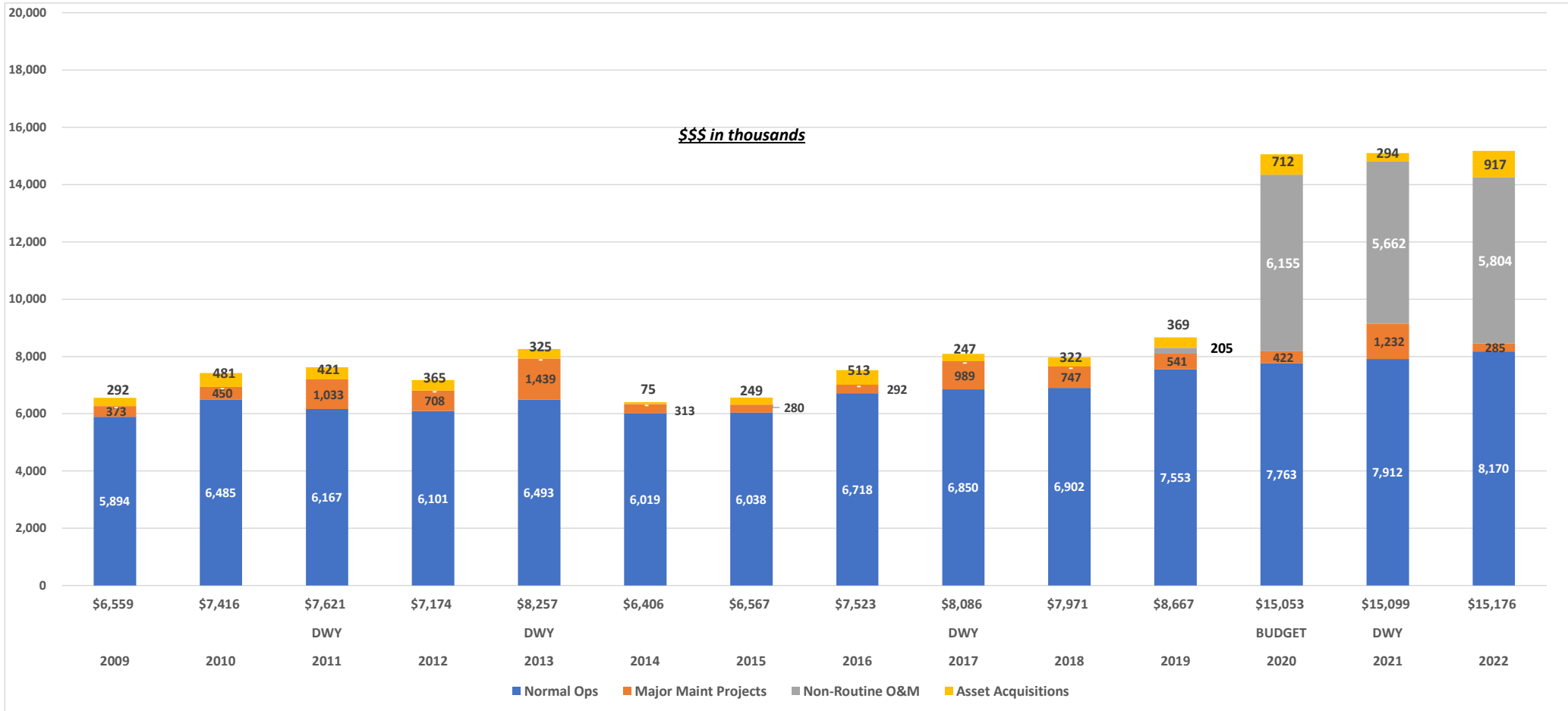


FRIANT WATER AUTHORITY

Operations & Maintenance Budget

FY 2021 – FY 2022

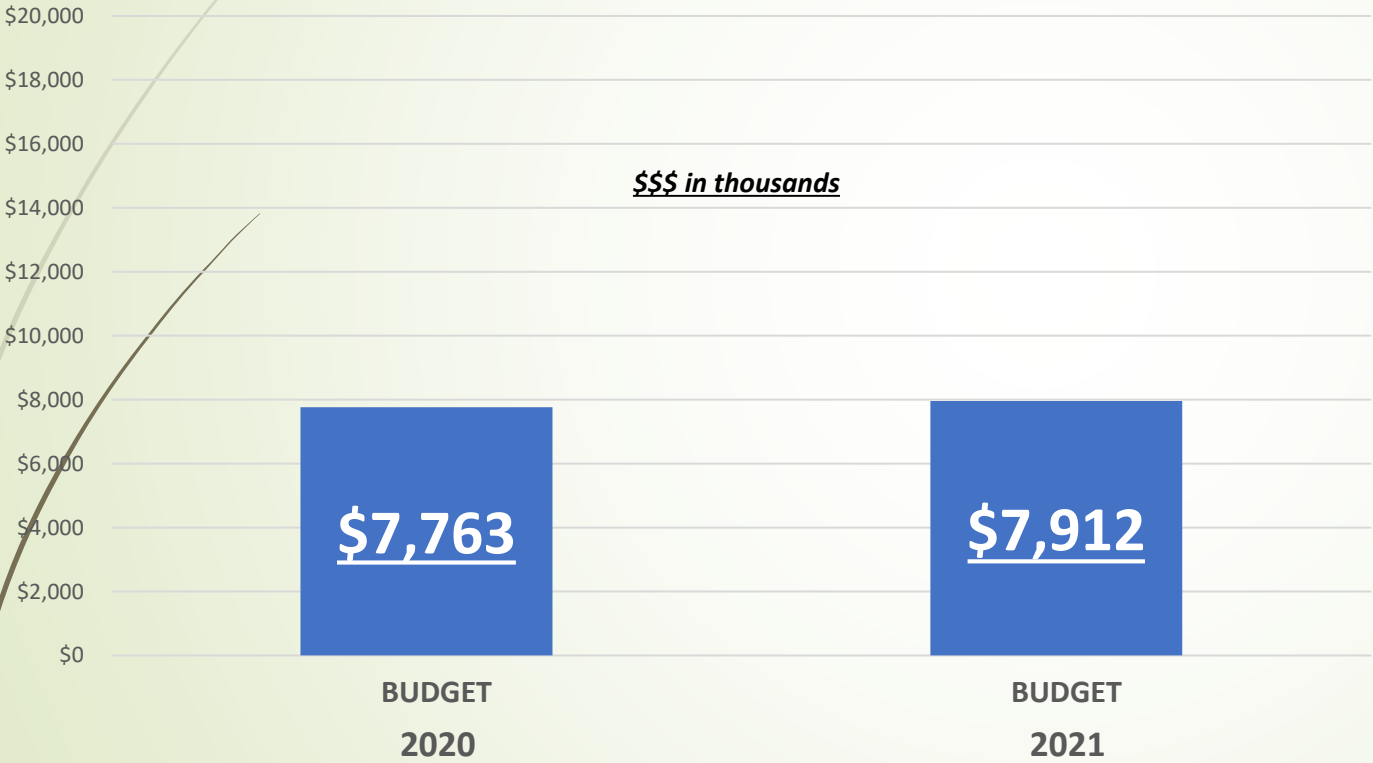
**FRIANT WATER AUTHORITY
COMPARATIVE BUDGETED SPENDING BY CATEGORY
FY 2009 THROUGH FY 2022**



FRIANT WATER AUTHORITY

ROUTINE O&M

FY 2021 PROPOSED BUDGET vs. FY 2020 BUDGET

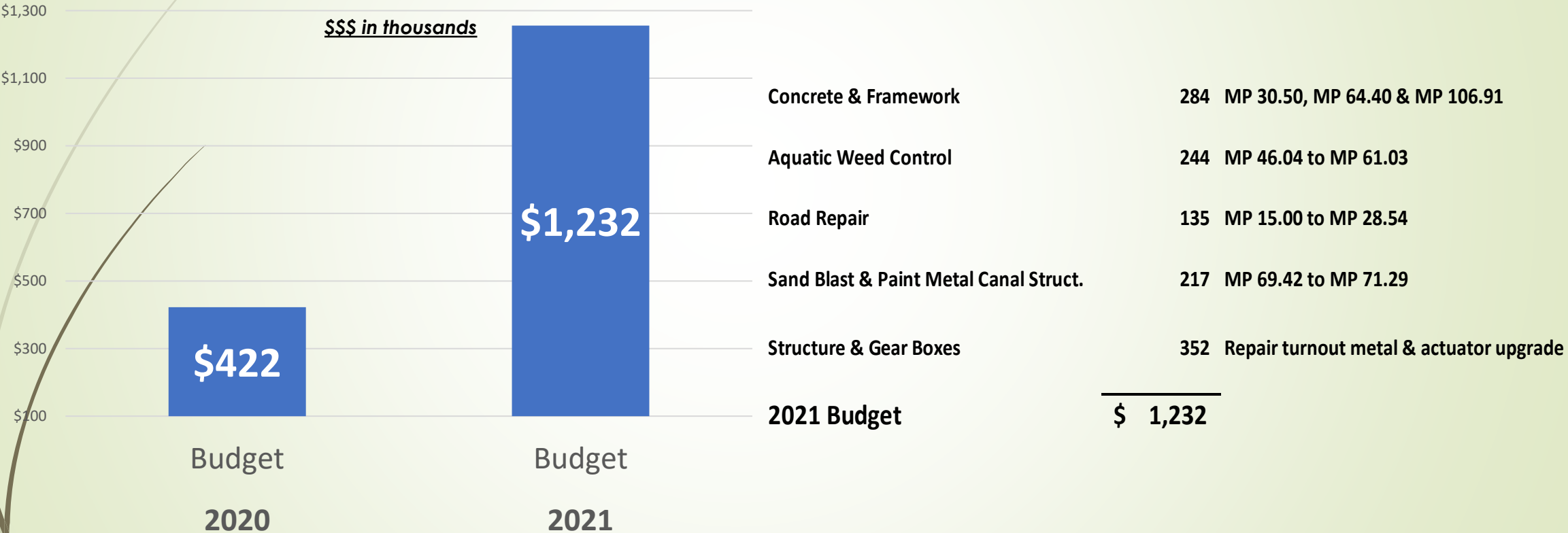


2020 Budget	\$ 7,763
Fuel useage & price	(102)
Labor to Maj. Maint.	(53)
Water coordination	330
Other	(26)
2021 Budget	<hr/> \$7,912

