



AGENDA

WATER RESOURCES COMMITTEE Santa Fe Irrigation District

Thursday, May 3, 2018
9:00 a.m.

Held at the Santa Fe Irrigation District
5920 Linea de Cielo, Rancho Santa Fe, CA 92067

CALL MEETING TO ORDER

ORAL COMMUNICATIONS

Opportunity for members of the public to address the Committee (Government Code Section 54954.3) Individuals may address the Committee regarding items not appearing on the posted agenda, which are within the subject matter jurisdiction of the Board, at any time. Comments and inquiries pertaining to items listed on the agenda will be received during the deliberation of the agenda item. Speakers are asked to state their name, address, and topic, and to observe a time limit of three (3) minutes each. Members of the public desiring to address the Committee are asked to complete a speaker's card, available at the table near the entrance and present it to the Board Secretary prior to the start of the meeting.

ACTION AND DISCUSSION ITEMS

1. Approval of February 27, 2018 Meeting Minutes (pages 3-4)
2. Notice of Completion for the Automated Metering Program Phase 3 Project J-1801 (pages 5-8)
3. Consider Authorizing the General Manager to Execute a Purchase Agreement for Vehicles (pages 9-10)
4. Review Draft Fiscal Year 2019 Capital Acquisition Budget (pages 11-16)
5. Consider Authorizing the General Manager to Execute Amendment No. 5 to the Professional Services Agreement with the Kleinfelder Group for Joint Facilities Improvements (pages 17-21)

REPORTS

6. FY18 Capital Improvement Projects Status Report (verbal)
7. Engineering Services Manager's Report (verbal)

8. Operations Manager's Report (verbal)

- 2018 Planned Regional Disinfectant Changeover
- Presentation of Valve Maintenance and Replacement Program

9. General Manager's Report (verbal)

10. Committee Members' Comments (verbal)

INFORMATION ITEMS – None

ADJOURN

Next Scheduled Water Resources Committee meeting: *Thursday, June 7, 2018 at 9:00 a.m.*

**MINUTES
SANTA FE IRRIGATION DISTRICT
WATER RESOURCES COMMITTEE**

February 27, 2018
Santa Fe Irrigation District
5920 Linea del Cielo, Rancho Santa Fe, CA 92067

PRESENT: Chairman Kenneth Dunford, Director Andy Menshek, General Manager Michael Bardin, Executive Assistant Kim Johnson, Engineering Services Manager Bill Hunter, Operations Manager Cor Shaffer, and Associate Civil Engineer Marissa Potter, were present.

Chairman Dunford called the meeting to order at 9:04 a.m.

ORAL COMMUNICATIONS - None

ACTION AND DISCUSSION ITEMS:

1. APPROVAL OF FEBRUARY 1, 2018 MEETING MINUTES

The Committee approved the minutes as submitted.

2. REVIEW DRAFT FISCAL YEAR 2019 CAPITAL IMPROVEMENT BUDGET AND DRAFT UPDATED 10 YEAR CAPITAL IMPROVEMENT PROGRAM

ESM Hunter presented the item and responded to questions from the Committee. He noted that the Capital Acquisition portion of the budget will be presented to the Committee at a future meeting.

3. REVIEW UPDATE OF SFID AMMP ASSET VALUATION

EM Hunter presented the update and responded to questions from the Committee. This item will move forward to the Board in April to Receive and File.

This item was for the Committee's information only. No action was requested or required of the Committee.

REPORTS

4. FY18 CAPITAL IMPROVEMENT PROJECTS STATUS REPORT

ESM Hunter provided a status update on current projects and responded to questions from the Committee.

5. ENGINEERING SERVICES MANAGER’S REPORT - None

6. OPERATIONS MANAGER’S REPORT

OM Shaffer reported that a kick-off meeting with the City of San Diego for the Lake Hodges Oxygenation project is scheduled. He also reported that currently 50% local water is being delivered and he expects to have adequate local water for use through the end of the year.

7. GENERAL MANAGER’S REPORT

GM Bardin reported that San Diego Gas and Electric has commenced on a project to replace wooden power poles with steel poles within the Rancho Santa Fe community.

8. COMMITTEE MEMBERS’ COMMENTS – None

INFORMATION ITEMS – None

ADJOURN

Chairman Dunford adjourned the meeting at 10:47 a.m.

