

# **RECORD OF DECISION**

## **Kane Springs Valley Groundwater Development Project**

### **Cooperating Agencies:**

**U.S. Fish and Wildlife Service  
Nevada Department of Wildlife  
Moapa Valley Water District**

**U.S. DEPARTMENT OF INTERIOR (USDI)**

**BUREAU OF LAND MANAGEMENT  
ELY DISTRICT OFFICE  
NVN79742**

19 November 2008

## **I. KANE SPINGS WATER DEVELOPMENT PROJECT DECISION**

**DECISION:** This document constitutes the Record of Decision (ROD) of the Department of the Interior (DOI) and the Bureau of Land Management (BLM) for the Kane Springs Valley Groundwater Development Project. This ROD is prepared in accordance with the National Environmental Policy Act (NEPA), the Federal Land Policy and Management Act (FLPMA), and other applicable Federal laws and regulations. The Kane Springs Valley Groundwater Development Project EIS evaluated the BLM action (issuance of ROWs) to the Lincoln County Water District (LCWD), the Lincoln County Power District #1 (LCPD), and Lincoln County Telephone (LCT) and the potential environmental effects that would result from implementation of the Proposed Action (construction and operation of the Proposed Action). Subsequent to completion of the FEIS, the LCWD requested, and BLM approved, a proposal to grant a single right-of-way (ROW) to the LCWD for all facilities necessary to complete the project.

After extensive environmental analysis, consideration of public comments, and application of pertinent Federal laws and policies, it is the decision of the BLM to grant a ROW to the LCWD for construction, operation, maintenance and termination of the Kane Springs Valley Groundwater Development Project. The ROW is on the alignment identified by the Kane Springs Valley Ground Water Development Project Final Environmental Impact Statement (FEIS) as the Proposed Action published on February 8, 2008. This is the environmentally preferable alternative of the BLM. All mitigating measures identified in the EIS will be applied.

**ROW GRANTS:** LCWD, in cooperation with LCPD and LCT, intends to construct groundwater facilities and ancillary utility infrastructure designed to pump and convey up to 5,000 AFY of groundwater for delivery to the northern portion of the Coyote Spring Valley. The project facilities would be located in southern Lincoln County, Nevada, within or immediately adjacent to the 2,640-foot wide utility corridor established by the Lincoln County Conservation, Recreation, and Development Act (LCCRDA) of 2004 (Public Law 108-424). The ROW to LCWD for the Proposed Action would be granted in perpetuity. Attachment 4 shows the general location of the project within southern Lincoln County, Nevada. Primary components of the Proposed Action include:

### **Ground Water Production Facilities**

- Up to seven groundwater production wells<sup>1</sup> (well field)
- Monitoring wells<sup>1</sup>
- Forebay water storage tank (up to 50,000 gallons)

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<sup>1</sup> A monitoring well (referred to as KMW-1) was completed in 2005 to assess the hydrogeology of Kane Springs Valley, obtain data to support the drilling of a water production well and to assist in revising the preliminary production well design. Following the construction and development of KMW-1, a production well (referred to as KPW-1) was constructed in late 2005 immediately adjacent to KMW-1.



- Water collection pipeline from each well to main transmission pipeline (up to 9.4 miles - actual length and diameter depending on final well location and flow rates)
- Water Transmission Pipeline 3.8 miles
- Terminal water storage tank (up to 700,000 gallons, located on private land)

### **Electric Utility Facilities**

- 138/69 kilovolt (kV) transmission line (up to 3 miles on private lands; 10.7 miles on federally managed lands).
- Emrys Jones Substation (located on private land)
- Up to seven well substations adjacent to each groundwater production well

### **Communication Facilities**

- Telemetry system/fiber optic lines

The LCWD ROW will consist of:

1. 9.4 miles of **collection pipeline which will be located** within a 60-foot construction easement (30-foot permanent easement) in areas where the **pipeline** parallels Kane Springs Road. The collection pipeline **will be located** in a 75-foot construction easement (60-foot permanent) where cross-country construction is required.
2. 3.8 miles of transmission pipeline which will be located within a 60-foot construction easement (30-foot permanent easement) in areas where it parallels Kane Springs Road. The transmission pipeline **will be located** in a 75-foot construction easement (60-foot permanent) where cross-country construction is required. The 24-inch diameter ductile iron pipeline will contain all appurtenant valves, thrust restraint, and cathodic protection.
3. From the new Emrys Jones substation, a 69-kV transmission line routed in general linear proximity to Kane Springs Road to LCWD's planned well field, a distance of approximately 10.7 miles. At each well location, a 69-kV to 4.16-kV step-down substation **will be constructed** to serve the planned pump motor and ancillary equipment. The electric transmission lines would typically parallel the water transmission pipeline and share the pipeline's temporary construction easement. In areas of cross-country travel, the electric transmission lines would be constructed within a 100-foot wide easement. After construction, the electric transmission lines would require a 100-foot wide permanent easement.
4. The fiber **optic** line **will be within the same trench** as the LCWD pipeline ROW and will have a 10-foot wide permanent easement.

