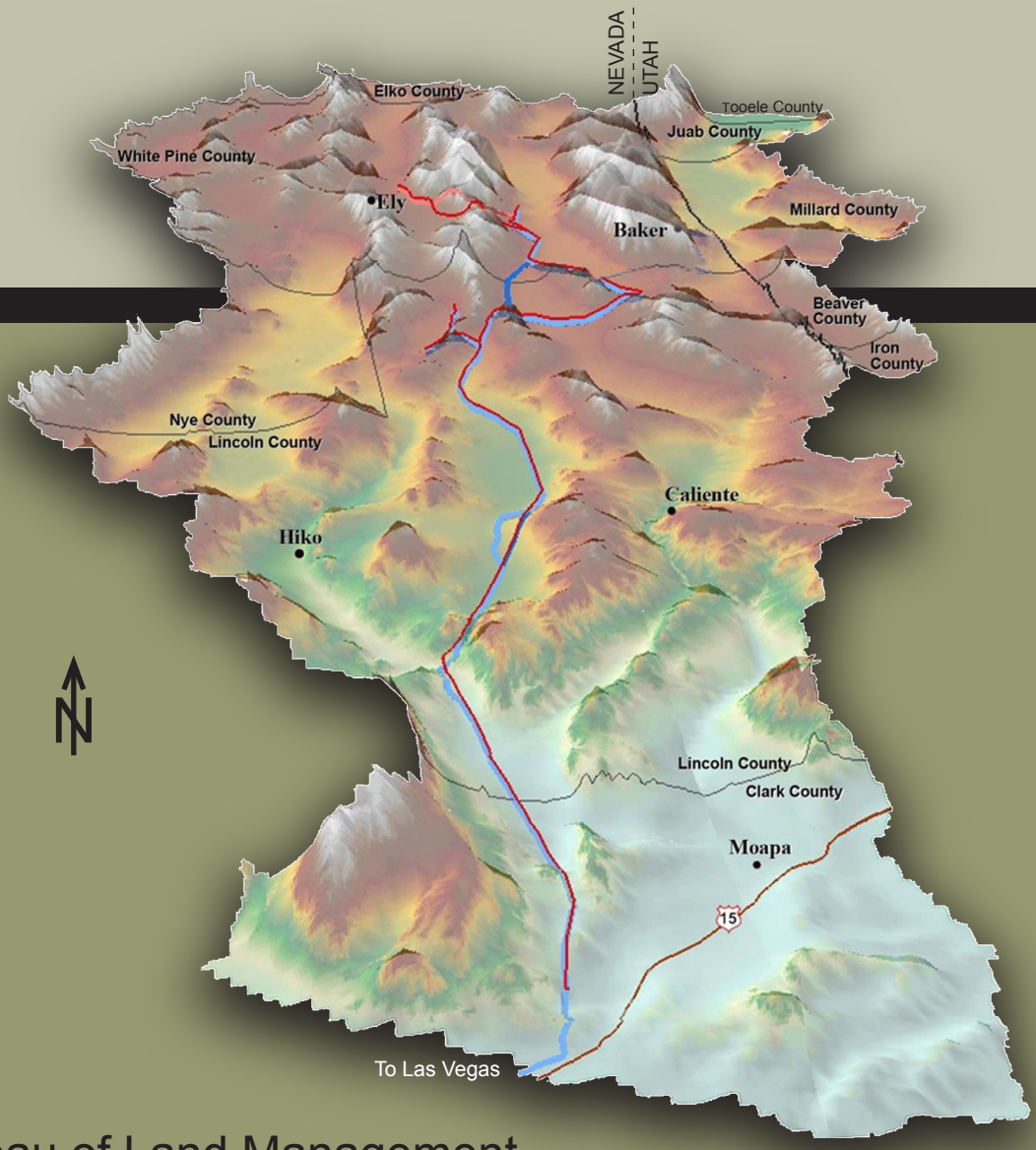
Clark, Lincoln, and White Pine Counties Groundwater Development Project Record of Decision



Bureau of Land Management

December 2012

Cooperating Agencies

Army Corps of Engineers
Bureau of Indian Affairs
Bureau of Reclamation
Central Nevada Regional Water Authority
Clark County, NV
Juab County, UT
Lincoln County, NV
Millard County, UT
National Park Service
Nellis Air Force Base
Nevada Department of Wildlife
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Tooele County, UT
U.S. Fish and Wildlife Service
U.S. Forest Service
White Pine County

BLM
Nevada State Office

Mission Statement

The BLM's multiple-use mission is to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

BLM/NV/NV/ES/13-2+1793

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RECORD OF DECISION

Clark, Lincoln, and White Pine Counties Groundwater Development Project

Decision to Grant a Right-of-Way to the Southern Nevada Water Authority

Case File Number: N-78803

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Final Environmental Impact Statement – BLM/NV/FES 12-33

Bureau of Land Management – Nevada State Office

1340 Financial Boulevard

Reno, Nevada 89502

December 2012

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- Final EIS Errata Notice – August 2012
- Numerical Model Errata Notice – November 2012

Attachment B: SNWA Conceptual POD and Legal Descriptions

- Map(s) of project facilities with legal descriptions
- Legal Descriptions
- Conceptual Plan of Development November 2012

Attachment C: Project Terms and Conditions (including treatment of mitigation outside BLM authority and additional survey requirements)

- Approved Project Components
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- Public Land Survey System Requirement
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ACRONYMS AND ABBREVIATION

ACEC	Area of Critical Environmental Concern
ACM	Applicant-committed Protection Measure
AFB	Air Force Base
afy	acre-feet per year
BA	Biological Assessment
BLM	Bureau of Land Management
BMP	Best Management Practice
BO	Biological Opinion
CEQ	Council on Environmental Quality
CFR	Code of Federal Register
CNRWA	Central Nevada Regional Water Authority
COM Plan	Construction, Operation, Maintenance, Monitoring, Management, and Mitigation Plan
DOI	Department of Interior
DTRO	Desert Tortoise Recovery Office
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ET	Evapotranspiration
FLPMA	Federal Land Policy and Management Act of 1976
GBNP	Great Basin National Park
GWD Project	SNWA's Clark, Lincoln, and White Pine Counties Groundwater Development Project
IM	Instruction Memorandum
kV	kilovolts
LCCRDA	Lincoln County Conservation, Recreation, and Development Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NOI	Notice of Intent
NSE	Nevada State Engineer
NTP	Notice to Proceed
PA	Programmatic Agreement
POD	Plan of Development
PPA	Past and Present Actions
RFFA	reasonably foreseeable future action
RMP	Resource Management Plan

ROD	Record of Decision
ROW	right-of-way
Secretary	Secretary of the Department of the Interior
SHPO	State Historic Preservation Officer
SNPLMA	Southern Nevada Public Land Management Act
SNWA	Southern Nevada Water Authority
TCP	Traditional Cultural Properties
U.S.	United States
USACE	U.S. Army Corps of Engineers
USC	United States Code
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1. Introduction

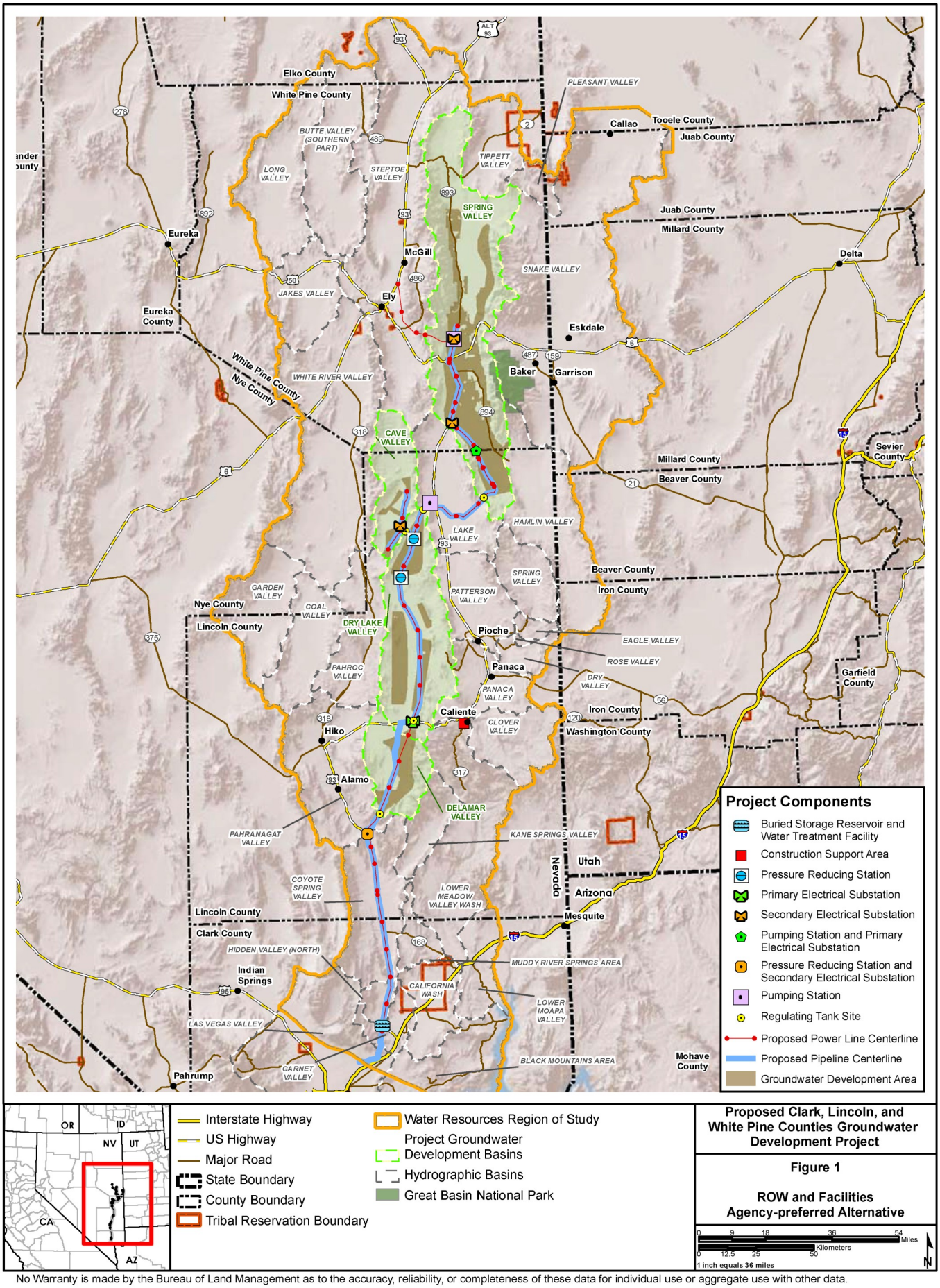
This document is the Record of Decision (ROD) of the United States Department of the Interior (DOI), Bureau of Land Management (BLM) regarding a right-of-way (ROW) application by the Southern Nevada Water Authority (SNWA) for the Clark, Lincoln, and White Pine Counties Groundwater Development (GWD) Project. In this ROD, DOI and BLM have decided to issue SNWA a ROW to construct, operate, and maintain the main conveyance pipeline and related facilities to support the future pumping and transport of groundwater from Spring, Delamar, Dry Lake, and Cave Valleys based on a modified version of Alternative F as described in the Final Environmental Impact Statement (EIS) (see **Figure 1**). As described below, the National Environmental Policy Act (NEPA) documentation represents a Tier 1 analysis that supports the main conveyance pipeline and related facilities. Although groundwater pumping facilities are discussed in the NEPA documentation, such groundwater facilities tied to the pipeline will require future compliance with NEPA. This ROD was prepared in accordance with the NEPA, the requirements of the Federal Land Policy and Management Act (FLPMA) of 1976, and other applicable Federal laws and regulations.

The BLM has jurisdiction to issue ROWs for pipelines across public lands in accordance with the FLPMA and the BLM ROW regulations in 43 Code of Federal Regulation (CFR) Part 2800. Section 102 of the FLPMA directs the BLM to manage the public lands on the basis of multiple use and sustained yield, 43 United States Code (USC) § 1701(a)(7), and in a manner that will "protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values" of the public lands, 43 USC § 1701(a)(8). In addition, the FLPMA requires that each ROW shall contain such terms and conditions deemed necessary to protect Federal property and economic interest, protect lives and property, protect the interests of individuals who rely on the fish, wildlife, and other biotic resources; and protect the public interest in the lands located in and adjacent to the ROW (43 USC § 1765). Further, the BLM shall, by regulation or otherwise, in managing the public lands take any action necessary to prevent unnecessary or undue degradation of the lands.

In addition to the FLPMA, Congress specifically directed the BLM to grant ROWs to the SNWA for water resource development and conveyance projects in Lincoln and Clark counties pursuant to the Lincoln County Conservation, Recreation, and Development Act of 2004 (LCCRDA) and for Clark County pursuant to the Southern Nevada Public Lands Management Act (SNPLMA) of 1998.

The SNPLMA became law in October 1998 (Pub.L. No. 105-263, as amended). The SNPLMA requires the Secretary of the DOI (Secretary), upon application and in accordance with the FLPMA and other applicable provisions of law, to issue ROW grants on Federal lands in Clark County, Nevada, to a unit of local government or a regional governmental entity for reservoirs, canals, channels, ditches, pipes, pipelines, tunnels, and other facilities and systems needed for the impoundment, storage, treatment, transportation, or distribution of water.

The LCCRDA established "…a 2,640-foot wide corridor for utilities in Lincoln County and Clark County, Nevada (Pub.L. No. 108-424, 118 Stat. 2403 § 301). The LCCRDA requires the Secretary to grant to the SNWA and the Lincoln County Water District "nonexclusive ROW to Federal land in Lincoln County and Clark County, Nevada for any roads, wells, well fields, pipes, pipelines, pump stations, storage facilities, or other facilities necessary for the construction and operation of a water conveyance system..." The LCCRDA further provides that "Before granting a ROW under paragraph (1), the Secretary of the Interior shall comply with the NEPA (42 USC § 4321 et seq.) including the identification and consideration of potential impact to fish and wildlife resources and habitat."



No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

Thus, the SNPLMA mandates the BLM grant the ROWs requested by the SNWA in Clark County in accordance with the FLPMA and the BLM's ROW regulations. In addition, the BLM is required by the LCCRDA to grant ROWs requested in Clark and Lincoln counties. The SNWA's requested ROWs in White Pine County would be granted pursuant to the BLM's general authority under the FLPMA.

1.1 ROW Application

On August 19, 2004, the BLM received a ROW application from the SNWA for construction and operation of a pipeline system to convey groundwater in southeastern Nevada. The GWD Project proposal was to develop and convey water that the SNWA had applied for (at that time) from the Nevada State Engineer (NSE) in southern and central Nevada.

The proposal has evolved over time and currently SNWA's request is for ROWs for the primary facilities to convey groundwater that has been permitted by the NSE in Spring, Cave, Dry Lake, and Delamar Valleys, and groundwater applications pending before the NSE in Snake Valley. The SNWA also would provide capacity in the groundwater development for future use by Lincoln County, in accordance with a cooperative agreement. The SNWA's long-term Water Resource Plan (Appendix A to the Final EIS) describes the GWD Project as a component of its water resource portfolio. Additional information regarding the SNWA's Water Resource Plan and the role of the GWD Project in meeting community needs is provided in the Final EIS in Section 1.6, Southern Nevada Water Authority Responsibilities, Current Water Supply, and Future Needs. The ROW, as submitted by SNWA and evaluated by the BLM in the Final EIS is consistent with the LCCRDA.

1.2 NEPA Process

Pursuant to the Council on Environmental Quality (CEQ) NEPA regulations (40 CFR 1502.13), the BLM included statements in the Final EIS that specified the underlying purpose and need for the agency to respond to the proposed action. The BLM's purpose for this ROW action is to consider the applicant's request for use of Federal land managed by the BLM for construction and operation of the proposed groundwater conveyance system. The applicant requested ROWs to develop the main groundwater transport system to convey groundwater in Spring, Cave, Dry Lake, and Delamar Valleys. The applicant also requested the ROW to convey groundwater from its existing agricultural water rights in Spring Valley as well as groundwater to be later developed by Lincoln County Water District under a 2006 agreement with the SNWA (see Final EIS, Section 2.1.1). The applicant, as part of the ROW request, also applied for facilities to support pending NSE groundwater applications for Snake Valley. Actual groundwater development is contingent upon the BLM's future approval of ROWs for associated facilities such as wells, collector pipelines, ancillary power and access roads. As explained in the Final EIS, SNWA's basis for the GWD Project is multi-faceted; to diversify its water resource portfolio to protect the community from drought and shortages from the Colorado River system, to fulfill its contractual obligation to provide conveyance capacity in Lincoln County to the Lincoln County Water District, and to help supply future projected water demands. The SNWA has identified groundwater in these five basins as a resource that would be used in the short term to offset drought impacts and in the long-term to meet projected water demands.

Issuance and administration of water rights to develop groundwater in the five groundwater development basins associated with the GWD Project is under the authority of the NSE. For groundwater pumping, the NSE has authority to issue permits for water rights including points of diversion, and water volumes. The BLM has no administrative or approval authority over the appropriation of water rights in Nevada or the SNWA's Water Resource Plan. In March 2012, the NSE granted SNWA 83,988 acre-feet per year (afy) in the 4 valleys: Spring, Cave, Delamar, and Dry Lake (in April 2012, several parties filed petitions for judicial review of these rulings). The NSE water-rights permit approval does not grant access rights to construct infrastructure for water development on or across Federal lands under the jurisdiction of the BLM.

The BLM's need for Federal action arises from its responsibility under the FLPMA and other legislation to respond to the applicant's ROW request. The BLM's multiple-use mission includes managing activities on public land such as ROW authorizations, while conserving natural, historical, cultural, and other resources. The FLPMA gives the Secretary of the Department of the Interior (Secretary) general authority to grant ROWs across public lands

administered by the BLM, including ROWs for reservoirs, canals, ditches, flumes, laterals, pipes, pipelines, tunnels, and other facilities and systems for the impoundment, storage, transportation, or distribution of water (43 USC § 1761).

The BLM served as the Lead Agency for completion of the NEPA process. Sixteen cooperating agencies were involved in the EIS process pursuant to Section 204 of the NEPA.