Kenneth Dunford, Chairman

DATE: May 3, 2018
TO: Water Resources Committee
FROM: General Manager
SUBJECT: Notice of Completion for the Automated Metering Program Phase 3 Project J-1801

RECOMMENDATION:

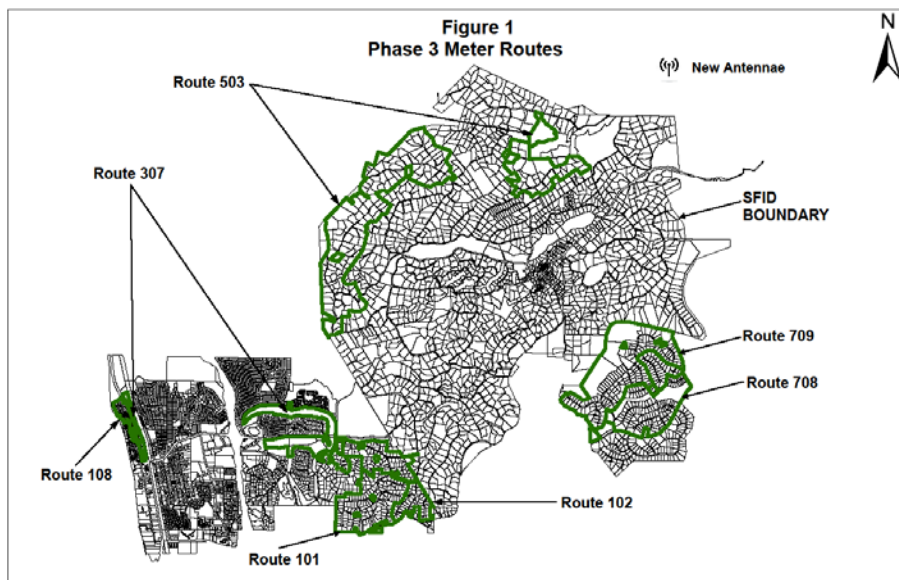
It is the Staff recommendation that the Water Resources Committee:

1. Recommend the Board of Directors authorize the General Manager to File a Notice of Completion for the Automated Metering Program Phase 3 Project J-1801; and
2. Discuss and take other action as appropriate.

BACKGROUND:

The Santa Fe Irrigation District (District) relies on approximately 7,600 meters to measure and totalize potable water, recycled water, and fire flow usage for its customers. The District’s 10-year Capital Improvement Plan includes a five year, six phase program, to replace all of the existing manual read meters with a fixed base automated metering system. Phases 1 and 2 of the program were completed in Fiscal Year (FY) 17 and included the replacement of approximately 1,300 manual read meters and installation of two antennae base station sites.

On November 16, 2017, the Board of Directors authorized the General Manager to execute a Construction Contract for the Automated Metering Program Phase 3 Project J-1801 to Aqua Metric. The Phase 3 project included the replacement of approximately 1,195 additional meters, and installation of one additional antenna base station site. Figure 1 shows the locations of the routes where automated meters were installed under Phase 3.



As shown on Table 1, the initial construction contract amount for Phases 3 was \$740,186.67. There were two change orders resulting in an overall deduction of \$-(5,210.90). During construction it was determined that approximately 61 meter replacement sites required various district service piping improvements due to age, alignment, and other issues. Therefore, District Staff improved the piping and replaced the meters in these locations, and the installation cost was removed from the contractor's agreement under Change Order No. 2. The final construction contract amount for Phases 3 is \$734,975.77.

Table 1			
Automated Metering Program Phase 3 Project J-1801 Change Order Summary			
Authorizations	Change Order Amount	Total Contract Amount	Purpose of Change Order
Original Contract	-	\$740,186.67	
Change Order 1	\$2,541.60	\$742,728.27	Furnish 16 additional 3/4-inch meters
Change Order 2	-\$7,752.50	\$734,975.77	Deduction for meters installed by SFID Staff
Total	-\$5,210.90	\$734,975.77	

Installation of the Phase 3 meters and the antennae base station have been completed and is ahead of schedule. The approved contract completion date is July 13, 2018. Therefore, Staff recommends that the Board of Directors authorize the General Manager to File a Notice of Completion for the Automated Metering Program Phase 3 Projects J-1801.

Attachment A provides a project cost summary including the Project's change order history. The Notice of Completion is presented in Attachment B. Upon authorization by the Board and final acceptance by the General Manager, the Notice of Completion will be recorded with the San Diego County Recorder. Authorizing the General Manager to take final acceptance would authorize Staff to release available retention funds 35 days after the Notice of Completion is recorded, and following submittal of a complete final pay application from the Contractor.

