



United States Department of Agriculture
Rural Development
Nevada State Office

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DEPARTMENT OF ADMINISTRATION
OFFICE OF THE DIRECTOR
BUDGET AND PLANNING DIVISION

August 7, 2009

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

Subject: Young Brothers Ranch – Hydro Plant

Dear Coordinator:

Pursuant to the Memorandum of Understanding (MOU) between our agencies, this is to notify you that the USDA - Rural Development is in receipt of a grant/loan combo request for the purchase and installation of a 93 kW Hydro Generation Project. Our agency's involvement would involve grant & possible loan funding for a maximum of 75% of the total project cost. The hydro plant will be located in Lander County two miles north of Kingston, in the Big Smokey Valley, Nevada.

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

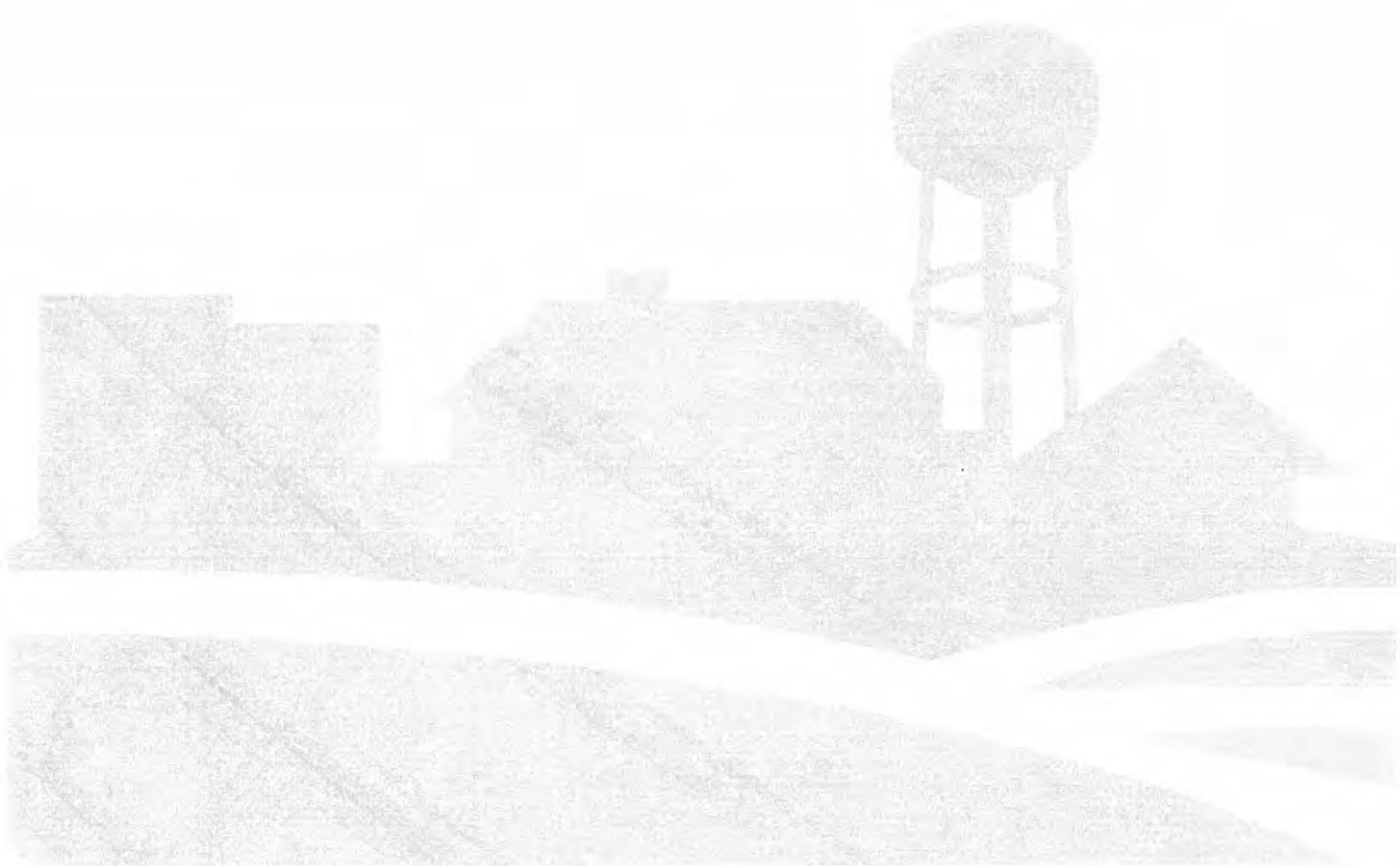
If you have questions or need additional information, please contact me at 775-887-1222, ext. 20.

