



# SOUTH FEATHER WATER & POWER AGENCY

## AGENDA

**Regular Meeting of the Board of Directors of the  
South Feather Water & Power Agency  
Board Room, 2310 Oro-Quincy Highway, Oroville, California  
Tuesday, February 22, 2022; 2:00 P.M.**

Remote participation is available via Zoom by logging into:

<https://us02web.zoom.us/j/81263462369>

Meeting ID: 812 6346 2369

One tap mobile: +16699006833,,81263462369# US (San Jose)

For attendees calling by phone use \*9 to raise hand

### A. Roll Call

### B. Business Item

Assembly Bill 361 (Tab 1)  
Renewal of Resolution 21-26a-10 authorizing remote meetings for health and safety anti-spread during COVID-19 and Delta variant pandemic.

APN's 072-200-047, 048, 049 Seegert (Tab 2)  
Consideration for approval to perform a 6" lateral from distribution main and install 4 ¾" Meters and Backflows.

C. Approval of Minutes – Regular Meeting on January 25, 2022 (Tab 3)

D. Approval of Checks/Warrants (Tab 4)

### E. Information Item

Water Storage (Tab 5)  
Discussion on scope document provided by Advisian with guest speaker.

F. Staff Reports (Tab 6)

### G. Business Item

FERC Part 12D Safety Inspections Task Order Agreement (Tab 7)  
Seeking approval to enter into an agreement with Slate Geotechnical Consultants.

CalPERS Resolution (Tab 8)  
Employer's Contribution for Health Care.

**H. Public Comment** – *Public comment for Directors can be submitted anytime via e-mail. However, in order to be read into the record during the meeting it must be submitted to [PublicRelations@southfeather.com](mailto:PublicRelations@southfeather.com) by 12:00 P.M. Tuesday February 22, 2022. Individuals will be given an opportunity to address the Board regarding matters within the Agency's jurisdiction that are not scheduled on the agenda, although the Board cannot take action on any matter not on the agenda. Comments will be limited to 5 minutes per speaker. An opportunity for comments on agenda items will be provided at the time they are discussed by the Board. Comments will be limited to five minutes per speaker per agenda item.*

## **I. Directors' Reports**

*Directors may make brief announcements or reports for the purpose of providing information to the public or staff, or to schedule a matter for a future meeting. The Board cannot take action on any matter not on the agenda and will refrain from entering into discussion that would constitute action, direction or policy, until the matter is placed on the agenda of a properly publicized and convened Board meeting.*

## **J. Closed Session**

(Tab 9)

### **Conference with Legal Counsel – Existing Litigation**

(Paragraph (1) of subdivision (d) of Government Code section 54956.9)

- A. Name of Case: North Yuba Water District v. South Feather Water & Power Agency et al., Sutter County Superior Court Case No. CVCS21-0001857
- B. Name of Case: South Feather Water & Power Agency v. North Yuba Water District et al., Sutter County Superior Court Case No. CVCS21-0002073

### **Conference with Real Property Negotiators (Government Code § 54956.8)**

Real property negotiators District staff, and District legal counsel to discuss a potential 2022 water transfer with Santa Clara Valley Water District.

## **K. Open Session**

Report of closed session actions.

## **L. Adjournment**

The Board of Directors is committed to making its meetings accessible to all citizens. Any persons requiring special accommodation to participate should contact the Agency's secretary at 530-533-2412, preferably at least 48 hours in advance of the meeting.

RESOLUTION NO. 2021-26a-10 (**SUBSEQUENT**)

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SOUTH FEATHER WATER AND POWER AGENCY RE-AUTHORIZING REMOTE MEETINGS CONSISTENT WITH AB 361

WHEREAS, the South Feather Water and Power Agency (“Agency”) is committed to preserving and nurturing public access and participation in meetings of the Board of Directors; and

WHEREAS, all meetings of South Feather Water and Power Agency’s legislative bodies are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963), so that any member of the public may attend, participate, and watch the Agency’s legislative bodies conduct their business; and

WHEREAS, the Brown Act, Government Code section 54953(e), makes provisions for remote participation in meetings by members of a legislative body by audio or video or both, without compliance with the requirements of Government Code section 54953(b)(3), subject to the existence of certain conditions; and

WHEREAS, a required condition of remote meetings is a declaration of a state of emergency by the Governor pursuant to Government Code section 8625, proclaiming the existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by conditions as described in Government Code section 8558; and

WHEREAS, it is further required that state or local officials have imposed or recommended measures to promote social distancing, or, the legislative body meeting in person would present imminent risks to the health and safety of attendees; and

WHEREAS, the Board of Directors previously adopted a Resolution, Number 2021-26a-10 on October 26, 2021, finding that the requisite conditions exist for the Agency’s legislative bodies to conduct remote meetings without compliance with paragraph (3) of subdivision (b) of section 54953; and

WHEREAS, as a condition of extending the use of the provisions found in section 54953(e), the Board of Directors must reconsider the circumstances of the state of emergency; and the Board of Directors has done so; and

WHEREAS, emergency conditions persist in the Agency, specifically, on March 4, 2020 the Governor proclaimed State of Emergency to exist in California due to the COVID-19 pandemic, which proclamation is still active; and

WHEREAS, state and local officials have recommended social distancing measures, including masks, to slow the spread of COVID-19 and the contagious Delta variant, and to protect the vulnerable and immunocompromised members of the community; and

WHEREAS, the Board of Directors does hereby find that the state of emergency continues to directly impact the ability of members to meet in-person; and

WHEREAS, the Board does hereby find that the state of emergency continues to directly impact the ability of members to meet in-person; and

WHEREAS, as a consequence of the State of Emergency and recommended social distancing measures, the Board of Directors does hereby find that the legislative bodies of South Feather Water and Power Agency shall continue to conduct their meetings without compliance with paragraph (3) of subdivision (b) of Government Code section 54953, as authorized by subdivision (e) of section 54953, and that such legislative bodies shall comply with the requirements to provide the public with access to the meetings as prescribed in paragraph (2) of subdivision (e) of section 54953; and

WHEREAS, the public may attend meetings and comment by calling in or by using the Zoom platform as described in meeting agendas.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF SOUTH FEATHER WATER AND POWER AGENCY DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals. The Recitals set forth above are true and correct and are incorporated into this Resolution by this reference.

Section 2. Re-ratification of Governor's Proclamation of a State of Emergency. The Board hereby ratifies the Governor of the State of California's Proclamation of State of Emergency, effective as of its issuance date of March 4, 2020.

Section 3. Remote Teleconference Meetings. The Agency's General Manager, Secretary, and legislative bodies are hereby authorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution including, continuing to conduct open and public meetings in accordance with Government Code section 54953(e) and other applicable provisions of the Brown Act.

Section 4. Effective Date of Resolution. This Resolution shall take effect immediately upon its adoption and shall be effective until the earlier of (i) 30 days from adoption of this Resolution or (ii) such time the Board of Directors adopts a subsequent resolution in accordance with Government Code section 54953(e)(3) to extend the time during which the Agency's legislative bodies may continue to teleconference without compliance with paragraph (3) of subdivision (b) of section 54953.

PASSED AND ADOPTED by the Board of Directors of South Feather Water and Power Agency, this \_\_\_\_\_ day of \_\_\_\_\_, 2021, by the following vote:

AYES:  
NOES:  
ABSENT:  
ABSTAIN:

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President of the Board

ATTEST:

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Secretary of the Board



## ***SOUTH FEATHER WATER & POWER AGENCY***

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**TO: Board of Directors**

**FROM: Rath Moseley, General Manager**

**DATE: February 14, 2022**

**RE: APN's 072-200-047, 048, 049 Seegert  
Agenda Item for 2/22/22 Board of Directors Meeting**

On June 24, 2020 SFWPA offered two options for resolution of an ongoing dispute specific to agency infrastructure and the abandoned district owned Minnie-Gray Reservoir.

Included within this communication is the original letter outlining Director approved options and the October 17, 1957 Resolution regarding outlets for domestic water purposes.

The property owner has asked if the district will honor option 2, installing 4 ¾" meter sets/backflows and connect to the main line on Old Olive Hwy.

**"I move approval for the district to install a 6" main line lateral across the roadway and 4 ¾" meters/backflows at 6103 Old Olive Hwy at the top of the private driveway.**

# SOUTH FEATHER WATER & POWER AGENCY

RATH MOSELEY, GENERAL MANAGER

2310 ORO-QUINCY HIGHWAY  
OROVILLE, CALIFORNIA 95966  
530-533-4578, EXT. 109  
RMOSELEY@SOUTHFEATHER.COM



June 24, 2020

Christopher Seegert  
6103 Old Olive Hwy.  
Oroville, CA 95966

Re: Water Services to APN # 072-200-047, 048, 049

Dear Mr. Seegert:

At SFWPA's June 24, 2020 Board meeting, your written request for water services specific to minutes dated September 11, 1957 were reviewed and direction was provided by the Board. In addition, your letter dated June 18, 2020 has been provided to Agency counsel.

I appreciate the time you spent meeting with me at the district office on June 17, 2020 and subsequent field visit to the property location.

After reviewing the history and obligations of the district for water service, there are two options being provided to you.

1. The agreement dates back sixty-two years. The definitions of domestic water and outlets are not in compliance with current Water Quality Board Standards. The district could continue to flow water into the Minnie Gray Reservoir and install ¾" outlets from a pipe exiting the reservoir and fulfill the historical agreement. Your statement in letter dated June 18, 2020 regarding 4 domestic water services (ie. treated water) is not accurate. At the time of this agreement, domestic water was not treated.
2. In the spirit of good faith, SFWPA is offering to install ¾" meter sets with backflows (state required) on the current domestic treated water main line located on Old Olive Hwy. The system capacity fees would also be waived for the connections. This offer represents a \$20,909.00 agency absorbed cost and provides you the ability to have treated water available for your property.

SFWPA's offer is valid for 90 days from the date on this letter. The district looks forward to your response.

Sincerely,

A handwritten signature in black ink, appearing to read "Rath Moseley".

RATH MOSELEY  
General Manager

2

R E S O L U T I O N

IT WAS RESOLVED, that to the extent the law permits, the District will permit up to four three quarter inch, ( 4 - 3/4"), outlets for domestic water purposes from either the proposed reservoir or pipe line for use in not to exceed four single dwelling units to be located on property of said owners in the South Half of the Southwest Quarter of Section 17, Township 19 North, Range 5 East, the owners to be entitled to purchase domestic water therefrom at the regularly established District rate then applicable to sales in the District, providing that the landowners deed to the District an easement or right of way for the pipe line from the proposed reservoir to the present "Minnie Gray Hill Pipe Line" and the reservoir site at a price of \$200.00. The water to be sold to such.



2

I, Horace Marlow, Secretary of the Board of Directors of Oroville-Wyandotte Irrigation District do hereby certify that the foregoing is a full true and correct copy of a Resolution duly adopted at a regular meeting of the Board of Directors of said District duly and regularly held at the regular meeting place thereof on the 9th day of October, 1957, of which meeting all of the Directors of said District had due notice and at which a majority thereof were present.

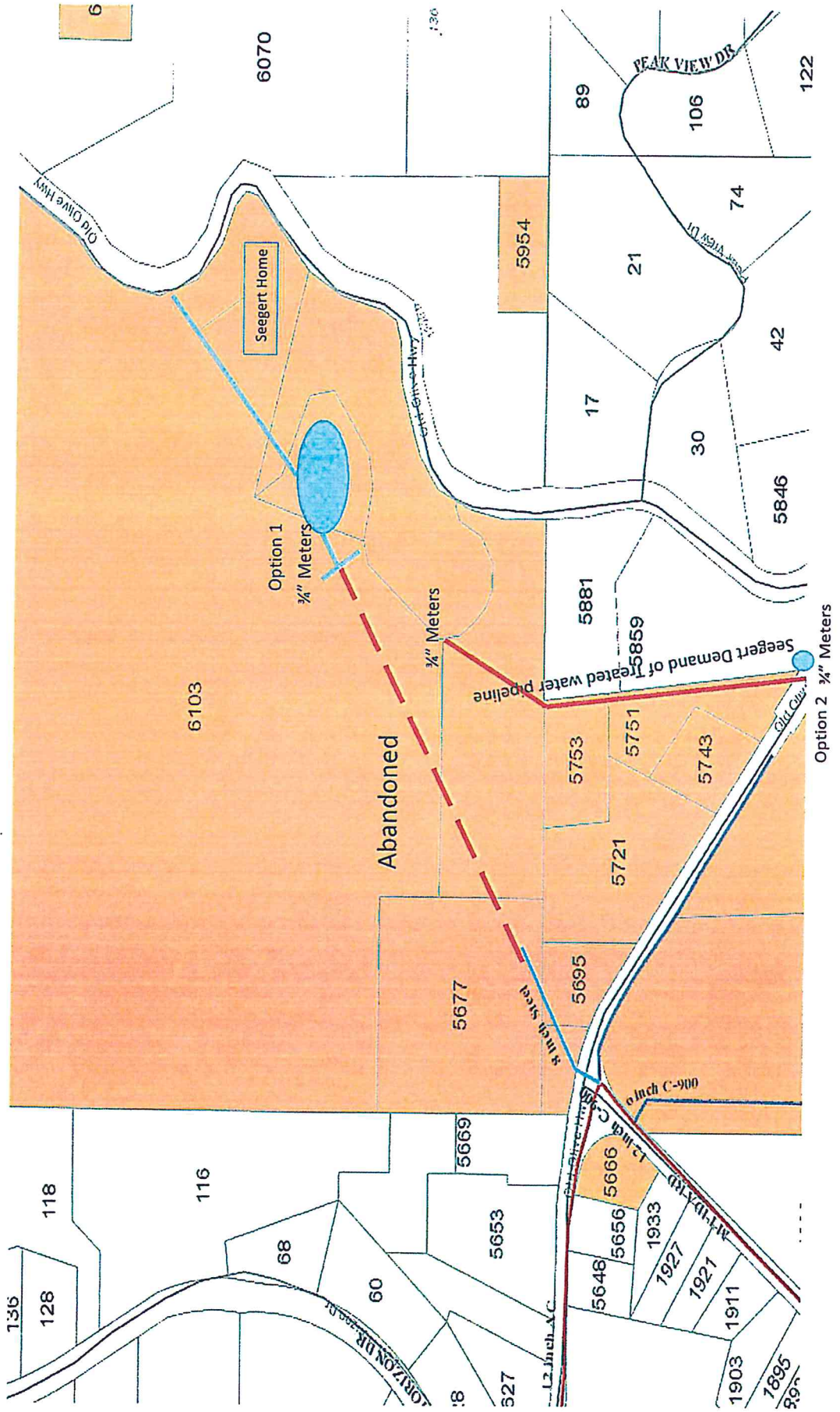
That I have carefully compared the same with the original minutes of said meeting on file and of record in my office and that said Resolution is duly entered of record in the Minutes Book, page 2160 of said Board, and said Resolution is a full, true and correct copy of the original resolution adopted at said meeting and entered in said minutes.

That said Resolution has not been amended, modified or rescinded since the date of its adoption and the same is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of said District this 17th day of October, 1957.

October 17, 1957

*Horace Marlow*  
Secretary of the Board of Directors of the  
Oroville-Wyandotte Irrigation District



**MINUTES of the REGULAR MEETING of the BOARD of DIRECTORS of SOUTH FEATHER WATER & POWER AGENCY**

**Tuesday, January 25, 2022, 2:00 P.M.,  
Agency Board Room, 2310 Oro-Quincy Hwy., Oroville, California**

In Compliance with the State of California Governor's Office Executive Order N-29-20, SFWPA will limit "in-person" attendance for the January 25, 2022 Board Meeting.

General Manager Moseley explained the January board meeting format and performed roll call for the limited individuals in the room and for those participating via Zoom Meeting.

Individuals that are not critical to agenda items below may fully participate in the meeting via Zoom by logging into:

**DIRECTORS PRESENT (In Person):** Dennis Moreland, Ruth Wright, Tod Hickman, John Starr, Rick Wulbern

**DIRECTORS PRESENT (Remote):** None

**DIRECTORS ABSENT:** None

**STAFF PRESENT (In Person):** Rath Moseley, General Manager; Jaymie Perrin EH&S Manager; Art Martinez, Manager Information Systems, Dan Leon; Power Division Manager, Kristen McKillop; Regulatory and Compliance Manager

**STAFF PRESENT (By Zoom):** John Shipman; Water Treatment Superintendent

**OTHERS PRESENT (Via Zoom):** Charles Sharp, Marieke Furnee, 530-635-5798, 916-390-6780

**CALL TO ORDER**

President Hickman called the meeting to order at 2:00 p.m. and led the Pledge of Allegiance.

**BUSINESS ITEM**

**Assembly Bill 361**

Approving the Renewal of Resolution 21-26a-10 authorizing remote meetings for health and safety anti-spread during COVID-19 and Delta variant pandemic.

Ayes: Moreland, Starr, Hickman, Wright, Wulbern

Absent: None

Public Comment: None

**APPROVAL OF MINUTES**

M/S: (Wulbern/Moreland) approving the Minutes of the special meetings of December 21, 2021 and January 18, 2022.

Ayes: Starr, Wright, Hickman

Absent: None

Public Comment: None

**APPROVAL OF CHECKS AND WARRANTS**

M/S (Wulbern/Starr)

Ayes: Wright, Hickman, Moreland

Absent: None

Approving the total General Fund and Joint Facilities operating fund expenditures for the month of December 2021 in the amount of \$1,541,180.71 and authorize the transfer of \$1,000,000.00 from the TCB General Fund to the TCB Accounts Payable and Payroll Fund for the payment of regular operating expenses.

Public Comment: None

**FINANCE MANAGER'S REPORT**

The Finance Manager communicated the following:

**Consumption Reports**

Water consumption reports for the past ten years, through December, 2021, are included this month for your review. As previously reported, overall domestic water consumption was down in 2021 with a corresponding decrease in revenue.

**General Wage increase processed, pay schedules**

General wage increases set forth in the current memorandums of understanding, 3.75% for IBEW members and 3.00% for CSEU members, have been processed and were included in paychecks issued on January 14, 2022. The following pay schedules reflect the new pay rates and will be posted to the Agency's website.

## Form 700

The California Fair Political Practices Commission Form 700, Statement of Economic Interests, will be distributed to Board members at today's meeting. The due date for returning the completed forms to me is April 1, 2022.

## North Yuba Water District

Significant effort and energy has been expended by administrative staff compiling the records necessary to respond to the 78 discovery demands placed upon the Agency by North Yuba Water District action dated November 9, 2021. Documents were delivered the week of January 17, 2022 as required.

## POWER DIVISION MANAGER'S REPORT

The General Manager communicated the following on behalf of the Power Division Manager:  
South Fork tunnel average flow was 110 CFS. Slate Creek tunnel was opened for 14 days. At month's end, Little Grass Valley and Sly Creek Reservoirs combined storage was 87 kAF.

Observed conditions for water year-to-date precipitation and snowpack will be reported beginning in February 2022.

## MAINTENANCE

### Powerhouses

- Woodleaf Powerhouse: In service. Annual maintenance outage scheduled for February 1 to 14.
- Forbestown Powerhouse: In service. Annual maintenance outage scheduled for March 6 to 25.
- Sly Creek Powerhouse: In service. Annual maintenance outage scheduled for October 3 to 14.

Kelly Ridge Powerhouse: In service. Annual maintenance outage scheduled for November

### Other Project Assets

- Check project roadways, remove snow and debris, check and clean culverts, drainages
- Manage vegetation and fallen trees along project access roads
- Perform snow surveys at monitoring sites
- Perform checks and patrols at outlying stations
- Fabricate personnel crossings and install debris removal cranes along Miners Ranch Canal
- Check and clean Station 4 trash rack
- Pour concrete apron at PD yard welding shop
- Test and assess Woodleaf TWD blowers
- Perform testing of powerhouse synchronization systems
- Complete remaining Scada and control system closeout items
- Replace telemetry batteries
- Perform fleet vehicle and heavy equipment maintenance

## PERSONNEL

Roving Hydro Operator Recruitment. The Agency is currently recruiting for a Roving Hydro Operator, Journey Level, in preparation for staff retirement in the near future.

Hydro Civil Engineer Recruitment. Ongoing.

## GENERAL MANAGER'S REPORT

The General Manager communicated the following:

### Domestic Water Treatment Operations

The total Miners Ranch Treatment Plant (MRTP) treated water production for the month of December totaled 82.66 million gallons.

The total Bangor Treatment Plant (BTP) treated water production for the month of December totaled .255 million gallons.

Redhawk Ranch raw water pump station demand draw was lower than the gross meter reading. Volume for the month was measured at each individual meter.

All bacteriological requirements were good for the MRTP& BTP. Miners Ranch production was 102% of average over the past 5 years. Bangor's production was 90% of average over the past 5 years.

### **District Wide Water Operations**

January is the required annual inventory count and reconciliation which occupies several days of staff labor. Ditch maintenance continues to be a focus for sustained conveyance and tree removal will continue as a result of the storm event effects on dry soil with drought conditions. Each month seems to average six to seven leak repairs which point directly to aging infrastructure.

### **Glaze vs. SFWPA Butte County Case Number 20CV01283**

The case has been finalized and the matter is now concluded.

### **Water Storage Strategy**

As discussed at December's Board Meeting, Advisian will be providing a reduced proposed scope of work to SF Director's to consider feasibility of adding additional water storage and conveyance within the district. The first scope of work was broad based on the number of locations for potential storage with an estimated cost of \$40K – 60K. The reduced scope will focus on the Sweedes Flat area where existing raw water piping is located with a natural waterway and the SF owned property adjoining MRTP.

### **Water Rates Analysis**

Luhdorff & Scalmanini submitted a 2022 Water Rate Study Project Proposal. The document is detailed with district background, scope of services and cost.

It is widely recognized that water rates (increases) are a difficult discussion and each director has a strong opinion on how to manage this topic both internally and public acceptance.

The GM requested either interfacing with one of the 2022 Director Committees or assigning an "Ad-Hoc" committee specific to this topic. Director Starr and Director Wright will be the water rate committee board members.

### **Tuscan Water District**

Four local Water Districts signed and submitted a letter to LAFCO on January 5, 2022 requesting a condition to be added during the proposed formation which states: "Acquisition, transfer, exchange, or other purchase of water or water rights or of real property for water distribution or conveyance facilities shall be from willing sellers and not through condemnation".

If what the districts have heard and learned through the proposed formation of Tuscan are accurate, then the added condition should not be an issue. Staff will keep the board apprised of any updates.

### **Agency Marketing Communications**

During 2022 budget discussions, the concept of contracting with an outside firm to develop a streamlined communication strategy and engaging communication tools to boost customer outreach and improve customer's awareness of the numerous community contributions and beneficial programs taking place as SFWPA has been pursued for options.

A local entity has been identified and a subsequent meeting ensued. This firm has performed work for the City of Oroville and may be an appropriate option for SF. If the Board is interested in an enhanced communication system the proposed process would be in three phases.

- A. Discovery
- B. Recommendations
- C. Implementation

Costs would start with an initial retainer of \$5,000 and then billed at \$75 hour.

The board directed staff to pursue the opportunity for district communication improvements Who, What, Why and Important events that relate to SFWPA.

### **2022 PG&E Electric Rates**

PG&E has submitted the 2022 changes in electrical rates.

Based on customer class, you can see the increases from 2021 to 2022.

On average a 6-8% increase will be implemented.

### **INFORMATION ITEM**

#### **Coats for Kids – Employee Donations**

The agency kicked off our 4<sup>th</sup> Annual Kids' Coat Drive on November 19<sup>th</sup>. On December 21<sup>st</sup>, 60 gift wrapped coats were picked up and ready for distribution throughout the community. The coats varied in sizes and colors that allowed boys and girls of all ages to stay warm this winter season. The coats were distributed this year through community events hosted by The Hope Center and Oroville Rescue Mission. The calendar year of 2021 continued to be anything but traditional, however the agency is so pleased to know that despite all of the continued challenges that 2021 brought, the employees still rallied around this tradition to make it another successful event.

### **PUBLIC COMMENT**

Consistent with Executive Order N-29-20 from the Executive Department of the State of California the Board Chambers will not be physically open to the public and can be joined via Zoom with the instructions above. Public comment for Directors can be submitted anytime via e-mail. However, in order to be read into the record during the

meeting it must be submitted to [PublicRelations@southfeather.com](mailto:PublicRelations@southfeather.com) by 12:00 P.M. Tuesday January 25, 2022.

General Manager Moseley read the following two public comments submitted via [PublicRelations@southfeather.com](mailto:PublicRelations@southfeather.com).

Comment 1

Dear South Feather,

I will try to be on the meeting today but do not know whether I will make it exactly for the Public comment item.

I did a lot of research in our archives and found an email that Dir. Gary Hawthorne wrote to my husband in 2019, and it may explain why NYWD never got to sit down with you and renegotiate the 2005 agreement. Even when you noticed that the condition of **only 3700 AF** of Block I water was being used to refuse delivery to the customers and you offered to renegotiate.

This is what Dir. Hawthorne wrote:

“ Negotiations are not one-sided. If we renegotiate the 2005 agreement we will not benefit without giving up something. There are only 2 things SF would want from the new deal. Reducing the \$709,000 payment to us and changing the 50/50 power generation split in their favor. We don't want either.”

So it seems that their refusal to talk with you and find a reasonable solution to be able to serve their raw water customers was motivated by fear of losing money.

It looked maybe easier to them to get their customers and business partner so upset that lawsuits would be filed and bring more legal costs monthly than they could imagine.

You know that NYWD spends \$100,000 a month on lawyers currently and has been doing that for more than 6 months already.

I hope this email helps bring some light to the way your business partner operates and thinks.

Thanks,  
Marieke

Comment 2

While I am perusing the archive for clues to why NYWD has refused so often to use water from SF 14 to continue irrigation after Dry Creek and Oroleve Creek run low, I find many different numbers as to how many cfs are needed to run our local system.

Manager Maupin writes in newsletters and Board graphics that it takes minimum 12 cfs to run the local system and bases his decisions on this number.

In Board documents in 2016 he states that it takes minimum 8 cfs to run said system.

In a personal email received from Dir. Hawthorne in 2019, Mr Hawthorne states: “ according to Eric ( previous supervisor) it takes 7 cfs to run the local system.

In State reports we have seen monthly reported, actual averages run between 4 and 9 cfs.

And we saw in the design for the Oregon House / Dobbins Canals that they were designed for a maximum of 12 cfs.

Decisions that harm us customers seem to made on wildly varying numbers.

Thank you for your support in offering to repair the Forbestown Ditch for us.

Thanks,  
Marieke Furnee  
Oregon House

DIRECTORS' REPORTS

Director Starr: Reported that there have been problems at LaPorte with cars being broken in to.

Director Moreland: Stated that staff is doing a great job and keep being safe.

Director Wulbern: Exited the board meeting at 3:49 p.m.

Director Hickman: No Report for the month of January.

Director Wright: No report for the month of January.

RECESS (None)

President Hickman offered opportunity for public comment on closed session items.  
Charles Sharp commented on the NYWD closed session items, County Supervisor Fletcher and now know the GM is a problem - public opinion matters.  
Donna Corson Thank the district for helping with offer and ability to serve. Transparency is valued and appreciated. Continued efforts to do the right thing.  
Waste, Fraud and abuse = Yuba County Approach.

**CLOSED SESSION** (convened at 3:40 p.m.)

**Conference with Legal Counsel – Existing Litigation**

(Paragraph (1) of subdivision (d) of Government Code section 54956.9

- A. Name of Case: North Yuba Water District v. South Feather Water & Power Agency et al., Sutter County Superior Court Case No. CVCS21-0001857
- B. Name of Case: South Feather Water & Power Agency v. North Yuba Water District et al., Butte County Superior Court Case No. 21CV00815

**Public Employee Performance Evaluation – General Manager.** (Government Code § 54957(b)(1)).

**OPEN SESSION** (reconvened at 3:10 p.m.) – President Hickman announced that legal counsel was given direction during the closed session.

**BUSINESS ITEMS**

Consider potential changes in salary and benefits for General Manager.

The Board voted 5-0 to grant a 3% merit based performance wage increase and 40 hours of pay administrative leave with a “use it or lose it” clause by December 31, 2022.

**ADJOURNMENT** (2:08 p.m.)

**Annual Meeting – South Feather Water and Power Agency Financing Corporation.**

The annual meeting was conducted.

**APPROVAL OF MINUTES**

M/S: (Moreland/Starr) approving the Minutes of the annual meeting of January 26, 2021.

Ayes: Wright, Hickman

Absent: Wulbern

Public Comment: None

**Election of Officers**

For 2022, Tod Hickman be elected President, that Rick Wulbern be elected Vice President, that Rath Moseley be appointed Secretary and Executive Director, and that Steve Wong be appointed Chief Financial Officer

M/S: (Moreland/Starr)

Ayes: Wright, Hickman

Absent: Wulbern

Public Comment: None

**Report of Status of Projects**

In 2003, Certificates of Participation (COPs) were sold, resulting in \$2,581,945 in net proceeds, and \$2,685,000 in total debt obligation. On November 25, 2003 the proceeds were deposited in trust at BNY Western Trust Company (trustee) in Los Angeles. Subsequently, \$260,694 was deposited into a reserve fund, and \$56,251 into a delivery cost fund, per the trust agreement, leaving \$2,265,000 available to the Agency for its Miners Ranch Treatment Plant Solar Photovoltaic Project and Office Remodel/Addition Project.

The solar project was completed and placed into operation in May 2004. The total expenditure for project purposes was \$2,033,097.

The remaining proceeds from the 2003 COPs, together with dividends earned in the amount of \$9,770, were designated for the Office Addition/Remodel project that was completed in 2006. The total expenditure for this project was \$241,673 (all in 2005).

At its August 28, 2012 meeting, the South Feather Water and Power Agency (SFWPA) Board of Directors adopted Resolution No. 12-08-01, authorizing the issuance of 2012 Water Revenue Refunding Bonds in the amount of \$3,342,264 to provide for the refunding of the 2003 COPs (\$2,295,000), along with the Agency's 1980 Miners Ranch Bonds (\$1,150,000). The refunding of the COPs was completed on October 19, 2012 with a Refunding Bond Agreement dated October 1, 2012 between SFWPA and the Bank of Nevada carrying an interest rate of 2.68%.

At its August 23, 2016 meeting, the South Feather Water and Power Agency Board of Directors adopted Resolution No. 16-08-01, authorizing the issuance of 2016 Certificates of Participations to refund all outstanding 2012 Water Revenue Refunding Bonds (\$1,975,000) and provide funding for **the construction of the Miners Ranch Water Treatment Plant Improvement Project** (\$25,035,000). The certificates were underwritten by Stifel, Nicolaus & Company and closed on October 20, 2016, with All-In True Interest Cost of 3.26%.

At December 31, 2021, the outstanding principal balance due on the 2016 Certificates of Participation was \$24,395,000, with a final maturity of April 1, 2046. The Financing Corporation has no other debt at this time.

**Adjournment** (4:40 p.m.)

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Rath T. Moseley, Secretary

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Tod Hickman, President







## ***SOUTH FEATHER WATER & POWER AGENCY***

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TO: Board of Directors  
FROM: Steve Wong, Finance Division Manager  
DATE: February 8, 2022  
RE: Approval of Warrants and Checks  
Agenda Item for 2/22/22 Board of Directors Meeting

January, 2022 expenditures are summarized as follows:

Checks:	<u>61457</u> to <u>61611</u>	\$ <u>244,466.77</u>
Electronic Fund Transfers:	<u>220101</u> to <u>220110</u>	\$ <u>315,752.94</u>
Payroll Expenses:		\$ <u>480,957.44</u>
TOTAL EXPENDITURES FOR JANUARY, 2022		\$ <u>1,041,177.15</u>

At December 31, 2021, the authorized balance available was \$547,953.87.

Action to approve all expenditures:

**"I move approval of expenditures for the month of January, 2022 in the amount of \$1,041,177.15 and authorize the transfer of \$750,000.00 from the TCB General Fund to the TCB Accounts Payable and Payroll Fund for the payment of regular operating expenses."**

South Feather Water and Power Agency  
Checks Paid, January, 2022

<u>Date</u>	<u>Check #</u>	<u>Vendor Name</u>	<u>Account</u>	<u>Description</u>	<u>Amount</u>
01/07/2022	61457	VOID	VOID	VOID	VOID
01/07/2022	61458	VOID	VOID	VOID	VOID
01/07/2022	61459	VOID	VOID	VOID	VOID
01/07/2022	61460	A D P, Inc.	01-50-50201	Payroll processing, December 2021	1,464.30
01/07/2022	61461	ACWA-JPIA	01-50-50400	Employee vision and dental insurance, Jan 2022	19,390.78
01/07/2022	61462	AFLAC	01-00-22915	Employee supplemental insurance, PE 11/6 & 11/20/21	1,249.74
01/07/2022	61463	Butte County Sheriff's Office	01-00-25209	Employee wage garnishment, PE 12/11 & 12/25/21	1,582.18
01/07/2022	61464	Empower Retirement/MassMutual	01-00-22908	Employee 457 contributions, PE 12/11 & 12/25	200.00
01/07/2022	61465	IBEW #1245	01-00-25207	Member dues, December 2021	8,457.25
01/07/2022	61466	Mission Square Retirement	01-00-22908	Employee 457 contributions, PE 12/11 & 12/25	3,585.04
01/07/2022	61467	Nationwide Retirement	01-00-22908	Employee 457 contributions, PE 12/11 & 12/25	3,383.45
01/07/2022	61468	Reliance Standard Life	01-50-50402	Employee life insurance, January 2022	918.78
01/07/2022	61469	Standard Insurance	01-50-50403	Employee disability insurance, January 2022	3,097.00
01/07/2022	220101	Cal PERS	01-50-50400	Employee health insurance, January 2022	178,218.47
01/07/2022	220102	CalPERS	01-50-50413	Employee retirement contributions, PE 12/25/2021	41,208.10
01/07/2022	220103	CalPERS 457 Plan	01-00-22908	Employee 457 contributions, PE 12/11/21 & 12/25/21	4,343.34
01/07/2022	220104	Lincoln Financial Group	01-00-22908	Employee 457 contributions, PE 12/11/21 & 12/25/21	4,073.19
01/11/2022	61470	Allied Electronics & Automation	07-68-68260	Coax connectors	96.45
01/11/2022	61471	McMaster Carr Supply Co.	07-63-63260	Metal pail and lid, pipe fitting	131.13
01/11/2022	61472	North Valley Barricade, Inc.	07-66-66103	Employee clothing	295.15
01/11/2022	61473	Oroville Cable & Equipment Co.	07-66-66171	Tank rental, December 2021	233.75
01/11/2022	61474	Orr Safety Corporation	07-62-62102	Safety glasses	240.77
01/11/2022	61475	Ray's General Hardware	07-63-63260	Putty knife, roof cement, caulking gun, bolts	28.65
01/11/2022	61476	Napa Auto Parts	07-66-66150	Flares, starter and core	250.13
01/11/2022	61477	Tehama Tire Service, Inc.	07-66-66150	New tires & installation Loader, E-93	5,920.03
01/14/2022	61478	Better Deal Exchange	07-66-66100	Garbage can, screws	40.95
01/14/2022	61479	Les Schwab Tires	07-66-66100	Snow chains for T-212	123.39
01/14/2022	61480	William Malacky	07-63-63100	Reimbursement for cleaning supplies	61.10
01/14/2022	61481	Oroville Cable & Equipment Co.	07-63-63100	Nitrogen, hydraulic fittings	148.82
01/14/2022	61482	Oroville Ford	07-66-66150	Valve, core charge, brake pads	371.62
01/14/2022	61483	Access Information Management	01-50-50201	Shredding service, December 2021	157.47
01/14/2022	61484	Advanced Document Concepts	01-50-50380	Printer/copier maintenance, December 2021	525.60
01/14/2022	61485	AT&T	07-68-68251	Circuit billing, 11/19/21-12/18/21	163.00
01/14/2022	61486	B & G Smog	01-56-56150	Smog tests, 10 vehicles	327.50
01/14/2022	61487	Better Deal Exchange	01-56-56100	Moisture absorbers, rags, rope, cleaning supplies	54.49
01/14/2022	61488	C.O.M.P.	01-52-52226	DOT certifications, 2	250.00
01/14/2022	61489	Capital One	01-56-56100	Office supplies	23.61
01/14/2022	61490	Leroy Christophersen	01-58-58394	Employee health benefit reimbursement, Dec 2021	41.00
01/14/2022	61491	Empower Retirement/MassMutual	01-50-50201	Plan restatement fee	1,200.00

