

AGENDA REPORT

Agenda Item 10.a

DATE: May 24, 2018

TO: Board of Directors

FROM: Douglas DeFlicht, Chief Operating Officer

SUBJECT: Title Transfer of Friant Division Facilities– Update on feedback from the Friant Contractors and recent meeting with Reclamation

PROJECT SCOPE & PROCESS:

The first phase of the Title Transfer Project is to define the scope of what facilities FWA is requesting to be transferred and the identification of the representatives on the Reclamation side and amongst stakeholders seeking title. Reclamation will then put together an initial estimate of transaction costs, as well as an initial valuation of the facilities being considered for transfer. At the end of the first phase, the interested parties will enter into a Memorandum of Agreement (MOA) that will include a more detailed project timeline, procedural requirements, estimated costs, and cost sharing responsibilities. The Title Transfer Project consists of multiple stages, and there will be several opportunities during the process to cease seeking title to some or all the facilities under consideration. (see attached Title Transfer – Process Flow Chart)

CURRENT STATUS:

FWA met with Reclamation during the Association of California Water Agencies (ACWA) conference on May 10, 2018 to discuss progress, the scope of facilities being considered as part of the transfer, and the initial estimates of costs and valuation. At that meeting, Reclamation requested a letter specifying as much as possible the facilities that we are requesting to be transferred. This action would be followed by a response letter from Reclamation that would provide a high-level estimate of the transaction costs for completing the transfer as well as the initial valuation of the facilities being transferred. If after receiving the initial transaction and valuation estimates, FWA and other stakeholders still wish to pursue the transfer, then the parties would proceed to develop the formal MOA. Of note is that the costs for Reclamation's involvement in the development of the transaction cost estimate, the initial valuation estimate, and the MOA, would normally be fully covered by Reclamation. Reclamation expressed a desire in the meeting, however, to streamline this phase and enter a Memorandum of Understanding (MOU), which would more quickly get us to the part of the process where FWA and other

stakeholders would be responsible for 50% of the transaction costs. FWA's response was that we would be willing to streamline the cost estimates, but that Reclamation needs to provide a solid estimate that would enable the proposed transferees to make a sound decision on whether to proceed with the transaction.

The current assemblage of facilities under consideration includes all distribution facilities currently owned by Reclamation but managed by Friant Division districts, the Friant-Kern Canal, and the Madera Canal. It should be noted that some districts are more skeptical than others on the possibility of success of the transfer project, but at this early stage have indicated that they are still open to considering the process.

RECOMMENDED DIRECTION: At the direction of the Executive committee, staff has prepared a letter to Reclamation outlining the facilities proposed for transfer and requesting an initial estimate of transaction costs, as well as an initial valuation of the facilities proposed for transfer.

The committee also recommended that staff create a communications and outreach plan to help stakeholders understand the process. Once drafted, the Outreach Plan will be brought back to the Board for review.

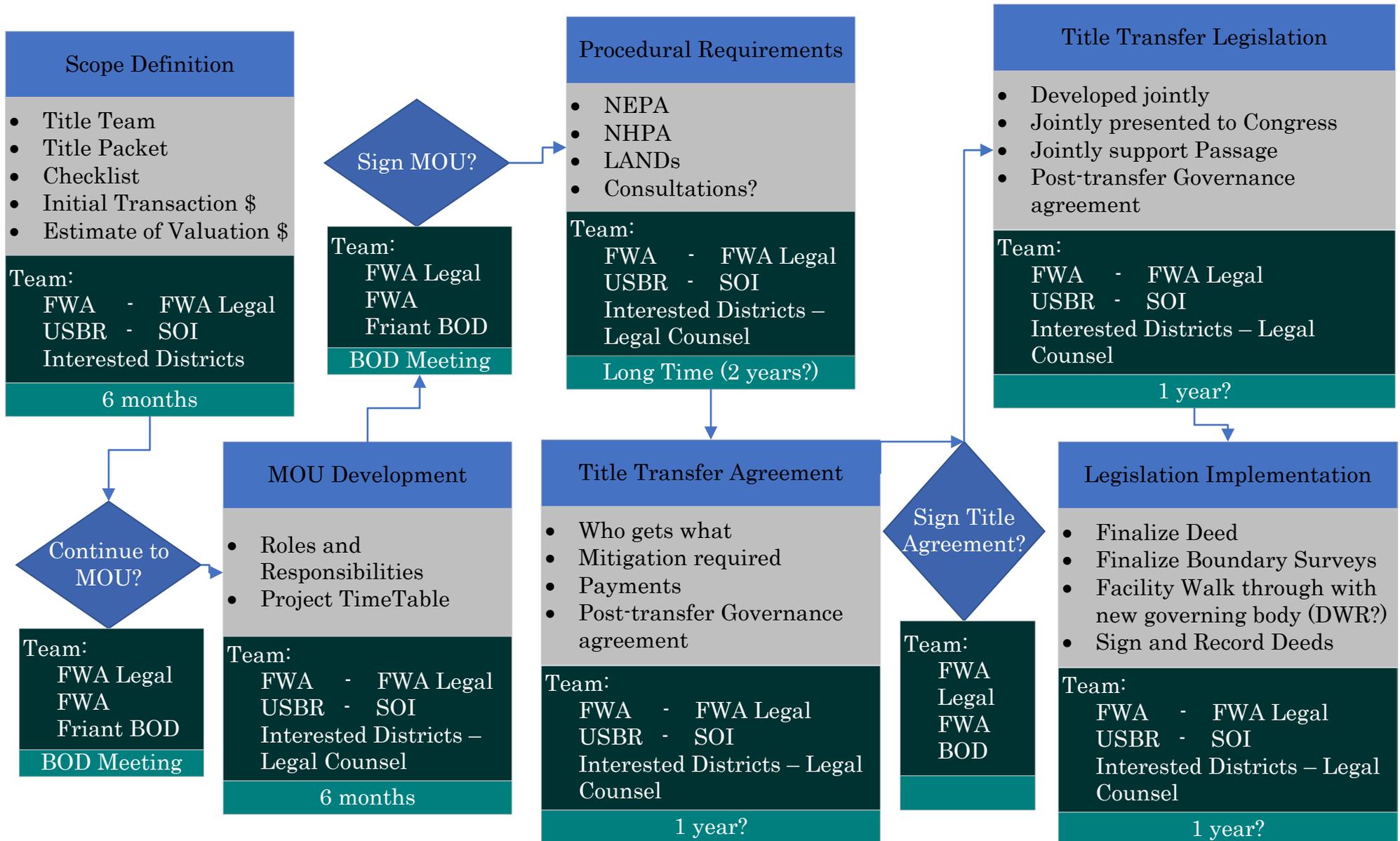
It is anticipated that the first phase of Title Transfer Project should be completed (including the draft Outreach Plan) and a decision on whether to continue onto the MOA development phase would be acted on by the Board within the current Fiscal Year.

SUGGESTED MOTION: To Authorize the CEO to transmit the enclosed letter correspondence to Reclamation and to work with districts and the Madera-Chowchilla Water & Power Authority to continue to refine the scope of the potential transfer agreement.

BUDGET IMPACT: The initial transaction cost estimate is being developed.

ATTACHMENTS: Title Transfer – Process Flow Chart; Draft Letter to Reclamation

Title Transfer - Process Flow Chart



Mr. Michael Jackson
Manager
South-Central California Area Office
Bureau of Reclamation
1243 N Street, Fresno, California 93721

Subject: Potential Title Transfer of Friant-Kern Canal, Madera Canal, and Associated Distribution Facilities.

Dear Mr. Jackson:

Thank you for meeting with me and other representatives of Friant Water Authority (FWA), Madera-Chowchilla Water & Power Authority (MCWPA), and individual Friant Division contractors during the Association of California Water Agencies Spring Conference, on May 10, 2018 in Sacramento. The conversation was extremely helpful as we continue to evaluate potential title transfer of the Friant-Kern Canal, Madera Canal, and associated distribution facilities.

As discussed in the meeting, all of the above groups wish to continue evaluating the potential for title transfer. The scope of our (collective) inquiry is for transfer in fee simple, all rights, title, and ownership interest in the following features:

- 1) Friant-Kern Canal and associated facilities as outlined in section 5.2.25 of the Performance Work Statement dated January 21, 1986, except for section 5.2.25.4 on Friant Dam Area letters A-J but including part K;
- 2) Madera Canal and associated facilities as outlined in the Performance Work Statement;
- 3) federally owned distribution facilities in the Friant Division that are currently operated and maintained by Friant Division Districts on behalf of the United States.

The above list and descriptions reflect the initial assessment of FWA, MCWPA, and the individual districts. We anticipate these descriptions will continue to be refined as the process evolves.

Our understanding of the evaluation process is that the next step is to develop a Memorandum of Understanding (MOU) that will outline the roles and responsibilities of the parties and that the MOU will include a proposed budget and allocation for transaction costs, as well as a project timeline for evaluating the potential transfer. Prior to embarking on this next step, however, we are requesting that Reclamation provide the following estimates and information:

- 1) Cost estimates, with a reasonable degree of certainty, for all environmental analyses required under federal law.

- 2) Cost estimates, with a reasonable degree of certainty, for all engineering and technical analyses required under Reclamation law and/or policy.
- 3) Cost estimates for any remaining potential costs required by Reclamation law and/or policy necessary to transfer title of the above listed facilities.
- 4) The estimated price for the facilities that Reclamation will be required to receive as part of any potential title transfer under federal law and/or Reclamation policy.
- 5) Legal descriptions for the above listed facilities, as they are currently listed in Reclamation's records.

Upon receipt of this information, we will then determine whether to continue discussion on title transfer for all or part of the above listed facilities. We will contact you once this determination is made and a resolution stating our intentions has passed the Board of Director's.

We appreciate your willingness to meet with us and answer our questions. We look forward to hearing from you in the very near future regarding the above requested information and continuing to explore the potential of Title Transfer.

Sincerely,

Jason Phillips

Chief Executive Officer

AGENDA REPORT

Agenda Item 10.b.

DATE: May 24, 2018
TO: Board of Directors
FROM: Douglas DeFlicht
SUBJECT: Pump-Back Project Update

SUMMARY:

The design consultant, Provost and Pritchard Engineers (PPE), completed the alternatives Technical Memorandum (TM) on April 30, as scheduled. The TM identifies potential costs and delivered volumes with various pumping configurations and recommends a preferred pumping configuration that is larger than originally conceived when the project began and less than the maximum sizing recommended for evaluation during initial consultation meetings with Friant contractors.

The estimated costs for the three primary pumping configurations considered for the project are shown below:

| Alternative | Flow, CFS | Total Project Capital Cost Range |
|--------------------|------------------|---|
| Baseline | 200, 75, 75 | \$19,000,000 - \$24,500,000 |
| Intermediate | 350, 250, 250 | \$28,500,000 - \$37,000,000 |
| Maximum Flow | 500, 500, 500 | \$43,500,000 - \$56,000,000 |

The consultant is also evaluating the possibility and costs of starting with one 350 cfs pumping station at Shafter Wasco and later expanding to 500 cfs as a means of limiting initial costs.

A task order has been executed for PPE to work on the 30% design of the Project. Initial activities include obtaining permits from Reclamation for design level surveys, including geologic testing, at the pump locations. Permits for design surveys (topographic and geographic) have been obtained and permits for geologic testing are pending final approval by Reclamation. Reclamation waived the normal fees for the permits.

Staff is in the process of selecting an environmental consultant and expects to recommend a sole source selection of the firm that is conducting the Recapture and Recirculation EIR/EIS. The current schedule is to engage the consultant and begin environmental work in June.

Stantec continues to make progress on identifying potential levels of water quality changes at affected districts and thresholds of concern for each of the various crops that could receive water that did not originate from the San Joaquin River. Stantec has indicated that it will accelerate (from mid-summer to late June or early July) the sharing of preliminary specific water quality related effects to various crops as requested by the Board's Ad Hoc Water Quality Committee.

The overall project schedule has been extended by about six months to accommodate the additional time it has taken to consult with Friant contractors and identify a preferred pumping configuration and strategy for dealing with water quality concerns. The project is now scheduled for completion by Spring 2020.

RECOMMENDED ACTION:

Report only. There is no recommended action.

AGENDA REPORT

Agenda Item 10.c.

DATE: May 24, 2018

TO: Board of Directors

FROM: Douglas DeFlicht, Chief Operation Officer

SUBJECT: Friant-Kern Canal Water Quality Ad Hoc Group Meeting

SUMMARY: At the January 2018 Board of directors meeting an Ad Hoc group of directors were assigned to investigate and discuss water quality concerns on the Friant-Kern Canal. Directors' Edwin Camp, Kent Stephens and Eric Borba have meet on three occasions, the last on May 14th in Visalia. That meeting consisted of a 31-slide presentation by Arvin-Edison contractor EKI Environmental & Water Inc. on the importance of maintaining the water quality of the Friant-Kern Canal, a discussion on the existing and proposed water quality standards changes for consideration, as well as other more process related items.

A host of action items resulted from the May 14, 2018 meeting including:

- a request to inventory the existing pump-in locations along the Friant-Kern Canal,
- a desire to understand the correspondence between Friant Water Authority and the Army Corp of Engineers regarding our NPDES 1600 permit, (see attached)
- a desire to understand the correspondence to and from other contractors from the Army Corp of Engineers,
- a review of Stantec SOW for the Pump-back Project regarding crop by crop analysis on yield impacts because of various water quality,
- a request to seek additional engineering input on the 2008 and 2014 water quality policies.