FRIANT WATER AUTHORITY

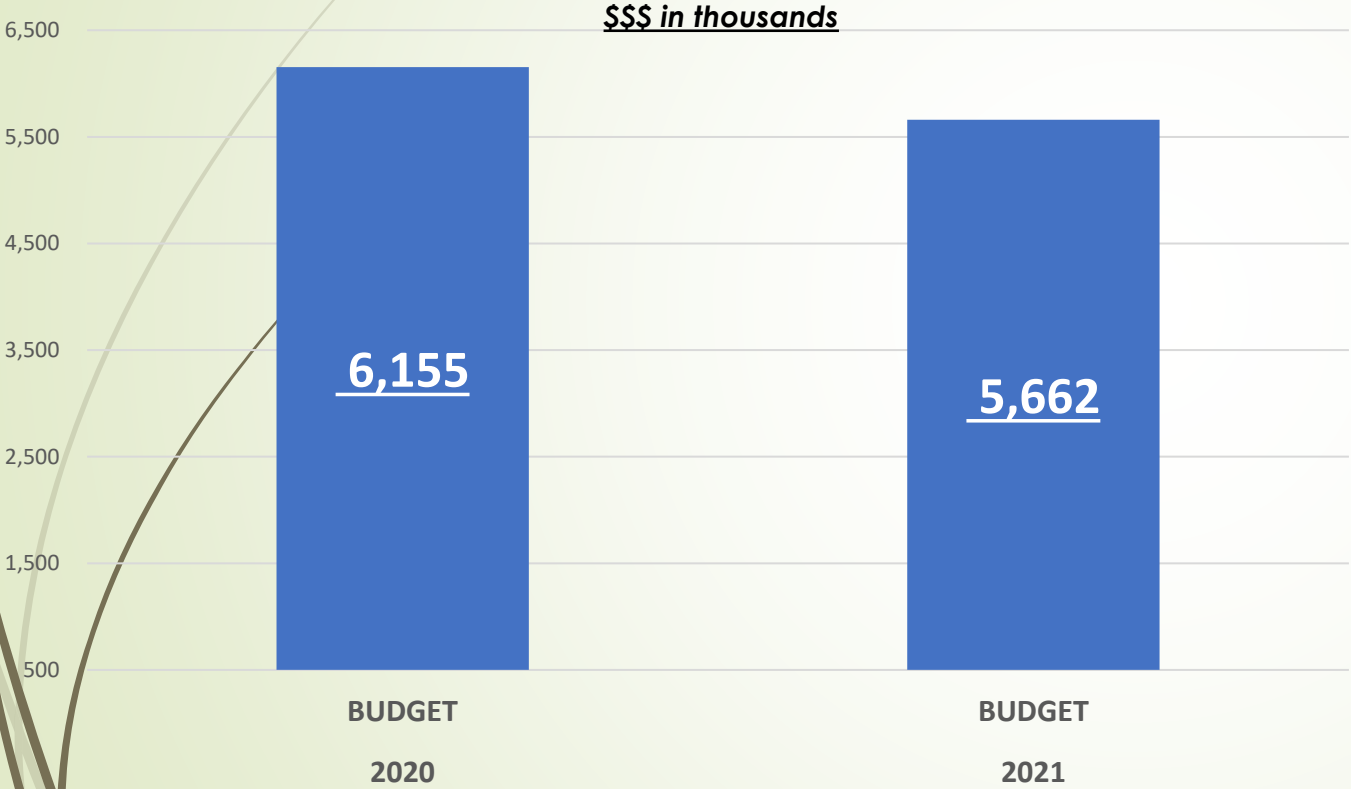
MAJOR MAINTENANCE

FY 2021 PROPOSED BUDGET vs. FY 2020 BUDGET



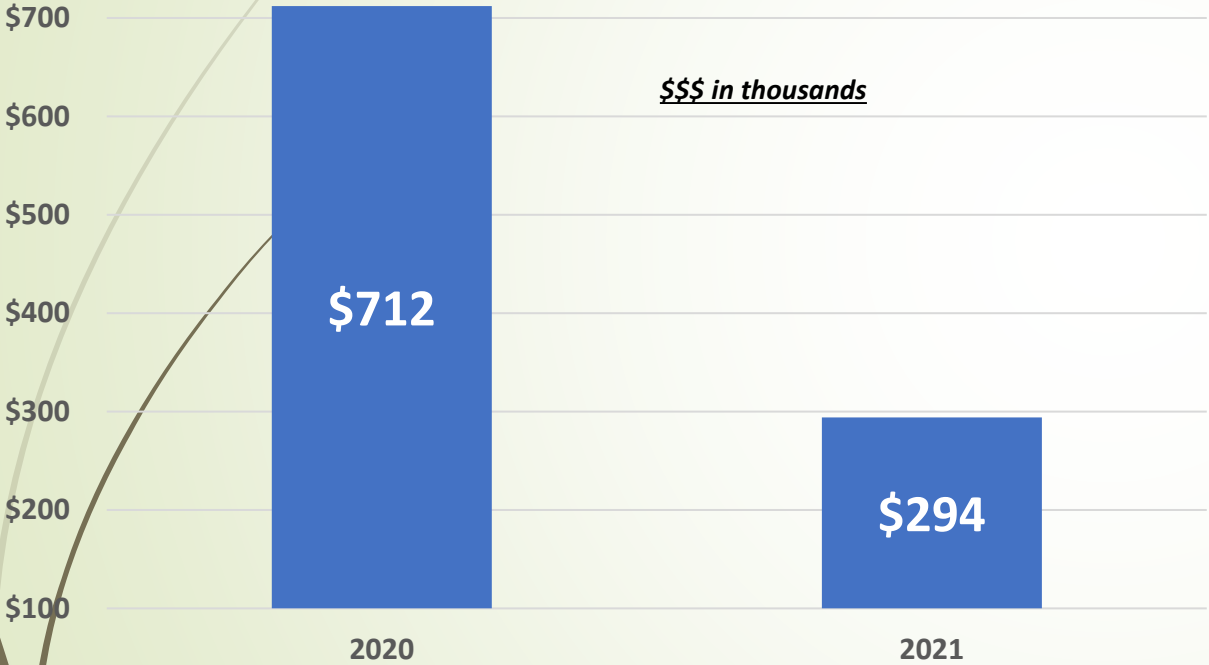


FRIANT WATER AUTHORITY NON-ROUTINE O&M FY 2021 PROPOSED BUDGET vs. FY 2020 BUDGET



Title Transfer	0	Carry over from 2020 Budget \$600
Pump Back	25	
Middle Reach	5,000	
GSA Engagement	537	
Water Quality	100	
2021 Budget	\$ 5,662	

FRIANT WATER AUTHORITY ASSET ACQUISITION FY 2021 PROPOSED BUDGET vs. FY 2020 BUDGET



<u>Description</u>	<u>Location</u>	<u>Amount</u>
(1) Utility Tractor	Delano	110
(1) one ton Flatbed Truck	Orange Cove	31
(1) Portable Compressor	Orange Cove	31
(1) Ford F-150 Pickup	Lindsay	24
(1) Ford F-150 Pickup	Orange Cove	24
(1) 1/2 Ton Foreman Pickup	Orange Cove	30
Sub-total		250
Various computers, accessories & etc.		44
2021 Budget		\$ 294

FY 2021

ASSUMPTIONS

&

CONSIDERATIONS

**Friant Water Authority
Proposed Fiscal Year 2021 Budget
for
Operation and Maintenance
Friant-Kern Canal and Supporting Facilities**

Summary of Assumptions and Considerations

1. Labor

A. Total staffing levels for FY 2021 are proposed as follows:

<u>Position</u>	<u>Total Positions</u>
1. Chief Executive Officer	1
2. Chief Operating Officer	1
3. Chief of External Affairs	1
4. Director of Water Policy*	1
5. Governmental Affairs & Communications Manager.....	1
6. Water Resources Manager	1
7. Business Administration Manager	1
8. Accounting Operations Administrator	1
9. Senior Accountant	1
10. Accounting Technician.....	1
11. Payroll Specialist & Analyst	1
12. Director of Technology	1
13. Human Resources/Risk Analyst.....	1
14. Executive Secretary.....	1
15. Executive Assistant	1
16. Administrative Assistant*	1
17. Office Technician	2
18. General Superintendent	1
19. Operations Supervisor	1
20. Resources Manager*	1
21. Water Resources Technician	1
22. Senior Engineer	1
23. Engineering Technician.....	1
24. Maintenance Foreman	3
25. Maintenance Supervisor*	1
26. Canal Maintenance Worker *	21
27. Canal System Operator	6
28. Electrician.....	1
29. Electronic Technician	2
30. Equipment Mechanic.....	2
31. Equipment Operator	4
32. Instrumentation Technician	1
33. Intern(s) (Ops./Engineering & Technical Services)*	3
Total Full Time Positions.....	<u>68</u>

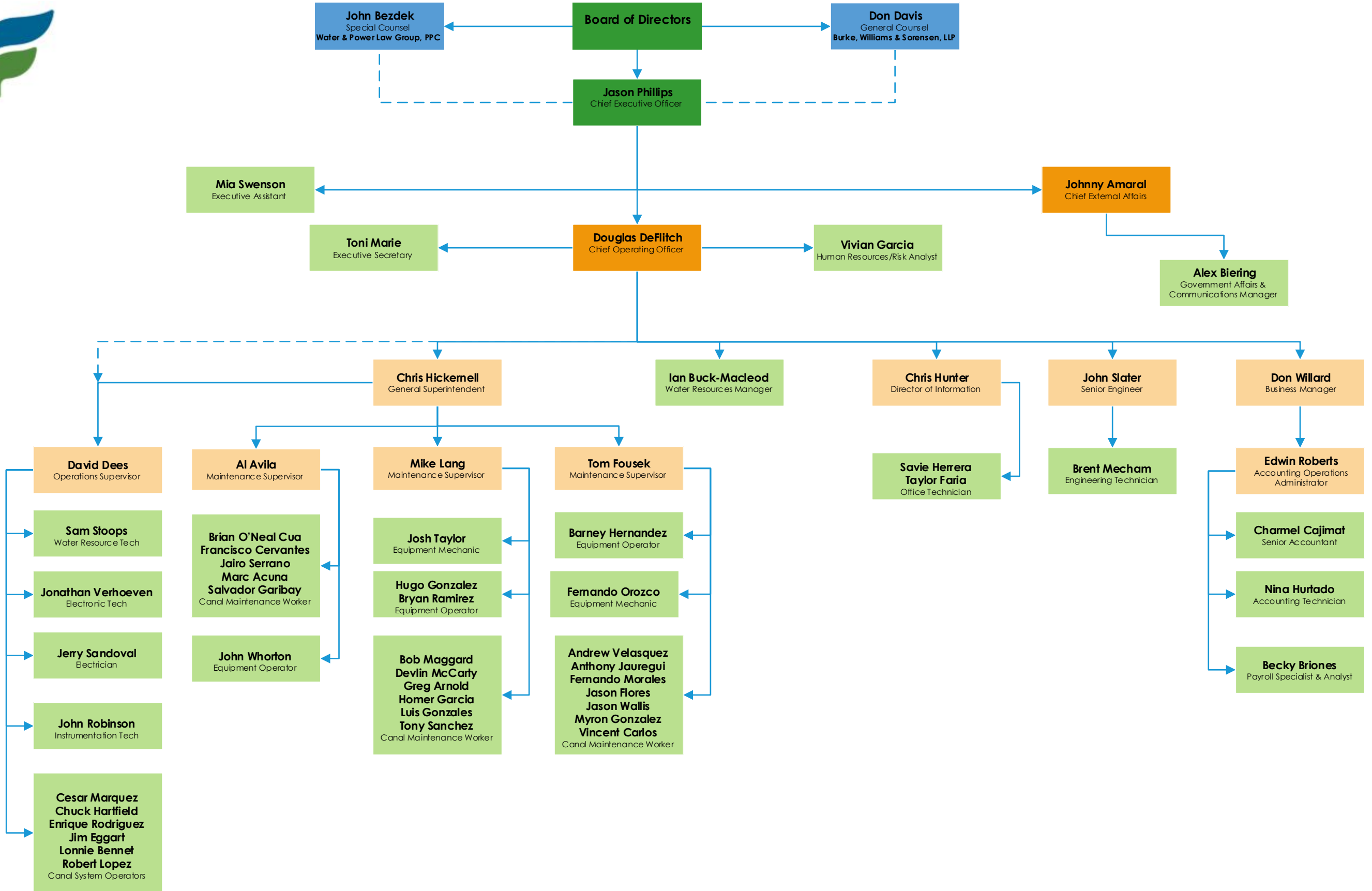
* The following positions will remain vacant and no dollar amount will be budgeted for FY 2021, Director of Water Policy, one Administrative Assistant, one Maintenance Supervisor, one Resources Manager and three Canal Maintenance Worker positions.

An inflation factor of 3.00% per year was used in the projected wage rates to cover both the "merit increases" and "cost of living adjustment (COLA)" that will occur in FY 2021 (FY 2020 wages were used as the base).

- B. Overtime hours associated with routine and extra ordinary projects equaling a total of 2.9% of total man-hours.

2. Materials

- A. An inflation factor of 2.5% per year and 8.75% sales tax was used in the calculation of the majority of the required materials for FY 2021. The inflation factor and sales tax is computed on the budget worksheets. **Supporting documentation reflects current dollars and current sales tax.**
- B. Routine maintenance materials were budgeted with the assumption that the planned FY 2021 purchases occur in full.
- C. It is the policy of the Authority to capitalize all property, plant and equipment, except equipment costing less than \$1,000 and equipment installed directly onto the Friant-Kern Canal, which is a federally owned facility. The budgeted costs for capitalize property are in the accounts of 6299, 6399 and 6799.