The BLM is using a "tiered" approach to implement the NEPA for the GWD Project. Tiering allows a combined assessment of site-specific actions and broader programs and issues in an initial (Tier 1) analysis, evaluating the environmental effects of additional site-specific proposals more comprehensively in subsequent or "tiered" NEPA analyses. Tiering expands upon and uses the foundation provided in the Tier 1 analysis, focusing the subsequent analysis on actions, alternatives, and issues not already addressed. The tiered process provides decisionmaking on issues that are ripe for decision and a means to communicate the intent of the decisionmaker for the Tier 1 document, preserve those decisions, and provides direction to future decisionmakers.

The Tier 1 Final EIS, completed in August 2012, includes an analysis supporting the decisionmaking for the ROW-related impacts of the GWD Project primary conveyance facilities and a programmatic analysis of future groundwater development, including a conceptual analysis of ROWs for groundwater production wells and associated groundwater-related pumping. This tier included a Draft and Final EIS, and this ROD.

The BLM issued the Final EIS per 40 CFR 1506.3, and the BLM and DOI are basing this ROD on information and analysis contained in the Final EIS. This ROD also includes all mitigation measures identified in the Final EIS and additional proposed mitigation measures, including a Construction, Operation, Maintenance, Monitoring, Management, and Mitigation Plan (COM Plan) framework, to avoid or minimize the impacts associated with the agency preferred alternative.

The BLM NEPA Tier 1 outcome for this project is a ROW grant for the main conveyance pipeline and related facilities. The pumping options were presented in the Final EIS for the purpose of impact assessment. Future NEPA analysis for the groundwater development areas will provide opportunities for additional, more-specific analysis of groundwater withdrawal options. No ROW decisions on groundwater development facilities are being made at this time as part of Tier 1 analysis. Specific pumping proposals would be addressed by future NEPA documents.

After the SNWA identifies specific details of the groundwater development components involved in the programmatic analysis, it will submit additional ROW applications to the BLM. Based upon these applications, the BLM will address future site-specific components in subsequent, tiered NEPA documents. These subsequent documents will conform to NEPA with applicable public notice and public participation, including comment and document review.

2. Errata and Information Received Since the Final EIS

2.1 Errata on the Final EIS

Following the release of the Final EIS, the BLM issued an Errata Notice correcting the acres of potentially affected hydric soils. This Errata Notice also corrected the date of the Final EIS filing with the U.S. Environmental Protection Agency (USEPA) as July 27, 2012. See **Attachment A**.

2.2 Errata for the Transient Numerical Groundwater Model Report

On November 13, 2012, the SNWA issued an Errata Notice clarifying a typographical error in the text of the Transient Numerical Groundwater Model Report. The issue that was clarified had already been addressed by the BLM in the Final EIS, Responses to Comment on the Draft EIS (Appendix H, Comment Response WR-11). The erratum was offered by the SNWA as a separate document to preclude potential future confusion on this topic. See **Attachment A**.

2.3 Information Submitted by the Public

- Several parties presented alternate processes for identifying biological indicators and documenting biological management objectives. The BLM evaluated several alternative analysis tools submitted by the public and found that they did not provide new information or a more effective analysis. Moreover, the information presented applied to the details of future monitoring and mitigation that would be more appropriately considered during future tiered NEPA.
- Concerns related to desertification (citing Owens Valley as an example). The Final EIS vegetation analysis presents the conclusion that, although it is anticipated that plant communities will change, there are no data to support the premise that all vegetation will cease to exist within the drawdown area. The concerns raised did not include information that would modify this conclusion.
- Concerns related to the potential for increased particulate matter being blown throughout the Great Basin and Wasatch Front; in both attainment and non-attainment areas. A regional model developed and used in the Final EIS analysis supports the conclusion that increased particulates likely will result from groundwater drawdown, however, the level of increase will not affect non-attainment areas. The concerns raised did not include information that would modify this conclusion.
- Questions on project costs including financing, terms of funding bonds, and other concerns. Information was presented to the NSE for the hearings on the water rights requested in the four valleys. Those data were previously considered and referenced in the Final EIS and are available on the NSE website. The information provided in comments did not include new information that would modify the conclusions presented in the Final EIS analysis.
- Concerns that the Final EIS overestimated the population estimates (in Clark County) to support demand for the project. The Final EIS acknowledged that the current population estimates were potentially different than those resulting from the current economic climate. The difference does not modify the NEPA analysis or purpose and need for the project. As explained in the Final EIS, even with declining population growth and

water conservation, additional water supply will be needed in the event of severe drought in the Colorado River Basin (see Section 1.6.1 and Appendix A of the Final EIS).

- Concerns related to springsnails and the springs in which they are located. In particular, the commenter submitted information regarding the presence of the bifid duct pyrg in Turnley Spring, Rock Spring, and Unnamed springs 1 and 2 situated between Turnley and Rock springs. These four springs occur in areas that have been classified as "low risk" for drawdown from pumping because they are not located within the 10-foot drawdown contours and no other information identified potential pumping effects (Final EIS, Appendix F3.7 – Table F3.7-13C). Therefore, the additional information regarding potential presence of the bifid duct pyrg in these springs does not modify the analysis presented in the Final EIS.
- Concerns related to under reporting the extent of hydric soils. A comparative analysis determined that the commenter-presented data were derived from a different data set/method of analysis than that used in the Final EIS and included a greater extent of hydric soils than were used in the Final EIS analysis. The Final EIS analysis was based on the extent of hydric soils occurring in areas of moderate to high risk of drawdown. Following a thorough analysis by the BLM, including a review of the assumptions, data, and conclusions presented in the Final EIS, it was determined that the new information submitted would not modify any Final EIS conclusions in the soils section or any other related natural resource sections.
- Endangered Species Act section 7 Consultation

  This section describes a new environmental protection measure developed in response to U.S. Fish and Wildlife Service (USFWS) concerns expressed during the Endangered Species Act (ESA) section 7 formal consultation process. Section 12.2 of this ROD provides an overview of the section 7 process and a detailed discussion regarding the Biological Opinion (BO).

  On September 13, 2012, the SNWA submitted a new Applicant-committed Protection Measure (ACM) for Cave Valley as part of the ongoing ESA section 7 consultation for this project. The new ACM was proposed by the SNWA to address potential effects of groundwater pumping in Cave Valley on the endangered White River spinedace and its critical habitat. On September 17, 2012, the BLM sent a letter to the USFWS requesting that the new ACM be considered in the BO analysis. The SNWA provided clarifications on the new ACM for the USFWS on November 7, 2012. The ACM was developed after the publication of the Final EIS and therefore is not part of the NEPA analysis. However, it would not affect the conclusions made in the Final EIS because it provides a more conservative approach to developing groundwater in Cave Valley. The new ACM is included in the SNWA November 2012 Conceptual Plan of Development (POD) (ACM B.3.2 in **Attachment B**) and will be considered by the BLM during preparation of the COM Plan, as well as in subsequent NEPA documents. The development of the COM Plan is discussed in additional detail in Section 3.2 and **Attachment D**. The new ACM provides for: 1) staged groundwater development in Cave Valley to allow for the collection of data while ensuring that pumping effects do not propagate toward springs supporting habitat for White River spinedace, 2) installation of additional groundwater monitoring wells to monitor for the potential of groundwater drawdown propagating from southern Cave Valley toward Flag Spring and other springs supporting habitat for the White River spinedace, and 3) establishment of trigger levels for management action associated with GWD Project pumping in Cave Valley to ensure the long-term protection of the White River spinedace. The additional groundwater monitoring wells would be in addition to the monitoring wells required under the Stipulation for Delamar, Dry Lake, and Cave Valleys. The SNWA believes that the components of this ACM will supply additional information about the hydrogeology of Cave Valley to provide a mechanism to address some of the uncertainty associated with the groundwater model for this particular area. This ACM, including development of the trigger levels, would be considered in future NEPA and ESA section 7 analyses.

3. Decision

The decision contained herein, consists of two parts; the main pipeline conveyance Tier 1 ROW and a process for conducting subsequent NEPA tiers. Each part of the decision is supported by the preparation of a comprehensive COM Plan for documenting and developing monitoring and mitigation measures as discussed below and in **Attachment C**. While no facilities other than those identified under Section 3.1 of this ROD will be approved as part of the ROW grant being issued based on this ROD, the decision will set up the process described in Chapter 3.2 for future facilities and groundwater development.

The decision is to authorize the agency's preferred alternative as described in Section 10 of this ROD.

This decision does not approve groundwater development (pumping and additional facilities) in any of the basins, nor does it obligate the BLM to grant ROWs for such in the future.

3.1 Tier 1 ROW

The BLM decision is to provide the authorized officer direction to issue a single ROW grant (N-78802) at a later date in accordance with this ROD and 43 CFR 2800. In accordance with the LCCRDA, the grant for Lincoln and Clark counties will be issued in perpetuity. Since there will be a single grant, the White Pine County portion (issued under the FLPMA only) also will be issued in perpetuity. The grant will authorize the construction, operation, and maintenance of a water conveyance pipeline and ancillary facilities on Federal lands in Clark, Lincoln, and White Pine counties, Nevada as described and depicted in the SNWA November 2012 Conceptual Plan of Development (**Attachment B**). The ROW described in the Final EIS Preferred Alternative includes approximately 10,586 acres of temporary disturbance and 945 acres of permanent disturbance as depicted on **Figure 1**. The ROW also will include:

- A permanent main water conveyance pipeline and two laterals for a total of approximately 263 miles in length, 100 feet in width, and up to 84 inches in diameter, including related support facilities;
- A temporary workspace along the main conveyance pipeline and 2 laterals of approximately 263 miles in length and 100 feet in width (adjacent to and in addition to the permanent ROW);
- Power lines of approximately 251 miles in length and 100 feet in width (230-kilovolts [kV] and 69-kV), and approximately 21 miles in length and 60 feet in width (25-kV);
- Permanent and temporary roads within the boundaries of the pipeline and power line ROWs and necessary spur access routes;
- Additional facilities include: three pump stations; two primary and four secondary electrical substations; five regulating tanks; three pressure reducing tanks; a water treatment facility/buried water storage reservoir; and other facilities (communication, etc.) to operate the main conveyance pipeline.

The sequence of ROW implementation steps that must be completed by SNWA and the BLM are portrayed on **Figure 2**.

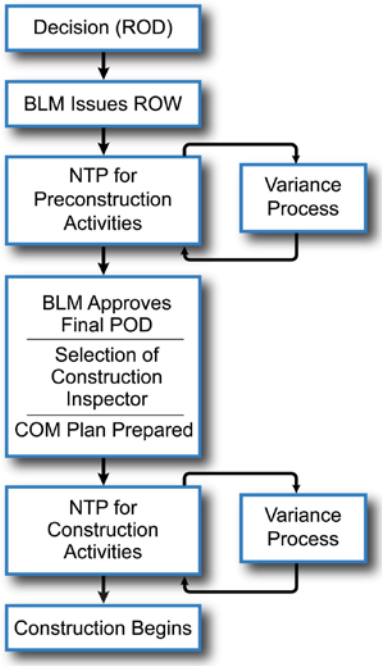


Figure 2 ROW Implementation Sequence

The ROW grant will include the following requirements that SNWA must complete prior to beginning construction:

- **Preconstruction Notice to Proceed and Variance Process**. The SNWA will submit specific requests to the BLM for conducting preconstruction activities such as surveys, inventories, and geotechnical studies. Each of these discrete activities must be approved by the BLM with a separate Notice to Proceed (NTP) prior to SNWA conducting such activities. Any relocation, additional construction, or other activities not in accordance with the NTP shall not be initiated without the prior written approval of the BLM authorized officer. These activities will be documented and forwarded to the BLM by SNWA in the form of a "variance request" to be reviewed by the BLM and appropriate consultations will be conducted. Other necessary approvals will be obtained prior to the BLM making a decision to approve or deny the variance.
- **Final POD**. In accordance with 43 CFR 2800, SNWA will submit a final POD (or series of PODs as noted in **Attachment D**) for BLM approval with specific details on how the pipeline and associated facilities will be constructed. The SNWA shall incorporate all terms and conditions, mitigation, environmental protection measures, best management practices (BMPs), and other requirements attached to this ROD and the ROW into the final POD (or PODs see **Attachment D**). The SNWA will submit the final POD or PODs to the BLM. The BLM will evaluate the POD(s) for consistency with the analysis presented in the Final EIS. If the BLM determines that the POD is not consistent, the POD will be modified or additional NEPA analysis will be conducted as necessary. The BLM approval of the final POD is required prior to completing a COM Plan. The POD will include the plans detailed below, as well as applicable engineering and required surveys:
  - Agency Coordination Plan
  - Bird Conservation Strategy
  - Blasting Plan
  - Construction Plan

- Construction Water Supply Plan
- Stream Crossing Plan
- Fire Prevention Plan
- Mitigation Plan
- Construction Traffic Management Plan
- Dust Control Plan
- Emergency Response Plan
- Hydrostatic Discharge Plan
- Integrated Weed Management Plan
- Public Information Plan
- Restoration Plan
- Spill Prevention, Control, and Countermeasure Plan
- Stormwater Pollution Prevention Plan
- Other plans, as determined to be necessary by the BLM

3.1.1 ROW Terms and Conditions

The ROW grant will require the following:

Mitigation and Monitoring Requirements. This ROD approves the requested ROW for the main pipeline conveyance system (Tier I) and implements a process for conducting subsequent NEPA for future ROW requests for groundwater production facilities (Subsequent Tiers). Mitigation and monitoring requirements associated with the Tier I ROW grant ACMs, BMPs, and other requirements) are fairly straightforward. Other monitoring and mitigation requirements associated with and in anticipation of future ROW requests for groundwater development facilities also are included, but on a conceptual basis given the programmatic nature of the analysis for future facilities at this time. This dual approach to the environmental impact analysis and development of monitoring and mitigation requirements was necessary to comply with NEPA's requirement for analysis as early in the planning process as possible. The SNWA shall incorporate all terms and conditions, mitigation, environmental protection measures, BMPS, and other requirements for Tier I attached to this ROD and the ROW grant into the final POD.

COM Plan: As identified in **Attachment D**, the BLM-approved COM Plan will provide a comprehensive monitoring, management, and mitigation program to address all hydrographic areas and all facilities associated with each phase of the SNWA GWD Project. A completed, BLM-approved Final POD is required prior to completing a COM Plan.

The COM Plan is intended to protect Federal resources and Federal water rights that may be impacted by construction, operation and maintenance, and abandonment of the project. The following are the goals of the COM Plan:

- Ensure that the project complies with the FLPMA, sec. 504 [43 USC § 1764 (a)(4)], which states that the ROW would be limited, if applicable, to the ground which the BLM determines would do no unnecessary damage to the environment (i.e., surface disturbance may be narrowed or otherwise constrained in areas of concern);
- Ensure compliance with the BLM's other resource protection requirements, as described in Section 3.20.1 of the Final EIS (e.g., Resource Management Plans [RMPs], watershed plans, and resource policy and regulations);
- Consolidate all mitigation, monitoring, and management requirements for the GWD Project main conveyance pipeline Tier I ROW grant into one document;
- Outline processes for developing additional mitigation, monitoring, and management requirements for future ROW grants;

- Provide future managers with insight concerning the integration of the resource issues and importance of regional monitoring and mitigation for subsequent tiered NEPA processes, as subsequent NEPA tiers of the GWD Project are developed to address future ROW requests; and
- Implement during construction so that all environmental protection measures are applied in accordance with the Final EIS, POD, and the ROD (including the BO, PA, and the Bird Conservation Strategy). The COM Plan shall be in effect through the life of the project.

The BLM and SNWA shall comply with the desert tortoise terms and conditions included in the BO issued by the USFWS on November 19, 2012. The BO also includes conservation recommendations related to future activities. These conservation recommendations have been considered by the BLM for inclusion, as appropriate, in the Project Terms and Conditions (**Attachment C**) and COM Plan Framework (**Attachment D**).

The SNWA shall implement and comply with an approved Bird Conservation Strategy for Compliance with the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act (see letter of concurrence in **Attachment F** of this ROD).

The SNWA shall comply with the terms and conditions of the PA executed by the BLM, the SNWA, the Advisory Council on Historic Preservation, and the Nevada State Historic Preservation Officer (SHPO) (see **Attachment G** of this ROD).

Following the BLM's required approval of the final POD, the BLM will prepare the COM Plan including the terms and conditions provided in **Attachment C** of this ROD (project terms and conditions including conditions of approval/mitigation, BLM BMPs, desert tortoise reasonable and prudent measures from the BO, weed risk assessment measures), the ACMs listed in **Attachment B**, and the National Historic Preservation Act (NHPA) section 106 Programmatic Agreement (PA) in **Attachment G**. **Attachment C**, Conditions of Approval, contains monitoring and mitigation measures that will be attached to the Tier 1 ROW. Some of the measures pertain to the development of monitoring plans for future activities, insuring critical baseline data and sufficient information is collected to complete subsequent NEPA. The initial monitoring plan will focus on baseline data collection, and the monitoring plan will be fully developed through the COM Plan Framework process as described in **Attachment D** such that they can be considered during subsequent NEPA for future facilities. The plan will be designed to allow reasonable modifications and adjustments to monitoring locations over the project life to account for the results of the monitoring, updated groundwater flow model predictions, and updated biological surveys and habitat/species monitoring. Upon completion of the approved POD and COM Plan, SNWA will submit specific requests to the BLM for authorization to proceed with individual construction phases. Each discrete construction phase must be approved by the BLM's authorized officer with a separate NTP, prior to the SNWA conducting such activities.

The SNWA shall provide compliance environmental inspectors/monitors for pipeline construction, access road upgrades, and facility construction. These inspectors/monitors will report directly to the BLM. Their role and responsibility is to ensure compliance with all terms, conditions, and stipulations of the ROW grant and other permits, approvals, and regulatory requirements as described in Section 1.5 of the Final EIS. The environmental inspectors/monitors shall follow the COM Plan approved for the specific project phase. The SNWA also will be responsible for monitoring the reclamation and stabilization of the pipeline over the term of the grant (in perpetuity).

The SNWA will be required to design, construct, test, and operate its water pipeline in accordance with appropriate safety standards. The SNWA also will be subject to other applicable Federal and state regulations, including those mandated by the U.S. Army Corps of Engineers (USACE), U.S. Forest Service (USFS), USFWS, and Department of Labor, Occupational Safety and Health Administration. The SNWA must demonstrate how adherence to these standards will be achieved in the POD.