RECOMMENDED ACTION: Continue to meet with the goal of achieving canal wide consensus and agreement on water quality standards for waters that are introduced to the Friant-Kern Canal.

SUGGESTED MOTION: None.

BUDGET IMPACT: None

ATTACHMENTS: Correspondence between Friant Water Authority and Army Corps of Engineers regarding SPK-2017-00026.



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

RECEIVED
APR 03 2017
FWA

March 28, 2017

Regulatory Division (SPK-2017-00026)

Friant Water Authority
Attn: Donald M. Davis, General Counsel
854 N Harvard Avenue
Lindsay, CA 93247-1715

Dear Mr. Davis:

We are providing clarification of the comments we provided in our January 9, 2017, letter responding to your request for comments on the Friant-Kern Canal Section 1600 Notification for Routine Maintenance and Restoration Activities in Improved/Unimproved Channels, Waste Ways, and Equalizing Reservoirs. The proposed work would occur on the Friant-Kern Canal from Millerton Lake, Fresno County, through Tulare County to the Kern River, Kern County, California.

Our letter on January 9, 2017, mentioned Jurisdictional Determinations (JDs). A JD is a Corps determination that jurisdictional waters of the U.S. are present or absent on a particular site. JDs are not required. If you would like a JD you may submit a request for one.

There are certain maintenance activities that are exempt and do not require a Corps 404 permit even if a waterbody is jurisdictional. If you determine your maintenance activities qualify under the statutory exemption you do not need to seek an exemption determination from the district unless you want confirmation, in writing, that the exemption applies. Please see the enclosed Maintenance Exemption Summary for a description of maintenance exempted activities.

Please refer to identification number SPK-2017-00026 in any correspondence concerning this project. If you have any questions, please contact me, by email at Michael.G.Nepstad@usace.army.mil, or telephone at (916) 557-7262. For more information regarding our program, please visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

Michael G. Nepstad
Deputy Chief, Regulatory Division



US Army Corps of Engineers

Maintenance Exemption Summary

Sacramento District
1325 J Street
Sacramento, CA 95814-2922

Maintenance (Including Emergency Reconstruction)

Pursuant to Section 404 of the Clean Water Act (33 USC 1344) and Federal Regulations (33 CFR 323.4(a)(2)), certain discharges for the maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures, have been exempted from requiring a Section 404 permit. Maintenance does not include any modification that changes the character, scope, or size of the original fill design. Emergency reconstruction must occur within a reasonable period of time after damage occurs in order to qualify for this exemption.

A Section 404 permit is required if either of the following occurs:

- (1) Any discharge of dredged or fill material resulting from the above activities which contains any toxic pollutant listed under Section 307 of the Clean Water Act shall be subject to any applicable toxic effluent standard or prohibition, and shall require a permit.
- (2) Any discharge of dredged or fill material into waters of the United States incidental to the above activities must have a permit if it is part of an activity whose purpose is to convert an area of the waters of the United States into a use to which it was not previously subject, where the flow or circulation of waters of the United States may be impaired or the reach of such waters reduced. Where the proposed discharge will result in significant discernible alterations to flow or circulation, the presumption is that flow or circulation may be impaired by such alteration. For example, a permit will be required for the conversion of a wetland from silvicultural to agricultural use when there is a discharge of dredged or fill material into waters of the United States in conjunction with construction of dikes, drainage ditches, or other works or structures used to effect such conversion. A conversion of a Section 404 wetland to a non-wetland is a change of use of an area of waters of the United States. A discharge which elevates the bottom of waters of the United States without converting it to dry land does not thereby reduce the reach of, but may alter the flow or circulation of, waters of the United States.

If the proposed discharge satisfies all of the above restrictions, it is automatically exempted and no further permit action from the Corps of Engineers is required. If any of the restrictions of this exemption will not be complied with, a permit is required and should be requested using ENG Form 4345 (Application for a Department of the Army permit). A nationwide permit authorized by the Clean Water Act may be available for the proposed work. State or local approval of the work may also be required.

For general information on the Corps' Regulatory Program please check our web site at www.spk.army.mil/regulatory.html. For additional information or for a written determination regarding a specific project, please contact the Corps at the following addresses:

| | |
|--|----------------|
| Sacramento Main Office -1325 J Street, Room 1350, Sacramento, CA 95814 | (916) 557-5250 |
| Redding Field Office - 310 Hemsted, Suite 310, Redding, CA 96002 | (530) 223-9534 |
| Reno Field Office - 300 Booth Street, Room 3050, Reno, NV 89509 | (775) 784-5304 |
| Bountiful Field Office - 533 West 2600 South, Suite 150, Bountiful, UT 84010 | (801) 295-8380 |
| Grand Junction Field Office - 400 Rood Ave., Room 224, Grand Junction, CO 81501 | (970) 243-1199 |
| Durango Field Office - 1970 East 3rd Avenue, Suite 109, Durango, CO 81301 | (970) 259-1764 |
| St. George Field Office - 196 East Tabernacle St., Suite 30, St. George, UT 84770 | (435) 986-3979 |
| | |

FRIANT WATER AUTHORITY

April 11, 2017

VIA E-Mail (Michael.G.Nepstad@usace.army.mil)

Michael G. Nepstad
Deputy Chief, Regulatory Division
U.S. Army Corps of Engineers, Sacramento Division
325 J Street
Sacramento, CA 95814

Re: SPK-2017-00026

Dear Mr. Nepstad:

Thank you for your letter of March 28, 2017, clarifying the Corps' prior letter to me of January 9, 2017 regarding the Friant Water Authority's (FWA) updated maintenance plan for the Friant-Kern Canal, which FWA operates and maintains on behalf of the Bureau of Reclamation. The clarification is helpful.

For the record, FWA will not be seeking a Permit under Section 404 of the Clean Water Act for these maintenance activities for a variety of reasons, including the exemptions provided under the statute as noted in your letter.

We very much appreciate the Corps review and clarification regarding this matter.

Sincerely,



Donald M. Davis
General Counsel

Kent H. Stephens
Chairman of the Board

Chris Tantau
Vice Chairman

Georganne White
Secretary/Treasurer

Jason R. Phillips
Chief Executive Officer

Donald M. Davis
General Counsel

Douglas A. DeFlicht
Chief Operating Officer

Member Agencies

Arvin-Edison W.S.D.
City of Fresno
Hills Valley I.D.
Kaweah Delta W.C.D.
Kern-Tulare W.D.
Lindmore I.D.
Lindsay-Strathmore I.D.
Madera I.D.
Orange Cove I.D.
Porterville I.D.
Saucelito I.D.
Terra Bella I.D.
Tulare I.D.

Main Office

854 N. Harvard Avenue
Lindsay, CA 93247
559.562.6305
559.562.3496 Fax

Fresno Office

155 E. Shaw Avenue
Suite 301
Fresno, CA 93710
559.562.6305
559.562.3496 Fax

www.friantwater.org

AGENDA REPORT

Item 10.d.i-iii

DATE: March 22, 2018

TO: Board of Directors

FROM: Douglas DeFlitch, Chief Operating Officer

PREPARED BY: Douglas DeFlitch & Alan Stropini

SUBJECT: Capacity Correction Project -Subsidence Section

BACKGROUND:

The Friant-Kern Canal (FKC) was designed in the late 1940s. Hydraulic design standards at that time resulted in a canal section that was undersized to deliver the planned design flows for the FKC. This design error was realized through studies that were conducted in the 1950s and 1960s, which confirmed that the use of these old design standards impacted the conveyance capacity of the entire length of FKC. Additionally, the section of the FKC between mile post (MP) 88.2 (5th Avenue Check) and MP 121.5 (Lake Woollomes Check) has experienced subsidence. The presumed cause of this subsidence is ground water pumping throughout the general vicinity. Subsidence of an intermediate section of the FKC reduces the ability of the canal to deliver water to water agencies in and below the affected area. In 1979, Reclamation attempted to correct the subsidence problem. They constructed additional concrete lining, 1-foot to 4.5-feet above the existing canal Top-of-Canal lining and added embankment height to correct this problem, between MP 99 to MP 116. This work also included raising and/or addressing impacted bridges, pipe crossing, turnouts, drain inlets and culverts. This correction mitigated the subsidence problem that impacted the FKC at that time. Since that work was completed, however, the subsidence has resumed. Resolution of the current subsidence problem is a subset of the capacity correction problem that impacts the entire FKC.

Currently, in the same general area, the FKC has suffered similar, if not worse, subsidence characteristics as compared to 1979. Because of this subsidence the FKC capacity at this location is generally limited to approximately 1,900 cfs (in a section that was designed to convey 3,500 cfs). Additionally, when the canal is conveying 1,900 cfs, the water surface elevation overtops the existing top of lining (TOL) in several locations. Also, five bridges in the area between MP 103.6 to MP 107.4 (Avenue 96, Road 208, Avenue 88, Avenue 80, and Road 192) have more than one-foot of water run-up on their support beams. This restricted flow capability impacts water deliveries and water revenues generating local direct and indirect economic impacts to surrounding communities, the affected water agencies, and Reclamation.

Friant desires to correct this problem and is proposing to study alternatives and take such necessary actions that will allow for the expeditious design and construction of a selected alternative to resolve it. Current alternatives that are being considered include: 1) raising the canal lining and appurtenant structures, similar to what was done in 1979; 2) installing a pumping plant at approximate MP 109; and 3) such other alternatives that may be proposed during the scoping / public involvement process.

Friant is also developing and implementing plans for immediate repair work on the FKC. The purpose of this work is to facilitate the ability to pass the greatest amount of flow possible in the FKC over the next year or two. Currently these plans include: 1) painting the underside of the above listed bridges with elastomeric sealant to seal the concrete surface of exposed bridge beams; 2) mud jacking or slurry-seal work along embankments, where through-bank canal seepage problems have been seen or may occur (approximately 2 miles); and 3) installing temporary lining raise in selected canal lining low points for an approximately 1.5-miles. Friant plans to utilize the FAA money described below to accomplish this work. Friant is currently pursuing this work and may need the Consultant's assistance to accomplish permitting, environmental compliance, and other activities that may arise during this work effort.

Please reference the Subsidence Section Project – Process Flow Chart

IMMEDIATE ACTIONS:

A demand-based analysis was completed by FWA staff to determine the potential for capacity issues or a prorated situation for the summer of 2018 through the Subsidence section of the FKC. Monthly estimates of district demand for Friant Division water was calculated based on districts schedules for 100% Class 1 allocation (currently at 85% Class 1). Attached is a spreadsheet summing total district demand and calculating an average cubic foot per second (cfs) usage daily for the months of May, June, July, August and September of 2018. While taking monthly numbers and averaging them into daily values may not be the most accurate of projections, in this case, the values provide a reasonable level of certainty that flows below the subsidence point shouldn't get to capacity levels. Adding a factor of safety of say 20% for peak demand, still estimates only near 1500cfs, which should be able to pass through the subsided section with out much concern.

A meeting between the FWA and the County of Tulare Bridge department took place on May 4, 2018. This meeting was scheduled to continue discussions regarding running water on bridges if necessary and creating a memorandum of understanding (MOU) for bridge sealing work as part of the intermediate fix. A path forward for the MOU process is being developed and it is expected that FWA and the County will sign the understanding sometime later this summer.

INTERMEDIATE ACTIONS

Currently these plans include: 1) painting the underside of the above listed bridges with elastomeric sealant to seal the concrete surface of exposed bridge beams; 2) mud jacking or slurry-seal work along embankments, where through-bank canal seepage problems have been seen or may occur (approximately 2 miles); and 3) installing temporary lining raise in selected

canal lining low points for an approximately 1.5-miles in the intermediate repair work area (see attached). Estimates and schedules are currently being developed to help scope this work. On May 25, 2018 FWA will meet with USBR in Fresno to start coordinating on the intermediate actions.

FWA is also currently in a request for qualifications (RFQ) process looking for a qualified engineering firm to assist with the long-term actions:

- Develop of a new Project Management Plan (PMP)
- Acquire necessary geologic and geotechnical data to evaluate preferred alternatives with cost estimates,
- Develop necessary topography and Digital Terrain Models (DTMs) of the existing ground for use in developing alternatives,
- Develop an alternatives analysis,
- Develop an economic analysis,
- Prepare and process environmental compliance documents and permits,
- Prepare and process permits necessary to implement the Project,
- Develop engineering designs and specifications,
- Provide bidding oversight services,
- Provide construction oversight services,

The base RFQ schedule is as follows:

| | |
|---|----------------------|
| Issuance of Request for Qualifications Package | May 4, 2018 |
| Last day to submit written requests for clarification | May 11, 2018 |
| Last day for Friant to provide response to questions | May 14, 2018 |
| Deadline to submit Statement of Qualification | May 23, 2018 |
| Consultant Selection | Week of June 4, 2018 |

At the May 14, 2018 Executive Committee meeting a motion suggesting that a special telephonic Board meeting be held the week of June 4, 2018 to review and select an RFQ contractor.

LONG-TERM ACTIONS:

Once the RFQ contractor is under contract the long-term action will begin development. As background, the current alternatives that are being considered include: 1) raising the canal lining and appurtenant structures, like what was done in 1979; 2) installing a pumping plant at approximate MP 109; and 3) such other alternatives that may be proposed during the scoping / public involvement process. It is envisioned that as part of the process FWA would have to go through a Value Engineering analysis to help refine alternatives.

