

Five Year Plan of Major Expenditures

January 2020 - December 2024

Purpose of the Plan:

The Five-Year Plan is to be used for guidance purposes only and is subject to change. Board approval of the Five Year Plan does not grant project level approval. Project level approval is granted with the adoption of the Capital Budget or specific Board action on an individual project.

Description of the Plan:

The Five Year Plan of Major Expenditures is broken into six sections:

- Administration
- Irrigation Transmission and Distribution Canal and Pipeline Improvements
- Telemetry and SCADA
- Mechanical Shop and Fleet
- Solar Farm
- Water Treatment Plant

Each section presents expenditures based on accounting treatment (capitalized or non-capitalized) as well as by year.

The sum of Year 1 capitalized expenditures agrees to the January - December portion of the Capital Budget presented in Attachment A.

Total Expenditures of the Plan:

Total Expenditures, Excluding Water Treatment Plant

Capitalized expenditures

Non-capitalized major project expenditures

Total

Water Treatment Plant

Capitalized expenditures - **Note (1)**

Non-capitalized major project expenditures

Total

Total Expenditures, Including Water Treatment Plant

Capitalized expenditures - **Note (1)**

Non-capitalized major project expenditures

Total

PRIOR YEARS Costs Incurred Prior to 2020	YEAR 1 2020	YEAR 2 2021	YEAR 3 2022	YEAR 4 2023	YEAR 5 2024	Total Project Cost
\$1,122,499	\$4,665,352	\$5,151,745	\$4,459,585	\$4,677,827	\$2,163,245	\$22,240,253
\$746,874	\$2,133,189	\$1,167,390	\$104,978	\$108,663	\$35,000	\$4,296,094
\$1,869,373	\$6,798,541	\$6,319,135	\$4,564,563	\$4,786,490	\$2,198,245	\$26,536,347
\$480,240	\$5,276,590	\$705,240	\$630,240	\$533,815	\$530,405	\$10,077,490
\$0	\$146,000	\$0	\$0	\$0	\$0	\$146,000
\$480,240	\$5,422,590	\$705,240	\$630,240	\$533,815	\$530,405	\$10,223,490
\$1,602,739	\$9,941,942	\$5,856,985	\$5,089,825	\$5,211,642	\$2,693,650	\$32,317,743
\$746,874	\$2,279,189	\$1,167,390	\$104,978	\$108,663	\$35,000	\$4,442,094
\$2,349,613	\$12,221,131	\$7,024,375	\$5,194,803	\$5,320,305	\$2,728,650	\$36,759,837

Note (1) - These lines do not properly sum. This is due to item WTP20.07 which represents the contract with Suez to replace 8 membrane filters over the span of 10 years for an annual payment of \$480,240. WTP20.07 project total represents the full 10 year contract at \$4,802,400, but only 6 years are presented in this Plan (2019-2024), a difference of \$1,920,960 representing years 2025-2028

5 Year Plan Item No.	Project Description	Project Purpose	Who Performs Work	PRIOR YEARS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	Total Project Cost
				Costs Incurred Prior to 2020	2020	2021	2022	2023	2024	

ADMINISTRATION

Capitalized Expenditures:

ENG20.25	Ag water balance tool developed by Davids Engineering.	0	0	\$0	\$100,000	\$0	\$0	\$0	\$0	\$100,000
IT19.01a	Phone system upgrade/replacement. Shared between Funds 10 (75%) and 20 (25%). See WTP section: \$41,250 (fund 10) + \$13,750 (fund 20) = \$55,000 total	The phone system will be over 10 years old. A new phone system will integrate the entire District on to a single phone server which will reduce maintenance costs, and increase exandability.	Outside Service	\$0	\$41,250	\$0	\$0	\$0	\$0	\$41,250
IT19.02	Licensed Microwave radio installation to Division 9	The microwave link between the Control Room and Division 9 is currently an unreliable unlicensed frequency suceptible to interference. Since this link travels directly over the city of Ripon, the signal is not strong causing a constant slow-down of speed. A licensed frequency will guarantee an interference-free signal with at least a 99% uptime.	Outside Service	\$0	\$140,000	\$0	\$0	\$0	\$0	\$140,000
IT19.04	Server Replacement	The District's main file servers will be over 10 years old. Average lifespan on a file server is 7-10 years.	SSJID	\$0	\$0	\$75,000	\$0	\$0	\$0	\$75,000

Total Capitalized Expenditures for Administration: \$0 \$281,250 \$75,000 \$0 \$0 \$0 \$356,250

Total Non-Capitalized Expenditures for Administration: \$0 \$0 \$0 \$0 \$0 \$0 \$0

Total Capitalized & Non-Capitalized Expenditures for Administration: \$0 \$281,250 \$75,000 \$0 \$0 \$0 \$356,250

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IRRIGATION TRANSMISSION AND DISTRIBUTION CANAL AND PIPELINE IMPROVEMENTS

Capitalized Expenditures:

ENG19.03	JSC Bypass Tunnel Study & Design (Canyon Tunnel).	Start the process to investigate the feasibility of constructing a bypass tunnel around the JSC from Goodwin dam to where the JSC transistions out of the Stanislaus River Canyon. A completed project would eliminate the threat of slope failure upove or below the existing open channel. The existing open channel is in jeopordary of a slope failure at all times, especially during the wet season. Figures are shown prior to OID reimbursement for cost share	Outside Service	\$652,745	\$800,000	\$600,000	\$650,000	\$1,550,000	\$250,000	\$4,502,745
ENG19.06	MDC Control Room Office Building and Site Improvements	Extra space is needed at the control room for equipment and employees	Outside Service	\$250,000	\$360,000	\$0	\$0	\$0	\$0	\$610,000
ENG19.16	Deep Well Installation @ Bk/Bkf Junction	Project includes the construction of a deep well to supplement water delivery where demand on lateral exceeds capacity. Several District owned pumps have been sold to developers (well 12 & 40) as a result of city expansion with the intention of constructing a new well in a more beneficial location. Proposed location for a new well will be identified following the results of the ITRC modernization study currently underway.	Outside Service	\$0	\$35,000	\$250,000	\$0	\$0	\$0	\$285,000
ENG19.23	Woodward Powerhouse Drainage Improvements	The powerhouse has experienced several floods that have occurred during heavy storm events over the last few years. Interim improvements including minor site grading have not solved the issue. A permanent solution involving the replacement of a road crossing culvert, a drain culvert into the MDC, and site grading is necessary to solve the issue. This responsibility for the project would likely be shared by the 3 agencies involved (SSJID, TID, and Stanislaus County). A draft design has been prepared by SSJID staff. The agencies are involved in the negotiation and design phase as of 9/27/18.	Outside Service	\$0	\$66,667	\$0	\$0	\$0	\$0	\$66,667
ENG19.25	Culvert Installation at Drain 4 Discharge into FCOC	This is a project planned in coordination with a future replacement of the UPRR crossing proposed to be completed with the Oakland-Fresno Spur project. Installing a culvert at Drain 4 where the drain discharges in the FCOC would enable the District to travel adjacent to the FCOC channel without needing exit the District's easement. Construction would involve a short distance of pipeline culvert (size to be determined) and a concrete headwall structure. Work could be completed by District crews if resources are available.	SSJID	\$0	\$150,000	\$0	\$0	\$0	\$0	\$150,000
ENG19.27	Float Valve Installations - 4 unidentified locations (2021-2022 Construction Season)	Float valves help reduce pressure and automatically regulate flow. Structures are cost effective mechanical devices that need little annual maintenance and do not rely on electronics to operate. In the past, many pipeline were replaced because of unnecessary pressures resulting from sprinkler deliveries. In many cases, the life of these types of pipelines can be substantially extended if pressure is reduced.	SSJID	\$0	\$0	\$92,500	\$159,500	\$0	\$0	\$252,000