South Feather Water and Power Agency  
Checks Paid, January, 2022

<u>Date</u>	<u>Check #</u>	<u>Vendor Name</u>	<u>Account</u>	<u>Description</u>	<u>Amount</u>
01/14/2022	61492	Enloe Medical Center	01-52-52226	Pre-employment physical	267.00
01/14/2022	61493	Grid Subject Matter Experts	07-60-60201	Project management, PPA origination, Dec 2021	3,512.50
01/14/2022	61494	Home Depot Credit Service	01-54-54104	Fittings	116.91
01/14/2022	61495	Industrial Power Products-Oroville	01-56-56150	Air filters, high performance oils	59.31
01/14/2022	61496	Lake Oroville Area PUD	01-53-53250	MRTP sewer service, 10/1/21-12/31/2021	132.18
01/14/2022	61497	Northern Safety Co., Inc.	01-52-52102	Safety glasses, work gloves	264.56
01/14/2022	61498	O'Reilly Auto Parts	01-56-56150	Wire, zip ties, wiper hoses, spark plug socket	38.91
01/14/2022	61499	Paramex Screening Services	01-52-52226	Random DOT screening	75.00
01/14/2022	61500	Jaymie Perrin	01-52-52394	Employee health benefit reimbursement, Dec 2021	60.00
01/14/2022	61501	Peterson CAT	01-53-53260	WT generator troubleshoot	1,416.21
01/14/2022	61502	Josh Reynolds	07-63-63394	Employee health benefit reimbursement, Dec 2021	60.00
01/14/2022	61503	Napa Auto Parts	01-56-56150	Wheel bearing assy, O2 sensor, brake pads, battery	1,416.64
01/14/2022	61504	Sharp's Locksmithing	01-56-56150	Keys	5.95
01/11/2022	61505	Accularm Security Systems	01-50-50201	Alarm monitoring, January 2022	197.00
01/11/2022	61506	Chemtrade Chemicals US LLC	01-53-53102	MRTP supplies	6,199.65
01/11/2022	61507	Core & Main LP	01-56-56370	Utility box, utility box lid	419.31
01/11/2022	61508	Scott DeHoff	01-54-54501	D3 certification reimbursement	170.00
01/11/2022	61509	Vista Net, Inc.	01-58-58360	SAN support, web hosting, backup license, Jan 2022	7,586.74
01/11/2022	61510	William Wong	01-50-50394	Employee health benefit reimbursement, Dec 2021	60.00
01/19/2022	61511	ACWA-JPIA	01-50-50393	Workers Compensation, Oct-Dec 2021	31,273.74
01/19/2022	61512	AFLAC	01-00-22915	Employee supplemental insurance, PE 11/27 & 12/11/2021	1,249.74
01/19/2022	61513	Butte County Sheriff's Office	01-00-25209	Employee wage garnishment, PE 1/8/2022	791.09
01/19/2022	61514	Empower Retirement/MassMutual	01-00-22908	Employee 457 contributions, PE 1/8/2022	100.00
01/19/2022	61515	IBEW #1245	01-00-25207	Member dues, January 2022	5,898.78
01/19/2022	61516	Mission Square Retirement	01-00-22908	Employee 457 contributions, PE 1/8/2022	2,888.50
01/19/2022	61517	Nationwide Retirement	01-00-22908	Employee 457 contributions, PE 1/8/2022	1,754.91
01/19/2022	220105	Cal PERS	01-50-50414	Unfunded accrued liability, Januay 2022	38,046.08
01/19/2022	220106	CalPERS	01-50-50413	Employee retirement contributions, PE 1/8/2022	45,850.67
01/19/2022	220107	CalPERS 457 Plan	01-00-22908	Employee 457 contributions, PE 1/8/2022	2,226.52
01/19/2022	220108	Lincoln Financial Group	01-00-22908	Employee 457 contributions, PE 1/8/2022	1,544.37
01/21/2022	61518	Alpine Portable Toilet Service	07-63-63171	Portable toilet service, January 2022	270.00
01/21/2022	61519	Bank of America - Bank Card	07-64-64260	Winches, amplifier review, job posting	1,130.80
01/21/2022	61520	CA Dept of Tax & Fee Administration	01-53-53250	Electrical energy surcharge, 2021 4th Qtr	86.12
01/21/2022	61521	Comcast Business	07-63-63251	CAISO meters, 1/3/22-2/2/2022	134.96
01/21/2022	61522	Consolidated Electrical Distributors, Inc.	07-66-66370	Electrical breakers and supplies	3,410.12
01/21/2022	61523	D & D Seeds & Farm Equipment Sales, Inc.	07-66-66100	Cutting edge half for snow plow	1,174.43
01/21/2022	61524	Douglass Truck Bodies Inc.	07-66-66150	Lumber rack shipping	880.00
01/21/2022	61525	Global Project Technologies	07-68-68100	Electrode assy, spacer, insulation	506.64
01/21/2022	61526	Home Depot Credit Service	07-64-64260	Concrete, anchor adhesive, cabinet knobs	624.96

South Feather Water and Power Agency  
Checks Paid, January, 2022

<b>Date</b>	<b>Check #</b>	<b>Vendor Name</b>	<b>Account</b>	<b>Description</b>	<b>Amount</b>
01/21/2022	61527	Industrial Power Products-Oroville	07-63-63270	Gas chain saws, chain saw pre-mix oil	3,291.65
01/21/2022	61528	K-Gas, Inc.	07-66-66250	Propane	3,374.52
01/21/2022	61529	Matco Tools	07-66-66270	Screwdriver set	306.83
01/21/2022	61530	McMaster Carr Supply Co.	07-63-63100	Drill bits, screws, dies, socket set, mop bucket	695.77
01/21/2022	61531	MSC Industrial Supply Company	07-63-63100	Mill tooling, nut retainers, deburring set	598.07
01/21/2022	61532	Mt. Shasta Spring Water	07-63-63100	Bottled water	112.05
01/21/2022	61533	Napa Auto Parts	07-66-66160	Gas grande shocks, hydraulic filters, oil	926.63
01/21/2022	61534	P G & E	07-66-66250	Electric service, 12/4/21-1/3/22	10,830.56
01/21/2022	61535	P G & E - Sacramento	07-63-63501	Gen interconnection agr, 1/2022	7,010.37
01/21/2022	61536	Powerplan - OIB	07-66-66150	Rear view mirrors	306.72
01/21/2022	61537	Ramos Oil Co.	07-66-66160	Gas and diesel	5,896.05
01/21/2022	61538	TJ/H2b Analytical Services USA LLC	07-63-63201	Oil sample testing	265.00
01/21/2022	61539	Tucker Sno-Cat Corporation	07-66-66150	Windshield wiper switch	217.93
01/21/2022	61540	UTC Spectrum Services	07-68-68201	Frequency sentry renewal, 2022	210.00
01/21/2022	61541	Western Renewable Energy Generation Inf. Sy	07-63-63201	WREGIS, January 2022	28.67
01/21/2022	61542	Advanced Document Concepts	01-56-56380	Printer/copier maintenance, Dec 2021, warehouse	45.08
01/21/2022	61543	AT&T Long Distance	07-60-60251	Service, 11/23/21-12/24/21	286.27
01/21/2022	61544	AT&T Long Distance	01-53-53251	Service, 12/2/21-12/27/21	2.86
01/21/2022	61545	Comer's Print Shop	01-50-50106	White perforated paper	112.14
01/21/2022	61546	Dan's Electrical Supply	01-54-54104	Wire, liquid-tight electrical conduit	207.78
01/21/2022	61547	Fastenal Company	01-53-53260	Hex cap screws, flat washers, wire brush	30.03
01/21/2022	61548	Hach Co.	01-53-53260	M RTP supplies	1,865.08
01/21/2022	61549	Ryan Leforce	01-54-54408	Backflow exam and hotel reimbursement	857.70
01/21/2022	61550	Minasian, Meith, Soares	07-60-60208	Professional services, December 2021	28,874.73
01/21/2022	61551	Northern Safety Co., Inc.	01-52-52102	Rain gear, hard hat, safety vest, outerwear	173.47
01/21/2022	61552	Oroville, City of	01-00-22907	City utility tax, December 2021	1,865.24
01/21/2022	61553	P G & E	01-54-54250	Service, 11/2/21-12/22/21	5,498.87
01/21/2022	61554	Recology Butte Colusa Counties	01-56-56250	Garbage service, December 2021	958.31
01/21/2022	61555	U.S. Bank	01-56-56100	Employee appreciation breakfast, inventory tags	519.02
01/21/2022	61556	Weimer and Sons	01-54-54264	Utility sand, recycled base, manufactured base	1,145.42
01/21/2022	61557	AT&T	01-53-53251	Internet connections, 12/14/21-1/13/22	84.89
01/21/2022	61558	AT&T	01-50-50251	Local calls service, 1/10/22-2/9/22	2,923.10
01/21/2022	61559	Better Deal Exchange	01-54-54104	Couplings, hex key set, insect repellent	195.52
01/21/2022	61560	Bobcat of Chico	01-56-56150	Seals, seal kit, washers, backup rings	911.55
01/21/2022	61561	Jeannette Clay	01-00-22200	Refund UB 11652	20.12
01/21/2022	61562	Comcast	01-53-53251	Communications, phone, circuit service, Jan 2022	2,384.48
01/21/2022	61563	Consolidated Electrical Distributors, Inc.	01-54-54104	Relays	218.20
01/21/2022	61564	Dan's Electrical Supply	01-54-54104	Circuit breaker	115.83
01/21/2022	61565	Home Depot Credit Service	01-56-56370	Lumber, lopper, chain links, shovel, PVC check valve	879.19

South Feather Water and Power Agency  
Checks Paid, January, 2022

<b>Date</b>	<b>Check #</b>	<b>Vendor Name</b>	<b>Account</b>	<b>Description</b>	<b>Amount</b>
01/21/2022	61566	Minasian, Meith, Soares	01-00-13490	Trust account	8,000.00
01/21/2022	61567	Northern Safety Co., Inc.	01-52-52102	Rain gear, overalls, antibiotic ointment pads	150.65
01/21/2022	61568	Verizon Wireless	01-53-53251	Cell phone service, 12/11/21-1/10/22	124.80
01/21/2022	220109	CA Dept of Tax & Fee Administration	07-63-63260	American Governor Co., use tax	137.00
01/25/2022	220110	Pace Analytical Services, LLC	01-53-53201	Water testing	99.20
01/28/2022	61569	AT&T	07-66-66251	Local calls service, 1/10/22-2/9/22	1,538.75
01/28/2022	61570	AT&T	07-60-60251	Circuits, 1/10/22-2/9/22	359.32
01/28/2022	61571	AT&T	07-60-60251	Fiber optic connections, January 2022	1,139.74
01/28/2022	61572	Capital One	07-63-63100	First aid supplies, bottled water, cleaning supplies	176.04
01/28/2022	61573	Dewberry Engineers Inc.	07-67-67201	Inundation mapping for Miners Ranch Dam	632.00
01/28/2022	61574	Fastenal Company	07-64-64260	Hex nuts	10.20
01/28/2022	61575	Home Depot Credit Service	07-64-64260	Concrete, lumber, screws	191.43
01/28/2022	61576	McMaster Carr Supply Co.	07-63-63100	Tubing	21.53
01/28/2022	61577	Oroville Ford	07-66-66150	Brake pads, oil filter	154.09
01/28/2022	61578	STAPLES CREDIT PLAN	07-60-60106	Copy paper, computer monitor mounts, office supplies	347.73
01/28/2022	61579	Valley Iron Inc. Oroville	07-64-64260	Rebar, carbon rems	290.83
01/28/2022	61580	AT&T Mobility	01-58-58251	Cell phone and tablet service, 12/19/21-1/18/22	371.29
01/28/2022	61581	Badger Meter	01-00-22300	1" meter w/ert compatible register	818.45
01/28/2022	61582	Better Deal Exchange	01-54-54270	Hammer, hex key set, tape measure	72.06
01/28/2022	61583	Butte Co. - Neal Road Recycling & Waste	01-56-56250	Debris disposal	158.01
01/28/2022	61584	CDW Government, Inc.	01-58-58100	USB hubs, power adapters, keyboard	292.55
01/28/2022	61585	Leroy Christophersen	01-58-58394	Employee health benefit reimbursement, Jan 2022	41.00
01/28/2022	61586	Core & Main LP	01-00-22300	Pipe fittings, tubing and parts	4,399.13
01/28/2022	61587	Dish Network	01-50-50251	Satellite service, 2/8/22-3/7/22	144.81
01/28/2022	61588	David Dunn	01-00-14404	Employee computer purchase	119.99
01/28/2022	61589	Grainger Inc.	01-54-54104	Pump	1,530.51
01/28/2022	61590	Industrial Power Products-Oroville	01-56-56150	Chain loops, bar oil, chain saw bars, gaskets	233.15
01/28/2022	61591	InfoSend, Inc.	01-55-55114	UB billings, December 2021	3,843.40
01/28/2022	61592	K-Gas, Inc.	01-56-56160	Propane	47.89
01/28/2022	61593	Napa Auto Parts	01-56-56150	Rotors, brake pad, shocks, filters	1,055.93
01/28/2022	61594	Normac	01-00-22300	2" backflow and backflow box	1,143.21
01/28/2022	61595	NorthStar Engineering	07-67-67201	Gauging and weir benchmark expenses	31.95
01/28/2022	61596	Office Depot, Inc.	01-50-50106	Copy paper, calendars, office supplies	134.60
01/28/2022	61597	O'Reilly Auto Parts	01-56-56150	Extension cord, light bulbs, fuse kit, fuses	171.11
01/28/2022	61598	Orkin Pest Control	01-53-53201	Pest control service, January 2022	86.10
01/28/2022	61599	Oroville Cable & Equipment Co.	01-56-56150	Hydraulic hose, fuel hose, battery cables	336.63
01/28/2022	61600	Tehama Tire Service, Inc.	01-56-56150	New tires, 2010 Ford Ranger, 4; Tilt trailer, 1	1,017.79
01/28/2022	61601	Triangle Rock Products, LLC	01-54-54264	CL2 base	847.46
01/28/2022	61602	Vista Net, Inc.	01-58-58360	Firewall license, 2/8/22-2/7/23	956.00

South Feather Water and Power Agency  
Checks Paid, January, 2022

<b>Date</b>	<b>Check #</b>	<b>Vendor Name</b>	<b>Account</b>	<b>Description</b>	<b>Amount</b>
01/28/2022	61603	AT&T Mobility	07-67-67251	Cell phone and tablet service, 1/3/22-2/2/22	654.63
01/28/2022	61604	John Shipman	01-53-53394	Employee health benefit reimbursement, Dec 2021	60.00
01/28/2022	61605	Ryan Allen	01-00-22200	Refund, UB 14591	27.42
01/28/2022	61606	Mathew or Crystal Gibson	01-00-22200	Refund, UB 12287	103.10
01/28/2022	61607	Zeno J Meyer	01-00-22200	Refund, UB 6148	53.13
01/28/2022	61608	Kurt or Mary Osterlund	01-00-22200	Refund, UB 17571	23.20
01/28/2022	61609	Vincent Rothenberg	01-00-22200	Refund, UB 16600	37.06
01/28/2022	61610	Kamaljit Takhar	01-00-22200	Refund, UB 1993	12.22
01/28/2022	61611	Ashley or Kurtiss Wernette	01-00-22200	Refund, UB 17354	20.39
				Total January, 2022 checks	560,219.71

**SOUTH FEATHER WATER AND POWER AGENCY  
PAYROLL  
JANUARY, 2022**

PAYROLL STATE & FED TAXES	\$	164,841.79
PAYROLL NET		316,115.65
<b>TOTAL JANUARY, 2022</b>		<b>\$ 480,957.44</b>

**CREDIT CARD DETAIL  
JANUARY 2022 PAYMENTS**

<u>Check #</u>	<u>Date</u>	<u>Description</u>	<u>Amount</u>
61519	1/21/2022	Bank of America	
		Dual speed winches for crane	\$ 636.24
		Sunset Hill repeater amplifier	201.27
		Bank charges and equipment deposit	132.74
		Ice melting pellets	64.68
		Job posting	50.00
		Laptop computer battery	45.87
			\$ 1,130.80
61555	01/21/2022	U.S. Bank	
		Employee appreciation	\$ 193.61
		Inventory tags	178.50
		Binders, backflow	56.25
		DER training	75.00
		Web conferencing	15.66
			\$ 519.02





# Water Storage and Conveyance Options

## Phase 1 Investigation

South Feather Water & Power Agency

21 January 2022

318005-00048

**Advisian**  
Worley Group

[advisian.com](http://advisian.com)

## Disclaimer

*This document has been prepared for the sole purpose of documenting our tender for consultancy services associated with the WATER STORAGE AND CONVEYANCE OPTIONS - PHASE 1 INVESTIGATION for the South Feather Water & Power Agency. It is expected that this document and its contents will be treated in strict confidence by the South Feather Water & Power Agency and that the contents will be used by the South Feather Water & Power Agency only for the purpose of selecting a consultant for the project. The information contained in these documents is protected by the Global Data Protection Regulation (GDPR). Advisian complies with the provisions of the regulation and the information is disclosed on the condition that the recipient also complies with the provisions of the GDPR. In particular, all of the personnel information contained therein must be kept securely, must be used only for the purposes of assessing the suitability of the individuals to perform the tasks proposed and/or assessing the overall capabilities of Advisian to undertake the work proposed and must be destroyed upon completion of those purposes. Details on how personal information provided to Advisian is processed can be found at <https://www.advisian.com/en-us/who-we-are/privacy-policy> or is otherwise available on request.*

## COVID-19



*Advisian is committed to providing the proposed Services to you in a timely and professional manner. Advisian is also committed to ensuring the health and safety of everyone, including our people and our customers. In some cases, the COVID-19 pandemic has caused us to modify our working practices. Advisian employees and collaborators may therefore provide some or all of the proposed Services from offices within their homes. In addition, the ability to travel for attendance to business meetings or site may be affected.*

*Advisian will take reasonable steps to mitigate any delays associated with the measures necessary to keep everyone safe and comply with all government regulations and proclamations regarding the COVID-19 pandemic. Customers will be informed if there is any foreseeable impact on providing the proposed Services.*

## Company details

Worley Group Inc., dba Advisian  
2330 E. Bidwell Street, Suite 120  
Folsom, California, United States, 95630

## PROPOSAL: 318005-00048: Water Storage and Conveyance Options – Phase 1 Investigation

Rev	Description	Author	Review	Advisian approval	Revision date
0	Issued as Final	 L. Marino	J. Frolich	 J. Crofton	21-Jan-22

January 21, 2022

Mr. Rath Moseley  
General Manager  
South Feather Water & Power Agency  
2310 Oro-Quincy Highway  
Oroville, CA 95966

Dear Mr. Moseley:

RE: WATER STORAGE AND CONVEYANCE OPTIONS - PHASE 1 INVESTIGATION SOUTH FEATHER  
WATER & POWER AGENCY

Advisian is delighted to submit this proposal to the South Feather Water & Power Agency for the opportunity to provide a Water Storage and Conveyance Options – Phase 1 Investigation (referred to as “Phase 1 Investigation”) located in the South Feather Water & Power Agency (SFWPA) service area, Oroville California. Based on our conversations over the last two months, we are providing a proposal for the following professional service tasks associated with the Phase 1 Investigation:

- Investigate the feasibility of adding water storage at two prospective sites identified by the SFWPA Board:
  - Miners’ Ranch Reservoir: raise the existing dam to increase water storage.
  - Swede’s Flat: construct a new dam and water conveyance route at this undeveloped site.
- Conduct a literature search comprised of all maps, studies, Board meeting minutes, SFWPA documents, and online publications available.
- Prepare a Phase 1 Investigation Technical Memorandum identifying potential fatal flaws, preliminary engineering, economic, and environmental challenges based on nine screening criteria included in Section 1.
- Develop a preliminary cost estimate for the two sites.
- Develop an environmental regulatory permitting overview for the two sites and time estimate to obtain approvals.
- Convene a Board workshop to present findings, receive input, and make recommendations for a detailed engineering feasibility study in Phase 2.

In our proposal we summarized our current understanding of the background and project plans. We will work closely with the SFWPA Board committee and staff to assure accuracy of this information and the document we produce. Also provided is a summary of our expertise and experience along with costing. We look forward to working with the SFWPA to assist with this project to provide improved water security for the SFWPA ratepayers and service area.

Sincerely,



Len Marino, P.E., C.F.M.  
Principal Consultant,  
Surface Water Engineering  
(916) 605-9751  
[len.marino@advisian.com](mailto:len.marino@advisian.com)



Jeff Crofton, P.Eng.  
Director,  
Surface Water Engineering, Americas  
(403) 978-5080  
[jeff.crofton@advisian.com](mailto:jeff.crofton@advisian.com)

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## Appendix

Appendix A Standard Consulting Services Agreement

# 1 Background and Project Understanding

South Feather Water & Power Agency (Agency) is interested in adding water storage within its sphere of influence and service area. The Agency requested Advisian Worley Group to provide a proposal for a scope of work, schedule, and cost estimate for investigating the development of two prospective sites for additional water storage needed to increase water service reliability, promote the Agency's ability to conduct groundwater recharge or water banking, and improve wildlife refuge and habitat within the Agency's service area. The Agency identified two prospective sites that may be feasible for additional surface water storage development. One site includes raising an existing dam and the other site requires new dam construction. The Phase 1 Investigation will focus on potential fatal flaws, engineering/economic challenges, regulatory environment, and public acceptance for developing these sites based on the following screening criteria:

1. Public need
2. Engineering feasibility and economics
3. California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA); environmental & regulatory agency permitting
4. Water rights
5. Acceptance and endorsement by tribal organizations and stakeholders
6. Land & right-of-way acquisition
7. Biological and cultural/historical significance
8. Climate considerations

## 2 Technical Approach

We will investigate existing literature, maps, SFWPA documents, land use plans, and legislation pertinent to the Agency's historical and future water resources development to identify potential fatal flaws related to the Agency's two prospective reservoir sites, Miners' Ranch Reservoir and Swede's Flat. We understand that the Agency has identified a two-member Board committee with extensive knowledge of the two sites and familiarity with local topography. We plan to meet with the Board committee to begin building the available information on these prospective sites and would ideally include a visit to each site. Part of Phase 1 includes a review of the feasibility for developing a conveyance route from the Swede's Flat site to transport water down to the Agency's existing surface water storage facilities.

Phase 1 will include an overview-level review for project consistency with State of California water plans, including recent State Water Resources Control Board plans, California Water Commission meetings, and the Bay-Delta Plan which was amended to increase flows to the Delta and could affect the viability of projects such as these. This review would also serve to determine if either of the reservoir project sites would be eligible for grant funding from any of the State of California's water resources grants or cost-sharing programs.

Our scope will include review of the Butte County General Plan (Conservation and Open Space Element) for known local cultural and historic resources. Additionally, we will conduct a review of the National Park Service's register of National Historic Places for potential places near the prospective reservoir site and conveyance route. We would also perform a desk-top biological studies review for aquatic and terrestrial species and identify those which are listed as threatened or endangered by the State of California and/or the federal government. Cultural resources field work would be conducted, if necessary, during the detailed engineering feasibility study in Phase 2. Other field surveys (e.g. biological resources) would be reserved for Phase 2 as they would likely be required for the CEQA document, developed as part of Phase 2. The list of tribal nations and stakeholders will be developed in coordination with Agency staff for inclusion in the memorandum. If necessary, a request will be sent to the Native American Heritage Commission (NAHC) to determine appropriate contact information for the local tribal nations. Outreach to the tribes is not anticipated at this stage of the project.

### Deliverables

- A Phase 1 Investigation Technical Memorandum consisting of an early site review for development of water storage at one or both Miners' Ranch Reservoir Site and the Swede's Flat Site with included water conveyance route. The Technical Memorandum will contain recommendations for detailed study in Phase 2 and will also provide an overview of the State's policies and programs which may be either beneficial or detrimental to launching a new reservoir construction project in California. Elements of the Technical Memorandum will include:
  - Introduction - South Feather Water & Power Agency's need for water storage within the service area
  - An overview-level review for project consistency with State of California water plans, including the Bay-Delta Plan, in coordination with other recently approved reservoir projects in California



- Engineering feasibility and a general estimate to construct and operate each location Regulatory and environmental permitting requirements, including CEQA and potentially NEPA, for developing each site
- A desk-top biological review for aquatic and terrestrial species databases and studies in the proposed project region to identify threatened or endangered species listed by the State of California or the federal government, and wetlands subject to the Clean Water Act and other regulations
- Cultural and historic resources and land use overview affected by developments at the two sites, including General Plan and NPS National Register information
- A general overview of potential water rights and land acquisition issues for the Swede's Flat reservoir site and water conveyance route
- Issues related to current views and concerns of tribal nations and stakeholders
- Preliminary order of magnitude cost estimates for both sites
- A Draft of the Technical Memorandum will be provided for Agency review for one round of comments, prior to a final submittal to the Agency
- A Board workshop consisting of a review of findings included in the Technical Memorandum, using a PowerPoint presentation to the Board. It will include a discussion of the water storage options and proposed next steps for the Phase 2 project activities. The workshop could be either in-person or virtual. If COVID restrictions allow an open public meeting, it would allow the Agency to test public acceptance of the prospective sites and possibly acquire previously unknown information about either site or the conveyance route from tribal members and stakeholders potentially affected by the site development.

## Assumptions

- Literature, documents, maps, and Board meeting minutes will be provided electronically
- The project areas will focus on the project areas only, and will not include any water modeling of the Delta
- If additional conveyance routes are added to the project after kick-off, there is a potential need to additional scope and fee
- All deliverables will be provided electronically
- The Agency will make all arrangements for the Board workshop, including meeting room, public noticing, and handouts

### 3 Project Management and Technical Qualifications

Len Marino, P.E., C.F.M. will serve as the Project Manager and main point of contact for this project, and Jeff Crofton, P.Eng., will serve as the Principal-in-Charge. Summaries of qualifications for Len and Jeff, in addition to several other key personnel and a subconsultant are included below.

Table 3-1 Summary of Team Qualifications

Len Marino – Project Manager  
PE, CFM

Len Marino works out of the Folsom, California office where he serves as Advisian’s subject matter expert on hydropower and dams within the Surface Water Engineering, Americas division. He has over 40 years of experience in dam and aqueduct operation, maintenance, construction, rehabilitation, and project management. He has extensive water resources experience with projects throughout California after serving as an owner/operator of dams and water conveyance facilities for water agencies in California.



Jeff Crofton – Principal-in-Charge  
P.Eng., M.S.

Jeff Crofton is based in Calgary, Alberta, Canada, where he serves as Director of Surface Water Engineering, Americas. He has over 30 years of experience in dam construction, hydraulic modeling, and project management. He is considered to be a global expert in water resources development and implementation of complex dam, reservoir, and water conveyance projects.



Deanna Meier - Senior Biologist  
M.S.

Deanna Meier has 20 years of experience in biology, environmental science, and fisheries. Her environmental science focus is on wind energy projects and CEQA and NEPA analysis, including land use and military projects in California. She has managed large multidisciplinary projects off the coast of California and Baja California, Mexico. She is the author of over 30 journal articles, environmental reports, and a textbook.



Guadalupe Ugarte, Lead Cost Estimator

Ms. Ugarte is a lead cost estimator with a strong background in engineering, procurement, and construction with over 25 years of experience in cost estimation, economic analysis, construction management and detailed cost control for infrastructure, transportation, energy, buildings, utilities services, and mining projects. Her estimating expertise includes quantity surveying, unit cost analysis, scheduling, value engineering, and risk analysis, with the ability to handle complex multi-phase projects and simultaneously examine economic and design trade-offs in the context of the full project life cycle. She has built databases of pricing and productivity for several industries and maintains a global network of professional relationships with clients, contractors, and consultants.





## Tammara Grendus – Senior Project Administrator

Tammara Grendus is based in Calgary, Alberta, Canada focusing on providing project oversight and management of various projects of a multi-disciplinary nature and across multiple geographical locations. She has over seven years' experience in civil designs at the municipal level, and over 18 years' experience in managing teams and projects.



## 4 Schedule and Costs

Below is a schedule and time and materials cost estimate for completing the proposed project. Advisian's technical consulting rates that are attached in Appendix A.

Table 4-1 Proposed Schedule of Deliverables

Milestone	Schedule
Kick-off Meeting - virtual	Within 1 week of receiving Notice to Proceed (NTP)
Meet with Board committee; Site visit to Miners' Ranch Reservoir and Swede's Flat reservoir site and waterconveyance route	Within 2 weeks of NTP
DRAFT Tech Memo delivered to SFWPA for review and comment	Within 8 weeks of NTP
Review and resolve SFPWA comments on DRAFT TM	Within 2 weeks after receiving comments from SFWPA
FINAL Tech Memo delivered to SFWPA	Within 3 weeks after receiving comments from SFWPA
Board workshop on Phase 1 Investigation	TBA after SFWPA receives Final Tech Memo

Table 4-2 Estimated Costs

Task	Hours	Cost
Total Estimated Cost, exclusive of taxes	334	\$59,470

## 5 Terms and Conditions

Advisian is the independent consulting business line of the Worley Group. Our legal entity is Worley Group Inc. (dba Advisian). Advisian proposes that the work be performed on a not-to-exceed time and materials basis in accordance with Advisian's Consulting Services Agreement which is included in Appendix A. We confirm compliance with the South Feather Water & Power Agency's Code of Conduct.

Until the finalization of a contract, it is understood that, after your acceptance of Advisian's proposal, both parties shall use reasonable diligence to agree upon a mutually acceptable definitively written contract with respect to the work described in this proposal. Your acceptance of this proposal, or use of any portion of our services, shall constitute your agreement that, except as set forth in the executed definitive written contract, no warranties or guarantees, expressed or implied, shall apply with respect to the work, and Advisian shall not be held liable for cost or damages of any nature (including but not limited to special, indirect or consequential damages) whether such cost or damages are alleged to have arisen in contract, negligence, strict liability or other theory of law. In the event no definitive written agreement is executed, Advisian shall be entitled to be paid for any work that you requested be commenced in advance of execution of the definitive written agreement at the rates set out in this proposal.

### 5.1 Taxes

All taxes are excluded.

### 5.2 Validity

This proposal is valid for 90 days from its date of submission; thereafter, it may be subject to change.



**Appendix A**  
**Standard Consulting Services Agreement**

**CONSULTING SERVICES CONTRACT**

Dated this \_\_\_ day of \_\_\_\_\_, 2022

<b>Between:</b>		("Client")
<b>Business Address:</b>		
<b>Attention:</b>		
<b>And:</b>	<b>Worley Group Inc.</b>	("Advisian")
<b>Business Address:</b>	5995 Rogerdale Road	
	Houston, Texas, 77072	
<b>Attention:</b>	Len Marino, Advisian USA Surface Water Engineering	

Whereas Client wishes to retain Advisian to provide the consulting services as described below ("Services"), and Advisian wishes to provide such Services, in consideration of the mutual covenants and promises contained herein we the undersigned agree as follows:

1. Scope of Services:	South Feather Water & Power Agency - Water Storage and Conveyance Options, Phase 1 Investigation.
2. Services Commencement Date:	
3. Compensation for Services:	Hourly rates or milestone payments in Attachment A, plus expenses.
4. Client agrees to retain Advisian to perform the Services, and will pay Advisian a retainer fee of U.S. \$_____ to initiate the Services, and Advisian agrees to perform the Services, as provided above and in accordance with the Terms and Conditions on the following pages and attachments (if any), which are incorporated herein and made a part hereof.	

<b>Client:</b>		<b>Advisian :</b>	<b>Worley Group Inc.</b>
<b>Name:</b>		<b>Name:</b>	Jeff Crofton
<b>Position:</b>		<b>Position:</b>	Director, Surface Water Engineering
<b>Signature:</b>		<b>Signature:</b>	

## CONSULTING SERVICES CONTRACT

### CONSULTING SERVICES TERMS AND CONDITIONS

#### ARTICLE 1. SERVICES

Advisian will use commercially reasonable efforts to perform Services for Client using the standard of care set forth in Article 3 and in accordance with any specifications expressly stated in the Scope of Services.

#### ARTICLE 2. COMPENSATION AND PAYMENT

Client shall pay Advisian a retainer fee in the amount set forth in Item 4 of the cover page to this Contract, prior to the Service Commencement Date, which shall be applied to any balance due on the final invoice issued hereunder. This retainer fee is subject to change in subsequent phases of the Services, based on the projected monthly or milestone Services volume. Advisian may invoice Client for Services and expenses every two (2) weeks, and may separate labor and non-labor charges, which may be invoiced separately and shall be paid separately by Client. Client shall pay, within fifteen (15) days of the date of the invoice via electronic funds transfer (ACH), the amount of each invoice, exclusive of any sales, services, excise, use, value added, gross receipts, withholding tax or any other similar taxes or fees. Client shall be responsible for: (i) direct payment of all such taxes and fees, and (ii) reimbursement to Advisian of any payments made by Advisian, its affiliates and/or subcontractors, in respect of such taxes and fees. Any disputed invoice amounts shall be identified in writing by Client within five (5) days of the date of the invoice. Non-disputed invoice amounts shall be paid immediately, without further action or notice by Advisian. Advisian may suspend performance of the Services if any amount due remains unpaid, in whole or in part, upon fifteen (15) days' notice thereof. Late payments shall be assessed a finance charge based on an annual rate of eight percent (8%), which shall apply to each day that payment is past due. All payments under this Contract shall be in U.S. dollars.

#### ARTICLE 3. EXCLUSIVE WARRANTY

Advisian warrants the Services will be performed in accordance with the standards customarily utilized by similar firms rendering the same or similar services under the same or similar circumstances. THIS EXCLUSIVE WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE EXPRESSLY DISCLAIMED AND EXCLUDED. Advisian also expressly disclaims, and assumes no liability for, or related to, the performance, production, outcome or effectiveness of any project, technology, design, process, equipment, material, warranty or facility, or of any third party.

#### ARTICLE 4. EXCLUSIVE REMEDY

If Advisian's failure to conform to the standard of performance set forth above is discovered within ninety (90) days of the completion of the Services, and provided that Advisian is notified of such nonconformance within fifteen (15) days after Client's discovery thereof, then Advisian shall, as its sole obligation and at no additional cost to the Client, re-perform any of said deficient Services. THIS EXCLUSIVE REMEDY IS IN LIEU OF AND EXCLUDES ALL OTHER REMEDIES AVAILABLE TO CLIENT AGAINST ADVISIAN, REGARDLESS OF WHETHER CLIENT'S CLAIMS ARE ALLEGED TO ARISE FROM NEGLIGENCE; BREACH OF WARRANTY; BREACH OF CONTRACT; OR OTHER ACT, ERROR OR OMISSION; OR FROM STRICT OR ABSOLUTE LIABILITY IN TORT; OR FROM ANY OTHER CAUSE WHATSOEVER; OR ANY COMBINATION OF THE FOREGOING.

#### ARTICLE 5. LIMIT OF LIABILITY

Notwithstanding anything to the contrary:

5.01 Advisian maximum cumulative liability hereunder shall not, in the aggregate, exceed the compensation received by Advisian under this Contract, net of expenses and any other pass-thru charges, or U.S. \$1 million, whichever is less.

5.02 Neither party shall be liable to the other party for special, incidental, indirect or consequential damages of any nature, including, but not limited to: loss of profits or revenues, loss of use or loss of business or reputation, and REGARDLESS OF WHETHER SUCH DAMAGES ARE ALLEGED TO ARISE FROM NEGLIGENCE, BREACH OF WARRANTY, BREACH OF CONTRACT, OR OTHER ACT, ERROR OR OMISSION, OR FROM STRICT OR ABSOLUTE LIABILITY IN TORT, OR FROM ANY OTHER CAUSE WHATSOEVER, OR ANY COMBINATION OF THE FOREGOING.

5.03 The releases from and limitations on liability expressed in this Article 5 and elsewhere in this Contract shall: (i) survive termination or expiration of this Contract, (ii) apply whether in contract, equity, tort or otherwise, (iii) apply even in the event of the fault, negligence, strict liability, or breach of contract of Advisian, and (iv) apply to Advisian, its parents, subsidiaries and affiliates, and extend to each of their shareholders, directors, officers, employees and agents.

#### ARTICLE 6. FORCE MAJEURE

Neither party shall be liable for any event beyond its reasonable control not caused by the fault or negligence of such party (or its agents, employees and subcontractors), and which causes such party to be unable to perform its obligations hereunder and which it has been unable to overcome by the exercise of reasonable due diligence, including, but not limited to, strikes, disturbances, riots, fire, severe weather, governmental action or inaction, acts of war, acts of terrorism or sabotage, acts of God, or any other causes similar or dissimilar to the foregoing. The obligation to make payment shall not, however, be excused by force majeure.

#### ARTICLE 7. INDEMNIFICATION AND HOLD HARMLESS

Services are for the exclusive benefit of the Client and Advisian assumes no liability or obligation to any person other than the Client in respect of any claim arising out of or in connection with the Services or any relationship established by this Contract, whether arising in contract, tort (including but not limited to negligence), or equity, by operation of statute or under any law or otherwise. If the Client allows any third party to enjoy the benefit of the Services or Documents (as defined below), take actions or decisions based on the Services or Documents, or Client uses the Services or Documents to make commercial, financial or project decisions, then Client agrees to indemnify, release, defend and hold harmless Advisian and its affiliates, from and against any and all claims, suits, demands, expenses, losses, damages, liability or other obligations related to such use, or made by any such third party. Advisian shall have no liability or obligations to Client resulting from such use, nor to its customers, partners, affiliates or any other party, and the foregoing indemnity, release, defense and hold harmless obligations shall apply to all such claims, suits, demands, expenses, losses, damages, liability or other obligations, arising out of or related to, the use or reliance on the Services or Documents for any bid, proposal, evaluation, financing, loan, investment, pricing, contract, technical configuration, or any other commercial or project related decisions, actions or commitments. In the event that Client seeks to disclose the results of the Services or Documents to any party that may use them in the foregoing manner, Client shall obtain, prior to any disclosure, a written undertaking from such party, for the benefit of Advisian and its affiliates, consistent with this Article 7. The form of such undertaking shall be subject to Advisian's approval.