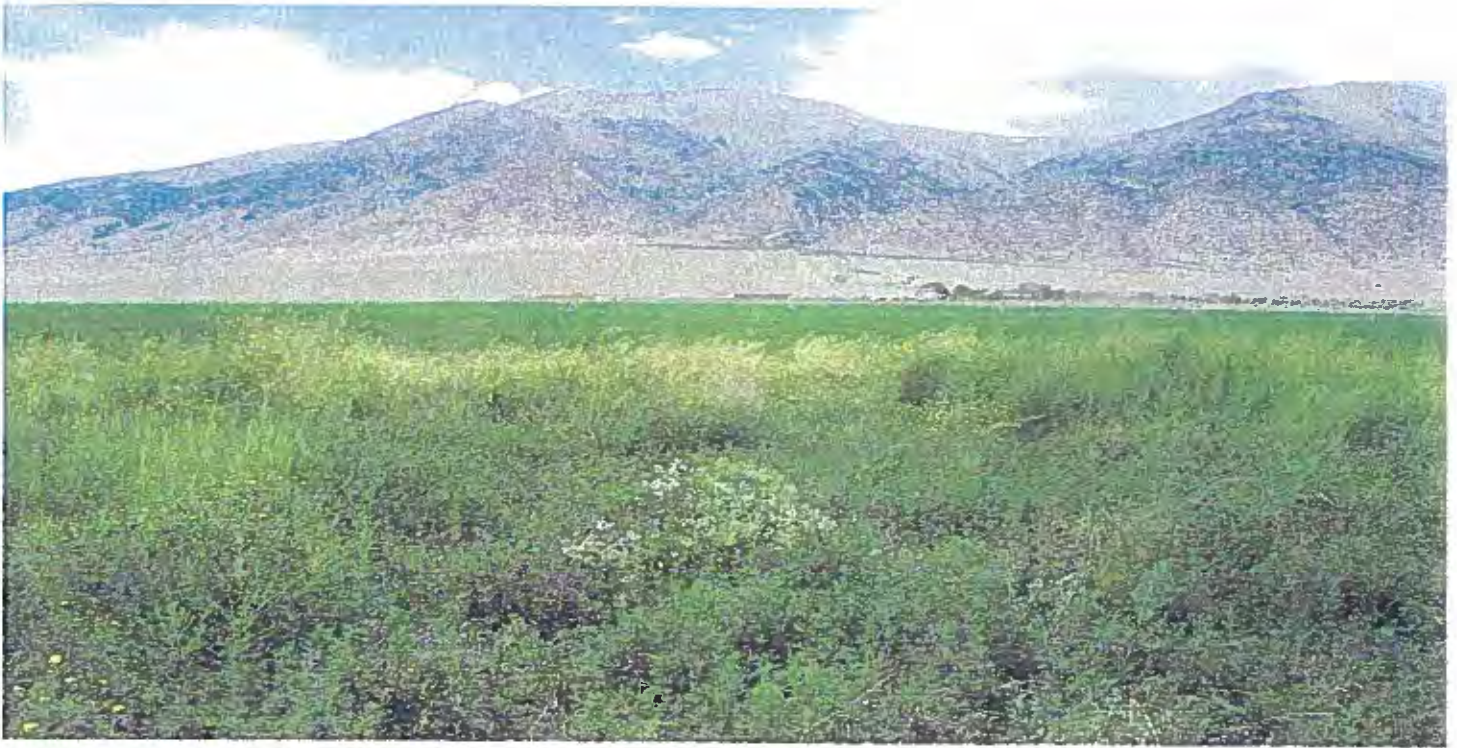
Sincerely,

Michelle Kelly
Business and Cooperative Specialist

Attachments

Cc: Yomba Shoshone Cultural Coordinator
Yomba Shoshone Tribe
HC-61, Box 6275
Austin, NV 89310





Looking West from building site towards ranch complex. (approx. path location 8" piping if needed)



Looking South from building site towards power pole and transformer. Hwy 376 on left



Looking West from pad site to ranch complex. (approx. path location 8" piping if needed)



Looking North from pad site. (approx. path location 8" piping if needed)