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ENG19.28	Perennial MDC Shotcrete canal Lining (by District crews)	The MDC canal banks are experiencig significant erosion due to a lack of maintenance in recent years. The concept of this project is to utilize District crews (on a pilot project basis) to evaluate the cost effectiveness of lining the MDC with shotcrete. Past bidding efforts revealed costs that outweighed the benefits of lining the MDC. It is possible that the cost could be significantly reduced if the work was to be peformed by District crews. This project will aim to validate the theory. The Districts current approach to deal with the erosion issue is to implement a yearly maintenance program to reshape and recompact the MDC with appropriate soils. While this effort may be effective, it is anticipated that certain areas of the MDC will require excessive maintenance efforts on a regular basis. These are the areas that should be considered for a permanent liner. Specific areas will be identified at a later date.	SSJID	\$0	\$0	\$750,000	\$1,500,000	\$1,500,000	\$1,500,000	\$5,250,000
ENG19.30	Float Valve Installations - 4 unidentified locations (2022-2023 Season)	Float valves help reduce pressure and automatically regulate flow. Structures are cost effective mechanical devices that need little annual maintenance and do not rely on electronics to operate. In the past, many pipeline were replaced because of unnecessary pressures resulting from sprinkler deliveries. In many cases, the life of these types of pipelines can be substantially extended if nressure is reduced.	SSJID	\$0	\$0	\$0	\$97,750	\$166,750	\$0	\$264,500
ENG19.33	Lateral Be/Bd Control Box Modification & Actuation	The current BD/BE box structure is in an inadequate condition with various structural cracks and is in a high priroty due to its location near the UPRR railroad tracks in Escalon. Also, the manual gates at the location are constantly attended by SSJID personnel to accomodate the frequent variations of flow demands through the box.	SSJID	\$48,000	\$0	\$97,000	\$0	\$0	\$0	\$145,000
ENG19.34	Drop 13 Automated Gate Installations (2 Rubicon Slip Meters)	To enhance flow control and measurement out of the Van Groningen Reservoir. This project would eliminate the need for ENG19.22 (MDC Shotcrete Liner for Flow Measurement) which was estimated to cost \$35,000.	SSJID	\$0	\$157,639	\$0	\$0	\$0	\$0	\$157,639
ENG19.38	Float Valve Installation @ Ob6 Control Box (Ob, Station 126+53)	Float valves help reduce pressure and automatically regulate flow. Structures are cost effective mechanical devices that need little annual maintenance and do not rely on electronics to operate. In the past, many pipeline were replaced because of unnecessary pressures resulting from sprinkler deliveries. In many cases, the life of these types of pipelines can be substantially extended if nressure is reduced.	SSJID	\$27,000	\$31,000	\$0	\$0	\$0	\$0	\$58,000
ENG19.39	Lateral K/Ka Control Box Modification and Rubicon Automated Slip Meter (2 Slip Meters)	Automated gates provide increased operational flexibility and precision of control for Division Managers. These gates will be located where the flow of water is divided/split into two separate laterals.	SSJID	\$0	\$92,180	\$0	\$0	\$0	\$0	\$92,180
ENG19.41	O/Oa Float Valve Lateral O/Oa Control Box (O, Station 36+00)	Lateral O is a dead end pipeline with several sprinkler customers that exist downstream making flow control and adjustment extremely difficult for the Division Managers. The flow control difficulties can be resolved by implementing a series of automated gates, float valves, and water level sensors on the lateral. This float vlave will be located at the O/Oa control box on the Lateral O outlet.	SSJID	\$19,000	\$23,000	\$0	\$0	\$0	\$0	\$42,000
ENG19.43	Oaa Float Valve Lateral Oaa Heading (Oaa, Station 0+00)	Lateral Oaa is a dead end pipeline with several sprinkler customers that exist downstream making flow control and adjustment extremely difficult for the Division Managers. The flow control difficulties can be resolved by implementing a float valve. This float valve will be located approximately 1,000 LF west from the takeout along the Oaa Lateral with 18" PVC pipe supplying it	SSJID	\$40,000	\$32,000	\$0	\$0	\$0	\$0	\$72,000

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ENG19.44	Rubicon Slip Meter Installation (with remote water level sensor) Lateral Ob Turnout at MDC (Ob, Station 0+00)	Lateral Ob is a dead end pipeline with several sprinkler customers that exist downstream making flow control and adjustment extremely difficult for the Division Managers. The flow control difficulties can be resolved by implementing a series of automated gates, float valves, and water level sensors on the lateral. This gate will be located at the Ob takeout on the MDC.	SSJID	\$9,250	\$40,400	\$0	\$0	\$0	\$0	\$49,650
ENG19.46	Rubicon Slip Meter Installation (with remote water level sensor) Lateral Qg Takeout at Lateral Q	Lateral Qg operates as a dead end pipeline with several sprinkler customers that exist downstream making flow control and adjustment extremely difficult for the Division Managers. The flow control difficulties can be resolved by implementing a series of automated gates, float valves, and water level sensors on the lateral. This gate will be located at the Qg takeout on the Lateral Q open ditch.	SSJID	\$5,750	\$79,549	\$0	\$0	\$0	\$0	\$85,299
ENG19.48	2019 Cut Down Pour Over Wall Projects (14 each)	Pour over walls are weirs in pipeline control box structures that were originally designed to create enough upstream pressure to facilitate flood irrigation. Therefore water levels must be raised above ground level to be discharged into the farmers field. Sprinkler irrigation does not require pressure beyond a full pipe of water (generally). The goal of this project is to lower the pour over walls to provide just enough pressure for sprinkler irrigation. An aluminum slide would then be installed to replace the section of cut-out concrete. The slide would be lowered in the box for situations when upstream flood irrigation is still requested. This on-going project will provide additional flexibility to divisions managers, reduced pressure on our existing laterals (thereby extending their useful life), and an increase in customer service.	Both-SSJID & Outside	\$70,754	\$50,054	\$0	\$0	\$0	\$0	\$120,808
ENG19.49	Perennial Cut Down Pour Over Wall Projects (+/- 15 ea per year)	Pour over walls are weirs in pipeline control box structures that were originally designed to create enough upstream pressure to facilitate flood irrigation. Therefore water levels must be raised above ground level to be discharged into the farmers field. Sprinkler irrigation does not require pressure beyond a full pipe of water (generally). The goal of this project is to lower the pour over walls to provide just enough pressure for sprinkler irrigation. An aluminum slide would then be installed to replace the section of cut-out concrete. The slide would be lowered in the box for situations when upstream flood irrigation is still requested. This on-going project will provide additional flexibility to divisions managers, reduced pressure on our existing laterals (thereby extending their useful life), and an increase in customer service.	Both-SSJID & Outside	\$0	\$151,780	\$265,231	\$171,582	\$180,161	\$43,500	\$812,253
ENG20.01	Float Valve - Lateral R 183dd	Float valves help reduce pressure and automatically regulate flow. Structures are cost effective mechanical devices that need little annual maintenance and do not rely on electronics to operate. In the past, many pipeline were replaced because of unnecessary pressures resulting from sprinkler deliveries. In many cases, the life of these types of pipelines can be substantially extended if pressure is reduced.	Both-SSJID & Outside	\$0	\$58,000	\$0	\$0	\$0	\$0	\$58,000
ENG20.02	Float Valve - Lateral Ja #1	Float valves help reduce pressure and automatically regulate flow. Structures are cost effective mechanical devices that need little annual maintenance and do not rely on electronics to operate. In the past, many pipeline were replaced because of unnecessary pressures resulting from sprinkler deliveries. In many cases, the life of these types of pipelines can be substantially extended if pressure is reduced.	Both-SSJID & Outside	\$0	\$21,750	\$36,250	\$0	\$0	\$0	\$58,000

