

Staff Report

TO: Board of Directors

FROM: Keane Sommers, P.E., Director of Power Systems
Tina Konkle, Hydroelectric Compliance Analyst

DATE: September 14, 2022

SUBJECT: **United States Geological Survey 5-Year Agreement**

HYDROELECTRIC

RECOMMENDATION:

Authorize a five-year agreement with the United States Geological Survey (USGS) in the amount of \$381,940 for review of gaging station records as authorized by the Federal Energy Regulatory Commission (FERC) and authorize the General Manager to execute the necessary documents.

BACKGROUND:

Article 6 of the current FERC license states:

*For the purpose of determining the stage and flow of the stream or streams from which water is to be diverted for the operation of the project works, the amount of water held in and withdrawn from storage, and the effective head on the turbines, the licensee shall install and thereafter maintain such gages and stream-gaging stations as the Commission may deem necessary and best adapted to the requirements; and shall provide for the required readings of such gages and for the adequate rating of such stations. The licensee shall also install and maintain standard meters adequate for the determination of the amount of electric energy generated by said project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission and may be altered from time to time if necessary to secure adequate determinations, but such alteration shall not be made except with the approval of the Commission or upon the specific direction of the Commission. The installation of gages, the ratings of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of said project, and **the licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision or cooperation for such periods as may be mutually agreed***

upon. *The licensee shall keep accurate and sufficient record of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe. (emphasis added)*

When issued, the new license will likely have a similar requirement to work with the USGS.

Historically, the District has signed an annual agreement with the USGS in order to meet the streamgaging obligation. Historic costs and year over year increases are shown in Table 1. During the last five years the rate has increased at approximately 2.2% annually. Cost increase between the 2022 rate and the proposed 2023 rate is approximately 2.5%.

Table 1 – Historic Streamgaging Costs

USGS Fiscal Year	2018	2019	2020	2021	2022
Total Cost	\$65,610	\$67,020	\$67,430	\$70,080	\$71,550
Year Over Year Increase	-	2.1%	0.6%	3.9%	2.1%

In an effort to control cost increases and increase predictability of future costs, the District has been working with the USGS on a longer term agreement. The proposed term of the agreement is five years running from October 1, 2022 to September 30, 2027. Costs will be escalated by two 2% annually.

Table 2 – Future Streamgaging Costs

USGS Fiscal Year	2023	2024	2025	2026	2027
Total Cost	\$73,370	\$74,840	\$76,350	\$77,910	\$79,470
Year Over Year Increase	2.5%	2.0%	2.0%	2.0%	2.0%

Staff believes that locking the annual increases at a rate lower than the 2018 to 2023 average will result in a long-term cost savings to the District.

BUDGETARY IMPACT:

Budget for the costs will need to be approved by the Board on an annual basis.

KSS

Attachment: (1)

- Draft Agreement, Streamgaging Program for FERC License 2266

California Water Science Center
6000 J Street, Placer Hall
California State University
Sacramento, California 95819-6129
Phone: (916) 278-3000 Fax: (916) 278-3070
<https://ca.water.usgs.gov>

DRAFT

Ms. Jennifer Hanson, General Manager
Nevada Irrigation District
1036 West Main Street
Grass Valley, California 95945

Re: Streamgaging Program for FERC License 2266

Dear Ms. Hanson:

This letter of acceptance serves as an agreement between the Nevada Irrigation District and the U.S. Geological Survey (USGS). Upon receipt of this signed letter of acceptance by the USGS, a bill will be prepared annually in advance for operation costs for the streamgages outlined in Table 1 on Page 3 and 4.

Federal Energy Regulatory Commission Project No. 2266 provides authority for this gaging activity. The total costs for review of these gaging station records for the five (5) year period will be \$381,940.

The USGS appreciates that Nevada Irrigation District is willing to help support these streamgages. The results of USGS's work under this agreement will be available for publication by USGS and use in related work.

The USGS requests that your finalized 2023 water year records be furnished to the USGS by December 15, 2023 and by December 15 of each subsequent year included in this agreement. Your prompt attention to this request will ensure that your records will be incorporated into the Review/Approval process by USGS personnel as quickly as possible.

Enclosed is an original of this letter with an acceptance line for the Licensee below the USGS signature. If you are in agreement with this proposed program, please return the fully executed electronically signed copy to CAgageADMIN@usgs.gov (preferred) or send one fully executed paper copy to the address in the letter head.

