



**United States Department of Agriculture
Rural Development
Nevada State Office**

April 7, 2011

Clearinghouse Coordinator
Department of Administration
Budget Division – State Clearinghouse
209 E. Musser, Room 200
Carson City, NV 89701

RECEIVED

APR 11 2011

DEPARTMENT OF ADMINISTRATION
OFFICE OF THE DIRECTOR
BUDGET AND PLANNING DIVISION

RE: Miller Ranch
Stone House Creek -186 kW Hydro Generation

Dear Coordinator:

Pursuant to the Memorandum of Understanding (MOU) between our agencies, this letter is to notify you that the USDA Rural Development is in receipt of a grant request for the referenced business to construct a 186 kW hydro power plant utilizing Stone House and Able Creek watersheds. The project is located at the Stone House Ranch about 5 miles south of Paradise Valley, Nevada on the west side of Nevada Highway 290. The project will construct a 16' x 16' power house for a turbine and generator adjacent to an existing diversion structure on the Stone House Ranch. After flowing through the turbine, the water will be returned to the channel above the existing diversion structure through a new underground pipe. The project will also construct 13,300 feet of subtransmission line designed for one 24.9kV three-phase (three conductors) circuit. This will transmit power from the turbine to the Miller Ranch on the east side across Nevada Highway 290. Single wood poles that are 35 feet high are proposed for the project. This project is located on private land owned by Nevada First Corporation and Miller Ranch will need to negotiate an agreement with the landowner for ownership of the project.

The above project depends on a separate construction project which will not be funded by USDA Rural Development. That portion of the project requires the construction of a new head works further up the Stone House Creek and 11,280 feet of penstock (underground pipeline) to deliver water to the turbine. Miller Ranch will apply for funding for this water conservation project from USDA Natural Resource Conservation Service. This portion of the project will be constructed on land owned by Nevada First Corporation and the Bureau of Land Management and will require both of their approvals.

Enclosed are maps and photos showing the location of the proposed project.

Unless the Clearinghouse Coordinator advises us otherwise within fourteen days of this notice, we will assume that the final Clearinghouse comments will not be forthcoming,

1390 S. Curry St. • Carson City, NV 89703
Phone: (775) 887-1222 • Fax: (775) 887-1287 • TDD: (775) 885-0633 • Web: <http://www.rurdev.usda.gov/nv>

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and therefore, the State Clearinghouse responsibilities of USDA Rural Development will have been satisfied.

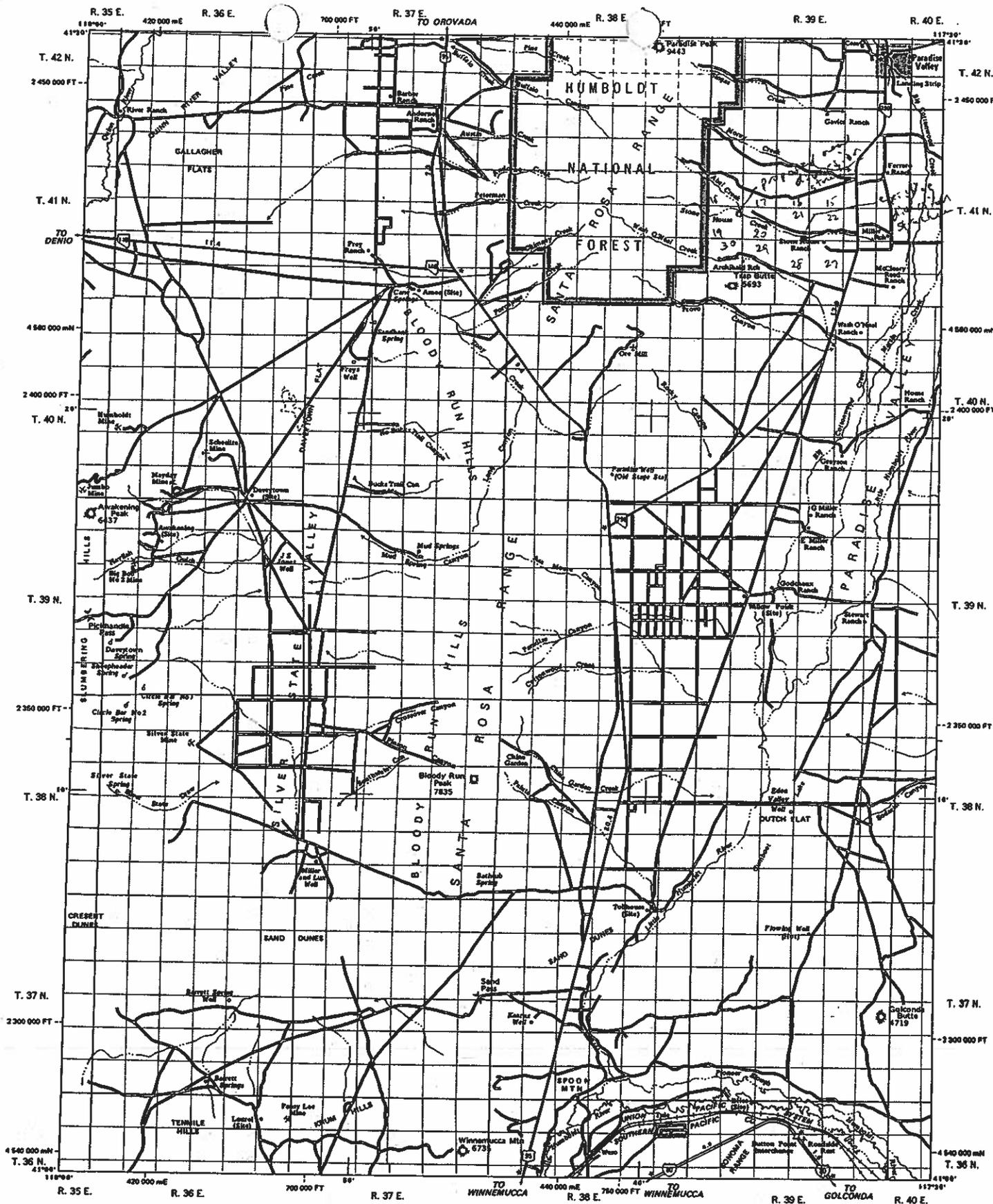
If you have questions or require additional information, please contact me at 775-887-1222, ext. 116 or by email at mark.williams@nv.usda.gov.