**FRIANT WATER AUTHORITY
2021-2022 O&M BUDGET
COMPARATIVE ANALYSIS**

Inc./ (Dec)	Location:		All	All Locations	Extrapolation	CPI		COLA		Sales Tax	Justification for FY2021 & FY202 Spending
					Months	2021 & 22	2023	2022	2023	8.75%	
					5	2.50%	2.50%	3.00%	3.50%		
	2021 Budget vs. 2020 Budget		Historical Spending								
		2021	2020	2020	2019	2018	2017 Dewater	2022	2023		
%	Dollars	Budget	Budget	Extrapolated	Actual	Actual	Actual	Budget	Budget		
Time Value			0.00%	2.50%	5.00%	7.50%	9.60%				
Acre Feet of Water Conveyed		898,831	547,927	547,927	840,032	935,095	1,272,270	898,831	898,831		
Canal Miles Maintained		151.20	151.20	151.20	151.20	151.20	151.20	151.20	151.20		
Headcount		54.00	59.00	54.00	-	-	-	54.00	54.00		
Crew Labor Hours	-3.3%	(2,985)	88,093	91,078	73,825	-	-	76,040	78,701		
Supervision Labor Hours	-8.3%	(1,696)	18,680	20,376	20,509	-	-	18,680	18,680		
OT Hours	-39.0%	(1,535)	2,402	3,937	-	-	-	2,402	2,402		
Holiday Hours	-6.4%	(264)	3,888	4,152	4,506	-	-	3,888	3,888		
Jury Duty	0.0%	0	-	-	134	-	-	-	-		
Sick Hours	100.0%	5,256	5,256	-	6,837	-	-	5,256	5,256		
Vacation Hours	-5.5%	(360)	6,160	6,520	6,007	-	-	6,160	6,160		
Total PTW & PTO Hours	-1.3%	(1,584)	124,479	126,063	111,820	-	-	112,426	115,087		
Labor	-9.5%	(\$300,383)	\$2,850,635	\$3,151,017	\$3,353,151	\$3,199,789	\$3,254,836	\$2,990,026	\$2,968,741	\$3,065,401	
Holiday	11.8%	12,685	119,845	107,160	-	-	-	-	122,841	125,912	
Jury Duty	0.0%	-	-	-	-	-	-	-	-	-	
Sick	100.0%	158,414	158,414	-	(30,770)	4,184	10,345	(7,367)	162,374	166,434	
Vacation	-4.1%	(7,956)	183,801	191,757	28,911	7,218	4,756	6,844	188,396	193,106	
Sub-total Wages & PTO	-4.0%	(137,240)	3,312,694	3,449,934	3,351,292	3,211,190	3,269,936	2,989,503	3,442,351	3,550,853	
Medical and Disability Insurance	1.9%	18,121	990,064	971,944	960,583	988,261	880,356	875,922	1,014,816	1,040,186	
Payroll Taxes	-6.8%	(4,827)	66,573	71,400	53,370	66,678	72,443	59,416	68,237	69,943	
Retirement	-2.6%	(12,324)	463,219	475,542	364,340	323,822	287,333	274,973	474,799	486,669	
Workers' Compensation	-24.6%	(29,560)	90,440	120,000	65,217	81,032	151,274	124,818	92,701	95,018	
Labor Dollars & Benefits	-3.3%	(165,830)	4,922,990	5,088,820	4,794,803	4,670,983	4,661,342	4,324,631	5,092,904	5,242,669	
Bargate Material	34.2%	3,664	14,386	10,722	10,432	15,709	12,578	13,213	14,746	15,115	
Checks and Waterways	100.0%	5,273	5,273	-	-	-	-	-	-	-	
Concrete and Framework	154.7%	3,879	6,387	2,508	85	262	4,398	-	6,547	6,711	
Dewatering	100.0%	12,512	12,512	-	-	-	61,848	-	12,825	13,146	
Drain and Channel	0.0%	0	-	-	31	-	770	80	-	-	
Fence Maintenance	34.3%	2,561	10,020	7,459	5,413	5,978	20,909	16,627	10,271	10,527	
General Canal	0.7%	1,714	239,828	238,113	8,623	190,483	157,099	74,314	245,823	251,969	
Maintenance Facilities	-8.5%	(10,920)	117,876	128,797	53,792	80,839	93,918	79,646	120,823	123,844	
Mudjacking	7.9%	117	1,595	1,478	-	1,354	1,043	2,188	1,635	1,676	
Painting	33.8%	3,467	13,728	10,261	4,869	12,485	16,792	12,155	14,071	14,423	
Road Repair	-26.9%	(1,815)	4,928	6,743	2,045	247,602	4,399	40,169	5,051	5,178	
Signs	-36.5%	(3,945)	6,849	10,794	-	-	3,496	-	7,020	7,195	
Turnouts	4652.9%	103,731	105,960	2,229	15,549	11,009	55,887	4,171	126,924	130,824	
Weed Control	4.2%	15,313	375,813	360,500	606,228	323,528	189,517	368,055	385,208	394,838	
Sub-total Materials	17.4%	135,551	915,155	779,604	707,068	889,250	622,654	610,618	950,945	975,445	
Equipment Rental	-19.0%	(2,484)	10,590	13,073	-	-	-	-	10,854	11,126	
Fuels	-31.0%	(102,450)	228,380	330,830	229,679	226,089	191,092	207,159	234,089	239,941	
Lubricants	100.0%	278	278	-	-	-	-	-	285	292	
other	0.0%	0	-	-	-	-	-	-	-	-	
Outside Services	-7.8%	(18,111)	215,231	233,342	116,563	262,526	183,833	315,049	220,612	226,127	
Overhauls	0.0%	0	-	-	-	-	-	-	-	-	
Service, Parts & Supplies	0.3%	657	208,134	207,476	184,503	172,160	214,229	170,418	214,611	219,976	
Supplies	-23.3%	(5,613)	18,476	24,089	8,211	12,077	15,691	19,090	18,938	19,411	
Sub-total Shop Costs	-15.8%	(127,722)	681,088	808,811	538,955	672,851	604,845	711,716	699,389	716,874	
Awards	137.3%	44,463	76,853	32,390	31,246	-	14,656	17,635	78,775	80,744	
Dues and Subscriptions	-14.8%	(21,420)	123,387	144,807	162,925	120,887	67,230	89,777	126,472	129,634	
Education and Training	-12.1%	(10,485)	76,258	86,743	9,063	14,989	24,951	23,595	78,165	80,119	
Equipment Rental	8.8%	2,177	27,054	24,877	25,607	30,089	29,249	33,265	27,730	28,423	
Fuels	100.0%	1,477	1,477	-	-	-	-	-	1,514	1,552	
Legal Expense- Direct	0.0%	0	-	-	-	16,847	26,413	61,216	-	-	
Legal Expense-Indirect	0.0%	0	-	-	47,496	3,608	8,815	2,850	-	-	
Liability Insurance	13.5%	18,886	158,286	139,400	-	-	-	-	162,243	166,299	
Meeting Expense	-20.5%	(49,965)	193,749	243,714	238,737	140,860	33,919	120,608	198,592	203,557	
Other	48.8%	5,893	17,955	12,063	8,163	1,261	3,256	21,193	18,404	18,864	
Outside Services	-12.2%	(19,363)	139,590	158,953	68,311	154,944	98,909	61,929	143,080	146,657	
Personnel Admin.	-53.8%	(32,975)	28,360	61,335	64,102	39,928	52,391	50,812	29,069	29,796	
Phone Service	-0.1%	(130)	95,087	95,217	66,867	97,523	59,741	77,102	97,464	99,901	
Professional Services	3835.0%	427,832	438,988	11,156	62,461	368	30,376	2,523	449,963	461,212	
Non FKC Contractors Cost Offset	-100.0%	(38,468)	(38,468)	-	-	-	-	-	(39,430)	(40,415)	
Safety & First Aide Training	-95.0%	(16,821)	883	17,704	22,535	44,471	30,206	34,871	905	927	
Safety Meetings	-100.0%	(2,101)	-	2,101	8,610	5,397	161	1,022	-	-	
Supplies	-45.3%	(41,600)	50,272	91,873	36,964	63,104	21,027	29,212	51,529	52,817	
Travel	86.2%	21,824	47,134	25,310	12,794	13,851	12,869	11,717	48,312	49,520	
Utilities	14.4%	21,201	168,104	146,903	161,340	134,108	161,586	141,317	172,306	176,614	
Sub-total Administration	24.0%	310,423	1,604,969	1,294,546	1,027,220	882,234	675,757	780,643	1,645,093	1,686,221	
Allocation to General Membership	-2.1%	(4,353)	(212,634)	(208,282)	(186,298)	(128,429)	(106,561)	(111,291)	(217,950)	(223,399)	
Routine O&M	1.9%	148,068	7,911,568	7,763,499	6,881,747	6,986,889	6,458,037	6,316,317	8,170,381	8,397,810	
Fixed Assets	-58.7%	(418,162)	294,008	712,169	712,169	977,167	176,022	252,446	917,000	1,552,400	
Concrete and Framework	100.0%	283,978	283,978	-	-	2,313	58,038	-	-	-	
Aquatic Weed Control	100.0%	243,819	243,819	-	-	889	54	-	-	-	
Road Repair	-22.8%	(39,932)	135,293	175,225	74,646	72,762	16,412	34,314	135,293	138,675	
Sand Blast & Paint Metal Canal Struct	607.2%	186,564	217,288	30,724	124,762	10,666	5,089	1,918	-	-	
Structure & Gear Boxes	62.3%	134,788	351,308	216,520	137,329	178,727	140,046	75,583	150,000	153,750	
Sub-total Major Maintenance	191.5%	809,217	1,231,687	422,469	336,737	265,357	219,639	111,816	285,293	292,425	
GSA	347.2%	416,600	536,600	120,000	-	11,016	-	-	550,015	563,765	
Pump Back	-83.0%	(122,483)	25,000	147,483	271,275	560,231	43,608	363,749	25,625	26,266	
Subsidence	-0.0%	(0)	5,000,000	5,000,000	4,020,557	2,584,700	273,137	706,978	5,125,483	5,254,279	
Title Transfer	-100.0%	(652,286)	-	652,286	66,037	84,527	-	23,830	-	-	
Water Coord. & Water Quality	-100.0%	(163,853)	-	163,853	99,841	6,751	-	-	-	-	
Water Quality Monitoring	39.5%	28,332	100,000	71,668	7,756	36,831	-	301	102,688	105,642	
Sub-total Non-Routine	-8.0%	(493,691)	5,661,600	6,155,290	4,465,466	3,284,055	316,745	1,094,859	5,803,811	5,949,952	
Grand Totals	0.3%	\$45,433	\$15,098,862	\$15,053,428	\$12,396,119	\$11,513,468	\$7,170,443	\$7,775,438	\$15,176,485	\$16,192,588	