FISCAL IMPACT:

The total capital budget for the Automated Metering Program Phase 3 Projects J-1801 is \$1,000,000. The Phase 3 total capital budget included approximately \$750,000 for the meter and antenna construction (furnish and install) cost. In addition to District Staff labor costs, the remaining \$250,000 budget primarily covers District purchased items including meter lids, bolts and gaskets, and storage bin rental. The project will be completed within the approved capital budget.

- Attachment A: Project Summary
- Attachment B: Notice of Completion

Prepared by: William G. Hunter, Engineering Services Manager
 Approved by: Michael J. Bardin, General Manager

ATTACHMENT A

PROJECT SUMMARY FOR THE AUTOMATED METERING PROGRAM PHASE 3 PROJECT J-1801

Budget Summary

Original Contract Amount:	\$ 740,186.67
Final Contract Amount:	\$ 734,975.77
Total Project Retention (5%):	\$ 36,748.79

Project Schedule

Board Authorizes Contract Awarded:	November 16, 2017
Completion Date:	May 17, 2018

Contract Change Order Summary

There were 2 change orders on this project resulting in a deduction of in the total amount of – (\$5,210.9) or – 0.7%% of the baseline construction cost. A summary of the items included in the change orders is provided below.

Item	Amount	Total	Reason for Change Order	Date Approved	Percentage of Original Contract Amount
Original Contract Amount	\$740,186.67	\$ 740,186.67	Not Applicable	Nov. 16, 2017	n/a
Change Order 1	\$2,541.60	\$742,728.27	Furnish sixteen (16) additional ¾ inch potable meters	April 9, 2018	0.3%
Change Order 2	-(\$7,752.50)	\$734,975.77	Deduction for meters installed by District Staff	April 26, 2018	-01.0%
TOTAL	-\$5,210.9				-0.7%

ATTACHMENT B

RECORDING REQUESTED BY
AND MAIL TO:

Santa Fe Irrigation District
5920 Linea del Cielo
P.O. Box 409
Rancho Santa Fe, CA 92067-0409

NO RECORDING FEE SHALL BE CHARGED PURSUANT TO SECTION 6103 OF THE CALIFORNIA GOVERNMENT CODE

NOTICE OF COMPLETION (C.C.C. 3093 - PUBLIC WORKS)

NOTICE IS HEREBY GIVEN THAT:

1. The Santa Fe Irrigation District located at 5920 Linea del Cielo, P.O. Box 409, Rancho Santa Fe, CA 92067-0409, has completed a public work of improvement described as **Automated Metering Program Phase 3 Project J-1801** and accepted by the awarding authority upon the date hereof.
2. Date of completion: May 17, 2018
3. Description of work performed: Replacement of approximately 1,195 manual read water meters with automated meters and associated transmitters, installation of one antennae base station for the purpose of automated meter reading.
4. The District's interest in the property in which the public work was completed is: Fee
 Easement/Public ROW/Statutory Franchisee Lease.
5. The real property upon which said public work was performed was approximately 1,195 separate meter boxes located throughout the SFID service area and within the City of Solana Beach and County of San Diego. The antennae site is located at the OMWD Ann Peay Reservoir at 19557 Fortuna Del Este
6. The contractor was: **Aqua metric Sales Company (Thirkettle Corporation dba Aqua Metric Sales Company)**

Dated _____
General Manager or Designee
of the Santa Fe Irrigation District

VERIFICATION

I, the undersigned, say: I am the **General Manager** of the Santa Fe Irrigation District, the declarant of the foregoing Notice of Completion; I have read said Notice of Completion and know the contents thereof, the same is true of my knowledge. I declare under penalty of perjury that the foregoing is true and correct.

Executed at _____, California, on this ____ day of _____, 20__.

DATE: May 3, 2018

TO: Water Resources Committee

FROM: General Manager

SUBJECT: Consider Authorizing the General Manager to Execute Purchase Contracts for Vehicles

RECOMMENDATION:

It is the Staff recommendation that the Water Resources Committee:

1. Recommend the Board of Directors authorize the General Manager to execute the following Purchase Orders:
 - a. Rush Truck Center in an amount not to exceed \$82,608.56 for purchase of the 6-yard dump truck, and
 - b. Mission Valley Ford Truck Center in an amount not to exceed \$121,324.72 for purchase of the ¾ ton crane body utility truck
2. Discuss and take other action as appropriate.