3.2 Process for Subsequent Tier Facilities Assessment

After the SNWA identifies specific details of the groundwater development components analyzed programmatically in the Final EIS, it will submit additional ROW applications to the BLM. Each additional ROW application will be

accompanied by a conceptual POD. Based upon these applications, the BLM will address these future site-specific components in subsequent tiered NEPA documents. The hydrologic model used for the Tier 1 EIS and baseline assessments for all resources will be updated, revised, or incorporated into subsequent tiered analyses to address site-specific groundwater development components. These subsequent analyses will conform to the NEPA including appropriate public involvement. Future ROW analyses and grants will incorporate the information and requirements contained in **Attachment B** (SNWA Conceptual POD and Legal Descriptions), **Attachment C** (Project Terms and Conditions), **Attachment D** (COM Plan Framework), **Attachment E** (USFWS Biological Opinion), **Attachment F** (Letter of Concurrence re: Bird Conservation Strategy), and **Attachment G** (Section 106 Programmatic Agreement), as appropriately updated.

For each subsequent ROW granted, SNWA shall submit a final POD as previously described in Section 3.1. After the final POD is approved by the BLM, a COM Plan will be prepared by the BLM following the COM Plan Framework described in **Attachment D**. When the COM Plan is complete, SNWA shall submit specific requests to the BLM for permission to conduct pre-construction and construction activities within the ROW. Each of these discrete activities must be approved by the BLM's authorized officer with separate NTPs prior to SNWA conducting such activities.

4. Bonding

The FLPMA provides the BLM with the discretion to require a ROW holder to furnish a performance or reclamation bond to secure the terms and conditions of the ROW. In deciding whether a bond is required, the BLM considers the applicant's compliance history with respect to grant stipulations and whether the applicant has apparent financial stability to meet the requirements of the ROW grant.

The BLM has determined that a bond for the main conveyance pipeline and associated facilities will not be required at this time. The SNWA has a good history of compliance with the terms and conditions of other BLM ROW grants it has received. The SNWA also has the apparent financial stability to fulfill the requirements of the ROW grant. The SNWA, a governmental entity, is current service provider in a major metropolitan market with an ongoing enterprise operation, a multi-million dollar budget, and established presence in the capital markets. As a joint powers authority, the SNWA's ability to undertake any initiatives—including the GWD Project—is derived from the Cooperative Agreement among its member agencies. The terms of the SNWA Cooperative Agreement prevent the termination or dissolution of the Agreement while there is outstanding indebtedness that precludes termination. Similarly, Section 27 of Chapter 67 of the 1947 Statutes of Nevada allows the Las Vegas Valley Water District to issue funding bonds on behalf of SNWA for water projects. A condition of any issuance is the establishment by SNWA of fees, rates, and charges that produce sufficient revenue to ensure the payment of the bonds.

Furthermore, SNWA is a political subdivision of the State of Nevada and as such, is obligated to operate in full compliance with the conditions of the ROW as provided for by state statutes. As a political subdivision of the State of Nevada, SNWA is subject to Nevada's Local Government Budget and Finance Act. Pursuant to these statutes, the Nevada State Tax Commission can take over operations of a local government that is experiencing a severe financial emergency. The Nevada State Tax Commission would then be in a position to raise the necessary revenue and discharge any of the outstanding debts and obligations of the local government.

Finally, if the SNWA were to be dissolved during construction of this or any other project, its member agencies would be responsible for creating or appointing a successor agency, which would then oversee the project's completion and operation in compliance with the conditions of the ROW grant. Alternatively, the member agencies could also elect to proceed through formal or informal interagency agreements. In either case, the member agencies would provide the required financial contributions to ensure compliance with terms and conditions of the ROW grant.

While the BLM has concluded that no performance or reclamation bond is required for the Tier 1 ROW grant, the BLM may revisit whether there is a need for a bond with respect to subsequent tiered ROW grants for future groundwater development decisions.

5. Decommissioning on Federal Lands

Since the ROW will be granted in perpetuity, decommissioning of the ROW is not contemplated by this ROD nor was it analyzed in the Final EIS. Any decommissioning of the project would require future BLM decisionmaking and a full abandonment plan. Should the SNWA wish to terminate the ROW, an abandonment plan would be filed with the BLM denoting all facilities on Federal lands which would be decommissioned. The BLM must approve the plan upon a full evaluation which could include additional NEPA analysis and documentation, before decommissioning activities could occur.

6. Local, State, and Federal Legal Requirements

This ROD also requires SNWA to meet the requirements of the other major authorizing agencies for this project concerning any necessary Federal and state permits, licenses, and/or approval and consultation requirements on Federal lands as identified in Table 1.5-1 of the Final EIS for the GWD Project. Specifically, the following two Federal agencies likely will use the Final EIS for decisions:

- The USACE has jurisdiction related to this project under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States (U.S.) that include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, wetlands, vernal pools, marshes, wet meadows, and seeps. Project features that result in the discharge of dredged or fill material into waters of the U.S. will require an USACE authorization prior to starting work. Nationwide Permit #12 applies to activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the U.S., provided the activity does not result in the loss of greater than ½ acre of waters of the U.S. for each single and complete project. However, the USACE may exert discretionary authority and require an alternate permitting mechanism in cases where activities will result in more than minimal individual and cumulative impacts.
- The USFS, Humboldt-Toiyabe National Forest will need to make decisions related to the Humboldt-Toiyabe 230-kV power line (Alignment Option #1 in Steptoe Valley) that parallels an existing transmission line over the Schell Creek Range between the Gonder Substation and Spring Valley. The USFS will need to issue a special use permit for the transmission line ROW and temporary use permits for temporary construction activities on National Forest System lands.

7. ROW Grant and Notices to Proceed

This decision does not authorize SNWA to commence any activities (pre-construction and construction) in connection with the GWD Project, including initiating construction of the main water conveyance pipeline project on Federal lands until SNWA, in accordance with 43 CFR 2807.10, receives a ROW grant and written NTPs from the BLM's authorized officer.

8. Alternatives Assessed in the Final EIS

8.1 Alternative Overview

The BLM and Cooperating Agencies considered various alternatives to determine if any were reasonable and environmentally preferable to the Proposed Action. Chapter 2.0 of the Final EIS for the SNWA GWD Project discusses in detail the No Action Alternative and Pipeline Conveyance Alternatives.

The Final EIS analyzed the main conveyance pipeline and related alignment options, as well as a programmatic analysis of the associated future groundwater development scenarios. These alternatives were developed based on the requirements of LCCRDA and SNWA proposals for water rights. The major differences among the alternatives are the location where groundwater would be withdrawn and the quantities. Each alternative includes a main conveyance pipeline that varied in size based on the quantities of groundwater withdrawal and the location of development.

To support the programmatic analysis, a numerical groundwater flow model was developed to evaluate the probable long-term effects of groundwater withdrawal on a regional scale. The results of the model simulations were used in the analysis for both the Draft and Final EIS. The model domain covers the same area as the hydrologic study area as depicted on Figure 3.3.1-1 of the Final EIS and encompasses all or part of 35 hydrographic basins and covers more than 20,000 square miles of surface area. The BLM established a technical review team of hydrology specialists, including scientists from the U.S. Geological Survey (USGS) and independent groundwater modeling experts. The technical review team assisted the BLM by reviewing the model documentation reports and providing recommendations to the BLM for improvements to the model. The team reviewed early work products, modeling files, data compilations and draft reports, and the most recent updated reports used for the impact analysis presented in the Final EIS.

The groundwater model was based on a generalized understanding of the nature and extent of surface and underground water and hydrogeologic conditions over the entire model domain. The model included a simplified hydrogeologic framework, representation of geological structures, recharge to the groundwater system, evapotranspiration (ET) from the system and spring flow. The model was used to simulate groundwater withdrawal for the eight alternatives for analysis (i.e., the Proposed Action, six action alternatives, and the No Action Alternative). The model was also used to evaluate the combined effects associated with continuation of existing and historic pumping, project pumping, and reasonably foreseeable future pumping in the region over the same time period. The assumed time frame for full build out of the conveyance system and associated groundwater development infrastructure under the Proposed Action is 38 years from the time the BLM issues a NTP. The modeling results were evaluated at three future time frames: full build out, full build out plus 75 years of subsequent groundwater production at the assumed quantities, and full build out plus 200 years of subsequent groundwater production at the assumed quantities.

The model was calibrated to both steady-state and transient stress periods. Calibration adjusts certain parameters within a model to match the model results to the parameters measured in the field. This calibrated model contains uncertainties associated with incomplete or limited information for the region or generalizations that were required for model construction. The model also has certain limitations, as do all models. In particular, this model does not offer the level of accuracy required to predict absolute values at specific points in time. It does, however, provide valuable insight as to the general long-term drawdown patterns and relative trends likely to occur from the various pumping alternatives. Thus, despite the inherent limitations and uncertainties associated with hydrogeologic conditions over this

broad region, the BLM has determined that the calibrated model is a reasonable tool for use in this programmatic analysis to estimate probable regional-scale drawdown patterns and trends over time related to the various pumping alternatives. Impacts have been evaluated in terms of the potential impacts to flows of seeps, springs and streams, potential impacts on water rights, and drawdown effects on subsurface water.

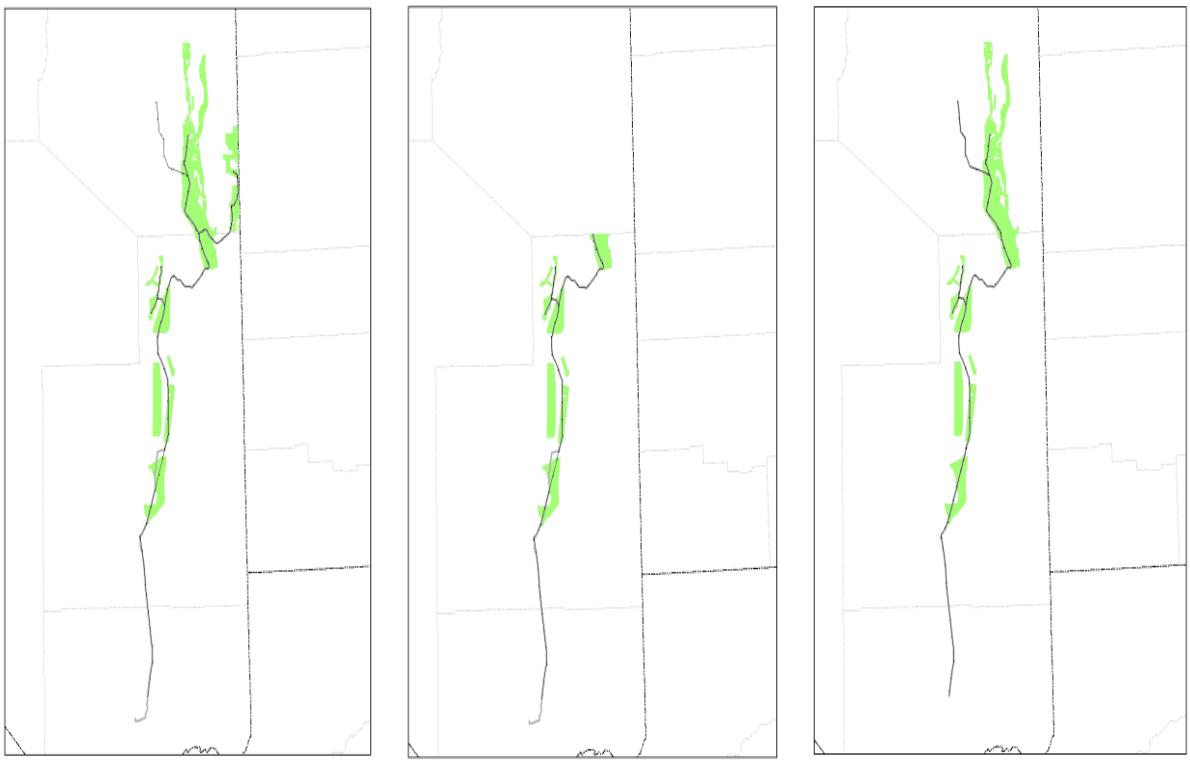
A brief summary of the alternatives follows **(Table 1** and **Figure 3**).

Table 1 Information Summary for the Eight Alternatives in the Final EIS Analysis

Alternatives for Analysis	SNWA Groundwater Production[1]	Basins in Which SNWA Production Would Occur	Well Placement[2]	Assumed Full Build out
Proposed Action	Up to 176,655 afy	Spring, Snake, Delamar, Dry Lake, Cave	Distributed	Year 38
A	Up to 114,755 afy	Spring, Snake, Delamar, Dry Lake, Cave	Distributed	Year 38
B	Up to 176,655 afy	Spring, Snake, Delamar, Dry Lake, Cave	Points of Diversion	Year 38
C	12,000 to 114,755 afy (varies in response to drought)	Spring, Snake, Delamar, Dry Lake, Cave	Distributed	Year 38
D	Up to 78,755 afy	Spring (south), Delamar, Dry Lake, Cave	Distributed	Year 33
E	Up to 78,755 afy	Spring, Delamar, Dry Lake, Cave (no Snake)	Distributed	Year 33
F	Up to 114,129 afy	Spring, Delamar, Dry Lake, Cave (no Snake)	Distributed	Year 33
No Action	None	None	None	NA

[1] Includes 3,000 afy of water rights that would be transferred by the SNWA to the Lincoln County Water District.

[2] "Distributed" refers to siting wells based on the results of monitoring, productivity, and hydrologic modeling to reduce long-term adverse environmental effects. "Points of diversion" refers to siting wells at specific locations identified and approved by the NSE.



Green areas denote preliminary groundwater development areas.

Proposed Action and Alternatives A - C	Alternative D	Alternative E and F
Full ROW Request – Spring, Delamar, Cave, Dry Lake and Snake Valleys	LCCRDA – Spring (south), Delamar, Cave, and Dry Lake Valleys	Spring Delamar, Cave, and Dry Lake Valleys (no Snake)

Figure 3 ROW Configurations for the NEPA Tier 1 Action Alternatives as Analyzed in the Final EIS

8.1.1 Alternatives Analyzed in the Environmental Impact Statement

Eight alternatives were analyzed in the Final EIS and a brief description of the elements and a summary of the basis for considering each alternative is described below.

Proposed Action - Distributed Pumping at 1989 Application Quantities:

- Consistent with LCCRDA corridor in Lincoln and Clark Counties;
- Distributed pumping throughout Spring, Delamar, Dry Lake, Cave, and Snake Valleys with the objective of minimizing effects on senior water rights or areas containing water-dependent sensitive or listed species and their habitats;
- Based on SNWA's 1989 applications with NSE (updated in 2010 reapplications) – 176,655 afy; and
- Pipeline of sufficient size (up to 96 inches) to convey total amount included in NSE applications as well as capacity for Lincoln County and existing agricultural water rights in Spring Valley.

Alternative A – Distributed Pumping at Reduced Quantities:

- Consistent with LCCRDA corridor in Lincoln and Clark Counties;
- Distributed pumping throughout Spring, Delamar, Dry Lake, Cave, and Snake Valleys with the objective of minimizing effects on senior water rights or areas containing water-dependent sensitive or listed species and their habitats;
- 78,755 afy for Spring, Delamar, Dry Lake, and Cave Valleys based on previous NSE rulings on SNWA's 1989 applications; plus 36,000 afy for Snake Valley based on the draft Utah/Nevada Snake Valley Agreement; and
- Pipeline of sufficient size (up to 84 inches) to convey the total amount as well as capacity for Lincoln County and existing agricultural water rights in Spring Valley.

Alternative B – Points of Diversion Pumping at Application Quantities:

- Consistent with LCCRDA corridor in Lincoln and Clark Counties;
- Pumping in Spring, Delamar, Dry Lake, Cave, and Snake Valleys from wells within a 1-mile radius of the 34 NSE application locations for points of diversion;
- Based on SNWA's 1989 applications with the NSE (updated in 2010 reapplications) – 176,655 afy; and
- Pipeline of sufficient size (up to 96 inches) to convey total amount included in the NSE applications as well as capacity for Lincoln County and existing agricultural water rights in Spring Valley.

Alternative C – Intermittent Pumping at Reduced Quantities:

- Consistent with the LCCRDA corridor in Lincoln and Clark Counties;
- Distributed pumping throughout Spring, Delamar, Dry Lake, Cave, and Snake Valleys with the objective of minimizing effects on senior water rights or areas containing water-dependent sensitive or listed species and their habitats;
- 78,755 afy for Spring, Delamar, Dry Lake, and Cave Valleys based on previous NSE rulings on SNWA's 1989 applications; plus 36,000 afy for Snake Valley based on the draft Utah/Nevada Snake Valley Agreement;
- Intended to simulate full pumping only during drought conditions when the Colorado River supplies are low; system maintenance pumping quantity during non-drought conditions (for purposes of this analysis, it was assumed drought conditions occurred every 5 years followed by 5 years of non-drought); and
- Pipeline of sufficient size (up to 84 inches) to convey the total amount as well as capacity for Lincoln County and existing agricultural water rights in Spring Valley.

Alternative D – Distributed Pumping at Reduced Quantities in Lincoln County Only:

- Consistent with LCCRDA corridor in Lincoln and Clark Counties;
- Distributed pumping throughout Delamar, Dry Lake, and Cave Valleys and the Lincoln County portion of Spring Valley, to examine effects of constructing a project that allows the SNWA to utilize only the LCCRDA utility corridor already designated by Congress, and to develop all granted water rights within Lincoln County;
- 78,755 afy for Spring, Delamar, Dry Lake, and Cave Valleys based on previous NSE rulings on SNWA's 1989 applications;
- Pipeline of sufficient size (up to 78 inches) to convey the total amount as well as capacity for Lincoln County and existing agricultural water rights in Spring Valley; and

- This alternative would require additional studies and analysis to determine whether it is technically feasible to remove all the SNWA groundwater rights in Spring Valley from the small area within Lincoln County (approximately 60,000 acres versus 360,000 acres for the entire Spring Valley available in the other alternatives).