**FRIANT WATER AUTHORITY
OPERATIONS AND MAINTENANCE - FRIANT KERN CANAL
TOTAL SPENDING BUDGET: FY2021 & FY2022 & 2023**

Inc./Dec)	Project Code	Description	Location:		2021 Budget	Historical Spending			2022 Budget	2023 Budget	Justification for FY2021 & FY2022 Spending		
			All	All Locations		2020 Budget	2020 Extrapolated	2019 Actual				2018 Actual	2017 Dewater Actual
			2021 Budget vs. 2020 Budget	%		Dollars	0.00%	2.50%				5.00%	7.50%
	1991	Fixed Assets	-58.7%	(\$418,162)	\$ 294,008	\$ 712,169	\$ 712,169	\$ 977,167	\$ 176,022	\$ 252,446	\$ 917,000	\$ 1,552,400	
	6010	Vehicle & Equipment Service	-19.4%	(144,848)	600,737	745,585	564,399	546,957	583,719	550,945	616,694	633,931	
	6020	Maintenance Supervision	-9.4%	(30,824)	297,690	328,514	318,083	350,198	443,027	379,929	306,621	317,023	
	6025	Right of Way Management	158.6%	36,502	59,513	23,012	49,107	59,649	77,768	43,982	61,299	63,138	
	6030	Weed & Pest Control	31.4%	212,114	887,808	675,694	868,620	619,700	463,175	661,047	660,088	676,590	
	6032	Friant Biological Opinion Imp	5.1%	2,158	44,791	42,634	2,192	68,556	10,047	2,378	45,911	47,059	
	6040	Road Maintenance	-21.0%	(42,827)	160,963	203,791	92,127	357,968	41,608	104,092	161,605	165,645	
	6050	Yard & Building Maintenance	-18.5%	(64,367)	282,758	347,125	217,254	312,425	299,754	306,618	290,258	298,274	
	6060	Structure & Gate Maintenance	130.0%	415,930	735,974	320,044	383,241	240,014	383,799	110,913	369,872	379,301	
	6070	Cleaning Right-of-Way	-6.3%	(3,380)	50,447	53,827	28,488	30,010	9,677	18,818	51,955	53,681	
	6080	Bargate & Guardrail Maint	-20.0%	(11,779)	47,240	59,019	50,256	38,190	32,098	37,415	48,557	49,980	
	6090	Embankment Maintenance	79.0%	49,420	111,937	62,517	95,004	105,524	87,252	82,258	115,181	118,668	
	6100	Bridge Maintenance	-16.3%	(12,059)	62,070	74,129	29,054	58,270	45,898	69,934	63,766	65,579	
	6110	Misc. Mtce	15.3%	3,090	23,305	20,216	12,544	17,795	41,594	16,552	23,945	24,637	
	6111	Reverse Flow Pumping	0.0%	0	-	-	14,782	50,981	-	196,018	-	-	
	6120	Concrete Lining Maintenance	3297.4%	284,047	292,661	8,614	2,866	3,813	140,300	3,167	8,905	9,137	
	6130	Drainditch & Channel Maint.	35.1%	9,333	35,887	26,553	6,526	12,400	127,963	11,155	36,901	37,976	
	6140	Fence Maintenance	22.5%	8,551	46,597	38,046	37,804	39,559	61,456	80,416	47,945	49,472	
	6160	Mudjacking	40.1%	5,795	20,260	14,464	6,029	20,316	18,177	20,628	20,860	21,542	
	6170	Painting	-31.0%	(1,971)	38,629	56,021	11,891	26,745	83,050	49,870	39,720	40,947	
	6190	Sump Pump Mtce	-11.8%	(4,060)	30,292	34,352	-	-	1,915	136	31,059	31,846	
	6200	Cross Drainage Structure Mtce	-46.7%	(6,479)	7,394	13,873	-	-	207	18	7,616	7,845	
	6210	Rip-Rapping	-30.0%	(1,971)	4,595	6,566	-	-	19,658	1,469	4,733	4,879	
	6221	USBR Pump Back Project	-83.0%	(122,483)	25,000	147,483	271,275	560,231	43,608	363,749	25,625	26,266	
	6225	FKC Subsidence	0.0%	(0)	5,000,000	5,000,000	3,832,392	2,302,348	273,137	652,430	5,125,483	5,254,279	
	6226	FKC Capacity Correction (FWA)	0.0%	0	-	-	188,165	282,352	-	54,547	-	-	
	6230	GSA Engagement	347.2%	416,600	536,600	120,000	-	11,016	-	-	550,015	563,765	
	6305	C. & I. Maint. (General)	77.6%	12,990	29,736	16,746	45,568	14,478	12,931	7,305	30,615	31,662	
	6306	C & I ESI Equip Mtce - SCADA	-6.3%	(16,974)	253,107	270,081	93,609	228,629	180,796	140,968	259,794	266,900	
	6310	Meter Repair	-31.9%	(57,831)	123,236	181,068	59,053	118,819	114,084	91,136	126,651	130,505	
	6320	Canal Patrol	56.2%	108,784	302,199	193,416	290,380	288,427	251,955	293,516	311,261	322,147	
	6330	Operations Reports	-28.2%	(32,570)	82,930	115,499	103,172	141,539	122,224	175,292	85,407	88,376	
	6340	Operations Supervision	71.3%	60,164	144,502	84,338	84,066	65,080	78,906	75,079	148,837	154,047	
	6345	Water supply coordination & monitoring	73.9%	140,054	329,532	189,478	107,352	9,499	-	-	337,887	346,575	
	6350	Water Measurement	-44.6%	(30,178)	37,524	67,703	1,111	6,746	42,255	7,044	38,616	39,898	
	6360	Misc. Operations	84.0%	3,562	7,803	4,241	7,262	847	1,253	781	7,998	8,198	
	6370	Water Quality	39.5%	28,332	100,000	71,668	7,756	36,831	-	301	102,688	105,642	
	6380	Groundwater & Seepage Well Mes	-100.0%	(4,419)	-	4,419	1,943	1,820	1,411	2,664	-	-	
	6402	FKC Title Transfer	-100.0%	(669,831)	-	669,831	66,037	84,527	-	23,830	-	-	
	6405	Legal Expense- Direct	818.2%	50,235	56,375	6,140	10,506	16,846	25,881	11,919	57,784	59,229	
	6410	Administrative Supervision	19.3%	2,494	15,382	12,888	15,307	12,736	17,714	17,067	15,844	16,319	
	6420	Safety & First Aid Training	-20.6%	(24,359)	93,759	118,118	43,792	45,665	36,940	43,391	96,257	98,925	
	6430	Office Admin (Typing etc.)	-46.9%	(120,135)	136,010	256,145	166,705	225,960	177,153	148,657	140,090	144,602	
	6435	SLDMWA/FWA	0.0%	0	-	-	888	-	-	-	-	-	
	6440	Payroll Preparation	15.7%	1,720	12,663	10,943	9,433	7,719	9,444	8,637	13,043	13,498	
	6450	Meetings (General)	1.7%	724	43,694	42,970	131,152	59,653	17,785	21,027	44,949	46,391	
	6451	Meeting - Board of Directors	13.6%	22,802	190,850	168,047	239,803	113,474	33,192	104,919	195,841	201,176	
	6452	Meetings (Sub Committee)	-40.8%	(31,539)	45,756	77,295	47,184	51,633	20,144	34,673	46,982	48,326	
	6453	Meetings (Staff)	-13.7%	(6,335)	40,053	46,388	59,161	26,902	9,447	21,070	41,222	42,554	
	6460	Education & Training	-9.4%	(12,866)	124,038	136,904	43,680	30,274	43,513	32,368	127,378	130,911	
	6470	Misc Administration	-93.1%	(3,929)	289	4,219	25,039	19,873	4,189	7,206	298	307	
	6480	Procurement	-13.7%	(1,351)	8,523	9,874	4,627	1,851	703	-	8,779	9,062	
	6490	Inventory & Property Mgt.	-74.1%	(13,044)	4,548	17,592	-	-	851	772	4,684	4,846	
	6501	Employee Benefit (Holiday)	13.2%	14,693	125,723	111,030	140,557	109,728	103,105	100,371	128,896	132,149	
	6502	Employee Benefit (Sick Pay)	0.0%	158,414	158,414	-	180,885	116,143	113,918	115,539	162,374	166,434	
	6503	Employee Benefit (Vacation)	-6.8%	(13,462)	183,801	197,263	221,300	189,285	180,296	186,298	188,396	193,106	
	6504	Employee Benefit (Jury Duty)	0.0%	0	-	-	3,922	1,185	2,281	705	-	-	
	6510	Data Processing	-21.5%	(41,067)	149,554	190,621	126,584	186,207	172,567	111,993	153,542	157,637	
	6520	Travel	86.2%	21,824	47,134	25,310	12,794	13,850	12,869	11,717	48,312	49,520	
	6530	Accounting & Auditing	1.8%	6,397	362,466	356,069	281,701	290,635	199,321	217,370	373,201	385,977	
	6540	Personnel Administration	-33.3%	(50,104)	100,512	150,616	125,169	104,106	59,686	59,517	103,335	106,266	
	6610	Employee Retirement	-1.5%	(7,024)	463,219	470,242	364,340	323,821	281,672	274,973	474,799	486,669	
	6611	Retirement Administration	-100.0%	(5,300)	-	5,300	-	-	5,661	-	-	-	
	6620	Medical & Disability Insurance	1.5%	15,046	986,989	971,944	960,583	988,260	880,258	875,881	1,011,664	1,036,956	
	6630	Liability Insurance	13.5%	18,886	158,286	139,400	-	-	-	-	162,243	166,299	
	6640	Workers Comp. Insurance	-20.4%	(24,435)	95,565	120,000	65,217	81,031	151,256	124,818	97,954	100,403	
	6650	Legal Expense-Indirect	0.0%	25,625	25,625	-	97,315	3,045	8,815	2,850	26,266	26,922	
	6660	Payroll Taxes	-6.8%	(4,827)	66,573	71,400	53,370	66,677	72,443	59,416	68,237	69,943	
	6670	Utilities	14.4%	21,201	168,104	146,903	161,340	134,107	161,586	141,317	172,306	176,614	
	6680	Telephone Expense	-0.1%	(130)	95,087	95,217	66,845	97,348	59,552	76,996	97,464	99,901	
	6690	Office Supplies	-47.9%	(36,828)	40,129	76,957	36,402	63,016	20,859	28,469	41,132	42,160	
	6700	Merit Awards	90.7%	18,592	39,092	20,500	31,246	-	14,656	17,635	40,069	41,071	
	6710	Postage	5.2%	263	5,337	5,074	2,507	4,057	3,425	2,791	5,471	5,607	
	6720	Dues & Subscriptions	-14.8%	(21,420)	123,387	144,807	162,925	120,887	67,230	89,777	126,472	129,634	
	6730	Budget Preparation	-79.6%	(22,227)	5,694	27,921	-	16,003	8,619	14,478	5,850	6,018	
	6740	Achieving & Data Storage	0.0%	4,085	4,085	-	2,956	-	-	-	4,202	4,323	
	6790	Lease Office Equipment	8.8%	2,177	27,054	24,877	25,607	30,089	29,249	33,265	27,730	28,423	
	6810	Outside Services - SCID	0.0%	0	-	-	-	405	-	-	-	-	
	9999	GM administration allocation	2.1%	(4,353)	(212,634)	(208,282)	(186,298)	(128,429)	(106,561)	(111,291)	(217,950)	(223,399)	
	Totals		0.3%	\$ 45,433	\$ 15,098,862	\$ 15,053,428	\$ 12,396,119	\$ 11,513,468	\$ 7,170,443	\$ 7,775,438	\$ 15,176,485	\$ 16,192,588	