Sincerely,

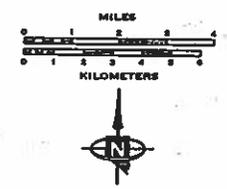
A handwritten signature in black ink, appearing to read "Mark R. Williams". The signature is fluid and cursive, with a horizontal line extending from the end.

MARK R. WILLIAMS
Energy Coordinator

Enclosures



Transverse Mercator Projection
 Mean Spheroid Earth and Meridian
 20,000 Feet Grid Based on Nevada
 Coordinate System West Zone
 20,000 Meter Universal Transverse
 Mercator Grid Zone 11
 Horizontal and Vertical Control Data on
 file at Carson City, Nevada
 Mileage Shown Between Signs
 Note:
 Dashed lines show the projection by the
 Bureau of Land Management of surveyed
 areas in the rectangular system of surveys

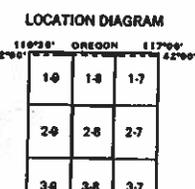


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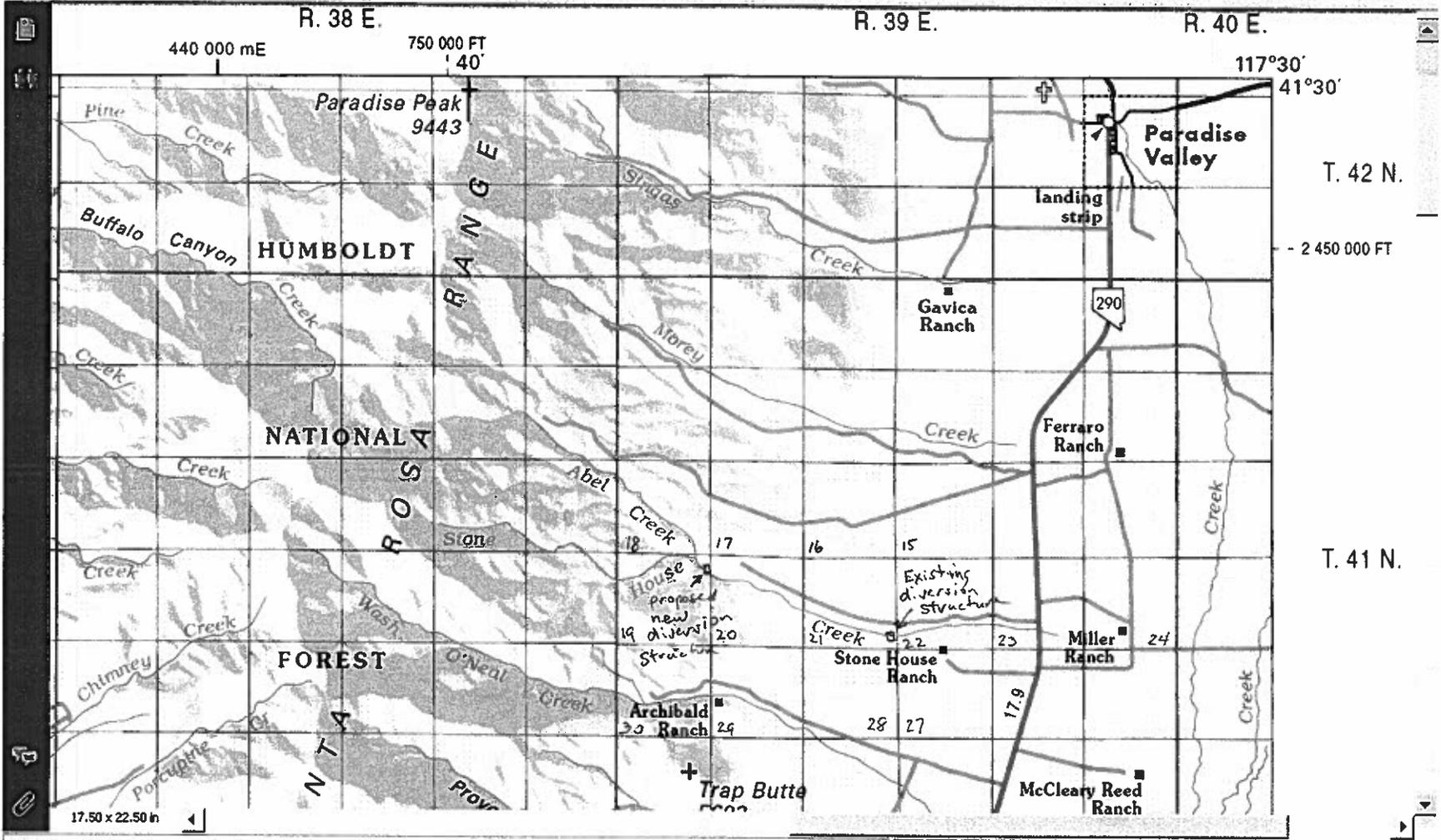
KEY TO ENLARGEMENTS

Paradise Valley

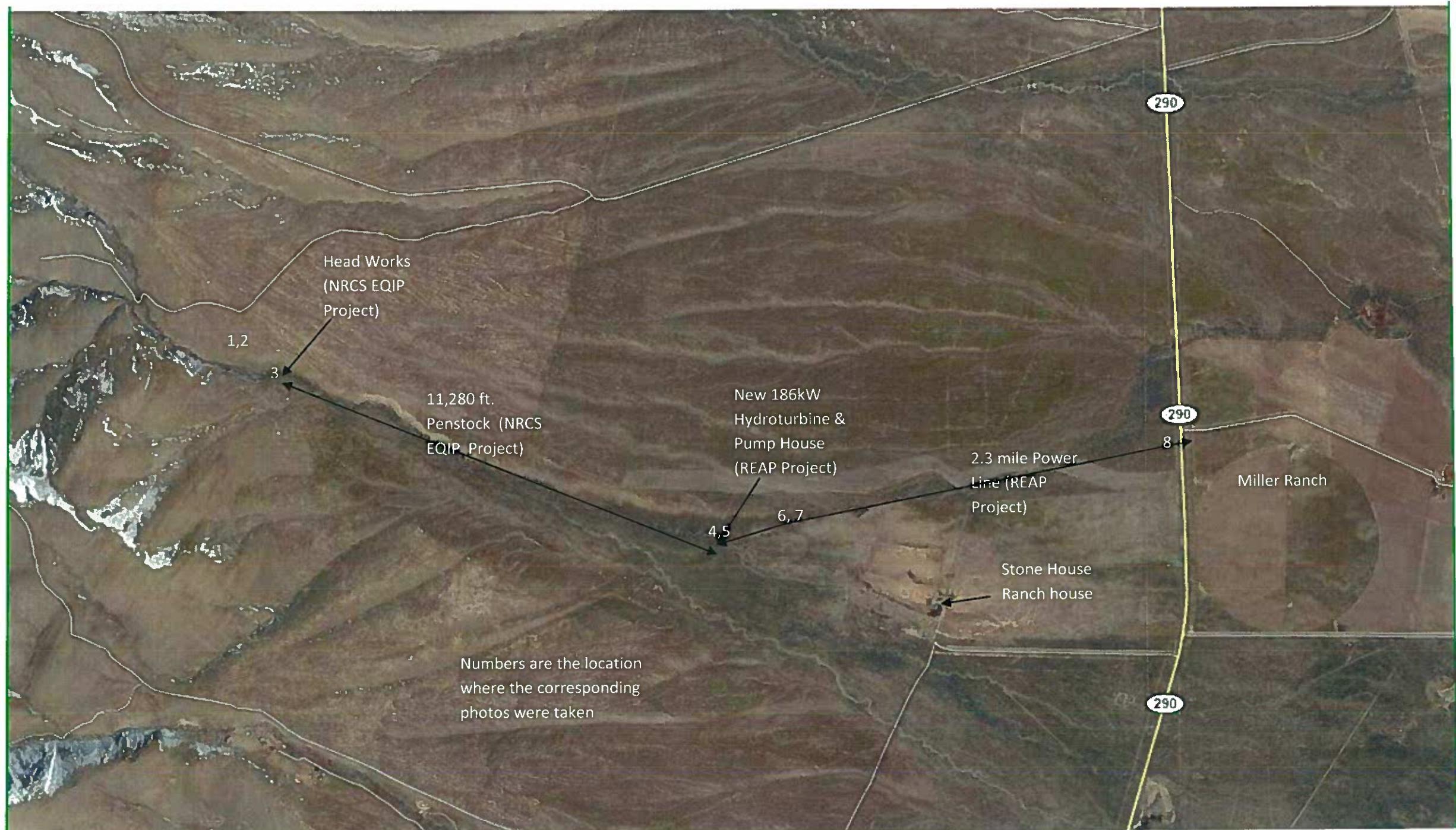
AREA APPEARS ON
 Paradise Valley Sheet 3