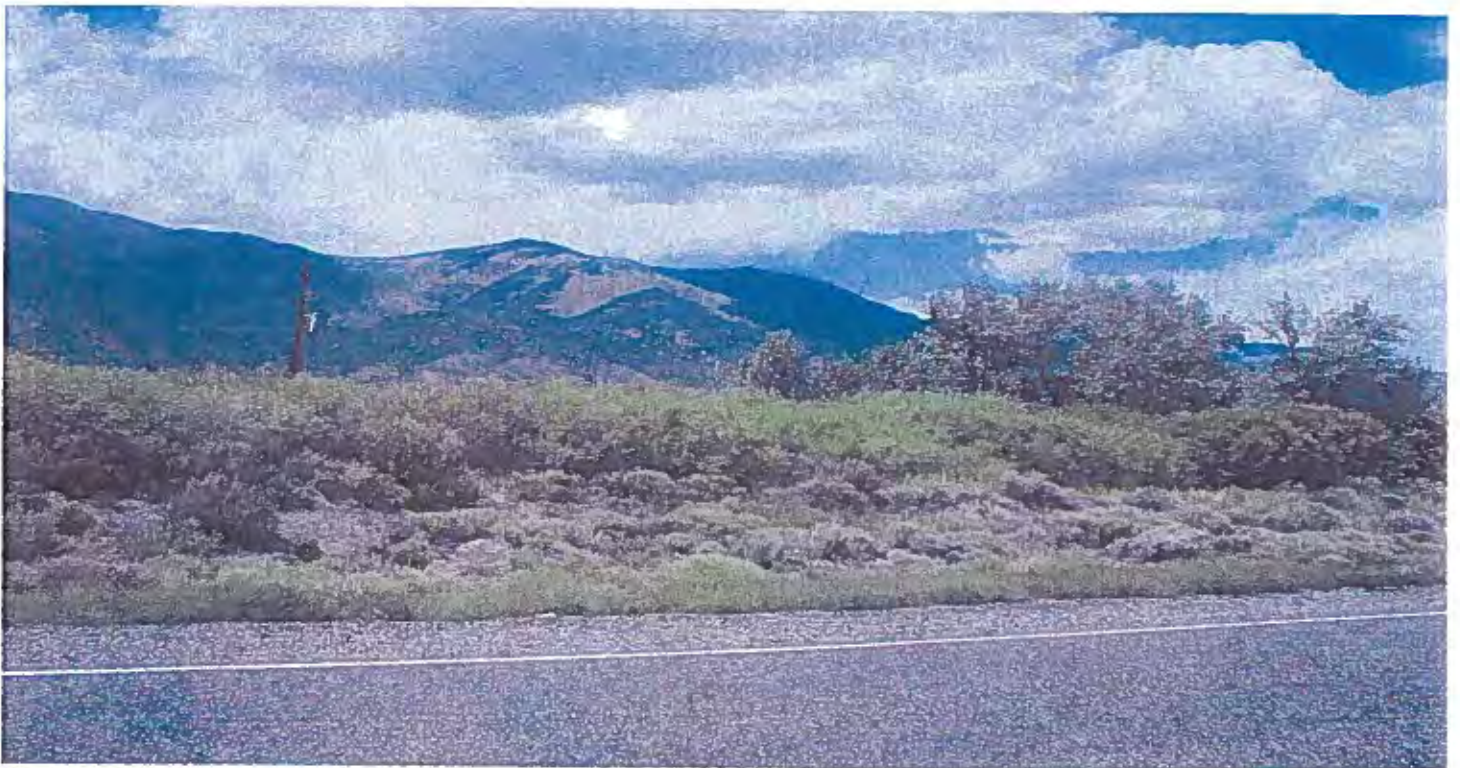
Looking South from pad site. (approx. path location 8" piping if needed)



Looking NorthEast from pad site. Hwy 376 on right.