EACH PARTY SHALL DEFEND, INDEMNIFY, RELEASE AND HOLD HARMLESS THE OTHER PARTY AND ITS AFFILIATES FROM AND AGAINST ANY CLAIMS, DAMAGES, LOSSES, COSTS AND EXPENSES (INCLUDING ALL

REASONABLE ATTORNEYS' FEES AND CONSULTANT FEES) DIRECTLY OR INDIRECTLY ARISING OUT OF OR RESULTING FROM OR RELATED TO PROPERTY DAMAGE OR TO INJURY TO OR DEATH OF EMPLOYEES, OFFICERS OR DIRECTORS OF ANY MEMBER OF THE INDEMNIFYING PARTY, REGARDLESS OF CAUSE, INCLUDING, BUT NOT LIMITED TO, THE SOLE OR JOINT NEGLIGENCE, BREACH OF CONTRACT, STRICT LIABILITY, OR OTHER BASIS OF LIABILITY OF THE INDEMNIFIED PARTY OR ANY OTHER PARTY.

**ARTICLE 8. CHANGES IN THE WORK**

Client, without invalidating this Contract, may request changes in the Services by amending, adding to and/or deducting from the Services. All such changes shall be in writing, evidenced by a change order executed by the parties and, unless otherwise specifically agreed in writing by the parties, shall be performed subject to these terms and conditions. If any change pursuant to this Article, whether proposed by Client or Advisian, causes an increase in the cost or time required for performance of the Services, such cost and time shall be mutually agreed between the parties

**CONSULTING SERVICES CONTRACT**

hereto and the schedule and compensation for the Services shall be modified in writing accordingly.

**ARTICLE 9. INSURANCE**

Advisian will maintain, and upon request furnish Client with certificates evidencing, the following insurance:

9.01 Workers' Compensation for statutory limits in compliance with the applicable state and federal laws covering employees of Advisian and Employers' Liability Insurance with a limit of \$500,000 per occurrence and in the aggregate.

9.02 Comprehensive General Liability covering the liability of Advisian including blanket contractual liability coverage with a limit of \$1,000,000 any one occurrence and \$2,000,000 in the aggregate Combined Single Limit for Bodily Injury and Property Damage.

9.03 Automobile Liability including Advisian owned, non-owned and hired automobiles with a limit of \$500,000 any one occurrence Combined Single Limit for Bodily Injury and Property Damage.

9.04 Professional Liability Insurance (Claims-Made Basis) covering negligent acts, errors or omissions arising out of or related to the Services with limits of \$2,000,000 each claim and general aggregate.

9.05 Client will maintain property insurance on all pre-existing physical facilities associated in any way with the Services. Advisian shall not have any risk of loss for Client's property and Client hereby releases Advisian for any loss or damage to Client's property, and will indemnify, defend and hold harmless Advisian and its affiliates for any such loss or damage, regardless of cause.

**ARTICLE 10. CONFIDENTIAL INFORMATION**

The parties may disclose to each other information of a proprietary or confidential nature ("Confidential Information"). Any Confidential Information disclosed in writing shall be conspicuously marked as "confidential" or "proprietary" or with other terms indicating that there are restrictions on its use or disclosure. If Confidential Information is disclosed orally or visually or by other non-written means, the disclosing party shall indicate the proprietary nature of the information at the time of the initial disclosure and shall, within fifteen (15) days thereafter, send a written notice sufficient to describe such information and that it is subject to protection under this Article 10. The parties will use reasonable efforts to protect Confidential Information disclosed hereunder and will not transfer Confidential Information to third parties without the prior written approval of the disclosing party. Internal use and disclosure of Confidential Information shall be restricted to those employees and agents of the recipient who require access to the Confidential Information to perform or support the Services, who are advised of the confidential nature of the information, and who are obligated to hold it in confidence, in a manner consistent with this Article 10. The parties agree to return all Confidential Information when it is

no longer needed for performance of this Contract; provided that the recipient may retain one (1) copy of any such information for its records, which shall remain subject to the confidentiality obligations hereunder. The foregoing confidentiality obligation shall continue for a period of two (2) years after disclosure, or one (1) year after termination of this Contract, whichever period ends first.

Nothing herein shall prevent a party from disclosing to others or using in any manner (i) information that is or becomes a part of the public domain other than by acts or omissions of the receiving party or its employees in violation of this Article 10, (ii) information that lawfully becomes available to a party on a non-confidential basis from a third party, (iii) information that a party can prove was in its possession at the date it entered into this Contract and was not acquired directly or indirectly from the other party, or (iv) if required by any applicable law, regulatory authority or court of competent jurisdiction to reveal the information. In the latter case, the parties shall work together to limit, to the extent legally possible, the extent of the disclosure.

**ARTICLE 11. NO RELIANCE OR THIRD PARTY BENEFICIARIES**

11.01 The Services are provided for Client's exclusive benefit and use, and Advisian accepts no liability to any other person in respect of any claim arising out of or in connection with the Services or Documents (as defined below),

whether arising in contract, in tort, in equity or by law. Advisian shall have no liability for the results of any action or decision using, based on or relying on the Services or Documents.

11.02 If Client allows any third party to use or enjoy the benefit of the Services or Documents, then Client will be fully responsible for, and shall indemnify Advisian against any claim by said third party arising out of or in connection with the Services, pursuant to Article 7 above.

11.03 No provision of this Contract is intended, nor shall it be construed, to be for the benefit of any third party.

## **ARTICLE 12. DOCUMENTATION AND ESTIMATES**

Any drawings, reports, documentation, reviews, evaluations, assessments, estimates, projections or other written materials (collectively "Documents") prepared by or issued to Client by Advisian hereunder shall be subject to these terms and conditions and to any limitations, disclaimers, notices or assumptions identified in the Documents; shall be for Client's use only in connection with the project for which the Documents were prepared, and Client assumes full responsibility for reliance on such Documents and for use of such Documents for any other purpose. Any disclaimer or notice found in or attached to any Document or Service deliverable is enforceable and Advisian intends to rely on such disclaimers and notices to the maximum effect at law. The Client acknowledges and agrees that the Documents and Service deliverables must only be read in their entirety and that excerpts therefrom may not be taken as representative of the general findings of such Documents or Service deliverables. Advisian assumes no liability with respect to reliance on or the use of, or damages resulting from reliance on or the use of, any information, method, or process disclosed in the Documents issued hereunder. Advisian retains the right to use such Documents for its own purposes provided, however, that Advisian shall not, as provided in Article 10, use or disclose any Confidential Information of Client without Client's prior consent. Estimates prepared by Advisian (including, but not limited to, estimates of quantities, costs and schedules)

represent Advisian's reasonable judgment based upon its familiarity with the industry and the information available at the time of the estimate. It is recognized, however, that neither Client nor Advisian has control over factors which affect or relate to such estimates. Accordingly, Advisian cannot and does not warrant or represent that actual items, amounts, costs, production, quantities, outcomes, time periods or schedules will not vary from any estimates prepared by Advisian. Advisian shall be entitled to rely on and shall have no liability for defects or deficiencies in the Services or Documents attributable to its use of data, design criteria, drawings, specifications or other information furnished by or on behalf of Client, and Advisian shall be under no obligation to review any such Client-furnished information for completeness or correctness. Advisian shall have no liability for any latent or subsurface condition, and shall have no responsibility for the engineering, designs or performance of any other party.

## **ARTICLE 13. COMPUTER PROGRAMS**

Advisian may use proprietary computer programs to provide Services. Such use does not constitute a license to Client to use or modify Advisian or third party computer programs and such programs shall remain the sole property of Advisian or such third party. If Client desires to use such computer programs, Client shall enter into a separate licensing agreement.

## **ARTICLE 14. HIRING**

With respect to each Advisian employee involved in providing Services, Client shall not, until one year after the employee's assignment hereunder ends, hire such employee without Advisian's prior written consent.

## **ARTICLE 15. TERMINATION**

Either party may at any time, upon fifteen (15) days written notice to the other party, terminate this Contract. Upon such termination, Client shall pay Advisian all amounts owing to Advisian hereunder for performance up to the effective date of termination, plus expenses incurred by Advisian as a result of such termination.



## CONSULTING SERVICES CONTRACT

### ARTICLE 16. MISCELLANEOUS

Neither party may assign its rights, interests or obligations hereunder without the express written consent of the other party. Any assignment made without such written consent shall be void. The failure of either party to enforce, at any time, any provision hereof shall not constitute a waiver of such provision in any way or the right of such party at any time to avail itself of such remedies as it may have for any breach or breaches of such provision. This Contract shall be governed by the laws of the State of Texas, excluding conflicts of law principles that would apply the substantive law of another jurisdiction, and shall be subject to the jurisdiction of the state and federal courts sitting in Harris County, Texas, USA; provided however, if Client is incorporated in a jurisdiction other than the United States, any disputes arising out of or related to this Contract shall be submitted to and settled by binding arbitration under the rules of the American Arbitration Association by three (3) arbitrators. The arbitration will take place in Houston, Texas, and shall be conducted in English. No decision by the arbitrator shall provide for the payment of punitive, exemplary or other such damages, and the cost of arbitration shall be apportioned according to the determination of the arbitrator.

### ARTICLE 17. ENTIRE AGREEMENT

The provisions hereof represent the entire and integrated agreement between the parties hereto and supersede all prior and contemporaneous representations, understandings, and agreements, whether written or oral, with respect to the subject matter hereof. Unless otherwise expressly agreed to in writing by the parties, any purchase order or authorization issued by Client shall not add to or otherwise amend these terms and conditions. This Contract may be amended only by written instrument signed by both parties hereto.

**CONSULTING SERVICES CONTRACT**

**ATTACHMENT A**

**STANDARD HOURLY RATES OR MILESTONE SCHEDULE**

**Advisian Technical Consulting Standard Rates**

Classification	Hourly Rate (USD)
Engineer/Scientist - L1	\$230
Engineer/Scientist - L2	\$215
Engineer/Scientist - L3	\$200
Engineer/Scientist - L4	\$185
Engineer/Scientist - L5	\$170
Engineer/Scientist - L6	\$155
Engineer/Scientist - L7	\$140
Engineer/Scientist - L8	\$130
Engineer/Scientist - L9	\$115
Engineer/Scientist - L10	\$100
Designer/Technician - D1	\$205
Designer/Technician - D2	\$190
Designer/Technician - D3	\$180
Designer/Technician - D4	\$165
Designer/Technician - D5	\$150
Designer/Technician - D6	\$135
Designer/Technician - D7	\$120
Designer/Technician - D8	\$105
Designer/Technician - D9	\$90
Sr. Project Manager/Specialist - S1*	-----
Sr. Project Manager/Specialist - S2	\$300
Sr. Project Manager/Specialist - S3	\$270
Sr. Project Manager/Specialist - S4	\$250
Project Manager/Specialist - S5	\$225
Project Manager/Specialist - S6	\$200
Project Services - P1	\$160
Project Services - P2	\$135
Project Services - P3	\$110
Project Services - P4	\$85
Project Services - P5	\$60
Other Direct Costs**	8%

Notes:
The above rates apply to Advisian Technical Consulting services only, and are not applicable to management consulting or advisory services.
* Selected S1 rates will be determined on a project by project basis.
** Other Direct Costs including couriers, photocopies, faxes, long distance telephone, computer hardware, computer software excluding specialty programs, colour copies, and plots are charged at 8% of project labour fees expended. Out of office travel disbursements (including airfare, meals, accommodations and reasonable expenses), third party subconsultants, testing agency costs and any other non-labour costs are charged at cost plus a 10% Handling Fee.

Updated 07/01/2020



## ***SOUTH FEATHER WATER & POWER AGENCY***

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**TO:** Board of Directors

**FROM:** Steve Wong, Finance Division Manager

**DATE:** February 14, 2022

**RE:** General Information (regarding matters not scheduled on the agenda)  
2/22/22 Board of Directors Meeting

### **State Arrearages funding received**

The Agency's application for State Water Resources Control Board Arrearages COVID relief funding of \$6,294.00 was approved and received. The funds are in the process of being credited to the eligible accounts.

### **2020 Audit**

Work on audit-related tasks and schedules has commenced. As has been the practice over the last two years, most, if not all, of the audit work will be performed remotely.

### **Rebudgets and Budget Modifications**

The following projects will be rebudgeted from 2021 to 2022, a total of \$242,500:

TD-Oro-Bangor Hwy/BTP to Avacado (2020-0200), \$15,000;  
GS-Replace 1998 Bobcat mini excavator, E-123 (2021-0208), \$70,000;  
GS-Replace 2009 Ford F-350, T-82 (2021-0210), \$60,000;  
JFOF LCD Crest Modification (2010-0828), \$30,000;  
JFOF PP-KPH TSV 2019 (2018-0944), \$10,000;  
JFOF KPH septic system repair/replacement (2019-0960), \$10,000;  
JFOF CO-CAISO meter installation (2020-0970), \$10,000;  
JFOF CO-SCADA upgrade (2021-0971), \$10,000;  
JFOF CO-SCADA master install (2021-0975), \$10,000;  
JFOF JS-Concrete aprons and approach, welding shop and hazmat (2021-0982), \$10,000;  
JFOF PP-HART Communicator (2021-63p), \$7,500.

Rebudgets were costs reported as 2021 estimated expenses and therefore incorporated into the 2022 Adopted Budget Beginning Balance but because the goods and services were received subsequent to December 31, 2021, the expenses, when they occur, must be recognized in 2022. There is no impact on the December 31, 2022 budgeted ending balance.

Two minor calculation errors are in corrected in the 2022 final, Adopted Budget:

01-54, Supplies, correct the calculation to a total of \$3,000;

07-68, Services, correct the calculation to a total of \$3,500.

A Budget Modification has been prepared to substitute 2022 Adoped Budget item 38, replacement of a 2011 Ranger 4x4 (T-386), with a portable, towable vacuum (2022-0212), both items are estimated to have similar costs, resulting no budgetary impact.

A supplemental appropriation of \$150,000 has been prepared for professional services related to the FERC Part 12D, Outside Services (Account 07-67-67201-6) requirements.

The final action for 2022 Supplemental Appropriation/Budget Modification No. 1 is to adjust the 2022 budgeted beginning balances to match the 2021 actual ending balances in both the General Fund and Joint Facilities Operating Fund.

### **Personnel**

Accounting Specialist Leroy Christophersen retired from the Agency on February 3 to begin work in the GIS field with the City of Chico Community Development and Public Works Departments. Leroy's customer service orientation and positive personality will be missed by all. We thank Leroy for his service to the Agency and wish him the best in all of his future endeavors.

South Feather Water and Power Agency  
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<u>ACCOUNT</u>	<u>DESCRIPTION</u>	2019 <u>ACTUAL</u>	2020 <u>ACTUAL</u>	2021 <u>ESTIMATED</u>	2022 <u>BUDGET</u>	2022 ACTUAL Thru 1/31/2022	% of Budget
REVENUE:							
41150	Sale of Electricity	19,631,871	10,640,356	17,375,993	18,350,000	1,528,268	8%
41502	Water Sales	0	0	5,600,000	0	0	0%
42306	Current Service Charges	15,512	12,131	54,207	17,500	14,018	80%
42331	Concession Income	0	0	0	0	0	0%
49250	Interest Income	665,557	427,042	0	60,000	0	0%
49321	State of CA, DWR	0	0	0	0	0	0%
49405	Insurance Reimbursement	601,929	80,452	67,865	75,000	0	0%
49521	JFOF FEMA	0	443,135	108,611	0	0	0%
49522	JFOF CalOES	0	114,763	58,876	0	0	0%
49929	Miscellaneous Income	9,306	0	2,700	3,000	0	0%
	Total Revenue	20,924,175	11,717,879	23,268,252	18,505,500	1,542,286	8%
OPERATING EXPENSES:							
	JFOF Administration, 7-60	1,784,397	1,553,895	1,321,980	1,254,049	150,349	12%
	JFOF Environ Health & Safety, 7-62	249,927	301,601	318,482	361,805	3,472	1%
	JFOF Power Plant Operations, 7-63	2,598,221	3,064,477	2,370,649	3,253,205	97,281	3%
	JFOF Water Collection, 7-64	1,407,771	1,360,772	1,094,383	1,213,804	22,794	2%
	JFOF Campgrounds, 7-65	63,417	68,420	9,252	114,381	0	0%
	JFOF Plant & Shop, 7-66	631,973	610,160	808,607	804,779	48,114	6%
	JFOF Regulatory Compliance, 7-67	366,331	301,879	269,913	841,085	6,369	1%
	JFOF Communications & IT, 7-68	203,186	196,466	382,886	557,992	10,949	2%
	TOTAL OPERATING EXPENSES	7,305,223	7,457,670	6,576,152	8,401,100	339,328	4%
	SUB-TOTAL, REVENUES OVER OPER EXP	13,618,952	4,260,209	16,692,100	10,104,400	1,202,958	
Other Non-Operating Expenses:							
	North Yuba Water District	(709,000)	(709,000)	(709,000)	(709,000)	0	0%
	2019 Install Purch Agmt Principal	(773,548)	(1,476,613)	(5,875,907)	0	0	0%
	Interest Expense	(399,896)	(308,393)	(186,676)	(99,804)	0	0%
	Pension Expense	(434,687)	0	0	(1,617,500)	0	0%

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<u>ACCOUNT</u>	<u>DESCRIPTION</u>	2019 <u>ACTUAL</u>	2020 <u>ACTUAL</u>	2021 <u>ESTIMATED</u>	2022 <u>BUDGET</u>	2022 <u>ACTUAL</u> Thru 1/31/2022	% of <u>Budget</u>
	Captial Outlay						
2010-0828	LCD Crest Modification		1,005,477	51,245	50,000	0	0%
2018-0944	JFOF PP-KPH TSV 2019		330,612	2,130	10,000	2,130	21%
2019-0949	FPH Cooling Water Flow Device Rebuild		3,597			0	0%
2019-0950	WPH Cooling Water Flow Device Rebuild		7,994			0	0%
2019-0952	MRC road repair, Panels 300 and 526		641,291			0	0%
2019-0960	KPH Septic System Repair / Replacement		6,144	0	10,000	0	0%
2020-0197	IT-Email exchange server		3,887	0		0	0%
2020-0965	PH booster pump impellers		8,352			0	0%
2020-0966	JS-Sly Creek Access Road Pavement Patching		45,750			0	0%
2020-0967	WC-SCD 30KW Propane Generator		60,787			0	0%
2020-0968	PP-WPH #2 cooling water pump and motor		13,090			0	0%
2020-0969	PP-KPH HVAC		6,740			0	0%
2020-0970	CO-CAISO meter installation		23,357	51,281	7,500	0	0%
2021-0971	CO-SCADA upgrade			166,913	7,500	0	0%
2021-0972	FPH New Sump Oil Skimmer (Abanaki model SM8C02-F)			7,316		0	0%
2021-0973	Vehicle replacement-F350 utility worker truck w/utility bed, T-117			53,728	70,000	0	0%
2021-0974	WC-South Fork Div Dam Safety Buoys and Log Booms			8,949		0	0%
2021-0975	CO-SCADA master install			30,249	10,000	0	0%
2021-0976	PP-FPH Guide Bearing Oil Coolers			65,986		0	0%
2021-0977	JS-Truck Replacement for Comm Tech, replace T-101, 2004 Ford Expedition			38,855		0	0%
2021-0978	WC-STA 8 Bridge Deck Replacement			8,538		0	0%
2021-0979	CO-Backup generator, pad and appurtenances			31,256		0	0%
2021-0980	PP-Forbestown Div Dam SF-17 Access. Repl Stairs, Bridge, Trail			8,336		0	0%
2021-0981	CO-Generator Building at Sunset Hill Main Comm Site			12,302		0	0%
2021-0982	JS-Concrete aprons and approach, welding shop and hazmat			7,184	10,000	0	0%
2021-0983	JS-Truck Replacement for Roving Operator, replace 2005 Chevy			0		0	0%
2022-0984	WC-1 ton diesel truck, standard cab, single rear wheel			0		0	0%
2021-63a	PP-FPH TSV Seal Kit					0	0%
2021-63f	PP-FPH oil level device upgrade					0	0%
2021-63g	PP-WPH oil level device upgrade					0	0%
2021-63d	PP-FPH sump pump and motor					0	0%

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<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>2019 ACTUAL</u>	<u>2020 ACTUAL</u>	<u>2021 ESTIMATED</u>	<u>2022 BUDGET</u>	<u>2022 ACTUAL Thru 1/31/2022</u>	<u>% of Budget</u>
	Capital Outlay (con't)						
2021-63f	PP-FPH Cooling Water Strainer System					0	0%
2021-63g	PP-FPH Repaint Generator Housing, Circuit Breaker, and Transformer					0	0%
2021-63h	PP-WPH Repaint Generator Housing and TWD System					0	0%
2021-63i	PP-Metal Worker, Pirahna					0	0%
2021-63j	PP-Welding Shop Cabinets					0	0%
2021-63l	PP-Shop Press					0	0%
2021-63p	PP-HART Communicator				7,500	0	0%
2021-63q	PP-WPH outside welder for runner repairs					0	0%
2022-63a / Capital	FPH Cooling Water Strainer System, engineering and design proposed				25,000	0	0%
2022-63b / Capital	FPH Repaint Generator Housing, Circuit Breaker, and Transformer				150,000	0	0%
2022-63c / Capital	WPH Repaint Generator Housing and TWD System				130,000	0	0%
2022-63d / Capital	FPH TSV Seal Kit				55,000	0	0%
2022-63f / Capital	FPH Tailrace Underwater Concrete Repair				50,000	0	0%
2022-63g / Capital	FPH Penstock Recoat 60 Feet				45,000	0	0%
2022-63h / Capital	Metal Worker, Pirahna				0	0	0%
2022-63i / Capital	Welding Shop Cabinets				35,000	0	0%
2022-63j / Capital	FPH Oil Level Device Upgrade				18,000	0	0%
2022-63k / Capital	WPH Oil Level Device Upgrade				18,000	0	0%
2022-63l / Capital	KPH Sump Pump and motor				14,000	0	0%
2022-63p / Capital	Shop Press				7,500	0	0%
2022-63q / Capital	Security Cameras for Front Gates and Transformers, WPH, FPH, KPH				22,500	0	0%
2022-63r / Capital	FPH Gen and Exciter House Ozone Scrubber				7,500	0	0%
2022-63s / Capital	HART Field Instrument Communicator				7,100	0	0%
	Capital Outlay (con't)						
2022-64a / Capital	Miners Ranch Reservoir, Waterways Dredging				0	0	0%
2022-64b / Capital	SPH PSV & penstock recoating, engineering only				12,000	0	0%
2022-64c / Capital	MRC repair, panel 210, 50'				160,000	0	0%
2022-64d / Capital	MRC Bin Wall Materials				100,000	0	0%
2022-64e / Capital	LGV Res Penstock Drain Valve Replacement				60,000	0	0%

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<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>2019 ACTUAL</u>	<u>2020 ACTUAL</u>	<u>2021 ESTIMATED</u>	<u>2022 BUDGET</u>	<u>2022 ACTUAL Thru 1/31/2022</u>	<u>% of Budget</u>
	Capital Outlay (con't)						
2022-64g / Capital	LGV Res Fish Flow Valve Replacement				20,000	0	0%
2022-64i / Capital	(3) Data Loggers: Black Rock and Kenzie Ravine. HS22+ with GOES Transmitter				27,000	0	0%
2022-64j / Capital	Replace SF10 Walkway, SCDD				15,000	0	0%
2022-64k / Capital	Bangor Canal at SF 25 Shotcrete				10,000	0	0%
2022-64m / Capital	RTU Water Logger HS522+ GOES Xmitter Forbestown Ditch				7,500	0	0%
2022-66a / Capital	Boom Truck with man basket				200,000	0	0%
2022-66b / Capital	Dump truck- replace out of compliance Peterbuilt				150,000	0	0%
2022-66c / Capital	All Terrain Telehandler Forklift				0	0	0%
2022-66d / Capital	Mini Excavator				85,000	0	0%
2022-66e / Capital	Water Tank Truck				0	0	0%
2022-66f / Capital	F150 Extra Cab with camper shell- replace T97- elect tech truck				55,000	0	0%
2022-66g / Capital	PDHQ 41KW Propane Generator with 200 amp XFER Switch				50,000	0	0%
2022-66h / Capital	CMMS Software System				0	0	0%
2022-66i / Capital	Bobcat Skid Steer with Power Broom Attachment				50,000	0	0%
2022-66j / Capital	F150 Crew Cab- carpool vehicle				45,000	0	0%
2022-66k / Capital	Truck Replace for Roving Operator, replace 2005 Chevy, T-108				0	0	0%
2022-66l / Capital	Truck Replace for Roving Operator, replace 2007 Chevy, T-112 - Broken Frame				45,000	0	0%
2022-66m / Capital	Truck Replace for Carpool				0	0	0%
2022-66n / Capital	Land acquisition, 10 acre transfer station				0	0	0%
2022-66o / Capital	Welding Shop 3-Ph Propane Generator				35,000	0	0%
2022-66p / Capital	Pewag Loader and Grader Snow Chains (3 Sets)				22,000	0	0%
2022-67b / Capital	Sly Spillway Rockfall Mitigation (Ext)				120,000	0	0%
2022-67g / Capital	Excavate sedimentation at SCDD weir				15,000	0	0%
2022-68c / Capital	CAISO meter installations, 4 powerhouses - Outside Services				35,000	0	0%
2022-68d / Capital	DAC 2 Rack Server for Scada System				40,000	0	0%
2022-68e / Capital	WPH PSV Valve Trip System				30,000	0	0%
2022-68g / Capital	MSSQL server for new OSI Open Historian (IT)				18,000	0	0%
2022-68j / Capital	(1) GE MX RTU Processor - Spare				6,000	0	0%
2021-68it1 / Capital	Replacement Server				13,000	0	0%
2021-68it5 / Capital	Phone System Upgrade				14,000	0	0%
2021-68it7 / Capital	Storage System (SAN) replacement				30,000	0	0%
	Total Capital Outlay	(3,573,487)	(2,157,078)	(544,269)	(2,236,600)	(2,130)	0%



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<u>ACCOUNT</u>	<u>DESCRIPTION</u>	2019 <u>ACTUAL</u>	2020 <u>ACTUAL</u>	2021 <u>ESTIMATED</u>	2022 <u>BUDGET</u>	2022 <u>ACTUAL</u> Thru 1/31/2022	% of <u>Budget</u>
Transfers In:							
	Power Division Legacy Fund	1,096,094	0	0	0	0	0%
	Retiree Benefit Trust	0	1,617,546	0	0	0	0%
Transfers Out:							
	General Fund-Minimum Payment	(709,000)	(709,000)	(709,000)	(709,000)	0	0%
	General Fund-Overhead	(621,688)	(480,058)	(613,367)	(500,000)	0	0%
	Retiree Benefit Trust	(201,179)	0	0	0	0	0%
Net Non-operating, Capital Outlay and Transfers		(7,422,485)	(4,222,596)	(4,292,940)	(5,871,904)	(2,130)	
NET REVENUE OVER EXPENSES		6,196,467	37,613	12,399,161	4,232,496	1,200,828	
Beginning Balance		18,653,584	24,541,141	24,578,754	26,229,914	26,229,914	
NYWD-Additional Payment		0	0	(5,374,000)	(2,000,000)	0	
General Fund-Additional Payment		0	0	(5,374,000)	(2,000,000)	0	
Loan Payable to PG&E		(308,910)	0	0	0	0	
Ending Balance		24,541,141	24,578,754	26,229,914	26,462,411	27,430,742	

- NOTES:
- (1) Per NYWD agreement, 15% working capital reserve of \$1,125,850, and \$18,000,000 contingency reserve is required.
  - (2) Ending 12/31/20 balance includes designated reserves of \$1,617,546 for retiree benefits.
  - (3) 2019 Install Purch Agmt Principal actual for 2021 includes reserve of \$3,502,812 for prepayment of loan agreement.

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<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>2019 ACTUAL</u>	<u>2020 ACTUAL</u>	<u>2021 ESTIMATED</u>	<u>2022 BUDGET</u>	<u>2022 ACTUAL Thru 1/31/22</u>	<u>% of BUDGET</u>
<b>REVENUE:</b>							
<b>Water Sales Rev</b>							
	41100 Domestic Water	2,138,729	2,674,305	2,469,377	2,500,000	173,109	7%
	41400 Irrigation Water	218,507	263,727	282,060	300,000	11,362	4%
	41420 Water Sales, NYWD to Yuba City	190,388	195,300	199,215	200,000	0	0%
	Sub-Total Water Sales Rev	2,547,624	3,133,332	2,950,652	3,000,000	184,471	6%
<b>Power Revenue</b>							
	41305 Sly Cr Pwr Generation	2,128,918	1,297,452	1,816,122	1,850,000	113,414	6%
	41306 Surplus Wtr	87,360	25,164	156,026	50,000	0	0%
	Sub-Total Power Rev	2,216,278	1,322,616	1,972,148	1,900,000	113,414	6%
<b>Water Serv Chgs</b>							
	42301 Sundry Billing (Job Orders)	173,718	57,108	131,842	75,000	0	0%
	42341 System Capacity Charges	NA	69,801	43,630	50,000	0	0%
	Other Water Serv Charges	132,685	29,249	53,919	50,000	2,415	5%
	Sub-Total Water Serv Chgs	306,403	156,158	229,391	175,000	2,415	1%
<b>Non-Oper Revenue</b>							
	49250 Interest Earnings	85,264	108,903	51,075	1,000	(40,270)	-4027%
	49311 Property Taxes	663,748	681,269	718,188	710,000	0	0%
	49405 ACWA/JPIA RPA	82,631	103,294	40,381	50,000	0	0%
	49625 Back Flow Installation	14,021	9,400	5,385	10,000	0	0%
	49630 Back Flow Inspection	123,738	127,236	130,550	140,000	10,998	8%
	Other Non-Oper Rev	4,413	31,455	2,672	2,500	0	0%
	Sub-Total Non-Oper Rev	973,815	1,061,557	948,251	913,500	(29,272)	-3%
	<b>TOTAL GENERAL FUND REVENUE</b>	<b>6,044,120</b>	<b>5,673,663</b>	<b>6,100,442</b>	<b>5,988,500</b>	<b>271,028</b>	<b>5%</b>

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ACCOUNT	DESCRIPTION	2019 ACTUAL	2020 ACTUAL	2021 ESTIMATED	2022 BUDGET	2022 ACTUAL Thru 1/31/22	% of BUDGET
OPERATING EXPENSES:							
General Admin, 1-50		1,182,674	977,703	769,725	1,027,411	312,728	30%
Water Source, 1-51		17,468	16,117	14,888	15,000	0	0%
Environmental Health & Safety, 1-52		213,741	239,863	227,501	259,075	4,700	2%
Water Treatment, 1-53		1,662,849	1,923,429	1,773,991	2,295,263	61,819	3%
Transmission & Distribution, 1-54		2,277,469	2,528,134	2,085,083	2,922,561	78,645	0
Customer Accounts, 1-55		869,709	990,535	911,903	1,461,631	56,603	4%
General Plant & Shop, 1-56		682,711	698,537	563,486	751,371	23,981	3%
Information Systems, 1-58		420,975	499,957	377,596	552,153	14,148	3%
Sly Creek Power Plant, 1-61		498,384	438,309	393,843	447,577	19,463	4%
TOTAL OPERATING EXPENSES		7,893,243	8,362,443	7,210,713	9,778,042	572,268	6%
SUB-TOTAL, REVENUES OVER OPER EXP		(1,849,123)	(2,688,780)	(1,110,271)	(3,789,542)	(301,240)	8%
Other Non-Operating Expenses							
	Supplies & Servces	1,100	3,600	3,400	3,250	0	0%
	Interest	844,634	826,793	610,781	793,950	0	0%
	Principal	580,000	600,000	615,000	635,000	0	0%
	Pension Expense	349,513	0	0	1,977,000	0	0%
CAPITAL OUTLAY:							
2019-0191	TD-Rockridge and Coventry Dr pipeline replacement			821			
2019-0192	TD-Distribution System Remote Monitoring			9,551			
2020-0198	Community Line, Foothill Blvd./Oro Bangor Hwy to Grange			68,058			
2020-0200	Oro-Bangor Hwy/BTP to Avacado			48,097	15,000	0	
2020-0970	SPH-CAISO meter installation			17,094	2,500		
2021-0204	MRTP #2 raw water pump replacement			64,907			
2021-0205	Hwy 162 / Arbol			129,559			
2021-0206	IT-MRTP SAN replacement			23,185			
2021-0207	CA-Meter reader communications			1,750			
2021-0208	Replace 1998 Bobcat mini excavator, E-123			0	70,000	0	
2021-0209	IT-Fiber optic and switches replacement			0	18,500	0	
2021-0210	Replace 2009 Ford F-350, T-82			0	60,000	0	
2021-0971	SPH-SCADA upgrade			55,703	2,500	0	0%
2022-0212	Vacuum, portable, towable				35,000	0	

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<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>2019 ACTUAL</u>	<u>2020 ACTUAL</u>	<u>2021 ESTIMATED</u>	<u>2022 BUDGET</u>	<u>2022 ACTUAL Thru 1/31/22</u>	<u>% of BUDGET</u>
CAPITAL OUTLAY (con't):							
2022-53b / Capital	M RTP metal storage building				40,000	0	
2022-53c / Capital	Portable, towable generator for BTP/Shop				25,000	0	
2022-53e / Capital	Streaming Current Analyzer with Organics module				20,000	0	
2022-53f / Capital	Replacement truck for T177				35,000	0	
2022-53g / Capital	Security cameras upgrade				15,000	0	
2022-53h / Capital	M RTP Card Access Control				0	0	
2022-53k / Capital	Solar field inverter replacement				115,000	0	
2022-53l / Capital	Filter NTU meters replacement, 4				20,000	0	
2022-54d / 2019-0192	Distribution system remote monitoring				10,000	0	
2022-54j / Capital	Shotcrete Pinecrest				60,000	0	
2022-54k / Capital	Miller Hill Gauging Station				12,000	0	
2022-54l / Capital	Oro Pond Service Lines and Meters replacement				22,000	0	
2022-54o / Capital	Coventry Interloop				50,000	0	
2022-54p / Capital	South Villa Raw Water Pipe Replacement				75,000	0	
2022-54q / Capital	Oakvale Palermo Canal 900' Shotcrete				37,000	0	
2022-54r / Capital	Oro Bangor - Malengo Domestic Pipe Replacement 600'				36,000	0	
2022-54s / Capital	Culvert Replacement Ridgeway				20,000	0	
2022-54t / Capital	North Ditch Lincoln to Messina irrigation - Engineering Study for design				18,000	0	
2022-56c / Capital	Bulk filling water station				35,000	0	
2022-56d / Capital	Replace 1990 Ford F700 diesel/flatbed dump, T-132				100,000	0	
2022-56e / Capital	Replace 2012 Ford F150 4x4, T-304				45,000	0	
2022-56f / Capital	Replace 10 yd dump truck, 1983, T-59				150,000	0	
2022-56g / Capital	Meter Service Technician vehicle				45,000	0	
2022-58g / Capital	Phone System Upgrade				18,500	0	
2022-58h / Capital	Storage System (SAN) replacement				30,000	0	
2022-58i / Capital	GPS Equipment				10,000	0	

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 General Fund Financial Report  
 February 22, 2022 Board Meeting

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>2019</u> <u>ACTUAL</u>	<u>2020</u> <u>ACTUAL</u>	<u>2021</u> <u>ESTIMATED</u>	<u>2022</u> <u>BUDGET</u>	<u>2022</u> <u>ACTUAL</u> Thru 1/31/22	<u>% of</u> <u>BUDGET</u>
CAPITAL OUTLAY (con't):							
2022-61a / Capital	SPH Governor upgrade				0	0	
2022-61b / Capital	SPH Exciter upgrade				0	0	
2022-61c / Capital	SPH PSV Roof Replacement and Rockfall Protection				75,000	0	
2022-61d / Capital	SPH Bearing Cooling Water Flow Device Upgrade				20,000	0	
2022-61e / Capital	SPH oil flow device upgrade				20,000	0	
2022-61f / Capital	SPH station air compressor				12,500	0	
2022-61h / Capital	SPH Bitronics line-side metering xducer				8,000	0	
2022-61i / Capital	SPH security cameras for front gate and transformer				7,500	0	
	<b>Total Capital Outlay</b>	<b>239,171</b>	<b>307,591</b>	<b>418,725</b>	<b>1,390,000</b>	<b>0</b>	<b>0%</b>
Transfers:							
	SFPP Jt Facil Oper Fd-Minimum Payment	709,000	709,000	709,000	709,000	0	0%
	SFPP Jt Facil Oper Fd-Additional Payment	0	0	0	5,374,000	0	0%
	SFPP Jt Facil Oper Fd-Overhead	621,688	480,058	613,367	675,000	0	0%
	Debt Service Fund, 2016 COP	0	0	0	0	0	0%
	System Capacity Fund, MRTP Impr Proj	0	0	0	0	0	0%
	System Capacity Fund	0	194,946	0	0	0	0%
	Retiree Benefit Trust Fund	(320,821)	0	0	0	0	0%
	Retiree Benefit Trust Fund	0	1,977,001	0	0	0	0%
	<b>Net Non-operating, Capital Outlay and Transfers</b>	<b>(1,004,551)</b>	<b>1,623,021</b>	<b>(325,539)</b>	<b>1,958,800</b>	<b>0</b>	<b>0%</b>
	<b>NET REVENUE OVER EXPENSES</b>	<b>(2,853,674)</b>	<b>(1,065,759)</b>	<b>(1,435,810)</b>	<b>(1,830,742)</b>	<b>(301,240)</b>	
	Beginning Balance	6,896,374	4,042,700	2,976,941	1,541,131	1,541,131	
	<b>Ending Balance</b>	<b>4,042,700</b>	<b>2,976,941</b>	<b>1,541,131</b>	<b>(289,611)</b>	<b>1,239,891</b>	

NOTE: Ending 12/31/20 balance includes designated reserves of \$1,977,001 for retiree benefits.