Ms. Jennifer Hanson, General Manager – Nevada Irrigation District

Customer Number: 3000002080

Customer TIN: 94-6003853

Agreement Number: 23ZGFERC709

USGS DUNS #: 1761-38857

USGS Authority: 43 USC 50 and 43 USC 50b

Fixed Cost Agreement: Yes

The USGS is pleased to perform this work for Nevada Irrigation District. The agreement will terminate on September 30, 2027 but may be amended at any time by mutual consent of the parties. Any party may cancel or terminate this agreement by providing 60 day's written notice to the other party. When an accepted agreement is terminated, the USGS shall be authorized to collect costs incurred prior to the termination of the agreement plus any termination costs.

If you have any questions concerning this program please contact Ed Parvin, Truckee Field Office Chief, at (530) 587-0910. If you have any administrative questions, please contact Melanie Pham in our Sacramento Office at (916) 278-3032.

DEPARTMENT OF THE INTERIOR

U.S. GEOLOGICAL SURVEY

By:

Alissa Coes
Acting Director, California Water Science Center

Date: _____

Nevada Irrigation District

Accepted By: _____

Title: _____

Date: _____

cc: Ed Parvin, USGS CAWSC
Paul Honeywell, USGS CAWSC

Table 1- Site Funding Summary

Agreement Period: October 1, 2022 to September 30, 2027

			FY 23 Total	FY24 total	FY25 total	FY26 total	FY27 total
Program Total = \$381,940			\$ 73,370	\$ 74,840	\$ 76,350	\$ 77,910	\$ 79,470
Site Number	Site Name	Activity	Activity Cost	Activity Cost	Activity Cost	Activity Cost	Activity Cost
11407800	Jackson Meadows Reservoir nr Sierra City CA	Reservoir record, full - review	2360	2410	2460	2510	2560
11407815	M Yuba River Ctrl Release at Jackson Meadows Reservoir nr Sierra City CA	Discharge, AVM quality assurance check/review	1470	1500	1530	1560	1590
11408000	Milton-Bowman Tunnel outlet nr Graniteville CA	Streamflow record w fix geometry weir, full - review	4600	4690	4780	4880	4980
11408550	Middle Yuba River below Milton Dam CA	Streamflow record w fix geometry weir, full - review	4600	4690	4780	4880	4980
11414400	French Lake near Cisco CA	Reservoir record, full - review	2360	2410	2460	2510	2560
11414410	Canyon Creek below French Lake CA	Streamflow record w fix geometry weir, partial - review	2410	2460	2510	2560	2610
11414440	Faucherie Lake near Cisco CA	Reservoir record, full - review	2360	2410	2460	2510	2560
11414450	Canyon Creek below Faucherie Lake CA	Streamflow record w fix geometry weir, partial - review	2410	2460	2510	2560	2610
11414465	Sawmill Lake near Graniteville CA	Reservoir record, full - review	2360	2410	2460	2510	2560
11414470	Canyon Creek below Sawmill Lake CA	Streamflow record w fix geometry weir, partial - review	2410	2460	2510	2560	2610
11414690	Jackson Lake near Sierra City CA	Reservoir record, full - review	2360	2410	2460	2510	2560
11414700	Jackson Creek below Jackson Lake CA	Streamflow record w fix geometry weir, partial - review	2410	2460	2510	2560	2610
11415500	Bowman Lake near Graniteville CA	Reservoir record, full - review	2360	2410	2460	2510	2560
11416000	Bowman-Spaulding Canal intake nr Graniteville CA	Streamflow record, canal - review	5180	5280	5390	5500	5610
11416100	Bowman-Spaulding Canal at Jordan Cr Siphon CA	Streamflow record, canal - review	5180	5280	5390	5500	5610
11416500	Canyon Creek below Bowman Lake CA	Streamflow record, full - review	6070	6190	6310	6440	6570
11421760	Dutch Flat No. 2 Flume near Blue Canyon CA	Streamflow record, canal - review	5180	5280	5390	5500	5610
11421780	Chicago Park Flume near Dutch Flat CA	Streamflow record, canal - review	5180	5280	5390	5500	5610

Ms. Jennifer Hanson, General Manager – Nevada Irrigation District

11421790	Bear River below Dutch Flat Afterbay nr Dutch Flat CA	Streamflow record w fix geometry weir, full - review	4600	4690	4780	4880	4980
11421800	Rollins Reservoir near Colfax CA	Reservoir record, full - review	2360	2410	2460	2510	2560
11421900	Rollins Powerplant near Colfax CA	Discharge record, powerhouse - review	550	560	570	580	590
11422500	Bear River below Rollins Dam nr Colfax CA	Streamflow record w fix geometry weir, full - review	4600	4690	4780	4880	4980

DRAFT