BACKGROUND:

Each Fiscal Year (FY), the Capital Acquisition Budget includes funding for the ongoing, regular replacement of older rolling stock in the District's fleet of vehicles, trucks, utility equipment and construction equipment. The FY18 District Budget included funding for the replacement of one ¾ ton crane body utility truck and two 4-yard dump trucks; however, Operations staff determined that one 6-yard dump truck was sufficient for their needs. The ¾ ton crane body utility truck is utilized by the mechanics and technicians that perform valve repair/maintenance and the dump truck is used in construction and maintenance work. The budgeted vehicles are new vehicle replacements for existing units scheduled for replacement due to high mileage, wear and reduced reliability.

Staff advertised for public bids in early April 2018, publishing a notice to bidders in the San Diego Union Tribune, posting on the District website, and posting on the California Multiple Award Schedules (CMAS) site, for the purchase of these vehicles. Bids were due on April 26, 2018. The results of the bids are below:

Supplier	Dump Truck	Crane Body Utility
Mission Valley Ford Truck Center	\$88,756.76	\$121,324.72
Rush Truck Center	\$82,608.56	\$121,595.45

Staff is recommending awarding the purchase of the 6-yard dump truck to Rush Truck Center in an amount not to exceed \$82,608.56, and the purchase of the ¾ ton crane body utility truck to Mission Valley Ford in an amount not to exceed \$121,324.72.

FISCAL IMPACT:

The 2017/18 Capital Acquisition Budget has sufficient funds (\$204,000) for the purchase a 6-yard dump truck and ¾ ton crane body utility truck. Total vehicle purchase costs are \$203,933.28

Prepared by: Cor Shaffer, Operations Manager

Approved by: Michael J. Bardin, General Manager

DATE: May 3, 2018
 TO: Water Resources Committee
 FROM: General Manager
 SUBJECT: **Review Draft Fiscal Year 2019 Capital Acquisition Budget**

RECOMMENDATION:

It is the Staff recommendation that the Water Resources Committee:

1. Review and discuss the FY19 Capital Acquisition Budget for the District; and
2. Review and discuss the FY19 Capital Acquisition Budget for the Joint Facilities; and
3. Take other action as appropriate.

BACKGROUND:

The District’s Capital Acquisition Program (CAP) funds the purchase and procurement of equipment that has a value of \$7,500 or greater and has a useful life of more than two years. CAP purchases are funded from the Capital Improvement Reserve fund and generally fall into one of four primary categories: 1) buildings and grounds maintenance and repair; 2) technology equipment/software replacement and upgrades; 3) replacement of the District’s rolling stock, such as vehicles and heavy equipment; and, 4) in-house treatment plant maintenance and repair projects. Proposed CAP expenditures for FY19 total \$1,290,700 as summarized in the following table.

	FY18 Budget	FY18 Projections	FY19 Budget
Administration	\$ 76,700	\$ 44,500	\$ 249,700
Operations	325,000	305,000	469,000
Joint Facilities	405,500	399,000	572,000
Total	\$ 807,200	748,500	\$ 1,290,700

A summary of the FY19 Capital Acquisition Budget for Santa Fe Irrigation District and the Joint Facilities is included as Attachment A to this memorandum. Items included in the budget for FY19 represent building improvements, vehicle replacements, IT system refresh/replacements, and equipment repair and replacement. The costs for the Joint Facilities capital acquisitions will be shared with San Dieguito Water District proportionate to their ownership percentage. A summary discussion of key Capital Acquisition items for the District and the Joint Facilities is presented in the following narrative.

FY19 Capital Acquisitions - District

District Administration:

Phase 2 AED Replacements (\$7,700): The District installed nine Automated External Defibrillators (AEDs) approximately eight years ago at all District facilities, and the current unit's service has been discontinued. Three were replaced in FY18, and the remaining six new, upgraded G5 models will be rotated into service over a two-year period (three units each year).

Administration Building Carpeting (\$65,000): This project replaces all of the 20-year-old carpeting in the Administration Building in addition to repairing sections of the subfloor that are separating.

Administration Building Exterior Painting (\$32,000): This project repaints the outside of the Administration Building and repairs termite damaged areas. Existing paint is over 20 years old.

Administration Building Interior Painting (\$31,000): This project repaints the interior of the administration building and repairs water damage from roof leaks that were repaired during FY18. Existing paint is over 20 years old.

Cisco Router and Switch Upgrades (\$60,000): This is part of the regularly scheduled technology program refresh/replacement program and replaces network routers and switches that are eight years old.