South Feather Water & Power Agency  
 Irrigation Water Accounting  
 For The Period Of 1/1/2021 - 1/31/2022

<u>ACCT CODE</u>	<u>DESCRIPTION</u>	<u>REVENUE</u>	<u>EXPENSES</u>
2022-0504	Palermo Canal	\$ 2,554	\$ 8,796
2022-0505	Bangor Canal	\$ 6,958	\$ 10,352
2022-0506	Forbestown Canal	\$ 208	\$ 7,720
2022-0507	Community Line	\$ 1,642	\$ 519
	Totals	<hr/> \$ 11,362	<hr/> \$ 27,387

SOUTH FEATHER WATER AND POWER AGENCY  
SCHEDULE OF CASH AND INVESTMENTS  
31-Jan-22

General Fund Cash and Savings Account	\$ 1,907,506
LAIF	29,673,067
CalTrust	1,408,417
Five Star Bank	1,109,693

<u>Fixed Income portfolio</u>	<u>Rate</u>	<u>Purch Date</u>	<u>Purch Price</u>	<u>Face Value</u>	<u>Maturity</u>	<u>Mkt Value</u>	<u>Est Ann Income</u>
Cash						10,021	\$ -
Goldman Sachs CD	2.850%	2/14/2019	185,000	185,000	2/14/2022	185,198	5,273
Centerstate Bank CD	1.000%	3/20/2020	245,008	245,000	3/21/2022	245,299	2,450
US Treasury Note	2.250%	5/8/2019	245,326	245,000	4/15/2022	246,017	5,513
Eclipse Bank CD	0.350%	5/29/2020	240,000	240,000	5/30/2022	240,048	840
Flagstar Bank CD	2.450%	6/12/2019	246,000	246,000	6/13/2022	248,084	6,027
Sallie Mae Bank CD	2.150%	7/24/2019	245,000	245,000	7/25/2022	247,325	5,268
Bank Hapoolim Bm Ny CD	0.250%	8/26/2020	245,000	245,000	8/26/2022	245,007	613
Wells Fargo Bank CD	1.850%	9/18/2019	245,000	245,000	9/19/2022	247,438	4,533
Safra Natl Bank CD	0.250%	12/9/2021	245,000	245,000	12/8/2022	244,652	613
Goldman Sachs CD	1.850%	12/12/2019	60,000	60,000	12/12/2022	60,741	1,110
Morgan Stanley Private Bank CD	1.850%	12/19/2019	50,000	50,000	12/19/2022	50,627	925
First Heritage Bank CD	0.250%	6/23/2020	140,000	140,000	12/19/2022	139,775	350
Marlin Business Bank CD	1.650%	1/15/2020	203,000	203,000	1/17/2023	205,288	3,350
Wells Fargo Natl Bank West CD	1.900%	1/17/2020	245,000	245,000	1/17/2023	248,349	4,655
People First Bank CK	1.350%	3/6/2020	134,000	134,000	3/6/2023	135,181	1,809
American Express Natl Bank CD	1.450%	1/31/2020	245,000	245,000	3/31/2023	247,467	3,553
Luana Savings Bank CD	0.200%	8/14/2020	245,000	245,000	8/14/2023	242,878	490
John Marshall Bancorp CD	0.400%	12/31/2021	245,000	245,000	8/31/2023	243,496	980
Synchrony Bank CD	0.400%	9/30/2021	245,000	245,000	9/29/2023	243,055	980
Medallion Bank CD	0.250%	10/26/2020	135,000	135,000	10/27/2023	133,557	338
New York Community Bank CD	0.300%	11/9/2020	245,000	245,000	11/9/2023	242,479	735
Beal Bank CD	0.600%	12/20/2021	245,000	245,000	12/20/2023	243,425	1,470
Federal Home Loan Bond	0.190%	12/29/2020	249,777	250,000	12/22/2023	246,400	475
US Treasury Note	0.881%	1/18/2022	258,479	262,000	3/15/2024	256,750	2,308
Bankunited Bank CD	0.350%	3/15/2021	245,000	245,008	3/19/2024	241,484	858
Web Bank CD	0.400%	5/11/2021	245,000	245,000	5/17/2024	241,313	980
UBS Bank CD	0.350%	6/23/2021	245,000	245,000	6/24/2024	240,712	858
Texas Exchange Bank	0.500%	7/9/2021	105,000	105,000	7/9/2024	103,487	525
Toyota Finl Svgs Bank CD	0.550%	8/5/2021	245,000	245,000	8/5/2024	241,577	1,348
State Bank of Dallas CD	0.700%	12/31/2021	245,000	245,000	10/1/2024	242,104	1,715
Institution for Svg in Newburyport CD	0.700%	10/28/2021	245,000	245,000	10/28/2024	241,908	1,715
Merrick Bank CD	0.800%	11/19/2021	245,000	245,000	11/19/2024	242,435	1,960

SOUTH FEATHER WATER AND POWER AGENCY  
 SCHEDULE OF CASH AND INVESTMENTS  
 31-Jan-22

General Fund Cash and Savings Account	\$ 1,907,506
LAIF	29,673,067
CalTrust	1,408,417
Five Star Bank	1,109,693

<u>Fixed Income portfolio</u>	<u>Rate</u>	<u>Purch Date</u>	<u>Purch Price</u>	<u>Face Value</u>	<u>Maturity</u>	<u>Mkt Value</u>	<u>Est Ann Income</u>
Live Oak Banking CD	0.850%	12/29/2021	245,000	245,000	12/30/2024	242,506	2,083
Federal Home Loan Bond	1.250%	1/28/2022	250,000	250,000	1/28/2025	248,678	3,125
Capital One Bank USA CD	0.900%	11/17/2021	245,000	245,000	11/17/2025	240,453	2,205
Federal Home Loan Bond	0.680%	12/15/2021	243,905	250,000	2/24/2026	240,615	1,700
State Bank of India CD	1.000%	6/10/2021	245,000	245,000	6/10/2026	239,448	2,450
Total Fixed Income Portfolio						8,105,277	\$ 76,174
TOTAL CASH & INVESTMENTS AT 1/31/22						\$ 42,203,960	0.94%

I certify that all investment actions have been made in full compliance with Policy #470- Investments, and that South Feather Water and Power Agency will meet its expenditure obligations for the next six months.

Submitted by: Steve Wong, Finance Division Manager 2/14/22

**Investment Transactions**

January, 2022

\$262,000 US Treasury Note purchased with 1/18/2022 Federal Farm Credit Bond maturity on 1/18/2022.

\$250,000 Federal Home Loan Bank bond purchased 1/28/2022, 1.250%, maturing 1/28/2025.





# ***SOUTH FEATHER WATER & POWER AGENCY***

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**TO:** Board of Directors  
**FROM:** Dan Leon, Power Division Manager  
**DATE:** February 15, 2022  
**RE:** General Information (regarding matters not scheduled on agenda)  
February 22, 2022 Board of Directors Meeting

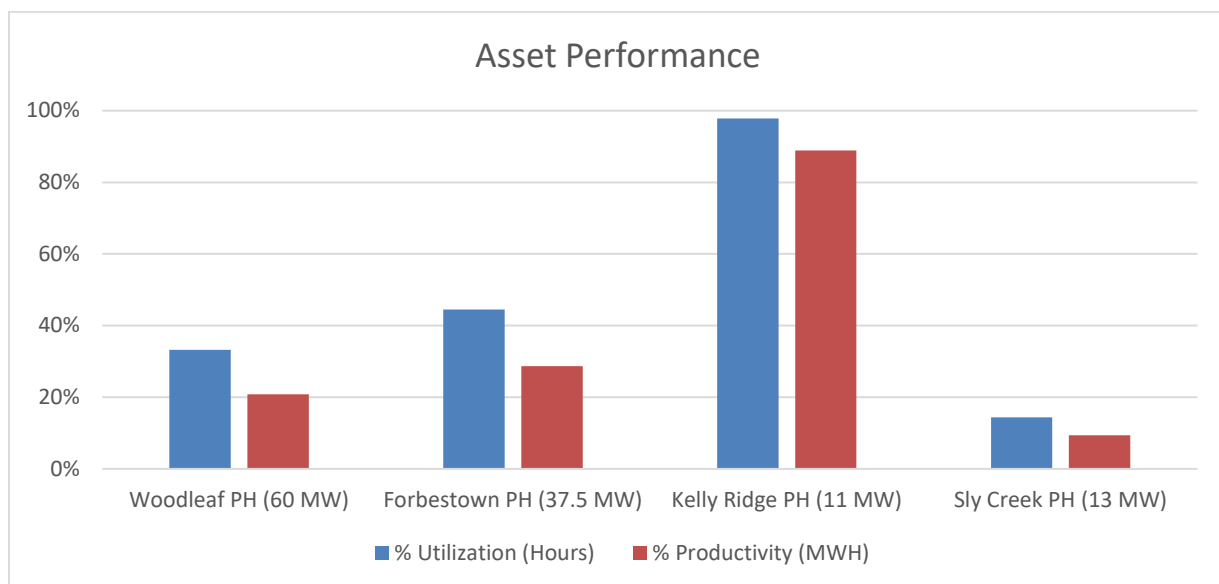
## **OPERATIONS**

Power Division Summary Report, Reservoir Storage Report, and Precipitation Report for January 2022 are attached.

South Fork tunnel average flow was 123 CFS. Slate Creek tunnel was open for 29 days. At month's end, Little Grass Valley and Sly Creek Reservoirs combined storage was 102 kAF.

DWR Bulletin 120 observed conditions as of February 10 for accumulated WY to date precipitation is at 103% of average (North Region 8-Station Index), and observed snowpack is at 56% of average for April 1 (North Region).

Asset performance and availability for January 2022 summarized in the following tables:



Powerhouse	Capacity MW	Available for Generation Hrs	Generation Dispatched above 50% Output Hrs	Generation Dispatch Potential Output Hrs
Woodleaf	60.0	744	158	586
Forbestown	37.5	744	224	520
Kelly Ridge	11.0	744	722	22
Sly Creek	13.0	744	92	652

**MAINTENANCE**

**Powerhouses**

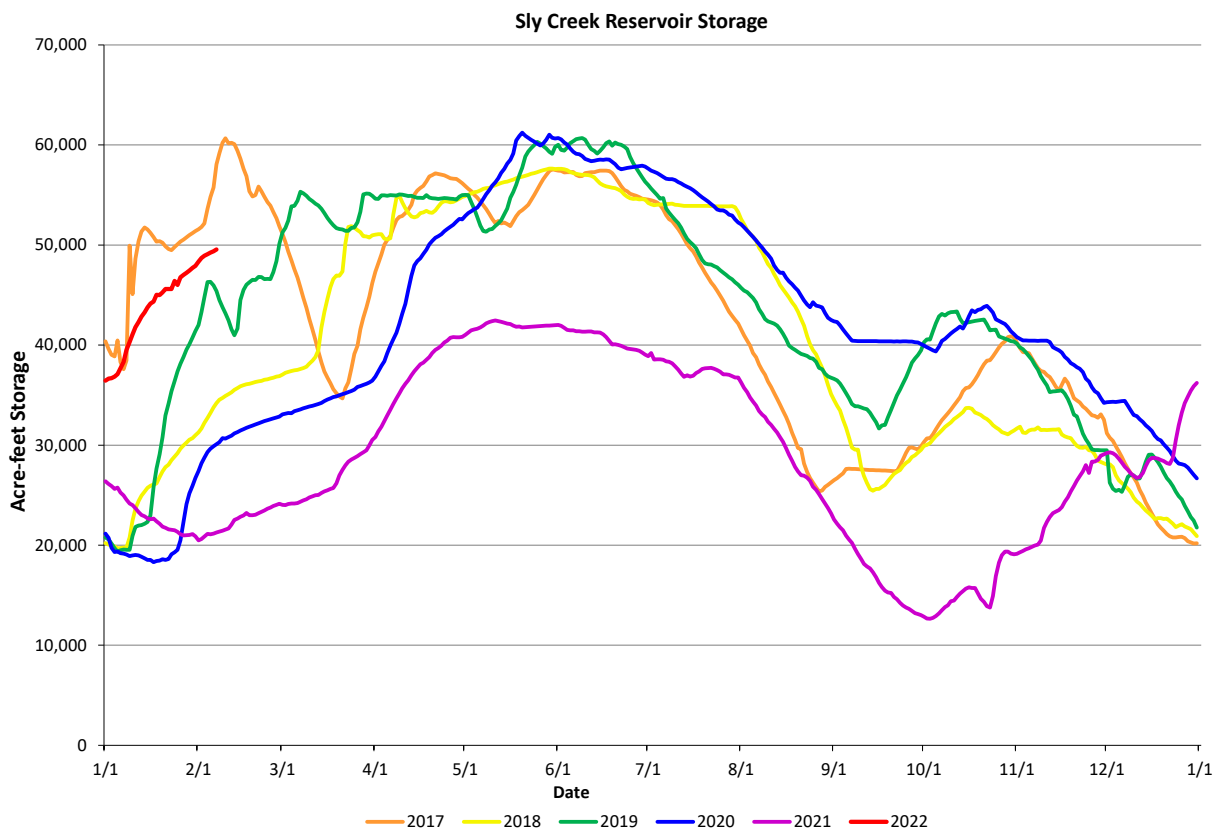
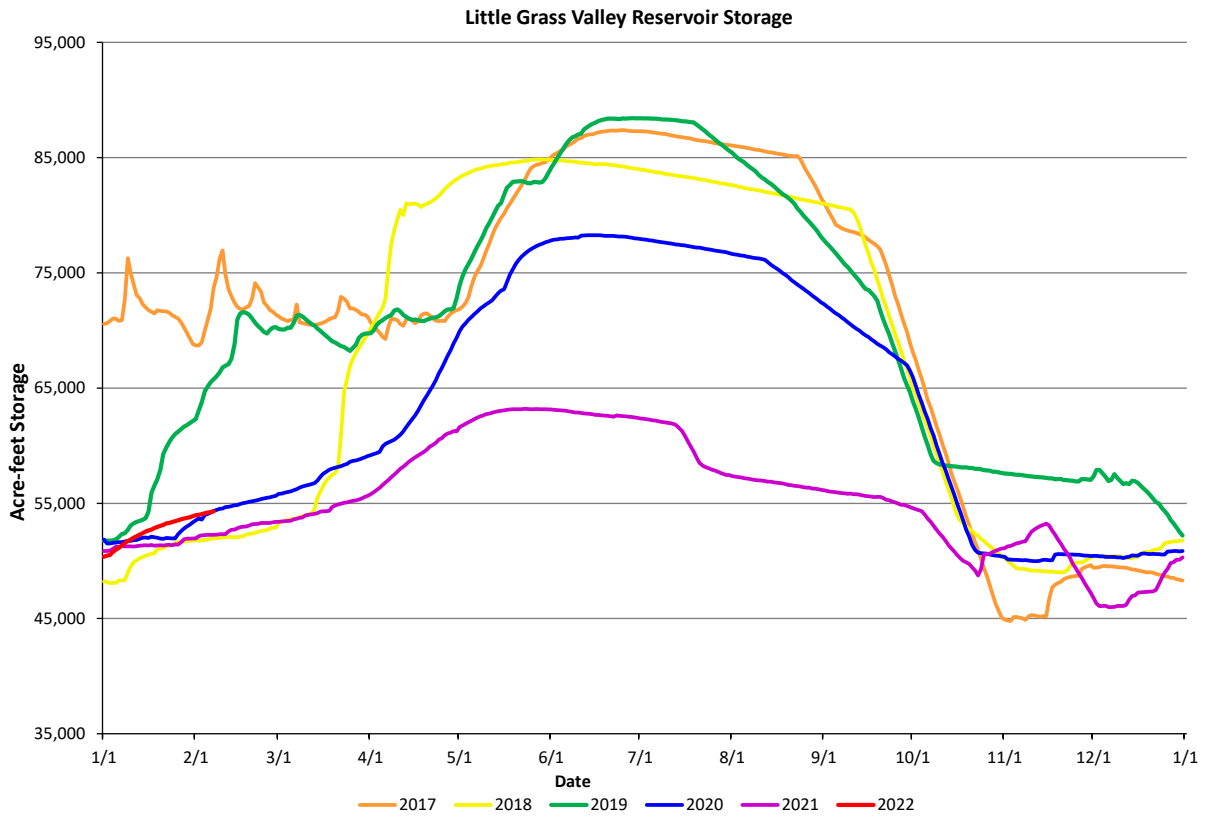
- Woodleaf Powerhouse: In service. Annual maintenance outage completed.
- Forbestown Powerhouse: In service. Annual maintenance outage scheduled for March 6 to 25.
- Sly Creek Powerhouse: In service. Annual maintenance outage scheduled for October 3 to 14.
- Kelly Ridge Powerhouse: In service: Annual maintenance outage scheduled for November 1 to 12.

**Other Project Assets**

- Perform snow surveys at monitoring sites
- Remove snow and debris from Project roadways
- Fabricate personnel crossings and install debris removal cranes along Miners Ranch Canal
- Perform checks and patrols at outlying stations
- Check control equipment for Slate Tunnel gates
- Complete remaining Scada task items and documentation
- Install electrical panel at mechanic shop
- Service voice radios in Agency vehicles
- Perform fleet vehicle and heavy equipment maintenance

**PERSONNEL**

- No new update.



**SOUTH FEATHER WATER AND POWER  
SOUTH FEATHER POWER PROJECT  
2022  
Reservoir and Stream Operations**

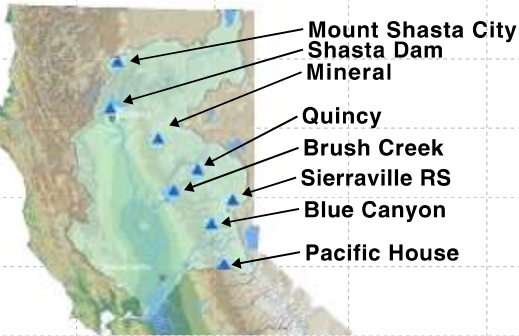
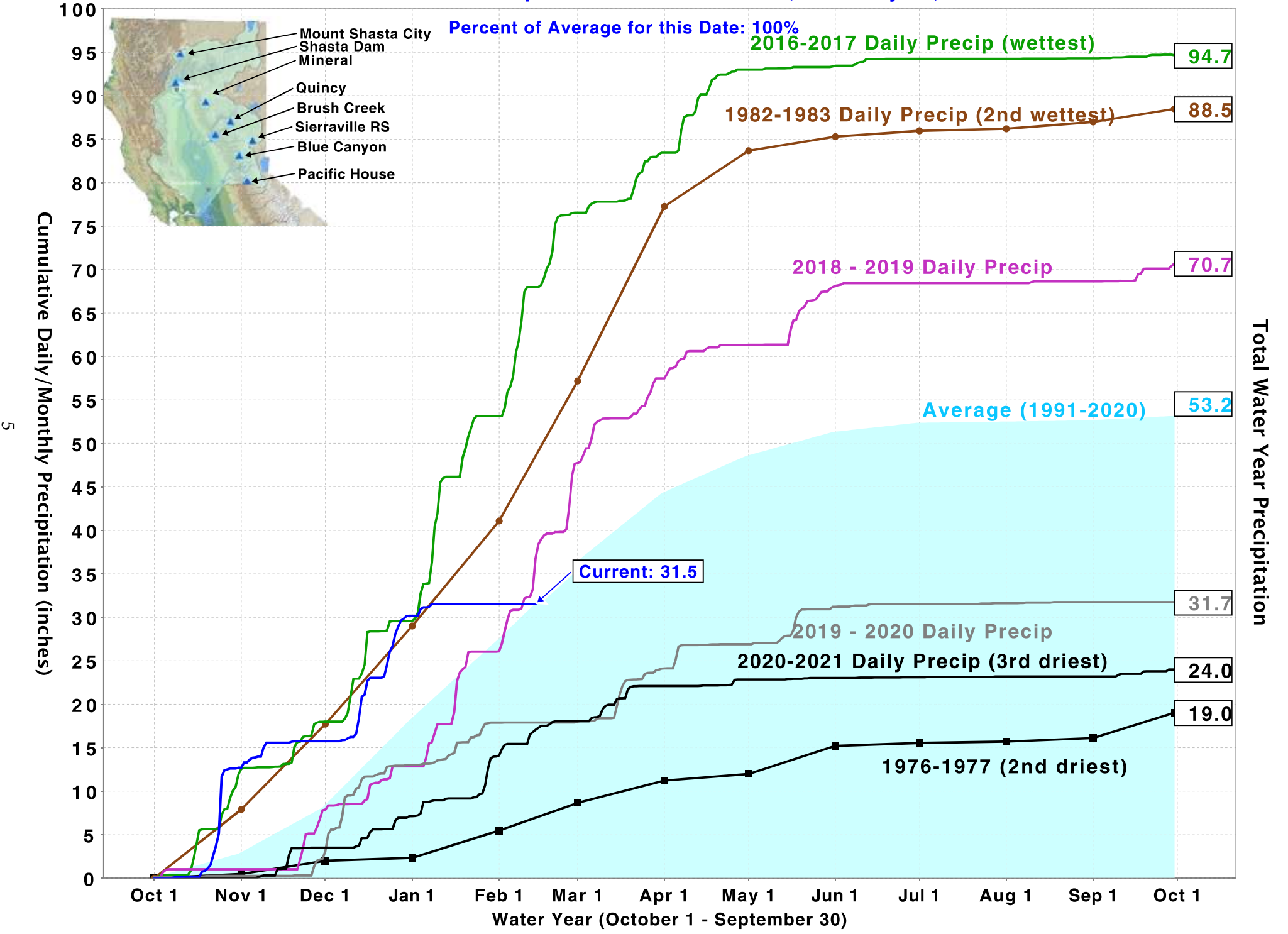
	RESERVOIR ELEVATIONS				MONTHLY AVERAGE STREAM RELEASES							
	Little Grass Valley		Sly Creek		Release to SFFR at LGV Dam	Release to SFFR at Forbestown Div.	Release at Lost Creek Dam	Release at Slate Creek Div.				
Maximum Elevation End of Month Conditions	5,046.50	Feet	3,530.00	Feet								
January	5,021.62	Feet	3,503.78	Feet	6.49	cfs	8.73	cfs	6.26	cfs	27.50	cfs
February		Feet		Feet	0.00	cfs	0.00	cfs	0.00	cfs	0.00	cfs
March		Feet		Feet	0.00	cfs	0.00	cfs	0.00	cfs	0.00	cfs
April		Feet		Feet	0.00	cfs	0.00	cfs	0.00	cfs	0.00	cfs
May		Feet		Feet	0.00	cfs	0.00	cfs	0.00	cfs	0.00	cfs
June		Feet		Feet	0.00	cfs	0.00	cfs	0.00	cfs	0.00	cfs
July		Feet		Feet	0.00	cfs	0.00	cfs	0.00	cfs	0.00	cfs
August		Feet		Feet	0.00	cfs	0.00	cfs	0.00	cfs	0.00	cfs
September		Feet		Feet	0.00	cfs	0.00	cfs	0.00	cfs	0.00	cfs
October		Feet		Feet	0.00	cfs	0.00	cfs	0.00	cfs	0.00	cfs
November		Feet		Feet	0.00	cfs	0.00	cfs	0.00	cfs	0.00	cfs
December		Feet		Feet	0.00	cfs	0.00	cfs	0.00	cfs	0.00	cfs

**Powerhouse Operations**

	Sly Creek	Woodleaf	Forbestown	Kelly Ridge	Energy Revenue
January	910.68 MWH	9,297.13 MWH	7,999.08 MWH	7,278.25 MWH	\$1,641,696.41
February	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	\$0.00
March	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	\$0.00
April	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	\$0.00
May	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	\$0.00
June	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	\$0.00
July	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	\$0.00
August	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	\$0.00
September	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	\$0.00
October	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	\$0.00
November	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	\$0.00
December	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	\$0.00
	<u>910.68 MWH</u>	<u>9,297.13 MWH</u>	<u>7,999.08 MWH</u>	<u>7,278.25 MWH</u>	<u>\$1,641,696.41</u>

# Northern Sierra Precipitation: 8-Station Index, February 14, 2022

Percent of Average for this Date: 100%



5

Total Water Year Precipitation



## ***SOUTH FEATHER WATER & POWER AGENCY***

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TO: Board of Directors

FROM: Jaymie Perrin, Environmental Health & Safety Manager

DATE: February 16<sup>th</sup>, 2022

RE: General Information (regarding matters not scheduled on the agenda)  
02/22/2022 Board of Directors Meeting

### District Update on Bulk Water via Construction Meters

At the July 2021 board meeting, staff requested that the board directors consider a change to the bulk water fill / construction meter portion of the agency's rules and regulations, in addition to adopting a new agency policy on water theft (Both resulted in motions of approval). Since then, staff has been interfacing with customers and trying to gain a better understanding of the need for water in such large quantities. While we were successful in meeting with individuals on a daily basis at any given district hydrant, we were still a long ways off from making contact with each construction meter customer.

In an effort to educate construction meter customers on the changes that were adopted in July 2021, staff drafted a letter explaining district intent, the water conservation narrative from the SWRCB, FAQ's from the SWRCB, and a copy of the district's water theft policy. The letter also provided instructions for those customers to call in and schedule an appointment to discuss their water needs and what options might be available to them within the July 2021 adopted changes to SFWPA's rules and regulations. Staff kicked off the appointments on Tuesday (02/08/2022) and plan to continue to meet with individuals for the remainder of the month. Staff has learned a ton from our customers during this exercise and it is our hope to continue to support and advocate for those that have long-term water needs that go far beyond what the initial intent of the construction meter program was supposed to be.

Staff looks forward to continuing to meet with individuals and being able to have a more profiled report back to the board in the coming months, especially as we continue to see such unseasonably warm weather, which only drives the need for water that much earlier this season.

Even though we plan to come back to the board next month with more information and specific strategy, I wanted to take this opportunity to also thank key staff members who have supported our pursuit in improving the district's bulk water program. Their efforts and support are not only improving the operations and compliance of SFWPA, but rather playing a critical role in being good community stewards.



# SOUTH FEATHER WATER AND POWER AGENCY



January 28<sup>th</sup>, 2022

Dear Construction Meter Account Holder,

The intent of this letter is to communicate changes made to the district's rules and regulations regarding the use and permissions of a construction meter. The revised rules and regulations were adopted and made effective at the July 2021 board meeting, however the agency has delayed its implementation until the first rainfall. It is the district's expectation that these changes re-establish a baseline that can support the original intent of the construction meter program as well as continue to protect the natural resource of our water supply and the infrastructure that delivers it.

The adopted changes are necessary to address the change of conditions the district has experienced over recent years, including: catastrophic wildfires in our area, debris removal / post fire clean-up efforts, community rebuild, drought conditions, significant increase in agriculture business enterprise use via fire hydrants. In addition, state governing entities have increased their reporting requirements that the agency must comply with to maintain our water rights and licenses to operate. It is anticipated that such compliance will only continue to become more stringent as the state of California monitors drought conditions.

The agency is requesting that all **district owned construction meters** be returned to its headquarters at 2310 Oro-Quincy Hwy before February 23<sup>rd</sup>, 2022. If the agency owned meter(s) associated to your respective account(s) are not received by that day, you will forgo the original deposit amount agreed upon on your construction meter application. At the time of return, customers can request to reapply for a construction meter, assuming they meet the newly adopted requirements in the district's rules and regulations. Please call our office at 530-533-4578 to schedule an appointment to return the meter and/or discuss potential options moving forward.

**If you do not possess a district owned construction meter**, but have a construction meter account, please reach out to our customer service team at 530-533-4578 to set-up an appointment to discuss future permitting with your meter, if applicable.

For the account holders that do not meet the construction meter program requirements, we would encourage you to review and explore the agency's special use permit to offset your water supply needs.

The district takes great pride in being a good community steward while maintaining state compliance, which is why and it is necessary to adopt these changes allowing the construction meter program to meet water management requirements. Additional infrastructure opportunities for bulk water fill stations are being considered. The district looks forward to making that concept become a reality in the future to protect our distribution system and still provide a bulk fill option to the community we serve.

For your convenience, we have enclosed a copy of the agency's policy on water theft, which was adopted by our board of directors at the July 2021 meeting. Staff would be remised to acknowledge the continued theft off of the hydrants as another opportunity to gain more protections and controls of our water distribution system.

Thank you,

Rath Moseley

General Manager

**STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 2022-0002**

**TO ADOPT AN EMERGENCY REGULATION  
TO SUPPLEMENT VOLUNTARY WATER CONSERVATION**

**WHEREAS:**

1. On April 21, May 10, and July 8, 2021, Governor Newsom issued proclamations that a state of emergency exists in a total of 50 counties due to severe drought conditions and directed state agencies to take immediate action to preserve critical water supplies and mitigate the effects of drought and ensure the protection of health, safety, and the environment.
2. On October 19, 2021, Governor Newsom signed a proclamation extending the drought emergency statewide and further urging Californians to reduce their water use.
3. There is no guarantee that winter precipitation will alleviate the current drought conditions.
4. Many Californians have taken bold steps over the years to reduce water use; nevertheless, the severity of the current drought and uncertainty about Water Year 2022 require additional conservation actions from residents and businesses.
5. Water conservation is the easiest, most efficient, and most cost-effective way to quickly reduce water demand and extend supplies into the next year, providing flexibility for all California communities. Water saved is water available next year, giving water suppliers the flexibility to manage their systems efficiently. The more water that is conserved now, the less likely it is that a community will experience such dire circumstances or that water rationing will be required.
6. Most Californians use more water outdoors than indoors. In many areas, 50 percent or more of daily water use is for lawns and outdoor landscaping. Outdoor water use is generally discretionary, and many irrigated landscapes would not suffer greatly from receiving a decreased amount of water.



14. Disadvantaged communities may require assistance in increasing water conservation, and state and local agencies should look for opportunities to provide assistance in promoting water conservation, including but not limited to translation of regulation text and dissemination of water conservation announcements into languages spoken by at least 10 percent of the people who reside in a water supplier's service area, such as in newspaper advertisements, bill inserts, website homepage, social media, and notices in public libraries.
15. The Board directs staff to consider the following in pursuing any enforcement of section 995, subdivision (b)(1)(A)-(F): before imposing monetary penalties, staff shall provide one or more warnings; monetary penalties must be based on an ability to pay determination, consider allowing a payment plan of at least 12 months, and shall not result in a tax lien; and Board enforcement shall not result in shutoff.
16. The Board encourages entities other than Board staff that consider any enforcement of this regulation to apply these same factors identified in resolved paragraph 15. Nothing in the regulation or in the enforcement provisions of the regulation precludes a local agency from exercising its authority to adopt more stringent conservation measures. Moreover, the Water Code does not impose a mandatory penalty for violations of the regulation adopted by this resolution, and local agencies retain their enforcement discretion in enforcing the regulation, to the extent authorized, and may develop their own progressive enforcement practices to encourage conservation.

THEREFORE BE IT RESOLVED THAT:

1. The State Water Board adopts California Code of Regulations, title 23, section 995, as appended to this resolution as an emergency regulation.
2. State Water Board staff will submit the regulation to the Office of Administrative Law (OAL) for final approval.
3. If, during the approval process, State Water Board staff, the State Water Board, or OAL determines that minor corrections to the language of the regulation or supporting documentation are needed for clarity or consistency, the State Water Board Executive Director or designee may make such changes.

## ADOPTED TEXT OF EMERGENCY REGULATION

### Title 23. Waters

#### Division 3. State Water Resources Control Board and Regional Water Quality Control Boards

#### Chapter 3.5. Urban Water Use Efficiency and Conservation

#### Article 2. Prevention of Drought Wasteful Water Uses

#### § 995. Wasteful and Unreasonable Water Uses.

(a) As used in this section:

(1) "Turf" has the same meaning as in section 491.

(2) "Incidental runoff" means unintended amounts (volume) of runoff, such as unintended, minimal overspray from sprinklers that escapes the area of intended use. Water leaving an intended use area is not considered incidental if it is part of the facility or system design, if it is due to excessive application, if it is due to intentional overflow or application, or if it is due to negligence.

(b)(1) To prevent the unreasonable use of water and to promote water conservation, the use of water is prohibited as identified in this subdivision for the following actions:

(A) The application of potable water to outdoor landscapes in a manner that causes more than incidental runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures;

(B) The use of a hose that dispenses water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use;

(C) The use of potable water for washing sidewalks, driveways, buildings, structures, patios, parking lots, or other hard surfaced areas, except in cases where health and safety are at risk;

(D) The use of potable water for street cleaning or construction site preparation purposes, unless no other method can be used or as needed to protect the health and safety of the public;

(E) The use of potable water for decorative fountains or the filling or topping-off of decorative lakes or ponds, with exceptions for those decorative fountains, lakes, or ponds that use pumps to recirculate water and only require refilling to replace evaporative losses;

(F) The application of water to irrigate turf and ornamental landscapes during and within 48 hours after measurable rainfall of at least one fourth of one inch of rain. In determining whether measurable rainfall of at least fourth of one inch of rain occurred in a given area, enforcement may be based on records of the National Weather Service, the closest CIMIS station to the parcel, or any other reliable source of rainfall data available to the entity undertaking enforcement of this subdivision; and

(G) The use of potable water for irrigation of ornamental turf on public street medians.

(e) The taking of any action prohibited in subdivision (b), (c) or (d) is an infraction punishable by a fine of up to five hundred dollars (\$500) for each day in which the violation occurs. The fine for the infraction is in addition to, and does not supersede or limit, any other remedies, civil or criminal.

(f) A decision or order issued under this section by the Board or an officer or employee of the Board is subject to reconsideration under article 2 (commencing with section 1122) of chapter 4 of part 1 of division 2 of the Water Code.

Authority: Section 1058.5, Water Code.

References: Article X, Section 2, California Constitution; Sections 4080, 4100, 4110, 4150, 4185, and 4735, Civil Code; Section 8627.7, Government Code; Sections 102, 104, 105, 275, 350, 491, and 1122, Water Code; *Light v. State Water Resources Control Board* (2014) 226 Cal.App.4th 1463; *Stanford Vina Ranch Irrigation Co. v. State of California* (2020) 50 Cal.App.5th 976.



# Fact Sheet

## **Drought Conservation Emergency Regulation – January 2022: Frequently Asked Questions**

Updated: January 6, 2022

### **What wasteful water uses are prohibited?**

To promote water conservation, the use of potable water is prohibited in this emergency regulation for the following:

- Applying water to outdoor landscapes resulting in more than incidental runoff
- Washing vehicles without an automatic shutoff nozzle
- Washing impervious areas
- Street cleaning or construction site prep
- Decorative fountains, lakes, or ponds
- Irrigating turf within 48 hours of one fourth of an inch (¼") of rainfall
- Irrigating turf on public medians

### **Are there exemptions from the prohibitions?**

Yes. The use of water is not prohibited to the extent use is necessary to address an immediate health and safety need. This may include, but is not limited to, the use of potable water in a fountain or water feature when required to be potable because human contact is expected to occur.

### **What are examples of health and safety needs?**

The State Water Resources Control Board has included a "health and safety" exemption to allow the otherwise prohibited water use practices to address reasonable and legitimate healthy and safety needs. Examples of activities where water applications may be necessary to address a health or safety need include controlling nuisance dust, suppressing fires, removing pathogenic waste from sidewalks (such as animal waste), and using potable water that is likely to have direct human contact necessitating drinkable water. When feasible, however, a broom or similar method of cleaning that doesn't use potable water should be used.

### **What is "incidental runoff" and what are some examples?**

"Incidental runoff" means unintended amounts (volume) of runoff, such as unintended, minimal overspray from sprinklers that escapes the area of intended use. Water leaving an intended use area is not considered incidental if it is part of the facility or system design, if it is due to excessive application, if it is due to intentional overflow or application, or if it is due to negligence.



most water suppliers will prefer to use their own enforcement strategies and apply their own existing water use restrictions, though they will have discretion in how they deal with complaints.

### **Who is subject to enforcement (warnings, fines, etc.) for engaging in prohibited water uses?**

Most of the prohibitions apply to individual water users, which in some cases includes cities, counties, and businesses to the extent those entities engage in prohibited activities. The prohibition against watering turf on public street medians, for example, is more likely to apply to local governments than to individual homeowners. The prohibition relating to using potable water in decorative fountains may apply to individual homeowners, state and local government, and some commercial properties. The homeowners' association (HOA) provision would also prohibit HOAs from fining residents who are taking some appropriate drought responses.

### **Who may enforce the emergency regulation's prohibitions?**

In addition to being enforceable by the State Water Resources Control Board, any local agency, city, or county (or city and county) that has authority to enforce infractions will be able to enforce these prohibitions at their discretion. The regulation would give local government/agencies the ability to pursue their own enforcement but does not constrain their discretion in how they use their enforcement resources. Enforcement may include warning letters, mandatory water use audits (for large commercial or institutional properties), and fines (up to \$500 per day). Before imposing monetary penalties, the Board has directed staff, and encouraged other enforcing entities, to provide one or more warnings, to consider peoples' ability to pay, to consider payment plans of at least 12 months without a tax lien, and to not cause peoples' water service to be shut off for nonpayment. The Board also encourages agencies to provide assistance to disadvantaged communities, including translation of water conservation announcements into various languages.