FRIANT WATER AUTHORITY
OPERATIONS AND MAINTENANCE - FRIANT KERN CANAL
LABOR SPENDING BUDGET: FY2021 & FY2022 & 2023

Inc./(Dec)	Project Code	Description	2021 Budget vs. 2020 Budget		Location:	All	All Locations	Extrapolation		CPI		COLA		Sales Tax	Justification for FY2021 & FY202 Spending
			%	Dollars				Months	2021 & 22	2023	2022	2023	8.75%		
								5	2.50%	2.50%	3.00%	3.50%			
Historical Spending															
					2021 Budget	2020 Budget	2020 Extrapolated	2019 Actual	2018 Actual	2017 Dewater Actual	2022 Budget	2023 Budget			
	1991	Fixed Assets	0.0%	\$0	\$0	\$0	\$10,032	\$0	\$0	\$0	\$0	\$0	\$0		
	6010	Vehicle & Equipment Service	-18.0%	(41,049)	187,628	228,676	151,505	147,358	231,268	171,951	193,257	199,908			
	6020	Maintenance Supervision	-9.4%	(30,824)	297,690	328,514	318,083	350,198	443,009	379,929	306,621	317,023			
	6025	Right of Way Management	158.6%	36,502	59,513	23,012	49,107	59,649	77,768	43,982	61,299	63,138			
	6030	Weed & Pest Control	-2.2%	(5,979)	259,794	265,773	247,144	273,813	229,505	270,481	266,289	272,947			
	6032	Friant Biological Opinion Imp	0.0%	0	-	-	-	-	-	-	-	-			
	6040	Road Maintenance	-27.3%	(14,397)	38,410	52,807	69,267	91,729	33,267	53,964	38,929	39,902			
	6050	Yard & Building Maintenance	-42.1%	(62,768)	86,245	149,013	96,458	164,533	133,831	152,846	88,833	91,812			
	6060	Structure & Gate Maintenance	114.2%	133,549	250,487	116,937	259,471	66,081	190,007	51,189	134,739	138,290			
	6070	Cleaning Right-of-Way	-7.4%	(3,911)	49,247	53,158	21,513	30,010	9,677	18,818	50,725	52,420			
	6080	Bargate & Guardrail Maint	-28.7%	(10,967)	27,205	38,172	39,824	22,481	16,023	24,203	28,021	28,931			
	6090	Embankment Maintenance	76.4%	38,642	89,232	50,590	92,498	101,617	83,641	81,392	91,908	94,813			
	6100	Bridge Maintenance	-19.9%	(7,225)	29,040	36,266	25,559	30,346	25,975	35,523	29,912	30,878			
	6110	Misc. Mtce	128.7%	6,373	11,325	4,952	4,427	3,466	18,303	9,217	11,664	12,050			
	6111	Reverse Flow Pumping	0.0%	0	-	-	6,583	108	-	38,689	-	-			
	6120	Concrete Lining Maintenance	2863.2%	174,833	180,940	6,106	2,780	1,238	76,367	3,167	925	957			
	6130	Drainditch & Channel Maint.	-12.0%	(3,179)	23,374	26,553	6,495	12,400	65,344	11,076	24,076	24,830			
	6140	Fence Maintenance	19.6%	5,991	36,577	30,586	32,391	33,580	40,422	63,604	37,675	38,945			
	6160	Mudjacking	43.7%	5,678	18,665	12,986	6,029	18,962	17,134	18,440	19,225	19,866			
	6170	Painting	-45.5%	(20,843)	24,917	45,761	7,022	14,260	67,056	37,756	25,665	26,541			
	6190	Sump Pump Mtce	3.4%	65	1,972	1,907	-	-	1,058	-	2,031	2,092			
	6200	Cross Drainage Structure Mtce	-46.7%	(6,479)	7,394	13,873	-	-	207	18	7,616	7,845			
	6210	Rip-Rapping	-30.0%	(1,971)	4,595	6,566	-	-	19,658	1,469	4,733	4,879			
	6221	USBR Pump Back Project	-100.0%	(22,483)	-	22,483	35,578	29,456	27,660	39,921	-	-			
	6225	FKC Subsidence	-48.0%	(89,359)	96,705	186,064	144,433	256,262	18,468	83,310	99,606	102,755			
	6226	FKC Capacity Correction (FWA)	0.0%	0	-	-	8,774	6,978	-	-	-	-			
	6230	GSA Engagement	0.0%	0	-	-	-	-	-	-	-	-			
	6305	C. & I. Maint. (General)	69.8%	11,222	27,299	16,077	44,174	13,481	9,887	-	28,118	29,102			
	6306	C & I ESI Equip Mtce - SCADA	-30.7%	(31,847)	71,859	103,706	88,468	101,791	62,998	94,614	74,015	76,476			
	6310	Meter Repair	-38.9%	(42,541)	66,789	109,330	55,776	56,648	75,953	46,248	68,792	71,200			
	6320	Canal Patrol	55.8%	107,981	301,397	193,416	290,175	286,647	250,656	290,754	310,438	321,304			
	6330	Operations Reports	-28.6%	(32,403)	80,923	113,326	100,766	139,584	121,124	123,756	83,351	86,268			
	6340	Operations Supervision	71.3%	60,164	144,502	84,338	84,066	65,080	77,869	75,079	148,837	154,047			
	6345	Water supply coordination & monitoring	-73.1%	(63,675)	23,394	87,068	18,832	2,186	-	-	24,096	24,939			
	6350	Water Measurement	-51.0%	(31,971)	30,716	62,687	486	6,378	12,102	6,685	31,637	32,744			
	6360	Misc. Operations	-100.0%	(4,241)	-	4,241	-	-	-	-	-	-			
	6370	Water Quality	-35.1%	(20,296)	37,610	57,906	5,834	8,157	-	-	38,738	40,094			
	6380	Groundwater & Seepage Well Mes	-100.0%	(4,419)	-	4,419	1,943	1,820	1,173	2,664	-	-			
	6402	FKC Title Transfer	-100.0%	(70,981)	-	70,981	16,954	7,513	-	668	-	-			
	6405	Legal Expense- Direct	0.0%	0	-	-	-	-	-	-	-	-			
	6410	Administrative Supervision	19.3%	2,494	15,382	12,888	15,307	12,736	17,047	17,067	15,844	16,319			
	6420	Safety & First Aid Training	-44.9%	(25,099)	30,820	55,919	6,933	10,458	15,935	14,220	31,744	32,800			
	6430	Office Admin (Typing etc.)	-46.9%	(120,135)	136,010	256,145	166,508	200,686	152,137	124,052	140,090	144,602			
	6435	SLDMWA/FWA	0.0%	0	-	-	888	-	-	-	-	-			
	6440	Payroll Preparation	15.7%	1,720	12,663	10,943	9,433	7,719	9,444	8,637	13,043	13,498			
	6450	Meetings (General)	2.7%	852	32,547	31,695	115,717	44,102	15,079	8,887	33,523	34,680			
	6451	Meeting - Board of Directors	83.2%	19,956	43,946	23,991	60,873	31,515	16,903	29,649	45,265	46,836			
	6452	Meetings (Sub Committee)	9.0%	1,370	16,527	15,158	19,133	17,700	9,439	9,045	17,023	17,618			
	6453	Meetings (Staff)	37.9%	9,233	33,583	24,351	56,092	25,552	9,057	19,991	34,591	35,757			
	6460	Education & Training	-9.8%	(5,168)	47,780	52,948	33,372	16,409	22,579	14,243	49,213	50,792			
	6470	Misc Administration	-79.8%	(1,143)	289	1,432	23,422	17,198	-	-	298	307			
	6480	Procurement	-13.7%	(1,351)	8,523	9,874	4,627	1,851	703	-	8,779	9,062			
	6490	Inventory & Property Mgt.	-74.1%	(13,044)	4,548	17,592	-	-	851	772	4,684	4,846			
	6501	Employee Benefit (Holiday)	7.9%	8,815	119,845	111,030	140,557	109,728	103,105	100,371	122,841	125,912			
	6502	Employee Benefit (Sick Pay)	0.0%	158,414	158,414	-	211,655	111,961	103,574	122,906	162,374	166,434			
	6503	Employee Benefit (Vacation)	-6.8%	(13,462)	183,801	197,263	192,389	182,068	175,540	179,454	188,396	193,106			
	6504	Employee Benefit (Jury Duty)	0.0%	0	-	-	3,922	1,185	2,281	705	-	-			
	6510	Data Processing	-10.6%	(5,909)	49,768	55,678	61,663	53,773	88,561	67,348	51,261	52,799			
	6520	Travel	0.0%	0	-	-	-	-	-	-	-	-			
	6530	Accounting & Auditing	-1.0%	(3,470)	334,599	338,069	280,819	272,181	187,818	202,591	344,637	356,699			
	6540	Personnel Administration	-21.8%	(17,273)	62,008	79,281	61,067	64,180	7,295	8,706	63,868	65,813			
	6730	Budget Preparation	-90.6%	(25,302)	2,619	27,921	-	16,003	8,521	14,438	2,698	2,787			
	6740	Achieving & Data Storage	0.0%	2,971	2,971	-	-	-	-	-	3,060	3,152			
	6790	Lease Office Equipment	0.0%	0	-	-	-	-	-	-	-	-			
	6810	Outside Services - SCID	0.0%	0	-	-	-	405	-	-	-	-			
	Totals		-1.7%	(\$68,340)	\$3,862,087	\$3,930,427	\$3,806,822	\$3,601,221	\$3,383,280	\$3,174,491	\$3,665,002	\$3,780,812			

**FRIANT WATER AUTHORITY
OPERATIONS AND MAINTENANCE - FRIANT KERN CANAL
MATERIALS SPENDING BUDGET: FY2021 & FY2022 & 2023**

Inc./Dec)	Project Code	Description	2021 Budget vs. 2020 Budget		Location:		Historical Spending					Justification for FY2021 & FY2022 Spending	
			%	Dollars	All	All Locations	Extrapolation	CPI		COLA			Sales Tax
							Months	2021 & 22	2023	2022	2023		8.75%
			2021 Budget	2020 Budget	2020 Extrapolated	2019 Actual	2018 Actual	2017 Dewater Actual	2022 Budget	2023 Budget			
	1991	Fixed Assets	-58.7%	(\$418,162)	\$294,008	\$712,169	\$702,137	\$977,166	\$176,022	\$252,446	\$917,000	\$1,552,400	
	6010	Vehicle & Equipment Service	-20.1%	(103,799)	413,109	516,909	412,894	399,599	352,452	378,994	423,437	434,023	
	6020	Maintenance Supervision	0.0%	0	-	-	-	-	18	-	-	-	
	6025	Right of Way Management	0.0%	0	-	-	-	-	-	-	-	-	
	6030	Weed & Pest Control	53.2%	218,092	628,013	409,921	621,476	345,887	233,671	390,565	393,799	403,644	
	6032	Friant Biological Opinion Imp	5.1%	2,158	44,791	42,634	2,192	68,556	10,047	2,378	45,911	47,059	
	6040	Road Maintenance	-18.8%	(28,430)	122,553	150,983	22,861	266,239	8,340	50,128	122,676	125,743	
	6050	Yard & Building Maintenance	-0.8%	(1,599)	196,513	198,112	120,796	147,892	165,923	153,773	201,426	206,462	
	6060	Structure & Gate Maintenance	139.0%	282,381	485,488	203,107	123,770	173,932	193,792	59,724	235,132	241,011	
	6070	Cleaning Right-of-Way	79.4%	531	1,200	669	6,975	-	-	-	1,230	1,261	
	6080	Bargate & Guardrail Maint	-3.9%	(812)	20,035	20,847	10,432	15,709	16,074	13,213	20,536	21,049	
	6090	Embankment Maintenance	90.4%	10,778	22,705	11,927	2,506	3,906	3,611	866	23,273	23,855	
	6100	Bridge Maintenance	-12.8%	(4,834)	33,029	37,863	3,495	27,924	19,923	34,411	33,855	34,701	
	6110	Misc. Mtce	-21.5%	(3,283)	11,981	15,264	8,118	14,329	23,291	7,335	12,280	12,587	
	6111	Reverse Flow Pumping	0.0%	0	-	-	8,200	50,873	-	157,330	-	-	
	6120	Concrete Lining Maintenance	4354.5%	109,213	111,721	2,508	85	2,575	63,933	-	7,980	8,180	
	6130	Drainditch & Channel Maint.	0.0%	12,512	12,512	-	31	-	62,618	80	12,825	13,146	
	6140	Fence Maintenance	34.3%	2,561	10,020	7,459	5,413	5,978	21,033	16,812	10,271	10,527	
	6160	Mudjacking	7.9%	117	1,595	1,478	-	1,354	1,043	2,188	1,635	1,676	
	6170	Painting	33.6%	3,451	13,712	10,261	4,869	12,485	15,993	12,114	14,055	14,406	
	6190	Sump Pump Mtce	-12.7%	(4,125)	28,320	32,445	-	-	856	136	29,028	29,754	
	6200	Cross Drainage Structure Mtce	0.0%	0	-	-	-	-	-	-	-	-	
	6210	Rip-Rapping	0.0%	0	-	-	-	-	-	-	-	-	
	6221	USBR Pump Back Project	-80.0%	(100,000)	25,000	125,000	235,697	530,775	15,947	323,828	25,625	26,266	
	6225	FKC Subsidence	1.9%	89,359	4,903,295	4,813,936	3,687,959	2,046,087	254,669	569,121	5,025,877	5,151,524	
	6226	FKC Capacity Correction (FWA)	0.0%	0	-	-	179,391	275,374	-	54,547	-	-	
	6230	GSA Engagement	347.2%	416,600	536,600	120,000	-	11,016	-	-	550,015	563,765	
	6305	C. & I. Maint. (General)	264.3%	1,768	2,437	669	1,394	997	3,044	7,305	2,498	2,560	
	6306	C & I ESI Equip Mtce - SCADA	8.9%	14,873	181,248	166,376	5,141	126,838	117,798	46,355	185,779	190,424	
	6310	Meter Repair	-21.3%	(15,290)	56,448	71,738	3,277	62,171	38,131	44,888	57,859	59,305	
	6320	Canal Patrol	0.0%	803	803	-	205	1,780	1,299	2,762	823	843	
	6330	Operations Reports	-7.7%	(167)	2,006	2,174	2,406	1,955	1,099	51,536	2,057	2,108	
	6340	Operations Supervision	0.0%	0	-	-	-	-	1,037	-	-	-	
	6345	Water supply coordination & monitoring	198.9%	203,729	306,138	102,409	88,520	7,314	-	-	313,791	321,636	
	6350	Water Measurement	35.7%	1,792	6,809	5,016	626	367	30,153	358	6,979	7,153	
	6360	Misc. Operations	0.0%	7,803	7,803	-	7,262	847	1,253	781	7,998	8,198	
	6370	Water Quality	353.4%	48,628	62,390	13,762	1,922	28,674	-	301	63,949	65,548	
	6380	Groundwater & Seepage Well Mes	0.0%	0	-	-	-	-	238	-	-	-	
	6402	FKC Title Transfer	-100.0%	(598,850)	-	598,850	49,083	77,014	-	23,163	-	-	
	6405	Legal Expense- Direct	818.2%	50,235	56,375	6,140	10,506	16,846	25,881	11,919	57,784	59,229	
	6410	Administrative Supervision	0.0%	0	-	-	-	-	667	-	-	-	
	6420	Safety & First Aid Training	1.2%	740	62,939	62,199	36,859	35,207	21,006	29,171	64,513	66,125	
	6430	Office Admin (Typing etc.)	0.0%	0	-	-	197	25,273	25,016	24,605	-	-	
	6435	SLDMWA/FWA	0.0%	0	-	-	-	-	-	-	-	-	
	6440	Payroll Preparation	0.0%	0	-	-	-	-	-	-	-	-	
	6450	Meetings (General)	-1.1%	(128)	11,147	11,275	15,435	15,551	2,706	12,141	11,426	11,711	
	6451	Meeting - Board of Directors	2.0%	2,847	146,904	144,057	178,929	81,960	16,289	75,269	150,576	154,341	
	6452	Meetings (Sub Committee)	-53.0%	(32,909)	29,228	62,137	28,051	33,932	10,704	25,628	29,959	30,708	
	6453	Meetings (Staff)	-70.6%	(15,568)	6,470	22,038	3,069	1,350	390	1,079	6,632	6,797	
	6460	Education & Training	-9.2%	(7,698)	76,258	83,957	10,307	13,865	20,935	18,125	78,165	80,119	
	6470	Misc Administration	-100.0%	(2,786)	-	2,786	1,618	2,675	4,189	7,206	-	-	
	6480	Procurement	0.0%	0	-	-	-	-	-	-	-	-	
	6490	Inventory & Property Mgt.	0.0%	0	-	-	-	-	-	-	-	-	
	6501	Employee Benefit (Holiday)	0.0%	5,879	5,879	-	-	-	-	-	6,055	6,237	
	6502	Employee Benefit (Sick Pay)	0.0%	0	-	-	(30,770)	4,183	10,345	(7,367)	-	-	
	6503	Employee Benefit (Vacation)	0.0%	0	-	-	28,911	7,217	4,756	6,844	-	-	
	6504	Employee Benefit (Jury Duty)	0.0%	0	-	-	-	-	-	-	-	-	
	6510	Data Processing	-26.1%	(35,158)	99,786	134,943	64,921	132,434	84,006	44,645	102,280	104,837	
	6520	Travel	86.2%	21,824	47,134	25,310	12,794	13,850	12,869	11,717	48,312	49,520	
	6530	Accounting & Auditing	54.8%	9,867	27,867	18,000	883	18,454	11,503	14,780	28,564	29,278	
	6540	Personnel Administration	-46.0%	(32,831)	38,504	71,335	64,102	39,927	52,391	50,812	39,467	40,453	
	6610	Employee Retirement	-1.5%	(7,024)	463,219	470,242	364,340	323,821	281,672	274,973	474,799	486,669	
	6611	Retirement Administration	-100.0%	(5,300)	-	5,300	-	-	5,661	-	-	-	
	6620	Medical & Disability Insurance	1.5%	15,046	986,989	971,944	960,583	988,260	880,258	875,881	1,011,664	1,036,956	
	6630	Liability Insurance	13.5%	18,886	158,286	139,400	-	-	-	-	162,243	166,299	
	6640	Workers Comp. Insurance	-20.4%	(24,435)	95,565	120,000	65,217	81,031	151,256	124,818	97,954	100,403	
	6650	Legal Expense-Indirect	0.0%	25,625	25,625	-	97,315	3,045	8,815	2,850	26,266	26,922	
	6660	Payroll Taxes	-6.8%	(4,827)	66,573	71,400	53,370	66,677	72,443	59,416	68,237	69,943	
	6670	Utilities	14.4%	21,201	168,104	146,903	161,340	134,107	161,586	141,317	169,246	173,447	
	6680	Telephone Expense	-0.1%	(130)	95,087	95,217	66,845	97,348	59,552	76,996	97,464	99,901	
	6690	Office Supplies	-47.9%	(36,828)	40,129	76,957	36,402	63,016	20,859	28,469	41,132	42,160	
	6700	Merit Awards	90.7%	18,592	39,092	20,500	31,246	-	14,656	17,635	40,069	41,071	
	6710	Postage	5.2%	263	5,337	5,074	2,507	4,057	3,425	2,791	5,471	5,607	
	6720	Dues & Subscriptions	-14.8%	(21,420)	123,387	144,807	162,925	120,887	67,230	89,777	126,472	129,634	
	6730	Budget Preparation	0.0%	3,075	3,075	-	-	-	98	41	3,152	3,231	
	6740	Achieving & Data Storage	0.0%	1,115	1,115	-	-	-	-	-	1,143	1,171	
	6790	Lease Office Equipment	8.8%	2,177	27,054	24,877	25,607	30,089	29,249	33,265	27,730	28,423	
	6810	Outside Services - SCID	0.0%	0	-	-	-	-	-	-	-	-	
	9999	GM administration allocation	-2.1%	4,353	(212,634)	(208,282)	(186,298)	(128,429)	(106,561)	(111,291)	(217,950)	(223,399)	
	Totals		1.0%	\$113,773	\$11,236,774	\$11,123,001	\$8,586,341	\$7,912,245	\$3,787,163	\$4,600,947	\$11,508,423	\$12,408,609	