Wireless Upgrade – Administration to Plant (\$24,000): This project replaces the current eight-year-old wireless communications link between the Administration building and the Plant with a faster and higher bandwidth connection.

District Operations:

Larrick Surveillance System (\$20,000): Currently no surveillance system exists at Larrick Reservoir and Pump Station. This is a critical distribution system facility. This project will install door switches on key facilities, cameras and other site monitoring systems that will alert operations staff of unauthorized access to this site.

Hazardous Materials Storage Facility (\$15,000): This will construct a steel gate, fence, and overhead cover for the hazardous materials storage facility. This will secure the materials until they can be disposed of.

Two Operations Pickups – Unit 5 and 59 (\$80,000): The District needs to replace two existing operations pickup trucks used to support meter and valve maintenance. Existing trucks are over 13 years old and needs to be replaced.

800 Gallon Vac Trailer – Unit 45 (\$65,000): The existing 800 gallon vac trailer is used to air excavate for pipeline repairs/maintenance and location of services. This unit is over 15 years old and needs to be replaced.

Backhoe – Unit 8 (\$140,000): The District’s existing Extendahoe backhoe is over 18 years old and is need of replacement. The backhoe will be equipped with an enclosed cab to comply with new OSHA crystalline silica standards.

500 Gallon Water Trailer with Pump (\$13,000): The purchase of a new 500 gallon water trailer with pump will enable operations staff to wet down concrete demolition/removal activities to comply with new OSHA crystalline silica standards in addition to supplying other job site water needs during repair and maintenance of critical infrastructure.

Modular Buildings HVAC Replacement (\$41,000): The existing Heating Ventilation and Air Conditioning (HVAC) units installed on the temporary modular offices for Engineering and Operations are over 11 years old and need to be replaced.

AC Pipe Disposal (\$95,000): For the last 45 years, the District has stockpiled AC pipe adjacent to the clearwell at the R. E. Badger Filtration Plant. This pipe is not usable and needs to be properly disposed of prior to the contractor coming onsite to complete the seismic retrofit of the clearwell during FY19.

FY19 Capital Acquisitions - Joint Facilities

For the Joint Facilities, capital acquisitions typically fall into two primary categories: 1) facility enhancements that allow staff to treat local water supplies more efficiently and reliably; and 2) replacement/maintenance. In some cases, the replacement/maintenance items upgrade old systems with newer technologies that provide operations staff with some greater operational flexibility.

Cielo Pump Station Isolation Valve Replacement (\$150,000): The existing pump station isolation valves at Cielo Pump Station do not work. Operations staff have to shut off the isolation valves at the dam and drain the transmission line to remove and repair the pumps at Cielo. This project replaces the pump isolation valves located in the parking lot east of the pump station and will enable operations staff to isolate each pump and remove them for repair and maintenance without having to isolate the dam and drain the 2 mile, 36-inch transmission main.



Filter and Utility Water Gallery Piping Painting (\$60,000): Over the last 8 years, operations staff have replaced valves, valve actuators, and piping in the filter and utility water gallery that were over 40 years old. The filter and utility water gallery piping valve replacement and pipeline repair project is complete. This project repaints the gallery piping.



Cross-Collector Coating (\$64,000): The cross-collectors are located in the sedimentation basins and are used to auger solids out of these basins to our supply line to the centrifuge/solids handling facilities. The augers are located in a corrosive environment and need to be recoated every 10 years to preserve their asset life.



Operations Building Roof Replacement/Repair (\$153,000): The roof on the Operations Building at the R. E. Badger Filtration Plant is over 25 years old, has numerous leaks, and needs to be replaced. This project replaces the roof on the operations building and repairs the HVAC curbs and other roof penetrations to ensure that the roof will be leak tight.

PLC110 and Ethernet Upgrade (\$39,000): Program Logic Controller (PLC) 110 controls all of the chemical feeds at the water treatment plant. This critical controller is over 10 years old and needs to be replaced with a newer controller with updated software. The Ethernet wiring will be upgraded as part of this controller replacement.

TOC Analyzer (\$40,000): The existing Total Organic Carbon (TOC) analyzers are used to optimize coagulant dosages to remove organic carbon from our raw water supplies and

minimize the formation of disinfection by-products. The existing TOC analyzers are over 8 years old and no longer supported. This purchase replaces the existing TOC analyzers with supported units.