Alternative E – Distributed Pumping at Reduced Quantities – Spring, Cave, Dry Lake, and Delamar Valleys:

- Consistent with LCCRDA corridor in Lincoln and Clark Counties;
- Distributed pumping throughout Spring, Delamar, Dry Lake, and Cave Valleys, but no pumping in Snake Valley, to address concerns regarding potential effects from groundwater development in Snake Valley;
- 78,755 afy for Spring, Delamar, Dry Lake, and Cave Valleys based on previous NSE rulings on SNWA's 1989 applications; and
- Pipeline of sufficient size (up to 78 inches) to convey the total amount as well as capacity for Lincoln County and existing agricultural water rights in Spring Valley.

Alternative F – Distributed Pumping – Spring, Cave, Dry Lake, and Delamar Valleys:

- Consistent with LCCRDA corridor in Lincoln and Clark Counties;
- Distributed pumping throughout Spring, Delamar, Dry Lake, and Cave Valleys of a quantity based on SNWA submittals during NSE hearing, but no pumping in Snake Valley, to address concerns regarding potential effects from groundwater development in Snake Valley;
- 114,129 afy for Spring, Delamar, Dry Lake, and Cave Valleys based on estimates of perennial yield presented in the 2011 NSE hearings on SNWA water rights applications;
- Pipeline of sufficient size (up to 84 inches) to convey the total amount as well as capacity for Lincoln County and existing agricultural water rights in Spring Valley; and
- Alternative F was added to the Final EIS for full analysis due to a desire from the agency to provide a more comprehensive range of alternatives, input from the applicant, and review of public comments.

No Action Alternative

Pursuant to the SNPLMA and the LCCRDA (see Section 1 of this ROD), the BLM must grant the SNWA's ROW requests in Clark and Lincoln counties (effectively the ROW presented in Alternative D). Consequently, the No Action Alternative in this Final EIS described baseline conditions assuming no construction of the GWD Project, serving as a benchmark for a determination and comparison of the environmental effects of the Proposed Action and alternatives.

Under the analysis presented in the No Action Alternative, the assumed lack of a Federal ROW effectively would preclude the SNWA from developing and conveying via pipeline, its existing and pending groundwater rights from the five groundwater basins (Spring, Snake, Cave, Dry Lake, and Delamar Valleys) across public lands as proposed by the SNWA and analyzed in the Proposed Action. Limited private lands exist in these basins, which restrict SNWA ability to construct a water conveyance system without crossing BLM-administered land.

Selection of the No Action Alternative does not address the SNWA's objective of augmenting its existing water resources and diversifying available water supplies, as discussed in the SNWA's supporting rationale (see Appendix A in the Final EIS and **Attachment B** of this ROD). It is likely the SNWA would pursue additional water resource development activities to accomplish these objectives, either by: 1) pursuing an entirely new proposed project or 2) by pursuing development of a shorter public-lands-based groundwater pipeline project utilizing the ROW approved by Congress in Clark County and Lincoln County as specified by the SNPLMA and the LCCRDA.

8.2 Alignment Options 1 through 4

Local-scale option locations for certain facilities (pipelines, power lines) also have been evaluated. Alignment Options 1 through 4 address potential changes in facility locations or alignments from the Proposed Action. **Table 2** provides a description and rationale for these options, and identifies the alternatives where they could be applied.

Table 2 Local-scale Facility Location Options

Option	Description/Rationale	Proposed Action	A	B	C	D	E	F
1	Humboldt-Toiyabe Electrical Power Line Alignment • Opportunity to locate the Gonder to Spring Valley electrical power line within an existing transmission line corridor across USFS land. Consistent with the Humboldt-Toiyabe Forest Plan. • Adopted in the Preferred Alternative.	X	X	X	X	X	X	X
2	North Lake Valley Pipeline and Electrical Power Line Alignment • Opportunity to locate the main pipeline and power line within an existing transportation utility corridor (U.S. 93). • Not Adopted in the Preferred Alternative.	X	X	X	X		X	X
3	Muleshoe Substation and Power Line Alignment • Opportunity to tie into a different regional substation, if regional power lines are constructed by other entities as planned; avoids construction of the Gonder to Spring Valley power line segment. • Not adopted in the Preferred Alternative – no regional substation is currently planned.	X	X	X	X		X	X
4	North Delamar Valley Pipeline Alignment • Opportunity to locate both the pipeline and power line within the LCCRDA corridor. • Not adopted in the Preferred Alternative -- requires an additional pumping station.	X	X	X	X	X	X	X

During development of the Preferred Alternative (Chapter 10 of this ROD), the BLM also considered adopting the North Lake Valley Pipeline and Electrical Power Line Alignment (Option 2) as it would reduce the length of the main pipeline and power line. It was not included because this option would preclude access to groundwater in a large portion of southern Spring Valley, whereas the Preferred Alternative alignment would enable groundwater development in southern Spring Valley without construction of a large network of laterals or collector lines and ancillary facilities.

9. Alternatives Considered but Eliminated from Analysis in the Environmental Impact Statement

9.1 Groundwater Conveyance

The BLM examined the feasibility of transporting groundwater from groundwater development areas to Lincoln County and the Las Vegas Valley via trains, trucking, and aqueducts, and implementing different configurations of the proposed water development and conveyance system. None of the alternatives would result in fewer or lesser net adverse environmental impacts, or be more economical to develop than the Proposed Action.

9.2 Water Supply and Water Management

Water supply and management alternatives different in type and location from the SNWA proposal were suggested during public scoping.

Table 2.7-1 in the Final EIS provides a summary of other water supply and water conservation alternatives brought forward by the public; implementation considerations for future water supply acquisition and delivery have been provided for each alternative. Several of these water supply alternatives are under further evaluation by SNWA or other Colorado River basin states as a means of augmenting long-term water supplies (Colorado River Water Consultants 2008). For example, the feasibility of increased cloud seeding currently is being studied within the Colorado River drainage, and the SNWA is evaluating the success of desalination projects and agricultural water conservation projects being implemented in California to increase regional municipal water availability. However, the uncertainty regarding the timing, cost, yield, and feasibility of implementing these other alternatives precluded analysis as alternatives to the GWD Project. Furthermore, measures to achieve further conservation are already a part of the SNWA's water resource plan.

None of the water supply alternatives fulfill the project purpose (for the BLM to provide the SNWA with legal access for a water conveyance system across Federal land managed by the BLM) or need (the BLM's responsibilities to comply with the FLPMA and other legislation) or SNWA's objective to diversify its source of supply by adding an alternative other than the Colorado River.

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10. Agency-Preferred Alternative

Under the DOI's NEPA regulations (43 CFR 46.420[d]), the BLM's "Preferred Alternative" is the alternative which the BLM believes best accomplishes the purpose and need of the proposed ROW grant while fulfilling the agency's statutory mission and responsibilities; giving consideration to social, cultural, environmental, technical, economic, and other factors. The BLM's Preferred Alternative is not, and should not be interpreted as a factual finding or opinion by the BLM on any past ruling or current issue before the NSE.

In the Final EIS, the BLM identified a modified Alternative F as its Preferred Alternative. The Preferred Alternative carried forward in this ROD includes a pumping scenario for future groundwater production limited to annual volume amounts (83,988 afy) authorized by the NSE's March 2012 rulings. In selecting the Preferred Alternative, the BLM considered all information received; consistent with its environmental review, ROW permitting responsibilities, and the NSE's jurisdiction over the SNWA's groundwater applications.

In addition, Alignment Option 1 – Humboldt-Toiyabe Power Line Alignment is included as a component of the Preferred Alternative. Alignment Option 1 lessens impacts to visual resources and to sagebrush habitat and species dependent upon that habitat (i.e., sage grouse, pygmy rabbits, migratory birds). The Humboldt-Toiyabe option also will maintain the proposed power line within an existing utility corridor across USFS lands. The Agency-preferred Alternative does not include any development in Snake Valley.

As noted in Chapters 1 and 2 of the Final EIS, the BLM does not grant the rights to the water to be conveyed in the pipeline. In March 2012, the NSE presented its rulings on the SNWA water rights applications (originally filed in 1989) in four of the five basins analyzed in this Final EIS. These basins (Spring, Delamar, Dry Lake, and Cave Valleys) are all included in Alternatives E and F. It is important to note that the NSE has not yet acted upon SNWA's Snake Valley water right applications and has not scheduled a hearing on these applications. Even though the water volume presented and analyzed for Alternative F equaled 114,129 afy, the maximum annual amount of water that can be developed under the Preferred Alternative is limited to 83,988 afy; corresponding to the water rights quantity approved in March 2012 by the NSE in Spring, Delamar, Dry Lake, and Cave Valleys.

The BLM considered that the groundwater development impacts of the Preferred Alternative lie between those of Alternatives E and F. Alternative F presented a greater quantity of water (114,129 afy) proposed for development than the amount of groundwater analyzed for development in Alternative E (78,755 afy). The BLM determined that the impacts of withdrawing a quantity of 83,988 afy of groundwater under the Preferred Alternative was similar to those displayed in Alternative E and encompassed by the analysis for Alternative F. The groundwater development impacts of the Preferred Alternative are fully within the impacts analyzed for the range of alternatives included in the Final EIS, and were subject to public comment on the Final EIS and therefore do not require further NEPA analysis.

The BLM chose an alternative that did not include development in Snake Valley to reduce the potential for large, difficult-to-mitigate groundwater impacts and viewshed impacts to Great Basin National Park (GBNP). Environmental impacts also are reduced by confining a majority of the conveyance facilities to a Congressionally-designated BLM utility corridor and by proximity to existing BLM-granted ROWs (limiting the fragmentation of habitat and natural features). Following the most direct route will streamline the operation and maintenance of the system and the delivery of the water. The BLM also considered, when choosing the Preferred Alternative, that the NSE has not yet scheduled and SNWA has not indicated its intent to pursue hearings on water rights in Snake Valley in the near future. In

addition, Utah and Nevada have not yet reached an agreement on the equitable division of water resources in this groundwater basin as required by LCCRDA. In summary, the Agency-preferred Alternative:

- Meets the BLMs purpose and need and the applicant's goals and objectives for the project;
- Meets the BLM's legal obligation under the FLPMA, LCCRDA, SNPLMA, and NEPA;
- Reduces the surface disturbance for the main conveyance pipeline compared to the Proposed Action as development does not occur in Snake Valley;
- Is based on a development quantity analysis of 114,129 afy; while acknowledging that the development quantity is limited to that granted by the NSE in Spring, Delamar, Dry Lake, and Cave Valleys of 83,988 afy;
- Reduces impacts to GBNP compared to the Proposed Action;
- Focuses planned development in existing BLM and USFS utility corridors to minimize habitat impacts and fragmentation;
- Provides for implementation of mitigation, applicant POD and the completion/implementation of the COM Plan to prevent unnecessary or undue degradation of public lands (43 USC § 1732); and
- Presents groundwater development impacts that are fully within the impacts analyzed for the range of alternatives included in the Final EIS, and thus, have been disclosed for public comment in the Final EIS and do not require further NEPA analysis.

10.1 Resource Impacts Associated with the Preferred Alternative

This ROD is based on a review of the Final EIS, supporting documentation, public comments, and the BO. The environmental consequences of constructing and operating the SNWA GWD Project were evaluated by the BLM as required by NEPA. The environmental analysis evaluated impacts to 19 resource categories: air quality and atmospheric resources, geology, water resources, soils, vegetation resources, terrestrial wildlife, aquatic biological resources, land use, recreation, transportation resources, mineral resources, rangelands and grazing, wild horses and burro herd management areas, special designations and lands with wilderness characteristics, visual resources, cultural resources, Native American traditional values, socioeconomics and environmental justice, and public safety and health. Two levels of impact duration were considered: short-term (occurring within 2 years of initial surface disturbance in any specific location), and long-term (longer than 2 years following construction inception). Of special concern were impacts resulting in a substantial change to the physical environment or natural condition. A summary of the impacts resulting from the evaluation of the proposed construction and operation of the main water conveyance pipeline, groundwater development and groundwater pumping, and cumulative impacts follows.

As noted above in Section 3.1.1 of this ROD, monitoring and mitigation measures are being adopted as part of this decision to authorize the agency's preferred alternative described in this section of the ROD. This decision includes the development and implementation of a COM Plan Framework to provide guidance for protecting Federal resources and Federal water rights that may be impacted by this project. Details of the adopted measures for future groundwater development and their anticipated effectiveness are included in **Attachment D** to this ROD and in the Final EIS.

10.1.1 Resource Impacts Associated with the ROW Construction and Operation

Resource impacts associated with construction, operation, and maintenance of the Tier 1 ROW are described in detail in the Final EIS. The BLM's Preferred Alternative is the main conveyance alignment for Alternative F, as modified for Alignment Option 1 (Humboldt-Toiyabe Power Line Alignment). Alignment Option 1 is slightly shorter than the power line alignment for Alternative F, resulting in decreased acreage of disturbance. Summarized below are the resource impacts associated with the Tier 1 ROW, as quantified for the Preferred Alternative. This Preferred Alternative is a minor variation of the alternatives analyzed in the Final EIS and the impacts of the Preferred Alternative are within the range of impacts analyzed in the Final EIS. Thus, no additional NEPA analysis of the preferred alternative is required.

Air Quality and Atmospheric Resources:

- Air pollutant emissions related to construction, disturbance, and reclamation associated with activities on approximately 10,586 acres; and
- Minor increase in air pollutant emissions, including greenhouse gas emissions, from operation and maintenance activities will occur.

Geology and Paleontology:

- Potential for disturbance and loss of some scientifically valuable fossils during trench excavation and ROW grading over the length of the pipeline.

Water Resources:

- Potential for channel alteration and water quality effects to one perennial stream and numerous intermittent and ephemeral streams by pipeline and power line ROW construction.

Soil Resources:

- Potential for short-term disturbance on sensitive soils in the following approximate acreages: highly wind erodible (1,482), highly water erodible (529), compaction prone (106), and low vegetation potential (8,892); these combined acreages are less than 0.2 percent of the total area of these hydrographic basins; and
- Short-term disturbance may occur on approximately 2,329 acres of land with prime farmland characteristics.

Vegetation:

- Clearing of approximately 10,586 acres will be required during construction, with 9,641 acres to be reclaimed. The vegetation removal acreage is less than 0.2 percent of the total area of these hydrographic basins;
- The areas of temporary disturbance include some suitable habitat for six BLM sensitive plant species and some loss of yucca and cacti during salvage, interim storage, and subsequent replanting is anticipated;
- Temporary clearing will increase the potential for spread of noxious weeds by construction traffic, particularly in and near cleared areas; and
- There is potential for construction activities to result in increased risk of wild land fires.

Wildlife Resources:

- The ROW vegetation clearing will affect important big game range in the project area. The estimated affected areas include: antelope (6,345 acres), elk (4,019 acres), mule deer (3,547 acres), and desert big horn sheep (260 acres). The majority of the affected areas are located in northern portions of the study area. The habitat removal is less than 0.2 of 1 percent of the total area of these hydrographic basins;
- The ROW vegetation clearing will alter habitats for special status wildlife species, including desert tortoise, greater sage-grouse, pygmy rabbit, western burrowing owl, bald eagle, golden eagle, ferruginous hawk, bats, dark kangaroo mouse, Gila monster, and Mojave Poppy Bee;
- Potential electrical power lines effects will include bird collisions and electrocution, and increased predation on desert tortoise, pygmy rabbit, and other wildlife species by raptors; and
- For the Tier 1 ROW, the majority of the power line alignment ROW falls within the designated LCCRDA corridor. Compliance with Instruction Memorandum (IM) 2012-043, Greater Sage-Grouse Interim Management Policies and Procedures specifies that outside of the LCCRDA corridor, the SNWA must position 230-kV power lines west of active leks at sufficient distances to avoid line-of-sight with leks.

Aquatic Biology:

- Potential habitat alteration and water quality effects could be seen on one perennial stream and numerous intermittent streams (if water is present) as a result of the pipeline and power line ROW crossings; and
- The potential for amphibian mortalities near water bodies crossed by vehicles using the ROWs and access roads exists.

Land Use:

- The ROW vegetation clearing will affect surface uses (grazing and recreation) on 10,586 acres of land, 97 percent of which is managed by the BLM. Up to 945 acres (less than 1 percent of the total area of the hydrographic basins) will be converted for aboveground facility uses; precluding existing uses;
- Approximately 15 percent of the estimated short-term disturbance will be located outside of designated utility corridors; and
- The ROWs and ancillary facilities will cross two ROW avoidance areas – Coyote Springs and Kane Springs Areas of Critical Environmental Concern (ACECs). Additional stipulations may be imposed at the BLM's discretion.

Recreation:

- Construction activities will result in short-term conflicts with off-highway vehicle race routes in some locations;
- The ROW vegetation clearing will affect some lands within the Caliente Special Recreational Permit, Chief Mountain Special Recreational Management Area, Las Vegas Valley Special Recreational Management Area, Loneliest Highway Special Recreational Management Areas, and Pioche Special Recreational Permit area;
- Short-term interference with hunting access and other dispersed recreation use on public lands will occur; the location of the interference will change over time as construction moves along the ROW;
- Long-term alteration of the recreational setting will occur related to above-ground structures and vegetation alteration; and
- Project road improvements will result in an increased potential for off-highway vehicle route proliferation and unauthorized public use of the project ROWs that could degrade the recreation setting.

Transportation:

- Construction will cause short-term increases in vehicular traffic on roads and highways in the area, resulting in increased risk for vehicular accidents, vehicle/animal collisions, and traffic delays. Long-term effects will be limited due to relatively low maintenance and operation-related traffic numbers.

Minerals:

- Potential short-term access restrictions to mineral extraction sites until roadways are restored after construction is completed.

Rangeland:

- ROWs will cross 20 grazing allotments; resulting in aggregate disturbance to 8,937 acres during construction. The incremental vegetation removal will affect less than 1 percent of the total area of all cumulative surface disturbance in these basins; and
- Following reclamation, there will be permanent commitment of 562 acres in 16 allotments associated with aboveground facilities.

Wild Horses:

- The ROW vegetation clearing will affect 3,015 acres in 2 wild horse management areas, and long-term aboveground facility commitments of 164 acres within 2 herd management areas. Short term construction activities could affect movement and forage use by wild horse herds.

Special Designations:

- The ROW vegetation clearing will affect three special designations: Coyote Spring ACEC, Kane Springs ACEC, and Desert National Wildlife Range.