Additionally, a robust discussion of the near term (prior to 2030) amount of future subsidence at the Friant-Kern Canal was discussed at the Engineer/Managers Operations and Maintenance (O&M) meeting. While this will likely that the RFQ contractor will engage in calculations to

determine a design that isn't obsolete during the near-term period, close coordination with the Tule Sub-basin will be necessary during that process. As such, staff has been participating in the technical meetings for the past several months.

FINANCING EFFORTS: - see additional Agenda Detail Sheet

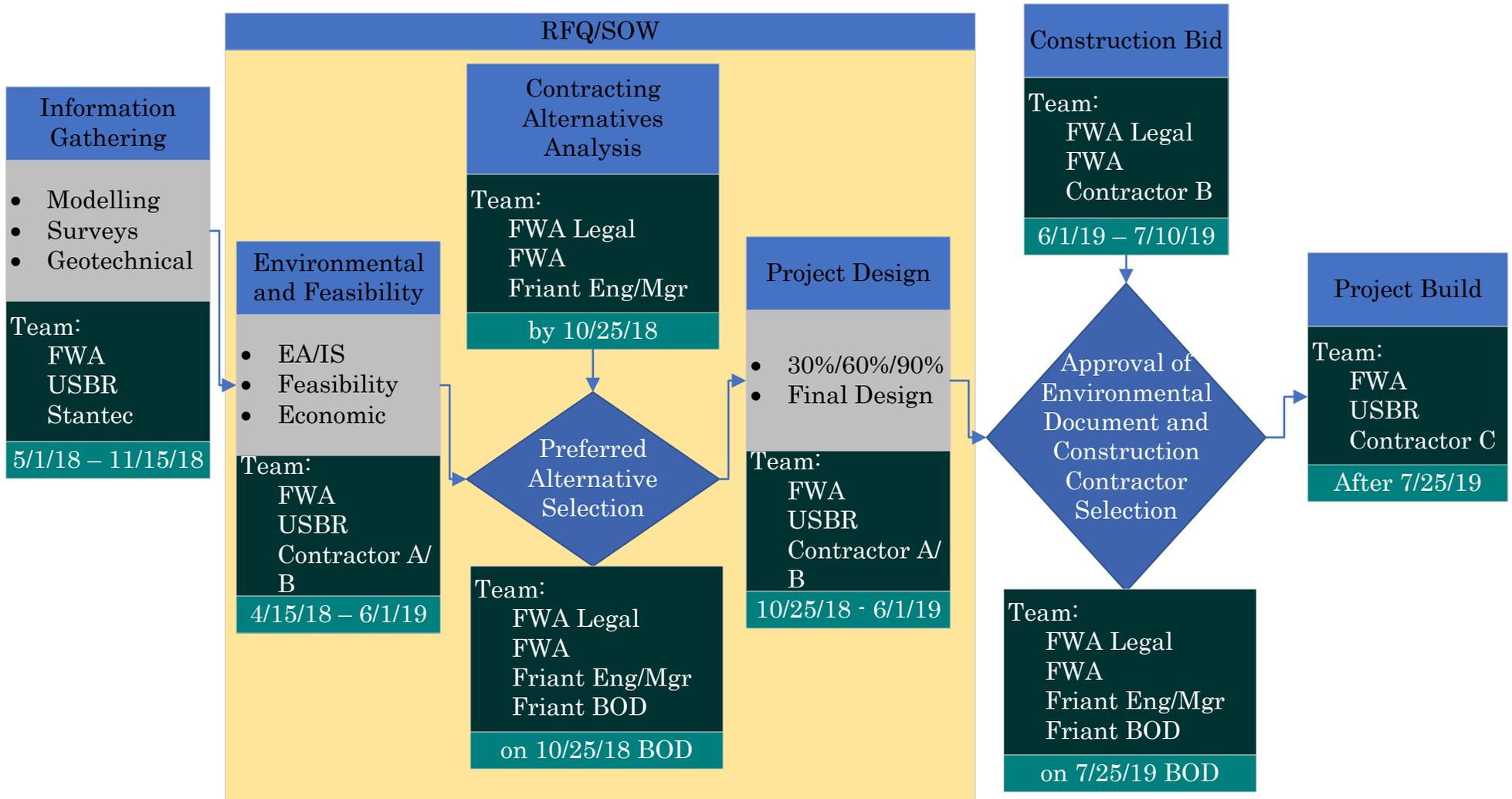
RECOMMENDED ACTION: Continue to engage the Tule Sub-basin to determine future subsidence and make a request prior to the week of June 4, 2018 on a preferred RFQ Contractor.

SUGGESTED MOTION: direct staff to schedule a Special (telephonic) Board of Directors meeting the week of June 4th for selection of a preferred contractor(s) related to the RFQ Scope of Work prior to the June Board meeting.

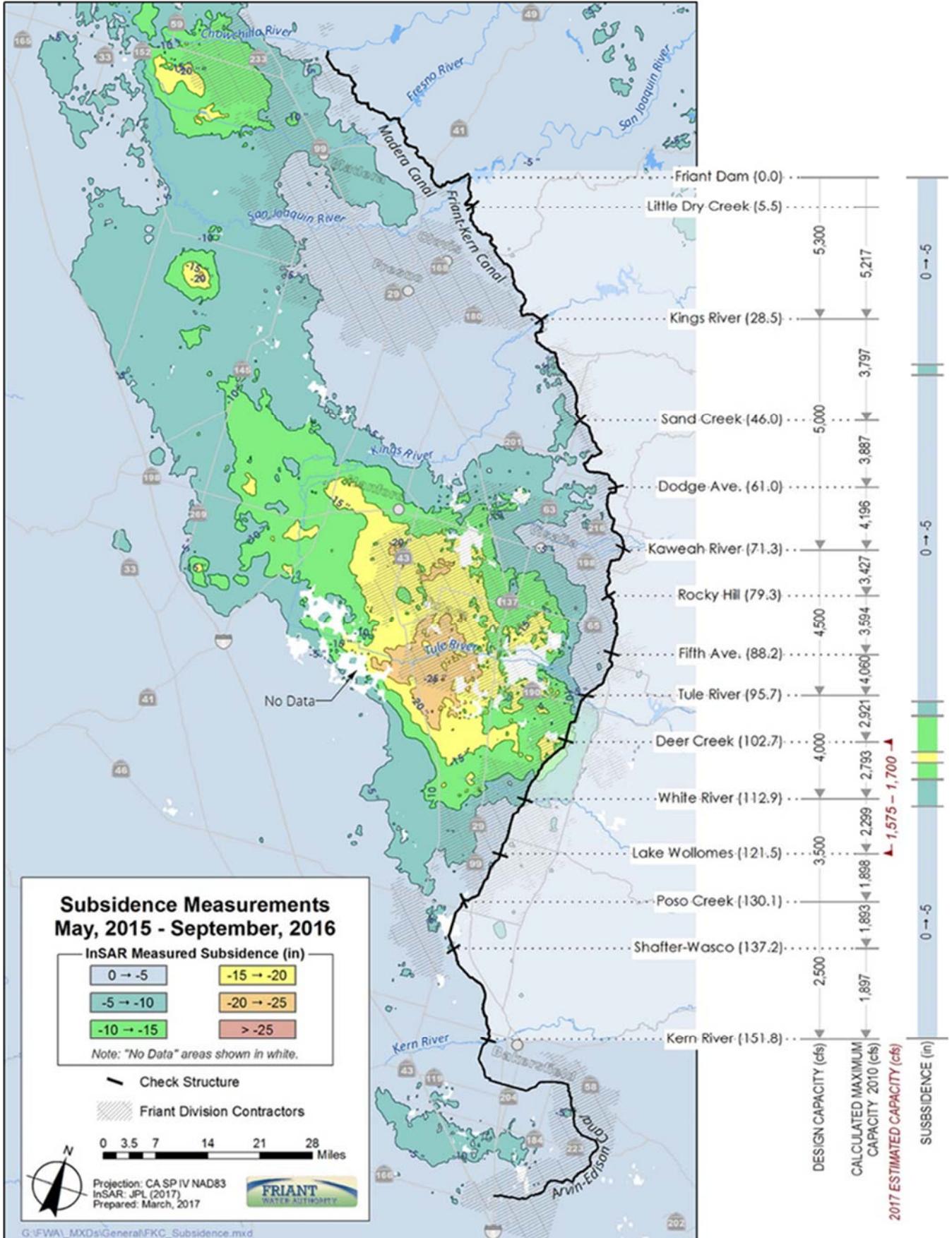
BUDGET IMPACT: -see additional Agenda Detail Sheet

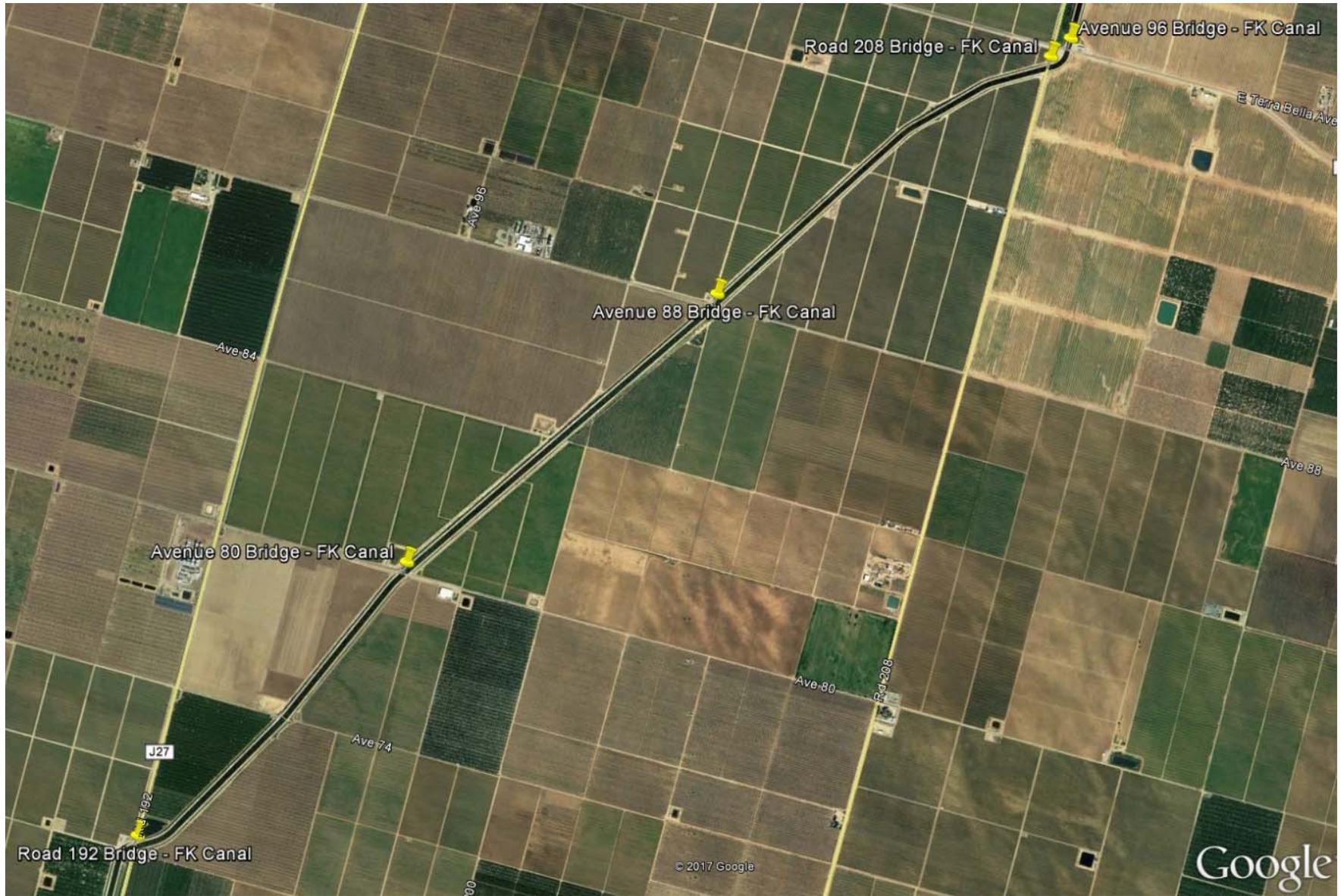
ATTACHMENTS: Project Process Flow Chart, Project Area, Intermediate Repair Work Area, Current Project Schedule, Estimated Demand for Summer of 2018,