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ENG20.03	Float Valve - Lateral Ja #2	Float valves help reduce pressure and automatically regulate flow. Structures are cost effective mechanical devices that need little annual maintenance and do not rely on electronics to operate. In the past, many pipeline were replaced because of unnecessary pressures resulting from sprinkler deliveries. In many cases, the life of these types of pipelines can be substantially extended if pressure is reduced.	Both-SSJID & Outisde	\$0	\$21,750	\$36,250	\$0	\$0	\$0	\$58,000
ENG20.04	Float Valve - Lateral I @ I9 Box	Float valves help reduce pressure and automatically regulate flow. Structures are cost effective mechanical devices that need little annual maintenance and do not rely on electronics to operate. In the past, many pipeline were replaced because of unnecessary pressures resulting from sprinkler deliveries. In many cases, the life of these types of pipelines can be substantially extended if pressure is reduced.	Both-SSJID & Outisde	\$0	\$21,750	\$36,250	\$0	\$0	\$0	\$58,000
ENG20.05	Deep Trekker Pipe Crawler	A pipe crawler is a tool that the District can utilize to help access and observe problematic pipelines which cannot be accessed by manned entry or even during the water season where lines are full. The crawler is capable of operating in dry, wet, or in submersed conditions. This tool can travel up to 1,500 LF and has CCTV recording and length counting capabilities. This tool can help maintenance and engineering access problematic areas in determining the appropriate assessment and course of remediation. Also, the crawler limits the need for personnel to to enter pipelines which limits the exposure to potential non-safe situations. In engineering, this tool can help facilitate in the inspections of new construction. The CCTV recordings can be filed appropriately in our GIS system or other databases for record keeping for future	SSJID	\$0	\$75,000	\$0	\$0	\$0	\$0	\$75,000
ENG20.06	Rubicon Slip Gate Installation (with remote water level sensor) Lateral Kab1 Control Box (Kab, Station 0+00)	Lateral Kab is a dead end pipeline with several sprinkler customers that exist downstream making flow control and adjustment extremely difficult for the Division Managers. The flow control difficulties can be resolved by implementing a series of automated gates, float valves, and water level sensors on the lateral. This gate will be the second gate in series located at the third control box along Lateral Oa.	SSJID	\$0	\$46,900	\$0	\$0	\$0	\$0	\$46,900
ENG20.07	Rubicon Blade Meter Lateral Vaa Takeout (Vaa, Station 0+00)	Current automated gate at the Vaa takout does not maintain enough power throughout the night. Due to new anticipated sprikler customers the Rubicon Blade Meter is a more efficient and reliable automated gate.	SSJID	\$0	\$18,000	\$0	\$0	\$0	\$0	\$18,000
ENG20.09	MDC Automated Trash Grate at Lateral R Takeout	This will be a more safe and effcient way to remove trash and debris and will improve flow in the channel. It will improve water quality out of the canal to be delivered to our customers.	SSJID	\$0	\$0	\$160,000	\$0	\$0	\$0	\$160,000
ENG20.12	Automated Gate Installation (2ea) Lateral Q/QK Split Box (Qk, Station 0+00)	Automated gates will facilitate the control of water on laterals without constant attention and changes to be made from personnel manually in the field. The gates will also help with wasting water due to over flow and over pressurizing lines eliminate water down drains.	SSJID	\$0	\$0	\$88,390	\$0	\$0	\$0	\$88,390
ENG20.13	Automated Gate Installation Lateral W1 Box (W, Station 15+00)	Automated gates will facilitate the control of water on laterals without constant attention and changes to be made from personnel manually in the field. The gates will also help with wasting water due to over flow and over pressurizing lines eliminate water down drains.	SSJID	\$0	\$0	\$45,445	\$0	\$0	\$0	\$45,445
ENG20.14	Automated Gate Installation (with double remote water level sensor) Lateral Ha (Ha, Station 14+00)	Automated gates will facilitate the control of water on laterals without constant attention and changes to be made from personnel manually in the field. The gates will also help with wasting water due to over flow and over pressurizing lines at dead end lines. They also eliminate wasted water down drains.	SSJID	\$0	\$0	\$55,550	\$0	\$0	\$0	\$55,550

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ENG20.16	Rubicon Slip Meter Installation Lateral Ta Takeout (Ta, Station 0+00)	Automated gates with meters will facilitate the control of water on laterals without constant attention and changes to be made from personnel manually in the field. The gates will also help with wasting water due to over flow and over pressurizing lines at dead end lines. They also eliminate wasted water down drains. The meters on the gates help personnel maintain accurate flows to customers downstream.	SSJID	\$0	\$0	\$64,995	\$0	\$0	\$0	\$64,995
ENG20.17	Automated Gate Installation Bkf Sta. 0+00 w/ level sensor	Automated gates with meters will facilitate the control of water on laterals without constant attention and changes to be made from personnel manually in the field. The gates will also help with wasting water due to over flow and over pressurizing lines at dead end lines. They also eliminate wasted water down drains. The meters on the gates help personnel maintain accurate flows to customers downstream.	SSJID	\$0	\$0	\$56,890	\$0	\$0	\$0	\$56,890
ENG20.19	Float Valve - We Sta. 90	Float valves help reduce pressure and automatically regulate flow. Structures are cost effective mechanical devices that need little annual maintenance and do not rely on electronics to operate. In the past, many pipeline were replaced because of unnecessary pressures resulting from sprinkler deliveries. In many cases, the life of these types of pipelines can be substantially extended if pressure is reduced.	Both-SSJID & Outisde	\$0	\$21,750	\$36,250	\$0	\$0	\$0	\$58,000
ENG20.20	Float Valve - Web 18dd	Float valves help reduce pressure and automatically regulate flow. Structures are cost effective mechanical devices that need little annual maintenance and do not rely on electronics to operate. In the past, many pipeline were replaced because of unnecessary pressures resulting from sprinkler deliveries. In many cases, the life of these types of pipelines can be substantially extended if pressure is reduced.	Both-SSJID & Outisde	\$0	\$21,750	\$36,250	\$0	\$0	\$0	\$58,000
ENG20.21	Lateral Ra Control Box Modification - Single Cell to Pour Over Conversion at Sta. 81	Existing single cell box needs to be converted to a pour over box to accommodate the upstream automated gate with double level sensors at downstream boxes. The level sensor at the box will maintain a level for sprinkler customers upstream of the modified box with a pour over.	Both-SSJID & Outisde	\$0	\$26,000	\$28,000	\$0	\$0	\$0	\$54,000
ENG20.22	Lateral Ha Control Box Modification - Single Cell to Pour Over Conversion at Sta. 30	Existing single cell box needs to be converted to a pour over box to accommodate the upstream automated gate with double level sensors at downstream boxes. The level sensor at the box will maintain a level for sprinkler customers upstream of the modified pour over box.	Both-SSJID & Outisde	\$0	\$26,000	\$28,000	\$0	\$0	\$0	\$54,000
ENG20.23	Automated Gate w/ Double Downstream Level Sensors Lateral Ra Takeout (Ra, Station 0+00)	To better serve current and pending sprinkler customers downstream and will work in conjunction with double sensors at pour over boxes. Also, automation of the dead end lateral may entice many properties currently using ground water to use District water who were not able to be served before.	SSJID	\$0	\$0	\$67,000	\$0	\$0	\$0	\$67,000
ENG20.24	Automated Gate w/ Double Downstream Level Sensors Lateral We Takeout (We, Station 0+00)	To better serve current and pending sprinkler customers downstream and will work in conjunction with double sensors at pour over boxes. Also, automation of the dead end lateral may entice many properties currently using ground water to use District water who were not able to be served before.	SSJID	\$0	\$0	\$67,000	\$0	\$0	\$0	\$67,000
MAINT19.02	Lateral T Canal Lining/Resurfacing (1,800', Station 0-18)	The floor of the canal is in very bad condition, walls are also cracked and in need of attention	SSJID	\$0	\$0	\$0	\$0	\$134,996	\$0	\$134,996
MAINT19.03	R Ditch 'Canal Lining/ Resurfacing 294-325 (3,100 feet)	Canal is in need of resurfacing, has many cracks and land on both sides of canal are below normal operating water level.	SSJID	\$0	\$0	\$248,422	\$0	\$0	\$0	\$248,422
MAINT19.04	T Ditch Canal Lining/ Resurfacing 43-81 (3,800 ft)	Canal Liner is need or resurfacing. Floor is in bad condition as well as cracks in the walls. Land on both sides of the canal are below operating water levels.	SSJID	\$0	\$0	\$0	\$302,019	\$0	\$0	\$302,019
MAINT19.05	Lateral R Canal lining/ Resurfacing (3,400', Station 436-470)	Canal Lining is in need of resurfacing. Walls are in bad condition. Have repaired many ruptures and cracks.	SSJID	\$0	\$340,000	\$0	\$0	\$0	\$0	\$340,000