Visual Resources:

- Visual impacts resulting from changes in woody vegetation in disturbed areas will be visible in the long term until woody vegetation becomes re-established, especially in the linear pipeline/power line ROW;
- Texture and color contrasts will occur with partial mitigation by the use of appropriate earth-toned building materials and colors; new buildings, structures, and their shadows will be prominent in the landscape foreground;
- Long-term visual impacts will result due to the proximity of project components to sensitive viewpoints, scenic byways and special designation areas; and project collocation with Highway 93; and
- The surface disturbance associated with the GWD Project facilities may affect certain GBNP viewsheds.

Cultural Resources:

- Potential adverse effects to sites listed on or eligible for listing on the National Register of Historic Places-sites will be mitigated prior to construction;
- Some unanticipated discoveries and potential loss of cultural resources could occur during construction; and
- Potential illegal collection of artifacts or vandalism to cultural resources could occur, related to increased construction access.

Native American Traditional Values:

- Potential short and long-term effects to traditional cultural properties, sacred sites, and areas of cultural or religious importance could occur during the construction period.

Socioeconomics:

- Temporary gains in employment, income, population, and related effects will occur, with the focus of activity shifting over time from south (Clark County) to north (southern White Pine County);
- Short-term demand for temporary housing may exceed availability especially in Lincoln County;
- Short-term demands on local law enforcement and emergency services may strain capacity and place fiscal pressures on budgets in rural communities;
- Project construction will generate substantial sales and use taxes, some of which will accrue to local governments;
- The SNWA facilities will be exempt from local property taxes. The existing agreement between SNWA and White Pine County provides payments in lieu of taxes to cover reductions in tax revenues associated with SNWA purchases of private ranches;

- Limited direct long-term employment, population, or population-related effects will occur during operations; and
- Onset of construction of the project will be a "signal" event, with potentially widespread and long-term social concerns related to lifestyle, quality of life, and outlook for the future.

Public Health and Safety:

- There will be a short-term potential for spills or leaks from use of hazardous materials; mostly consisting of fuels and lubricants during construction and operation.

10.1.2 Resource Impacts Associated with Future Groundwater Development and Groundwater Pumping

Resource impacts associated with construction, operation, and maintenance of future groundwater development facilities and related groundwater pumping are described in detail in the Final EIS. As described in Section 2.8.1 of the Final EIS, the BLM's Preferred Alternative includes development of water limited to the quantity permitted by the March 2012 NSE ruling on Spring, Delamar, Dry Lake, and Cave Valleys. It does not include development in Snake Valley. The groundwater development quantity for the Preferred Alternative lies between the quantities analyzed for Alternatives E and F, but generally is closer to Alternative E. Thus, resource impacts that would be associated with future construction and operation have been programmatically analyzed in the Final EIS and proposed groundwater development volumes fall within the range of impacts described for Alternatives E and F.

The Preferred Alternative being carried forward in this ROD is a minor variation of the alternatives analyzed in the Final EIS and the impacts of groundwater analysis for the Preferred Alternative are within the range of impacts analyzed in the Final EIS. Therefore, no additional NEPA analysis of the preferred alternative is required.

10.1.2.1 Potential Future Groundwater Development Impact Summary for Surface Disturbance Associated with Construction and Operation of Future Groundwater Production Facilities — Agency-Preferred Alternative

The range of ground disturbance acreages associated with future groundwater development facilities for the Preferred Alternative is summarized in **Table 3**. This estimate for future ROWs was developed for the Preferred Alternative groundwater development scenario, using the same methodology as was used for the other alternatives described in Section 2.6 of the Final EIS and lies within the range of disturbance acres for future facilities described for Alternatives E and F.

Table 3 Potential Future Groundwater Development Impact Summary for Surface Disturbance — Agency-Preferred Alternative

Valley/Specific Facility	Range of Disturbance (Acres)
Spring Valley	828-2022
Cave Valley	231-901
Dry Lake Valley	401-850
Delamar Valley	486-1135
Total	**1946-4908**

10.1.2.2 Potential Resource Impacts Associated With Future Groundwater Pumping Activities

Potential resource impacts associated with future groundwater pumping are summarized in **Table 4** below. Quantification (such as acres of potential drawdown) of these resource impacts are presented in the Final EIS for Alternatives E and F. The acreages of potential drawdown for the Preferred Alternative are bounded by the acreages analyzed for Alternatives E and F in the Final EIS. As with the programmatic analysis in the Final EIS, future NEPA analyses will evaluate potential impacts to water-dependent resources (e.g., riparian habitat, wetland areas, and phreatophytes).

Table 4 Summary of Potential Groundwater Pumping Impacts

Resource	Potential Impacts
Air	Increase in wind-blown particulates as a result of reductions in hydric soils and vegetation cover and density in the drawdown area.
	Wind -blown dust generated by drawdown from pumping.
Geology	Risk of ground surface subsidence from reduced groundwater levels in the drawdown area.
Water	Reduction in flow or drying up of springs in the drawdown area.
	Reduction of flow and reduction of length of perennial stream reaches in the drawdown area.
	Reduction of flow available at the point of diversion for beneficial uses in the drawdown area.
	Reduction (or elimination) of yield, increased pumping cost.
	Reduction in spring discharge and associated vegetation in ET areas in the drawdown area.
Soils	Reduction in water sources for hydric soils in the groundwater drawdown area.
Vegetation	Reduction in density and composition of wetland/meadow vegetation from lower groundwater levels in the drawdown area.
	Reduction in density and composition of shrubland vegetation from lower groundwater levels in the drawdown area.
Wildlife	Reduction in wetland/meadow and shrubland habitat and perennial water sources for wildlife species in the drawdown area. Effects on habitat and water sources could reduce water for consumption; vegetation for breeding, foraging; reduce food sources; and reduce animal numbers and populations.
Aquatic Biological Resources	Reduction in perennial stream flows, wetland flows, and habitat for aquatic species in the drawdown area. Reduction could affect aquatic species in streams by reducing abundance and diversity, altering composition, reducing food sources, limiting spawning and early life stage development, and decreasing overall health.
Land Use	Reduction in water sources for agricultural lands in the drawdown area.
	Reduction in water sources for public lands for disposal.
Recreation	Reduction in spring flows within recreation areas in the drawdown area.
	Reduction in perennial stream flows within recreation areas in the drawdown area. Flow reduction could reduce game fish numbers.
Rangeland	Reduction in spring and stream water sources for rangeland in the drawdown area.
	Reduction in forage vegetation for rangeland in the drawdown area.
Wild Horses	Reduction in spring water sources for wild horse herd management areas in the drawdown area.
	Reduction in forage vegetation for rangeland in the drawdown area.
Special Designations	Reduction in phreatophytic vegetation within special designations in the drawdown area.
Visual	Changes in appearance of wetland/meadows and basin shrublands from drawdown effects.
Native American Traditional Values	Reduction in the availability of water sources and food used for traditional and religious purposes in the drawdown area.
Socioeconomics	Reduction in water sources for agricultural lands in the drawdown area.
	Social impacts in rural areas related to drawdown.

10.2 Resource Impacts Associated with the Cumulative Analysis

Pursuant to 40 CFR 1508.7, the Final EIS provided cumulative impacts analysis for the GWD Project. The cumulative impact analysis included a Tier 1 ROW and programmatic analysis of future groundwater development as part of the proposed action and alternatives. This included consideration of past, present, and reasonably foreseeable actions in the

project area and an analysis of whether, and to what extent, those actions contribute to the cumulative effects to the environment.

A cumulative impact is defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future action (RFFAs) regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7).

The geographic area for evaluating cumulative effects varies by the type of resource that could be affected. In some instances, impacts for certain resources are restricted to the actual area of surface disturbance. Other resources, such as livestock and wildlife, might range over a wide area, and cumulative impacts might involve more than surface disturbance to forage or habitat (such as surface water sources that are required for drinking). Socioeconomic effects might be bounded by political jurisdictions such as towns, counties, and states. Resource-specific cumulative effect study areas were developed for each resource and are discussed in Chapter 3 of the Final EIS.

10.2.1 Past, Present, and Reasonably Foreseeable Future Actions

The cumulative effects analysis for the Final EIS has been separated into two parts, as described below.

Tier 1 Project Facilities. The analysis addressed the combined effects of the project facilities, past and present actions (PPAs), and the RFFAs known at the time of completion of the Final EIS. This analysis was focused primarily on the interactions of:

- The GWD Project facilities (mainline pipeline and ancillary facilities) by alternative;
- PPAs. These actions include existing energy and transportation infrastructure, and current land uses (Section 2.1.1 of the Final EIS); and
- Surface disturbance projects and activities that meet the reasonably foreseeable criteria for inclusion in the cumulative analysis as described in Section 2.9.1.2 of the Final EIS.

Future Tiers – Groundwater Development Facilities and Groundwater Pumping. It is anticipated that site-specific NEPA analysis for ground-disturbing activities will occur over the next 30 to 40 years and the cumulative effects analysis will be updated in each successive NEPA tier to accurately characterize these potential impacts.

The cumulative analysis of groundwater drawdown effects is based on a regional groundwater modeling effort initiated in 2004. The PPAs reflect the best available information on consumptive uses in the groundwater basins as of 2009, when these uses were identified for the model simulations. As with ground-disturbing activities, the cumulative effects analysis will be updated in each successive NEPA tier to accurately characterize potential impacts. As with the programmatic analysis in the Final EIS, future cumulative NEPA analyses will evaluate potential impacts to water-dependent resources (e.g., riparian habitat, wetland areas, and phreatophytes).

10.2.1.1 Tier 1 Facilities – Past and Present Actions

The PPAs within the GWD Project region are illustrated on **Figure 4**. The PPAs also would include large-scale wildfires, livestock grazing, and limited irrigated agriculture and dispersed recreation (e.g., hunting, off-highway vehicle use, hiking, visitation to GBNP).

Two major U.S. highways (U.S. 93 running north and south, and the collocated U.S. 6 & 50 running east and west) serve the GWD Project area in these counties. A system of unpaved county and private roads extends across the large valley floors. A railroad segment that carries a high volume of rail traffic between Salt Lake City and Las Vegas extends across southern Lincoln County.

Data for PPAs were compiled using Geographic Information System shapefile layers from multiple sources. These sources are detailed in Section 2.9.1.2 in the Final EIS.

The PPAs not included in the analysis are Nellis Air Force Base (AFB), Patriot missile sites and a small number of the SNWA exploration and monitoring groundwater wells developed under separate Environmental Assessments.

10.2.1.2 Tier 1 Facilities – Reasonably Foreseeable Future Actions

A list of RFFAs were compiled from a variety of resources and reviewed using the criteria described in Section 2.9.1.2 of the Final EIS. The consideration of RFFAs for Cumulative Impact Assessment varies by resource and is influenced by the geographic extent of the potential direct and indirect impacts of the No Action and other alternatives, on the resource. See **Figures 4** and **5** for the anticipated interactions of the effects of the RFFAs and the GWD Project.

The following RFFAs were considered in the cumulative impacts assessment for the Tier 1 NEPA. See the descriptions of the projects in Section 2.9.1.2 of the Final EIS:

- Coyote Springs Residential Development
- Kane Springs Valley Groundwater Development Project
- ON Line Transmission Project
- Silver State Energy Association Eastern Nevada Transmission Project
- Spring Valley Wind Project
- TransWest Express Transmission Line Project
- Wilson Creek Wind Project
- Zephyr Transmission Project

Section 2.9.2 (Table 2.9-1) in the Final EIS provides a summary of the land requirements (estimated construction surface disturbance) by hydrologic basin for the GWD Project Proposed Action (ROWs and groundwater development facilities), PPAs, and RFFAs.

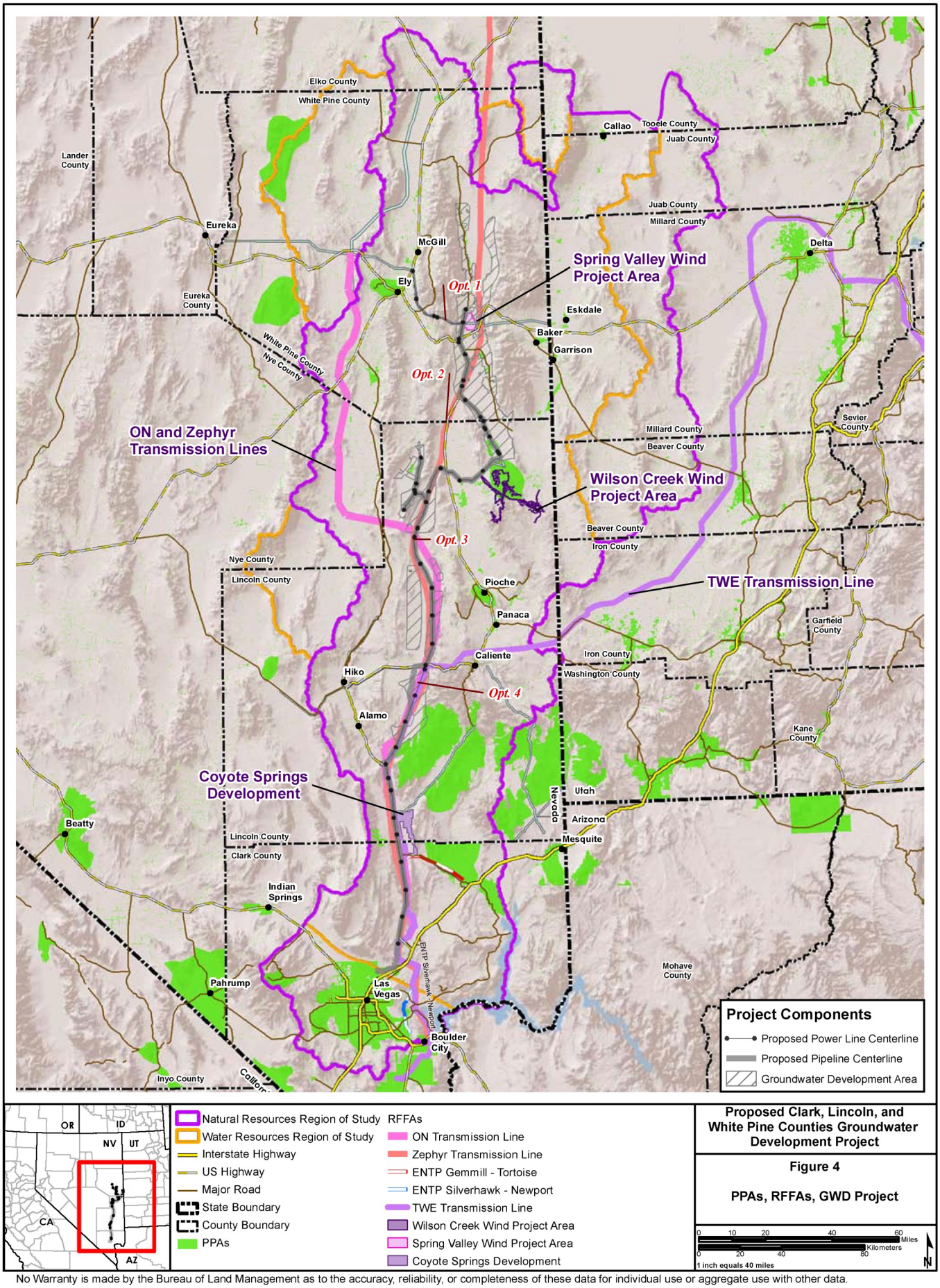
10.2.1.3 Subsequent NEPA Tiers – Groundwater Development

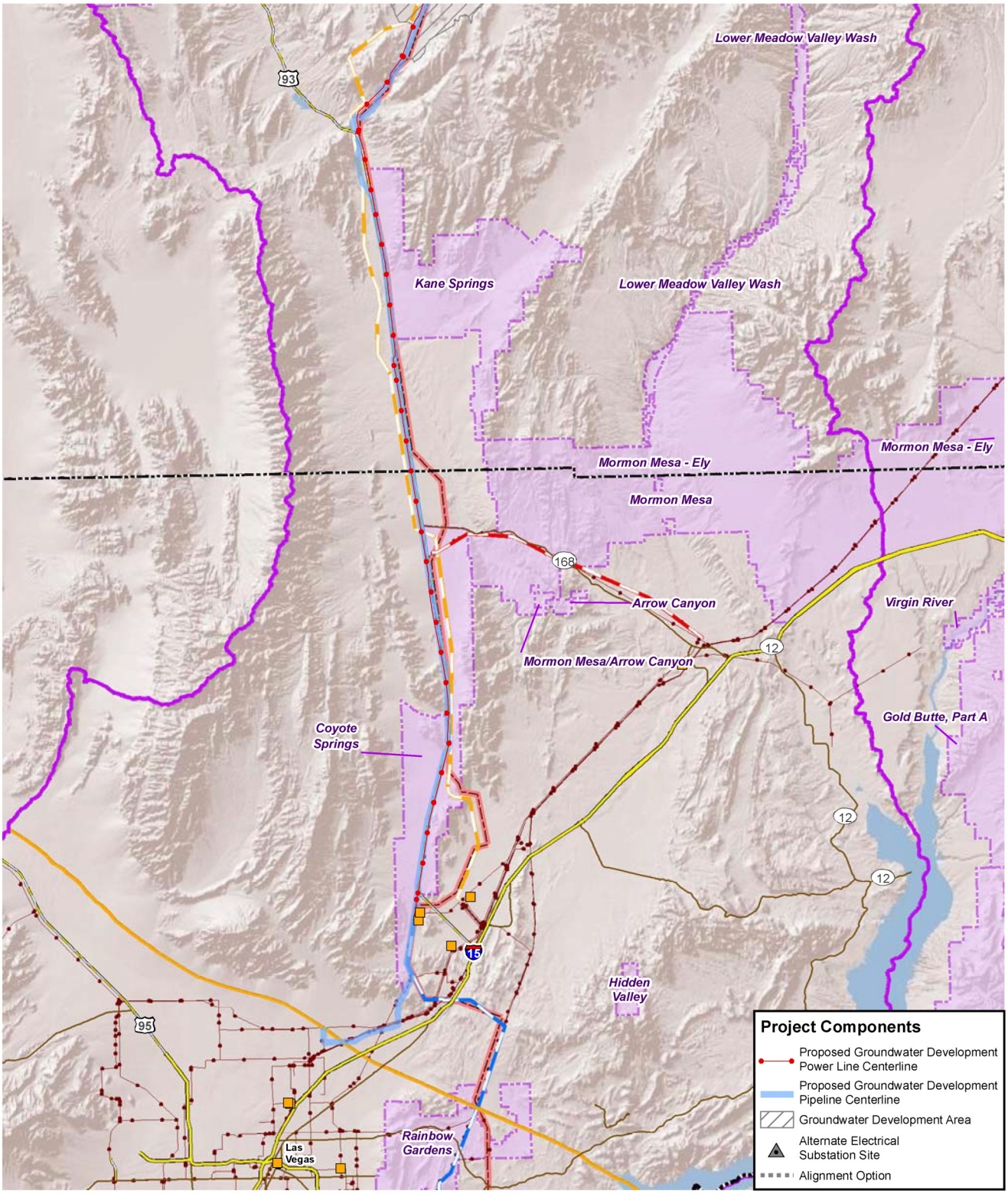
Groundwater consumptive uses included for the cumulative impact evaluations include:

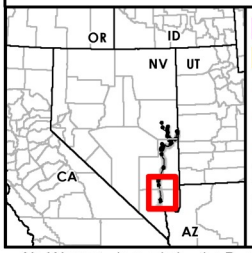
- Continuation of historical and permitted groundwater uses incorporated under the No Action Alternative;
- Pumping associated with the Proposed Action or alternatives to the Proposed Action (Alternatives A through F) specific to the cumulative impact evaluations for each alternative groundwater development scenario; and
- Reasonably foreseeable future groundwater development, including:
    - Future development of existing permitted groundwater rights that are likely to occur associated with private lands and previously authorized projects; and
    - Additional groundwater developments that may occur in the future associated with proposed projects that have submitted formal development plans to regulatory agencies for permitting purposes.