Subsidence Section Project - Process Flow Chart



Project Management





| ID | Task Mode | Task Name | Duration | Start | Finish | Predecessors | 2018 | March 2018 | April 2018 | May 2018 | June 2018 | July 2018 | August 2018 | September 2018 | October 2018 | November 2018 | December 2018 | January 2019 | February 2019 | March 2019 | April 2019 | May 2019 | June 2019 |
|----|-----------|---|----------|--------------|--------------|--------------|------|------------|------------|----------|-----------|-----------|-------------|----------------|--------------|---------------|---------------|--------------|---------------|------------|------------|----------|-----------|
| 1 | ★ | Project Management Plan | 43 days | Thu 3/1/18 | Mon 4/30/18 | | | | | | | | | | | | | | | | | | |
| 2 | ★ | Initial Schedule | 41 days | Thu 3/1/18 | Thu 4/26/18 | | | | | | | | | | | | | | | | | | |
| 14 | ★ | WSP/Bridge Reports | 88 days | Thu 3/1/18 | Sat 6/30/18 | | | | | | | | | | | | | | | | | | |
| 3 | ★ | Revised Schedule 3rd qtr. | 117 days | Fri 4/27/18 | Sat 10/6/18 | 2 | | | | | | | | | | | | | | | | | |
| 6 | ★ | Prelim. Enviro. Tech. Memo | 42 days | Tue 5/1/18 | Wed 6/27/18 | | | | | | | | | | | | | | | | | | |
| 11 | ★ | Project Alternatives Tech Memo | 36 days | Tue 5/1/18 | Tue 6/19/18 | | | | | | | | | | | | | | | | | | |
| 12 | ★ | Economic Analysis Tech Memo | 67 days | Tue 5/1/18 | Wed 8/1/18 | | | | | | | | | | | | | | | | | | |
| 13 | ★ | Feasibility Eval. Report | 128 days | Tue 5/1/18 | Thu 10/25/18 | | | | | | | | | | | | | | | | | | |
| 16 | ★ | Control Survey | 24 days | Tue 5/1/18 | Fri 6/1/18 | | | | | | | | | | | | | | | | | | |
| 25 | ★ | Initial Geology/ Geotech Tech Memo | 67 days | Tue 5/1/18 | Wed 8/1/18 | | | | | | | | | | | | | | | | | | |
| 15 | ★ | Elect. Rqt's Tech Memo | 105 days | Fri 6/1/18 | Thu 10/25/18 | | | | | | | | | | | | | | | | | | |
| 17 | ★ | Aerial Flight(drone) | 44 days | Fri 6/1/18 | Wed 8/1/18 | | | | | | | | | | | | | | | | | | |
| 20 | ★ | Digital GIS ROW Representation for DTM Overlay | 32 days | Fri 6/1/18 | Sun 7/15/18 | | | | | | | | | | | | | | | | | | |
| 29 | ★ | Alternative Delivery Methods Tech Memo | 67 days | Mon 6/4/18 | Tue 9/4/18 | 11 | | | | | | | | | | | | | | | | | |
| 7 | ★ | Admin. Draft EA/IS | 100 days | Sun 6/10/18 | Thu 10/25/18 | | | | | | | | | | | | | | | | | | |
| 19 | ★ | Topographic Maps | 47 days | Sun 7/1/18 | Sat 9/1/18 | | | | | | | | | | | | | | | | | | |
| 26 | ★ | Prelim. Soil Sample Test Results | 47 days | Sun 7/1/18 | Sat 9/1/18 | | | | | | | | | | | | | | | | | | |
| 27 | ★ | Geology/Geotech Tech Memo | 57 days | Sun 7/1/18 | Sat 9/15/18 | | | | | | | | | | | | | | | | | | |
| 21 | ★ | DTM Model w/Integrated ROW | 37 days | Sun 7/15/18 | Sat 9/1/18 | | | | | | | | | | | | | | | | | | |
| 18 | ★ | Digital Terrain Model | 24 days | Wed 8/1/18 | Sat 9/1/18 | | | | | | | | | | | | | | | | | | |
| 23 | ★ | Field Survey of Fill In Areas | 74 days | Mon 10/1/18 | Thu 1/10/19 | | | | | | | | | | | | | | | | | | |
| 28 | ★ | Intermediate Canal Construction | 110 days | Mon 10/1/18 | Fri 3/1/19 | | | | | | | | | | | | | | | | | | |
| 4 | ★ | Revised Schedule 4th qtr. | 67 days | Thu 10/25/18 | Fri 1/25/19 | 3 | | | | | | | | | | | | | | | | | |
| 22 | ★ | Preferred Alternative Selection | 0 days | Thu 10/25/18 | Thu 10/25/18 | | | | | | | | | | | | | | | | | | |
| 30 | ★ | 30% Design Submittal Meeting | 74 days | Mon 9/3/18 | Thu 12/13/18 | 18 | | | | | | | | | | | | | | | | | |
| 8 | ★ | Public Draft EA/IS | 44 days | Thu 11/1/18 | Tue 1/1/19 | | | | | | | | | | | | | | | | | | |
| 5 | ★ | Annual PMP Update | 27 days | Sat 12/15/18 | Sun 1/20/19 | | | | | | | | | | | | | | | | | | |
| 9 | ★ | Final EA/IS | 30 days | Wed 1/2/19 | Tue 2/12/19 | 8 | | | | | | | | | | | | | | | | | |
| 24 | ★ | ROW Appraisals Cost for Purchase | 47 days | Thu 1/10/19 | Fri 3/15/19 | | | | | | | | | | | | | | | | | | |
| 31 | 📄 | 60% Design Submittal Meeting | 37 days | Fri 12/14/18 | Mon 2/4/19 | 30 | | | | | | | | | | | | | | | | | |
| 10 | ★ | Signed FONSI | 0 days | Tue 2/12/19 | Tue 2/12/19 | 9 | | | | | | | | | | | | | | | | | |
| 32 | 📄 | 90% Submittal Meeting | 29 days | Tue 2/5/19 | Fri 3/15/19 | 31 | | | | | | | | | | | | | | | | | |
| 33 | 📄 | Final Design Submittal | 16 days | Mon 3/18/19 | Mon 4/8/19 | 32 | | | | | | | | | | | | | | | | | |
| 35 | 📄 | Construction Bid Process | 40 days | Tue 4/9/19 | Mon 6/3/19 | 33 | | | | | | | | | | | | | | | | | |
| 34 | 📄 | Approval of Environmental Docs and Select Construction Contractor | 0 days | Mon 6/3/19 | Mon 6/3/19 | 35 | | | | | | | | | | | | | | | | | |

Project: Project5.mpp
Date: Fri 5/18/18

| | | | | | | |
|-----------|-----------------|--------------------|-----------------------|----------------|--------------------|-----------------|
| Task | Summary | Inactive Milestone | Duration-only | Start-only | External Milestone | Manual Progress |
| Split | Project Summary | Inactive Summary | Manual Summary Rollup | Finish-only | Deadline | |
| Milestone | Inactive Task | Manual Task | Manual Summary | External Tasks | Progress | |

| | MAY | JUNE | JULY | AUG | SEPT | TOTAL |
|---------------------|-----------|-----------|-----------|-----------|-----------|------------|
| Saucelito | 3,402.00 | 4,000.00 | 5,000.00 | 5,300.00 | 3,000.00 | 20,702.00 |
| Average AF per day | 109.74 | 133.33 | 161.29 | 170.97 | 100.00 | |
| Average cfs per day | 55.33 | 67.22 | 81.32 | 86.19 | 50.42 | |
| Delano | 16,360.00 | 25,000.00 | 26,300.00 | 19,000.00 | 13,000.00 | 99,660.00 |
| Average AF per day | 527.74 | 833.33 | 848.39 | 612.90 | 433.33 | |
| Average cfs per day | 266.07 | 420.13 | 427.72 | 309.00 | 218.47 | |
| Kern Tulare | 4,300.00 | 6,100.00 | 6,500.00 | 6,500.00 | 4,025.00 | 27,425.00 |
| Average AF per day | 138.71 | 203.33 | 209.68 | 209.68 | 134.17 | |
| Average cfs per day | 69.93 | 102.51 | 105.71 | 105.71 | 67.64 | |
| SWID | 10,210.00 | 10,000.00 | 6,400.00 | 4,800.00 | 4,500.00 | 35,910.00 |
| Average AF per day | 329.35 | 333.33 | 206.45 | 154.84 | 150.00 | |
| Average cfs per day | 166.05 | 168.05 | 104.08 | 78.06 | 75.62 | |
| SSJMUD | 14,000.00 | 20,000.00 | 22,000.00 | 17,000.00 | 10,000.00 | 83,000.00 |
| Average AF per day | 451.61 | 666.67 | 709.68 | 548.39 | 333.33 | |
| Average cfs per day | 227.68 | 336.11 | 357.79 | 276.47 | 168.05 | |
| AEWSD | 14,041.00 | 8,087.00 | 9,318.00 | 8,100.00 | 7,503.00 | 47,049.00 |
| Average AF per day | 452.94 | 269.57 | 300.58 | 261.29 | 250.10 | |
| Average cfs per day | 228.35 | 135.90 | 151.54 | 131.73 | 126.09 | |
| | | | | | | |
| SUM (AF) | 62,313.00 | 73,187.00 | 75,518.00 | 60,700.00 | 42,028.00 | 313,746.00 |
| Average AF per day | 2,010.10 | 2,439.57 | 2,436.06 | 1,958.06 | 1,400.93 | 2050.6275 |
| Average cfs per day | 1,013.41 | 1,229.93 | 1,228.16 | 987.18 | 706.29 | 1,033.84 |

Based on 100% Class 1 Schedules

AGENDA REPORT

Item 10.d.iv

DATE: May 24, 2018

TO: Board of Directors

THROUGH: Jason Phillips, Chief Executive Officer

FROM: Douglas DeFlicht, Chief Operating Officer

SUBJECT: Capacity Correction Project

This report presents the advantages and disadvantages of several options available for funding the environmental, feasibility and design work for the subsidence section of the Friant-Kern Canal. It provides a staff recommended course of action to help fund the pre-construction work and any intermediate construction fixes prior final design. In addition, it discusses how these funding options would relate to the Water Supply and Water Quality Act of 2018.

BACKGROUND

As part of the Water Management Goal of the San Joaquin River Restoration Program (SJRRP), the Settlement, and P. L. 111-11, \$35 million was authorized and appropriated under §10201(a) for *“restoration of the capacity of the Friant-Kern Canal and Madera Canal to such capacity as previously designed and constructed by the Bureau of Reclamation.”* The objective of this action was to improve the water deliveries and reliability of the FKC and the Madera Canal in order to reduce or avoid water supply impacts on the Friant Division Contractors that may result from the Restoration Flows.

In addition, §10203(c) provides that the *“costs of implementing this section shall be in accordance with section 10203 and shall be a nonreimbursable Federal expenditure.”* Such funds are referred to herein as **“SJRRP FKC Capacity Correction Funds.”**

Recently, the Consolidated Appropriations Act, 2017 (P. L. 115-31) provided \$2.2 million under the authority of P. L. 114-322, the Water and Infrastructure Improvements for the Nation Act, for a new feasibility study *“to explore options to address the issue of Friant-Kern Canal subsidence.”* Such funds are referred to herein as **“WIIN Act Funds.”**

Also, under P. L. 111-11, in §10202(a), it states *“the Secretary [of the Interior] is authorized to provide financial assistance to local agencies within the Central Valley Project, California, for the planning, design, environmental compliance, and construction of local facilities to bank water underground or to recharge groundwater, and that recover such water, provided that the project meets the criteria in subsection (b).”* Such funds are referred to herein as **“Part III Funds.”**

Finally, the 2018 Water Bond (Water Supply and Water Quality Act of 2018) may qualify for the November ballot. It finds that *“groundwater overdraft has caused subsidence of the Friant Kern Canal. State funds to repair the canal will reduce the cost of repairing the canal to local water districts. Avoiding the cost to finance this project will also save tens of millions of dollars per year in interest costs which would have to be paid by these districts.”*

It further provides that the *“sum of seven hundred fifty million dollars (\$750,000,000) is appropriated from the Fund to the department for a grant to the Friant Water Authority for water conveyance capital improvements, including restored and increased conveyance capacity to and in the Madera and Friant-Kern canals, resulting in greater groundwater recharge, improved conveyance and utilization of floodwaters, and for water conservation. Improvements with funds provided by this paragraph shall be completed consistent with applicable state and federal laws and contracts.”* Such funds are referred to herein as **“2018 Bond Funds.”**

DISCUSSION

SJRRP FKC Capacity Correction Funds. SJRRP Funds are available in 2018 in the amount of \$5 million for Capacity Correction work. One of the requirements for accepting SJRRP Funds is to prepare a “feasibility study” for the work. In 2011, the SJRRP performed a “Friant-Kern Canal Capacity Restoration Feasibility Study” and issued a Draft Feasibility Report to document whether or not any of the alternatives developed were feasible and warrant Federal implementation. The 2011 Study covered from MP 22.8 to 88.6 of the FKC. Since funding for this effort is focused on the significant subsidence area, a new feasibility study is required. However, it is likely FWA could use much of the information presented in the 2011 Draft Feasibility Report for the development of the feasibility study for the work on the subsidence area of the FKC. It would be necessary to prepare a National Environmental Policy Act (NEPA) document (likely an Environmental Assessment) and a California Environmental Quality Act (CEQA) document as a part of this effort as well. SJRRP Funds do not require any cost share and can be used for preparing the feasibility report (including environmental compliance documents), preparing designs, and for construction actions.

WIIN Act Funds. WIIN Act Funds are available in 2018 in the amount of \$2.2 million for subsidence work. These funds have a 50% cost share requirement, and the funds (both federal funds and the cost share) must be used to prepare a feasibility study (see attached Project Description and the discussion above under “SJRRP Funds”). The non-federal cost share can be in-kind services. It has been determined by Reclamation that subsidence corrective actions FWA has undertaken and costs incurred since October 7, 2017 can be counted toward FWA’s cost share as in-kind services. (see attached letter from Acting SJRRP Program Manager) Once a

feasibility study is complete under the WIIN Act provisions, the Secretary of Interior determines if a project is feasible for construction and presumably this could lead to additional construction funds if needed.

Part III Funds. Part III Funds were authorized in the amount of \$50 million under §10203(c) of P. L. 111-11 to provide financial assistance to local agencies within the Central Valley Project for the purposes of designing and constructing ground water recharge or banking facilities that offset water supply impacts to Friant Contractors. To date \$13 million has been awarded to various entities for projects, leaving \$37 million available.

2018 Bond Funds. Obviously, the 2018 Bond Funds will only be available if the Water Supply and Water Quality Act of 2018 passes. In the event it does not pass, additional funds from the above sources will need to be pursued, as well as funding from other sources like the Water Infrastructure Finance and Innovation Act (WIFIA).