LCWD will be responsible for constructing and operating the groundwater production/delivery system, electrical and fiber optic facilities under BLM ROW serial

**EXHIBIT A**  
**for**  
**Amended Stipulation between LCWD&VWC and the United States Fish and Wildlife Service**  
  
**MONITORING, MANAGEMENT AND MITIGATION PLAN GROUNDWATER**  
**DEVELOPMENT IN KANE SPRINGS VALLEY**

The purpose of this plan is to describe the agreements of Lincoln County Water District and Vidler Water Company, Inc. (LCWD&VWC) and the United States Fish and Wildlife Service (FWS) regarding the monitoring, management, and mitigation of potential impacts due to development of ground-water resources in the Kane Springs Valley area. This plan applies to proposed ground-water development in Kane Springs Valley that consists of the use of water under State of Nevada water-rights applications numbered 72218, 72219, 72220 and 72221 and the subsequent applications 74147, 74148, 74149, and 74150, filed by LCWD&VWC.

The Plan describes the LCWD&VWC and FWS (hereinafter referred to as "the parties") obligations regarding the development, monitoring, management, and mitigation related to the above numbered applications in Kane Springs Valley Hydrographic Basin for use that water in Coyote Spring Valley Hydrographic Basin.

This plan consists of four principle components, as follows:

1. *Monitoring Requirements*, related to production wells, monitoring wells, elevation control, and springflow, water quality, quality of data, and reporting.
2. *Management Requirements*, related to the creation and role of a Technical Review Team (hereinafter referred to as "the TRT"), the development and use of a numerical ground-water flow model, the establishment of action criteria, and the details of the decision-making process.
3. *Mitigation Requirements*; and
4. *Modification of the Plan*.

The common goal of the parties is to manage the development of the LCWD&VWC Water Rights in their entirety from Kane Springs Valley Hydrographic Basin, without resulting in any losses to senior federal water rights or unreasonable adverse impacts to federal water resources. The parties will collaborate on technical data collection and analysis and will rely on the best scientific information available in making decisions required by the Plan.

1. **Monitoring Requirements**

A. *Production Wells*

- LCWD&VWC will record discharge and water levels in their production wells in Kane Springs Valley on a continuous basis as is feasible.

B. *Monitoring Wells*

LCWD&VWC, as determined by the parties to this agreement, in consultation with the Nevada State



Engineer, shall locate and construct two monitoring wells down gradient from the Kane Springs Valley ground-water production well (KMW-1). The location of the first proposed monitoring well (CSIMW-1) is to be an equal distance between the existing Southern Nevada Water Authority Monitoring Well Four (CSVM-4) and the Coyote Spring Investment monitoring well CE-VF-2. Further, CSIMW-1 will be located on the north (hydraulically upgradient) side of the interpreted southwestern extension of the Kane Springs Wash fault zone on Coyote Springs Investment property along the existing abandoned Highway 93. The second proposed monitoring well (CSIMW-2) is to be located on the south (hydraulically downgradient) side of the interpreted southwestern extension of the Kane Springs Wash fault zone on Coyote Springs Investment property along the existing abandoned Highway 93. Specifically, the second well would be sited such that the distance between the monitoring well CSIMW-1 and the aforementioned fault zone is approximately equal to the distance between the fault zone and CSIMW-2. See Attachments "A-1", "A-2", "A-3" and "A-4" to this Exhibit A. FWS shall work with LCWD&VWC in good faith to ensure that the well is located and constructed in a cost-effective manner, to enable the monitoring of the potential southward progression of groundwater level declines resulting from proposed ground-water production in Kane Springs Valley.