**FRIANT WATER AUTHORITY
PROPOSED BUDGET
FISCAL YEAR 2021
REVISED**

6/9/2020 15:20

Inc./ (Dec)

O&M ORGANIZATION

Job Code	Budget Category	Total Spending				Material Dollars			Labor Dollars			Total Labor Hours			Regular Hours			OT Hours		
		%	Variance	2021	2020	Variance	2021	2020	Totals	2021	2020	Variance	2021	2020	Variance	2021	2020	Variance	2021	2020
CANAL MAINTENANCE																				
1991	Fixed Assets	-28.4%	(\$85,160)	\$214,596	\$299,756	(\$85,160)	\$214,596	\$299,756	\$0	\$0	\$0	0	-	-	-	-	-	0	-	-
6010	Vehicle & Equipment Service	-19.1%	(141,979)	599,680	741,659	(103,051)	412,052	515,103	(38,928)	187,628	226,556	(2,294)	6,359	8,653	(2,254)	5,349	7,603	(40)	1,010	1,050
6020	Maintenance Supervision	-31.5%	(103,474)	225,040	328,514	-	-	-	(103,474)	225,040	328,514	(798)	5,950	6,748	(798)	5,878	6,676	-	72	72
6025	Right of Way Management	158.6%	36,502	59,513	23,012	-	-	-	36,502	59,513	23,012	(231)	1,747	1,978	(231)	1,747	1,978	-	-	-
6030	Weed & Pest Control	-4.7%	(31,705)	643,989	675,694	(25,727)	384,194	409,921	(5,979)	259,794	265,773	(723)	10,647	11,370	(723)	10,617	11,340	-	30	30
6032	Friant Biological Opinion Imp	5.1%	2,158	44,791	42,634	2,158	44,791	42,634	-	-	-	0	-	-	-	-	-	-	-	-
6040	Road Maintenance	-22.1%	(45,107)	158,684	203,791	(30,710)	120,274	150,983	(14,397)	38,410	52,807	(683)	1,567	2,250	(683)	1,567	2,250	-	-	-
6050	Yard & Building Maintenance	-22.6%	(60,049)	205,772	265,821	8,326	141,987	133,661	(68,375)	63,785	132,160	(3,121)	2,579	5,700	(3,121)	2,559	5,680	-	20	20
6060	Structure & Gate Maintenance	366.7%	379,578	483,102	103,524	272,359	303,191	30,832	107,219	179,911	72,692	3,788	7,128	3,340	2,448	5,768	3,320	1,340	1,360	20
6070	Cleaning Right-of-Way	9.7%	4,373	49,247	44,874	-	-	-	4,373	49,247	44,874	100	2,081	1,981	100	2,081	1,981	-	-	-
6080	Bargate & Guardrail Maint	-21.5%	(11,615)	42,336	53,951	(2,029)	15,130	17,159	(9,586)	27,205	36,791	(500)	1,096	1,596	(500)	1,096	1,596	-	-	-
6090	Embankment Maintenance	79.0%	49,420	111,937	62,517	10,778	22,705	11,927	38,642	89,232	50,590	1,487	3,706	2,219	1,487	3,706	2,219	-	-	-
6100	Bridge Maintenance	-16.3%	(12,059)	62,070	74,129	(4,834)	33,029	37,863	(7,225)	29,040	36,266	(602)	1,170	1,772	(602)	1,170	1,772	-	-	-
6110	Misc. Mtce	15.3%	3,090	23,305	20,216	(3,283)	11,981	15,264	6,373	11,325	4,952	319	419	100	319	419	100	-	-	-
6120	Concrete Lining Maintenance	3297.4%	284,047	292,661	8,614	109,213	111,721	2,508	174,833	180,940	6,106	5,682	5,992	310	3,186	3,496	310	2,496	2,496	-
6130	Drainditch & Channel Maint.	35.1%	9,333	35,887	26,553	12,512	12,512	-	(3,179)	23,374	26,553	(291)	857	1,148	(291)	857	1,148	-	-	-
6140	Fence Maintenance	22.5%	8,551	46,597	38,046	2,561	10,020	7,459	5,991	36,577	30,586	181	1,561	1,380	181	1,561	1,380	-	-	-
6160	Mudjacking	40.1%	5,795	20,260	14,464	117	1,595	1,478	5,678	18,665	12,986	202	750	548	202	750	548	-	-	-
6170	Painting	-31.0%	(17,392)	38,629	56,021	3,451	13,712	10,261	(20,843)	24,917	45,761	(925)	1,081	2,006	(925)	1,081	2,006	-	-	-
6190	Sump Pump Mtce	4.3%	81	1,988	1,907	16	16	-	65	1,972	1,907	0	80	80	-	80	80	-	-	-
6200	Cross Drainage Structure Mtce	-46.7%	(6,479)	7,394	13,873	-	-	-	(6,479)	7,394	13,873	(248)	300	548	(248)	300	548	-	-	-
6210	Rip-Rapping	-30.0%	(1,971)	4,595	6,566	-	-	-	(1,971)	4,595	6,566	(95)	190	285	(95)	190	285	-	-	-
6221	USBR Pump Back Project	-83.0%	(122,483)	25,000	147,483	(100,000)	25,000	125,000	(22,483)	-	22,483	(390)	-	390	(390)	-	390	-	-	-
6225	FKC Subsidence	-0.1%	(3,522)	4,996,478	5,000,000	89,359	4,903,295	4,813,936	(92,881)	93,183	186,064	(854)	1,614	2,468	(854)	1,614	2,468	-	-	-
6230	GSA Engagement	347.2%	416,600	536,600	120,000	416,600	536,600	120,000	-	-	-	-	-	-	-	-	-	-	-	-
6340	Operations Supervision	31.1%	13,049	54,972	41,923	-	-	-	13,049	54,972	41,923	43	841	798	43	841	798	-	-	-
6345	Water supply coordination & monitoring	1164.8%	298,461	324,085	25,624	306,138	306,138	-	(7,677)	17,947	25,624	40	208	168	40	208	168	-	-	-
6370	Water Quality	0.0%	59,603	59,603	-	59,603	59,603	-	-	-	-	-	-	-	-	-	-	-	-	-
6402	FKC Title Transfer	-100.0%	(669,831)	-	669,831	(598,850)	-	598,850	(70,981)	-	70,981	(964)	-	964	(964)	-	964	-	-	-
6405	Legal Expense- Direct	-100.0%	(6,140)	-	6,140	(6,140)	-	6,140	-	-	-	-	-	-	-	-	-	-	-	-
6420	Safety & First Aid Training	-42.0%	(34,846)	48,095	82,941	(18,818)	22,156	40,974	(16,029)	25,939	41,968	(584)	988	1,572	(584)	988	1,572	-	-	-
6430	Office Admin (Typing etc.)	-100.0%	(66,095)	-	66,095	-	-	-	(66,095)	0	66,095	(1,804)	-	1,804	(1,804)	-	1,804	-	-	-
6440	Payroll Preparation	-48.8%	(1,166)	1,226	2,393	-	-	-	(1,166)	1,226	2,393	(36)	36	72	(36)	36	72	-	-	-
6450	Meetings (General)	-39.3%	(15,306)	23,592	38,898	(128)	11,147	11,275	(15,178)	12,445	27,623	(5)	297	302	(5)	297	302	-	-	-
6451	Meeting - Board of Directors	-95.2%	(153,059)	7,687	160,746	(140,022)	4,035	144,057	(13,037)	3,652	16,690	(160)	56	216	(160)	56	216	-	-	-
6452	Meetings (Sub Committee)	-96.8%	(66,509)	2,190	68,699	(62,137)	-	62,137	(4,372)	2,190	6,562	(62)	34	96	(62)	34	96	-	-	-
6453	Meetings (Staff)	-28.3%	(4,963)	12,549	17,512	(2,923)	1,115	4,038	(2,040)	11,435	13,475	(34)	247	281	(34)	247	281	-	-	-
6460	Education & Training	-10.7%	(6,492)	54,204	60,696	(2,928)	25,653	28,581	(3,563)	28,551	32,115	(97)	1,029	1,126	(97)	979	1,076	-	50	50
6480	Procurement	-3.8%	(333)	8,523	8,856	-	-	-	(333)	8,523	8,856	(38)	217	255	(38)	217	255	-	-	-
6490	Inventory & Property Mgt.	-60.3%	(6,272)	4,125	10,398	-	-	-	(6,272)	4,125	10,398	(180)	148	328	(180)	148	328	-	-	-
6501	Employee Benefit (Holiday)	5.4%	3,527	68,399	64,872	5,879	5,879	-	(2,352)	62,520	64,872	(264)	2,160	2,424	(264)	2,160	2,424	-	-	-
6502	Employee Benefit (Sick Pay)	0.0%	81,981	81,981	-	-	-	-	81,981	81,981	0	2,952	2,952	-	2,952	2,952	-	-	-	-
6503	Employee Benefit (Vacation)	-9.6%	(10,410)	98,038	108,449	-	-	-	(10,410)	98,038	108,449	(260)	3,540	3,800	(260)	3,540	3,800	-	-	-
6520	Travel	9.0%	777	9,387	8,610	777	9,387	8,610	-	-	-	-	-	-	-	-	-	-	-	-
6540	Personnel Administration	-52.2%	(5,314)	4,871	10,186	920	920	-	(6,235)	3,951	10,186	(166)	116	282	(166)	116	282	-	-	-
6610	Employee Retirement	-4.5%	(11,232)	238,564	249,796	(11,232)	238,564	249,796	-	-	-	-	-	-	-	-	-	-	-	-
6620	Medical & Disability Insurance	0.4%	2,080	541,227	539,147	2,080	541,227	539,147	-	-	-	-	-	-	-	-	-	-	-	-
6640	Workers Comp. Insurance	0.0%	85,042	85,042	-	85,042	85,042	-	-	-	-	-	-	-	-	-	-	-	-	-
6660	Payroll Taxes	-9.1%	(3,411)	34,151	37,562	(3,411)	34,151	37,562	-	-	-	-	-	-	-	-	-	-	-	-
6670	Utilities	7.2%	5,593	82,774	77,181	5,593	82,774	77,181	-	-	-	-	-	-	-	-	-	-	-	-
6700	Merit Awards	0.0%	279	279	-	279	279	-	-	-	-	-	-	-	-	-	-	-	-	-
6720	Dues & Subscriptions	3.8%	809	22,194	21,385	809	22,194	21,385	-	-	-	-	-	-	-	-	-	-	-	-
6730	Budget Preparation	-53.7%	(6,614)	5,694	12,308	3,075	3,075	-	(9,689)	2,619	12,308	(270)	76	346	(270)	76	346	-	-	-
6740	Achieving & Data Storage	0.0%	4,085	4,085	-	1,115	1,115	-	2,971	2,971	-	59	59	-	59	59	-	-	-	-
TOTAL CANAL MAINTENANCE		0.4%	\$43,823	\$10,807,690	\$10,763,867	\$197,378	\$8,772,856	\$8,575,477	(\$153,555)	\$2,034,834	\$2,188,389	(1,826)	69,878	71,704	(5,622)	64,840	70,462	3,796	5,038	1,242