### **May HOAs or cities enforce landscaping rules that restrict homeowners' drought responses?**

Many homeowners have wanted to change their landscaping to conserve water during or in response to drought emergencies. The most common complaints the State Water Resources Control Board receives during drought are from homeowners frustrated by homeowners' associations (HOAs) attempting to enforce their landscaping rules in a manner that may violate the Davis-Stirling Act. The Board or a local agency could impose penalties on any HOA that violates the Act. Likewise, cities and counties are prohibited from restricting certain drought responses.

The prohibition on using potable water for irrigating turf on public medians (section 995, subdivision (b)(1)(G)), which refers to the area between two portions of a roadway, was also modified in the final adopted regulation to remove “landscaped areas between the street and sidewalk” and to include “ornamental.” Thus, the regulation prohibits only the “use of potable water for irrigation of ornamental turf on public street medians.” The change removes the prohibition against using potable water to irrigate turf on parkways, which are generally the area between the sidewalk and the street. These changes remove a significant source of confusion and uncertainty, making the prohibition easier to implement. Water agencies likely made changes in the last drought regarding irrigating medians, so limiting the prohibition in this manner should not lead to significant new costs or have a notable potential impact on trees.



## South Feather Water and Power Agency

### **Water Theft Policy / Unauthorized Use of Water Services or Fire Hydrants**

#### **Policy # 112**

In accordance with California Penal Code Sections 498, tampering with any water service or fire hydrant for the unauthorized use of water, or for any other reason, is a misdemeanor. Penal Codes 624 and 625 also acknowledge that unpermitted water draws or the intent to fraud the agency is also categorized as a misdemeanor in the lowest consequence. Described actions are punishable include, but are not limited to; imprisonment in the local county jail, a financial penalty, or both. This policy allows the agency to pursue prosecution to the fullest extent of the law.

- 1) If complaints are found to be valid or if water theft is discovered, the staff of South Feather Water and Power Agency will investigate and file a report of findings to the agency's management so a report can be filed with the Butte County Sheriff's office. Any and all devices used in the activity of illegal water theft will be confiscated.
- 2) Once the agency management has received the report findings regarding the illegal water theft, personnel will evaluate if any additional infrastructure damage (including the right-of-way) resulted in the theft and/or tampering of an agency-owned water service or fire hydrant.
- 3) Penalties for tampering with and/or damaging a water service or fire hydrant will be assessed as follows:

a. First Violation	\$250.00
b. Second Violation	\$500.00
c. Third and Subsequent Violation	\$1,000.00
- 4) In addition to the fines listed above, the offender will be charged for the water documented during the theft/tampering incident. This amount will be no less than the industrial rate of the water taken from the agency's distribution system.
- 5) In the event that the offender does not pay the financial penalties, the agency will use any and all means necessary to collect, including: filing a lien against real property.
- 6) This policy allows the district pursue criminal charges where warranted, in addition to the fines stated above. The fines must be paid within 30 days of the citation date.

offense under the laws of another state or of the United States which would have been an offense under this section if committed in this state, then the violation is punishable by imprisonment in a county jail for not more than one year, or in the state prison.

(e) This section shall not be construed to preclude the applicability of any other provision of the criminal law of this state.

**PENAL CODE 624:**

Every person who wilfully breaks, digs up, obstructs, or injures any pipe or main for conducting water, or any works erected for supplying buildings with water, or any appurtenances or appendages connected thereto, is guilty of a misdemeanor.

**PENAL CODE 625:**

Every person who, with intent to defraud or injure, opens or causes to be opened, or draws water from any stopcock or faucet by which the flow of water is controlled, after having been notified that the same has been closed or shut for specific cause, by order of competent authority, is guilty of a misdemeanor.

**CIVIL CODE SECTION 1882:**

Unless the context requires otherwise, the following definitions govern the construction of this title:

- (a) "Customer" means the person in whose name a utility service is provided.
- (b) "Divert" means to change the intended course or path of electricity, gas, or water without the authorization or consent of the utility.
- (c) "Person" means any individual, a partnership, firm, association, limited liability company, or corporation.
- (d) "Reconnection" means the commencement of utility service to a customer or other person after service has been lawfully discontinued by the utility.
- (e) "Tamper" means to rearrange, injure, alter, interfere with, or otherwise to prevent from performing normal or customary function.
- (f) "Utility" means any electrical, gas, or water corporation as those terms are defined in the Public Utilities Code and includes any electrical, gas, or water system operated by any public agency.
- (g) "Utility service" means the provision of electricity, gas, water, or any other service or commodity furnished by the utility for compensation.





# SOUTH FEATHER WATER & POWER AGENCY

TO: Board of Directors

FROM: Rath Moseley, General Manager

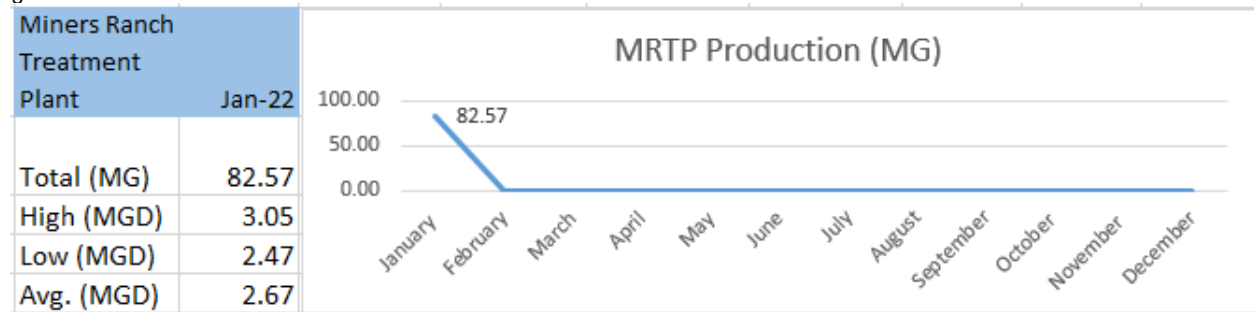
DATE: February 16, 2022

RE: General Information (regarding matters not scheduled on the agenda)  
2/22/22 Board of Directors Meeting

### Domestic Water Treatment Operations

The total Miners Ranch Treatment Plant (MRTP) treated water production for the month of January totaled 82.57 million gallons.

The total Bangor Treatment Plant (BTP) treated water production for the month of January totaled .237 million gallons.



All bacteriological requirements were good for the MRTP& BTP. Miners Ranch production was 106% of average over the past 5 years. Bangor's production was 76% of average over the past 5 years. New meters were installed in the Red Hawk Ranch Pump Station.

### District Wide Water Operations

The irrigation season is nearing with a targeted start date of April 15<sup>th</sup>. Crews have been busy clearing and prepping the raw water conveyance ditch systems for another successful year of water delivery and loss reduction.

Operational activities are listed in the table below.

Feb-22	Backflow Install	Tie In Main	Change Valves	Ditch Maintenance	Gate Valve Leak	Leak Repair	Install Pressure System	Flow Test	Remove Trees	Hydrant Repair	Install Service
	Richter Ridge	South Villa	Hill View Ridge	Canal	Meadow view	La Foret	SHE-YO	Pleasant Oak	Bangor Tank	Ashley	Miners Ranch
	Loma Vista			Palermo Canal		Lincoln			Miller Hill		Miners Ranch
	Skyline			South Ditch		Palermo Road					
	Candy Ln.			Springtime Trail		Ophir Rd.					
				Upham Rd.		Riverview Ct.					
						Eaperanza Ave.					
						Kanaka					
						Treasure Hill					
						Royal Oaks					
						Elva Ct.					
						Greenbriar					
						Lower Wyandotte					
						Canal Dr.					
						Oro Quincy					
						Stump Dr.					

## Water Rates Committee

The board committee consisting of Director Wright and Director Starr met and reviewed the historical work efforts on district water rates from 2018 to date. The Northstar Engineering analysis for the local water districts, internal evaluations and the recent Luhdorff Scalmanini proposal were all discussed.

Additional suggested firms are being considered for value to current analysis and public outreach.

- NBS – Performs Utility Rate and Capacity Fee Studies
- Willdan – Utility Programs, primarily engineering and energy solutions

Staff will continue to work with the committee towards the most appropriate mechanism for education on district costs, public communications and utility billing updates via the proposition 218 process.

## Water Loss Management Program

Continual improvements efforts towards water loss since the last board meeting include:

- A. Proposed modifications to the Meter Service Technician Job Classification to add “meter calibration” to the general job description and Backflow Tester Certification to the Prerequisite Qualifications.
- B. Procurement of a mobile “vacuum excavator” to clean out meter boxes for increased access to conduct field calibration tests and identify small leaks.



- C. Reviewing documentation for defined calibration procedure.

The expectation in the near future is to implement a full calibration process for meter accuracy, data collection and eventually “predictability curves” for water loss areas by region.

## Personnel

Water Division employees Jake McClellan and Joel Soria were promoted to Utility Workers this month. Their commitment to Safety, Quality of Work, Attendance, Productivity and Team Dynamics coupled with their knowledge, experience and overall capabilities made them well deserving of advancement within the district.







## ***SOUTH FEATHER WATER & POWER AGENCY***

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**TO:** Board of Directors

**FROM:** Kristen McKillop, Compliance and Regulatory Manager

**DATE:** February 14, 2022

**RE:** FERC Part 12D Independent Consultant Safety Inspections of five SFWPA dams  
Agenda Item for 02/22/2022 Board of Directors Meeting

### HISTORY

Title 18 of the Code of Federal Regulations Part 12, Subpart D of the Federal Energy Regulatory Commission's (FERC) regulations prescribes the scope of the Independent Consultant (IC) evaluations and filed inspections, as well as the information that must be contained in the Part 12D Independent Consultant's Safety Inspection Report (CSIR). The Agency's Twelfth Part 12D CSIR covering Little Grass Valley Dam, Sly Creek Dam, Lost Creek Dam, Ponderosa Dam and Miners Ranch Dam is due to FERC on December 1, 2022. The Part 12D process includes the comprehensive review of historical technical documents, interfacing with O&M and regulatory staff, field inspections of each dam and all associated appurtenant structures, potential failure modes analysis updates, and preparation of the Part 12D CSIR. Additionally, the scope of work includes updates to the Supporting Technical Information Document (STID) and assistance with the preparation of the 2020 Dam Safety Surveillance Monitoring Report, both of which are interdependent of the Part 12D, and are due to FERC on an annual basis.

### UPDATES

FERC supplied the Agency with the reminder letter outlining all of the expectations of the Twelfth Part 12 D on August 18, 2021 (Attachment 1). Staff reviewed the reminder letter and key items of the Request for Proposal (RFP) with FERC, and the first version of the RFP was published on the Agency website and emailed to eighteen different consulting firms on December 1, 2021. Proposals were due on Jan 14<sup>th</sup>, and the Agency received no submittals. The original RFP also included the scope for completing an Owners Dam Safety Audit, which FERC has requested be completed as soon as possible. However, after removing that work task from the RFP and re-publishing the RFP for the Part 12D alone, the Agency received the sole proposal (Attachment 2) from Slate Geotechnical, in partnership with Geosyntec Consultants, two of the firms on the solicitation list.

Staff reviewed the proposal and associated costs, and is recommending approval of the contract based on the two firms' extensive experience conducting PFMA/CSIRs approved by FERC. Key drivers of the cost of this proposal include the requirement for the development of the first post-construction Potential Failure Mode Analysis, and associated review for Lost Creek following the

seismic retrofit, as well as the FERC requirement to review existing PFMs for all five dams for completeness.

CURRENT STATUS

18 CFR Part 12, Subpart D, § 12.31 defines the requirements for and Independent Consultant, and § 12.34 defines the approval process whereby the licensee must submit to the Director of the Office of Hydropower Licensing a detailed resume 60 days prior to the field inspections or PFMA sessions in order to obtain approval. In order to submit the CSIR to FERC on or before December 1, 2022, the Agency proposes the following schedule:

Quarter of Work	Deadline for Completion	Task
Q1 2022	February 22	Board Hearing/Notice to Proceed/Submit IC resumes to FERC
	March 1	Provide all Background Information to IC
	March 21-25	Conduct Pre-Meeting conference calls with FERC
Q2 2022	April 18-22	Perform Part 12D Inspections (2-3 days)
	April 25-29	Conduct PFMA Workshops (5 days)
Q3 2022	August 5	Draft PFMA Report due to SFWPA
	August 19	Receive PFMA Report Comments
	September 2	Final PFMA Report due to SFWPA
	September 9	Draft CSIR Report due to SFWPA
	September 30	Receive CSIR Comments
	October 28	Final CSIR Report due to SFWPA
Q4 2022	November 18	Draft STID and DSSMRs due to SFWPA
	December 2	Receive STID and DSSMR Comments
	December 20	Submit Final STID and DSSMRs

In order to authorize the General Manager to execute a contract on behalf of the Agency, the following action is recommended.

**“I move authorizing the General Manager to award a contract to Slate Geotechnical Consultants Inc. in the amount of \$388,515.00 to complete the Federal Energy Regulatory Commission (FERC) required Part 12D Independent Consultant 5-Year Safety Inspection for five Agency Dams, and authorize the General Manager to execute the appropriate documents.”**

# Dam Safety Inspection Regulatory Guidelines

Federal Powers Act

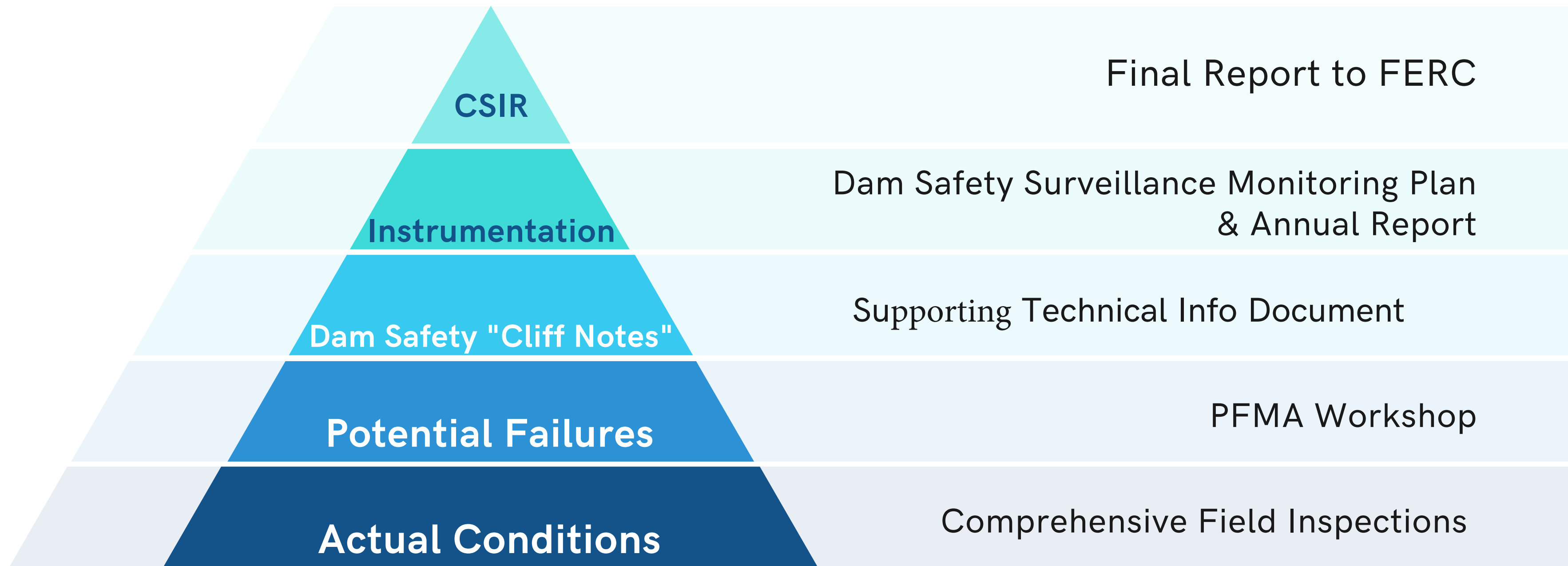
Code of Federal Regulations

FERC Engineering Guidelines

CA Code of Regulations

CA Water Code

# Part 12D Independent Consultant's Safety Inspection Report





FEDERAL ENERGY REGULATORY COMMISSION  
Office of Energy Projects  
Division of Dam Safety and Inspections – San Francisco Regional Office  
100 First Street, Suite 2300  
San Francisco, CA 94105-3084  
(415) 369-3300 Office – (415) 369-3322 Facsimile

August 19, 2021

In reply refer to:  
Project No. P-2088

Mr. Rath Moseley  
General Manager  
South Feather Water and Power Agency  
2310 Oro-Quincy Highway  
Oroville, CA 95965

Subject: Twelfth Independent Consultant's Safety Inspection Report for Little Grass Valley, Lost Creek, Miners Ranch, Ponderosa, and Sly Creek Dams

Dear Mr. Moseley:

Three copies of the Twelfth Part 12D Independent Consultant's Safety Inspection Report for the Little Grass Valley, Lost Creek, Miners Ranch, Ponderosa, and Sly Creek Dams, which are parts of the South Feather River Project, FERC Project No. 2088, are to be submitted to this office by December 1, 2022. CFR 18, Part 12, Subpart D of the Commission's regulations prescribes the scope of the Independent Consultant (IC) evaluations and field inspection, as well as the information that must be contained in the Report. An electronic version of the Report in a searchable format should also be included with the submission. **To ensure that the Report will not be rejected, you are encouraged to take time and review these responsibilities and our guidance as some requirements have changed.** Enclosure 1 is a bullet list highlighting the changes in the Part 12D process discussed in this letter. Your responsibilities as the Licensee, as well as those for your IC, are discussed in more detail in Enclosure 2; and the Report outline to be used by the IC is included as Enclosure 3. We have posted an update to Chapter 14, Appendices J and K, Dam Safety Performance Monitoring Plan and Report; and encourage you to review these updated Engineering Guidelines located at:

<https://www.ferc.gov/industries-data/hydropower/dam-safety-and-inspections/eng-guidelines>

We have noticed a disturbing trend within the industry regarding the lack of attention to some of the Part 12D requirements. The FERC will participate in two calls with you during the process of developing a Part 12D report to go over our expectations for the Report as well as those of your Independent Consultant (IC). The first call will occur shortly after you receive this letter. Having this call early in the Part12D process should help you frame the scope of work entered into with your IC. The second call will occur at least 90 days before the Potential Failure Modes Analysis (PFMA) review discussed below and will be conducted with your IC also participating.

You are reminded that failure to conform to the requirements of the Part 12D process will result in rejection of the Report.

### **Potential Failure Modes Analysis Update Requirements**

Section 1 of your Supporting Technical Information (STI) document should be a PFMA report completed during a previous submittal under the Part 12D process. During a FERC-wide reevaluation of Potential Failure Modes (PFMs), we discovered that many still do not meet the expectations that we have for complete PFMs. You should be aware that it is likely that many of the existing PFMs may require revision in order to describe more fully the actual mode of failure. Each PFM must have a specific loading condition, mode of failure, defined consequence to public safety, and category. To that end, we are requiring you to set up a telephone conference or a face-to-face meeting at least 90 days prior to the PFMA review with your independent consultant to discuss our expectations for the PFMA review. During this meeting, we will review the level of effort required for the PFMA review, as discussed in our first telephone call. This effort could range from simply reviewing the PFMA Report, to performing a complete revision of the PFMA process overseen by a Facilitator.

Enclosure 4 provides an outline of the topics to be discussed during the initial call with this office. Enclosure 5 provides an outline for additional topics to be discussed during this second call/meeting between your IC, your staff, and the FERC.

For more information on how to complete well-developed PFMs, please refer to our website at:

<https://www.ferc.gov/industries-data/hydropower/dam-safety-and-inspections/potential-failure-modes-pfms>

For additional information regarding the entire PFMA process, please reference Chapter 14 of our Engineering Guidelines, which are available at:

<https://www.ferc.gov/sites/default/files/2020-04/chap14.pdf>

## **Project Features**

Commission Regulations require that the project works of a development subject to Part 12, Subpart D of the Commission's Regulations be inspected and analyzed periodically by an IC. This includes all dams and all principal works of the development. The following dams and all associated appurtenant structures require inspection at your project:

- Little Grass Valley Dam.
- Sly Creek Dam.
- Lost Creek Dam.
- Miner's Ranch Dam.
- Ponderosa Dam.

Some studies and or reports, recommended by the previous Part 12 inspection, or requested by FERC letter, remain outstanding. All information regarding outstanding items, must be provided to the IC for review. Any final reports not yet submitted to the FERC for review, must also be formally eFiled for our review and comment and provided to the IC for review and comment as part of the Part 12D process.

Our review of the PFMA report indicates that the PFMs for some of the dams is generally incomplete given that there are a number PFMs listed as Category III. The PFMA review should include a review of all existing PFMs for completeness, following our PFMA Guidelines, as well as any discussion about PFMs that were not previously fully developed. The PFMs should be reviewed for any changes or new information since the last PFMA review that would result in the development of new PFMs or the reclassification of others.

## **IC Approval**

You must obtain approval of your proposed IC(s) prior to the initiation of the field inspection. File your letter requesting approval of the IC (together with the proposed IC's detailed résumé) using the Commission's eFiling system with the following address block on the letter:

Mr. David Capka, P.E., Director  
Division of Dam Safety and Inspections  
Federal Energy Regulatory Commission  
Office of Energy Projects

You can access the Commission's eFiling system at <https://www.ferc.gov/ferc-online/overview>. Select Hydro: Regional Office and San Francisco Regional Office from the eFiling menu. The cover page of the filing must indicate that the material was eFiled. For assistance with eFiling, contact FERC Online Support at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov), (866) 208-3676 (toll free), or (202) 502-8659 (TTY).

By regulation, the request for the approval of the IC and the resume are to be filed at least 60 days prior to the initiation of the safety inspection. In order to allow your IC adequate time to inspect your project and prepare the Report, we request that you submit the request letter and resume at least six months before the Report is due; that is, by June 1, 2022.

The first Report for newly constructed projects or projects where a major dam safety remediation has recently been completed may be done by the design engineer or an engineer from the design engineer's firm. The next Report must be completed by a different engineer not associated with either the design or construction firm. Subsequent Reports may be completed by an engineer associated with the design, construction, or remediation work. However, an engineer or engineers from the same firm will not be approved as the IC for more than two consecutive Reports for any project. We will be contacting you shortly after you receive this letter to coordinate a teleconference or meeting prior to selecting an IC. This meeting will serve to coordinate any outstanding issues, studies, discuss the condition of the existing PFMA, and otherwise gain an understanding of our expectations for the inspection. This will enable you to better develop a complete scope of work for the IC.

Once the IC has been approved, it is your responsibility to provide the IC with copies of, or access to, all project files well in advance of the field inspection. You should include file review in your scope of work and strongly encourage the IC to adequately prepare for the field inspection by adequately reviewing all the pertinent background information for the project in advance. Inadequate preparation of your IC may result in the need to reschedule the inspection until they are properly prepared to perform a thorough inspection.

### **Report**

It is critically important that the IC review, evaluate, and comment on the appropriateness and current validity of all the previous analyses located in Section 8 of the STI. Section 7 of the Report should contain your IC's detailed assessment of the STI including the PFMA report. (See Chapter 14, Appendix H, Section 7.0, page 14-H-13) Acceptable technical criteria are prescribed in FERC's Engineering Guidelines. If needed, this publication can be downloaded from our website at:

<https://www.ferc.gov/sites/default/files/2020-04/chap14.pdf>

The Report outline to be used by the IC is also included as Enclosure 3 and a copy of 18 CFR 12D can be obtained from the following link:

<https://www.ferc.gov/sites/default/files/2020-04/part12-reggs.pdf>

**Report Follow-Up**

If the IC makes specific recommendations in the Report, Section 12.39 of the Code of Federal Regulations requires you to submit to us, within 60 days of the date the Report is filed, your plan of action and schedule to satisfy these recommendations. It is also necessary to confirm your agreement with the IC's recommendations to continue any ongoing measures (e.g. annual settlement survey) specifically identified in the Report. Your plan of action may include any proposal, including taking no action, that you consider a preferable alternative to any corrective measures recommended by the IC in the Report. However, any proposed alternative must be supported by complete justification and detailed analysis and evaluation in support of that alternative.

**Unresponsive Reports Will Be Returned**

We have noted several instances lately within the industry where an IC did not make *“a clear statement that they have reviewed the pertinent analyses and evaluations along with the underlying assumptions and that they have concluded that the assumptions and methods of analysis or evaluation were appropriate for the structure, were applied correctly and are appropriate given current guidelines and the state of dam safety practice”* as is required by the Commission's Guidelines. A general statement is not acceptable. The Report should indicate in each section that this review and concurrence has been completed. Please ensure that the Report fulfills this requirement, as unresponsive Reports received by this office will be returned for resubmittal.

The Commission's dam safety program is a cooperative process that includes the licensee, the IC, and the FERC. The most important of the three elements is the licensee, as they operate the dam, see the dam on a regular basis, and are responsible for the surveillance and monitoring plan used to determine if a potential failure mode is developing. It is the licensee's responsibility to submit the IC's Report to the FERC and ensure that the Report meets the requirements of the Commission's Regulations and Guidelines before it is submitted. The Report is a FERC requirement and a valuable resource for you as the dam owner. Enclosure 2 provides a more complete discussion of the requirements of the Commission's Regulations and Guidelines.

If you have any questions regarding this letter or Enclosures, please do not hesitate to call me at (415) 369-3318. Your support is critically important and I am available to discuss any concerns or comments that you may have.

Sincerely



Frank L. Blackett, P.E.  
Regional Engineer

Enclosures:

1. Changes to Part 12D Process
2. Licensee and Independent Consultant Responsibilities
3. Part 12D Safety Inspection Report Outline
4. Part 12D Initial Conference Call Agenda
5. 90 Day Pre-Meeting Agenda Conference Cal

### **Changes to Part 12D Process**

- Page 1, Paragraph 1 - An electronic version of the consultant's Part 12D report, in a searchable format, is required.
- Page 1, Paragraph 1 - Chapter 14 of our Guidelines: Appendices J and K have been updated and contain new requirements.
- Page 2, Paragraph 1 - Two teleconferences with D2SI staff and management are required: 1) After you receive this letter, with your staff, to discuss our expectations of your consultant and help you develop the scope of work, and 2) At least 90 days before the Potential Failure Modes Analysis (PFMA) review, with your staff and consultant, to discuss our expectations for the PFMA review and documentation.
- Page 2, Paragraph 3 - Note paragraph(s) summarizing specific deficiencies in initial PFMA or specific PFMs that need to be re-developed, and list of outstanding studies that need to be reviewed by and incorporated into the consultant's Part 12D report.
- Page 5 – Unresponsive Reports will be returned

*Reminder:* The PFMA review and documentation must be thorough and complete. The consultant's Part 12D report must contain specific statements about their independent review and agreement with the analyses, evaluations, and assumptions described in the Supporting Technical Information (STI) document; and must confirm the analyses and evaluations meet current guidelines and are in accordance with current dam safety practice. *The Part 12D report will be rejected if all requirements are not met.*

## Licensee and Independent Consultant Responsibilities

The FERC dam safety process encompasses three distinct and separate entities each with their own responsibility in assuring dam safety; the dam owner, the Independent Consultant, and the FERC Division of Dam Safety and Inspections (D2SI). The triad of dam owner, Independent Consultant, and D2SI was put in place to provide three independent assessments of a dam's suitability for safe and reliable operation.

First and foremost is the dam owner. The Federal Power Act, under Section 10, places full and complete liability for the safe operation of the project on the owner; 16 U.S.C. Section 803c states that:

“the licensee shall maintain the project works in a condition of repair adequate for the purposes of navigation and for the efficient operation of said works in the development and transmission of power, shall make all necessary renewals and replacements, shall establish and maintain adequate depreciation reserves for such purposes, shall so maintain, and operate said works as not to impair navigation, and shall conform to such rules and regulations as the Commission may from time to time prescribe for the protection of life, health, and property. ***Each licensee hereunder shall be liable for all damages occasioned to the property of others by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto***, constructed under the license and in no event shall the United States be liable therefore.”  
(Emphasis added)

The owner is also liable under United States common law (see Legal Liability for Dam Failures, Denis Binder, 2009 and Liability for Water Control Structure Failure Due to Flooding, Edward A. Thomas, 2006).

The second entity, for dams which fall under the requirements of the 18CFR12D of the Commission's Regulations (Regulations – copy attached), is the Independent Consultant. The Regulations specify that dams that meet the requirements outlined in 18CFR12D be:

“... periodically inspected and evaluated by or under the responsibility and direction of at least one independent consultant, who may be a member of a consulting firm, to identify any actual or potential deficiencies, whether in the condition of those project works or in the quality or adequacy of project maintenance, surveillance, or methods of operation, that might endanger public safety.” (18CFR12.32)

The Consultant's report is submitted to the FERC by the licensee. It is the licensee's responsibility to assure that the report meets the requirements of the Commission's Regulations and Guidelines before it submitted to FERC. Although the report is required



by the FERC under the statutes noted above, the report is also a valuable resource for the dam owner, especially those that do not have the staff necessary to assure the safe and reliable operation of the dam.

The FERC is the third entity involved in assuring the safety of dams under Commission regulation. As the regulator, the FERC is responsible for assuring that the requirements of the Commission's Regulations and Guidelines are met and to check licensee's submissions for apparent errors or omissions. FERC's acceptance of a report is recognition that the report, at the time it was submitted, met the Commission's Engineering Guidelines. It does not imply that the report will continue to meet the Guidelines into the future as our Guidelines may change due to evolution in the practice of dam safety; loadings may change due to a better understanding of the seismic or hydrologic regime in which the dam is located, or deterioration of the dam itself.

Chapter 14 of the Commission's current Engineering Guidelines (Guidelines) requires the owner to prepare a Supporting Technical Information Document that is intended to include summaries of "all relevant reports on the safety of the development made by or written under the direction of federal or state agencies, submitted under Commission regulations, or made by other consultants" related to the safety of the dam. Chapter 14 of the Guidelines also includes the outline for the Independent Consultant's Report. The outline requires

"in each section, where appropriate, the Independent Consultant shall make a clear statement that they have reviewed the pertinent analyses and evaluations along with the underlying assumptions and that they have concluded that the assumptions and methods of analysis or evaluation were appropriate for the structure, were applied correctly and are appropriate given current guidelines and the state of dam safety practice."

This statement is intended to fulfill the requirement in 18CFR12.37 for the report to "Analyze the safety of the project works and the maintenance and methods of operation of the development fully in light of the independent consultant's reviews, field inspection, assessments, and evaluations described in §12.35".

When the Consultant fails to "make a clear statement that they have reviewed the pertinent analyses and evaluations along with the underlying assumptions and that they have concluded that the assumptions and methods of analysis or evaluation were appropriate for the structure, were applied correctly and are appropriate given current guidelines and the state of dam safety practice," the Consultant is failing to meet both the requirements of 18CFR 12.37 to "Analyze the safety of the project works and the maintenance and methods of operation of the development fully in light of the independent consultant's reviews, field inspection, assessments, and evaluations described in §12.35" and the requirements of Chapter 14 of the Guidelines. When a

Consultant justifies the adequateness of a section in the Supporting Technical Information document by stating that the FERC conducted its own study or that the FERC had previously accepted a report submitted by the licensee, the Consultant is, in essence, attempting to delegate their responsibility to the FERC.

The necessary three parts of the dam safety process provided for assuring the safe and reliable operation of FERC regulated dams is effectively reduced to only two when a Consultant does not “analyze the safety of the project works and the maintenance and methods of operation of the development fully in light of the independent consultant's reviews, field inspection, assessments, and evaluations described in §12.35.” This is unacceptable to the FERC and should be unacceptable to any dam owner with an appreciation of their responsibility and liability.

Reports that fail to meet the requirements of the Regulations and/or Guidelines may be considered patently deficient and will not be accepted until they meet the requirements.

## **Part 12D Safety Inspection Report Outline**

### **Table of Contents**

The Table of Contents must show the initial page numbers for each section. If any subsection is not applicable, include the subsection with a statement of “Not Applicable” and an explanation of the reason(s) why.

For licensed projects that include multiple independent dam and powerhouse developments, separate Part 12D reports should be published for each development.

- 1. Findings and Recommendations**
- 2. Project Description**
- 3. Discussion of Potential Failure Modes Analysis Report**
- 4. Surveillance and Monitoring with Respect to Potential Failure Modes**
- 5. Field Inspection**
- 6. Operation and Maintenance Programs Relative to Potential Failure Modes**
- 7. Assessment of Supporting Technical Information Document**

**List of Tables** (with location)

**List of Figures** (with location)

**List of References**

### **Appendices for Part 12D Inspection Report**

#### **A. FERC Letter Requiring Part 12D Inspection**

**B. FERC Letter Approving Part 12D Consultant** - Include date of current report outline provided by FERC. Use report outline provided with FERC letter, not latest revision.

#### **C. Project Figures**

Only provide general overview drawings necessary to understand the project and items discussed in the report. If figures are placed in Section 2, provide a statement that figures may be found in Section 2. Optionally, if the STI document is bound with the Part 12D report provide a statement that figures may be found in the STI document; duplicate drawings from the STI document do not need to be included in the Part 12D report.

Detailed drawings should be included in the Supporting Technical Information document.

**D. Instrumentation Monitoring Data Plots**

List each figure and drawing included in the report. Optionally, instrumentation plots may be placed in Section 4 of the report and a statement included in Appendix D that the plots may be found in Section 4.

**E. Inspection Photographs**

Optionally, some or all of the photographs may be included in the appropriate sections of the report. If photographs are included within the report, provide a list of the photographs and the corresponding page number in Appendix E.

**F. Inspection Checklists and/or Field Notes (Optional)****G. Operation and Maintenance Documentation (If required)****1. Findings and Recommendations**

This Section includes a summary of the Part 12D Independent Consultant's findings and assessments and the Part 12D Independent Consultant's conclusions and recommendations.

**2. Findings**

- 1.1.1 Summary assessment of the PFMA report
- 1.1.2 Summary assessment of the Surveillance and Monitoring Plan
- 1.1.3 Summary of Field Inspection Findings
- 1.1.4 Summary of O&M status
- 1.1.5 Summary Assessment of "Supporting Technical Information" document

Note: Specifically identify any new calculations prepared subsequent to the previous Part 12D Report.

**1.2 Conclusions**

The conclusions of the Independent Consultant regarding the condition and suitability for continued safe and reliable operation of the project and specific conclusions regarding the information in each Section of this Part 12D report.

- 1.2.1 Conclusions regarding the suitability of the Project for continued safe and reliable operation
- 1.2.2 Conclusions regarding the Project Description
- 1.2.3 Conclusions regarding the Potential Failure Modes Analysis Report
- 1.2.4 Conclusions regarding the Surveillance and Monitoring Plan
- 1.2.5 Conclusions regarding the Field Inspection
- 1.2.6 Conclusions regarding the Operation and Maintenance Programs

1.2.7 Conclusions regarding the “Supporting Technical Information” document

### 1.3 Recommendations

The recommendations of the Independent Consultant to improve or maintain the condition and suitability for continued safe and reliable operation of the project and specific recommendations regarding the information in each Section of this Part 12D report.

1.3.1 Recommendations regarding the suitability of the Project for continued safe and reliable operation.

1.2.2 Recommendations regarding the Project Description

1.3.3 Recommendations regarding the Potential Failure Modes Analysis Report

1.3.4 Recommendations regarding the Surveillance and Monitoring Plan

1.3.5 Recommendations regarding the Field Inspection

1.3.6 Recommendations regarding the Operation and Maintenance Programs

1.3.7 Recommendations regarding the “Supporting Technical Information” document

### 1.4 Certification

Note: By signing this document, the Part 12D Independent Consultant is stating that the entire report has been developed by and under the direction of the undersigned. The Part 12D Independent Consultant shall make a clear statement that he/she generally concurs with the assumptions, methods of analyses, and results of all studies documented in the report.

The Part 12D Independent Consultant is thus taking responsibility for the Part 12D report content as a Professional Engineer.

1.4.1 List of all field inspection participants

1.4.2 Reference to FERC Order 122 dated March 1, 1981, and paragraph 12.37 (c) (7).

1.4.3 Signature(s) of Part 12D Independent Consultant(s) and PE Stamp

See Appendix A: FERC Letter Requiring Part 12D Inspection

See Appendix B: FERC Letter Approving Part 12D Consultant - (Include date of current report outline provided by FERC)

## 1. Project Description

2. Brief Project Description

For each major element and ancillary structure, provide a brief description of the type of structure, general dimensions, etc. The detailed project description will be in the “Supporting Technical Information” document.

For multi-project or development licenses, include a brief outline of how this site fits with the other projects.

Include a short paragraph with very brief project history. When constructed, when modified, any incidents.

## 2. Hazard Potential Classification

Based on views from the dam, other project works inspected and discussion with the licensee, document any changes in upstream or downstream conditions that might affect the Hazard Potential Classification. Review with the licensee the methods and assumptions used to develop the IDF. If the IDF is less than the PMF, the IC should confirm that the IDF is still valid based on an assessment of the downstream conditions as noted above.