Cisco router and Switch Upgrades (\$40,000): This is part of the regularly scheduled technology program refresh/replacement program and replaces network routers and switches that are eight years old.

Wireless Upgrade – Administration to Plant (\$16,000): This project replaces the current eight-year-old wireless communications link between the Administration building and the Plant with a faster and higher bandwidth connection.

FISCAL IMPACT:

Capital Acquisition expenditures are funded through nonoperating revenues and contributions from the Capital Improvement Reserve fund. All Joint Facilities CAP costs are shared with San Dieguito Water District proportionate to each agency's ownership percentage. There are adequate funds in the Capital Improvement Reserve fund for the items proposed in the FY19 Budget.

Attachment A: Capital Acquisition Budget Detail FY19

Prepared by: Cor Shaffer, Operations Manager
Reviewed by: Jeanne Deaver, Administrative Services Manager
Approved by: Michael J. Bardin, General Manager

ATTACHMENT A

Capital Acquisition Budget Detail
Fiscal Year 2019

Account	Description	FY 2018		FY 2019	% Change
		Budget	Projected	Budget	Bgt to Bgt
1-00-000	<u>District Administration</u>				
1815	Cisco Router and Switch Upgrades	15,000	15,000		
1815	Phase 2 of Access Control System (Larrick, Remainder of Admin)	24,000	24,000		
1842	Phase 1 AED Replacements	7,700	5,500		
1841	Corporate Office Surveillance System	30,000	0	30,000	
1842	Phase 2 AED Replacements			7,700	
1841	Administration Building Carpeting			65,000	
1841	Administration Building Exterior Painting			32,000	
1841	Administration Building Interior Painting			31,000	
1815	Cisco Router and Switch Upgrades			60,000	
1815	Wireless Upgrade - Administration to Plant			24,000	
	Total District Administration	\$ 76,700	\$ 44,500	\$ 249,700	225.6%
1-00-000	<u>District Operations</u>				
1816	3/4 Ton Utility Bed Truck with Auto-crane	70,000	70,000		
1891	5 Yard Dump Truck	69,000	69,000		
1891	4 Yard Dump Truck	65,000	65,000		
1816	Autocrane Replacement for two Trucks	49,000	49,000		
1816	Hazmat Storage Compliance Upgrades	10,000	10,000		
1816	Standby Generator Electrical Switchgear Replacement	42,000	42,000		
1835	Larrick Surveillance System	20,000	0	20,000	
1816	Hazardous Materials Storage Facility			15,000	
1891	Two Operations Pickups (Unit 5 and 59)			80,000	
1816	800 Gallon Vac Trailer (Unit 45)			65,000	
1816	Backhoe (Unit 8)			140,000	
1816	500 Gallon Water Trailer with Pump			13,000	
1841	Modular Buildings HVAC Replacement			41,000	
1816	AC Pipe Disposal			95,000	
	Total District Operations	\$ 325,000	\$ 305,000	\$ 469,000	44.3%
2-00-000	<u>Joint Facilities</u>				
1820	Utility Water System Piping Replacement	83,000	83,000		
1815	Cisco Router Upgrades	15,000	15,000		
1815	Network-Attached Storage Device	10,500	10,500		
1820	Gate Technology Improvements	15,000	15,000		
1891	1/2 Ton Operations Pickup Replacement	39,000	39,000		
1891	On-Site Utility Vehicle Replacement	18,000	15,000		
1820	Chlorinators	69,000	69,000		
1820	Filter Valve Actuator Replacements	85,000	85,000		
1890	Polyblend System Solids Handling Replacement	25,000	21,500		
1820	Zetta Meter	21,000	21,000		
1820	Security Camera Upgrades	25,000	25,000		
1861	Cielo Pump Station Isolation Valve Replacement			150,000	
1820	Filter and Utility Water Gallery Piping Painting			60,000	
1820	Cross-Collector Coating			64,000	
1820	Operations Building Roof Replacement/Repair			153,000	
1843	PLC110 and Ethernet Upgrade			39,000	
1820	TOC Analyzer Replacement			50,000	
1815	Cisco Router and Switch Upgrades			40,000	
1815	Wireless Upgrade - Administration to Plant			16,000	
	Total Water Treatment Plant	\$ 405,500	\$ 399,000	\$ 572,000	41.1%
	TOTAL CAPITAL ACQUISITIONS	\$ 807,200	\$ 748,500	\$ 1,290,700	59.9%

DATE: May 3, 2018
TO: Water Resources Committee
FROM: General Manager
SUBJECT: **Consider Authorizing the General Manager to Execute Amendment No. 5 to the Professional Service Agreement with The Kleinfelder Group for Joint Facilities Improvements**

RECOMMENDATION:

It is the Staff recommendation that the Water Resources Committee:

1. Recommend the Board of Directors authorize the General Manager to execute Amendment No. 5 to the Professional Service Agreement with The Kleinfelder Group for Engineering Design Services related to the Joint Facilities in the amount of \$146,424; and
2. Discuss and take other action as appropriate.