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MAINT19.10	Lateral D Pipeline Replacement. (2,000 LF, 36" pipe, Station 90-110)	Pipeline has a high concentration of leaks. Many unsuccessful attempts have been made to repair these leaks. These leaks are an issue during harvest.	SSJID	\$0	\$0	\$425,000	\$0	\$0	\$0	\$425,000
MAINT19.11	Lateral Haa-dd Pipeline Replacement. 36" Sta. 0-12 (1,200 LF)	There have been several repairs made to this pipeline.	SSJID	\$0	\$0	\$0	\$240,000	\$0	\$0	\$240,000
MAINT19.12	Lateral Qg Pipeline Replacement. 42" Sta. 114-126 (1,200 LF)	Pipeline has had several leaks in this section.	SSJID	\$0	\$0	\$240,000	\$0	\$0	\$0	\$240,000
MAINT19.13	Lateral WC Pipeline Replacement. 42" Sta. 128-137 (900LF)	Have made repairs in this portion of pipeline.	SSJID	\$0	\$0	\$0	\$180,000	\$0	\$0	\$180,000
MAINT19.14	Lateral E Pipeline Replacement. 42" Sta. 46-59 (1,300 LF)	Pipeline has had several leaks in this section.	SSJID	\$0	\$0	\$0	\$260,000	\$0	\$0	\$260,000
MAINT19.16	MSC Canal Lining/ Resurfacing Sta 282-317 (3,500')	Maintaing the integrity of the conveying facilities.	SSJID	\$0	\$0	\$0	\$0	\$300,000	\$0	\$300,000

Total Capitalized Expenditures for Irrigation Transmission and Distribution Canal and Pipeline: \$1,122,499 \$2,767,918 \$3,810,673 \$3,560,851 \$3,831,907 \$1,793,500 \$16,887,348

Non-Capitalized Major Project Expenditures:

ENG19.04	SSJID Water Master Plan	To identify and organize the District's plans over the next 20-30 years as it relates to capital infrastructure, modernization, protection of water rights, financial planning, etc.	Outside Service	\$520,693	\$964,000	\$552,000	\$0	\$0	\$0	\$2,036,693
ENG19.07	Escalon Sportman's Club - MDC Lead Abatement (Construction Only)	SSJID received a notice to abate from San Joaquin County Department of Public Health	Outside Service	\$0	\$210,000	\$210,000	\$0	\$0	\$0	\$420,000
ENG19.13	Woodward Dam Concrete Joint Sealing	This was a requirement made in the annual inspection report provided by the Department of Safety of Dams. The project involves sealing the expansion joints and cracks using pressure gunnite material with fiber. The gunnite should help reduce seepage through the cracks and potential underliner erosion that could take place as a result. The area of primary importance will occur at the range of water surface levels that the reservoir typically operates at.	SSJID	\$6,241	\$140,000	\$0	\$0	\$0	\$0	\$146,241
ENG19.15	Woodward Reservoir Tower Resurfacing Improvements	This was a requirement issued by the Department of Safety of Dams. There is spalling concrete in various locations on the tower, the catwalk, and the catwalk columns. Reinforcing steel is visible and exposed to the elements threatening the future integrity of the structure. This project is planned to be performed by an outside contractor.	Outside Service	\$0	\$27,000	\$105,000	\$0	\$0	\$0	\$132,000
ENG19.35	New Parking Turnout at Lateral Y/Z Junction Box on Atherton Road	A control box exists along Atherton Road in Manteca that does not include a safe place for the Division Manager to park and exit the vehicle. The Division Manager is currently required to park in the drive lane exposing him to a dangerous situation. This project would involve the installation of a safe parking turnout. Coordination with the City of Manteca will be required.	Outside Service	\$0	\$15,785	\$80,830	\$0	\$0	\$0	\$96,615
ENG19.47	JSC Rockslope Stabilization	This is a project that was identified during the 2018-19 construction season. Upon site investigation with geologists from Condor, it was determined that stablization efforts should be made to increase safety while working in the canal during maintenance season and to reduce the risk of rock falls and minor slides. It was strogly advised that this work be done prior to District crews conducting maintenance efforts on the canal.	SSJID	\$84,940	\$578,800	\$0	\$0	\$0	\$0	\$663,740
IT19.07	Permanent internet access for Division Manager's trucks	The Division Managers currently use a consumer-grade MiFi to get internet into the trucks. These units only last about one year as they are heavily used. A permanent internet access point will integrate into the truck and provide always-on internet and VPN for the laptops, as well as providing WiFi for the cell phones as well as any other devices that requires internet.	SSJID	\$0	\$17,500	\$0	\$0	\$0	\$0	\$17,500

5 Year Plan Item No.	Project Description	Project Purpose	Who Performs Work	PRIOR YEARS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	Total Project Cost
				Costs Incurred Prior to 2020	2020	2021	2022	2023	2024	
IT19.10	Laptop replacement for Division Managers	The laptops are several years old now and are showing major signs of wear	SSJID	\$0	\$28,000	\$0	\$0	\$0	\$0	\$28,000
MAINT19.17	Joint Supply Canal repair of cracks in walls and holes in floor.	Preventative maintenance to maintain liner integrity.	SSJID	\$60,000	\$42,104	\$138,160	\$69,978	\$73,663	\$0	\$383,905
MAINT20.01	Lateral Ba Pipeline Maintenance	Isolated crack maintainance on exterior of pipeline with field collars. Access is limited for full removal and replacement.	SSJID	\$0	\$0	\$46,400	\$0	\$0	\$0	\$46,400
SFTY19.01	Removal of Lead contaminated soil on MDC. Lead shot from ESC is polluting SSJID property on the MDC.	Received notice of violation (Abate) from San Joaquin County Environmental Health Department.	Both-SSJID & Outisde	\$0	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$175,000

Total Non-Capitalized Expenditures for Irrigation Transmision and Distribution Canal and Pipeline: \$671,874 \$2,058,189 \$1,167,390 \$104,978 \$108,663 \$35,000 \$4,146,094

Total Capitalized & Non-Capitalized Expenditures for Irrigation Transmision and Distribution Canal and Pipeline: \$1,794,373 \$4,826,107 \$4,978,063 \$3,665,829 \$3,940,570 \$1,828,500 \$21,033,442

5 Year Plan Item No.	Project Description	Project Purpose	Who Performs Work	PRIOR YEARS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	Total Project Cost
				Costs Incurred Prior to 2020	2020	2021	2022	2023	2024	

TELEMETRY AND SCADA

Capitalized Expenditures:

IT20.01	Add door access controls to new control room building.	To add security to new control room building and be in compliance with the rest of district buildings.	Outside Service	\$0	\$15,000	\$0	\$0	\$0	\$0	\$15,000
SCADA19.01	Fork Lift: Toyota Model 8FGU30 6,000 lb.	Currently the SCADA Department does not have a forklift, therefore we do not have the ability to receive shipments at our facility. All deliveries are made to the district office unloaded and then re-loaded and if the destination is this SCADA department a forklift needs to be trailered for offloading	SSJID	\$0	\$33,178	\$0	\$0	\$0	\$0	\$33,178
SCADA19.05	Install flow meters drains and laterals	Data collection and more accurate delivery methods	SSJID	\$0	\$90,000	\$0	\$0	\$0	\$0	\$90,000
SCADA19.08	Install Automation at exit end of FCOC	In order to isolate and prevent drain water from leaving the District and entering the river a unsafe and slow manual operation must be preformed	Both-SSJID & Outisde	\$0	\$0	\$57,500	\$0	\$0	\$0	\$57,500
SCADA19.09	Woodward Tower Automation	Replace aging leaking and failing infrastructure also incorporate full auto capabilities	Outside Service	\$0	\$310,000	\$0	\$0	\$0	\$0	\$310,000
SCADA20.01	Main District Canal Automation & SCADA Component Upgrade/Replacement. (includes PLC, Radio, Actuator's 3-Phase Power Integration and new gate design)	Aging and no longer suported infastructure.	Outside Service	\$0	\$0	\$100,000	\$0	\$0	\$0	\$100,000
SCADA20.02	Flow Measuring station at Valley Home Drop	This will be our first point of measurment after Woodward Takeout.	SSJID	\$0	\$18,200	\$0	\$0	\$0	\$0	\$18,200
SCADA20.04	Main District Canal Upgrade, This will include PLC, Radio, Actuator's 3-Phase Power Integration and new gate design.	Aging and no longer suported infastructure.	Outside Service	\$0	\$0	\$100,000	\$100,000	\$0	\$0	\$200,000
SCADA20.06	DSARM – Data Storage and Reporting Module	Standardization and compilation of data collected from SCADA and other gauges into a centralized DBMS readily accessible by SSJID staff for future analysis and reporting.	Outside Service	\$0	\$50,000	\$0	\$0	\$0	\$0	\$50,000
SCADA20.07	Rebuild Deep Well	Well is Preforming Below 40% Efficiency	Outside Service	\$0	\$50,000	\$0	\$0	\$0	\$0	\$50,000
SCADA20.08	Intranet Connection For District Vehicles. Pilot project for Ripon Area (Division 6) including towers, radios truck access points and backhaul to SSJID District office.	Inprove Ripon area Network accessibility for SCADA, Phones, Truepoint and Internet Communications.	Both-SSJID & Outisde	\$0	\$0	\$50,000	\$0	\$0	\$0	\$50,000
SCADA20.09	These are replacement gearboxes for Main Distribution Canal Specifically Drop 2 gate 2. These are direct replacements for the existing gearboxes that are over 30 years old, and have been problematic. The intention would be to rebuild the gearboxes that are removed and continue the process throughout the canal.	Current equipment has Exceeded its life expectancy it is a crucial point of operations	SSJID	\$0	\$14,057	\$0	\$0	\$0	\$0	\$14,057

Total Capitalized Expenditures for Telemetry and SCADA:	\$0	\$580,435	\$307,500	\$100,000	\$0	\$0	\$987,935
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Non-Capitalized Major Project Expenditures:

SCADA19.04	Continue with District On-Farm Flow Measurement Data Collection Project (SCADA)	Remote data access	SSJID	\$75,000	\$75,000	\$0	\$0	\$0	\$0	\$150,000
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Total Non-Capitalized Expenditures for Telemetry and SCADA:	\$75,000	\$75,000	\$0	\$0	\$0	\$0	\$150,000
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Total Capitalized & Non-Capitalized Expenditures for Telemetry and SCADA:	\$75,000	\$655,435	\$307,500	\$100,000	\$0	\$0	\$1,137,935
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5 Year Plan Item No.	Project Description	Project Purpose	Who Performs Work	PRIOR YEARS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	Total Project Cost
				Costs Incurred Prior to 2020	2020	2021	2022	2023	2024	

MECHANICAL SHOP AND FLEET

Capitalized Expenditures:

SHOP19.15	2020 Toyota Tacoma 4X4 pickup for Division 1	This is to replace their current pickup that has exceeded 125K miles.	Outside Service	\$0	\$36,795	\$0	\$0	\$0	\$0	\$36,795
SHOP19.16	2020 Toyota Tacoma 4X4 pickup for Division 2	This is to replace their current pickup that has exceeded 125K miles.	Outside Service	\$0	\$36,795	\$0	\$0	\$0	\$0	\$36,795
SHOP19.17	2020 Toyota Tacoma 4X4 pickup for Division 4	This is to replace their current pickup that has exceeded 125K miles.	Outside Service	\$0	\$36,795	\$0	\$0	\$0	\$0	\$36,795
SHOP19.20	2020 Crane/Boom Truck	To replace truck #261-97 due to C.A.R.B. regulation. The C.A.R.B. regulation requires replacement by Jan. 1 of 2023, we are requesting the early replacement of this truck to help spread out the cost of replacing our large truck fleet as well as getting ahead of high demand for truck replacement in the state of California come 2023.	Outside Service	\$0	\$311,425	\$0	\$0	\$0	\$0	\$311,425
SHOP19.21	2021 International HX620 Heavy Haul Truck	To replace truck #102-00 due to C.A.R.B. regulation. The C.A.R.B. regulation requires replacement by Jan. 1 of 2023, we are requesting early replacement of this truck to help spread out the cost of replacing our large truck fleet as well as getting ahead of high demand for truck replacement in the state of California come 2023.	Outside Service	\$0	\$138,478	\$0	\$0	\$0	\$0	\$138,478
SHOP19.22	2020 International 7500 - 3 Axle Dump Truck	To replace truck #280-06 due to C.A.R.B. regulation. The C.A.R.B. regulation requires replacement by Jan. 1 of 2023, we are requesting the early replacement of this truck to help spread out the cost of replacing our large truck fleet as well as getting ahead of high demand for truck replacement in the state of California come 2023.	Outside Service	\$0	\$139,452	\$0	\$0	\$0	\$0	\$139,452
SHOP19.23	2020 Ford F-350 Crew Cab Flat Bed	To replace truck #215-00 which is 20 years old.	Outside Service	\$0	\$62,655	\$0	\$0	\$0	\$0	\$62,655
SHOP19.24	2020 Ford F-150 4X4 Crew Cab Diesel pickup for Maintenance Supervisor.	This truck is to equip the Maintenance Supervisor with a diesel pickup as well as the Operations Manager. With both positions requiring more time in the hills/tunnels it has proven challenging to only have 1 diesel pickup available.	Outside Service	\$0	\$41,445	\$0	\$0	\$0	\$0	\$41,445
SHOP19.25	2021 Toyota Tacoma 4X4 pickup for Division 3	This is to replace their current pickup that has exceeded 125K miles.	Outside Service	\$0	\$0	\$38,927	\$0	\$0	\$0	\$38,927
SHOP19.26	2021 International 7500 - 3 Axle Dump Truck	To replace truck #295-08 due to C.A.R.B. regulation. The C.A.R.B. regulation requires replacement by Jan. 1 of 2023, we are requesting the early replacement of this truck to help spread out the cost of replacing our large truck fleet as well as getting ahead of high demand for truck replacement in the state of California.	Outside Service	\$0	\$0	\$155,749	\$0	\$0	\$0	\$155,749
SHOP19.27	2021 International 7500 - 3 Axle Dump Truck	To replace truck #304-09 due to C.A.R.B. regulation. The C.A.R.B. regulation requires replacement by Jan. 1 of 2023, we are requesting the early replacement of this truck to help spread out the cost of replacing our large truck fleet as well as getting ahead of high demand for truck replacement in the state of California.	Outside Service	\$0	\$0	\$155,749	\$0	\$0	\$0	\$155,749
SHOP19.28	2021 International 7500 - 3 Axle Water Tanker Truck	To replace truck #296-08 due to C.A.R.B. regulation. The C.A.R.B. regulation requires replacement by Jan. 1 of 2023, we are requesting the early replacement of this truck to help spread out the costs of replacing our large truck fleet as well as getting ahead of high demand for truck replacement in the state of California.	Outside Service	\$0	\$0	\$154,751	\$0	\$0	\$0	\$154,751
SHOP19.29	2021 International 7500 - 3 Axle Dump Truck	To replace truck #268-05 due to C.A.R.B. regulation. The C.A.R.B. regulation requires replacement by Jan. 1 of 2023, we are requesting the early replacement of this truck to help spread out the cost of replacing our large truck fleet as well as getting ahead of high demand for truck replacement in the state of California come 2023.	Outside Service	\$0	\$0	\$155,749	\$0	\$0	\$0	\$155,749