## 3. Summary of Standard Operating Procedures

2.3.1 Purpose of Project (Run of river, storage, flow augmentation, flood surcharge storage, control reserve, pumped storage, etc.)

2.3.2 Reservoir rule curves by season (include seasonal reservoir level operating levels and restrictions of reservoir level due to safety concerns, if any)

2.3.3 Standard gate operation procedures (lead and following gates, emergency power systems, etc.)

## 4. Modifications Conducted for Project Safety

Document any modifications to project works since the last Part 12D inspection that have been done to improve project safety. (i.e.: spillway gates reinforced, seepage drain, berm added, crest raised, post-tensioned anchors installed, foundation drains or relief wells cleaned, etc.). In the next Part 12D Safety Inspection Report, these items will become part of Section 2.1. This information should be fully described in the updated “Supporting Technical Information” document submitted with the Part 12D report.

Do not include routine maintenance such as unit overhaul, gate painting, etc. Note that generators, transformers, and transmission facilities are excluded from the Part 12D program under 18CFR subsection 12.35.

## 5. Flood History

2.5.1 Flood of Record, PMF, IDF

2.5.2 Zero freeboard spillway capacity

2.5.3 Peak spillway discharge during last five year period

#### 2.5.4 Peak reservoir elevation during last five year period

See Appendix C: Project Figures (Note: If the STI document is bound with this report, do not duplicate figures)

### 1. Discussion of Potential Failure Modes Analysis Report

Do not include security issues in the Part 12D report. For licensed projects that include multiple independent dam and powerhouse developments, separate PFMA studies and reports should be made for each development.

#### 2. General

Identify the Core Team members, and their affiliations, who developed the comprehensive Potential Failure Modes Analysis (PFMA) or its update. Note that the process was in accordance with FERC “Engineering Guidelines for the Evaluation of Hydropower Projects,” Chapter 14.

#### 3. Assessment of Potential Failure Modes Analysis Report

Assess the viable potential failure modes identified in the PFMA report. These would generally be Category 1 through Category 3 PFMs. Provide an assessment of the reasonableness and completeness of the failure mode scenario and whether the PFMs identified have a real possibility of occurrence. Potential Failure modes should be listed in order of importance. Each PFM assessment should include:

- A description that includes the sequence of conditions and events that would lead to the potential failure mode;
- An assessment of the risk reduction opportunities for each PFM; and
- An assessment of the Surveillance and Monitoring Plan for each PFM.

For example, the report would be formatted as follows.

##### 3.2.1 PFM 1. (i.e. internal erosion, piping)

3.2.1.1 Description of PFM (may be taken from PFMA report)

3.2.1.2 Assessment of Risk Reduction Opportunities

3.2.1.3 Assessment of Surveillance and Monitoring Plan

##### 3.2.2 PFM 2. (i.e. Seismic induced deformation)

3.2.2.1 Description of PFM (may be taken from PFMA report)

3.2.2.2 Assessment of Risk Reduction Opportunities

3.2.2.3 Assessment of Surveillance and Monitoring Plan

3.2.2.4 Etc.

- 3.3 Are there new potential failure modes that have been identified and addressed in this report or that should be assessed? If so, include the appropriate

Description of the PFM, Assessment of mitigation actions and Assessment of the SMP as discussed above.

See “Supporting Technical Information” document: **Potential Failure Modes Analysis Study Report** (Update as appropriate).

## 1. Surveillance and Monitoring with Respect to Potential Failure Modes

Note: Review and assessment of Surveillance and Monitoring Plans must always be done from the point of view of potential failure modes. Although the primary assessment is with respect to the potential failure modes identified in the PFMA study, the Independent Consultant must determine if there are potential failure modes not previously addressed or not adequately considered.

For the purposes of this section, a Threshold Level is the value used in the analysis or design, or is established from the historic record. An Action Level is the instrument reading that triggers increased surveillance or an emergency action.

### 2. Operator’s Surveillance Program

#### **Daily and weekly operator’s inspections and reports.**

### 3. Active Instrumentation: Include a schematic figure showing location of instrumentation (not detailed or cross section).

This will vary by project. Discuss only the instruments actually at the project. Is instrumentation in accordance with Chapter IX of the FERC “Engineering Guidelines for the Evaluation of Hydropower Projects?” Is the instrumentation functioning properly? Examples of instrumentation to be included:

- Piezometers
- Weirs
- Settlement/alignment monuments
- Crack gages
- Upstream river and/or rain gage stations
- Headwater/tailwater (alarm systems)

### 4. Threshold and Action levels

For each instrument, or group of instruments as appropriate, provide a table of Threshold and Action levels as defined above.

### 5. Reading procedures/frequency

For each instrument, or group of instruments as appropriate, discuss:

- Data acquisition procedures (manual/automated)



- Data evaluation procedures (process; is data evaluated in a timely manner by a qualified engineer; are readings compared to Threshold and Action levels defined for each instrument)
- Spurious readings (are spurious readings confirmed or explanations provided)

#### 4.5 Assessment of Instrumentation Data and Surveillance and Monitoring Plans Relative to Potential Failure Modes.

Include newly identified potential failure modes.

### 1. Field Inspection

#### 2. Field Inspection Observations

For each element of the project (i.e.: spillway, earthfill embankment, gravity section, intake, powerhouse, conveyance system, etc.), observe and report visual observations of the following issues as appropriate. Include pictures to document significant project features and observations. If an inspection checklist is used, include a copy of the checklist Appendix F. A site-specific inspection checklist should be formatted to include specific visual surveillance items identified in the PFMA.

The intent of this section is to highlight changed conditions for the report reviewer, not to document unimportant or minor details.

The report should be in text format by structure or element addressed individually. For each structure or element of the project, the Part 12D Independent Consultant should consider the following items as appropriate:

- Settlement
- Movement – including abutments (cracks or other signs of distress or change)
- Erosion
- Seepage/Leakage
- Cracking
- Deterioration
- Spillway gate Operation/Standby Power (At a minimum, the Part 12D Independent Consultant needs to review the licensee's annual certificates of spillway gate operation and interview project operating staff to assure that emergency backup systems work and that operating personnel know how to use them. At least one spillway gate should be operated at least one foot during the Part 12D inspection using the standby generator.)
- Outlet/Sluice Gate Operation

- Water conveyance systems (canals / flumes / penstocks / tunnels / surge chambers, emergency bypass or closure systems, etc.)
  - Foundation Drain/Relief Well Operation
  - Evidence of high artesian or uplift pressures (structures / foundations / abutments)
  - Observations of sediment transport (piping evidence)
  - Observations of seeps, wet areas, springs, green grass
  - Other Pertinent Observations
2. Status of Response(s) to Recommendation(s) in Last Part 12D Report
  3. Field Observations with Respect to Potential Failure Modes  
Document field observations pertinent to each potential failure mode noted in Section 3.
  4. Adequacy/Operation of Public Alert Systems  
Note: Are upstream spillway warning buoys, and downstream sirens and lights operable?

See Appendix E: **Inspection Pictures** (Optionally, some or all of the pictures may be included in the appropriate sections of the report. If pictures are included within the report, provide in Appendix E a list of the pictures and the corresponding page number).

See Appendix F: **Inspection Check List** (optional).

## 1. **Operation and Maintenance Programs Relative to Potential Failure Modes**

Do not include security issues in the Part 12D inspection report. If observations of significant O&M issues are made, include in report for possible new potential failure mode analysis.

2. Summary of PFMA identified O&M issues (from PFMA report)
3. Operation and Maintenance Procedures
  1. Communication/Response  
Address adequacy and reliability of remote monitoring, communication and control systems (Operations / Instrumentation / Telemetry – Do the systems provide adequate reliability and redundancy? Can a specific spillway gate, valve or other project component be operated remotely on demand?)
  2. Electrical/Mechanical Systems

- Spillway Gate Motors (line/line voltage, amperage draw, motor name plate rating information)
- Standby and Redundant Power Sources
- Manual/Remote/Automatic Operation of Gates and Valves
- Gate Operation Sequence
- Icing protection (heaters/bubblers/reservoir level restriction)

#### 6.2.3 Human Factors

- Adequate Staff for Emergency Response (Multiple Sites)
- Reliable Access Routes (winter/storm conditions)
- Training
- Electricians/Mechanics/Laborers
- Adequate Time to Respond
- Call Out Systems (time for crew to reach site after call out)

#### 6.3 Assessment of O&M Procedures Relative to Potential Failure Modes

See Appendix G: **Operation and Maintenance Documentation**

### 7.0 Assessment of Supporting Technical Information Document

The purpose of this section of the Part 12D Report is for the Part 12D Independent Consultant (IC) to assess the contents of the “Supporting Technical Information” (STI) document compiled by the licensee and determine both its completeness and appropriateness to the current standard of the practice of dam safety. The STI document should be considered an executive summary that includes general, yet critical summary information needed to fully understand the design, construction, operation, and performance of the project. It should also contain sufficient information to summarize and confirm the underlying assumptions and the conclusions of the analyses of record supporting the assessment of the safety of the Project.

For each section of the STI, the Independent Consultant shall make a clear statement regarding their assessment of the completeness and appropriateness of that specific section of the STI. They must make an assessment of the assumptions, methods of analysis and/or evaluations as to their appropriateness and proper application for the structure, and whether they are appropriate given current guidelines and state of dam safety practice. The IC must perform sufficient review and/or independent analysis to document their rationale to support the required statement. This must include a brief summary (bullet form acceptable) of the parameters, methodologies, and results used that document their decision.

Listed below are non-all-inclusive items to consider when summarizing each section of the STI. The IC’s summary is not intended to be a detailed discussion of the STI

Sections, but a summary list of the most important parameters used by the IC to reach their conclusion. This might be best accomplished by a bullet list. In addition, this section of the Part 12D report is not intended to repeat the STI verbatim, but to summarize key components used by the IC to make their assessment and conclusions regarding the completeness of the STI.

1. Potential Failure Modes Analysis Study Report (Include a statement referring to Section 3 for a detailed discussion of the Potential Failure Modes Analysis)
  - Adequacy of the summary of current PFMA Report
  - Changes in PFMA during current review, including any new PFMs
  - Any changes in category for any PFM
2. Description of Project
  - Summarizes major components of the project, including all those listed in the project Order
  - Review description for accuracy and completeness (elevations, capacities, etc.)
3. Construction History
  - Summarized procedures/methods used for construction
  - Includes construction difficulties that could influence long-term performance of the project.
  - Summarize any design changes in the project during construction and any modifications since originally constructed
  - Construction photographs
4. Standard Operating Procedures
  - Summary of key operating procedures for dam safety
  - Include procedures/sequence for passing flows (gate/powerhouse/flashboard/fuseplug, etc. operation)
  - Does the SOP include all the necessary requirements to safely operate the project?
  - Summarize any changes that have been made in the operation of any component of the project that is different than originally designed and if there is any impact resulting from the change.
5. Geology and Seismicity
  - Geology

- Adequacy of the summary of regional and local geologic conditions
  - Geologic conditions that could impact dam safety performance
  - Any geologic conditions that are important for monitoring the project
  - Seismicity
    - Summary of seismic analysis, including key parameters
    - Date of recent analysis and applicability to current studies
    - Design PGA and recurrence interval (if available)
6. Hydrology and Hydraulics
- Hydrology
    - Summary of IDF/PMF, including key assumptions and rainfall/runoff parameters used
    - Applicability of flood to current methods, HMR, etc
    - Specifically identify the studies of record
  - Hydraulics
    - Summary of key issues and assumptions, including review of rating curve for spillway
    - Summarize routing of IDF/PMF through spillway(s), peak reservoir elevation, and residual freeboard
7. Surveillance and Monitoring Program
- Status of current DSSMP and DSSMR
  - Applicability of program to PFMs
  - Determine if any changes to program are required and recommend those changes
  - Summarize the appropriateness of current threshold and action levels
8. Stability and Stress Analyses of Project Structures – This section should have an introductory summary of the analysis of record for each analysis. Other prior analyses can be briefly summarized if they are thought to be of significance.
- Summary of methods, procedures, critical elements, assumptions, input/design parameters, etc... for each structure analyzed
  - Resulting factors of safety and comparison to FERC guidelines
  - List of all analysis of records and any supplemental studies currently in process or completed

9. Spillway Gates

- Category of gates and appropriate requirements
- Date and brief conclusion of most recent detailed gate inspection
- Date and brief conclusion of most recent test operation

10. Pertinent Correspondence Related to Safety of Project Works

- Completeness of documents required to be included in the STI

11. Status of Studies in Process and Outstanding Issues

- Summarize any ongoing analyses, studies, etc.

12. References

- Completeness of the list of references and the attached electronic files, if applicable

13. Conclusions

- Overall assessment of the condition of the STI

## General Statements

The following example statements are offered as general guidance for use by the IC when making definitive statement regarding each section of the STI, **in addition** to the discussion indicated above. The Positive statements are examples of when the STI is acceptable. The Negative statements are examples where the STI does not meet minimum requirements and must be improved upon. There are intended only as examples to be used for the section indicated. Copying these examples verbatim into the IC's assessment of each section of the STI may result in the rejection of the Part 12 D report; the assessment should be specifically customized for the project under review.

### 1. PFMA Review

#### Positive

The PFMA was reviewed for completeness during a PFMA review conducted in conjunction with the Part 12 inspection. I/we reviewed the following items (itemize here) and as a result, consider the PFMs to be, fully developed and appropriately separated by load case and location, well documented, and complete relative to the project information.

#### Negative

I/we reviewed the following items (itemize here). PFM Number XX was not fully developed and a recommended revision is included in the recommendation section of this report. After review and concurrence by FERC, the revised PFM should be adopted. The other PFMs are considered to be well written, well documented, and complete relative to the project information.

### 2. Project Description

#### Positive

The description of the project is correct and adequately summarizes the major components of the project and provides a good executive review level discussion about the project.

#### Negative

The project description is inadequate. It is recommended that the description of the project included in the STI be enhanced to include a more detailed description of the spillway gate operators, as noted in the recommendation section of this report.

### 3. Construction History

#### Positive

The construction history is adequately described, including all significant construction issues documented during the construction which include the following key points that could potentially impact the operation and performance of the project features. All available construction photographs are included on the accompanying CD and were reviewed to ensure there are no other previously unidentified defects from the original construction or later modifications.

#### Negative

The construction history is generally adequately described. However, the construction history did not include the modifications made to the project in 1999, which included (describe the modifications). A recommended revision is included in the recommendation section of this report.

### **4. Standard Operating Procedures**

#### Positive

The Standard Operating Procedures are adequately summarized in the STI and include (list here) that are of specific interest regarding the continued safe operation of the project. The SOP includes all the necessary requirements to safely operate the project.

#### Negative

The SOP does not account for changes in gate operation to accommodate flow releases required for environmental purposes in 2004. It is recommended that the SOP be rewritten to account for this change.

### **5. Geology and Seismology**

#### Positive

The geology and seismology of the project are adequately summarized and highlight specific issues that could impact the operation and performance of the project and include (summarize here). Our/my review of the seismicity indicates that site seismicity was developed using the most current data and approach available.

The assumptions, methods, and use of the data and its application to this project meet the current guidelines and the state of dam safety practice.

#### Negative

The Geology section of the STI is adequate with the following exceptions:

- The geology does not contain a description of the problematic areas encountered in the foundation during construction. Nor does the



geology summarize the actual geology of the site, but only includes a broad regional summary of the area.

- The seismology section of the STI is inadequate. The most current seismic hazard evaluation is not adequately summarized and the design Peak Ground Acceleration is not listed.
- The Geology and Seismology sections of the STI must be enhanced in accordance with the recommendations contained elsewhere in this report.

## **6. Hydrology and Hydraulics**

### Positive

The hydrology of the project is adequately described in the STI. My/our assessment of the hydrology included a review/analysis of (list studies/reports here). The key assumptions and parameters include (summarize here) and are considered appropriate to the current methodologies, data, and state of dam safety practice for evaluating the hydrologic safety of a dam. The PMF inflow of xxxx cfs is appropriate for this project.

The hydraulics of the project are adequately described in the STI. The spillway and tailwater rating curve(s) are correct and adequately represents the current spillway hydraulics. The project spillway(s)/outlets can pass the PMF/IDF with xx feet of freeboard on the dam. This freeboard is adequate for predicted wind and wave run-up at the dam.

### Negative

I/we do not concur with the PMF analysis of record for this project. The PMF was based on PMP developed using HMR43, which was superseded by HMR57 in 1994. It is recommended that the PMF analysis be updated using the updated PMP values from HMR57.

The hydraulics of the project are not properly described in the STI. The rating curve used for the spillway is incorrect and needs to be recalculated.

## **7. Surveillance and Monitoring Program**

### Positive

The Surveillance and Monitoring Program is adequately described in the STI. My/our review of the DSSMP indicate the most critical elements of the monitoring include (summarize here) and contain appropriate threshold and action levels for each instrument. During the PFMA review, the need for additional surveillance for the project with respect to both identified PFMs and general health was discussed.

It is my opinion that existing monitoring program is adequate and no changes are recommended at this time.

#### Negative

My/our review indicated that several key elements of the project instrumentation are missing (list here). Thus the SMP is inadequate and needs to be revised.

### **8. The Stability and Stress Analyses of Project Structures**

#### Positive

I have reviewed the pertinent analyses and evaluations along with the underlying assumptions and that have concluded that the assumptions and methods of analysis or evaluation were appropriate for the structure, were applied correctly and are appropriate given current guidelines and the state of dam safety practice. I also performed an independent check of the stability calculations and my results agree with the analysis of record. The following project structures are thus found to be safe for continued operation:

- Main embankment
- West diversion dam
- Integral power house
- (List all)

#### Negative

The STI is inadequate with regards to a summary of the stability and stress analyses for the project structures. The design assumptions are missing for the (xxxx) structural analysis. In addition, the resulting factors of safety on the recently submitted stability analysis do not meet the FERC minimum guidelines and must be reviewed with regards to dam safety concerns.

### **7.9 The Spillway Gates**

#### Positive

I have reviewed the pertinent inspection reports and stability and stress analyses (if applicable) and have determined that the spillway gates are safe for continued operation.

#### Negative

I have reviewed the pertinent inspection reports and stability and stress analysis for the spillway gates. The analyses do not properly account for the bent strut on

Gate No. 1 that I observed during my field inspection. Thus, before I can determine if the spillway gates are safe for continued operation, the stress analyses need to be redone to account for this issue with Gate No. 1.

## **10. The Pertinent Correspondence Related to Safety of Project Works**

### Positive

The Pertinent Correspondence Related to Safety of Project Works is complete and adequate in accordance with the requirements of the FERC. This correspondence includes the following items of specific note that are most important regarding the continued safety of the project:

1. Example item 1
2. Example item 2
3. Etc.

### Negative

The Pertinent Correspondence Related to Safety of Project Works is incomplete with regards to the requirements of the FERC. The following documents are missing and my/our recommendation is included to obtain and include the following documents in the STID:

- Past three years of the FERC Annual Dam Safety Inspection Reports
- Etc... (detail all accordingly)

## **11. Status of Studies in Process and Outstanding Issues**

The Status of Studies in Process and Outstanding Issues include the following:

List specifics and summarize the issue

OR

There are no outstanding studies in process or outstanding issues with the project that are in process or need to be initiated resulting from my/our conclusions of this Part 12D review and inspection.

## **12. References**

### Positive

The References included in the STI and associated electronic files enclosed with the STI are complete and accurate and are formatted for easy reference.

### Negative

The references in the STI are incomplete and inadequately contain all the information contained in the STI. It is recommended that all studies and reports listed below be transferred to a disk and included in the end of the STI.

### **7.13 The Conclusions**

#### Positive

The overall STI document is complete, well organized, and adequately addresses all of the requirements of the FERC but more importantly provides a complete executive summary document that is useful to all those associated with this project.

#### Negative

The STI document is inadequate. Rather than summaries of the necessary information, the document contains random copies of studies, project information, and incomplete information that does not allow the user to obtain a general overview of the entire project. Specifically, Sections (list sections) are particularly poor in content and must be completed in accordance with our recommendations.

## APPENDICES

**List of Tables** (with location)

**List of Figures** (with location)

**List of References**

### A. FERC Letter Requiring Part 12D Inspection

**Note:** May include specific FERC concerns to be addressed by Part 12D Independent Consultant.

### B. FERC Letter Approving Consultant

**Note:** Include date of report outline provided by FERC.

### C. Project Figures

This Appendix should include the following figures as appropriate. All Figures should be consecutively numbered. Figures should be general without excessive detail so as to be clearly legible. Figures should include documentation of significant changes since last Part 12D report. If STI document to be directly bound in this report, do not duplicate the figures. FERC Exhibit and relicensing drawings can be used.

- Location map with project facilities located including conveyance systems and access routes from main roads and nearest town
- Plans of project facilities
- Typical sections and profiles of key project features (dams, spillways, powerhouses, intakes, emergency/fuse plug spillways, chute profiles, etc.)
- Profiles and typical sections of water conveyance systems (canals, tunnels, penstocks, flumes, surge chambers, etc)
- Satellite or aerial picture of project and downstream area
- Spillway and tailwater rating curves

### D. Instrumentation Monitoring Data Plots

Note: Plans and cross-sections with locations of each instrument, including design phreatic surface or uplift pressure profile, and tabulated data for each instrument are included in the “Supporting Technical Information” document only. See Chapter IX, Instrumentation and Monitoring, of the FERC Engineering Guidelines for the Evaluation of Hydropower Projects for additional information. Only time versus reading graphs are included here as NEW information. Tables of data should be provided on a CD bound into the Part 12D report

If data plots are included in Section 4 of the Part 12D report, a statement should be provided here directing the reader to Section 4 for the information.

- Time versus Reading data plots
- Plot all data to date, not just last five years (alternative is to plot last 15 years and note historic range for each unit)
- Do not put too many instruments on one plot
- Try to put all instruments from one section or profile on the same plot
- Mark tip elevation, unscreened length, ground elevation and top of piezometer elevation for each piezometer on the data plot. This information can be provided in a Table to enhance legibility of the graph.
- Use symbols and/or different line types for each unit, not just colors (colors do not reproduce in black and white and some people are color blind - Note that yellow and blue do not reproduce on certain copiers)
- Include headwater and tailwater levels on each plot
- Force all time scales to show full year cycles from January through December
- For multiple plots for the same project, force vertical and horizontal scales on all plots of the same type to have the same scale or total range so plots can be directly overlaid
- Mark threshold values
- Show monthly precipitation on one sheet
- Mark action levels requiring emergency response

**E. Inspection Pictures**

**F. Inspection Checklist (optional)**

**G. Operation and Maintenance Documentation (if required)**

## **Part 12D Initial Conference Call Agenda**

### Initial/Scoping Call

The purpose of the initial call is to discuss with the licensee/exemptee what level of effort we anticipate will be required for the Part 12D inspection and help them frame the scope of work for the Independent Consultant (IC). This will help the licensee/exemptee prepare their request for proposal (RFP) for an IC. This will hopefully prevent the number of extension of time requests during the process because there was a lack of understanding on the part of the licensee/exemptee as to the level of work required. The initial call should address the following:

1. Review and Discuss Part 12D process and issues we have had:
  - a. Discuss the reason and purpose for these phone calls.
    - i. Purpose is noted above.
    - ii. Do not have attitude that there have been several P12's prior to this one so everything is correct.
    - iii. IC's proposing inconsistent or inadequate work because of confusion over the scope of work to be performed during the Part 12D process.
    - iv. Reports being returned by the FERC because they are not sufficient and/or do not meet all our guidelines.
    - v. Need to provide documents with ample review time.
    - vi. Consider line item in contract for document review time.
    - vii. The FERC can and will cancel the inspection if the IC is not adequately prepared.
    - viii. Coordinate scheduling inspection with the FERC.
2. Discuss contents of P12 Reminder letter.
  - a. Discuss date of Part 12 report
  - b. Specific requirements to be discussed below
3. Discuss each section of the report, as needed: (discuss ONLY if specific items related to the Scope of Work)
  - a. Findings and Recommendations
    - i. Discuss findings from last report
    - ii. Discuss outstanding recommendations from last report.
  - b. Project Description
    - i. Confirm that it is correct and do not just copy and paste.
    - ii. Any errors in previous Part 12 Report?
    - iii. Don't simply copy and paste.
  - c. Discussion of PFMA Report

- i. Discuss FERC's assessment of the existing PFMA report and discuss what level of effort is anticipated to complete the PFMA review. Provide an estimate of how much time the PFMA review may require.
  - ii. Discuss how much documentation is available and the important about providing this to the IC early
  - iii. Discuss the completeness of the PFM descriptions
  - iv. Discuss the PFM Categories and point out that this will be discussed in much more detail during the Second call (90-day call).
  - v. Discuss time frame for IC inspection and PFMA review as FERC staff will like to be present.
- d. DSSMP/DSSMR with Respect to PFM
  - i. General discussion about instrumentation and the new table that associates instrumentation to PFMs
  - ii. Discuss requirement for new statement by CDSE/CDSC
- e. Field Inspection
  - i. Discuss what project features need to be inspected (all of them, but emphasize this).
  - ii. Discuss status of inspections on inaccessible features
  - iii. Discuss any special inspection requirements (boat, harnesses, confined spaces, etc.).
  - iv. Discuss any special safety requirements and lockout/tag out, if required
- f. Operation and Maintenance Program Relative to PFMs
  - i. Discuss mechanical and electrical systems
  - ii. Human factors
  - iii. Systems/Operational PFMs
- g. Assessment of STID
  - i. Biggest problem section
  - ii. Discuss "clear statement"
  - iii. Need statement in EACH section, not a general statement
  - iv. Discuss examples of statements
  - v. Status of analyses
    - 1. Structural/stability analyses
    - 2. Seismic studies
    - 3. Hydrologic Studies
  - vi. Spillway Rating curve – check, don't copy and paste

#### Appendices

Not a lot to discuss here during initial call



**90 Day Pre-meeting Agenda Conference Call**

1. Purpose of call
  - a. To discuss what is expected from the Owner.
  - b. To discuss what is expected from the P-12 Consultant.
  - c. To discuss what is expected during the PFMA review.
  - d. To discuss outstanding studies and items of special interest.
2. Owner
  - a. The Owner should provide a copy of the STI, 3 past Part 12D Reports and any items of special interest to the IC well in advance of the inspection.
  - b. All portions of the site must be readily assessable and cleared of excessive vegetation. If a complete visual inspection cannot be completed the IC will need to re-inspect before the Part 12D Report is submitted.
3. P-12 Consultant
  - a. Must review the STI including the PFMA report and the past Part 12D Inspection Reports prior to the inspection.
4. Discussion of the PFMA Report
  - a. FERC to review and provide clarification as to the PFM categories.
  - b. Discuss current PFMs and the level of effort that may be expected to review. This may range from a review of the PFMA report to a complete revision of the PFMA process including a facilitator and full document review.
5. Items of special interest
  - a. Outstanding studies.
  - b. Past Part 12D recommendations that have not been fulfilled.
  - c. Schedule for inspection.
  - d. Any other items of interest

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FEB 9 2022

**PROPOSAL FOR FERC PART 12D INDEPENDENT CONSULTANT SERVICES**

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South Fork Power Project, FERC Project No. 2088

**Prepared for:**

South Feather Water & Power Agency  
2310 Oro-Quincy Highway  
Oroville, CA 95966

**Prepared by:**

Slate Geotechnical Consultants Inc.  
Berkeley, CA

**February 2022**

**Project No.**

21-PRO-61



## **PROPOSAL FOR FERC PART 12D INDEPENDENT CONSULTANT SERVICES**

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Berkeley, CA

**February 2022**

**Project No.**

21-PRO-61





February 9, 2022  
Project No. 21-PRO-61

Slate Geotechnical Consultants Inc.  
2927 Newbury St., Suite A  
Berkeley, California 94703

Ms. Kristen McKillop  
Regulatory Compliance Coordinator  
South Feather Water & Power Agency  
2310 Oro-Quincy Highway  
Oroville, CA 95966

**Subject: PROPOSAL FOR FERC PART 12D INDEPENDENT CONSULTANT SERVICES  
South Fork Power Project, FERC Project No. 2088  
Butte, Yuba, and Plumas Counties, California**

Dear Ms. McKillop:

In response to your request for proposals, Slate Geotechnical Consultants, Inc. is pleased to submit this scope of work and cost estimate to provide Independent Consultant (IC) services for performing FERC Part 12D safety inspection and review for the subject project. The ICs for this project will be Marc Ryan, PE, GE of Slate Geotechnical Consultants, Inc. (Slate), and Derek Morley, PE of Geosyntec Consultants, Inc. (Geosyntec), as a subconsultant to Slate.

Please call us should you have any questions.

Sincerely yours,

Slate Geotechnical Consultants Inc.

A handwritten signature in blue ink, appearing to read 'Marc J. Ryan'.

Marc J. Ryan, PE, GE  
President and Principal Engineer  
[mryan@slategeotech.com](mailto:mryan@slategeotech.com)  
Ph: 510.277.3325 x705

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### APPENDICES

Appendix A – Resumes of Key Personnel

Appendix B – Schedule of Charges, Work Breakdown Structure and Cost Estimate



## **PROPOSAL FOR FERC PART 12D INDEPENDENT CONSULTANT SERVICES**

**South Fork Power Project, FERC Project No. 2088  
Butte, Yuba, and Plumas Counties, California**

### **1.0 PROJECT APPROACH AND SCOPE**

The following sections detail Slate Geotechnical Consultant, Inc.'s. (Slate's) approach and scope for executing the requested FERC Part 12D Independent Consultant Services for the South Fork Power Project (SFPP), owned and operated by South Feather Water & Power Agency (SFWPA/Agency). The requested services are outlined in SFWPA's Request for Proposals (RFP) dated January 2022.

#### **1.1 Project Approach**

The SFPP consists of five dams of varying construction types and their appurtenant structures, water conveyance facilities, and hydroelectric generation facilities that are subject to the FERC Part 12D Inspection requirements. The dams include Little Grass Valley Dam, Sly Creek Dam, Lost Creek Dam, Ponderosa Dam, and Miners Ranch Dam. With the exception of Lost Creek Dam (which is a concrete arch construction), all dams are zoned earthfill or rockfill-type embankments.

The project will be led by co-Independent Consultants (ICs), as defined in Section 2.0, below, and supported by a core team of subject matter experts with an array of experience in dam safety-related evaluations, assessments, and inspections within their respective fields. In preparing this proposal, we received and reviewed several of the key project documents, including the FERC letter requiring the subject inspections and the most recent Part 12D Safety Inspection Reports. We anticipate that SFWPA will provide the remaining pertinent project materials including:

- Project drawings
- Previous Part 12D safety review reports
- Previous PFMA reports
- Existing Supporting Technical Information Documents (STIDs)
- Previous Surveillance and Monitoring Plans and Surveillance and Monitoring Reports
- Operation and maintenance records
- Dam and reservoir operating procedures including Standard Operating Procedures (SOPs) and Emergency Operating Procedures (EOPs)
- Geology and seismicity studies
- Stability analyses and supporting data
- Spillway radial gate inspection and analysis reports, if applicable
- Probable Maximum Flood and Inflow Design Flood reports
- Spillway Inspection Reports
- Dam break and inundation studies
- Emergency Action Plans
- Status of previous Part 12D recommendations
- FERC annual operations inspection reports and other dam safety-related correspondence since last Part 12D reports
- Division of Safety of Dams (DSOD) correspondence since the last Part 12 reports

The ICs will conduct the Part 12D field inspections following the review of project information, the STID data, and the existing PFMA reports. The inspections will focus on potential concerns identified in the previous PFMA reports and recommendations from the previous Part 12D Reports. The inspections will also address any concerns raised by FERC.



Visible and accessible portions of the dams, abutments, and appurtenant structures will be inspected for evidence of leakage, concrete deterioration, settlement, and joint offsets. Attention will be paid to any improvements or maintenance done since the last Part 12D safety review reports. Accessible portions of the power intake and powerhouse facilities will also be inspected. Powerhouse operators will be interviewed to develop a thorough understanding of operating and maintenance procedures. The scope of the inspections will be limited to visible elements only and excludes covered, buried, or hidden conditions. The inspections will not include any special investigations, or geotechnical investigations, or materials testing. Inspection notes and inspection photos will be prepared at the end of the field inspections. It is assumed that SFWPA will prepare the Job Safety Analysis (JSA) for the field inspections and coordinate access at the sites including confined space entry, as applicable.

Following field inspections, the ICs will conduct a Potential Failure Modes Analysis (PFMA) workshop with SFWPA staff, operations managers, and regulatory (FERC and DSOD) personnel. We have reviewed FERC's comments regarding their expectations for the PFMA sessions, as discussed in their letter dated August 19, 2021. FERC's assessment states, "*You should be aware that it is likely that many of the existing PFMs may require revision in order to describe more fully the actual mode of failure...*" and "*Our review of the PFMA report indicates that the PFMs for some of the dams is generally incomplete given that there are a number [of] PFMs listed as Category III*". In our experience conducting PFMA sessions with similarly stated assessments, the level of effort required to meet FERC's expectations is often much larger than what dam owners expect from their previous workshops. In some cases, workshops can extend to multiple days for a single dam facility, depending on the number of existing PFMs and their levels of complexity.

The Slate team will endeavor to simplify and streamline the PFMA workshop process by performing a thorough review of existing PFMs and developing proposed modifications to their descriptions, as necessary, prior to the workshop so that the workshop can focus more on new PFMs and PFM classifications. The Slate team will meet with SFWPA before the PFMA session to discuss any new studies and confirm that all of the background information is complete and easily accessible to the group before the PFMA sessions. The facilitators will also generate a list of potential new PFMs and then use that list to prepare draft PFM tables before the PFMA review session.

As requested in the RFP, Slate will prepare all documents satisfying FERC Part 12D Inspection requirements, as specifically outlined in the Scope of Services below. Additionally, Slate will update the STIDs and DSSMRs for each dam, as necessary, to be in compliance with FERC requirements.

## **1.2 Scope of Services**

The scope of services developed for this project are based on those presented in Section 2 of the RFP prepared by SFWPA, as well as our experience with the FERC Part 12D inspection process from similar projects. We have thoroughly reviewed all requested scope items and deliverables and agree that the outline, as presented, is sufficient for addressing the FERC Part 12D requirements. The scope is divided into nine tasks, as described below.

### **Task 1 – Project Management and Administration**

Slate will be responsible for leading, directing and monitoring the Project Team, and ensuring all work products and deliverables are reviewed in accordance with Slate's Quality Assurance (QA) policies. All deliverables will go through internal Quality Control (QC) prior to submittal to the Agency. Slate will be responsible for monitoring Project schedule and budget.

#### *Subtask 1.1 Project Controls*

Monthly invoices will be prepared and submitted to the Agency with reasonable detail of the daily time incurred by personnel assigned to the Project. Invoices will be broken down by task/subtask and include the following: contract number, total contract amount, detailed charges for the current invoice period, total charges to date, current amount remaining.



Slate will be responsible for the management of the Project Team's overall project controls, actively coordinating with the Agency's designated Project Manager to manage project costs, project schedule, and document control.

#### *Subtask 1.2 Project Reporting*

Monthly progress reports will be prepared and submitted to the Agency that will accompany Slate's monthly invoices. These reports will include progress-to-date, schedule updates, Agency action items, Project Team action items, status of deliverables; problems encountered with suggested solutions, budget versus actual expenses, and anticipated work for the next month.

#### *Subtask 1.3 Project Meetings*

Project meetings may be held at the Agency's Power Division HQ office or via a videoconferencing platform. This subtask assumes a kickoff conference call, FERC required 90-day pre-meeting conference call, and pre-inspection meetings. For the purposes of our labor and cost estimate, it is assumed all three of these of these meetings will be held via a videoconferencing platform. Regular meetings will be held as often as needed to ensure project milestones are completed according to the defined schedule. These Project meetings are in addition to any site inspections or PFMA workshops. Slate will prepare meeting agenda, meeting minutes, and action items for distribution to the Project Team and Agency stakeholders.

### **Task 2 – Review of Existing Information**

Slate will review all existing information pertinent to the subject dams and their appurtenant facilities. The specific information and related activities are outlines in the subtasks below.

#### *Subtask 2.1 Potential Failure Mode Review*

Slate will review the existing PFMA reports to determine the following:

- Adequacy of the summary of the current PFMA reports.
- Whether there are additional PFMs that should be considered that were not previously identified. Note: new PFMs may also be proposed and developed during the PFMA workshop.
- Whether changes in category to the existing PFMs are necessary.

Post-construction PFMA's will be developed for Lost Creek Dam following modifications to the dam crest and spillway in 2018.

#### *Subtask 2.2 DSSMP Review*

Slate will review the Dam Safety Surveillance Monitoring Plans (DSSMP) to determine if the plans provide adequate monitoring with respect to the initiation of the PFMs identified in the previous task. If necessary, Slate will make recommendations in the 2022 CSIRs for modifications to the DSSMPs to address changes in instrumentation, observation procedures, and/or revised PFMs.

#### *Subtask 2.3 Inspection Preparation Data Review*

Slate will perform a review of all pertinent reports and documents pertaining to each dam and their respective development including, but not limited to, the current versions of the STIDs, the last five years (or more as necessary) of Dam Safety Surveillance Monitoring Reports (DSSMRs), prior annual FERC Operational Inspection reports, prior Part 12 (2016) CSIR, Underwater (dive) Inspection reports, and other reports necessary to adequately prepare for and perform the inspections.