BACKGROUND:

The Santa Fe Irrigation District's (SFID's) Capital Improvement Program includes the following five Joint Facilities Projects.

- J-1750 Clearwell Seismic Improvements
- J-1751 Washwater Tank Seismic Improvements
- J-1752 Mechanical Dewatering & Filter Washwater Improvements
- J-1753 Handrail Improvements at San Dieguito Reservoir
- J-1754 San Dieguito Dam Concrete Refurbishment

In order to improve economy of scale, all five projects (the projects) are being designed as one design package to enable bidding the projects together as one large project. Design is ongoing and is scheduled to be completed in mid FY19. Construction is scheduled to take place between FY19 and FY20. The Kleinfelder Group (Kleinfelder) is providing the engineering design services for the projects. Although the projects are being designed as one package, project costs are being tracked as separate projects to assure costs remain within the approved capital improvement project budgets.

Recommended improvements identified in SFID's 2012 Joint Facilities Master Plan were used to form the basis for Kleinfelder's design scope of work. As part of Kleinfelder's preliminary design effort, a more detailed evaluation of the recommendations and assumptions included in the 2012 Joint Facilities Master Plan was conducted. The detailed evaluation resulted in the following additional project design scope of work:

1. Required improvements for removal of Filter Washwater solids are substantially greater than those assumed in the 2012 Joint Facilities Master Plan. Since this portion of the project can be delayed without a significant impact to current operating practices, the components of the

projects associated with the handling of Filter Washwater Solids have been removed from the ongoing design project, and delayed to a time later in SFID's 10 Year Capital Improvement Program when they could potentially be required. This action reduces the design scope of work and results in a contract fee credit of \$121,860.

2. Required Mechanical Dewatering improvements are more significant than those identified in the Joint Facilities Master Plan. The 2012 plan assumed that new facilities could be located within an expansion of the existing dewatering building. However, in addition to retrofitting the existing dewatering building to accommodate new electrical and chemical handling requirements, a new dewatering building sized to accommodate two centrifuges (relocating the existing centrifuge plus one new centrifuge) is required. In addition, a new sludge holding tank is needed to provide blending and increase dewatering efficiency, new utility water pumping equipment is required, and a greater project footprint requiring more civil improvements is required to accommodate materials handling. Consequently, the design Scope of Work for this portion of the project has increased and the corresponding fee increases by \$175,154.
3. The required Washwater Tank seismic improvements will be similar to the improvements identified in the Joint Facilities Master Plan. However, a detailed physical condition assessment was conducted as part of the ongoing design effort that identified the need for several physical condition improvements that were not anticipated when Joint Facilities Master Plan was prepared. This results in an increase in the design Scope of Work and the corresponding fee increases by \$57,123.
4. The Clearwell Seismic improvements identified in the 2012 Joint Facilities Master Plan were based on a limited seismic assessment completed in 2010. Upon completion of the recent more detailed seismic assessment, it has been determined that the required clearwell seismic improvements are substantially greater than the improvements identified in the Joint Facilities Master Plan. This results in an increase in the design Scope of Work and the corresponding fee increases by \$37,007.

An amendment to Kleinfelder's design scope of work is needed to address the changes in the project Scope of Work that were not anticipated in the 2012 Joint Facilities Master Plan. To date, four amendments have been added to the Kleinfelder agreement including the physical condition assessment of the Filter Washwater tank, addition of the San Dieguito Dam Handrail and Concrete Refurbishments as part of the larger combined project, Filter Washwater solids settleability testing and expanded Filter Washwater solids alternative evaluation, and additional surveying and geotechnical work required to better define seismic requirements and project limits.