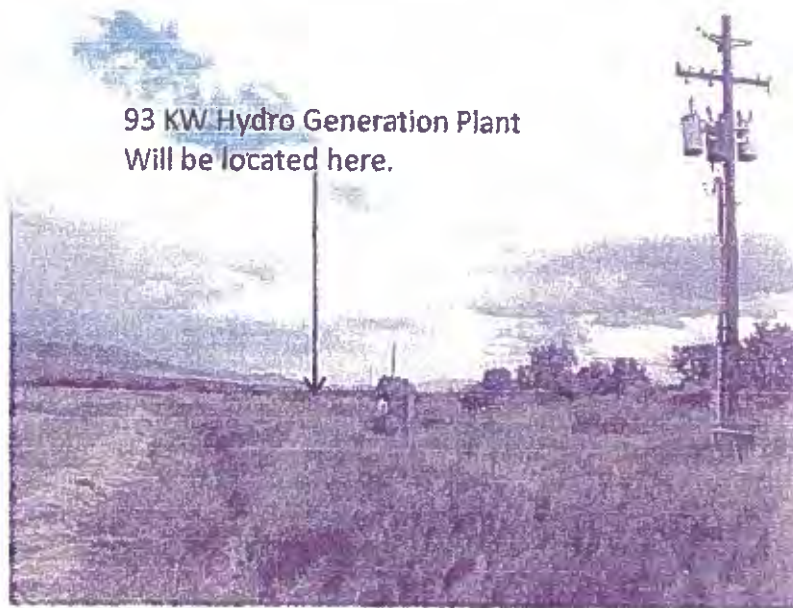


Looking South from pad site. Hwy. 376 on left.

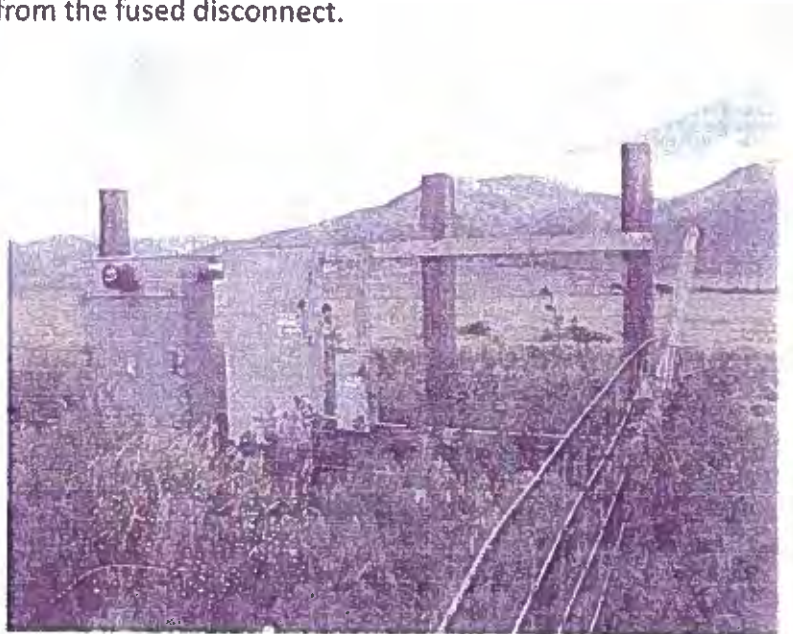


Looking West from Hwy. 376 toward pad site. (right of power pole)