#### *Subtask 2.4 ODSP/Operational Maintenance Review*

Slate will review the Owners Dam Safety Program document to determine if it accurately reflects current Agency organizational structure, standard operating procedures, and training protocols. The key items of interest will include:

- Operation and Maintenance (O&M) Procedures
- Communication/Response – the adequacy of remote monitoring, communication, and control systems.
- Electrical/Mechanical Systems – reliability of outlet works and powerhouse valves, standby and redundant power sources, manual/remote/automatic operation, and operation sequence.
- Human Factors – adequate staff for emergency response, reliable access routes, training, response times, and call out system.

Noted deficiencies will be addressed in the CSIRs, as applicable.

#### *Subtask 2.5 STID Review*

Slate will conduct a comprehensive review of the current Supporting Technical Information Documents (STIDs) to ensure the documents are succinct, well organized, clearly written, and the information is presented without contradiction to any other technical findings and/or documentation. The organization and structure of the STID will be in conformance with the current FERC Engineering Guidelines and requirements. If Slate identifies parts of the STIDs that should be revised, those recommendations will be included in the 2022 CSIRs.

### **Task 3 – 2022 Consultant Safety Inspections**

The ICs will conduct a CSIR field inspection of the Project. Slate expects that FERC personnel will be conducting the annual FERC Operational Inspection for the Project at the same time the ICs are conducting the formal Part 12 field inspections. The schedule for the inspections will be coordinated by SFWPA personnel, who will coordinate with the FERC inspector and DSOD personnel, if applicable. Scheduling considerations are included in Section 4.0 of this proposal.

The scope of the inspection will be in accordance with the FERC requirements listed in 18 CFR 12.35. The ICs will give specific attention to the overall condition and functioning of the dams, spillways, foundations, and outlet works, and to any changes that have taken place in downstream development of each dam since the last safety inspections. We recognize that all penstocks, outlet work pipes, spillways, and tunnels may or may not be watered and may or may not be in service during the inspection. It is expected that the ICs will have access to any applicable inspection reports that were conducted when the systems were dewatered.

Prior to the inspections, Slate will identify all items that need to be inspected during the upcoming formal development inspection and potential lock-out tag-out requirements. At the pre-inspection meeting, SFWPA and Slate will discuss access logistics associated with the inspections.

### **Task 4 – 2022 Consultant Safety Inspection Reports**

This task includes the work associated with professional services provided by the ICs for the preparation of the 2022 CSIR. The ICs will prepare reports conforming to the latest revision of the FERC's Engineering Guidelines Chapter 14 Appendix H Part 12D Safety Inspection Report Outline for the Project. At a minimum the reports will include:

- Findings and Recommendations (including suitability of project for continued safe operation).
- Project Description.



- Discussion of PFMA Report.
- Surveillance and Monitoring with Respect to PFMs.
- Field Inspection.
- Operation and Maintenance Programs Relative to Potential Failure Modes.
- Assessment of STID.
- Applicable Appendices.

This task also includes incorporating SFWPA comments into the Final CSIR.

We recognize that that FERC has finalized their Engineering Guidelines Chapter 16 as of December 16, 2021, which, in part, requires a new reporting format in the form of a Comprehensive Assessment Report to replace the CSIR. However, it is our understanding that the adoption of these new guidelines will not be in effect for the current cycle of dam inspections for the SFPP, as FERC has indicated in their August 19, 2021 letter to SFWPA that the inspections are to follow Chapter 14 requirements. As such, the estimated level of effort for this task provided in Section 5.0 of this proposal reflects requirements of Chapter 14.

### **Task 5 – Potential Failure Modes Report**

Slate will facilitate and actively participate in a PFMA Workshop for each dam facility to review the existing PFMs. It is assumed this Workshop will take place after the safety inspections have been conducted and will minimally consist of a full day discussion, per dam, with SFWPA employees, FERC personnel, and DSOD personnel for the purpose of reviewing the existing potential failure modes (PFMs) and identifying potential new failure modes. As part of this task, Slate will:

- Incorporate review of existing PFMs from Task 2 by developing a table including considerations from the 2017 analysis.
- Meet with SFWPA prior to the PFM Workshop to discuss PFMs and potential modifications (assumes a 3 hour in-person meeting or webinar).
- Take all notes (record) and edit PFMs during the Workshop and update table.
- Update the PFM table and develop the PFMA report based on discussions with SFWPA and from workshop. The Draft PFMA Report will include text and formatting to be included in Section 1.0 of the STID.
- Meet with SFWPA (in person or by webinar) to discuss comments on the Draft PFMA report and incorporate comments into a Final PFMA Report.

It is our understanding that Lost Creek Dam will require particular attention to PFM development following modifications to the dam crest and spillway in 2018.

### **Task 6 – Update STIDs**

This task includes review of existing STIDs, and preparation of the 2022 STIDs for all five dams. Slate will:

- Review, assess, evaluate, and comment on the appropriateness of the existing STIDs.
- Update each of five STIDs covering all new/revised documents and addressing all FERC and Division of Safety of Dams (DSOD) correspondence since 2017.

It is assumed that Slate will have access to all of the source files (e.g., Microsoft Word and Excel files, and graphics files) from the most recent STIDs to aid in preparation of the new documents.

### **Task 7 – Prepare 2022 DSSMR**

This task includes the preparation of the 2022 Dam Safety Surveillance Monitoring Reports (DSSMRs) for each of the five dams in accordance with FERC guidelines. It is assumed that Slate will have access to all source files (e.g., Microsoft Word and Excel files, and graphics files) from the most recent DSSMRs to aid in preparation of the new reports.



## Task 8 – Deliverables

As outlined in the RFP, dated January 2022, and the preceding tasks, Slate will perform or deliver the following as part of the overall work process:

- Conduct the Part 12D inspections for Little Grass Valley Dam, Sly Creek Dam, Lost Creek Dam, Ponderosa Dam and Miners Ranch Dam.
- Submit the Part 12D inspection reports in conformance with FERC guidelines in both draft and final form.
- Conduct PFMA workshops for each dam.
- Update five Supporting Technical Information Documents (STIDs).
- Update the 2022 Dam Safety Surveillance Monitoring Reports (DSSMRs).
- Respond to all FERC inquiries about product content and provide sufficient response to address all comments and/or concerns.

This task includes the level of effort required to finalize all required deliverables to the satisfaction of FERC.

## Task 9 – Continuing Services

Slate will provide ongoing professional services for the Project for a period of five years (through 2027) at the discretion of SFWPA. The services to be provided by Slate during this period of time are only to be performed upon written direction from, and authorization by SFWPA to include supporting the Agency in responding to FERC or DSOD questions or to address CSIR Recommendations. For the purposes of our cost estimate in Section 5.0, the initial budget is \$10,000 for this task. If the expenditures associated with this task exceed \$10,000, the scope will be defined at that time and processed as an amendment to this contract.

## 2.0 PROJECT TEAM QUALIFICATIONS

The project team will be led by Co-ICs Marc Ryan, PE, GE, of Slate and Derek Morley, PE, of Geosyntec. We have selected this combination of experts because of their experience in technical areas of potential concerns for these dams. Marc Ryan has performed investigations, evaluations, and remedial design for more than 50 earth and rockfill dams in California. Derek Morley was selected because of his vast experience in geo-civil engineering projects for dams and understanding of hydraulic systems in the context of risk assessments and risk-informed decision making. Together they understand the geologic, seismic, and hydrologic conditions in the South Fork Power Project, and are familiar with the operations, maintenance, surveillance and instrumentation requirements for the general health of high hazard earth dams.



**Marc Ryan** has been a FERC-approved Independent Consultant for more than 25 Part 12D Review-of-Safety reports and has participated as a core team member on more than 17 other Part 12D safety inspection projects. He has facilitated Potential Failure Modes Analysis workshops for over 25 dams as well as six additional spillway-focused PFMA sessions. All regulatory reporting requirements under his direction have been successfully accepted by FERC within their defined schedules. Mr. Ryan has also managed and conducted dam safety inspections, geotechnical investigations, and engineering studies

for earthfill and rockfill dams around the world. He has also provided geotechnical characterization studies for concrete dams, intake towers, spillway structures, spillway gates, and other appurtenant structures. Highlights of Mr. Ryan's experience include:

- Part 12D Independent Consultant and facilitator for PFMA for 12 PG&E dams
- Part 12D Independent Consultant and facilitator for PFMA for Indian Valley Dam, Camp Far West Dam, and Jackson Creek Dam
- EOR for the Magalia Dam Seismic Retrofit Project
- EOR for the Lower Blue Lake Dam Seepage Mitigation Design



- Chief Dam Safety Engineer for Yolo County Flood Control and Water Conservation District
- Directors Safety Review Board for Castaic, Crafton Hills, and Perris Dams
- Lead Geotechnical Design Engineer for the Calero Dam Seismic Retrofit Project
- Principal in Charge for geotechnical investigation, seismic stability evaluation, and alternatives analysis for Anderson Dam
- Principal in Charge for Mill Pond Dam Seismic Retrofit
- Principal in Charge for Upper Blue Lake Dam Seismic Retrofit construction engineering support
- EOR for The Sea Ranch Dam Seepage Mitigation Project
- Project Manager for the Indian Valley Dam Seepage Collection and Monitoring Project



**Derek Morley** has 30 years of experience in geo-civil engineering projects and engineering for dams, levees, and other water and power facilities. He provides project planning and project management, technical leadership and oversight, risk assessment and risk-informed decision making (RIDM), design and design team leadership, and construction support services. Mr. Morley’s experience includes 7 years at the USACE Sacramento District, where he was Geosciences Branch Chief in the regional Dam Safety Production Center. He led development of the dam safety modification program

for the 7-State region, conducted project planning, and served in key technical and management roles for dam planning and modification. Mr. Morley specializes in integrating dam safety principles into design projects, leveraging his experience with USACE risk assessment and RIDM. Though he has not formally proposed as a FERC IC, we are confident that his extensive dam safety background will be granted immediate approval. Highlights of Mr. Morley’s experience include:

- Principal in Charge for design of the regulating reservoirs of the Sites Reservoir Project
- Subject Matter Expert for Quantitative Risk Assessment of the Chatuge Dam spillway and Blue Ridge Dam spillway
- Senior Advisor to DWR Acting Director during the Oroville Spillways Incident
- Lead Engineer for design of the Folsom Dam Raise Project
- Senior Dam Safety Reviewer for modifications of Isabella Dam, Whittier Narrows Dam, Success Dam, and Ridge Dam
- Senior Advisor to USACE Engineering Chief during the Folsom Joint Federal Project cofferdam incident

Mr. Ryan and Mr. Morley will be supported by the following subject matter experts (SMEs) as part of the core team:

Subject	Proposed SME
PMP and PMF Studies	AI Preston (Geosyntec)
Engineering Geology	Courtney Johnson (Slate)
Geotechnical Studies	Justin Phalen (Slate)



**AI Preston, PhD, PE**, of Geosyntec will provide review of hydrologic and hydraulics documentation and participate in the PFMA Workshops as an SME for hydrology and hydraulics. He has analyzed and conducted hydrology, hydraulics, hydrodynamics, and computational fluid dynamics. His experience includes modeling and analyses of storm channels, rivers, dam breaches, and lake and reservoir hydrodynamics and water quality, as well as serving as an SME for fully quantitative risk analysis of multiple spillways.



**Courtney Johnson, PG, CEG** of Slate will provide as-need geologic and seismic support. She has performed seismic hazard studies and conducted geologic evaluations for a variety of projects located throughout California, the United States, and abroad. Her project experience includes assessment of earthquake-related geologic hazards (e.g., surface fault rupture, slope stability, liquefaction and related phenomena), characterization of seismic sources, and running computer models to calculate probabilistic ground motions and probabilistic fault rupture hazards.



**Justin Phalen, PE, GE** of Slate will provide review of geotechnical engineering documentation and participate in the PFMA Workshops as an SME for earthquake, seepage, and erosion-related hazards. He has developed and executed over a dozen drilling program plans for the purposes of evaluating the seismic response of earthfill and rockfill dams, including modifications to reduce seismic deformation potential. He has also managed several design projects for mitigating both earthquake and seepage-related hazards through embankment dams.

All proposed team members are committed to performing the required tasks of the scope within the schedule outlined in Section 4.0. Resumes for both proposed ICs and SMEs are provided as Appendix A to this proposal. We have limited resumes to two pages each to comply with RFP requirements. However, FERC IC approval will require a more comprehensive qualifications package for each of the ICs. We will work with SFWPA to provide the required qualification documentation upon selection.

### 3.0 FIRM QUALIFICATIONS



Slate is a Northern California-based Women-Owned Small Business (WOSB) firm comprised of engineering and geology professionals with decades of experience in dam safety engineering, geotechnical engineering, seismic hazard, and earthquake-induced geologic hazards consulting. Our focus is providing high-quality dam safety engineering services to clients across California and the United States. Our dam safety engineering services include geotechnical and geologic field investigations, seepage analyses, stability and seismic deformation analyses, design of seepage collection and monitoring systems, design of seismic retrofits for embankments, risk analyses, and FERC Part 12D Safety Inspections. Slate personnel include Civil Engineers (PE), Geotechnical Engineers (GE), Professional Geologists (PG), and Certified Engineering Geologists (CEG) registered in the State of California. Slate Principal, and proposed IC for this project, Marc Ryan is also acting as the current Chief Dam Safety Engineer for Yolo County Flood Control & Water Conservation District.

Our staff is comprised of professional engineers, geologists, and seismologists with extensive and varied project experience. Slate's personnel actively participate in research and development of new techniques in the earthquake engineering field, including the publication of numerous journal articles, attendance at major conferences, development of models for use in the National Seismic Hazard Maps and US Building Codes, and leadership in conference and workshop development. Collectively, we have experience solving challenging geotechnical issues for critical water infrastructure, including embankment dam stability and seepage, liquefaction susceptibility of embankment and foundation soils, soft soil conditions, earthquake-induced deformation potential, remediation of sensitive soils, and landsliding.



Founded in 1983, Geosyntec's staff is comprised of over 1,700 engineers, scientists, and other technical and project support personnel in over 80 offices in North America with four in Northern California. Geosyntec's practice innovators develop tailored solutions to respond to unique challenges facing municipal, industrial, and other public and private dam owner/operators. Geosyntec provides FERC Part 12D inspection services, as well as engineering design and design review of new structures and rehabilitation of existing water power generation facilities. They conduct performance assessment of existing structures using state-of-the-art modeling and analytical methodologies to evaluate structural integrity under a variety





of loading conditions. They perform inspection, condition assessment, and analysis of earthen dams and levees, as well for hydraulic structures and other appurtenances. Geosyntec is known for reliable evaluation of the performance of earthen structures during seismic events, as well as for performing hydrologic and hydraulic modeling and engineering for water resources facilities.

Geosyntec also conducts hydropower license amendments and environmental compliance services under FERC regulations to expedite dam rehabilitation and conduct fisheries and water quality investigations and hydrodynamic, water quality, and sediment modeling. They also provide construction management, construction oversight, and comprehensive construction quality assurance (CQA) services using advanced information management systems (IMS).

### **Specialized Experience**

Slate and Geosyntec specialize in geotechnical engineering, engineering geologic investigations, hydrologic studies, and FERC Part 12D inspections for critical dam safety projects. We have performed investigations, analyses, designs, and construction support services for dam systems across Northern California and the US. The following list presents several of our key engineering projects that highlight our relevant experience. Descriptions of many of these projects can be found in the enclosed resumes of our key personnel (Appendix A).

- Slate is designing the Magalia Dam Seismic Retrofit, which has been identified with a significant liquefaction hazard and requires stabilization to protect from large displacements from a future earthquake.
- Slate is currently designing a seepage mitigation repair for Lower Blue Lake Dam, which experienced an adverse through seepage event during maximum reservoir operations.
- Slate is currently preparing the plans and specifications for a seepage collection system for Indian Valley Dam in Yolo County, CA.
- Engineers from Slate developed the plans and specifications and provided construction oversight for the seismic retrofit of Upper Blue Lake Dam.
- Slate engineers have performed the geotechnical investigations and analyses to support the seismic retrofit of Anderson Dam, Calero Dam, Crane Valley Dam, Loma Rica Airport Dam, Upper Peak Dam, Kidd Lake Dam, and Meadow Lakes Dam.
- Slate and Geosyntec worked on the Seismic Fragility Evaluation of Robinson Dam
- Geosyntec engineers served in key roles during the Oroville Spillways Incident, including for the FERC Part 12D and Level 2 Risk Assessment.
- Geosyntec has performed and is currently performing FERC Part 12D inspections for various dams in the northern Sierra-to-Shasta region, including Fuller Lake Dam, Lake Fordyce Dam, Rucker Lake Dam, Bucks Storage Dam, Pit 1 Forebay Dam, McCloud Dam, and Iron Canyon Dam.
- Geosyntec is currently performing design services for the Sites Reservoir Project, as the project lead for the two regulating reservoirs at the center of the project conveyance system.



#### 4.0 PROPOSED SCHEDULE

The final project schedule has not yet been established and will depend on the date we receive a notice to proceed and the selection of proposed dates for the inspection and PFMA review sessions. Based on our understanding of the required submittal dates for the reports to FERC, we have tentatively assumed the following preliminary milestone schedule.

Description	Proposed Dates (2022)
Obtain Notice to Proceed	February 22
Receive Background Information	March 1
Pre-Meeting Conference w/ FERC	Week of March 21-25
Perform Part 12D Inspections (2 to 3 days)	Week of April 18-22 (Alt. Week of May 30-June 3)
PFMA Workshops (5 days)	Week of April 25-29 (Alt. Week of June 6 - 10)
Submit Draft PFMA Reports	August 5
Receive PFMA Report Comments	August 19
Submit Final PFMA Reports	September 2
Submit Draft CSIRs	September 9
Receive CSIR Comments	September 30
Submit Final CSIRs	October 28
Submit Draft STID and DSSMRs	November 18
Receive STID and DSSMR Comments	December 2, 2021
Submit Final STID DSSMRs	December 20, 2021

#### 5.0 LABOR AND COST ESTIMATE

Our estimated cost for performing the scope of services described above is for a not-to-exceed amount of \$388,515, to be billed on a “time and expenses” basis in accordance with our Schedule of Charges (Appendix B). For ongoing work associated with response to FERC requests during 2023 through 2025, we propose a year-over-year increase of 3% from the previous year’s rates. A detailed estimate showing the breakdown of costs by task and labor hours presented in Appendix B. Expenses shown in the breakdown include vehicular travel from our California offices, overnight accommodations, and meals necessary to conduct the on-site inspections (3 days) and PFMA workshops (5 days).



## 6.0 REFERENCES

### Pacific Gas & Electric Company

FERC PART 12D FOR PIT 3, PIT 4, PIT 5, NORTH BATTLE CREEK, AND MACUMBER DAMS

Role: Independent Consultant

- ▶ Robert Ellis, Deputy CDSE
- T: 415-238-0509
- E: Robert.Ellis3@pge.com

### Yolo County Flood Control & Water Conservation District

FERC PART 12D FOR INDIAN VALLEY DAM

Role: Independent Consultant

- ▶ Anthony Lopez, Facilities Supervisor
- T: 530-979-0618
- E: alopez@ycfcwcd.org

### CA Dept. of Water Resources

DIRECTORS SAFETY REVIEW BOARD FOR CASTAIC, CRAFTON HILLS, PERRIS DAMS

Role: Review Board Member

- ▶ Amin Islam, Senior Engineer
- T: 916-661-1973
- E: Amin.Islam@water.ca.gov

## 7.0 CONFLICT OF INTEREST STATEMENT

In its pursuit of providing consulting services with SFWPA under Part 12, Subpart D of the FERC Guidelines for Safety of Water Power Projects and Project Works, Slate and its consultants attest that there exists no personal or company conflict of interest with respect to performing the proposed scope of services for the subject project either directly or indirectly with SFWPA, or its employees.





# **APPENDIX A**

## **RESUMES OF KEY PERSONNEL**

Mr. Ryan's geotechnical engineering experience has specialized in earthquake engineering for dams, nuclear power plants, and hospitals. He has managed and conducted geotechnical investigations and engineering studies for structures and dams around the world. He specializes in the characterization of site-specific design ground motions using probabilistic and deterministic approaches, assessments of geotechnical and geologic hazards for dams and levees (e.g., surface fault rupture, liquefaction and related phenomena, and slope instability and landsliding), and hazard mitigation for new and existing facilities. His practice is geographically diverse and his experience extends throughout California, the United States, as well as worldwide. He has managed studies under the jurisdiction of the OSHPD, California Department of Water Resources – Division of Safety of Dams (DSOD), the Federal Energy Regulatory Commission (FERC), the Nuclear Regulatory Commission, and Swiss Federal Nuclear Safety Inspectorate (ENSI).

## RELEVANT PROJECT EXPERIENCE

### **FERC PART 12D INDEPENDENT CONSULTANT FOR PHILBROOK, ROUND VALLEY, LAKE ALMANOR, BUTT VALLEY, AND BELDEN FOREBAY DAMS**

Confidential Utility Client | Sierra Nevada Foothills, CA

FERC Approved Part 12D Independent Consultant (IC) for Part 12D Safety Inspection and facilitator for Potential Failure Modes Analysis for five earthfill dams located in the Sierra Nevada Mountains of California. Responsibilities included review of previous reports regarding earthquake ground motion, spillway evaluation, slope stability, and inspection of the embankment, outlet tunnel, and spillway. The project includes updating the existing PFMs to include a clear description of the initiators and failure progressions, as well as developing new potential failure modes based on recent evaluations at the site.

### **FERC PART 12D INDEPENDENT CONSULTANT FOR WISE FOREBAY DAM, ROCK CREEK DAM, HALSEY FOREBAY DAM, AND HALSEY AFTERBAY DAM**

Confidential Utility Client | Sierra Nevada Foothills, CA

FERC Approved Part 12D Independent Consultant (IC) for Part 12D Safety Inspection and facilitator for Potential Failure Modes Analysis for three earthfill dams and one composite earthfill/concrete arch dam located in the Sierra Nevada Mountains of California. Responsibilities included review of previous reports regarding earthquake ground motion, spillway evaluation, slope stability, and inspection of the embankment, outlet tunnel, and spillway. The project includes updating the existing PFMs to include a clear description of the initiators and failure progressions, as well as developing new potential failure modes based on recent evaluations at the sites.

### **CHIEF DAM SAFETY ENGINEER FOR INDIAN VALLEY DAM**

Yolo County Flood Control & Water Conservation District | Yolo County, CA

FERC Approved contract Chief Dam Safety Engineer for a 207-foot high zoned earthfill embankment dam. Indian Valley Dam and Reservoir is a multi-purpose irrigation, water supply, and flood control facility owned and operated by Yolo County Flood Control & Water Conservation District. Releases from the dam also generate hydroelectric power under FERC Project 4066-CA. The project is located in Lake County, California, on the North Fork of Cache Creek, approximately 13 miles upstream of the confluence with the main stem of Cache Creek, and approximately 6 miles northeast of the Town of Clearlake. The project is regulated by both FERC and the California Department of Water Resources, Division of Safety of Dams (DSOD). Responsibilities include review and approval of all dam safety surveillance and monitoring data, review and update of emergency action and security plans, and updating and submitting general FERC compliance documentation.

### **FERC PART 12D INDEPENDENT CONSULTANT FOR INDIAN VALLEY DAM**

Yolo County Flood Control & Water Conservation District | Yolo County, CA

FERC Approved Part 12D Independent Consultant (IC) for Part 12D Safety Inspection and facilitator for Potential Failure Modes Analysis for a 207-foot high zoned earthfill embankment dam. The key aspects of the project were the interpretation of data from aging

## REGISTRATIONS

Geotechnical Engineer  
CA | No. GE2732

Professional Engineer  
CA | No. C 59200  
NV | No. CE 21969

## EDUCATION

M.S. | Geotechnical Engineering | 1997  
University of California, Berkeley

B.S. | Civil Engineering | 1995  
Purdue University

## ASSOCIATIONS

United States Society on Dams (USSD)

American Society of Civil Engineers  
(ASCE)

Association of State Dam Safety Officials  
(ASDSO)

Geotechnical Extreme Event  
Reconnaissance (GEER) Association

# MARC J. RYAN, PE, GE

President and Principal Engineer



instruments, the evaluation of the surface fault rupture potential, and deficiencies in the spillway slabs. The PFMA session included a detailed discussion of any potential failure modes within the spillway. Also participating in the Tabletop Emergency Action Plan (EAP) exercise. The exercise included discussion of the potential failure scenarios and coordination among all of the local emergency responders.

## **DIRECTORS SAFETY REVIEW BOARD FOR CASTAIC, CRAFTON HILLS, PERRIS DAMS**

CA Dept. of Water Resources | Los Angeles and San Bernardino Counties, CA

Member of Directors Safety Review Board (DSRB) for the state-mandated periodic safety review of three large earth dams. Castaic Dam is a 340-ft high earth and rockfill dam that is the terminus for the West Branch of the California Aqueduct. Crafton Hills Dam is a 95-ft high zoned earthfill dam that is part of the East Branch extension of the California Aqueduct. As a Board Member of the DSRB, the scope of work includes reviewing the background information for the dams, participating in the inspection of the facilities, participating in the DSRB meetings, and reviewing the draft DSRB summary reports. The inspections include the dams, outlet works, penstocks, tunnels, and spillways, including the spillway drainage gallery at Castaic Dam.

## **FERC PART 12D INDEPENDENT CONSULTANT FOR UPPER BLUE LAKE DAM, UPPER BEAR RIVER DAM, AND LOWER BEAR DAM**

Confidential Utility Client | Sierra Nevada Foothills, CA

FERC Approved Part 12D Independent Consultant (IC) for Part 12D Safety Inspection and Potential Failure Modes Analysis for three earth and rockfill dams located in the Sierra Nevada Mountains of California. Responsibilities included review of previous reports regarding earthquake ground motion, spillway evaluation, slope stability, and inspection of the embankment, outlet tunnel, and spillway. The project includes updating the existing PFMs to include a clear description of the initiators and failure progressions, as well as developing new potential failure modes based on recent evaluations at the sites.

## **FERC PART 12D INDEPENDENT CONSULTANT FOR CAMP FAR WEST DAM**

South Sutter Water District | Placer County, CA

FERC Approved Part 12D Independent Consultant (IC) for Part 12D Safety Inspection and Potential Failure Modes Analysis for earth dam located in the Sierra Nevada Mountains of California. Responsibilities included review of previous reports regarding earthquake ground motion, spillway evaluation, slope stability, and inspection of the embankment, outlet works, and spillway. The project includes updating the existing PFMs to include a clear description of the initiators and failure progressions, as well as developing new potential failure modes based on recent evaluations at the sites.

## **FERC PART 12D INDEPENDENT CONSULTANT FOR JACKSON CREEK DAM**

Jackson Valley Irrigation District | Ione, CA

FERC Approved Part 12D Independent Consultant (IC) for Part 12D Safety Inspection and Potential Failure Modes Analysis for earth dam located in the foothills of the Sierra Nevada Mountains of California. Responsibilities included review of previous reports regarding earthquake ground motion, spillway evaluation, slope stability, and inspection of the embankment, outlet works, and spillway. The project includes updating the existing PFMs to include a clear description of the initiators and failure progressions, as well as developing new potential failure modes based on recent evaluations at the sites.

## **CALERO DAM SEISMIC RETROFIT PROJECT**

Owner: Santa Clara Valley Water District | Prime: HDR | San Jose, CA

Principal in charge for the geotechnical and geologic tasks for the design of the seismic retrofit for Calero Dam. The project includes the construction of a downstream stability buttress, raising the crest of the main and auxiliary dams, and the construction of a new sloping intake and outlet tunnel. Coordinated and oversaw the drilling and rock coring program for the entire project. The investigation included both land-based and over-water drilling using mud rotary and rock coring methods. Extensive downhole geophysics was performed to characterize the rock mass for the design of the new outlet tunnel, buttress foundation excavation, and on-site borrow areas. Oversaw the preparation of the geotechnical data report that will serve as the basis of the design for the project.



**DEREK MORLEY, P.E.**

**dam engineering and design  
dam safety risk analysis and RIDM  
levee engineering and design  
geotechnical and geo-civil design**

## **EDUCATION**

M.S., Geotechnical Engineering, University of California, Berkeley, 1996  
B.S., Civil Engineering, University of California, Berkeley, 1990

## **REGISTRATION**

Professional Engineer (P.E.), California, Number 57796

## **CAREER SUMMARY**

Mr. Morley has 30 years of experience in geo-civil engineering projects and engineering for dams, levees, and other water and power facilities. Mr. Morley's experience includes 7 years at the USACE Sacramento District, where he was Geosciences Branch Chief in the regional Dam Safety Production Center. He led development of the dam safety modification program for the 7-State region, conducted project planning, and served in key technical and management roles for dam planning and modification. Mr. Morley specializes in integrating dam safety principles into design projects, leveraging his experience with USACE risk assessment and risk-informed decision making (RIDM). Mr. Morley also provides portfolio-level consulting to upper Management, in support of forward-looking asset management that anticipates how risk analysis and RIDM will alter infrastructure investment strategies and prudent CIP planning.

## **REPRESENTATIVE PROJECTS**

*Chatuge Dam Spillway Quantitative Risk Assessment, Tennessee Valley Authority, Clay County, North Carolina.* Mr. Morley was geotechnical subject matter expert (SME) for a quantitative risk assessment (QRA) for the Chatuge Dam spillway. The spillway is a long concrete-lined chute with a gated control structure (slide gates). The QRA had been ongoing, and Mr. Morley was retained along with a structural SME to help resolve key issues and risk-driving potential failure modes (PFMs). Principal PFMs were related to potential loss of spillway slabs due to overwhelming of the underdrain system and hydraulic jacking, erosion of spillway slab foundation soils, and internal erosion or concentrated leak erosion through the control structure foundation materials.

***Sites Reservoir Project Regulating Reservoirs, Sites Project Authority, Glenn and Colusa Counties, California.*** Mr. Morley is the project design lead for the two regulating reservoirs that will be constructed to regulate flows between canals, pumping/generating plants, and pipelines for water supply to – and releases from – the Sites Reservoir. One regulating reservoir is an existing on-stream facility that will be modified, and the other regulating reservoir is a new off-stream impoundment. Designs include earthen embankment dams, lined and unlined reservoir impoundments, and spillway and gated control structures.

***Blue Ridge Dam Spillways Quantitative Risk Assessment, Tennessee Valley Authority, Blue Ridge, Georgia.*** Mr. Morley was geotechnical subject matter expert (SME) for a fully quantitative risk assessment (QRA) for the service spillway and emergency spillway. The service spillway is a concrete-lined chute with a gated control structure (Tainter gates), and the emergency spillway has an ungated concrete weir and apron with a broad unlined earth and rock runout downstream of the apron. The QRA included evaluation of numerous potential failure modes (PFMs) for each spillway, with focus on PFMs related to erosion and associated mass wasting, loss of spillway slabs, undercutting of the control structure or weir, and internal erosion or concentrated leak erosion through the control structure foundation materials.

***Huntington Reservoir Dams Stability Assessment, Southern California Edison, Sierra Nevada Mountains, California.*** Mr. Morley was geotechnical lead, responsible lead for stability analyses of three dams (up to 170ft high), each of which is a compound concrete and earth dam, first constructed over 100 years ago and modified multiple times thereafter. Analyses were conducted to support dam safety decisions regarding multiple potential failure modes (PFMs) and preparation of submittals to the Federal Energy Regulatory Commission (FERC). Stability analyses included consideration of hydrologic loading cases, overtopping and embankment erosion cases, and seismic loading cases (including consideration of potential liquefaction impacts).

***Oroville Spillways Emergency Response and Recovery, California Department of Water Resources (DWR), Oroville, California.*** Mr. Morley was senior technical advisor to DWR leadership and to the technical design team during the emergency response and recovery efforts for the Oroville spillway incident. When the spillway incident occurred, DWR requested technical support from USACE. Mr. Morley coordinated the USACE response, deploying and managing technical experts from USACE to assist DWR during the incident, as well as performing site inspection himself. Mr. Morley served as senior advisor directly to the Director of DWR during various stages of the incident. Mr. Morley worked as part of the senior technical team responding to the incident. Mr. Morley also helped formulate design and construction strategy for the recovery effort. During design, Mr. Morley provided technical guidance and review to the design teams for both the FCO Spillway and the Emergency Spillway.



**Al Preston, Ph.D., P.E.**  
**Principal**

**Water resources**  
**Hydrology and Hydraulics modeling**  
**Computational fluid dynamics**  
**Dam breach modeling**

## **EDUCATION**

Ph.D., Mechanical Engineering, California Institute of Technology, Pasadena, CA, 2004

M.S., Civil Engineering, California Institute of Technology, Pasadena, CA, 1997

M.E., Mechanical Engineering, University of Canterbury, Christchurch, New Zealand, 1997

B.E., Civil Engineering, University of Canterbury, Christchurch, New Zealand, 1994

## **REGISTRATIONS AND CERTIFICATIONS**

Professional Engineer, California, License No. 77904

## **CAREER SUMMARY**

Dr. Al Preston is a Principal Engineer with 16 years of experience in hydrology, hydraulics, hydrodynamics, and computational fluid dynamics. He specializes in developing and applying analytical techniques and numerical models to complex water resource problems. Experience includes modeling and analyses of storm channels, rivers, dam breaches, lake and reservoir hydrodynamics and water quality, coastal ocean environments, and groundwater. With a strong technical background in the fundamentals of the underlying physics and fluid dynamics, Dr. Preston first seeks to develop simplified cost-effective “back-of-the-envelope” analyses, before turning to more complex modeling and analyses techniques as dictated by the project needs. Dr. Preston is also leading the Geosyntec role in a multi-national research effort to evaluate internal erosion breach models for embankment dams, and is working collaboratively with US Department of Agriculture, US Army Corps of Engineers, and Reclamation.

## **REPRESENTATIVE PROJECTS**

*Blue Ridge Dam Spillways Quantitative Risk Assessment, Tennessee Valley Authority, Blue Ridge, GA.* Dr. Preston was the hydraulic lead and Subject Matter Expert (SME) for a quantitative risk analysis (QRA) for the Primary and Auxiliary Spillways at Blue Ridge Hydroelectric Plant (BRH). The project further develops analyses performed for previous potential failure mode analyses and semi-quantitative risk analyses. The main objectives of the QRA are to calculate the

annual failure probabilities and downstream consequences for hydrologic failure modes. Dr. Preston led and directed numerical modeling of both spillways, including 2-D HEC-RAS modeling for the auxiliary spillway and 1-D Spillway Pro modeling for the primary spillway. Analyses for the primary spillway included evaluation of cavitation potential and stagnation and uplift pressure calculations to evaluate risks of slab jacking. Analyses for the secondary spillway focused on providing hydraulic output to inform erosion and head-cutting analyses.

***Breach Modeling for Embankment Dam, Confidential Client.*** Managed and directed numerical modeling effort to assess ongoing internal erosion failure within a high hazard embankment dam. Successfully implemented the ‘beta’ version of Windows™ Dam Analysis Modules – Version C (WinDAM C) numerical model, developed by the United States Department of Agriculture. Simulations were performed to evaluate the effects of different pool elevations, different storm inflows, and different dam and spillway operations on the erosional dam failure and resulting downstream hydrograph.

***Overtopping and Breach Analysis, Confidential Client.*** Lead modeling of overtopping for probable maximum flood (PMF) events for two embankment dams using WinDAM C. Adapted dam rating curves (DRC) to enable spillway to be correctly represented in the model. Performed sensitivity analysis to characterize potential risks of erosion failure and dam breach.

***Wave Runup and Overtopping Analysis, Southern California Edison, CA.*** Performed analysis and calculations to estimate wave run-up height and wave overtopping flow rate for flood and storm event for a dam in the Sierra Nevada. Results of analysis were used to assess dam stability risks.

***Long Valley Inundation Modeling, Los Angeles Department of Water and Power, Mono County, CA.*** Led and directed 2D hydraulic modeling of Mammoth/Hot Creeks to evaluate floodplain inundation and conveyance over a range of flow rates. Results were synthesized to illustrate conditions in historical runoff years and used to identify and quantify areas with large return flows where exposure to cattle may have impacts on downstream water quality. The model can be used to evaluate different management strategies, such as additional riparian fencing, exclusion of cattle from specific pastures during wet years, and more efficient diversions of water.

***Real-time Modeling and Warning System, Los Angeles County Public Works, CA.*** Managed project to develop a real-time system to predict flood flows and inundation for the Devils Gate Dam and Arroyo Seco. The model used the HEC-RTS software, that can link real time ALERT rain gages and quantitative precipitation forecasts (QPF), to hydrologic and hydraulic models. HEC-RAS 2D was used to model the Arroyo Seco channel downstream, to enable more realistic representation of superelevation and inundation extents, including modeling of flow being conveyed on portions of the 110 Pasadena Freeway.



Ms. Johnson has performed seismic hazard studies and conducted geotechnical field investigations and geologic reconnaissance for a variety of water and utility infrastructure projects located throughout California, the United States, and abroad. Her project responsibilities have included assessment of earthquake-related geologic hazards (e.g., surface fault rupture, slope stability, liquefaction and related phenomena), characterization of seismic sources, and running computer models to calculate probabilistic ground motions and probabilistic fault rupture hazards. In addition, Ms. Johnson has extensive experience leading subsurface explorations by developing and coordinating field investigation plans, logging and sampling test pits and trenches or the materials from hollow-stem auger, mud-rotary, rock coring, and sonic drilling methods. Her experience with geotechnical and geologic studies includes literature reviews, subsurface investigations, and preparation of project documentation.