DISCUSSION

In order to complete preliminary and final design of the project, Amendment No. 5 to the Kleinfelder Agreement is required to modify the Scope of Work to accomplish the follows: 1) Remove any remaining Filter Washwater solids handling design services; 2) Add design services associated with additional Mechanical Dewatering facility improvements; 3) Add Filter Washwater Tank physical condition improvements; and, 4) Add design services associated with Clearwell Seismic improvement requirements. Following negotiations with Kleinfelder, the total amount for Amendment No. 5 is \$146,424. This total amount covers the additional design requirements for three Joint Facilities Projects. Table 1 summarizes the project cost deletions and additions associated with Amendment No. 5 for each of the Joint Facilities Projects.

Table 1			
Amendment No. 5 Cost Breakdown Per Joint Facility Project			
	Amendment No. 5 Deductions	Amendment No. 5 Additions	Amendment No. 5 Total
J-1750 Clearwell Seismic Improvements	0	\$37,007	\$37,007
J-1751 Washwater Tank Seismic Improvements	0	\$57,123	\$57,123
J-1752 Mechanical Dewatering & Filter Washwater Improvements	\$(-121,860)	\$175,154	\$52,294
J-1753 Handrail Improvements at San Dieguito Reservoir	0	0	0
J-1754 San Dieguito Dam Concrete Refurbishment	0	0	0
Total Amendment No. 5	\$(-121,860)	\$269,284	\$146,424

Table 2 summarizes the purpose and amount of the four (four) amendments to date, as well as the recommended Amendment No. 5.

Table 2			
Project Design Services Agreement and Amendment History			
	Date	Purpose	Amount
Base Agreement	11/09/16	Design services for J-1750/1751/1752	\$730,924.00
Amendment No. 1	05/10/17	Condition Assessment for Filter Washwater Tank	\$ 21,450.00
Amendment No. 2	08/17/17	Added the Handrail Project J-1753, and SDR Dam Concrete Refurbishment Project J- 1754 to the base project	\$ 63,471.40
Amendment No. 3	10/19/17	Filter Washwater Settleability Testing & Evaluation	\$ 27,288.00
Amendment No. 4	03/13/18	Additional Geotechnical and Surveying	\$ 22,877.00
Amendment No. 5	05/17/18	Removal of Filter Washwater preliminary and final design Services, addition of Washwater Tank physical condition improvements, expanded Clearwell Seismic improvements, and expanded Mechanical Dewatering Improvements	\$146,424.00
Total Amount			\$1,012,434.40

Attachment A provides Kleinfelder's cost breakdown spreadsheet for design services, including the recommended line item deletions and additions. Deletions are highlighted in yellow and additions are

highlighted in pink. Amendment No. 5 will include the required modifications to the scope of work, as well as the cost breakdown spreadsheet shown in Attachment A. In addition to increasing the scope and fee for design services, Amendment No. 5 will also extend the completion date to March 21, 2019.

Therefore, Staff recommends that the Water Resources Committee recommend that the Board of Directors authorize the General Manager to execute Amendment No. 5 to the Professional Service Agreement with The Kleinfelder Group for Engineering Design Service related to improvements at the Joint Facilities in the amount of \$146,424.

FISCAL IMPACT:

Table 3 summarizes the design agreement cost history of the projects to date. Table 3 also provides the current estimated construction cost for each project component.

Table 3					
Estimated Design and Construction Costs For Projects J-1750,1751,1752,1753,1754					
CIP Project	Original Design Agreement	Amendments 1 through 4	Amendment 5	Total Design Amount	Current Construction Estimate (\$Millions)
J-1750 Clearwell Seismic	\$78,968	\$22,877	\$37,007	\$137,218	\$1.7
J-1751 Washwater Tank Seismic	\$153,526	\$21,450	\$57,123	\$232,127	\$2.4
J-1752 Mechanical Dewatering	\$498,430	\$27,288	\$52,294	\$574,865	\$6.7
J-1753 SDR Handrail	0	\$18,846.80	\$0.00	\$18,847	\$0.4
J-1754 SDR Concrete Refurbishment	0	\$44,624.60	\$0.00	\$44,624	\$0.5
Total	\$730,924	\$135,086.40	\$146,424	\$1,012,434.40	\$11.7

The additional design costs associated with Amendment No. 5 are within the approved FY18 budget for projects J-1750, J-1751, and J-1752. The proposed FY19 budget, including the recommended FY19 10-Year CIP Updates, includes the funding required to support all required design and construction for each of the Joint Facilities Projects. The costs for each of the Joint Facilities Projects are shared with the San Dieguito Water District.

Attachment A: Kleinfelder Project Cost Breakdown Table

Prepared by: William G. Hunter, Engineering Services Manager

Reviewed by: Michael J. Bardin, General Manager