Please also see the attached comparison spreadsheet put together by the Bureau of Reclamation to help FWA understand statutory requirements by funding source.

RECOMMENDED ACTION: Staff recommends FWA proceed with a financial assistance agreement with USBR that includes both SJRRP FKC Capacity Correction Funds and WIIN Act Funds. These funds would be secured for environmental, design and feasibility work along with any intermediate construction for the subsidence section of the Friant-Kern Canal.

SUGGESTED MOTION: Authorizes the CEO or his designee to enter into a financial assistance agreement with USBR that includes both SJRRP FKC Capacity Correction Funds (\$5 Million) and WIIN Act Funds (\$2.2) obligating the Authority for a 50% cost share on WIIN Act Funds used.

BUDGET IMPACT: Potential to affect the budget by up to \$2.2M

NEXT STEPS: Draft a Letter of Intent (LOI) for 2018 WIFIA Grants cycle for June BOD consideration

ATTACHMENTS: WIIN ACT language, Letter from SJRRP on pre-incurrence, Spreadsheet of Funding sources and Obligations, TFG Special report on WIFIA submission (pages 1-13).

| Water Conservation and Delivery - WIIN Section 4007 | | | |
|---|---|-----------------|--|
| (S in Thousands) | | | |
| State | Project | Amount | Project Description |
| Studies, Design, Pre-Construction, and Construction | | | |
| California | Shasta Dam and Reservoir Enlargement Project | 20,000 | To increase storage supply and reliability while addressing related water resources problems and needs. Funds will be used to advance pre-construction activities including design, environmental, ESA, cultural, lands, design data, and agreements with project partners. Most of these activities will lead to a Record of Decision being executed in the Fall of 2019. |
| California | North-of-Delta Offstream Storage Investigation/ Sites Reservoir Storage Project | 4,350 | Funds will be used to complete an in-progress feasibility study. The proposed project includes an additional 1.3 million acre-feet of off-stream surface storage. The additional storage of the proposed project will address the need identified by the CALFED Bay-Delta Programmatic Record of Decision for up to 6 million acre-feet (MAF) of new storage in California—including up to 3 MAF of storage north of the Delta—to restore flexibility and adaptability to Central Valley Project and State Water Project operations. The project will benefit incremental Level 4 refuge water supply (primary objective), improve the survival of anadromous fish and other aquatic species (primary objective), and improve Delta environmental and export water quality (primary objective), sustainable hydropower generation (secondary objective), opportunities for recreation (secondary objective), and flood damage reduction (secondary objective). |
| California | Upper San Joaquin River Basin Storage Investigation | 1,500 | Funds will be used to complete an in-progress feasibility study. The Upper San Joaquin River Basin Storage Investigation consists of a potential 1.26 million AF new reservoir to expand water storage capacity in the upper San Joaquin River watershed to (1) improve water supply reliability and flexibility of the water management system for agricultural, municipal and industrial, and environmental uses, and (2) enhance water temperature and flow conditions in the San Joaquin River downstream from Friant Dam for salmon and other native fish. |
| California | Friant-Kern Canal Subsidence Challenges Project | 2,200 | Funds will be used to conduct a new feasibility study. The study will explore options to address the issue of Friant-Kern Canal (FKC) subsidence. The potential benefits would be 3000 AF/day of conveyance restored, which would allow significant increase in storage capacity in Millerton Reservoir during key times. Restoring FKC capacity would increase annual average surface water deliveries by 8,000 acre-feet. The maximum single year increase is approximately 110,000 acre-feet. Restoring FKC capacity will also ensure that the proposed Upper San Joaquin River Storage project will be able to deliver its full project benefits. |
| Idaho | Boise River Basin Feasibility Study | 750 | Funds will be used to conduct a new feasibility study. The Boise River Basin Feasibility Study (Study) will investigate the possibility of increasing surface water storage in the Boise River watershed located in southwestern Idaho by raising the heights of Reclamation's Arrowrock Dam (ten feet / 20,000 acre-feet) and Anderson Ranch Dam (six feet / 29,000 acre feet), as well as the U.S. Army Corps of Engineers Lucky Peak Dam (four feet / 10,000 acre-feet) and comparing different combinations at the three facilities and different raise options of the dam raises. Additional water storage would enhance long-term water supply for critical irrigation, domestic, industrial, and municipal needs in the Boise, Idaho area, while continuing to meet endangered species and power generation needs along with potentially providing additional flood risk management. It also recognizes the need to store additional runoff in wet years. |
| Washington | Yakima River Basin Water Enhancement Project - Cle Elum Pool Raise | 2,000 | Funds will be used for project construction. As part of the Yakima Project located in central Washington, Cle Elum Dam has been identified for a pool raise and is part of the Yakima River Basin Integrated Water Resource Management Plan (Yakima Basin Integrated Plan). The Cle Elum Pool Raise was authorized for implementation, including construction, under the Yakima River Basin Water Enhancement Project (YRBWEP) Title XII, October 31, 1994. The project includes modification of the radial gates on the spillway of Cle Elum Dam to provide an additional 14,600 acre-feet of storage capacity in Cle Elum Reservoir, and provides for shoreline protection of Cle Elum Reservoir. The additional storage is intended primarily for instream passage for fish while maintaining existing commitments for irrigation deliveries. |
| Washington | Upper Yakima System Storage Feasibility Study | 2,500 | Funds will be used to continue an in-progress feasibility study, started by non-federal partners. Part of the Yakima Integrated Plan, the proposed project will provide additional water storage ranging from 20,000 acre-feet to 30,000 acre-feet, by creating reservoirs off the Kittitas Reclamation District (KRD) canal. The additional storage from this project could be managed as Total Water Supply Available in the Yakima Basin and help prorate districts with water to purchase in a drought year. The Yakama Nation would receive benefit from this project as their water supply is prorate and would potentially help them with drought year water supply needs. |
| Total, Water Conservation and Delivery - WIIN Section 4007 | | \$33,300 | |



IN REPLY REFER TO
MP-170
PRJ-1.10

United States Department of the Interior

BUREAU OF RECLAMATION
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, CA 95825-1898

APR 25 2018

RECEIVED
APR 30 2018
FWA

Mr. Douglas DeFlicht
Chief Operating Officer
Friant Water Authority
854 N. Howard Avenue
Lindsay, CA 93247

Subject: Request for Pre-incurrence of Costs for the Financial Assistance Agreement for Friant Kern Canal (FKC) Subsidence Capacity Correction.

Dear Mr. DeFlicht:

Thank you for your E-Mail dated April 10, 2018 regarding Pre-Award Incurrence of Costs for the proposed FKC Subsidence Capacity Correction financial assistance agreement. The San Joaquin River Restoration Program agrees to use the date of October 7, 2017 to establish the date for which reimbursement for costs incurred between this date and the date of execution of the financial assistance agreement would have been allowable, allocable, and responsible under the terms and conditions of the agreement.

Please contact Ms. Kellye Kennedy at kkennedy@usbr.gov or 916-978-4640 if you have any questions regarding this matter.

Sincerely,

Ann Lubas-Williams
Acting Program Manager

| | Restoration Program FK Capacity Correction | WIIN ACT 2017 FK Subsidence Challenges Project Omnibus Bill | PART III Groundwater Banking Program |
|---|---|--|---|
| FUNDING AVAILABILITY | | | |
| Federal Appropriations | \$5M | \$2.2M | \$TBD |
| Non- Federal Share | \$0 | \$2.2M | \$TBD |
| Total Available Funding | \$5M | \$4.4M | \$TBD |
| AUTHORIZATION | PL 111-11, Sections 10201 and 10203(a) (Settlement Act) | PL 114-322, Subtitle J Storage (WIIN Act) | PL 111-11, Section 10202 (Settlement Act) |
| Statutory Requirements | | | |
| Sole Source/Competitive Selection Process | Sole Source | Sole Source | Competitive |
| Cost Share Required | No | Yes (50-50) | Yes (50-50) |
| Feasibility Study | Yes. Secretary authorized and directed to conduct feasibility studies for Madera and FK Capacity Restoration | Yes. Conduct a new feasibility study. | No |
| NEPA Document | Yes | Yes | Yes |
| Ownership of New Facilities | Federal | Federal | Local (FWA) |
| Construction Authorization | Yes, upon completion of feasibility studies, the Secretary is authorized to construct the improvements and facilities | Yes, criteria established for eligibility (see attached Report to House and Senate Committees on Appropriations for FY17 Funding dated 1/18) | Yes |
| Notes: | Feinstein Letter: \$5M for immediate assessment and solutions towards Canal's restoration. Refers to 60% capacity decrease between Tule River and Lake Woollomes, particularly in area of Deer Creek | Project must increase storage. | Designation as reducing, avoiding, or offsetting the expected water supply impacts caused by the Restoration Flows consistent with the methodology developed pursuant to paragraph (3)(c) |



Special Report

**Water
Infrastructure
Finance and
Innovation Act
Letter of Interest
Submission and
Selection**

May 2018

Table of Contents

| | |
|--|----|
| Introduction | 2 |
| TFG Memo | 3 |
| WIFIA Program One-Page Summary..... | 4 |
| WIFIA Benefits Fact Sheet | 5 |
| Letter of Interest Check List..... | 6 |
| WIFIA Selection Overview | 7 |
| Letter of Interest FAQ | 8 |
| Federal Register WIFIA Announcement..... | 13 |
| WIFIA Sample Financial Pro Forma | 21 |
| WIFIA Letter of Interest Example | 22 |

Introduction

The Water Infrastructure Finance and Innovation Act (WIFIA) program accelerates investment in our nation's water infrastructure by providing long-term, low-cost supplemental loans for nationally and regionally significant projects.

This package focuses on the Letter of Interest (LOI) portion of the WIFIA application process. It includes information on how to write a LOI, the submission process and the evaluation of a WIFIA LOI.

For 2018, the WIFIA LOI submission period begins on July 6 and the LOI selection period begins 3-4 months after, most likely October or November of 2018.

DATE: May 1, 2018

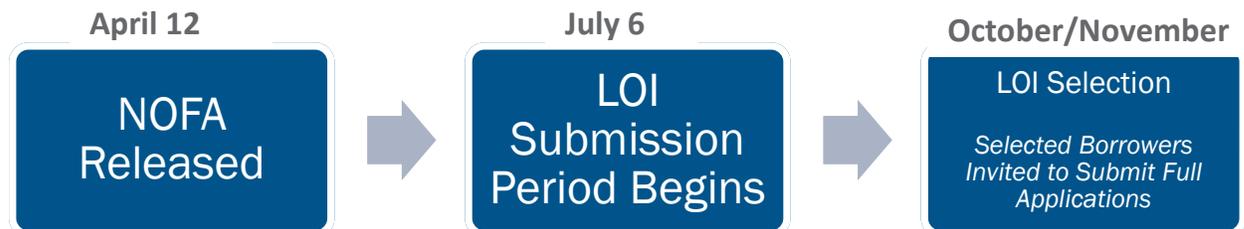
Submitting WIFIA Letters of Interest and Project Selection

Submitting an LOI is the first step in the WIFIA application process. After EPA evaluates and scores LOIs submitted for consideration, a three-person committee (consisting of senior water managers from the EPA’s Office of Wastewater Management, Office of Groundwater and Drinking Water, and the Office of Water) will make final selections and notify prospective borrowers that they are invited to submit a full application. Prospective borrowers should confirm or turn down the invitation to submit a full application within 30 days. **It is very important to note that there is no application fee to submit an LOI.** Fees are only paid by selected applications along with the full application if selected.

If your application is not selected, you can contact WIFIA staff to set up a “debrief” meeting or call to discuss why your application was not selected.

EPA will be hosting a webinar Wednesday, May 30 at 2:00 p.m. EDT for a WIFIA Letter of Interest Submission and Selection Process Question and Answer Session. A link to the webinar as well as all of the webinar materials will be accessible on the [WIFIA website](#) at the time of the event.

Timeline for the LOI Submission



Letter of Interest Evaluation

EPA has identified two strategic objectives as priorities for this selection round:

- Provide for clean and safe drinking water: EPA is working to strengthen its implementation of the Safe Drinking Water Act to ensure we protect and build upon the enormous public health benefits achieved through the provision of safe drinking water throughout the country. **The Agency’s highest priorities include reducing exposure to lead in the nation’s drinking water systems, ensuring continuous compliance with contamination limits, responding quickly to emerging concerns, and improving the nation’s aging and insufficient drinking water infrastructure.**
- Repair, rehabilitate, and replace aging infrastructure and conveyance systems: Many communities face formidable challenges in providing adequate and reliable water and wastewater infrastructure services. Existing water and wastewater infrastructure in some of these communities is aging, and investment is not always keeping up with the needs. EPA

estimates the national funding need for capital improvements for such facilities totals approximately \$740 billion over the next 20 years. In many cases, meeting these needs will require significant increases in capital investment.

Selection Criteria

| Criteria | Weight (Points) |
|---|-----------------|
| Nationally or Regionally Significant | 15 |
| New or Innovative Approaches | 5 |
| Protects against extreme weather events or helps to maintain or protect the environment | 5 |
| Serves regions with significant energy exploration | 5 |
| Serves regions with significant water resources challenges | 10 |
| Addresses identified municipal, State or regional priorities | 10 |
| Addresses need for repair, rehabilitation or replacement of water systems | 20 |
| Serves economically stressed communities | 10 |
| Reduces exposure to lead in drinking water systems | 20 |
| Readiness of a project | 50 |
| Preliminary engineering feasibility analysis score | 50 |
| Enables project to proceed earlier | 10 |
| Public or private financing | 10 |
| Budget authority | 10 |
| Preliminary creditworthiness assessment score | 60 |



The WIFIA program accelerates investment in our nation's water infrastructure by providing long-term, low-cost supplemental loans for regionally and nationally significant projects. The WIFIA program was established by the Water Infrastructure Finance and Innovation Act of 2014.