- All monitoring wells used as part of this plan shall be installed and water levels recorded on a continuous basis as is feasible, beginning as soon as possible after the State Engineer decision relative to the Kane Springs Valley Applications.
- The initial groundwater level would be established at the time that the pumping wells in Kane Spring Valley were ready to go on-line.
- The term "as is feasible" shall relate to mechanical failures and the issues associated with the remoteness of the locations, or other events outside the control of the parties that do not permit data collection.
- The locations and monitoring frequency of the monitoring-well network will be reviewed by the TRT on an annual basis beginning in 2007, and may be reduced or expanded in scope upon its recommendation.

#### *C. Elevation Control*

- LCWD&VWC will conduct a detailed elevation survey of all their wells used for monitoring as part of this plan. LCWD&VWC will cooperate in any regional plan organized by the Nevada State Engineer to determine elevation above sea level of all major spring orifices and monitoring and production wells in the Lower Colorado Flow System region. LCWD/VWC will match the Southern Nevada Water Authority's current datum relating to monitoring and production well elevations.

#### *D. Water Quality*

- LCWD&VWC will collect water quality samples and have them analyzed for major ions, trace elements, and isotopes at all production and monitor wells used as part of this plan (as specified in Sections 1.A and 1.B.) commencing July 1, 2007.
- Thereafter, LCWD&VWC will collect and analyze water-quality samples for major ions, trace

elements, and isotopes at all production and monitoring wells used as part of this plan every five years thereafter.

- Samples will be collected, analyzed and reported according to standard methods.
- Frequency, sampling location, and water quality parameters will be reviewed by the TRT on an annual basis beginning in 2007, and may be reduced or expanded in scope upon its recommendation.

E. *Reporting*

- All data collected under or as described in this plan, shall be fully and cooperatively shared among the parties.
- Water level and production data shall be provided to the FWS within 60 days of its collection by LCWD&VWC. LCWD&VWC will use its best efforts to provide data to the FWS within 30 days of its submission to LCWD&VWC, or in the case of water quality data, within 90 days of receipt of laboratory results.
- LCWD&VWC will report the results of all monitoring and sampling under this plan in an annual monitoring report

2. Management Requirements

A. Action Criteria

The Parties recognize that maintenance of minimum in-stream flows in the Warm Springs area is essential for the protection and recovery of the Moapa dace. Further, the parties recognize that existing data is insufficient to determine if the groundwater development in Kane Springs Valley Hydrographic Basin, that is the subject of the Plan, affects the in-stream flows in the Muddy River Springs/Warm Springs Area, and if so, to what extent. Thus, the parties agree as follows:

1. For purposes of this paragraph A., all "Average Flow Levels" specified herein shall be determined by flow measurements at the Warm Springs West flume. Average Flow Levels will be determined to have reached a particular level within a range specified in paragraphs B(2) through (7) ("Trigger Range"): (1) if the daily average flow for each of 45 consecutive days decreases to an amount within the Trigger Range, or if the 90 day average flow over any 90 consecutive day period decreases to an amount within the Trigger Range; or (2) if the daily average flow for each of 90 consecutive days increases to an amount within the Trigger Range, or if the 135-day average flow over any 135 consecutive day period increases to an amount within the Trigger Range. Any adjustment in the rating curve for the Warm Springs West flume shall result in a pro-rata adjustment of the Trigger Ranges.

2. If the Average Flow Level decreases to an amount within the Trigger Range of 3.2 cfs or less, the Parties agree to meet as soon as practicably possible to discuss and interpret all available data and plan for mitigation measures in the event flows continue to decline; and



3. If the Average Flow Level is within the Trigger Range of 3.15 cfs or less but greater than 3.0 cfs, LCWD&VWC agree to reduce pumping from all wells in Kane Springs Valley by 50% or to a pumping level no greater than 2,500 afy, whichever results in the lesser amount of pumping, until the Average Flow Level exceeds 3.15 cfs.

4. If the Average Flow Level is within the Trigger Range of 3.0 cfs or less, LCWD&VWC agree to cease pumping from all wells in Kane Springs Valley until the Average Flow Level exceeds 3.0 cfs. However, if LCWD&VWC, together with Coyote Springs Investment, LLC ("CSI"), effectuate a reduction in the quantity of water CSI would have otherwise been entitled to pump in a given year from wells within the Coyote Spring Valley, then LCWD&VWC shall have the right to pump a like quantity of water from wells within Kane Springs Valley in that year.

#### **B. Technical Review Team**

1. Upon execution of this Stipulation, the Parties shall establish a Technical Review Team ("TRT") whose members shall include two representatives ("TRT Representatives") each from LCWD&VWC and the FWS, including at least one with substantial formal training and experience in hydrogeology ("Technical Representative"). Except as otherwise provided herein, the two TRT Representatives shall together have one vote on TRT matters. By consensus, the TRT Representatives may offer voting or non-voting TRT membership to others who provide regional monitoring records and analyses to the TRT.

2. The objectives of the TRT shall be to review existing data, make recommendations concerning the monitoring efforts required by this Plan, and determine whether other criteria, such as water levels in monitoring wells, are a better indicator of potential effects of the pumping wells on the springs in the Muddy River Springs/Warm Springs Area. Either party may advance any recommendation for consideration by the other party to modify the action criteria. However, no change in the action criteria shall occur within the first five (5) years following the effective date of the Plan. After this five year period, and if the TRT reaches a consensus on changes to the action criteria, such criteria may be changed.

3. If the TRT Representatives are unable to reach consensus on the action criteria, the Parties shall refer the matter to a qualified panel of third party reviewers ("Panel") consisting of three scientists unaffiliated with any Party and having substantial formal training and experience in hydrogeology. If the Parties cannot agree by consensus on the make-up of the Panel, one member of the Panel shall be designated by each of the following from its own ranks: U.S. Geologic Survey, Nevada State Engineer (if the Nevada State Engineer declines to participate, then the Desert Research Institute shall be substituted), and a private firm with the requisite expertise designated by a majority of the Parties ("Appointing Entities"), provided that the Parties by consensus may designate different similarly qualified Appointing Entities. If any Appointing Entity for any reason is unable or refuses to designate a member of the Panel, the Parties by majority vote shall designate a qualified replacement Appointing Entity. The purpose of the referral to the Panel will be to obtain peer review of the then-current action criteria, the data upon which it is based, all previously submitted data and reports, and any other relevant and available data and analytical materials. The Panel will be asked to make its recommendation

based on the foregoing information concerning the appropriate content of the action criteria. All Parties shall have a fair and reasonable opportunity to present factual and analytical submissions in person and/or in writing to the Panel. The Parties contemplate that a determination of the Panel on the action criteria will constitute the best available scientific information concerning the impacts on Muddy River Springs/Warm Springs Area and Muddy River flows resulting from regional groundwater pumping, and the appropriateness of any proposed pumping restriction adjustments. The cost of the Panel shall be borne equally by the Parties.

### **3. Mitigation Requirements**

- LCWD&VWC will mitigate unreasonable adverse impacts either as agreed upon by the parties or after the Nevada State Engineer determines whether there are unreasonable adverse impacts due to LCWD&VWC pumping. LCWD&VWC will take the necessary steps to ensure that mitigation actions are feasible.
- As part of their commitment to the recovery of the Moapa dace, LCWD&VWC shall commit \$50,000, annually for a period of five (5) years following the granting of the Applications, in total or in part, for the restoration of Moapa dace habitat outside the boundaries of the Moapa National Wildlife Refuge. Such restoration shall be conducted as agreed to by the FWS. In the event that the Applications as granted by the State Engineer total less than 2,500 afy, the parties agree to meet and renegotiate the annual funding amount to be consistent with the lesser quantity of water granted and the commitment by LCWD&VWC to participate in restoration activities of the Moapa dace. FWS acknowledges that Coyote Springs Investment LLC, a Nevada limited liability company (CSI), has dedicated certain quantities of water pursuant to a Memorandum of Agreement by and between the Southern Nevada Water Authority, the United States Fish and Wildlife Service, CSI, the Moapa Band of Paiutes, and the Moapa Valley Water District. FWS further acknowledges that CSI is the intended beneficiary of the water to be developed pursuant to the Applications. Thus, in the event that pumping of groundwater pursuant to the Applications is restricted pursuant to Section 2. A. of this Exhibit A to the Stipulation, FWS agrees to use any quantities of water dedicated by CSI pursuant to the MOA for the survival and recovery of the Moapa dace as directed in the MOA.

### **4. Modification of the Plan**

- LCWD&VWC and the FWS may modify this plan by mutual agreement. The parties also acknowledge that the State Engineer has the authority to modify this plan. In addition, LCWD&VWC and the FWS may individually or jointly petition the State Engineer to modify this plan in the event that mutual agreement cannot be reached. Any such petition shall only be filed after 90 days written notice to the remaining party. Either LCWD&VWC or the FWS may submit written comments to the State Engineer regarding the merits of any such petition for modification.