5 Year Plan Item No.	Project Description	Project Purpose	Who Performs Work	PRIOR YEARS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	Total Project Cost
				Costs Incurred Prior to 2020	2020	2021	2022	2023	2024	
SHOP19.30	2021 One Ton Crew Cab Gasoline Powered Flat Bed (Plaster Truck).	This is to replace truck #223-01, this truck is 20 years old. Some parts are already obsolete	Outside Service	\$0	\$0	\$58,910	\$0	\$0	\$0	\$58,910
SHOP19.31	2021 Ford F-150 4X4 Crew Cab pickup for Safety Officer.	This is to replace their current pickup that has exceeded 125K miles.	Outside Service	\$0	\$0	\$53,575	\$0	\$0	\$0	\$53,575
SHOP19.32	2022 4X4 pickup for Division 2.	This is to replace their current pickup that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$40,425	\$0	\$0	\$40,425
SHOP19.33	2021 Toyota Tacoma 4X4 pickup for Division 1.	This is to replace their current pickup that has exceeded 125K miles.	Outside Service	\$0	\$0	\$38,927	\$0	\$0	\$0	\$38,927
SHOP19.34	2021 Toyota Tacoma 4X4 pickup for Division 5.	This is to replace their current pickup that has exceeded 125K miles.	Outside Service	\$0	\$0	\$38,927	\$0	\$0	\$0	\$38,927
SHOP19.35	2022 4X4 pickup for Division 4.	This is to replace their current pickup that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$40,425	\$0	\$0	\$40,425
SHOP19.36	2022 4X4 pickup for Division 6.	This is to replace their current pickup that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$40,425	\$0	\$0	\$40,425
SHOP19.37	2022 One Ton SRW Gasoline Powered Spray Rig.	This to replace truck #263-04 that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$97,663	\$0	\$0	\$97,663
SHOP19.38	2023 Class 5 Diesel Powered Spray Rig.	This is to replace truck #294-07 that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$0	\$151,830	\$0	\$151,830
SHOP19.39	2022 International 7500 - 3 Axle Water Tanker Truck	This truck would fill a need within the Maintenance Department. It allows for projects in the hills and the valley to go on at the same time where a water truck is needed for dust and/or fire prevention.	Outside Service	\$0	\$0	\$0	\$160,935	\$0	\$0	\$160,935
SHOP19.40	2023 4X4 pickup for Division 3.	This is to replace their current pickup that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$0	\$41,982	\$0	\$41,982
SHOP19.41	2024 SUV for General Manager	This is to replace their current vehicle that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$0	\$0	\$45,980	\$45,980
SHOP19.44	2021 4X4 Crew Cab pickup for Civil Engineer.	This is to replace their current pickup that has exceeded 125K miles.	Outside Service	\$0	\$0	\$44,353	\$0	\$0	\$0	\$44,353
SHOP19.45	2023 Ford F-350 4X4 w/ Utility Box for SCADA Technician.	This is to replace their current truck that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$0	\$64,738	\$0	\$64,738
SHOP19.46	2023 Ford F-350 Crew Cab - Flat Bed (Plaster Truck)	This is replace a 20 year old truck. Some parts are obsolete.	Outside Service	\$0	\$0	\$0	\$0	\$63,494	\$0	\$63,494
SHOP19.47	2023 Ford F-350 Crew Cab - Flat Bed (Plaster Truck)	This is to replace a 20 year old truck. Some parts are obsolete.	Outside Service	\$0	\$0	\$0	\$0	\$63,494	\$0	\$63,494
SHOP19.48	2022 SUV for Legal Counsel.	This is to replace their current vehicle that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$45,980	\$0	\$0	\$45,980
SHOP20.01	Snap-on Prolink Ultra Scan Tool with ShopKey. This scan tool allows for onboard engine and chassis component diagnostics for all our heavy duty truck fleet regardless of manufacture or engine option. Upgrades are only necessary if we upgrade the truck itself.	This is a much easier tool to use than our current O.E. laptop and is much more versital. This will also eliminate the need for a O.E. laptop and the yearly subscription renewel that goes with it.	Outside Service	\$0	\$13,557	\$0	\$0	\$0	\$0	\$13,557
SHOP20.02	2020 Ford F-150 4X4 Crew Cab diesel pickup for the Engineering Department Manager.	This truck allows the Engineering Manager to access off highway job sites when needed (Canyon Tunnel Project). The Tahoe that is a pool vehicle will likely be sold in 2021, leaving no 4X4 available for general use.	Outside Service	\$0	\$47,501	\$0	\$0	\$0	\$0	\$47,501
SHOP20.03	2021 Chevy/Ford 1 ton truck with a small flatbed body.	This truck will replace the current JSC truck (former Operations Manager truck). This new truck will be setup with a short flatbed body for use in the hills year round as well as being able to be converted for other jobs as needed.	Outside Service	\$0	\$0	\$62,955	\$0	\$0	\$0	\$62,955
SHOP20.04	2023 International 7500 3 axle Dump Truck	With all the class A drivers the District now has as well as the amount of work during maintenance season it makes sense to add another dump truck to increase work flow. It also decreases the need to rent a truck when one of our trucks is down for an exteneded repair.	Outside Service	\$0	\$0	\$0	\$0	\$147,563	\$0	\$147,563
SHOP20.05	2023 4X4 pickup for Division 1	To replace high mileage vehicle exceeding 125K miles.	Outside Service	\$0	\$0	\$0	\$0	\$41,982	\$0	\$41,982
SHOP20.06	2023 4X4 pickup for Division 5	To replace vehicle that has exceeded the 125K mileage cap.	Outside Service	\$0	\$0	\$0	\$0	\$41,982	\$0	\$41,982
SHOP20.07	2024 4X4 pickup for Division 2	To replace previous pickup that has exceeded the 125K mileage cap	Outside Service	\$0	\$0	\$0	\$0	\$0	\$43,099	\$43,099