ELIGIBILITY

Eligible borrowers

- Local, state, tribal, and federal government entities
- Partnerships and joint ventures
- Corporations and trusts
- Clean Water and Drinking Water State Revolving Fund (SRF) programs

WIFIA can fund development and implementation activities for eligible projects

- Wastewater conveyance and treatment projects
- Drinking water treatment and distribution projects
- Enhanced energy efficiency projects at drinking water and wastewater facilities
- Desalination, aquifer recharge, and water recycling projects
- Acquisition of property if it is integral to the project or will mitigate the environmental impact of a project
- A combination of eligible projects secured by a common security pledge or submitted under one application by an SRF program

FUNDING AVAILABILITY

EPA announces WIFIA funding availability and application process details in the Federal Register and on its website.

IMPORTANT PROGRAM FEATURES



Minimum project size for large communities.



Minimum project size for small communities (population of 25,000 or less).



Maximum portion of eligible project costs that WIFIA can fund.



Maximum final maturity date from substantial completion.



Maximum time that repayment may be deferred after substantial completion of the project.



Interest rate will be equal or greater to the US Treasury rate of a similar maturity.



Projects must be creditworthy.



NEPA, Davis-Bacon, American Iron and Steel, and all federal cross-cutter provisions apply.

| STAY IN TOUCH | | | | |
|---------------|--|---|--|--|
| | | WEBSITE: www.epa.gov/wifia | | EMAIL: wifia@epa.gov |
| | | Sign-up to receive announcements about the WIFIA program at https://tinyurl.com/wifianews | | |



The Water Infrastructure Finance and Innovation Act (WIFIA) program accelerates investment in our nation's water infrastructure by providing long-term, low-cost supplemental loans for nationally and regionally significant projects. Borrowers benefit from receiving low, fixed interest rate loans with flexible financial terms.

WIFIA LOANS OFFER A LOW, FIXED INTEREST RATE

A SINGLE FIXED RATE IS ESTABLISHED AT CLOSING. A borrower may receive multiple disbursements over several years at the same fixed interest rate.

RATE IS EQUAL TO THE US TREASURY RATE OF A SIMILAR MATURITY. The WIFIA program sets its interest rate based on the U.S. Treasury rate on the date of loan closing. The rate is calculated using the weighted average (WAL) life of the loan rather than the loan maturity date. The WAL is generally shorter than the loan's actual length resulting in a lower interest rate.

RATE IS NOT IMPACTED BY BORROWER'S CREDIT OR LOAN STRUCTURE. All borrowers benefit from the AAA Treasury rate, regardless of whether they are rated AA or BBB. The WIFIA program does not charge a higher rate for flexible financial terms.

WIFIA LOANS PROVIDE FLEXIBLE FINANCIAL TERMS

CUSTOMIZED REPAYMENT SCHEDULES. Borrowers can customize their repayments to match their anticipated revenues and expenses for the life of the loan. This flexibility provides borrowers with the time they may need to phase in rate increases to generate revenue to repay the loan.

LONG REPAYMENT PERIOD. WIFIA loans may have a length of up to 35 years after substantial completion, allowing payment amounts to be smaller throughout the life of the loan.

DEFERRED PAYMENTS. Payments may be deferred up to 5 years after the project's substantial completion.

SUBORDINATION. Under certain circumstances, WIFIA may take a subordinate position in payment priority, increasing coverage ratios for senior bond holders.

WIFIA LOANS CAN BE COMBINED WITH VARIOUS FUNDING SOURCES. WIFIA loans can be combined with private equity, revenue bonds, corporate debt, grants, and State Revolving Fund (SRF) loans.

Example of a customized debt repayment structure for a \$100 million project



WIFIA loan's flexible repayment schedule allows for rate increases to be phased in over a longer period of time.





The Water Infrastructure Finance and Innovation Act (WIFIA) program accelerates investment in our nation's water infrastructure by providing long-term, low-cost supplemental loans for regionally and nationally significant projects.

FY 2017 SELECTION ROUND

NUMBER OF PROJECTS SELECTED: 12

TOTAL LOAN AMOUNT REQUESTED: \$2.3 billion for loans ranging from \$22 to \$625 million

TOTAL WATER INFRASTRUCTURE INVESTMENT SUPPORTED: \$5.1 billion for projects costing from \$45 million to \$1.3 billion

ESTIMATED PRIVATE INVESTMENT IN PROJECTS: \$1 billion

ESTIMATED STATE REVOLVING FUND INVESTMENT IN PROJECTS: \$700 million

NUMBER OF PEOPLE IMPACTED: 20 million in 9 states, including small, medium and large communities

TYPES OF BORROWERS: Private and public entities, including a State Revolving Fund (SRF) program

TYPES OF PROJECTS: Wastewater collection and treatment, drinking water distribution and treatment, stormwater management, and water recycling projects.

WIFIA APPLICATION PROCESS

PHASE 1: PROJECT SELECTION

- On January 10, 2017, EPA announced the amount of funding available and solicited letters of interest from prospective borrowers.
- In April 2017, EPA received 43 letters of interest in response to this request.
- EPA reviewed these letters of interest following the framework established in the Water Infrastructure Finance and Innovation Act of 2014. The assessment includes an eligibility screening, a preliminary creditworthiness assessment, a preliminary engineering feasibility analysis, and a selection criteria scoring.
- **On July 19, 2017, EPA announced the 12 projects selected to continue with the application process.**

PHASE 2: PROJECT APPROVAL

- After an invitee applies for WIFIA credit assistance, the WIFIA program conducts a detailed financial and engineering review in order to develop the terms and conditions for the project.
- Once a mutually agreeable term sheet is developed, the Administrator approves the loan and executes the term sheet.

PHASE 3: NEGOTIATION AND CLOSING

- Based on the term sheet, the WIFIA program finalizes the terms of credit assistance.
- At closing, the Administrator and the borrower execute the credit agreement, which is the binding legal document that allows the borrower to receive WIFIA funds.



LETTER OF INTEREST FORM CHECKLIST¹

GENERAL

- All questions are answered. Answers may be “not applicable” or “see attachment, file XX, pages XX.”
- All referenced attachments include the file name and relevant page numbers or chapter number.
- Submitted attachments are complete documents (not excerpts).
- Letter of Interest is submitted in form dated April 4, 2018 provided by EPA at <https://www.epa.gov/wifia/how-apply-wifia-assistance-0#materials>.
- Letter of Interest does not exceed 50 pages.
- Confidential Business Information is clearly identified and labeled per the instructions provided in the Letter of Interest form.
- If multiple projects are included in one letter of interest form, provide cost, scope and schedule information for each individual project being proposed.

SECTION A

- For private entities, documentation demonstrating public sponsorship is included. (Q. A-11)
- The organization chart provided clearly illustrates the relationships of all relevant parties. (Q. A-10)

SECTION B

- Project description and purpose clearly explain the project to an audience with little to no previous knowledge of the project. (Q. B-4-5)
- Accurate and clear project location information is provided, including a map or relevant street intersections. (Q. B-6)
- Project schedule is documented in the key milestones table in Letter of Interest form and a more detailed schedule is provided as an attachment. (Q. B-11)
- All available planning documents, including preliminary engineering reports, feasibility studies, preliminary designs, siting studies, project plans, and detailed cost estimates, created in support of the project are attached. Documents may be draft. (Q. B-12)
- If available, the system master plan and/ or asset management plans are included as attachments. (Q. B-14)
- The status of and plans for state or Federal environmental reviews are clearly explained. If available, environmental information documents and cross-cutter consultation communications are included as attachments. (Q. B-17)

¹ This checklist designed to be used in conjunction with the WIFIA Letter of Interest Form (OMB Control No. 2040-0292)

SECTION C

- The estimated useful life of the project is provided. (Q. C-1)
- Lifecycle costs or assessments are submitted as attachments, if available. (Q. C-2)
- If a full plan is not available, an explanation of major topics to be included in the final plan or the plan's table of contents is submitted. (Q. C-2)

SECTION D

- The requested amount of the WIFIA loan and the total eligible project costs are clearly identified. (Q. D-1-2)
- The total sources are equal to the total uses, minus ineligible costs. (Q. D-3)
- If available, existing credit ratings are provided for senior debt and, in cases where WIFIA is being proposed as subordinate debt, subordinate debt. (Q. D-4)
- The credit structure for WIFIA loan indicates whether debt will be issued under existing or new indenture and the proposed lien position. (Q. D-5)
- The revenue pledged to repay the WIFIA loan is clear and any credit enhancement is noted. (Q. D-5)
- The financial pro forma is attached as an editable Excel document. (Q. D-8)
- The financial pro forma includes at least all the applicable fields that are included in the [Sample Financial Pro Forma](#) and includes projections through the life of the loan. (Q. D-8)

SECTION E

- Responses address the selection criteria as described in Appendix C of the [WIFIA program Handbook](#).

SECTION F

- Contact information is included for at least one staff member who works day-to-day on the project. (Q. F-1-2)

SECTION G

- The signed and scanned version of this section is included as an attachment.

SECTION H

- The signed and scanned version of this section is included as an attachment.
Box is initialed only if you DO NOT want your materials shared with your state SRF program.



FREQUENTLY ASKED QUESTIONS FOR WIFIA CREDIT ASSISTANCE 2018 SELECTION ROUND (DEADLINE: JULY 6)

EPA prepared these Frequently Asked Questions (FAQs) and answers to assist prospective borrowers with preparing their WIFIA credit assistance letters of interest. Please review the [Notice of Funding Availability](#) (NOFA) and [WIFIA Program Handbook](#) when preparing your letter of interest. If the information the FAQs differs from the information in the statute, regulations, or NOFA, then the statute, regulations, or NOFA will take precedence. This document will be updated periodically as we receive and answer questions from prospective borrowers during this selection round.

[Sign-up](#) to receive updates about the WIFIA program.

LETTER OF INTEREST SUBMISSION

What is the deadline for letter of interest submission?

Prospective borrowers must the letter of interest form and all attachments to EPA by 12:00 pm (noon) EDT on July 6, 2018.

How do I submit my letter of interest?

Prospective borrowers should submit their letter of interest form and all attachments electronically to wifia@epa.gov or via EPA's SharePoint site.

- **Email:** EPA is only able to accept e-mails of 25 MB or smaller with unzipped attachments. If necessary due to size restrictions, prospective borrowers may submit attachments separately, if they are received by the deadline.
- **SharePoint:** To be granted access to the SharePoint site, prospective borrowers should contact wifia@epa.gov and request a link to the SharePoint site, where they can securely upload their LOIs. Requests to upload documents should be made no later than 12:00 pm (noon) EDT on July 3, 2018.

How do I know if my letter of interest was received by the deadline?

The WIFIA program will confirm receipt of your letter of interest via email to the primary and secondary contact listed on the letter of interest form.

How can I receive help in understanding and responding to the WIFIA program letter of interest?

The [WIFIA Program Handbook](#) contains additional information about the WIFIA program and the selection process. In particular, Appendix C provides information about the selection criteria used by EPA to review projects and how prospective borrowers should address them. Appendix G includes tips to consider when preparing and submitting a letter of interest.

EPA's WIFIA program will host four webinars for prospective borrowers that will explain the process for submitting and evaluating WIFIA letters of interest. To join a webinar, [register in advance](#). Following the webinars, EPA will post a copy of the presentation and a recording of the webinar will be available on the [WIFIA website](#). These webinars will be held on:

- Monday, April 23, 2:00-3:30 EDT pm: WIFIA Letter of Interest Submission and Selection Process for All Eligible Prospective Borrowers
- Monday, April 30, 2:00-3:30 EDT pm: WIFIA Letter of Interest Submission and Selection Process for Small Community Prospective Borrowers
- Wednesday, May 2, 2:00-3:30 EDT pm: WIFIA Letter of Interest Submission and Selection Process for Tribal Prospective Borrowers
- Wednesday, May 30, 2:00-3:30 EDT pm: WIFIA Letter of Interest Submission and Selection Process Question and Answer Session

Prospective borrower may contact the WIFIA program staff to ask questions. Questions should be directed to wifia@epa.gov or 202-564-2992. In addition to answering the prospective borrower directly, the WIFIA program will compile the questions and their responses and include them in this FAQ.

Is EPA holding meetings with prospective borrowers to discuss projects before letter of interest submissions?

Yes. EPA will meet (in-person or by phone) prospective borrowers prior to submission of their letter of interest. Contact the WIFIA program at wifia@epa.gov to set up a meeting.

Is there a fee for submitting a letter of interest?

No. EPA will not collect any fees until the application phase. EPA has structured the WIFIA fee schedule in this way so that an initial project review is conducted at no cost to the prospective borrower. Once a prospective borrower is invited to apply, it must submit the application fee with the application materials. The fee schedule is available Appendix D of the [WIFIA Program Handbook](#).

Is there a limit to the number of attachments?

No. Prospective borrowers may send in as many attachments necessary to support its letter of interest. In responding to the letter of interest questions, prospective borrowers should direct reviewers to the relevant attachment, specifying the page numbers or sections as appropriate.

May I request that information submitted to EPA remain confidential?