## RELEVANT PROJECT EXPERIENCE

### CALERO DAM SEISMIC RETROFIT PROJECT

Owner: Santa Clara Valley Water District | Prime: HDR | San Jose, CA

Geologist for the geotechnical and geologic tasks for the design of the seismic retrofit of Calero Dam. Ms. Johnson coordinated all efforts for the Final Geotechnical Investigation including overseeing the subsurface drilling and coring, test pits, geophysics data acquisition, piezometer development, and laboratory testing. The retrofit includes a downstream stability buttress, raising the crest of the main and auxiliary dams, and a new intake and outlet tunnel. The geotechnical investigation included both land-based and over-water drilling using mud rotary and rock coring methods, with over 2,000 linear feet of exploration completed to characterize relatively thin surficial soils and Franciscan Complex bedrock (interbedded and intercalated sandstone, shale, siltstone, chert, and volcanic rocks). Extensive downhole geophysics was performed to characterize the rock mass for the design of the new outlet tunnel, buttress foundation excavation, and on-site borrow areas. Key personnel in preparing the geotechnical data report that served as the basis of the design for the project and responding to comments on the data report from owners and Division of Safety of Dams.

### SEISMIC SAFETY STABILITY EVALUATION OF ANDERSON DAM

Santa Clara Valley Water District | Santa Clara County, CA

Geologist responsible for leading the geotechnical drilling task as part of a seismic stability investigation for an existing dam. Work performed included drilling, sampling, and logging 24 borings using sonic drilling methods partnered with mud-rotary drilling methods. Supervised 18 borings drilled on the downstream face of the dam, and 6 borings drilled on the upstream face of the dam. Borings drilled on the upstream face of the embankment were completed using a track-mounted sonic drill rig on a barge. Worked closely with the client, contractors, and governing agencies (Federal Energy Regulatory Commission, California Division of Safety of Dams) while on site during the investigation, as well as during the interpretation of findings.

### SEISMIC STABILITY STUDY FOR B.F. SISK (SAN LUIS DAM)

State of California Department of Water Resources (DWR) | Merced County, CA

Provided project support for a large exploration trench excavated in the downstream toe of the dam as part of DWR's review of seismic stability for B.F. Sisk Dam. The trench was approximately 25 feet deep with 4- to 5-foot-tall benches, and was excavated in a "T" formation, with the longest portion of the trench wall extending over 200 feet. Tasks included working closely with DWR, U.S. Bureau of Reclamation (USBR), and other consulting geologists and engineers to log and characterize the materials underlying the toe of the dam. Principle responsibilities included assisting with cleaning and flagging stratigraphic units within the wall of the trench, and assisting with creating the first draft of the log for the entire trench.

### CRANE VALLEY DAM SEISMIC EVALUATION

Confidential Utility Client | Madera County, CA

Geologist responsible for leading a field investigation task to collect information on the thickness, extent, and geotechnical properties of soft lake-bed sediments accumulated on the upstream side of the dam. Work performed included drilling, sampling, and logging 10 borings using rotary-wash drilling methods from a barge over the upstream side of the dam. Worked closely with governing agencies (California Division of Safety of Dams, Federal Energy Regulatory Commission) to log and interpret materials. Coordinated and worked

## REGISTRATIONS

Certified Engineering Geologist  
CA | No. 2721

Professional Geologist  
CA | No. 8778

## EDUCATION

M.S. | Geosciences | 2006  
Pennsylvania State University, State  
College, PA

B.S. | Geosciences | 2004  
Pacific Lutheran University, Tacoma, WA

## ASSOCIATIONS

Association of Environmental and  
Engineering Geologists (AEG)

Association for Women Geoscientists  
(AWG)



# COURTNEY B. JOHNSON, PG, CEG

Principal Geologist



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closely with owner's inspector to conduct the drilling activities in a safe and efficient manner. The field activities required mobilization of the drilling barge around and through culturally sensitive areas, which required close coordination with anthropologists. Further responsibilities included the completion and submission of documentation and reporting of results from the geotechnical investigation.

## **PENSTOCK INSPECTION PROGRAM**

**Confidential Utility Client | Placer County, California**

Geologist and principal in charge for hazard walkdown inspections of six penstocks in Placer County. Participated as part of the inspection team that included a Certified Engineering Geologist and Civil Engineer, to conduct helicopter flyover and walkdown inspections with the goal of identifying new or changed conditions that could affect penstock performance. Following the inspections, led multiple presentations and discussions regarding the identified hazards and potential risks to the penstocks. Developed reports for each inspected penstock, summarizing previous inspections, updated and new findings, and outlining recommendations for mitigation actions to be considered by the owner.

## **LAKE VALLEY DAM LOWER LEVEL OUTLET (LLO)**

**Confidential Utility Client | Placer County, CA**

Provided geologic support for the preparation of an alternatives analysis to evaluate measures to repair or replace the existing LLO and reduce the potential for the LLO chamber to become pressurized behind an existing bulkhead door. Responsibilities included performing an informal tunnel inspection and conducting discontinuity mapping of the over 200-ft long LLO bedrock tunnel to identify locations of potential pressurized failure or major seepage. Conducted discontinuity mapping of the ground surface overlying the LLO tunnel to identify pervasive jointing directions for correlation with tunnel mapping.

## **TUNNEL INSPECTIONS FOR NORTHERN CALIFORNIA UTILITY**

**Confidential Utility Client | Various Locations in CA**

Participated in inspection teams for pressurized and non-pressurized water conveyance tunnels. Each team conducted data review and compilation of results from past inspections and repairs, then conducted an inspection of existing conditions. Following the inspection, reports were prepared to describe the findings of the data review, inspection, and to provide recommendations for monitoring, maintenance, repair, and further evaluation. Participated on four teams conducting inspections for about 30 tunnels ranging in length from several hundred feet to over two miles.

## **PIT 1 POWERHOUSE TAILRACE ASSESSMENT AND REPAIRS**

**Confidential Utility Client | Shasta County, CA**

Geologist for the evaluation and design of repairs to the 400-foot-long concrete tailrace for the powerhouse, including the foundations for a vehicle bridge over the tailrace, which had undergone significant erosion of the subgrade due to piping, leading to extensive voids and distress to the structure. Participated as a key member of the condition assessment team during a scheduled outage, with specific responsibilities to map and log areas of damage and assess potential voids underlying the tailrace concrete and adjacent structures. Responsible for developing report figures and maps showing type, grade, and extent of observed conditions and contributed to the report outlining findings and recommendations for repairs. The repairs were performed during an emergency outage, and included removing damaged sections of concrete, excavating unstable subgrade soils and replacing them with slurry, filling voids with gravel or slurry, constructing a new concrete invert slab and new walkway slabs with drainage elements to minimize piping, and improvements to surface drainage outside of the tailrace.

## **SAFETY REVIEW OF BRIONES DAM**

**East Bay Municipal Utility District | Contra Costa County, CA**

Provided geotechnical field support, including digging, cleaning, and logging four trench walls and surveying the locations of the trench walls and nearby hillside geomorphic features. Two trenches were excavated, sampled, and logged to assess the potential location and displacement of the Briones fault near the dam. One trench was a nearby re-excavation of a previous trench where observed offset features had been identified. The new and redone trenches and additional hillside mapping results indicated that a buried landslide scarp had previously been interpreted as a potential fault. Worked closely with the lead geologist in the field during the duration of the project, including on-site discussions and presentation of findings with the client and regulatory agencies.

Mr. Phalen is a Geotechnical Engineer with over 19 years of professional consulting experience managing and executing engineering projects for owners of dams and other sensitive facilities. His engineering experience has primarily focused on performance assessments of large earth dams and levee systems, particularly those with high liquefaction susceptibility during strong ground shaking. His areas of expertise include geotechnical subsurface investigations, seismic response analyses, slope stability analyses and general earthquake engineering of earth structures. His responsibilities have included coordinating, managing, and performing subsurface explorations using standard penetration test (SPT), cone penetration test (CPT), and trenching methods; construction monitoring, identifying and analyzing potential hazards associated with earthquake-induced liquefaction, including slope instability, differential settlement, and lateral spreading; identifying and analyzing potential hazards associated with long-term settlement of soft, compressible soils; developing computer models to predict slope stability and seismic deformation potential; and preparing reports reviewable by State and Federal agencies. He has participated as a core team member and/or subject matter expert on several FERC Part 12D Inspections. In addition, he has extensive experience with the following analytical software: SLOPE/W, SEEP/W, DEEPSOIL, UTEXAS4, QUAD4M, SHAKE, FEADAM, FLAC2D, CLARA3D. Mr. Phalen's responsibilities as a Principal Engineer include quality control, interaction with regulators, and providing technical oversight to all aspects of project delivery.

## REGISTRATIONS

Geotechnical Engineer  
CA | No. GE2912

Professional Engineer  
CA | No. C 68400

## EDUCATION

M.S. | Geotechnical Engineering | 2003  
University of California, Davis

B.S. | Civil & Env. Engineering | 2001  
California Polytechnic State University,  
San Luis Obispo

## ASSOCIATIONS

Association of State Dam Safety Officials  
(ASDSO)

United States Society on Dams (USSD)

## RELEVANT PROJECT EXPERIENCE

### **FERC PART 12D INSPECTION FOR PHILBROOK, ROUND VALLEY, LAKE ALMANOR, BUTT VALLEY, AND BELDEN FOREBAY DAMS**

Confidential Utility Client | Sierra Nevada Foothills, CA

Core team member and subject matter expert (SME) for Part 12D Safety Inspection and Potential Failure Modes Analysis for five earthfill dams located in the Sierra Nevada Mountains of California. Activities included review of previous reports regarding earthquake ground motion, spillway evaluation, and slope stability, participation in the PFMA workshop as an SME and Recorder, and preparation of the PFMA and Safety Inspection Reports. The project included updating the existing PFMs to include a clear description of the initiators and failure progressions, as well as developing new potential failure modes based on recent evaluations at the sites.

### **FERC PART 12D INSPECTION FOR COURTRIGHT AND WISHON DAMS**

Confidential Utility Client | Sierra Nevada Foothills, CA

Core team member for Part 12D Safety Inspection and Potential Failure Modes Analysis for two rockfill dams located in the Sierra Nevada Mountains of California. Activities included review of previous analytical reports, safety inspections of the dam facilities, participation in the PFMA workshop as Recorder, revision of Supporting Technical Information Documents (STIDs), and preparation of PFMA and Safety Inspection Reports.

### **FERC PART 12D INSPECTION FOR LYONS, MAIN STRAWBERRY, RELIEF, AND STANISLAUS FOREBAY DAMS**

Confidential Utility Client | Sierra Nevada Foothills, CA

Core team member for Part 12D Safety Inspection and Potential Failure Modes Analysis for one concrete arch, one earthfill, and two rockfill dams located in the Sierra Nevada Mountains of California. Activities included review of previous analytical reports, safety inspections of the dam facilities, participation in the PFMA workshop as Recorder, revision of Supporting Technical Information Documents (STIDs), and preparation of PFMA and Safety Inspection Reports.

### **UPPER BLUE LAKE DAM SLOPE STABILITY ANALYSIS AND RETROFIT DESIGN**

Confidential Utility Client | Alpine County, CA

Project Lead for a liquefaction and seismic slope stability evaluation of a 31-foot high, 790-foot long embankment dam and subsequent retrofit design. The work was developed to respond to the Federal Energy Regulatory Commission's (FERC) request to impart an interim reservoir elevation restriction due to a suspected seismic deficiency in the dam. The scope of the analysis included performing a sensitivity analysis of the phreatic conditions within the embankment and foundation soils on the seismic deformation potential of the

# JUSTIN PHALEN, PE, GE (CA)

Principal Geotechnical Engineer



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dam. Responsible for directing and overseeing the stability assessments, design-level calculations and evaluations, and preparation of Approved for Construction design documents and reports.

## **LOWER BLUE LAKE DAM STABILITY ANALYSIS**

**Confidential Utility Client | Alpine County, CA**

Project Manager for a seismic stability and deformation analysis of a 40-foot high embankment dam constructed in 1874. The analysis included updating the FERC Part 12D stability analysis of record and performing a sensitivity analysis of the stability of the dam to phreatic surface level and shear strength of the earthfill and rockfill zones for the purposes of establishing new threshold/action levels above historic maximum piezometer readings. Responsible for directing and overseeing the stability evaluations and preparing a summary report of the study's conclusions and recommendations.

## **LOWER BLUE LAKE DAM RETROFIT DESIGN**

**Confidential Utility Client | Alpine County, CA**

Project Lead for the preliminary engineering and design phases of a retrofit to a 40-foot high embankment dam with a history of through seepage issues. The project includes developing several retrofit alternatives for mitigating the poor seepage condition, performing comparative analysis and selection of the preferred alternatives, developing design criteria, providing cost estimates and schedules, and delivering Approved for Construction plans and specifications to the client. Responsible for executing the development of various deliverables, interfacing with subconsultants and client regarding progress and schedule, and managing scope and budget. Project is planned for construction in 2023.

## **SEISMIC SAFETY STABILITY EVALUATION OF LEROY ANDERSON DAM**

**Santa Clara Valley Water District | Santa Clara County, CA**

Task Manager for the evaluation of the seismic safety of Anderson Dam in Santa Clara, California. Specific responsibilities included updating the ground motions anticipated for the site and performing state-of-practice seismic deformation potential procedures accepted by the State of California Division of Safety of Dams and the Federal Energy Regulatory Commission (FERC). The liquefaction susceptibility of the embankment and foundation soils was evaluated using construction records, laboratory testing, and current published relationships with in-situ density measurements. The analysis used two-dimensional finite element analyses to evaluate the dynamic response of the embankment and used Becker hammer penetration test results to evaluate the cyclic resistance of the potentially liquefiable embankment and foundation soils. Analyses indicated that both the upstream and downstream slopes of the dam would become unstable and would likely experience significant deformation during and after the design earthquake events. Conceptual designs were developed for measures intended to improve the performance of the dam, which required performing three-dimensional stability analyses to optimize the size of the potential remedial designs. Conceptual remedial design alternatives for the embankment and outlet pipe were developed based on the results of the seismic stability and fault rupture evaluations.

## **GUADALUPE DAM SEISMIC STABILITY ASSESSMENT**

**Santa Clara Valley Water District | San Jose, CA**

Project Manager and lead analyst for a study to evaluate the seismic safety of Guadalupe Dam in Santa Clara County. Specific responsibilities included managing and performing subsurface investigations, both on land and offshore, to characterize the embankment and foundation material, and performing a seismic stability and deformation analysis of the maximum height section of the dam. The subsurface investigation included eight rotary wash borings through the embankment and foundation materials and installation of vibrating wire piezometers. The liquefaction susceptibility of the embankment and foundation material was carefully investigated as assessed from SPT and laboratory test data. The stability evaluations included two-dimensional dynamic response and deformation analyses, as well as nonlinear, finite difference (FLAC) analyses.

## **MILL POND DAM SEISMIC RETROFIT DESIGN**

**Georgia-Pacific Companies | Fort Bragg, CA**

Project Manager and Engineer of Record for the design of a seismic retrofit of a 34-foot high earthfill embankment dam on the California coast. The dam was identified as having a significant liquefaction hazard potential in both the embankment fill and foundation soils. The design includes soil improvement of the foundation soils using cement deep soil mixing techniques, an outboard rockfill slope protection buttress, and a cutoff wall to structurally divide the reservoir/pond into two smaller ponds that will allow the facility to be removed from California DSOD jurisdiction. Responsible for the design, calculations supporting design, and drawing submittals for DSOD review.



## **APPENDIX B**

### **SCHEDULE OF CHARGES, WORK BREAKDOWN STRUCTURE AND COST ESTIMATE**



**SCHEDULE OF CHARGES**  
**South Feather Water & Power Agency**  
**FERC Part 12D Independent Consultant Services**  
**Effective January 1, 2022**

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**PERSONNEL**

Personnel charges are for project related work spent in the interest of the client including calculations, analyses, teleconferences, preparation of reports and correspondence, travel to/from meetings and job sites, and on-site tasks. Personnel category per-hour charge rates are as follows:

Principal Engineer/Geologist/Seismologist	\$280/hr
Associate Principal Engineer/Geologist	\$250/hr
Senior II Engineer/Geologist	\$230/hr
Senior I Engineer/Geologist	\$200/hr
Project II Engineer/Geologist	\$190/hr
Project I Engineer/Geologist	\$170/hr
Staff II Engineer/Geologist	\$155/hr
Staff I Engineer/Geologist	\$145/hr
Administrative Support	\$110/hr
Expert Witness Services	\$500/hr

**TRAVEL/REIMBURSABLES**

All mileage to/from project sites will be charged consistent with the federal mileage reimbursement rate. All reimbursable costs such as airfare, hotels and car rentals will be charged at cost plus five percent (5%). Meals will be covered on a per diem basis following the rates defined by the U.S. General Services Administration.

**OUTSIDE SERVICES**

Outside services will be charged at cost plus five percent (5%). Common outside items to which this 1.05 multiplier applies include, but are not limited to, outside consultants, drilling services, laboratory testing, equipment rental, printing and photographic work, and special insurance.



**WORK BREAKDOWN STRUCTURE AND COST ESTIMATE**  
 Part 12D Independent Consultant Services  
 South Fork Power Project - FERC Project No. 2088

Task	Slate Geotechnical Consultants									Geosyntec Consultants						Markup 5%	TOTAL COST	
	Principal Eng IC		Principal Eng/Geol SMEs		Project Engineer Recorder		Subtotal Labor		Expenses	Principal Eng IC		Assoc Engineer SMEs		Subtotal Labor				Expenses
	Rate:	\$ 280	Rate:	\$ 280	Rate:	\$ 190	Hours	Cost		Rate:	\$ 280	Rate:	\$ 190	Hours	Cost			
	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost				
<b>1 Project Management</b>	<b>28</b>	<b>\$ 7,840</b>	<b>2</b>	<b>\$ 560</b>	<b>0</b>	<b>\$ -</b>	<b>30</b>	<b>\$ 8,400</b>	<b>\$ -</b>	<b>12</b>	<b>\$ 3,360</b>	<b>0</b>	<b>\$ -</b>	<b>12</b>	<b>\$ 3,360</b>	<b>\$ -</b>	<b>\$ 168</b>	<b>\$ 11,928</b>
Subtask 1.1 Project Controls	8	\$ 2,240		\$ -		\$ -	8	\$ 2,240	\$ -		\$ -		\$ -	0	\$ -	\$ -	\$ -	\$ 2,240
Subtask 1.2 Project Reporting	8	\$ 2,240		\$ -		\$ -	8	\$ 2,240	\$ -	4	\$ 1,120		\$ -	4	\$ 1,120	\$ -	\$ 56	\$ 3,416
Subtask 1.3 Project Meetings	12	\$ 3,360	2	\$ 560		\$ -	14	\$ 3,920	\$ -	8	\$ 2,240		\$ -	8	\$ 2,240	\$ -	\$ 112	\$ 6,272
<b>2 Review of Existing Information</b>	<b>40</b>	<b>\$ 11,200</b>	<b>4</b>	<b>\$ 1,120</b>	<b>60</b>	<b>\$ 11,400</b>	<b>104</b>	<b>\$ 23,720</b>	<b>\$ -</b>	<b>40</b>	<b>\$ 11,200</b>	<b>4</b>	<b>\$ 760</b>	<b>44</b>	<b>\$ 11,960</b>	<b>\$ -</b>	<b>\$ 598</b>	<b>\$ 36,278</b>
Subtask 2.1 Potential Failure Mode Review	8	\$ 2,240		\$ -	12	\$ 2,280	20	\$ 4,520	\$ -	8	\$ 2,240		\$ -	8	\$ 2,240	\$ -	\$ 112	\$ 6,872
Subtask 2.2 DSSMP Review	12	\$ 3,360		\$ -	16	\$ 3,040	28	\$ 6,400	\$ -	12	\$ 3,360		\$ -	12	\$ 3,360	\$ -	\$ 168	\$ 9,928
Subtask 2.3 Inspection Preparation Data Review	8	\$ 2,240		\$ -	12	\$ 2,280	20	\$ 4,520	\$ -	8	\$ 2,240		\$ -	8	\$ 2,240	\$ -	\$ 112	\$ 6,872
Subtask 2.4 ODSP/Operational Maintenance Review	2	\$ 560		\$ -	4	\$ 760	6	\$ 1,320	\$ -	2	\$ 560		\$ -	2	\$ 560	\$ -	\$ 28	\$ 1,908
Subtask 2.5 STID Review	10	\$ 2,800	4	\$ 1,120	16	\$ 3,040	30	\$ 6,960	\$ -	10	\$ 2,800	4	\$ 760	14	\$ 3,560	\$ -	\$ 178	\$ 10,698
<b>3 2022 Consultant Safety Inspections</b>	<b>42</b>	<b>\$ 11,760</b>	<b>0</b>	<b>\$ -</b>	<b>44</b>	<b>\$ 8,360</b>	<b>86</b>	<b>\$ 20,120</b>	<b>\$ 1,913</b>	<b>42</b>	<b>\$ 11,760</b>	<b>0</b>	<b>\$ -</b>	<b>42</b>	<b>\$ 11,760</b>	<b>\$ 933</b>	<b>\$ 635</b>	<b>\$ 35,456</b>
Prepare for Safety Inspections	2	\$ 560		\$ -	4	\$ 760	6	\$ 1,320	\$ -	2	\$ 560		\$ -	2	\$ 560	\$ -	\$ 28	\$ 1,908
Conduct Pre-Inspection Meeting	4	\$ 1,120		\$ -	4	\$ 760	8	\$ 1,880	\$ -	4	\$ 1,120		\$ -	4	\$ 1,120	\$ -	\$ 56	\$ 3,056
Conduct Safety Inspections	36	\$ 10,080		\$ -	36	\$ 6,840	72	\$ 16,920	\$ 1,913	36	\$ 10,080		\$ -	36	\$ 10,080	\$ 933	\$ 551	\$ 30,492
<b>4 2022 Consultant Safety Inspection Reports</b>	<b>100</b>	<b>\$ 28,000</b>	<b>4</b>	<b>\$ 1,120</b>	<b>220</b>	<b>\$ 41,800</b>	<b>324</b>	<b>\$ 70,920</b>	<b>\$ -</b>	<b>100</b>	<b>\$ 28,000</b>	<b>8</b>	<b>\$ 1,520</b>	<b>108</b>	<b>\$ 29,520</b>	<b>\$ -</b>	<b>\$ 1,476</b>	<b>\$ 101,916</b>
Prepare DRAFT CSIRs	80	\$ 22,400	4	\$ 1,120	160	\$ 30,400	244	\$ 53,920	\$ -	80	\$ 22,400	8	\$ 1,520	88	\$ 23,920	\$ -	\$ 1,196	\$ 79,036
Prepare FINAL CSIRs	20	\$ 5,600		\$ -	60	\$ 11,400	80	\$ 17,000	\$ -	20	\$ 5,600		\$ -	20	\$ 5,600	\$ -	\$ 280	\$ 22,880
<b>5 Potential Failure Modes Reports</b>	<b>128</b>	<b>\$ 35,840</b>	<b>0</b>	<b>\$ -</b>	<b>302</b>	<b>\$ 57,380</b>	<b>430</b>	<b>\$ 93,220</b>	<b>\$ 2,757</b>	<b>128</b>	<b>\$ 35,840</b>	<b>0</b>	<b>\$ -</b>	<b>128</b>	<b>\$ 35,840</b>	<b>\$ 1,414</b>	<b>\$ 1,863</b>	<b>\$ 135,232</b>
Prepare for PFMA Workshop	10	\$ 2,800		\$ -	48	\$ 9,120	58	\$ 11,920	\$ -	10	\$ 2,800		\$ -	10	\$ 2,800	\$ -	\$ 140	\$ 14,860
Meetings with SFWPA Prior to PFMA Workshop	4	\$ 1,120		\$ -	4	\$ 760	8	\$ 1,880	\$ -	4	\$ 1,120		\$ -	4	\$ 1,120	\$ -	\$ 56	\$ 3,056
Conduct PFMA Workshop	50	\$ 14,000		\$ -	50	\$ 9,500	100	\$ 23,500	\$ 2,757	50	\$ 14,000		\$ -	50	\$ 14,000	\$ 1,414	\$ 771	\$ 42,580
Prepare DRAFT PFMA Reports	50	\$ 14,000		\$ -	180	\$ 34,200	230	\$ 48,200	\$ -	50	\$ 14,000		\$ -	50	\$ 14,000	\$ -	\$ 700	\$ 62,900
Meetings with SFWPA Regarding Draft PFMA Reports	4	\$ 1,120		\$ -		\$ -	4	\$ 1,120	\$ -	4	\$ 1,120		\$ -	4	\$ 1,120	\$ -	\$ 56	\$ 2,296
Prepare FINAL PFMA Reports	10	\$ 2,800		\$ -	20	\$ 3,800	30	\$ 6,600	\$ -	10	\$ 2,800		\$ -	10	\$ 2,800	\$ -	\$ 140	\$ 9,540
<b>6 Update STIDs</b>	<b>14</b>	<b>\$ 3,920</b>	<b>4</b>	<b>\$ 1,120</b>	<b>40</b>	<b>\$ 7,600</b>	<b>58</b>	<b>\$ 12,640</b>	<b>\$ -</b>	<b>14</b>	<b>\$ 3,920</b>	<b>0</b>	<b>\$ -</b>	<b>14</b>	<b>\$ 3,920</b>	<b>\$ 500</b>	<b>\$ 221</b>	<b>\$ 17,281</b>
Review Existing STIDs	4	\$ 1,120	2	\$ 560	16	\$ 3,040	22	\$ 4,720	\$ -	4	\$ 1,120		\$ -	4	\$ 1,120	\$ 250	\$ 69	\$ 6,159
Update STIDs	10	\$ 2,800	2	\$ 560	24	\$ 4,560	36	\$ 7,920	\$ -	10	\$ 2,800		\$ -	10	\$ 2,800	\$ 250	\$ 153	\$ 11,123
<b>7 Prepare 2022 DSSMRs</b>	<b>24</b>	<b>\$ 6,720</b>	<b>0</b>	<b>\$ -</b>	<b>80</b>	<b>\$ 15,200</b>	<b>104</b>	<b>\$ 21,920</b>	<b>\$ -</b>	<b>24</b>	<b>\$ 6,720</b>	<b>0</b>	<b>\$ -</b>	<b>24</b>	<b>\$ 6,720</b>	<b>\$ -</b>	<b>\$ 336</b>	<b>\$ 28,976</b>
Prepare DRAFT DSSMRs	16	\$ 4,480		\$ -	60	\$ 11,400	76	\$ 15,880	\$ -	16	\$ 4,480		\$ -	16	\$ 4,480	\$ -	\$ 224	\$ 20,584
Prepare FINAL DSSMRs	8	\$ 2,240		\$ -	20	\$ 3,800	28	\$ 6,040	\$ -	8	\$ 2,240		\$ -	8	\$ 2,240	\$ -	\$ 112	\$ 8,392
<b>8 Deliverables</b>	<b>12</b>	<b>\$ 3,360</b>	<b>0</b>	<b>\$ -</b>	<b>24</b>	<b>\$ 4,560</b>	<b>36</b>	<b>\$ 7,920</b>	<b>\$ -</b>	<b>12</b>	<b>\$ 3,360</b>	<b>0</b>	<b>\$ -</b>	<b>12</b>	<b>\$ 3,360</b>	<b>\$ -</b>	<b>\$ 168</b>	<b>\$ 11,448</b>
Conduct Part 12D Inspections	2	\$ 560		\$ -	4	\$ 760	6	\$ 1,320	\$ -	2	\$ 560		\$ -	2	\$ 560	\$ -	\$ 28	\$ 1,908
Submit Part 12D Inspection Reports	2	\$ 560		\$ -	4	\$ 760	6	\$ 1,320	\$ -	2	\$ 560		\$ -	2	\$ 560	\$ -	\$ 28	\$ 1,908
Conduct PFMA Workshops	2	\$ 560		\$ -	4	\$ 760	6	\$ 1,320	\$ -	2	\$ 560		\$ -	2	\$ 560	\$ -	\$ 28	\$ 1,908
Update STIDs	2	\$ 560		\$ -	4	\$ 760	6	\$ 1,320	\$ -	2	\$ 560		\$ -	2	\$ 560	\$ -	\$ 28	\$ 1,908
Update DSSMRs	2	\$ 560		\$ -	4	\$ 760	6	\$ 1,320	\$ -	2	\$ 560		\$ -	2	\$ 560	\$ -	\$ 28	\$ 1,908
Respond to FERC Comments	2	\$ 560		\$ -	4	\$ 760	6	\$ 1,320	\$ -	2	\$ 560		\$ -	2	\$ 560	\$ -	\$ 28	\$ 1,908
<b>9 Continuing Services</b>	<b>0</b>	<b>\$ -</b>	<b>0</b>	<b>\$ -</b>	<b>0</b>	<b>\$ -</b>	<b>0</b>	<b>\$ 10,000</b>	<b>\$ -</b>	<b>0</b>	<b>\$ -</b>	<b>0</b>	<b>\$ -</b>	<b>0</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 10,000</b>
Ongoing Services through 2027		\$ -		\$ -		\$ -	0	\$ 10,000	\$ -		\$ -		\$ -	0	\$ -	\$ -	\$ -	\$ 10,000
<b>TOTAL</b>	<b>388</b>	<b>\$ 108,640</b>	<b>14</b>	<b>\$ 3,920</b>	<b>770</b>	<b>\$ 146,300</b>	<b>1172</b>	<b>\$ 268,860</b>	<b>\$ 4,670</b>	<b>372</b>	<b>\$ 104,160</b>	<b>12</b>	<b>\$ 2,280</b>	<b>384</b>	<b>\$ 106,440</b>	<b>\$ 2,847</b>	<b>\$ 5,464</b>	<b>\$ 388,515</b>



## ***SOUTH FEATHER WATER & POWER AGENCY***

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**TO:** Board of Directors

**FROM:** Steve Wong, Finance Division Manager

**DATE:** February 8, 2022

**RE:** CalPERS Resolution Fixing Employer's Contribution for Health Care  
2/22/22 Board of Directors Meeting

Health insurance for employees is provided through the CalPERS Health Benefit Plans. The Memoranda of Understanding with all employee groups states that "The Agency will contribute to the health benefit plan premium for each employee and their eligible dependents an amount equal to the average of the premiums of all the PERS plans available and applicable. . . excluding the plan with the lowest premium and the plan with the highest premium – in any given year."

CalPERS regulations require adoption of a specific maximum employer contribution amount by the Agency by Resolution. Adoption of Resolution 22-02-01 will align the Agency's agreement with CalPERS and the Agency's agreements with its employees. The General Manager, Power Division Manager and Finance Division Manager are employed under individual contracts, separate from the Agency bargaining units, therefore a separate, specific resolution is required by CalPERS. Adoption of Resolution 22-02-02 will align the maximum employer health insurance contribution for the General Manager, Power Division Manager and the Finance Division Manager with all other Agency's employees.

The recommended form of actions are:

**"I move approval of Resolution 22-02-01, "RESOLUTION FIXING THE EMPLOYER'S CONTRIBUTION UNDER THE PUBLIC EMPLOYEES' MEDICAL AND HOSPITAL CARE ACT".**

**"I move approval of Resolution 20-02-02, "ELECTING TO BE SUBJECT TO THE PUBLIC EMPLOYEES' MEDICAL AND HOSPITAL CARE ACT AT AN EQUAL AMOUNT FOR EMPLOYEES AND ANNUITANTS WITH RESPECT TO A RECOGNIZED EMPLOYEE ORGANIZATION".**

**RESOLUTION No. 22-02-01**

**South Feather Water and Power Agency**

**RESOLUTION FIXING THE EMPLOYER'S CONTRIBUTION UNDER THE  
PUBLIC EMPLOYEES' MEDICAL AND HOSPITAL CARE ACT**

- WHEREAS (1) Government Code Section 22892(a) provides that a local agency contracting under the Public Employees' Medical and Hospital Care Act shall fix the amount of the employer's contribution at an amount not less than the amount required under Section 22892(b) of the Act, and
- WHEREAS, (2) South Feather Water and Power Agency, hereinafter referred to as Public Agency is local agency contracting under the Act for participation by members of its four bargaining units – the Management and Professional Employees Association Unit, the Clerical and Support Employees Unit, the Water Treatment and Distribution Employees Unit, and the Hydropower Generation Employees Unit – and the General Manager, Power Division Manager and the Finance Division Manager, now, therefore be it
- RESOLVED, (a) That the employer's contribution for each employee or annuitant shall be the amount necessary to pay the full cost of his/her enrollment, including the enrollment of his/her family members in a health benefits plan up to a maximum of \$2,824.93 per month, plus administrative fees and Contingency Reserve Fund Assessments; and be it further
- RESOLVED, (b) That South Feather Water and Power Agency has fully complied with any and all applicable provisions of Government Code Section 7507 in electing the benefits set forth above.



Adopted at a regular meeting of the Board of Directors of the South Feather Water and Power Agency at 2:00PM this 22nd day of February, 2022.

Signed: \_\_\_\_\_  
Tod Hickman, President

Attest: \_\_\_\_\_  
Rath Moseley, Secretary

**RESOLUTION No. 22-02-2**

**ELECTING TO BE SUBJECT TO THE PUBLIC EMPLOYEES' MEDICAL AND HOSPITAL CARE ACT AT AN EQUAL AMOUNT FOR EMPLOYEES AND ANNUITANTS WITH RESPECT TO A RECOGNIZED EMPLOYEE ORGANIZATION**

- WHEREAS, (1) A contracting agency meeting the eligibility requirements set forth in Government Code Section 22920, may obtain health benefit plan(s), as defined under Government Code Section 22777, by submitting a resolution to the Board of Administration of the California Public Employees' Retirement System (the "Board"), and upon approval of such resolution by the Board, become subject to the Public Employees' Medical and Hospital Care Act (the "Act"); and
- WHEREAS, (2) South Feather Water and Power Agency is a contracting agency eligible to be subject to the Act under Government Code Section 22920; and
- WHEREAS, (3) Government Code Section 22892(a) provides that a contracting agency subject to Act shall fix the amount of the employer contribution by resolution; and
- WHEREAS, (4) Government Code Section 22892(b) provides that the employer contribution shall be an equal amount for both employees and annuitants, but may not be less than the amount prescribed by Section 22892(b) of the Act; and
- WHEREAS, (5) South Feather Water and Power Agency desires to obtain for its General Manager, Power Division Manager and Finance Division Manager the benefit of the Act and to accept the liabilities and obligations of an employer under the Act; now, therefore, be it
- RESOLVED, (a) South Feather Water and Power Agency elects to be subject to the provisions of the Act; and be it further
- RESOLVED, (b) That the employer contribution for each employee or annuitant shall be the amount necessary to pay the full cost of his/her enrollment, including the enrollment of family members, in a health benefits plan up to a maximum of \$2,824.93 per month, plus administrative fees and Contingency Reserve Fund Assessments; and be it further

- RESOLVED, (c) South Feather Water and Power Agency has fully complied with any and all applicable provisions of Government Code Section 7507 in electing the benefits set forth above; and be it further
- RESOLVED, (d) That the participation of the employees and annuitants of South Feather Water and Power Agency shall be subject to determination of its status as an “agency or instrumentality of the state or political subdivision of a State” that is eligible to participate in a governmental plan within the meaning of Section 414(d) of the Internal Revenue Code, upon publication of final Regulations pursuant to such Section. If it is determined that the South Feather Water and Power Agency would not qualify as an agency or instrumentality of the state or political subdivision of a State under such final Regulations, CalPERS may be obligated, and reserves the right to terminate the health coverage of all participants of the employer.
- RESOLVED, (e) That the executive body appoint and direct, and it does hereby appoint and direct, General Manager Rath Moseley to file with the Board a verified copy of this resolution, and to perform on behalf of the South Feather Water and Power Agency all functions required of it under the Act; and be it further
- RESOLVED, (f) That coverage under the Act be effective on April 1, 2022.

Adopted at a regular meeting of the Board of Directors of the South Feather Water and Power Agency at 2:00PM this 22nd day of February, 2020.

Signed: \_\_\_\_\_

Tod Hickman, President

Attest: \_\_\_\_\_

Rath Moseley, Secretary



## ***SOUTH FEATHER WATER & POWER AGENCY***

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**TO:** Public Recipients of Agenda Information

**FROM:** Rath Moseley, General Manager

**DATE:** February 14, 2022

**RE:** Real Property Negotiations, and Anticipated and Existing Litigation  
Closed Session Agenda Item for 2/22/22 Board of Directors Meeting

The information provided to directors for this agenda item is not available to the public. The purpose for this item is to give the Board an opportunity to confer with legal counsel about litigation in which the Agency is already involved or is anticipating. The Board is permitted by law (Brown Act) to confidentially discuss information that might prejudice its legal position, to have a confidential and candid discussion about meet-and-confer issues. Such discussions are exempt from the Brown Act's requirement that matters before the Board be discussed in public. Attendance during the closed-session will be limited to directors, together with such support staff and legal counsel as determined necessary by directors for each subject under discussion.