GENERAL HIGHWAY MAP
QUADRANGLE 2-8
 1987
 Humboldt County
 PREPARED BY
NEVADA DEPARTMENT OF TRANSPORTATION
 PLANNING DIVISION
 IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION



Miller Ranch – Stone House Creek – 186 kW Hydro Generation Project – Aerial View



Miller Ranch – Stone House Creek – 186 kW Hydro Generation Project

Photo 1. Looking southeast, general view of the site of the headworks and the path of the penstock.

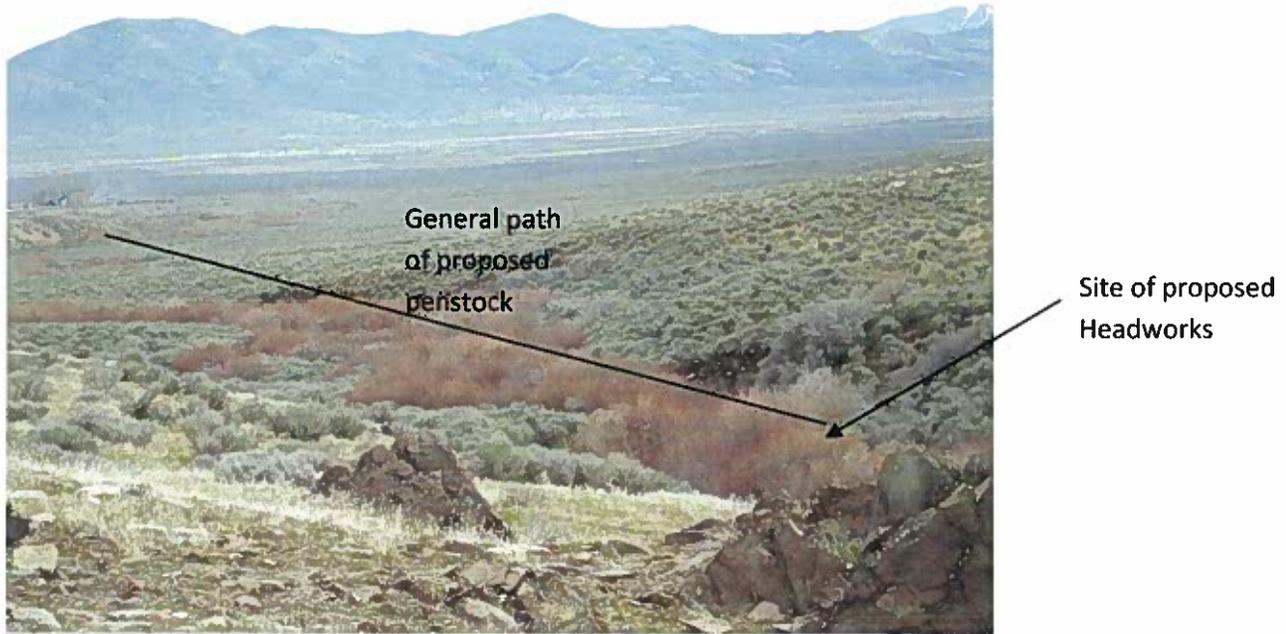


Photo 2. View looking west toward the Stone House and Abel Creek watersheds.