10.2.1.4 Past and Present Actions

The past and present groundwater uses include continuation of the estimated historical groundwater consumptive uses estimated for the water resources region of study. The estimated historical groundwater consumptive uses for the study area are provided in Appendix C of the Transient Numerical Model Report (SNWA 2009) and summarized in Table 2.9.2 in the Final EIS.







Natural Resources Region of Study
Water Resources Region of Study
Interstate Highway
US Highway
Major Road
State Boundary
County Boundary

ENTP Gemmill - Tortoise
ENTP Silverhawk - Newport
ON and Zephyr Lines
TWE Transmission Line
Area of Critical Environmental Concern
Power Plant
Existing Transmission Line

Proposed Clark, Lincoln, and White Pine Counties Groundwater Development Project

Figure 5

RFFA Projects in the Apex Area Clark County, NV

0 2.5 5 10 15 Miles
0 3 6 12 18 Kilometers
1 inch equals 10 miles
N

No Warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

10.2.1.5 Reasonably Foreseeable Groundwater Use

The reasonably foreseeable groundwater uses include: 1) continuation of the estimated historical groundwater consumptive uses (incorporated under the No Action Alternative); and 2) an estimate of the reasonably foreseeable future groundwater development. Reasonably foreseeable future groundwater developments include estimated groundwater consumptive uses associated with the future development of existing permitted groundwater rights that are likely to occur associated with private lands and previously authorized projects; and additional groundwater developments that may occur in the future associated with proposed projects that have submitted formal development plans to regulatory agencies for permitting purposes. The estimated reasonably foreseeable future groundwater developments for each of the proposed pumping basins and additional basins included in the water resources region of study are listed in Section 2.9.2 of the Final EIS.

The GWD Project Preferred Alternative described in this ROD is based on the withdrawal of 83,988 afy of groundwater from the four basins. No past or current pumping is occurring in Delamar, Dry Lake, and Cave Valleys. Very small groundwater pumping volumes, or no additional pumping are foreseeable in those three basins. Based on these estimates, the GWD Project will be the primary groundwater user in all four groundwater development basins proposed for pumping under this ROD.

10.3 Key Impact Differences between the Agency Preferred Alternative and the other Alternatives Analyzed in the Final EIS

The following are the key impact differences of the Agency Preferred Alternative as compared to each alternative.

10.3.1 Agency Preferred Alternative Compared to the Proposed Action and Alternatives A through C

Compared to the Proposed Action and Alternatives A through C, the Preferred Alternative will result in:

- Lesser/fewer impacts to GBNP water resources, to viewsheds from the GBNP and to other resources in GBNP as it removes construction and related groundwater development in Snake Valley;
- Lesser impacts to cultural and Native American traditional values due to reduced groundwater development.
- Lesser impacts to regional air quality due to elimination of construction and related groundwater development in Snake Valley;
- Lesser impacts to water resources (springs, streams) and water dependent resources due to a reduction in the quantity of groundwater to be developed and the elimination of development in Snake Valley;
- Lesser socioeconomic impacts due to elimination of development in Snake Valley; and
- Reduced impacts to the disturbance to sage brush communities and the number of mature juniper and pinyon pine trees being removed, reduced disturbance to the Loneliest Highway Special Recreation Management Area; and reduced visual impacts from using an existing utility corridor (Option 1).

In addition, Alternative C, Intermittent Pumping at Reduced Quantities, based on availability of Colorado River supplies and drought conditions, was not selected as the Preferred Alternative because the NSE did not impose any conditions requiring intermittent pumping in the water rights ruling. As noted in Chapter 2 of the Final EIS, the BLM does not have the authority to regulate water rights in Nevada. A determination whether the SNWA groundwater development should be restricted to intermittent pumping based solely on availability of Colorado River water and drought conditions is under the jurisdiction of the NSE, as this determination concerns the regulation of State of Nevada water rights (personal communication, Jason King, September 2012). Thus, choosing such an alternative is not within the BLM authority. In the future, SNWA may choose to operate under a variety of methods to minimize impacts revealed by future analysis and monitoring and to respond to Colorado River supplies and local demand, including the use of intermittent pumping. These proposed operations will be subject to review and approval of the NSE, and the BLM as it relates to any ROW sought for such operation or changes needed in any ROW that may have been issued.

10.3.2 Agency Preferred Alternative Compared to Alternative D

Compared to Alternative D, the Preferred Alternative will result in:

- Increased impacts to water resources (springs, streams) and water dependent resources in Spring Valley due to a larger and more dispersed groundwater development area;
- Less soil subsidence in southern Spring Valley;
- Increased impacts to GBNP water resources, viewsheds from the GBNP, and other resources in GBNP from larger and more dispersed development in northern Spring Valley;
- Increased impacts to cultural and Native American traditional values due to larger and more dispersed development in northern Spring Valley;
- Increased socioeconomic impacts due to larger and more dispersed development in northern Spring Valley; and
- Elimination of technical feasibility concerns related to whether Alternative D could develop all the SNWA groundwater rights in Spring Valley from the small area within Lincoln County (approximately 60,000 acres versus 360,000 acres for the entire Spring Valley available in the Preferred Alternative).

10.3.3 Agency Preferred Alternative compared to Alternative E

The primary difference between the Preferred Alternative and Alternative E is in the amount of water to be developed: 83,988 afy for the Preferred Alternative vs. 78,755 afy for Alternative E. Compared to Alternative E, the Preferred Alternative will result in:

- Potential increased impacts to cultural and Native American traditional values (mainly from increased pumping in Delamar Valley);
- Increased impacts to water resources (springs, streams) and water dependent resources due to the development of a higher groundwater volume (mainly from increased pumping in Delamar Valley); and
- Reduced impacts to the disturbance to sage brush communities and the number of mature juniper and pinion pine trees being removed, reduced disturbance to the Loneliest Highway Special Recreation Management Area; and reduced visual impacts from using an existing utility corridor (Option 1).

10.3.4 Agency Preferred Alternative compared to Alternative F

The primary difference between the Preferred Alternative and Alternative F is in the amount of water to be developed: 83,988 afy for the Preferred Alternative vs. 114,129 afy for Alternative F. Compared to Alternative F, the Preferred Alternative will result in:

- Lesser impacts to viewsheds from the GBNP from the proposed level of development in Spring Valley;
- Reduced impacts to cultural and Native American traditional values (mainly from decreased pumping in Spring Valley and Cave Valley);
- Reduced impacts to water resources (springs, streams) and water dependent resources due to the development of a lower groundwater volume (mainly from decreased pumping in Spring and Cave Valley); and
- Reduced impacts to the disturbance to sage brush communities and the number of mature juniper and pinion pine trees being removed, reduced disturbance to the Loneliest Highway Special Recreation Management Area; and reduce visual impacts from using an existing utility corridor (Option 1).

10.3.5 Agency Preferred Alternative compared to the No Action Alternative

The primary difference between the Preferred Alternative and the No Action Alternative is that no project-related development would occur in the project area under the No Action Alternative. Compared to the No Action Alternative, the Preferred Alternative will result in:

- Meeting the BLM's purpose and need to consider the ROW request and the applicant's goals and objectives to diversify its water supplies and meet projected future demand;
- Meeting the BLM's legal obligation under the FLPMA to consider the ROW application, and LCCRDA and SNPLMA to grant the ROW request in Lincoln and Clark counties;
- Increased impacts to regional air quality;
- Increased visual impacts from the project from within parts of the GBNP;
- Increased impacts to cultural and Native American traditional values;
- Increased impacts to water resources (springs, streams) and water dependent resources related to the GWD Project; and
- Increased socioeconomic impacts.

11. Environmentally Preferable Alternative

The environmentally preferable alternative is the alternative determined to cause the least damage to the biological and physical environment and the alternative which best protects, preserves, and enhances historic, cultural, and natural resources. A detailed discussion of the environmental effects of each resource by alternative is included in Chapter 3 of the Final EIS.

The environmentally preferable alternative is the No Action alternative described in Chapter 2 of the Final EIS for the GWD Project. The No Action Alternative was not selected because the BLM would not be in compliance with LCCRDA and the BLM purpose and need would not be met.

12. Agency and Public Involvement

12.1 Environmental Review Process

The Final EIS for the SNWA GWD Project was prepared pursuant to NEPA with the BLM as the Lead Agency. The Cooperating Agencies assisted with the preparation of the Final EIS by providing comments, information, and analysis.

12.2 Consultation with Other Agencies

Section 1.5 of the Final EIS discusses the permits, approvals, and regulatory requirements pertaining to the SNWA GWD Project. Within this discussion, Table 1.5-1 lists the major permits, approvals, and consultations required, and the Final EIS will be used by Federal, state, and local agencies for this purpose. The geographic scope and complexity of the project necessitated extensive data gathering, consultation, and analysis with agencies at all levels of government.

12.2.1 Consultation Pursuant to Section 7 of the Endangered Species Act

The BLM initiated informal consultation with the USFWS in 2005 pursuant to section 7 of the ESA, as amended (7 USC § 136, 16 USC § 1531 et seq.). Formal consultation for 8 species was initiated with the submittal of the revised final Biological Assessment (BA) to the USFWS on May 11, 2012: Mojave desert tortoise, White River springfish, Hiko White River springfish, Pahrump poolfish, Pahranagat roundtail chub, White River spinedace, Ute ladies'-tresses, and southwestern willow flycatcher. The BLM also requested to conference on proposed (revised) critical habitat for southwestern willow flycatcher. Informal consultation was initiated for Yuma clapper rail, Big spring spinedace, and Moapa dace. The USFWS used information from the Final EIS and BA to prepare a BO, delivered to the BLM on November 19, 2012 (**Attachment E**). The BO is a tiered programmatic consultation that includes both project-specific aspects to address the Tier 1 portion of the project, and programmatic aspects to address subsequent tier portions of the project. The Tier 1 consultation addresses the specific effects of project components for which details are known, while the programmatic-level consultation conceptually evaluates effects of project components for which details are not yet know and are based on a set of assumptions.

For the Tier 1 portion of the BO, the USFWS provides for incidental take for ROW activities, where applicable (desert tortoise). Reasonable and prudent measures with terms and conditions were provided with the incidental take statement (**Attachment E**). Remuneration fees (compensation) associated with disturbance to desert tortoise habitat may be collected to offset residual impacts of the action that remain after other mitigation measures are incorporated. These fees must be used for management actions expected to provide a benefit to the desert tortoise over time. These actions may be habitat acquisition, population or habitat enhancement, increasing knowledge of the species' biological requirements, reducing loss of individual animals, documenting the species' current status and trends, and preserving distinct population attributes. The goal of the BLM is to avoid, minimize, or mitigate (in that order) impacts to desert tortoise habitat. If mitigation is required, on-site mitigation is the priority. As such, the BLM will first look for opportunities to work with SNWA to complete on-site mitigation. The USFWS BO provided a discussion of remuneration fees to offset residual impacts to desert tortoise from permanent removal of their habitat. The discussion includes language that a portion of the proposed remuneration fees supports the Desert Tortoise Recovery Office (DTRO). While the BLM acknowledges that funding may be used to support the DTRO, this funding is also available for the BLM to carry out restoration. Information regarding desert tortoise mitigation and fees will be included in the ROW grant.

The BO does not provide for incidental take for programmatic impacts. When site-specific location information is known for subsequent tiers of the GWD Project, the USFWS will review available information and complete a tiered biological opinion with an incidental take statement (accompanied with reasonable and prudent measures and terms and conditions, as appropriate). However, the USFWS did provide in this BO discretionary conservation recommendations meant to inform the BLM and the project proponent of: 1) monitoring, research, and management needs for assessing and mitigating GWD Project impacts; 2) the type and quantity of information the USFWS believes is needed to adequately develop incidental take statements for subsequent Opinions; and 3) additional suggested avoidance, minimization, and compensatory mitigation measures for programmatic activities.

The USFWS used the Final EIS and BA submitted by the BLM as a starting point for their analysis. The Final EIS and BA analyses were prepared in compliance with the NEPA and the ESA, respectively. For the programmatic aspects of this project (i.e. species potentially affected by groundwater development and pumping, for which incidental take is not currently being authorized), the USFWS used an approach in the BO that varied from the Final EIS and BA. This difference in the approach does not apply to analyses conducted in the Final EIS or the BO with respect to the species that may be impacted by the portion of the project authorized by this ROD, and for which the USFWS is authorizing incidental take. The main difference relates to how the action area was defined in each document:

- Based on the requirements of NEPA, the Final EIS analysis uses a risk-based approach to identify relative risk of impacts to perennial water resources within the drawdown area and, as described in Section 3.3 of the Final EIS, recognizes that actual impacts to individual springs and streams distributed over this broad region cannot be determined precisely prior to pumping. Areas of risk are identified based on the groundwater model 10-foot drawdown contour and 5 percent flow reduction. The BLM also used the 10-foot drawdown contour to define the drawdown area for quantification of impacts (Section 3.3 of the Final EIS). The Final EIS provides discussion and acknowledgement that drawdowns of less than 10 feet or 5 percent flow reduction could potentially cause declines in the diversity and abundance of associated flora and fauna; however, the BLM does not believe that it is reasonable or appropriate to use the regional model to quantify changes in groundwater elevation of less than 10 feet (Section 3.3 of the Final EIS). The BLM evaluated potential impacts within the broader Water Resources Region of Study and Natural Resources Region of Study in the Final EIS (Chapter 3), and the Final EIS relies on numerous other quantitative and qualitative methodologies to analyze potential impacts in addition to the regional groundwater modeling. The BLM determined that this risk-based approach is appropriate for the analysis specific to species listed under the ESA that are treated programmatically, and that the potential impacts have been adequately disclosed and addressed (through monitoring and mitigation measures and the COM Plan Framework process) in the Final EIS. In addition, the BLM will complete subsequent tiered NEPA analyses and initiate ESA section 7 consultation for future project phases. These future phases will benefit from new information regarding site-specific details for project components and more detailed groundwater flow models.
- The ESA requires the USFWS to provide effects determinations for Federally listed species and designated or proposed critical habitat, which necessitates a site-specific analysis of individual perennial water sources where listed species or their critical habitat occur. As described in the USFWS BO, certain site-specific details are not known and the programmatic analysis is based on a set of assumptions. Due to these unknowns, when uncertainties exist, the benefit of the doubt is given to the species. As such, the USFWS identified a broad action area for the section 7 consultation, then delineated analysis areas (subsets of the broader action area) for each listed species and their critical habitat. Due to uncertainties associated with the groundwater modeling, the USFWS utilized a more conservative approach and delineated the action area for the section 7 consultation based on the areal extent of the groundwater model simulated 1-foot drawdown contour, and encompassed the entirety of any hydrographic basin into which the 1-foot drawdown contour extends. The USFWS also included the Muddy River Springs basin because it is a major, terminal discharge area of the White River Flow System and is hydrologically connected to basins that may be affected by the proposed pumping (Chapter 3 of the BO).

The USFWS also notes in the BO that while the USFWS' overall action area is larger than the area the BLM identified in its BA, the USFWS action area does not include any surface waterbodies with Federally listed species and/or critical habitats that were not also considered by the BLM in its analysis (Chapter 3 of the BO). Similarly, the USFWS' action

area does not include any hydrographic basins that were not also included in either the Water Resources Region of Study or Natural Resources Region of Study in the Final EIS.

The BO was considered by the BLM in developing this ROD. Reasonable and prudent measures and terms and conditions, provided with the incidental take statement (**Attachment E**) will be required as conditions of the ROW. Conservation recommendations were reviewed by the BLM (see letter in **Attachment E**) and were integrated into Project Terms and Conditions (**Attachment C**) and/or the COM Plan Framework (**Attachment D**), as appropriate.

12.2.2 Consultation Pursuant to Section 106 of the National Historic Preservation Act

In compliance with section 106 of the NHPA, BLM, in consultation with the Advisory Council on Historic Preservation, the Nevada SHPO, the SNWA, and other consulting parties including potentially affected Indian tribes, negotiated and executed a PA (**Attachment G**). The USACE authorized the BLM to conduct section 106 consultation on its behalf for the project. The BLM initiated section 106 consultation with the Nevada SHPO in 2009. Section 3.16 of the Final EIS describes the process the BLM used to negotiate and execute the PA. The PA sets forth conditions and requirements that each agency must meet for the proposed project to satisfy the BLM's section 106 responsibilities, including continued consultation with potentially affected Indian tribes. Specifically, it addresses the area of potential effects, the processes and methods the BLM will use when inventorying historic properties, the consultation process to be used during inventories, how eligibility for inclusion on the National Register of Historic Places will be determined, and mitigation strategies to address adverse effects to historic properties. In addition, the PA outlines procedures to be used for inadvertent discoveries of human remains or historic properties during project construction.