Yes. A prospective borrower may assert a business confidentiality claim covering part or all of the information submitted to EPA as part of its letter of interest in a manner consistent with [40 C.F.R. 2.203](#), 41 Fed. Reg. 36902 (Sept. 1, 1976), by placing on (or attaching to) the information a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as trade secret, proprietary, or company confidential. The prospective borrower should also state whether it desires confidential treatment until a certain date or until the occurrence of a certain event. Information covered by a business confidentiality claim will be disclosed by EPA only to the extent and only by means of the procedures set forth under [40 C.F.R. Part 2, Subpart B](#). Information that is not accompanied by a business confidentiality claim when it is received by EPA may be made available to the public by EPA without further notice to the applicant. More detailed information is available in Appendix F of the [WIFIA Program Handbook](#).

Can prospective borrowers who are not selected request a de-brief on their letter of interest to be better positioned to re-apply?

Yes. Prospective borrowers not selected in this round can request that EPA provide a de-brief on the submitted letter of interest.

ELIGIBLE ENTITIES, PROJECTS, AND COSTS**Who is eligible to apply for WIFIA credit assistance?**

The entity applying for WIFIA credit assistance must be one of the following:

- A corporation.
- A partnership.
- A joint venture.
- A trust.
- A federal, state or local government entity, agency, or instrumentality.
- A tribal government or consortium of tribal governments.
- A state infrastructure financing authority, as defined by the Clean Water Act and the Safe Drinking Water Act.

Can municipal governments come together and jointly apply?

Yes. Municipal governments can submit a single letter of interest for a group of projects with a common security pledge.

Are territories of the United States or entities within such territories eligible for WIFIA assistance?

Yes. For purposes of WIFIA, territories of the United States and the District of Columbia are considered states. Therefore, any eligible entity located in a territory or the District of Columbia may receive WIFIA assistance.

Are non-profit entities eligible for WIFIA assistance?

Yes. Non-profit entities are typically organized as corporations or partnerships, both of which are defined as eligible entities.

Are Joint Power Agencies eligible?

Yes, Joint Power Agencies are eligible.

Can WIFIA loans finance the costs of project design and feasibility studies?

Costs such as project design, feasibility studies and consulting fees are eligible project costs.

How do you define a small community water infrastructure project?

For the purposes of WIFIA, a small community water infrastructure project is one that is eligible for the State Revolving Fund (SRF) program and serves a community of not more than 25,000 individuals (not connections). For this purpose, the population of the community is determined by the population of the entire system which the project serves.

Are projects less than \$20 million eligible for the WIFIA program?

For projects serving a community with more than 25,000 individuals, the project must cost at least \$20 million. However, projects that serve no more than 25,000 individuals and are SRF-eligible can cost less. For these small communities, the minimum project cost is \$5 million

Is there an upper limit on project cost or size?

There is no defined upper limit. EPA is bound by its budget authority, which sets the upper limit on loan volume.

Can WIFIA financing be combined with a State Revolving Fund (SRF) loan?

Yes. A project can be funded with both WIFIA and SRF Funds, however, if the source of the SRF funds is the EPA capitalization grant, total funding between the two programs will be limited to 80% of eligible project costs.

LETTER OF INTEREST EVALUATION

What are the priorities for this selection round?

EPA has identified two strategic objectives as priorities for this selection round:

1. **Provide for clean and safe drinking water:** EPA is working to strengthen its implementation of the Safe Drinking Water Act to ensure we protect and build upon the enormous public health benefits achieved through the provision of safe drinking water throughout the country. The Agency's highest priorities include reducing exposure to lead in the nation's drinking water systems, ensuring continuous compliance with contaminant limits, responding quickly to emerging concerns, and improving the nation's aging and insufficient drinking water infrastructure.
2. **Repair, rehabilitate, and replace aging infrastructure and conveyance systems:** Many communities face formidable challenges in providing adequate and reliable water and wastewater infrastructure services. Existing water and wastewater infrastructure in some of these communities is aging, and investment is not always keeping up with the needs. EPA estimates the national funding need for capital improvements for such facilities totals approximately \$740 billion over the next 20 years. In many cases, meeting these needs will require significant increases in capital investment.

Are all selection criteria weighted the same?

No. Section VII of the [Notice of Funding Availability \(NOFA\)](#) outlines how the selection criteria are weighted and evaluated for this selection round. Appendix C of the [WIFIA Program Handbook](#) provides additional information on how prospective borrowers should address the selection criteria.

Are the selection criteria the same for the \$5 million loans to small communities?

Yes. The WIFIA program will use the same selection criteria to evaluate all projects, including small community projects.

OPERATIONS & MAINTENANCE REPORT

Friant Water
Authority

April 2018



A compilation of current FWA operations and maintenance activities occurring throughout the 152-mile canal system.

Safety & Education and Training

ALL DEPARTMENT ONITS REPORTING

SAFETY

The Orange Cove, Lindsay, and Delano Maintenance staff held their weekly tailgate safety meetings at their respective yards. Job specific safety meetings were held at the various project job sites. Supervisors conducted field site inspections ensuring compliance with both federal and state safety regulations.

The Lindsay Maintenance staff viewed a “High Impact” safety video from the Zenith Insurance Company that discussed the risk of not following safe work habits and failure to use proper Personal Protective Equipment. The video showed graphic real-life photos of actual personal injuries.

The Delano Foreman discussed FWA rules and regulations on heat illness. Items such as drinking water availability, access to shade, daytime temperatures, first aid and Emergency response were discussed.

ACCIDENTS AND INJURIES

There were no reportable accidents or injuries.

Maintenance Supervision

GENERAL SUPERINTENDENT REPORT

NPDES PERMIT

Blankenship and Associates continues to monitor and recommend appropriate actions under permit guidelines.

SUBSIDENCE

Stantec completed the five bridge inspections in the subsidence area, and an informal review is out with a technical memo forthcoming.

Friant staff and County of Tulare staff met to discuss current Operations and determine ownership of utilities and to discuss the MOU process to move forward.

PERSONNEL ITEMS

Staff worked on several personnel items including annual reviews, policy, conformance and other matters.

Construction and Maintenance

ORANGE COVE, LINDSAY, & DELANO MAINTENANCE FORMEN REPORTS

WEED AND PEST CONTROL

The following is a summary of the chemical products used during the month by maintenance staff for weed and pest control on various canal sections, and the product inventory on hand:

| Products | Units | Maintenance Yard Usage | | | Total Usage | End of Month On hand |
|---------------------------|-------|------------------------|---------|--------|-------------|----------------------|
| | | Orange Cove | Lindsay | Delano | | |
| Clearcast | Gals. | 0 | 0 | 0 | 0 | 2 |
| Copper Sulfate Old Bridge | Lbs. | 0 | 0 | 0 | 0 | 120,000 |
| Copper Sulfate Chem One | Lbs. | 0 | 0 | 0 | 0 | 16,850 |
| Diphacinone | Lbs. | 112 | 0 | 0 | 0 | 149 |
| Diuron 4L Loveland | Gals. | 0 | 0 | 0 | 0 | 2,395 |
| Diuron 4L Drexel | Gals. | 0 | 0 | 0 | 0 | 0 |
| Finale | Oz. | 1184 | 0 | 0 | 1184 | 1,884 |
| Milestone VM | Oz. | 0 | 105 | 0 | 105 | 595 |
| Roundup Custom | Gals. | 105 | 6 | 4 | 115 | 1,222 |
| Roundup Pro Conc | Gals. | 57 | 20 | 40 | 214 | 1,291 |
| Sonar Genesis | Gals | 0 | 0 | 0 | 0 | 2 |

The Orange Cove Maintenance staff continued the application of Diphacinone to the canal right-of-way for the control of the California ground squirrel.

The Orange Cove, Delano and Lindsay Maintenance staff continued the application of Diuron pre-emergent to inside banks and right-of-ways. The Lindsay, Orange Cove and Delano Maintenance staff continued the application of Roundup Custom and Roundup Pro as part of the annual weed control program.

Lindsay Maintenance Staff continued with the application of Milestone for the post-immersion control of weeds and grasses along the FKC.

Lindsay and Orange Cove Maintenance staff continued with the application of Diuron for the pre-emergence control of grasses and broad-leaf weeds on the canal right-of-way.

Lindsay Maintenance staff continued with the use of the newly acquired "GopherX" unit for the control of California ground squirrels.

The Orange Cove Maintenance staff continued the removal of vegetation from canal embankments, drain ditches and around structures using hand tools as part of the Orange Cove section weed abatement program. They also continued the removal of accumulated vegetation from siphon outlets and removal of woody vegetation from the canal embankment and toe.

CANAL AND DIVERSION STRUCTURES

Lindsay Maintenance staff completed the slurry injection (mudjacking) at MP 100.64, MP 71.64, MP 105.80 and at MP 104.90 to stop water leaking from the canal. Approximately 2 cubic-yards of material were injected behind the concrete liner. An earthen dike was constructed around the area to prevent the water from flooding the adjacent grape vineyard. Additional mudjacking will occur later.



The Lindsay Maintenance staff completing slurry injection.



The Lindsay Maintenance staff built a temporary dike to prevent water from flooding vineyard.

Orange Cove Maintenance staff continued to remove debris from the water ways and at check structures that have been blown or dumped into the canal. Staff also cut up and hauled out several trees that had fallen along the canal and row. Staff conducted inspections of the lining and made notes for areas needing repairs.

The Orange Cove Maintenance staff repaired fencing in several locations throughout their section; including the installation of one fence. Properly located and maintained fencing helps to reduce property disputes and can help reduce the FKC ROW's being utilized for "personal/private use", convenience, building, storing, and illegal dumping. It also helps to prevent trespass as well as protects people and livestock from getting into the canal.



The Orange Cove Maintenance staff completed the fence to help prevent trespassing.

Orange Cove and Delano Maintenance staff continued maintenance to upper and lower embankments and around structures such as blockhouses, turnouts, bridge abutments, etc. They used a utility tractors or motor graders and earth moving equipment. The area was back-filled, compacted and graded. Embankment maintenance will prevent erosion to the inside/outside banks, roads, gate structures and concrete liner.

The Delano and Orange Cove Maintenance staff continued their structure gate maintenance for the year that included repairs on radial and slide gates; lubing of all grease points and wire ropes; repair of metal work and security fences; deck cleaning and touch-up painting; and buoy ball and wire rope replacement.



The Delano Maintenance staff continues maintenance and repairs on radial and slide gates.

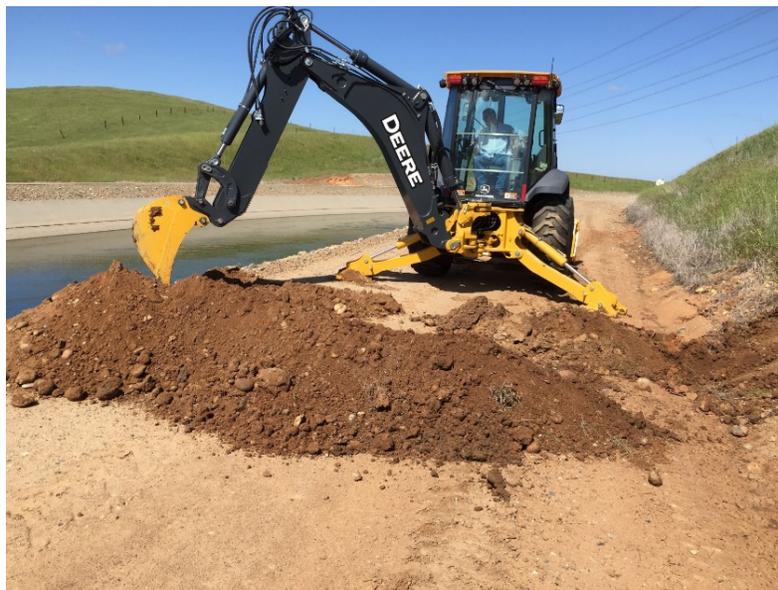
The Delano Maintenance staff continued to paint bar gates, bollard posts, guard railings, warning signs, liner markers, structures, security fence wings, electrical panels, and blockhouse doors.

O&M ROADS

The Orange Cove Maintenance staff continued to perform their routine maintenance and repairs, such as yard cleaning, warehouse & shop housekeeping vehicle& equipment repairs, facility improvement and office duties.

BRIDGES

Orange Cove Maintenance staff created a drain ditch along the Friant Kern Canal embankment to prevent flooding along the embankment. The ditch will also help prevent vehicular trespass in this area.



A drainage pipe is being installed under the roadway in the Orange Cove maintenance section.

The Lindsay Maintenance staff discovered that unknown person(s) had thrown a rock through one of the west windows of the Lindsay server room on April 1, 2018 at approximately 5:00 a.m. The upper window was removed and taken to The House of Glass, where the glass had to be ordered. The glass was replaced, and the window reinstalled.



The Lindsay Maintenance staff prepare to install new window.



The Delano Maintenance staff performing routine repairs.

RIGHT-OF-WAY MAINTENANCE

The Delano Maintenance staff continued installing and repairing bollard guard posts to prevent vehicles and heavy equipment from damaging Authority structures. The Delano Maintenance staff continued bar gate repairs and installations.

Lindsay and Orange Cove Maintenance staff replaced of worn/faded/damaged safety/warning signs along the canal and right-of-ways.

Lindsay Maintenance staff completed the repairs of the fence that was cut to gain unauthorized access to the canal at Avenue 194 in Strathmore.



The Lindsay Maintenance staff repaired fence.