Miller Ranch – Stone House Creek – 186 kW Hydro Generation Project

Photo 3. Approximate site of the headworks



Photo 4. Water will return from turbine just upstream from existing diversion structure. Diversion on left (north) goes to existing headwork down stream and then into an existing pipeline to Miller Ranch.



Miller Ranch – Stone House Creek – 186 kW Hydro Generation Project

Photo 5. Approximate site of proposed turbine and powerhouse with existing diversion in view to the left. Power line will start at the turbine and run along existing road and pipeline to Miller Ranch.



Photo 6. Headworks for Miller Ranch existing pipeline.



Miller Ranch – Stone House Creek – 186 kW Hydro Generation Project

Photo 7. House on the Stone House Ranch is at least 1/4 mile from proposed power line



Photo 8. Proposed power line will cross road and terminate with existing power on the Miller Ranch.

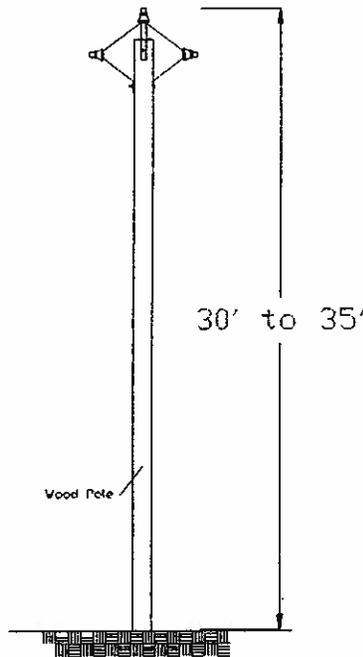


(g) Equipment Procurement

The materials used in this job are easily procured in the State of Nevada, with the exception of the 186KW Hydro Turbine Generator. All other materials have multiple suppliers and sub contractors. The 186KW Hydro Turbine Generator is not unique, it has multiple suppliers (see Hydro Equipment Manufacturers on page 2 of this report), but has a long lead time to delivery of 3 to 6 months depending upon the supplier. The generator control system is not unique and can be procured, and fabricated, in the State of Nevada.

(h) Power Line Installation

The proposed subtransmission line would be designed for one 24.9kV three-phase (three conductors) circuit. Single wood pole structures are proposed for the project. An illustration of a typical 24.9kV single-pole structure is provided in Figure 2. The span length between structures will range between 225 feet and 275 feet. Typical design characteristics are listed in Table 1. Final design characteristics will be determined in the detailed design phase of the project.



TYPICAL STRUCTURE

TYPICAL POWER LINE DESIGN CHARACTERISTICS	
Line length	Approximately 2.3 miles
Type of structure	Single-pole Wood
Structure height	30 to 35 feet
Span length	Approximately 225 to 275 feet
Number of structures per mile	20 to 22
Right-of-way width	Approximately 10 feet
Land disturbed (approximate): <u>Temporary</u> Structure site Wire pulling, splicing sites Construction yards (on private land) <u>Permanent</u> Structure	<p><u>Temporary</u> Temporary workspace would include an area between the existing access road to 10 feet beyond the permanent right-of-way; this width would vary between 40 and 60 feet. An area of approximately 30 by 40 feet per structure site is required for line construction equipment. An all-terrain vehicle would be used for wire pulling along the permanent right-of-way.</p> <p>Maximum of 3 to 4 acres total.</p> <p><u>Permanent</u> Approximately 4 square feet per structure; additional space may be needed in the locations where the pole is guyed.</p>
Access roads	Use existing access road.
Voltage	24,900
Circuit configuration	Single circuit 24.9kV
Conductor size	0.5-inch
Ground clearance of conductor	25 feet minimum
Pole foundation depth	7 to 14 feet

(i) **Right-of-Way Acquisition**

No new right of way will be required from the BLM for the subtransmission line. Private lands necessary for the subtransmission line right-of-way are owned by Nevada First Corporation.