Young Brothers Ranch – Home Ranch
93KW Hydro Generation Project
21 July 2009

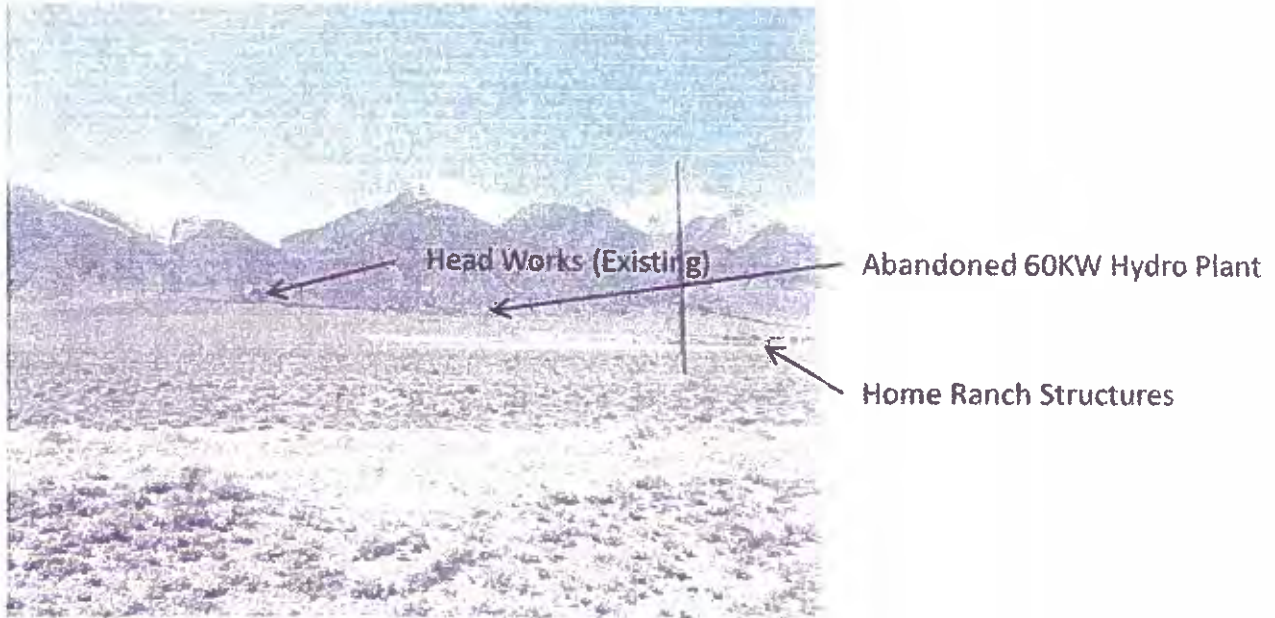


This photograph shows the location of the power pole and the 24.9 KVAC 3 Phase Power Line. The 3 phase transformer is located on the power pole. The meter box and fused disconnect is next to where the man is standing. The center pivot field is to the left. The 93 KW Hydro Generation Plant will be located to the right of the center pivot field, approximately 60 feet from the fused disconnect.



This photograph shows the meter box and the fused disconnect. The Home Ranch center pivot is in the background..

Young Brothers Ranch – Home Ranch
93KW Hydro Generation Project
21 July 2009



The Home Ranch is to the right of the photograph. The Home Ranch drainage is up and to the left.



This is the outlet of the 8" penstock. The water currently flows into the Kingston Creek Ditch and into the Young Brothers Reservoir. The water is used for irrigation.

The Home Ranch Hydro project utilizes two drainages connected by two 8 inch pipes to a concrete basin. The 12 inch penstock is then connected to the concrete basin with a weir used for flow control. If the weir overflows then the excess water travels down a creek bed, eventually percolating into the alluvium or possibly continuing to flow into the Kingston Creek ditch adjacent to the Home Ranch along Highway 376.

The best stream gage in the region is operated by the United States Geological Survey (USGS) on Kingston Creek, an adjacent drainage. The stream data from the USGS gage from October 1966 to September 2008 is presented (data between 1976 and 1995 included for mean, median and P25 analysis, however, removed from this data presentation).

The Kingston Creek drainage is approximately 4.3 times the size of the Home Ranch drainage, which is located in the same geographical area; part of the Toiyabe National Forrest in central Nevada. The following satellite photograph (courtesy of Google) illustrates the differences in drainage size between the Kingston drainage (green) and the Home Ranch drainage (blue):