5 Year Plan Item No.	Project Description	Project Purpose	Who Performs Work	PRIOR YEARS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	Total Project Cost
				Costs Incurred Prior to 2020	2020	2021	2022	2023	2024	
SHOP20.08	2024 4X4 pickup for Division 4	To replace previous pickup that has exceeded the 125K mileage cap	Outside Service	\$0	\$0	\$0	\$0	\$0	\$43,099	\$43,099
SHOP20.09	2024 4X4 pickup for Division 6	To replace previous pickup that has exceeded the 125K mileage cap.	Outside Service	\$0	\$0	\$0	\$0	\$0	\$43,099	\$43,099
SHOP20.10	2024 pickup for Maintenance Department pool.	To replace the previous pickup that has exceeded the 125K mileage cap	Outside Service	\$0	\$0	\$0	\$0	\$0	\$43,099	\$43,099
SHOP20.11	2024 Ford F-150 4X4 Crew Cab pickup for Assistant Water Supervisor	To replace the previous pickup that has exceeded the 125K mileage cap	Outside Service	\$0	\$0	\$0	\$0	\$0	\$49,125	\$49,125
SHOP20.12	2024 Chevy/Ford 4X4 Crew Cab Diesel pickup for Operations Manager	To replace previous pickup that has exceeded the 125K mileage cap	Outside Service	\$0	\$0	\$0	\$0	\$0	\$57,785	\$57,785
SHOP20.13	2023 Skip Loader	This tractor is to replace unit 36-92. We are required to remove/replace a older piece of equipment to maintain our fleet score with CARB. This unit is our oldest.	Outside Service	\$0	\$0	\$0	\$0	\$143,225	\$0	\$143,225
SHOP20.14	2020 Ford/Chevrolet 1 Ton Diesel Flat Bed Truck	To allow the Control Room/SCADA department to perform various installation and maintenance duties as needed with the ability to take one truck versus several trucks. Allows this department to be self sufficient and reliant on main yard truck availability.	Outside Service	\$0	\$65,851	\$0	\$0	\$0	\$0	\$65,851
SHOP20.15	2 Ton Flat Bed truck for Maintenance Department. This truck will be an addition to the fleet to allow Shotcrete and Gunitite projects to happen at the same time.	Often times during the maintenance season we are short of medium duty trucks for construction and maintenance projects. The addition of this truck will allow for more work to be done with the present work force.	Outside Service	\$0	\$0	\$0	\$77,975	\$0	\$0	\$77,975
SHOP20.16	2022 3/4 Ton longbed pickup to serve as a fuel/lube truck for the Maintenance Department.	This truck will replace an existing half ton pickup used in this same capacity. A half ton truck is too light duty to serve in this capacity for a prolonged time period.	Outside Service	\$0	\$0	\$0	\$43,760	\$0	\$0	\$43,760
SHOP20.17	2022 half ton pickup for the Maintenance Department pool.	This is to replace their current truck that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$41,373	\$0	\$0	\$41,373
SHOP20.18	2022 half ton pickup for the Maintenance Department.	This is to replace their current vehicle that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$41,373	\$0	\$0	\$41,373
SHOP20.19	2022 Class 5 Service Truck for the Shop Department.	This truck will allow for a wide range of service and repair duties to be performed in the field. This truck would also be equipped with a welder and would serve as a back-up or secondary welding truck as needed. There is currently only one welding truck in the fleet with no viable option should that truck be unavailable for work.	Outside Service	\$0	\$0	\$0	\$168,400	\$0	\$0	\$168,400
SHOP20.20	2023 half ton pickup for the Maintenance Department.	This is to replace their current vehicle that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$0	\$42,815	\$0	\$42,815
SHOP20.21	2023 half ton pickup for the Maintenance Department.	This is to replace their current vehicle that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$0	\$42,815	\$0	\$42,815
SHOP20.22	2024 half ton pickup for the Maintenance Department.	This is to replace their current vehicle that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$0	\$0	\$44,459	\$44,459

Total Capitalized Expenditures for the Mechanical Shop and Fleet:	\$0	\$930,749	\$958,572	\$798,734	\$845,920	\$369,745	\$3,903,720
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Total Non-Capitalized Expenditures for the Mechanical Shop and Fleet:	\$0	\$0	\$0	\$0	\$0	\$0	\$0
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Total Capitalized & Non-Capitalized Expenditures for the Mechanical Shop and Fleet:	\$0	\$930,749	\$958,572	\$798,734	\$845,920	\$369,745	\$3,903,720
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5 Year Plan Item No.	Project Description	Project Purpose	Who Performs Work	PRIOR YEARS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	Total Project Cost
				Costs Incurred Prior to 2020	2020	2021	2022	2023	2024	

SOLAR FARM

Capitalized Expenditures:

IT19.03	Surveillance camera replacement for Solar Farm	The cameras at the Solar Farm are advanced in age and starting to fail.	Both-SSJID & Outside	\$0	\$5,000	\$0	\$0	\$0	\$0	\$5,000
SLR20.01	Repair or replace (1) 250kw string inverter	One of the existing inverters has failed and needs repair/replacement. A recent repair estimate shows an anticipated cost of \$77,000. We are currently evaluating other repair options and considering complete replacment.	Outside Service	\$0	\$100,000	\$0	\$0	\$0	\$0	\$100,000

Total Capitalized Expenditures for Solar Farm:	\$0	\$105,000	\$0	\$0	\$0	\$0	\$105,000
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Total Non-Capitalized Expenditures for Solar Farm:	\$0	\$0	\$0	\$0	\$0	\$0	\$0
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Total Capitalized & Non-Capitalized Expenditures for Solar Farm:	\$0	\$105,000	\$0	\$0	\$0	\$0	\$105,000
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5 Year Plan Item No.	Project Description	Project Purpose	Who Performs Work	PRIOR YEARS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	Total Project Cost
				Costs Incurred Prior to 2020	2020	2021	2022	2023	2024	

WATER TREATMENT PLANT

Capitalized Expenditures:

IT19.01b	Phone system upgrade/replacement. Shared between Funds 10 (75%) and 20 (25%). See Admin section: \$41,250 (fund 10) + \$13,750 (fund 20) = \$55,000 total	The phone system will be over 10 years old. A new phone system will integrate the entire District on to a single phone server which will reduce maintenance costs, and increase exandability.	Outside Service	\$0	\$13,750	\$0	\$0	\$0	\$0	\$13,750
IT19.05	Replace WTP SCADA servers	The servers will be 10 years old. Average lifespan of a server is 7-10 years.	SSJID	\$0	\$0	\$45,000	\$0	\$0	\$0	\$45,000
IT19.06	Reprogram SCADA using modern technologies	The SCADA system will be 17 years old. Although the SCADA software will be the latest version, the programming of SCADA is based on 2005 technology. Reprogramming SCADA to modern code will help reduce labor cost and increase uptime and reliability by switching to an object-oriented programming language.	Outside Service	\$0	\$0	\$0	\$150,000	\$0	\$0	\$150,000
IT19.09	Addition of door access controls to M2, L1, TBS, and M3.	The door access control system will enable the District to monitor who has access to the turnout at any given time. This system will also integrate with SCADA to allow for single sign-in entry (no need to disable alarm at SCADA panel). Also, most importantly, it will allow the District to disable any lost or mis-used access cards, something which we cannot do with a key.	Outside Service	\$0	\$0	\$105,000	\$0	\$0	\$0	\$105,000
IT19.11	Addition of door access controls to Membrane Building, Chemical Building, and Pre-Treatment Building at the Water Treatment Plant.	This will make sure that all doors stay locked at all times to deter intruders as well as giving a record of where employees are in case of an emergency.	Outside Service	\$0	\$0	\$75,000	\$0	\$0	\$0	\$75,000
SHOP19.42	2023 Crew Cab pickup for W.T.P. Manager. *FUND 20*	This is to replace their current vehicle that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$0	\$53,575	\$0	\$53,575
SHOP19.43	2024 Cargo Van to replace vehicle #609-06. *Fund 20*	This is to replace their current van that has exceeded 125K miles.	Outside Service	\$0	\$0	\$0	\$0	\$0	\$50,165	\$50,165
WTP19.01	Construction of (2) drying beds and associated plumbing	The additional sludge drying area will allow us to reduce our winter water hauling and sludge hauling costs. Operationally, the extra beds will help reduce recycle water turbidities during the winter months. The additional drying beds were planned for in Phase 2 of the WTP.	Outside Service	\$0	\$4,040,000	\$0	\$0	\$0	\$0	\$4,040,000
WTP20.01	Purchase water quality analyzers and associated equipment to allow monitoring of the water coming into Woodward Reservoir.	We have seen noticeable changes to the quality of the water in Woodward Reservoir. Currently we cannot explain exactly what is causing this change and we need to be able to monitor and record changes to the feed water so that we can be better prepared to treat seasonal water quality swings or have advanced notice of possible algae blooms.	SSJID	\$0	\$82,000	\$0	\$0	\$0	\$0	\$82,000
WTP20.02	Replace (2) failing automatic gate operators and the entrance gate.	The two existing gate operators have been failing more frequently over the past couple years. After the last service repair we were informed that our gate operators are not compatible with most of the new replacement equipment and it is difficult to locate parts for them. Additionally, the replacement parts are more expensive for our existing gate operators than they are for newer versions.	Outside Service	\$0	\$26,000	\$0	\$0	\$0	\$0	\$26,000
WTP20.03	Replace (2) existing 125HP Robicon VFDs at the WTP	Robicon is no longer in business and their VFDs are not supported.	Both-SSJID & Outside	\$0	\$64,000	\$0	\$0	\$0	\$0	\$64,000
WTP20.05	Reallocate WTP power components to provide a location for a temporary or permanent backup power supply to be installed. At the same time we will include power protection equipment to safeguard the electrical equipment in our pretreatment complex.	The WTP does not have a backup power supply capable of powering the facility. The installation of the solar farm has complicated the addition of an additional backup power supply which will require new engineering. Additionally, the electrical equipment in the pretreatment complex is not currently protected from power surges which results in equipment failures, and malfunctions after power outages. This estimate covers the cost of labor and equipment. The engineering work is budgeted for separately as a consulting expense.	Both-SSJID & Outside	\$0	\$160,000	\$0	\$0	\$0	\$0	\$160,000