12.2.2.1 Cooperating Agencies and Coordination with Local Governments/Consistency with Local Government Plans

The CEQ regulations at 40 CFR 1508.5 define a cooperating agency as any Federal agency (other than the lead agency) and any state or local agency or Indian tribe with jurisdictional authority or special expertise with respect to any environmental impact involved in a proposal. Because of the regional scope of the project and resources potentially affected by the proposed action or alternatives, 16 agencies (Federal, state, and county) with jurisdictional authority and/or applicable special expertise cooperated in the development of this Final EIS.

The cooperating agencies assisted with EIS preparation in a number of ways including conducting or providing studies and inventories; reviewing baseline condition reports, groundwater modeling reports, and computer code; identifying issues; assisting with the formulation of alternatives; and reviewing administrative Draft and Final EIS text and other EIS materials. Not all of the cooperating agencies participated in all aspects of the EIS preparation. As lead agency the BLM is responsible for the content of the EIS.

The BLM coordinated with local governments by attending meetings conducted by local government organizations and by maintaining open channels of communications between elected county officials and the Project Manager, the BLM State Director, the BLM Ely and Southern Nevada District Managers. Three western Utah counties and three eastern Nevada counties participated as cooperating agencies. In addition, nine counties in central and eastern Nevada formed the Central Nevada Regional Water Authority (CNRWA) and this entity also participated as a cooperating agency. The CNRWA held several meetings and sponsored the annual Great Basin Water Forum. The BLM representatives and managers attended many of these meetings and the Forums at invitation of CNRWA. These meetings were held with industry representatives and representatives of western Utah counties and Inyo County, California and others to discuss the groundwater project, the CNRWA's response to EIS materials provided to the cooperating agencies and water issues in the western U.S.

FEDERAL COOPERATING AGENCIES:

- USACE
- Bureau of Indian Affairs
- Bureau of Reclamation

- Nellis AFB
- National Park Service
- USFWS
- USFS

STATE COOPERATING AGENCIES

- Nevada Department of Wildlife
- State of Utah

COUNTY GOVERNMENTS AS COOPERATING AGENCIES

- CNRWA
- Clark County, Nevada
- Juab County, Utah
- Lincoln County, Nevada
- Millard County, Utah
- Tooele County, Utah
- White Pine County, Nevada

12.3 Tribal Consultation

In 2007, the BLM initiated government-to-government consultation for this project under section 106 of the NHPA as well as NEPA and pursuant to Executive Order 13175 and Secretarial Order 3175. A total of 28 Indian tribes and bands (hereinafter referred to collectively as tribes) were consulted with respect to traditional, religious, or cultural ties to the project area. Letters were sent to inform the tribes of the proposed undertaking and to solicit their concerns regarding the possible presence of properties of cultural, religious, or traditional importance to the tribes in the analysis areas. As part of the government-to-government consultation, the BLM project manager, as the delegated official, participated in over 30 tribal council meetings. In addition, the BLM provided, at tribal request, a workshop on NEPA, DOI policies and groundwater science as well as 10 other inter-tribal meetings where tribal council members and tribal community participants could provide input, express concerns, and request clarification on the project and NEPA process. In May 2012, the Nevada State Director, as the authorized decisionmaker delegated by the Secretary, consulted with 16 tribes, in an inter-tribal meeting. Table F3.17-1 in Appendix F of the Final EIS lists the contacted Native American groups and summarizes the consultation, communication, and coordination efforts. This table has been updated and included as **Attachment G** to this ROD. A complete record of the government-to-government consultation for Tier 1 of this project has been compiled into a Consultation Report, which is contained within the administrative record for this project.

Through the consultation process, the BLM has become aware of and has documented many tribal concerns, some of which are geographically focused while others are at a larger, more landscape level. Those concerns include the following:

- Tribes have raised concerns regarding possible changes to the physical environment resulting from implementation of the project (including movement of water) as described in the Final EIS. They have identified concerns that implementation of the project may eventually be associated with effects to both individual sites of tribal concern and to the larger landscape/environment (i.e., changes to or loss of vegetation or animal species), which is also a tribal concern.
- Tribes have asserted a connection between the condition of both individual sites of tribal concern and the land with the cultural and spiritual well-being of some tribal members, or even assertions that an entire tribe's well-being can be jeopardized by such changes.

- Some tribal members have asserted the aspects of tribal identity, and perhaps tribal survival, are tied to stability of the current condition of the land and its health.
- Tribal have claimed that a decline in the condition of the land that is attributable to removal of water by the project could result in a decline in tribal members' sense of themselves as being Indian or as being a member of a specific tribe.

Tribes have asserted that some changes from groundwater withdrawals could affect the location and density or even existence of some plant or animal species that tribes utilize in their subsistence or in activities that maintain and sustain cultural identity in its transmission from one generation to another. Tribes have identified that changes in the location and density of such resources could affect tribal access for obtaining these resources as the resources become more remote or in how the resources are procured or processed if they become less abundant. The BLM has also been informed by some tribes that not all resources or areas of concern have been made known to the BLM. The BLM has made commitments in documents such as the PA (see **Attachment G**) to complete any required additional identification and determination of steps to be taken to avoid, minimize, or mitigate to the extent practicable, in accordance with law and regulation.

In general, participating tribes have expressed concern that pumping groundwater from the hydrologic basins may decrease or eliminate flows of springs within and surrounding the basins. According to some tribal members, all natural springs and sources of groundwater are considered to be culturally important to the tribes of the Great Basin area. Additional concerns expressed by the tribes include evidence of their ancestors' occupation and use of traditional homelands within the analysis area, burials, archaeological sites, pine nut harvesting, and cultural beliefs about natural resources, such as plants, animals, and water.

The executed PA has been included as part of the Final EIS and ROD (**Attachment G**). The potentially affected tribes were invited to sign the PA as concurring parties, but these tribes declined to concur with the PA. Some of the tribes' reasons are noted in the letters contained in Appendix F3.16 of the Final EIS. During development of the PA, tribes were provided copies of PA drafts three times and the provisions of the PA were discussed at two intertribal meetings. To the extent possible, tribal concerns and issues were identified through the meetings and correspondence and included in the final PA. As provided by the PA, the BLM will continue to offer all potentially affected tribes opportunities to identify locations of resources with cultural and religious importance and traditional practices that may be affected by the proposed GWD Project and to consult on an ongoing basis throughout project construction and subsequent NEPA analyses for future tiers.

The BLM, with tribal input, developed an Ethnographic Assessment report and is addressing potential properties of religious and cultural significance identified through the Ethnographic Assessment process and cross-referenced in the PA. Several of the potentially affected tribes assert Federally reserved water rights claims to water potentially affected by the GWD Project. Some of these claims were addressed by the NSE in his recent rulings on Spring, Dry Lake, Delamar, and Cave Valleys. The Rulings can be accessed at http://water.nv.gov. Water rights claims and related resources are covered in greater detail in Section 3.3 of the Final EIS.

As part of the consultation process, the BLM asked the tribes to identify culturally significant plants and animals. Three of the tribes provided lists of culturally significant plant and animal species; impacts to these species are analyzed in the Final EIS under Sections 3.5, Vegetation Resources; 3.6, Terrestrial Wildlife; and 3.7, Aquatic Biological Resources. Table 3.5-8 in the Final EIS contains a complete list of the plants identified by the tribes. In the Final EIS, page 3.6-28 lists the culturally significant animals and page 3.7-20 discusses the culturally significant aquatic species.

The following tribes are identified as having involvement or a particular interest in the GWD Project or resources/lands within the project area:

Chemehuevi Indian Tribe
Colorado River Indian Tribes
Confederated Tribes of the Goshute Reservation
Duckwater Shoshone Tribe
Duck Valley Shoshone-Paiute Tribes
Ely Shoshone Tribe
Fort Mojave Indian Tribe
Hualapai Tribe
Kaibab Paiute Tribe
Las Vegas Paiute Tribe
Moapa Band of Paiutes
Pahrump Paiute Tribe (non-Federally recognized)
Paiute Indian Tribe of Utah:
  Cedar Band of Paiute Indians
  Indian Peaks Band of Paiute Indians
  Kanosh Band of Paiute Indians
  Koosharem Band of Paiute Indians
  Shivwits Band of Paiute Indians
Te-Moak Tribe:
  Battle Mountain Band
  Elko Band
  South Fork Band
  Wells Band
Timbisha Shoshone Tribe
Yomba Shoshone Tribe

Ten tribal governments or tribal organizations commented on the Draft EIS. In addition, 21 individuals who identified themselves as tribal members also submitted comments. The following summarizes the major topics of concern and their treatment in the Final EIS:

Issue of Concern	Treatment in the Final EIS
Proper consultation has not occurred with tribes; tribal concerns have not been addressed	Section 3.17 of the Final EIS was updated with additional information on tribal outreach and consultation that has occurred over the course of the project
Tribal water rights need to be addressed; Winter's Doctrine requires recognition of Tribal water rights and claims	Section 3.3 and Chapter 1 of the Final EIS was updated to include discussion of the Winter's Doctrine and Tribal water rights
Concerns about impacts to water sources, cultural resources, and native animals and plants	The Final EIS was revised with additional information on these resources

12.4 Public Outreach and Comments

12.4.1 Scoping

The BLM initiated the scoping process by publishing a Notice of Intent (NOI) to prepare an EIS in the Federal Register on April 8, 2005. Public meetings were held in 9 communities within Nevada and Utah, where participants were invited to submit oral and written comments. A second NOI was published on July 19, 2006, notifying the public and interested government agencies of changes to the proposed project. This second NOI also invited the public to comment on the project and project changes by reopening the scoping period. All comments were summarized for inclusion in the Scoping Summary Report and issues were distilled for use in writing the Draft and Final EIS, which is available on the BLM Nevada website under the Nevada Groundwater Projects Office: http://www.blm.gov/5w5c .

12.4.2 Draft Environmental Impact Statement

On June 10, 2011, a Notice of Availability (NOA) of the Draft EIS for a 90-day comment period was published in the Federal Register (76 FR 112; pages 34097-34099) and the USEPA's Federal Register of Environmental Documents (EIS No. 2011-0176; 76 FR 112; pages 34072-34073). The Draft EIS 90-day public review and initial comment period was extended by 30 days; concluding on October 11, 2011. During the Draft EIS public comment period, the Nevada State Office received 461 comment letters, emails, etc. from Federal agencies, state and local governments, Indian tribes, and

interested groups and individuals. In addition, over 20,000 form letters were received in response to a Center for Biological Diversity Action Alert on the Draft EIS. None of the text contained in the form letter was substantive.

The majority of the concerns raised by the public on the Draft EIS were focused on impacts to cultural resources, air quality, water resources, water dependent biological resources, human resources both within the area of development and in Las Vegas, wildlife, monitoring/mitigation of the project and cumulative impacts from the long-term development of the resources. The comments received on the Draft EIS and the BLM's responses are contained in Appendix H of the Final EIS for the GWD Project. The topics of most concern as expressed in the comments to the Draft EIS and their treatment in the Final EIS are presented in **Table 5**.

Table 5 Summary of Comments/Concerns Received on the Draft EIS and Treatment in the Final EIS

Comment/concern	Treatment in the Final EIS
Confusion related to, or disagreement with the use of programmatic analysis (NEPA Tiering); concerns that this EIS was the only opportunity for public input on the ROW and subsequent groundwater development areas.	Revised the discussion on tiering and how it will be applied to this project (Final EIS Chapter 1 and Appendix H --Standard Responses).
Concerns related to alternatives (e.g., range of alternatives, treatment of water supply and conservation alternatives.	Added and analyzed Alternative F for all resource areas and identified it as the Agency-preferred Alternative (with modifications). Added text to clarify the rationale for exclusion of water supply and conservation measures as alternatives for analysis (Final EIS, Chapter 2).
Potential dust-related effects on human health; visibility; (the potential contribution to National Ambient Air Quality Standard non-attainment areas; requests for additional Air Quality modeling; and, potential long-term effects of climate change on the area.	Created a regional-scale air quality model to predict air quality changes and impacts to existing non-attainment areas (e.g., Clark County, Nevada and the Wasatch Front, Utah); revised the discussion of climate change, especially related to each resource area. Addressed predicted changes to visibility (Final EIS, Section 3.1).
Potential dust-related effects on visibility, especially related to GBNP.	Revised the narrative to address predicted changes to visibility. See Final EIS Section 3.1.
Concerns regarding project cost and ability of the SNWA to fund the project.	Added a discussion of project capital costs (Final EIS, Chapter 2 and Section 3.18).
Concerns related to the identification of water use and drawdown under the No Action Alternative; use of the regional groundwater flow model and simulated 10-foot drawdown to define the drawdown area for the impact analysis; risk criteria defined to determine effects on springs and streams, and use of simulated changes to flow in selected springs and streams.	Additional language was presented to clarify the No Action Alternative components and rationale for their inclusion in that alternative; the decision to rely on the 10-foot drawdown as a predictor of impacts, and the rationale behind the definition of risk zones related to drawdown effects on springs and streams. Information was added to help the public understand the inherent limitation to creating a model for use in an area of this size including the need for assumptions related to the geology in the area, use of available flow data to simulate flow changes, and other assumptions necessary for its creation (Final EIS, Section 3.3).
Biological Resources: vegetation re-establishment and treatment/prevention of annual invasive weed species in areas of disturbance; new policies (e.g., greater sage-grouse, southwestern willow flycatcher revised proposed critical habitat); loss of hunting and fishing habitat; potential pumping effects on special status species in Utah hydrologic basins; the risks of relatively large predicted flow reductions in some springs in Spring and Snake Valleys; and potential effects on special status aquatic species.	Mitigation for treatment/prevention of annual invasive species was clarified, the greater sage-grouse analysis was updated to reflect the BLM IM No. 2012-044 by increasing buffer zones around leks and transmission lines and the analysis of southwestern willow flycatcher proposed critical habitat was revised; the analysis of aquatic special status species related to flow reductions in Spring and Snake Valley was expanded (Final EIS, Section 3.6).

Table 5 Summary of Comments/Concerns Received on the Draft EIS and Treatment in the Final EIS

Comment/concern	Treatment in the Final EIS
Inadequate tribal consultation and treatment of Native American concerns related to loss of historic lands, traditional cultural properties (TCPs), artifacts, plants and animals of cultural importance, and loss of water which many tribes hold sacred.	Conducted further tribal consultation and outreach activities following the release of the Draft EIS. Substantial new information was added to the Vegetation Resources section related to culturally-sensitive plant species. The Cultural and Native American Concerns sections more clearly identified how artifacts and TCPs will be addressed and acknowledged the importance of historic lands. The Native American Traditional Values, Section 3.17 of the Final EIS, was expanded to include a comparison of alternatives to highlight the impacts to sites and places of tribal concern. The document as a whole placed additional importance on the waters held sacred by tribes in the project area.
Effects to GBNP including recreation and tourism related to economics.	Additional text was added to acknowledge the potential effects on recreation and tourism in GBNP as related to potential groundwater drawdown (Section 3.9 of the Final EIS).
SNWA's need for additional water supply given current economic conditions and projected long-term growth in the Las Vegas Valley; potential adverse effects or benefits in Clark County if the project does/does not move forward; and the potential that the exportation of water facilitated by the project could foreclose economic development opportunities in the proposed groundwater development areas.	The discussion of each of these topics was expanded in Chapter 1 and in Section 3.18 of the Final EIS.
Cumulative Impacts: concerns related to the projects that were included/excluded and the process used for conducting the cumulative impact analysis.	Additional past, present, and reasonably foreseeable future action information was incorporated into the cumulative effects section and analyzed by resource in the Final EIS.
Questions/concerns related to the adequacy and completeness of mitigation and monitoring for the project, assurances that long-term monitoring, management, and mitigation will occur; concerns that pumping will not be discontinued even if major adverse effects are identified; and the cost implications of monitoring, management, and mitigation.	SNWA's summary of ACMs in Appendix E was revised. Section 3.20 in the Final EIS, Monitoring and Mitigation Summary, was revised to include a new COM Plan Framework for the project area. The COM Plan Framework provides a mechanism to define and strengthen the BLM's ability to react to adverse changes from project activities and presents guidance for future decisionmakers to address future monitoring and mitigation for subsequent project phases. Some mitigation measures were added, removed, or modified based on agency and public comment.

12.4.3 Final Environmental Impact Statement

The USEPA published its NOA of the Final EIS for the SNWA GWD Project in the Federal Register, Volume 77, Number 150, EIS No. 2012-0254 page 46433, on August 3, 2012. With the publication of that NOA, the BLM initiated a 60-day availability period.

The Final EIS was placed in the public files of the BLM and is available for public viewing on the BLM's Web site at http://www.blm.gov/5w5c. Copies of the Final EIS were mailed to Federal, state, and local government agencies; elected officials; Native American tribes; local libraries and newspapers; parties to the BLM's proceeding; individuals who provided scoping comments or commented on the Draft EIS; and individuals who requested to remain on the mailing list for this project. Printed versions of the Final EIS were mailed to those specifically requesting them; all others received a digital version on CD-ROM. The BLM has considered the more than 40 comment submissions on the Final EIS received in the 60-day availability period in the development of this ROD. **Attachment H** contains the comments received on the Final EIS.

The majority of the concerns that were raised by the public on the Final EIS were focused on impacts to cultural resources, air quality, water resources, water dependent biological resources, human resources both within the area of development and in Las Vegas, wildlife, monitoring/mitigation of the project and cumulative impacts from the long-term development of the resources. The comments received on the Final EIS were considered in development of this ROD.

All comments were carefully reviewed, however the BLM determined that none of the information presented by the commenters would require additional NEPA analysis before the decision within this ROD was rendered. The topics of most concern as expressed in the comments to the Final EIS are presented below.

12.4.4 Summary of Comments on Final Environment Impact Statement

Comment letters submitted on the Final EIS included more than 40,000 form letters responding to action alerts or similar notices from three entities: The Center for Biological Diversity, The Sierra Club, and Food and Water Watch. In addition, over 40 letters were received from discrete entities including Federal, state, and local governments, Tribal governments and tribal members, non-governmental organizations, and individuals.