The Orange Cove and Delano Maintenance staff continued to remove illegally dumped items along the Friant Kern Canal right-of-way. Trash and debris were removed and transported to the local solid waste facility or stored for future disposal.

The Orange Cove Maintenance staff completed the repair and replacement of traffic signs.

The Orange Cove Maintenance staff opened flap valves as necessary to allow water into the canal, while other flap valves were sealed in anticipation of high canal water levels

Delano Maintenance Staff continues the removal of illegally dumped trash on Authority Right of ways. All trash and debris will be removed and transported to the local solid waste/ recycling facility.



Silted inlet valve preventing water from draining low at MP 13.92 area.



Inlet valve reopened and flowing water at MP 13.92 area.

The Delano Maintenance staff continued to repair and install security fencing to prevent the public from entering Friant Kern Canal Right-of-ways and structured areas.

VEHICLE AND HEAVY EQUIPMENT

The following is a summary of the vehicle and heavy equipment preventive maintenance services and repairs made by the technical services staff:

| Location Delano, Orange Cove and Lindsay | Type | Quantity |
|---|-------------------------|----------|
| In House Repairs | B | 6 |
| | C | 8 |
| | E | |
| | BIT (90-Day) | 4 |
| Outside Repairs | B | |
| | C | |
| | Smog Test Smoke Test | |
| Location Delano, Orange Cove and Lindsay | Type | Quantity |
| In House Repairs | Light Vehicles | 13 |
| | Trucks | 3 |
| | Heavy Equipment | 12 |
| | Utility Equipment | 9 |
| Outside Repairs | Light Vehicles | |
| | Trucks | |
| | Heavy Equipment | |

Engineering Activities

ENGINEER AND ENGINEER TECHNICIAN REPORT

Staff continued working on database creation information.

Staff worked on more revisions to the conference room layout.

Staff supplied information on right-of-way, turnouts, tract maps and various drawings to Blair, Church and Flynn for a proposed 2-bay pumping structure on the Wood Central Ditch.

Staff continued going through the filing cabinets, organizing and familiarizing himself with the information contained in them.

Operations Activities

OPERATIONS SUPERVISOR REPORTS

Operations Staff delivered 151,874 acre-feet during the month of April. Total water diverted year-to-date to FKC Contractors was 10,169.

Sump pump deliveries of 6 acre-feet were made with a year-to-date total of 66 acre-feet.

Staff adjusted and reset the zero on 7 Transmitters.

Staff removed, repaired and reinstalled the Taylor meter.

Staff put together a proposal for solar powered installation at P5.

Staff relocated the FID #2 Digital Meter head from the slope to a safer location on top of the non-op bank.

Staff reprogrammed the Honeywell meters to provide some damping to flow recordings at 10th W, S3 and Lewis Creek.

Staff completed End-of-Month reports and Report of Water Deliveries for the month of March.

MISCELLANEOUS ACTIVITIES-FORMATTING

Staff spent 6 days preparing Project Management Planning's for COO.

SCADA

An alarm radio for level and power warnings was replaced and a new program was installed at the Ability Base call-out center.

A Cisco 819 router at Kern Check has been replaced and all configuration changes have been made to it. Tested communications at this site.

Nine pipeline turnouts received new modems for better signal strength and remote communication. This included Taylor, Sherwood, Airport, 56 West, 40 West, 40 East, 24 East, 24 West, and 8 West.

The ladder logic and the ClearSCADA HMI was reprogrammed on-site for the Casa Blanca turnout and #4 Ditch. The IP settings have been changed and the level scaling has been adjusted for these turnouts.

The Zetron autodialer alarm system was reprogrammed to call out technicians if an alarm is activated.

Configuration changes were made in the ladder logic program for Wood Central, Porter Slough, Gould Canal, and Tipton Ditch.

White River modem has been mounted to the side of the Honeywell cabinet.

ELECTRICAL

Staff assembled and replaced Control Panels at the Tule River Check Parshall, White River Check and the AEWSD Parshall's.

Staff assisted in the putting in control panels and did the programmed the Soft Start Switch.Gear for the pump back operations at Shafter Check and Woollomes Check.

Staff did minor repairs as needed in the yards.

Staff replaced the motor in the Lindsay steam cleaner.

Staff repaired power issues at Terra Bella Irrigation District turnout.

Infrastructure Management

DIRECTOR OF TECHNOLOGY REPORT

On April 13th, the SCADA telemetry system went down due to several hardware issues with Frontier. Staff worked in unison throughout the weekend to ensure water deliveries occurred as requested. The total downtime was four days, though there were times of operation uptime during that downtime. This is the second significant downtime caused by Frontier in the past six months. Staff is investigating other technologies to remove the requirement of physical circuits delivered by Frontier.

Due to issues with Frontier ISDN circuits, the Lindsay office is experiencing dropped calls. Frontier was dispatched to resolve issues. Staff is engaged in deriving hosted voice services that will eliminate the requirement of physical circuits from Frontier.

As part of the project to provide collaboration tools for Authority staff, Cisco Jabber was tested to provide instant messaging, mobile voice, and connectivity to video conferencing. Testing showed that the Jabber client is cumbersome, interferes with mobile device normal operation.

The SSL certificate for the VPN connection to the Lindsay office was renewed, and the Cisco ASA firewall was updated with new certification credentials.

To alleviate respective labor hours spent in the receptionist role, the Authority derived an auto-attendant which answers calls if a staff person is not available after four rings. This has provided Office Technicians the flexibility to work on a project that takes them away from their desks, increasing productivity and efficiency.

The Authority was victim to phishing attack when a staff member entered their network credentials into an invalid website. The issues were quickly resolved.

The SCADA Communications Project is thirty percent complete. The Rocky Hill Check structure has all hardware installed, and all servers required for the Intellistie management system have been installed on

the Authority's on-premise web-scale hyper converged infrastructure. The schedule is to finish the network requirements; test data flow between the

SCADA servers, Intel listed, and edge software in May. Deployments for the remainder of the check structures is slated to begin June 1st.

Operations staff escorted QPCS engineers to the first twenty-six sites of the Cisco router replacements have occurred to troubleshoot connectivity issues. QPCS identified several issues and will provide the Authority a comprehensive list recommended resolutions. The Authority is also engaged in reviewing a proposal to migrate from a Cisco router platform to the Cradlepoint Net Cloud solution. Cradlepoint Net Cloud has become the leader in 4G communications, and their NetCloud platform provides improved administration, configuration, and development potential. The secondary benefit is the removal of the approximate \$30,000 a year circuit costs of our existing infrastructure.

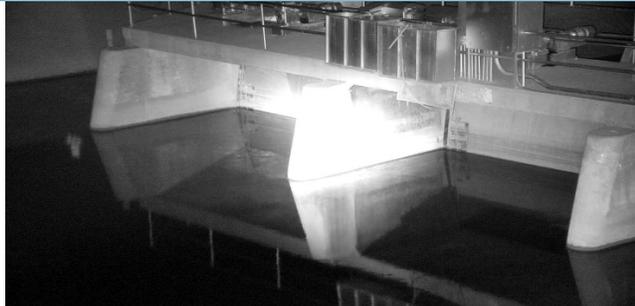
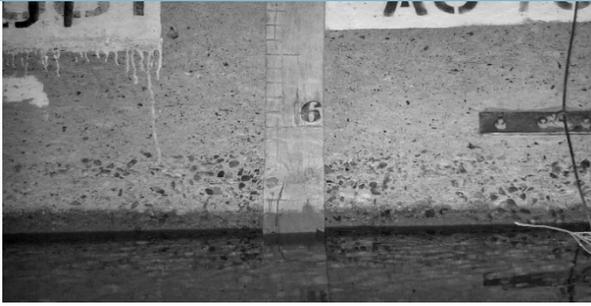


Remaining sixty-four routers arrived for replacement.

SCADA Communications Project is approximately thirty-three percent complete. In March all the virtual server architecture was installed and configured within the Authority's on-premise Nutanix web-scale platform.

Intellisite Video Management platform was installed and configured within the edge infrastructure at Rocky Hill.

FWA O&M Report

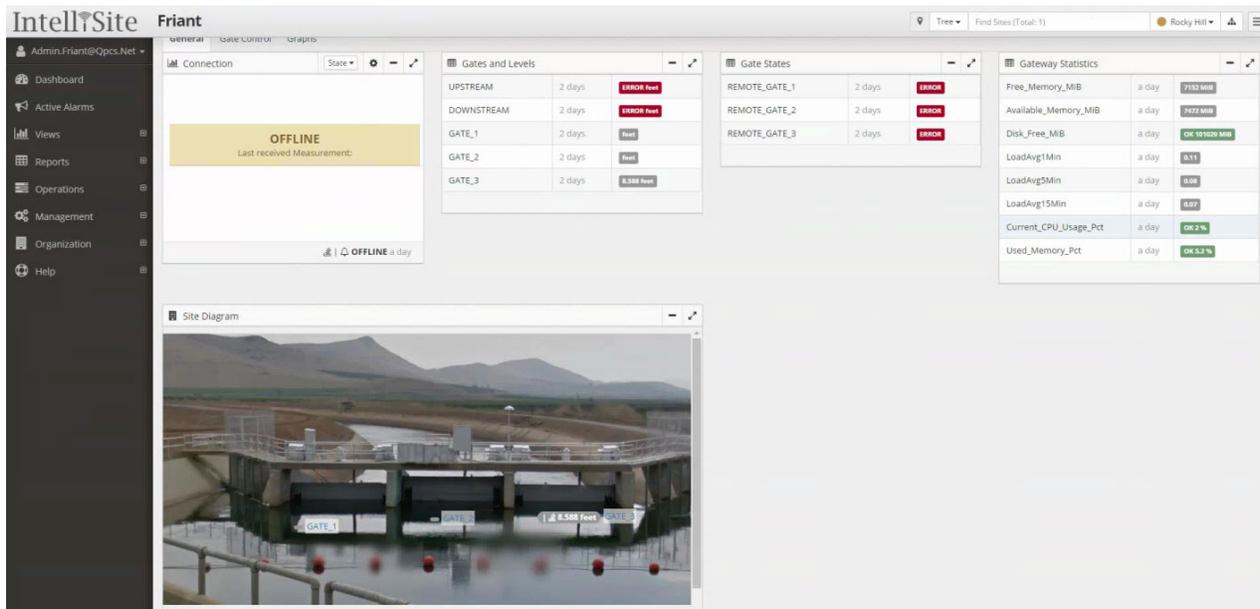


SCP III Eyes On Objective – Rocky Hill staff gauge and bridge at 9 PM. Giving operations remote inspection capability 24-day



Eyes On program securing Rocky Hill Entrance. Trespasser on the non-op side of Rocky Hill Check (9 PM)

Intellisite and Azeti engineers have been engineering and developing the data structures and front-end engineers within a SCADA lab provided by the Authority.



The screenshot shows the Intellisite operational dashboard for the Rocky Hill Check Stricture site. The interface includes a navigation menu on the left with options like Dashboard, Active Alarms, Views, Reports, Operations, Management, Organization, and Help. The main content area is divided into several panels:

- Connection:** Shows a yellow 'OFFLINE' status with the text 'Last received Measurement:' and a button to 'OFFLINE a day'.
- Gates and Levels:** A table listing various gates and levels with their states and error messages.
- Gate States:** A table listing remote gate states and their error messages.
- Gateway Statistics:** A table showing various system statistics such as memory usage and CPU usage.
- Site Diagram:** A 3D rendering of the physical structure with labels for GATE_1, GATE_2, and GATE_3.

| Component | Duration | Status |
|------------|----------|-------------|
| UPSTREAM | 2 days | ERROR fault |
| DOWNSTREAM | 2 days | ERROR fault |
| GATE_1 | 2 days | fault |
| GATE_2 | 2 days | fault |
| GATE_3 | 2 days | 0.5M fault |

| State | Duration | Status |
|---------------|----------|--------|
| REMOTE_GATE_1 | 2 days | ERROR |
| REMOTE_GATE_2 | 2 days | ERROR |
| REMOTE_GATE_3 | 2 days | ERROR |

| Statistic | Unit | Value |
|-----------------------|-------|---------------|
| Free_Memory_MiB | a day | 7182 MiB |
| Available_Memory_MiB | a day | 7472 MiB |
| Disk_Free_MiB | a day | OK 101020 MiB |
| LoadAvg1Min | a day | 0.11 |
| LoadAvg5Min | a day | 0.08 |
| LoadAvg15Min | a day | 0.07 |
| Current_CPU_Usage_Pct | a day | OK 2% |
| Used_Memory_Pct | a day | OK 5.4% |

Mock-up of the operational dashboard for Rocky Hill Check Stricture site.

Administration Activities

BUSINESS ADMINISTRATION MANAGER REPORT

General Superintendent initiated the budget preparation for the FY19 & FY20 proposed maintenance budgets.

For the month of April, staff spent approximately 70% of their time allocated to Administration and 30% of their time allocated to supporting Leadership activities.

By the request of the COO, staff developed several styles of Board of Director meeting (BOD) packets, organized delivery of BOD packets to Leadership staff for meeting preparation, and assisted the Executive Secretary with other general duties.

Staff coordinated with the CEO's Executive Secretary to create a binder with meeting materials for the monthly SJVWIA meeting and courier materials to the CEO in time for meeting preparation.

Staff continues to assist the accounting department to digitize all district records held by them.

By request of the CEO, staff created "DC Trip" meeting binders for each of the participants which included travel itinerary, agenda, and a bio for each person that the attendees would meet.

By the request of the CEO, staff created EC Meeting packet for those traveling to Washington D.C., to enable staff to attend remotely.