5 Year Plan Item No.	Project Description	Project Purpose	Who Performs Work	PRIOR YEARS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	Total Project Cost
				Costs Incurred Prior to 2020	2020	2021	2022	2023	2024	
WTP20.06	Install a backup generator and fuel storage for the L1 site	The L1 turnout is the only site that does not have a backup power supply. Currently the we are renting a standby backup generator for \$7,200 a month. The fuel storage is minimal (129 gallons) and in the event of an extended power outage we would need to setup routine fuel deliveries. Although this will work as a temporary option, it is not designed or set up to function as a permanent solution.	Outside Service	\$0	\$225,000	\$0	\$0	\$0	\$0	\$225,000
WTP20.07	Complete Membrane Filter Replacement of all 8 Trains. Contract with Suez.	We have entered into a contract with Suez to replace the 8 membrane trains over a period of 10 years. We will determine the order of the replacement by the age and condition of the membranes in that train. This contract exists for 10 years (2019-2028). Four years of payments (2025-2028) are included in the project total but are not shown in this Plan.	SSJID	\$480,240	\$480,240	\$480,240	\$480,240	\$480,240	\$480,240	\$4,802,400
WTP20.08	Replace (9) non-supported processors at the WTP	The original processors (version 5, 16 bit) at the WTP are no longer supported (no more firmware updates) and are not compatible with some new equipment that we will be installing. The latest version is 8, 64 bit.	SSJID	\$0	\$57,700	\$0	\$0	\$0	\$0	\$57,700
WTP20.09	Replace failing non-supported Khrono flowmeter heads	The flowmeter heads on the DAF flowmeters are sporadically acting up displaying false information and the digital displays are sun washed and nearly illegible. We do not have a firm quote yet on the cost of these units but we are estimating \$5,000 each.	SSJID	\$0	\$25,000	\$0	\$0	\$0	\$0	\$25,000
WTP20.10	Purchase an aluminum roll in boat dock for the upper intake launch area	Launching and loading the boat from the east side of the water quality wall is difficult due to the changing water elevations and usually requires a vehicle to be completely backed into the water to successfully launch or load. A easily movable dock would drastically improve these tasks and provide a additional safety.	SSJID	\$0	\$10,000	\$0	\$0	\$0	\$0	\$10,000
WTP20.11	Replace (1) non-supported processor at L1	The original processor (version 5, 16 bit) at the L1 site is no longer supported (no more firmware updates) and are not compatible with some new equipment. The latest version is 8, 64 bit.	SSJID	\$0	\$6,300	\$0	\$0	\$0	\$0	\$6,300
WTP20.12	Replace (1) non-supported processor at M2 and M3 (2 total)	The original processors (version 5, 16 bit) at the M2 and M3 sites are no longer supported (no more firmware updates) and are not compatible with some new equipment. The latest version is 8, 64 bit.	SSJID	\$0	\$12,600	\$0	\$0	\$0	\$0	\$12,600
WTP20.13	Replace (1) non-supported processor at TBS	The original processor (version 5, 16 bit) at the TBS site is no longer supported (no more firmware updates) and are not compatible with some new equipment. The latest version is 8, 64 bit.	SSJID	\$0	\$6,300	\$0	\$0	\$0	\$0	\$6,300
WTP20.14	Purchase a replacement 18" valve for the membrane trains	We are having problems with a few 18" feed valves that allow water to fill our membrane trains. In order to repair these valves we have to remove them from service which reduces our plant capacity by 1/8th while performing the repairs. A spare valve would allow us to minimize the downtime of a train while making repairs to the valves.	SSJID	\$0	\$7,700	\$0	\$0	\$0	\$0	\$7,700
WTP20.16	TBS pump #3	The pump has abnormal noise and vibration indicating likely mechanical wear and or failure that needs to be repaired to prevent more damage and increased repair costs.	Outside Service	\$0	\$40,000	\$0	\$0	\$0	\$0	\$40,000

5 Year Plan Item No.	Project Description	Project Purpose	Who Performs Work	PRIOR YEARS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	Total Project Cost
				Costs Incurred Prior to 2020	2020	2021	2022	2023	2024	
WTP20.17	TBS Motor #3	The motor has 15 years on use and will have to be pulled to perform necessary work on the pump. To ensure that the resolve the issues with the pump/motor combination we need to rebuild the motor at the same time as we rebuild the pump.	Outside Service	\$0	\$20,000	\$0	\$0	\$0	\$0	\$20,000

Total Capitalized Expenditures for the Water Treatment Plant: \$480,240 \$5,276,590 \$705,240 \$630,240 \$533,815 \$530,405 \$10,077,490

Non-Capitalized Major Project Expenditures:

WTP19.07	Outside contractor to repair membrane tank lining	The existing linings are worn in certain areas allowing the water to come in contact with the concrete structure and erode it	Outside Service	\$0	\$100,000	\$0	\$0	\$0	\$0	\$100,000
WTP20.04	Pull and rebuild (1) pump from the L1 site	Currently one of the pumps is showing abnormal vibration in comparison to the other two. The pumps have not been repaired since they were installed. Lathrop is currently utilizing all 3 pumps to supply water to their system. Catastrophic failure of one of the pumps would decrease the amount of water we could provide through the L1 site.	Both-SSJID & Outisde	\$0	\$21,000	\$0	\$0	\$0	\$0	\$21,000
WTP20.15	Recaulk all 4 drying beds	The drying beds were last caulked in 2011 and we have recently noticed some water seepeage from one bed to the next. Upon furthe rinvestigation we could see water flowing from around the multiple locaitons in the caulking.	Outside Service	\$0	\$25,000	\$0	\$0	\$0	\$0	\$25,000

Total Non-Capitalized Expenditures for the Water Treatment Plant: \$0 \$146,000 \$0 \$0 \$0 \$0 \$146,000

Total Capitalized & Non-Capitalized Expenditures for the Water Treatment Plant: \$480,240 \$5,422,590 \$705,240 \$630,240 \$533,815 \$530,405 \$10,223,490