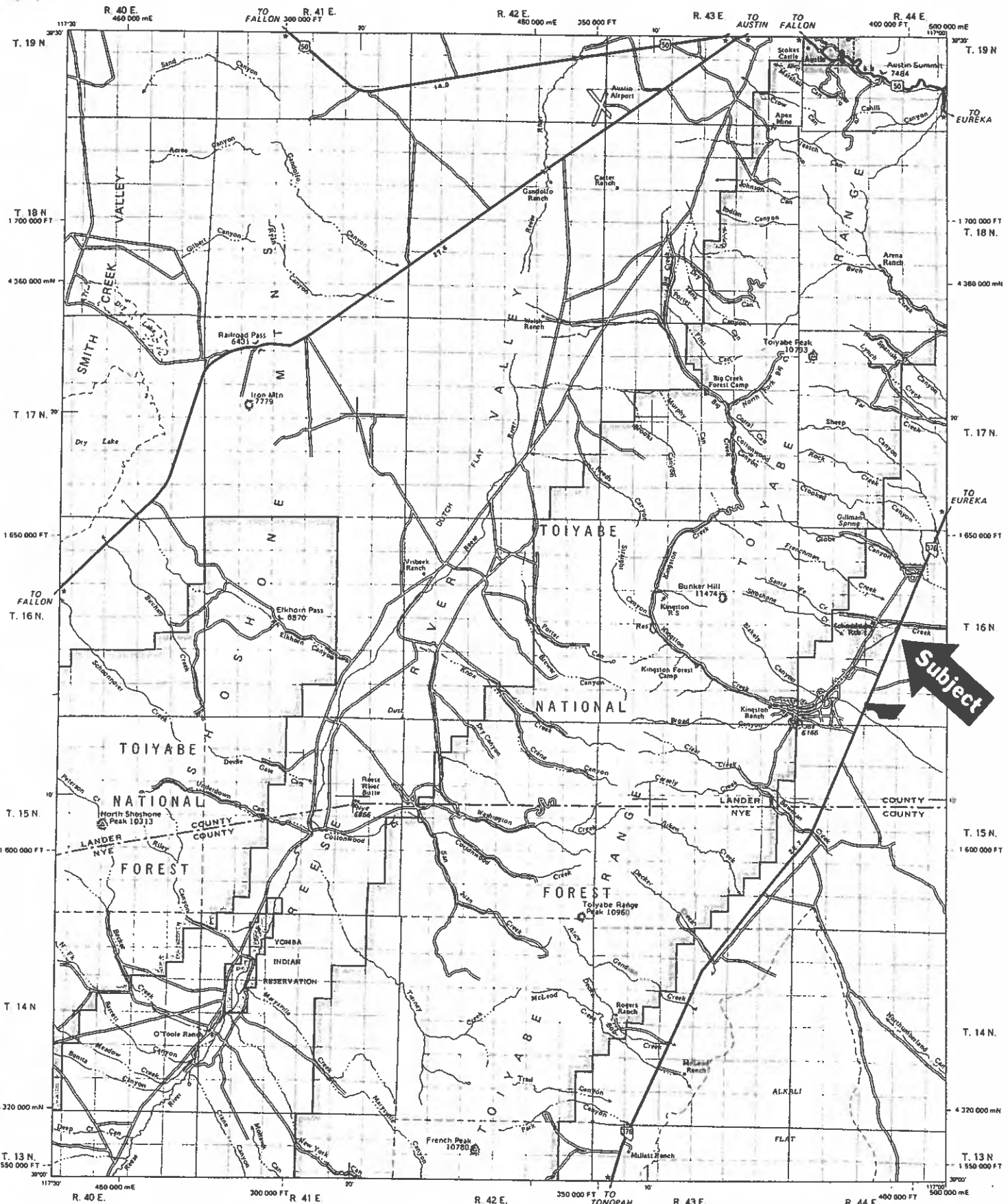


Using the 4.3X drainage size difference the extrapolated Home Ranch Gage would read (cfs):

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
Mean of Monthly Discharge	1.572	1.045	1.162	1.721	3.953	4.884	3.023	2.162	1.651	1.415	1.278	1.162	2.048
Median of Monthly Discharge	1.723	0.972	1.108	1.284	1.853	2.974	2.699	2.216	1.471	1.368	1.172	1.061	2.572
P25 of the Monthly Discharge	1.818	0.835	0.918	1.305	1.427	1.893	1.877	1.427	1.153	0.968	0.877	0.875	2.455

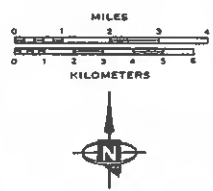
Ralph Young reported the following average flow from the Home Ranch penstock (cfs). Special note: Ralph Young has been irrigating with the water from the Home Ranch for over 23 years, and he knows how much water he has been delivering to his alfalfa fields each year.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
cfs	2.116	2.252	2.292	2.282	9.25	9.25	2.282	2.292	2.292	2.292	2.292	1.116	2.216



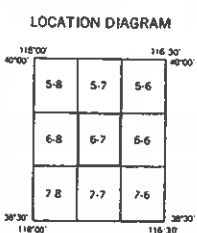
Subject

Transverse Meridian Projections
 Minut (Dashed) East and West
 50,000 Feet Grid Based on Nevada
 Clearwater System Cont. 2 Zone
 20,000 Meter UTM System Transverse
 Mercator Grid Zone 11
 Horizontal and Vertical Control Data on
 1:62,500 Contour Maps
 Mileage Shown Between Stairs
 Note:
 Dashed lines show the general form of the
 boundary of Land Management and are subject
 to the final boundary system of survey.



KEY TO ENLARGEMENTS

Austin
 APPEARS ON
 Sheet 11



GENERAL HIGHWAY MAP
QUADRANGLE 6-7
 1984
 LANDER AND NYE COUNTIES
 PREPARED BY
NEVADA DEPARTMENT OF TRANSPORTATION
 PLANNING DIVISION
 IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION