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WATER RESOURCES
WESTERN REGION

**Amended Ground Water Level Monitoring Plan
Permit 61-12090**

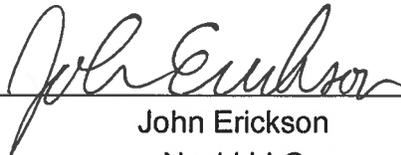
Prepared for

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1. INTRODUCTION

Permit 61-12090, held by Nevid LLC and approved on November 24, 2009, authorizes a maximum diversion of (1) 1.82 cubic feet per second (cfs) and 345 acre-feet per year (AFA) for municipal purposes and (2) 2.2 cfs for fire protection purposes. The permit requires that "the right holder shall provide the Department with a plan for monitoring ground water levels in the vicinity of the place of use for this water right" (Condition No. 6). This document provides such a plan.

2. MONITORING PLAN

The proposed monitoring plan consists of the following:

1. Install pressure transducers and dataloggers in two on-site wells:
 - a. A dedicated water-level monitoring well (shallow observation well) located in the NWSE of Section 11, T1S R4E (Figure 1). This well is completed with a screened interval extending from 418 to 538 feet below ground surface. A static water level of 370 feet below ground surface was recorded on November 2, 2010.
 - b. A 1,080-foot deep production well (Elk Creek Village production well) located in the NWSE Section 11, T1S R4E (this well is currently in construction).
2. Record water level readings every six hours for the first year, with re-evaluation of measurement frequency thereafter.
3. Install a barometric pressure recorder in the shallow observation well. Record pressure readings every six hours for the first year, with reevaluation of measurement frequency thereafter.
4. Install a flowmeter on the production well (e.g., magmeter) to record discharge over the first year, with re-evaluation thereafter. The flowmeter will meet IDWR's minimum acceptable standards for measurement and reporting of surface and groundwater diversions:
 - a. Minimum manufacturers' design accuracy of $\pm 2\%$ of reading;
 - b. Installed accuracy of at least $\pm 10\%$ of reading;
 - c. Meter must be calibrated with an independent, secondary measuring device when installed, and at least once every four years thereafter;
 - d. Must read instantaneous flow or be capable of flow rate calculation;
 - e. Must record total volume;
 - f. Non-volatile memory (power outage does not zero volume reading);

- g. Sufficient digits to assure "roll-over" does not occur within two years;
 - h. Volume reading cannot be reset; and
 - i. Installed to manufacturers' specifications (meter manufacturers typically specify that a meter must be located in a section of straight pipe at least 10 pipe diameters downstream and 5 pipe diameters upstream of any valves, bends, contractions, or other interferences that will distort the flow pattern).
- 5. Monthly hand measurement of water levels for the first year, and re-evaluation of measurement frequency thereafter.
 - 6. Collection of water levels in the production and shallow observation wells prior to the commencement of pumping.
 - 7. Monitoring with an increased datalogger reading frequency in the pumping well at the end of the irrigation season to facilitate water level recovery analysis.
 - 8. If possible, initiation of pumping using an uninterrupted, constant withdrawal rate over an extended period of time (e.g., five days) to evaluate the effects of extended pumping.
 - 9. Submission of an annual report to IDWR that includes:
 - a. Analysis of water level trends in the production well, shallow observation well, and nearby wells (e.g., based on available data from 01S04E-10DAD1, 01S04E-03ADB1, and/or 01S04E-03ADD1);
 - b. Reporting of discharge rates over time and analysis in relation to water levels;
 - c. Electronic records of water level and discharge data;
 - d. Evaluation of downward return flow from irrigation discharge water in relation to water levels; and
 - e. Reporting of crops grown and acres irrigated during the year.

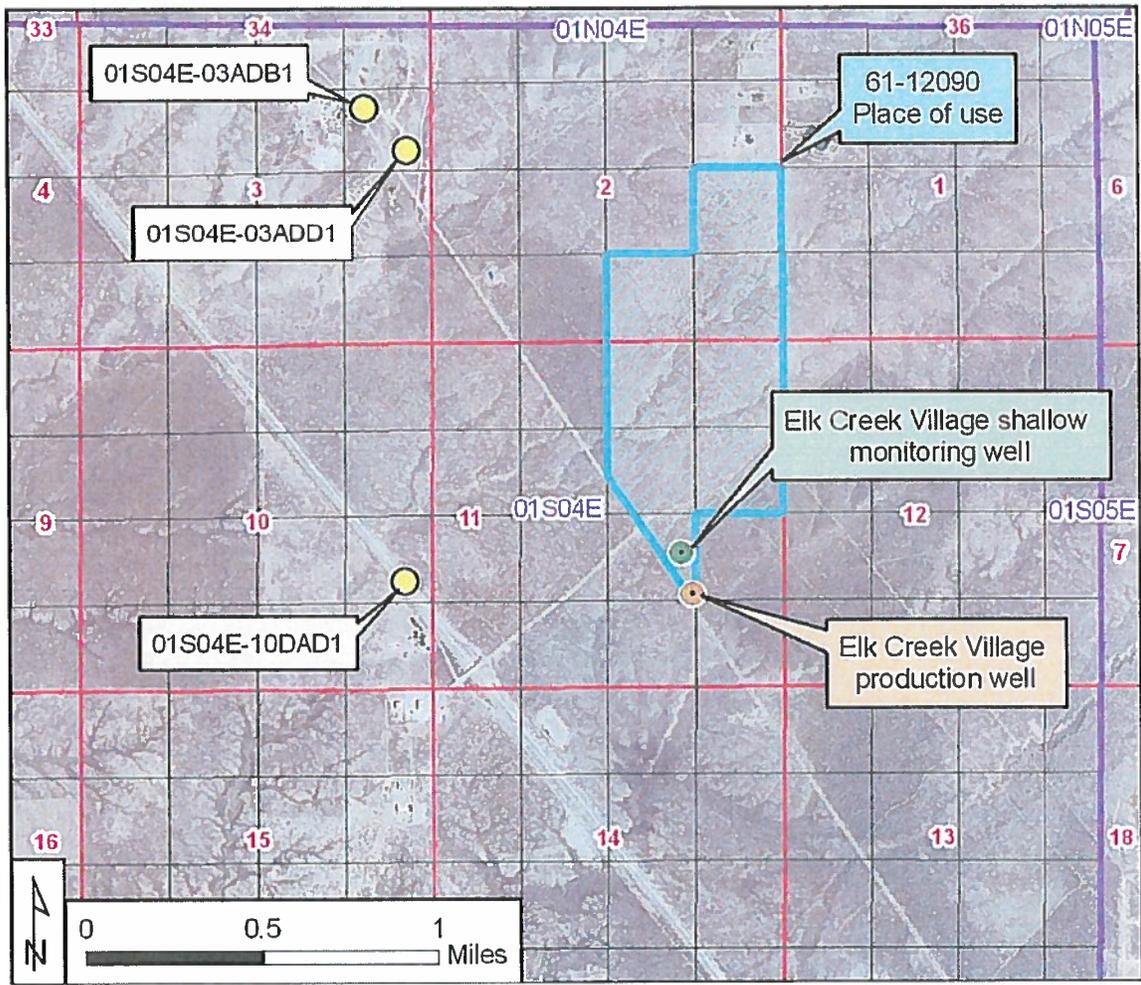


Figure 1: Elk Creek Village monitoring well locations.