Letters were reviewed against the criteria presented in the BLM Manual H-1790-1 National Environmental Policy Act Handbook: "…review any comments on the Final EIS, to determine if they have merit; for example, if they identify significant new circumstances or information relevant to environmental concerns and bear upon the proposed action."

Each letter was reviewed, as was any unique text added to the form letters. None of the submitted letters were determined to present substantive comments based on the above criteria. As a result, there is no need for an amended or supplemental EIS.

The majority of comments are related to the following:

Comment or Concern	Justification for No Additional Analysis
Questions and concerns regarding the analysis process used in the Final EIS: 1) the specific analysis for the action before the BLM (granting a ROW for the main pipeline) and 2) the programmatic analysis performed as a base for subsequent NEPA tiering related to additional ROW requests for future facilities.	This concern is related to the public being unfamiliar with the programmatic NEPA process. The process has been fully explained in the Final EIS and no additional treatment in the ROD is necessary.
Uncertainty on how and when subsequent (future) NEPA tiers will be applied and how they will be tiered to this programmatic analysis.	Please see the discussion presented in Section 4.2 of the Executive Summary in the Final EIS.
Concerns related to the spread of invasive species on disturbed areas and the relatively slow vegetation recovery times due to the low precipitation levels in the area.	The Environmental Consequences section of the Final EIS Vegetation section (3.5.2) addresses these concerns. The supplied mitigation measures ROW-VEG-1 and ROW-VEG-2, RMP BMPS, and SNWA ACMs address the stated concerns.
Concerns related to the validity of the groundwater model used as a basis for the water resource and water-dependent resource analyses.	A detailed write-up including the hydrogeology, conceptual flow, and other geologic characteristics accounted for in the model is presented in Section 3.3.1.5 of the Final EIS.
References to other water models that have been developed to address projects or other needs within the project area. The majority of comments questioned the decision to not include the data produced from those models in the EIS analysis.	The groundwater model used for this analysis underwent extensive peer review, uses respected scientific methods, and is specific to the area of concern. Other models exist and some address portions of the project area (see Section 3.3.2.8 of the Final EIS). Due to differences in their construction, scale, and methodology, it was determined that they did not improve the analysis presented in the Final EIS and therefore, the groundwater model used is the best available tool for this analysis.
Questions related to how the monitoring, management, and mitigation process presented in the Final EIS will be used by the BLM. Concerns that the BLM cannot ensure that the processes are actionable and will provide timely information that can be used to address on-the-ground impacts.	The COM Plan framework is intended to be used by future decisionmakers to enact appropriate mitigation and monitoring for subsequent NEPA tiers, including groundwater withdrawal actions. The BLM has control of the ROW grant and can take appropriate action as discussed in **Attachments C** and **D** of this ROD.

Comment or Concern	Justification for No Additional Analysis
Lack of specific biological resource management objectives for use as a comparative benchmark for measurement of the project impacts.	Although several systems were presented and evaluated, the systems would not impact the analysis presented. It was deemed that the systems were more applicable to subsequent monitoring and mitigation and could be incorporated at a later date if the team determined that they added value.
Concerns related to climate change and desertification.	The unknowns related to climate change and associated drought, are addressed in the climate change section (3.1.1.3 in the Final EIS and individually as related to each resource area).
Concerns related to the potential for increased particulate matter being blown throughout the Great Basin and Wasatch Front; in both attainment and non-attainment areas.	A regional air quality model was used to make an assessment of potential impacts. The model was peer-reviewed and meets the requirements for this type of programmatic analysis. More specific models or other assessment tools would be utilized in subsequent NEPA.
Questions on project costs and who will pay, how they will pay, etc.	This topic is addressed in Chapter 1 and Section 3.18 of the Final EIS. The BLM has determined that this subject is not under the purview of the action before the agency. Also see Section 3.4 in the Executive Summary of the Final EIS.
Concerns that the Final EIS overestimated the population estimates (in Clark County) to support demand for the project.	This topic is addressed in Section 3.18 of the Final EIS and due to the unknowns related to project inception and future growth, the differences in the projections do not modify the analysis in the Final EIS.
Statements that the BLM conducted inadequate tribal consultation.	See Appendix G in the Final EIS and **Attachment G** in the ROD.
Statements that the BLM failed to protect Indian resources and ignored Indian concerns.	An Ethnographic Assessment was completed and extensive consultation was conducted by the BLM. See Appendix G in the Final EIS and **Attachment G** in the ROD.
Concerns related to springsnails and the springs in which they are located. In particular, the commenter submitted information regarding the presence of the bifid duct pyrg in Turnley Spring, Rock Spring, and Unnamed springs 1 and 2 situated between Turnley and Rock springs.	These four springs occur in areas that have been classified as "low risk" for drawdown from pumping because they are not located within the 10-foot drawdown contours and no other information identified potential pumping effects (Final EIS, Appendix F3.7, Table F3.7-13C). Accordingly, the additional information regarding potential presence of the bifid duct pyrg in these springs does not modify the analysis presented in the Final EIS.
Concerns related to under-reporting the extent of hydric soils related to differences in analysis methods.	A comparative analysis determined that the commenter-presented data were derived from a different data set/method of analysis than that used in the Final EIS and included a greater extent of hydric soils than were used in the Final EIS analysis. The Final EIS analysis was based on the extent of hydric soils occurring in areas of moderate to high risk of drawdown. Following a thorough analysis by the BLM, including a review of the assumptions, data, and conclusions presented in the Final EIS, it was determined that the new information submitted would not modify any Final EIS conclusions in the soils section or any other related natural resource sections.

12.4.5 Notification of this Record of Decision

The following actions will notify and provide this decision to the public:

1. A news release will be distributed to local and regional media announcing the release of the ROD;
2. A "Notice of Availability" will be published in the Federal Register;
3. The ROD will be published on the BLM web site (www.blm.gov/5w5c);
4. A hard copy of the ROD (with attachments on included CD) will be provided to parties on the mailing list; and
5. Copies of the ROD will be available for review at the BLM offices in Reno, Las Vegas, Ely, and Caliente.

13. Management Considerations

13.1 Legal and Policy Mandates

The FLPMA requires public lands to be managed for multiple use and sustained yield and directs the BLM in its management of public lands to prevent unnecessary or undue degradation of public lands 43 USC § 1732(b) in a manner that will "protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values" 43 USC § 1701(a). The FLPMA also requires that: each ROW shall contain such terms and conditions deemed necessary to; protect Federal property and economic interest; protect lives and property; protect the interest of individuals who rely on the fish, wildlife and other biotic resources; and protect the public interest in the lands 43 USC § 1765.

As part of its "reservation for local public purposes" provisions, the SNPLMA requires the Secretary, upon application, to issue ROWs on Federal Lands in Clark County to a unit of local government or regional governmental entity (in accordance with the FLPMA and other applicable law) for all reservoirs, canals, channels, ditches, pipes, pipelines, tunnels and other facilities and systems needed for the impoundment, storage, treatment, transportation or distribution of water.

The LCCRDA requires that the Secretary grant to the SNWA and the Lincoln County Water District "nonexclusive ROW to Federal land in Lincoln County and Clark County, Nevada for any roads, wells, well fields, pipes, pipelines, pump stations, storage facilities, or other facilities necessary for the construction and operation of a water conveyance system..." The LCCRDA provides, "Before granting a ROW under paragraph (1), the Secretary of the Interior shall comply with the NEPA (42 USC § 4321 et seq.) including the identification and consideration of potential impact to fish and wildlife resources and habitat."

The NEPA places an obligation on the BLM to consider potential environmental impacts of the proposed project and ensures that the BLM will inform the public that it has considered the environmental concerns in its decisionmaking process. The NEPA also requires the BLM to take a hard look at the environmental consequences of the Federal action that includes consideration of all reasonably foreseeable direct and indirect impacts and a discussion of residual impacts that cannot be properly avoided, minimized or mitigated. A programmatic analysis must provide sufficient detail to foster informed decisionmaking, but site-specific impacts need not be fully evaluated until a critical decision (subsequent tiers) has been made to act on site development.

The BLM policy guidance listed below was followed in reaching this decision:

- Authorize all ROW uses on Federal lands in the most efficient and economical manner possible;
- Manage ROW use of Federal lands through a system of ROW corridors;
- Maximize the use of performance stipulations through the use of construction, operation, and maintenance plans (prepared as attachments to the POD); and
- Assure to the greatest extent possible that all identified impacts are mitigated and that the terms and conditions of the ROW grant are complied with as noted in the BLM Manual Section 2801.

All actions approved or authorized by the BLM also must conform to the existing land use plan where one exists (43 CFR 1610.5-3, 43 CFR 2920.2-5). The BLM's planning regulations state that the term "conformity" or "conformance" means that "...a resource management action shall be specifically provided for in the plan, or if not specifically mentioned, shall be clearly consistent with the terms, conditions, and decisions of the approved plan or amendment" (43 CFR 1601.0-5[b]). The BLM determined that the Preferred Alternative is in conformance with the BLM Ely District RMP (2008b) and the BLM Las Vegas District RMP (1998) and no land use plan amendments are required.

The decision complies with the FLPMA, LCCRDA, and SNPLMA ROW requirements, BLM policy guidance, and existing land use plans. The SNPLMA mandates the BLM grant the ROWs requested by the SNWA in Clark County in accordance with the FLPMA and the BLM's ROW regulations. In addition, the BLM is required by the LCCRDA to grant ROWs requested in Clark and Lincoln counties. The SNWA's requested ROWs in White Pine County are granted pursuant to the BLM's general authority under the FLPMA.

13.2 Decision Rationale

The ROW grant based on this ROD will contain appropriate conditions in compliance with LCCRDA to address potential impacts to fish and wildlife resources and habitat. The ROW grant based on this ROD will meet the FLPMA requirement to prevent unnecessary or undue degradation of public lands and to satisfy the FLPMA ROW terms and conditions requirements of 43 USC § 1765. These requirements will continue to be met throughout the life of the grant through a variety of tools including the implementation of a POD and COM Plan including the subsequent tiers. The decision meets the BLM's purpose and need for the project (see Section 1 of this ROD) and considers SNWA goals and objectives. Actions approved are in compliance with RMPs.

In addition, SNWA has demonstrated that it has the technical and financial capability to construct, operate, and maintain its project. SNWA's status as a unit of local/regional government, current service provider in a major metropolitan market with an ongoing enterprise operation, a multi-million dollar budget, and established presence in the capital markets, is evidence of such capability.

Therefore, issuance of the ROW is consistent with statutory requirements and the BLM's multiple-use mission.

This decision is based on the site-specific evaluation of the main conveyance pipeline and related support facilities (Tier 1) and a programmatic evaluation of the associated groundwater development. The BLM used the most recent available data in the analysis. The BLM acknowledged in the Final EIS that some data were incomplete and unavailable and determined this decision could be made in the absence of those data. Where possible, the BLM identified a process to obtain the data to inform subsequent NEPA analyses.

13.2.1 Tier 1 Considerations for the Decision

The BLM, in the Final EIS, evaluated all reasonably foreseeable direct, indirect, and cumulative impacts including potential impacts to fish and wildlife resources and habitat as summarized in Chapter 10 of this ROD. This evaluation was based on a review of data supplied for the project, including the SNWA ACMs; field investigations; scoping; literature research; alternatives analysis; and contacts with Federal, tribal, state, and local agencies and members of the public.

The Final EIS identified all appropriate measures to avoid, minimize or mitigate direct, indirect and cumulative impacts and those measures are adopted by this decision, with the exception of those measures outside BLM jurisdiction. A summary of mitigation measures indicating whether they are within or outside the BLM jurisdiction is provided in Section 3.20 of the Final EIS. Adopted measures are provided in this ROD in **Attachments B** and **C**. **Attachment C** also includes direction from the BLM to SNWA recommending coordination with appropriate parties to accomplish the goals of those measures outside the BLM jurisdiction.

The Final EIS identified the residual impacts that remain following application of mitigation (Table 2.10-1 in the Final EIS). These residual impacts related to the construction, operation, and maintenance of the main conveyance pipeline include an extended period of time to return to pre-construction conditions due to climate conditions of the region.

As part of this decision, the BLM has prepared a COM Plan Framework to identify monitoring, mitigation, and management requirements relating to the construction, operation, and maintenance of the main conveyance pipeline and related facilities considered under the Tier 1 NEPA process and other regulatory processes. This is described in Chapter 3 of this ROD.

13.2.2 Programmatic Considerations for the Decision

The decision to authorize issuance of the ROW will not authorize any groundwater development. However, since the purpose of the pipeline is to convey groundwater from the identified basins, the potential impacts from this groundwater development were analyzed through the use of a regional groundwater model and other information. The BLM used an appropriate geographic scope that encompassed the groundwater basins potentially affected by groundwater drawdown from this project, as well as the areas that contain species or habitat of special environmental concern.

The BLM established a Natural Resources Group, which used a collaborative process to compile baseline data relative to soils, vegetation, aquatic species, and wildlife. The group consisted of representatives from the BLM Nevada and Utah Offices, USFWS Nevada and Utah, Utah Division of Wildlife, Nevada Department of Wildlife, BLM EIS Contractor, and SNWA.

The BLM also established a technical review team of hydrology specialists from the BLM Nevada and Utah State Offices and National Operations Center in Denver, the USGS, and BLM EIS Contractor to review this groundwater model. The review team included two groundwater flow modeling experts. A technical specialist from the NSE's Office observed the review process.

In March 2012, the NSE granted SNWA rights to 83,988 afy of groundwater in 4 valleys (Spring, Cave, Delamar, and Dry Lake). As part of the permit approval, the NSE does not grant access rights to construct infrastructure for water development on or across Federal lands under the jurisdiction of the BLM such as the Federal public lands at issue in this decision.

Throughout the process, the BLM received information from cooperating agencies and the public regarding other groundwater models developed for areas within the region, as well as comments expressing opposing views on the design of the groundwater model and its use. These models and comments were reviewed, considered and addressed in the EIS. Although there are inherent uncertainties and limitations associated with results of a regional groundwater flow model that covers a broad region with complex hydrogeologic conditions, the BLM determined and described in the Final EIS (Section 3.3) that the EIS groundwater model was a reasonable and appropriate tool for estimating probable regional-scale drawdown patterns and trends over time for this project. When combined with the baseline information on water resources in the study area, the simulated drawdowns, flow estimates, and water budget estimates provide appropriate, reasonable and relevant results for analyzing the probable regional-scale effects and comparing alternatives for this programmatic level analysis.

Impacts described in the Final EIS related to programmatic environmental analysis of groundwater development are to be addressed through the COM Plan Framework process to ensure that appropriate comprehensive monitoring, management, and mitigation are in place. The COM Plan Framework process provides the BLM with a tool for managing the monitoring and mitigation process that is designed to protect resources identified in Chapter 3 of the Final EIS. The monitoring network will be established to provide warning of impacts in time to apply adaptive management and additional mitigation if needed.

At this programmatic stage, the BLM has established mitigation designed to protect Federal resources or Federal water rights. This mitigation includes:

- Geographic redistribution of groundwater withdrawals;
- Reduction or cessation in groundwater withdrawals;
- Augmentation of water supply for Federal resources and Federal water rights; and
- Use recharge projects to offset local groundwater drawdown.

The ROW grant will identify the BLM authority to enforce these measures.

As noted in the Final EIS, some impacts associated with the project (e.g., general drying of the valleys, increased dust, change in vegetation composition) are considered residual impacts. However, appropriate mitigation has been included in **Attachment D**. Future site-specific evaluation will address these impacts and provide more focused mitigation measures.

The BLM, through an interagency process, will define baseline and data gap needs to inform subsequent NEPA analyses, as described in **Attachment D** of this ROD. In addition to updating or revising the regional groundwater flow model, more detailed (local scale) groundwater flow models will be developed and designed to simulate effects of pumping within each specific basin. The decisionmaker will use additional information presented in future NEPA analyses to make decisions related to future project components.

13.3 Conclusion

In summary, the decisionmaker considered the extensive environmental analysis, which fully disclosed the environmental impacts of this project; agency, tribal, and public comments; and application of pertinent Federal laws and policies. Extensive monitoring and mitigation measures identified in this decision will ensure that the BLM meets the FLPMA requirement to prevent unnecessary or undue degradation of public lands. The BLM decision is to provide a single ROW grant (N-78803) in perpetuity to authorize the construction, operation, and maintenance of a water conveyance pipeline and ancillary facilities on Federal lands in Clark, Lincoln, and White Pine Counties, Nevada as described and depicted in the SNWA November 2012 Conceptual Plan of Development (**Attachment B**).

14. Appeal of this Decision

The Secretary or his designee has authority to approve this project. The Secretary's decision constitutes the final decision by the DOI, and in accordance with the regulations at 43 CFR 4.410(a)(3), is not subject to appeal under Department regulations at 43 CFR Part 4. Any challenge of this decision, including the BLM authorized officer's issuance of the ROW as directed by this decision, must be brought in Federal district court.

15. Final Agency Action

15.1 Recommendation

I recommend approval of the future granting of a right-of-way to the Southern Nevada Water Authority for the Clark, Lincoln, and White Pine Counties Groundwater Development Project. I recommend that the decision is subject to the southern Nevada Water Authority Plan of Development; and the terms, conditions, stipulations, and environmental protection measures reflected in this Record of Decision.

DEC 18 2012

Amy Lueders
Nevada State Director
Bureau of Land Management

Date

15.2 Decision

It is my decision to approve the future granting of a right-of-way to the Southern Nevada Water Authority for the Clark, Lincoln, and White Pine Counties Groundwater Development Project. This decision is subject to the Southern Nevada Water Authority Plan of Development; and the terms, conditions, stipulations, and environmental protection measures reflected in this Record of Decision. This decision is effective on the date it is signed.

Decision by:

Mike Pool
Bureau of Land Management

12/18/2012
Date

15.3 Departmental Approval

I hereby approve this decision. My approval of this decision constitutes the final decision by the U.S. Department of Interior, and in accordance with the regulations at 43 CFR 4.410(a)(3), is not subject to appeal under Department regulations at 43 CFR Part 4. Any challenge of this decision, including the Bureau of Land Management authorized officer's issuance of the right-of-way as directed by this decision, must be brought in Federal district court.

Approved by:

David J. Hayes
Deputy Secretary
Department of the Interior

12/19/12
Date