**FRIANT WATER AUTHORITY
PROPOSED BUDGET
FISCAL YEAR 2021
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6/9/2020 15:20

Inc./(Dec)

O&M ORGANIZATION

Job Code	Budget Category	Total Spending			Material Dollars			Labor Dollars			Total Labor Hours			Regular Hours			OT Hours			
		%	Variance	2021	2020	Variance	2021	2020	Totals	2021	2020	Variance	2021	2020	Variance	2021	2020	Variance	2021	2020
WATER OPERATIONS																				
1991	Fixed Assets	0.5%	\$226	\$48,201	\$47,975	\$226	\$48,201	\$47,975	\$0	\$0	\$0	-	-	-	-	-	-	-	-	-
6010	Vehicle & Equipment Service	-73.1%	(2,869)	1,057	3,926	(749)	1,057	1,806	(2,121)	-	2,121	(80)	-	80	(80)	-	80	-	-	-
6030	Weed & Pest Control	0.0%	243,819	243,819	-	243,819	243,819	-	-	-	-	-	-	-	-	-	-	-	-	-
6032	Friant Biological Opinion Imp	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6040	Road Maintenance	0.0%	2,280	2,280	-	2,280	2,280	-	-	-	-	-	-	-	-	-	-	-	-	-
6050	Yard & Building Maintenance	-5.3%	(4,318)	76,987	81,305	(9,925)	54,526	64,451	5,607	22,460	16,853	174	798	624	174	758	584	-	40	40
6060	Structure & Gate Maintenance	16.8%	36,352	252,872	216,520	10,022	182,296	172,275	26,331	70,576	44,245	469	2,089	1,620	(337)	1,123	1,460	806	966	160
6070	Cleaning Right-of-Way	-86.6%	(7,753)	1,200	8,953	531	1,200	669	(8,284)	-	8,284	(336)	-	336	(336)	-	336	-	-	-
6080	Bargate & Guardrail Maint	-3.2%	(163)	4,905	5,068	1,217	4,905	3,687	(1,381)	-	1,381	-	-	-	-	-	-	-	-	-
6190	Sump Pump Mtce	-12.8%	(4,141)	28,304	32,445	(4,141)	28,304	32,445	-	-	-	-	-	-	-	-	-	-	-	-
6305	C. & I. Maint. (General)	77.6%	12,990	29,736	16,746	1,768	2,437	669	11,222	27,299	16,077	301	773	472	(102)	330	432	403	443	40
6306	C & I ESI Equip Mtce - SCADA	-11.3%	(29,179)	228,013	257,193	14,873	181,248	166,376	(44,052)	46,765	90,817	(1,024)	1,544	2,568	(1,024)	1,224	2,248	-	320	320
6310	Meter Repair	-31.9%	(57,831)	123,236	181,068	(15,290)	56,448	71,738	(42,541)	66,789	109,330	(1,654)	2,226	3,880	(1,654)	1,810	3,464	-	416	416
6320	Canal Patrol	56.2%	108,784	302,199	193,416	803	803	-	107,981	301,397	193,416	2,826	10,530	7,704	2,826	9,626	6,800	-	904	904
6330	Operations Reports	-28.2%	(32,570)	82,930	115,499	(167)	2,006	2,174	(32,403)	80,923	113,326	(449)	2,527	2,976	(449)	1,887	2,336	-	640	640
6340	Operations Supervision	111.1%	47,115	89,530	42,415	-	-	-	47,115	89,530	42,415	1,271	2,271	1,000	1,271	2,271	1,000	-	-	-
6345	Water supply coordination & monitoring	-100.0%	(163,853)	-	163,853	(102,409)	-	102,409	(61,444)	-	61,444	(512)	-	512	(512)	-	512	-	-	-
6350	Water Measurement	-44.6%	(30,178)	37,524	67,703	1,792	6,809	5,016	(31,971)	30,716	62,687	(1,201)	1,119	2,320	(1,201)	1,119	2,320	-	-	-
6360	Misc. Operations	84.0%	3,562	7,803	4,241	7,803	7,803	-	(4,241)	-	4,241	(160)	-	160	(160)	-	160	-	-	-
6370	Water Quality	-43.6%	(31,271)	40,397	71,668	(10,975)	2,787	13,762	(20,296)	37,610	57,906	(481)	1,363	1,844	(481)	1,363	1,844	-	-	-
6380	Groundwater & Seepage Well Mes	-100.0%	(4,419)	-	4,419	-	-	-	(4,419)	-	4,419	(168)	-	168	(168)	-	168	-	-	-
6420	Safety & First Aid Training	-42.1%	(7,370)	10,145	17,515	(1,850)	6,800	8,649	(5,520)	3,346	8,866	(194)	118	312	(194)	118	312	-	-	-
6440	Payroll Preparation	-100.0%	(509)	-	509	-	-	-	(509)	-	509	(12)	-	12	(12)	-	12	-	-	-
6450	Meetings (General)	-67.6%	(2,755)	1,317	4,072	-	-	-	(2,755)	1,317	4,072	(48)	48	96	(48)	48	96	-	-	-
6453	Meetings (Staff)	5.0%	224	4,657	4,433	-	-	-	224	4,657	4,433	0	156	156	0	156	156	-	-	-
6460	Education & Training	-37.4%	(12,536)	20,991	33,526	(1,977)	17,011	18,988	(10,559)	3,979	14,538	(327)	145	472	(327)	145	472	-	-	-
6470	Misc Administration	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6480	Procurement	-100.0%	(1,018)	-	1,018	-	-	-	(1,018)	-	1,018	(24)	-	24	(24)	-	24	-	-	-
6490	Inventory & Property Mgt.	-100.0%	(5,016)	-	5,016	-	-	-	(5,016)	-	5,016	(160)	-	160	(160)	-	160	-	-	-
6501	Employee Benefit (Holiday)	21.4%	4,333	24,575	20,241	-	-	-	4,333	24,575	20,241	(72)	864	936	(72)	864	936	-	-	-
6502	Employee Benefit (Sick Pay)	0.0%	32,766	32,766	0	-	-	-	32,766	32,766	0	1,152	1,152	-	1,152	1,152	-	-	-	-
6503	Employee Benefit (Vacation)	-11.0%	(5,086)	40,958	46,044	-	-	-	(5,086)	40,958	46,044	(160)	1,440	1,600	(160)	1,440	1,600	-	-	-
6610	Employee Retirement	-5.9%	(6,649)	106,280	112,929	(6,649)	106,280	112,929	-	-	-	-	-	-	-	-	-	-	-	-
6620	Medical & Disability Insurance	13.5%	31,327	263,074	231,747	31,327	263,074	231,747	-	-	-	-	-	-	-	-	-	-	-	-
6640	Workers Comp. Insurance	0.0%	3,048	3,048	0	3,048	3,048	-	-	-	-	-	-	-	-	-	-	-	-	-
6660	Payroll Taxes	-10.2%	(1,720)	15,154	16,873	(1,720)	15,154	16,873	-	-	-	-	-	-	-	-	-	-	-	-
6670	Utilities	14.3%	3,812	30,565	26,753	3,812	30,565	26,753	-	-	-	-	-	-	-	-	-	-	-	-
6710	Postage	-100.0%	(564)	-	564	(564)	-	564	-	-	-	-	-	-	-	-	-	-	-	-
6730	Budget Preparation	-100.0%	(1,018)	-	1,018	-	-	-	(1,018)	-	1,018	(24)	-	24	(24)	-	24	-	-	-
TOTAL WATER OPERATIONS		5.8%	\$117,849	\$2,154,522	\$2,036,672	\$166,904	\$1,268,858	\$1,101,954	(\$49,055)	\$885,663	\$934,718	(893)	29,163	30,056	(2,102)	25,434	27,536	1,209	3,729	2,520

**FRIANT WATER AUTHORITY
PROPOSED BUDGET
FISCAL YEAR 2021**

REVISED 6/9/2020 15:20 Inc./ (Dec)

O&M ORGANIZATION

Job Code	Budget Category	Total Spending				Material Dollars			Labor Dollars			Total Labor Hours			Regular Hours			OT Hours		
		%	Variance	2021	2020	Variance	2021	2020	Totals	2021	2020	Variance	2021	2020	Variance	2021	2020	Variance	2021	2020
ADMINISTRATION:																				
1991	Fixed Assets	-91.4%	(\$333,228)	\$31,211	\$364,439	(\$333,228)	\$31,211	\$364,439	\$0	\$0	\$0	-	-	-	-	-	-	-	-	-
6020	Maintenance Supervision	0.0%	72,650	72,650	-	-	-	-	72,650	72,650	-	842	842	-	842	842	-	-	-	-
6225	FKC Subsidence	0.0%	3,522	3,522	-	-	-	-	3,522	3,522	-	77	77	-	77	77	-	-	-	-
6306	C & I ESI Equip Mtce - SCADA	94.7%	12,205	25,094	12,888	-	-	-	12,205	25,094	12,888	225	475	250	225	475	250	-	-	-
6345	Water supply coordination & monitoring	0.0%	5,447	5,447	-	-	-	-	5,447	5,447	-	(72)	120	192	(72)	120	192	-	-	-
6405	Legal Expense- Direct	0.0%	56,375	56,375	-	56,375	56,375	-	-	-	-	-	-	-	-	-	-	-	-	-
6410	Administrative Supervision	19.3%	2,494	15,382	12,888	-	-	-	2,494	15,382	12,888	41	291	250	41	291	250	-	-	-
6420	Safety & First Aid Training	101.1%	17,857	35,519	17,661	21,407	33,984	12,577	(3,549)	1,535	5,085	(83)	61	144	(83)	61	144	-	-	-
6430	Office Admin (Typing etc.)	-28.4%	(54,040)	136,010	190,050	-	-	-	(54,040)	136,010	190,050	(476)	7,192	7,668	(416)	7,152	7,568	(60)	40	100
6440	Payroll Preparation	42.2%	3,396	11,437	8,041	-	-	-	3,396	11,437	8,041	58	296	238	58	286	228	-	10	10
6450	Meetings (General)	0.0%	18,785	18,785	-	-	-	-	18,785	18,785	-	254	374	120	254	374	120	-	-	-
6451	Meeting - Board of Directors	2408.7%	175,861	183,162	7,301	142,868	142,868	-	32,993	40,294	7,301	554	680	126	554	680	126	-	-	-
6452	Meetings (Sub Committee)	406.9%	34,970	43,565	8,595	29,228	29,228	-	5,742	14,337	8,595	88	232	144	88	232	144	-	-	-
6453	Meetings (Staff)	-6.5%	(1,596)	22,847	24,442	(12,645)	5,355	18,000	11,049	17,492	6,442	231	357	126	231	357	126	-	-	-
6460	Education & Training	14.4%	6,161	48,844	42,682	(2,793)	33,594	36,388	8,955	15,249	6,295	217	365	148	217	365	148	-	-	-
6470	Misc Administration	-93.1%	(3,929)	289	4,219	(2,786)	-	2,786	(1,143)	289	1,432	(34)	21	55	(34)	21	55	-	-	-
6490	Inventory & Property Mgt.	-80.6%	(1,755)	423	2,178	-	-	-	(1,755)	423	2,178	(58)	8	66	(58)	8	66	-	-	-
6501	Employee Benefit (Holiday)	26.4%	6,833	32,750	25,917	-	-	-	6,833	32,750	25,917	72	864	792	72	864	792	-	-	-
6502	Employee Benefit (Sick Pay)	0.0%	43,666	43,666	-	-	-	-	43,666	43,666	-	1,152	1,152	-	1,152	1,152	-	-	-	-
6503	Employee Benefit (Vacation)	4.8%	2,034	44,805	42,771	-	-	-	2,034	44,805	42,771	60	1,180	1,120	60	1,180	1,120	-	-	-
6504	Employee Benefit (Jury Duty)	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6510	Data Processing	-21.5%	(41,067)	149,554	190,621	(35,158)	99,786	134,943	(5,909)	49,768	55,678	(138)	942	1,080	(138)	942	1,080	-	-	-
6520	Travel	126.0%	21,047	37,747	16,700	21,047	37,747	16,700	-	0	0	-	-	-	-	-	-	-	-	-
6530	Accounting & Auditing	1.8%	6,397	362,466	356,069	9,867	27,867	18,000	(3,470)	334,599	338,069	(1,237)	8,234	9,471	(1,352)	8,099	9,451	115	135	20
6540	Personnel Administration	-31.9%	(44,790)	95,641	140,430	(33,751)	37,584	71,335	(11,039)	58,057	69,096	(345)	1,674	2,019	(345)	1,629	1,974	-	45	45
6610	Employee Retirement	10.1%	10,858	118,375	107,517	10,858	118,375	107,517	-	-	-	-	-	-	-	-	-	-	-	-
6611	Retirement Administration	-100.0%	(5,300)	-	5,300	(5,300)	0	5,300	-	-	-	-	-	-	-	-	-	-	-	-
6620	Medical & Disability Insurance	-9.1%	(18,361)	182,689	201,050	(18,361)	182,689	201,050	-	-	-	-	-	-	-	-	-	-	-	-
6630	Liability Insurance	13.5%	18,886	158,286	139,400	18,886	158,286	139,400	-	-	-	-	-	-	-	-	-	-	-	-
6640	Workers Comp. Insurance	-93.8%	(112,525)	7,475	120,000	(112,525)	7,475	120,000	-	-	-	-	-	-	-	-	-	-	-	-
6650	Legal Expense-Indirect	0.0%	25,625	25,625	-	25,625	25,625	-	-	-	-	-	-	-	-	-	-	-	-	-
6660	Payroll Taxes	1.8%	304	17,268	16,964	304	17,268	16,964	-	-	-	-	-	-	-	-	-	-	-	-
6670	Utilities	27.5%	11,795	54,764	42,969	11,795	54,764	42,969	-	-	-	-	-	-	-	-	-	-	-	-
6680	Telephone Expense	-0.1%	(130)	95,087	95,217	(130)	95,087	95,217	-	-	-	-	-	-	-	-	-	-	-	-
6690	Office Supplies	-47.9%	(36,828)	40,129	76,957	(36,828)	40,129	76,957	-	-	-	-	-	-	-	-	-	-	-	-
6700	Merit Awards	89.3%	18,314	38,814	20,500	18,314	38,814	20,500	-	-	-	-	-	-	-	-	-	-	-	-
6710	Postage	18.3%	827	5,337	4,510	827	5,337	4,510	-	-	-	-	-	-	-	-	-	-	-	-
6720	Dues & Subscriptions	-18.0%	(22,229)	101,193	123,422	(22,229)	101,193	123,422	-	-	-	-	-	-	-	-	-	-	-	-
6730	Budget Preparation	-100.0%	(14,595)	-	14,595	-	-	-	(14,595)	-	14,595	(294)	-	294	(294)	-	294	-	-	-
6790	Lease Office Equipment	8.8%	2,177	27,054	24,877	2,177	27,054	24,877	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL ADMINISTRATION:		-4.5%	(\$111,886)	\$2,349,285	\$2,461,171	(\$246,156)	\$1,407,695	\$1,653,851	\$134,270	\$941,590	\$807,320	1,135	25,438	24,303	1,080	25,208	24,128	55	230	175

**FY 2021
MAJOR
MAINTENANCE
PROJECT
JUSTIFICATIONS**

Friant Water Authority
Major Maintenance Projects
Summary Sheet
Proposed for FY 2021
(Dewatering)

Project Title: Aquatic Weed Control

Job Code: 6030

Project Location and Maintenance Department: MP 46.04 to MP 61.03 / Orange Cove Maintenance

Project Description: Apply pre-emergent herbicide in selected unlined sections approximately 164 acres to control invasive aquatic weed.

Estimated Total Project Cost \$243,819

General Justification: Reducing the aquatic weed biomass in the canal will have many advantages including reduction of capacity limitations, reduction of restrictions at turnouts, reduction of restrictions at end user irrigation systems, and reductions in silt accumulation within the prism.

Operating Impact: If aquatic weed is not controlled it will continue to decrease canal capacity, cause restrictions in turnouts, and cause restrictions in end user irrigation systems.



Photo of Existing Conditions MP 48.60

Friant Water Authority
Major Maintenance Projects
Cost Summary
Proposed for FY 2021

Project Title: Aquatic Weed Control

Project Location and Maintenance Department: MP 46.04 to MP 61.03 / Orange Cove Maintenance.

Estimated Total Project) \$243,819

Breakdown of Estimated Costs

Materials:

Preemergent Herbicides
164 acres @ \$1,100.00 an acre
(includes water testing)

Subtotal: \$180,400

Rental Equipment:

Excavator
(\$10,000 per month x 1 month)

Subtotal: \$10,000

Fuels:

1- Excavator @ 80 gals a day x 26 days = 2,080 gals.

Diesel = 3.85 a gal

Subtotal: \$8,008

Regular Labor (Hours and Cost):

5 - CMW (22 days @ 8 hr. @ \$24.68/hr.)

Subtotal: \$21,718

Overtime Labor (Hours and Cost):

5 – CMW (22 days @ 4 hr. OT/day @ \$37.02/hr.)
5 – CMW (4 Saturdays @ 10 hr. @ \$37.02/hr.)

\$16,289

\$ 7,404

Subtotal: \$23,693

Total: \$243,819

Friant Water Authority
Major Maintenance Project
Summary Sheet
Proposed For FY 2021

Project Title: Operation and Maintenance Roadway Chip Seal.

Job Code: 6040

Project Location and Maintenance Department: Approx. MP 15.0 to MP 28.54 / Orange Cove

Project Description: Chip seal a 15 mile section of canal roadway with 3/8" rock and CRS-2H asphalt emulsion. An in-house hauling operation will stock pile chip material from a local plant staging it along the 15-mile section of roadway. Outside service contractor will provide emulsion trucks to disperse asphaltic emulsion onto the existing road. Authority staff will follow behind operating a chipping machine, placing rock chips over the emulsion. The rock chips will be forced into the emulsion with two rented roller compactors. Once the rock/emulsion mixture sets, the roadway is swept to remove loose chips.

Estimated Total Project Cost (x1000): \$135.3

Estimated Total Project Cost (Excluding Regular Labor Costs, x1000): \$117.6

General Justification: Chip seal applications are repeated on a 10-year rolling cycle. Chip sealing slows down serious deterioration of the operational canal roadways lessening the need for road removal and reconstruction. An inspection of the 152 miles of operational roadway is conducted each year to determine sections to be chip sealed.

Operating Impact: Failure to maintain good road conditions could directly delay operation and maintenance in the event of road failure, as well as pose a serious threat to the safety of those traveling on the canal roadways.



Photo of Existing Conditions

Friant Water Authority
Major Maintenance Projects
Cost Summary
Proposed For FY 2021

Project Title: Roadway Chip Seal Project

Project Location and Maintenance Department: Approx. MP 15.0 to MP 28.54 / Orange Cove

Estimated Total Project Cost (x1000): \$135.3

Estimated Total Project Cost (Excluding Regular Labor Costs x1000): \$117.6

Breakdown of Estimated Costs

Contract Services: (3 day project)

Emulsion Truck Spread Time - (\$135/hr. for 24 hours.)	\$ 3,240
Chip Spreader w/Operator - (\$5,000 per 8 hr. day)	\$15,000
	Subtotal: \$18,240

Materials:

Emulsion (150 Ton @ \$415/Ton)	\$62,250
Screenings (1,700 Ton @ \$15/Ton)	\$25,500
	Subtotal: \$87,750

Rental Equipment:

Roller - (\$1,300 per week x 2 units)	\$ 2,600
Sweeper - (\$1,135 per week)	\$ 1,135
	Subtotal: \$3,735

Fuel:

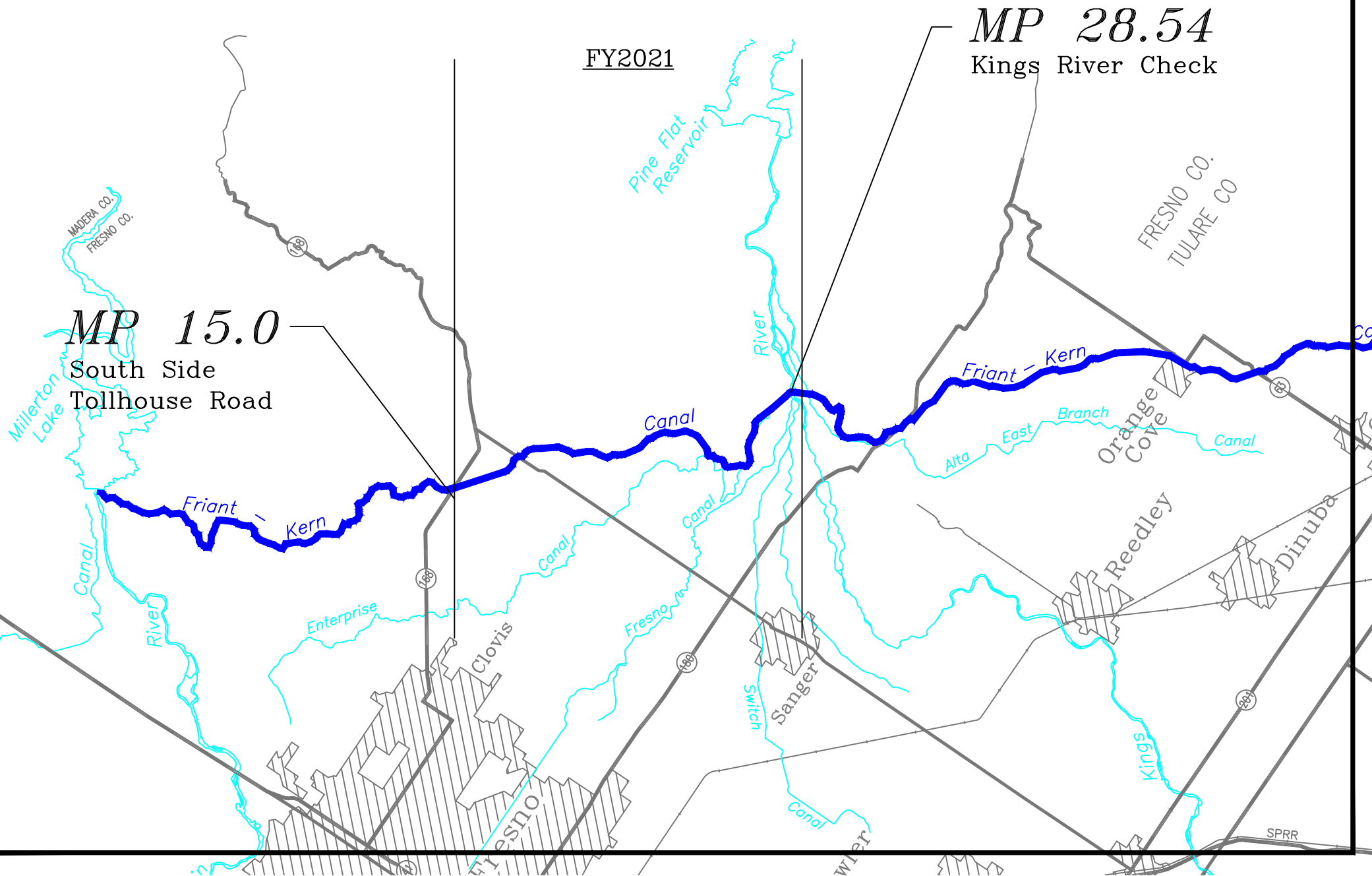
Stockpile - 1,932 gal (23 gal/day x 28 days x 3 trucks)	\$ 7,438
Roller - 90 gal (15 gal/day x 3 days x 2 units)	\$ 347
Sweeper - 30 gal (10 gal/day x 3 days)	\$ 115
Diesel = \$3.85/gallon	
	Subtotal: \$7,900

Regular Labor (Hours and Cost):

Stockpile - 3 CMW (28 days x 8 hr./day @ \$21.65/hr.)	\$14,550
Chip-Seal - 6 CMW (3 days x 8 hr./day @ \$21.65/hr.)	\$ 3,118
	Subtotal: \$17,668

Total: \$135,293

Proposed Chip Seal (Orange Cove)



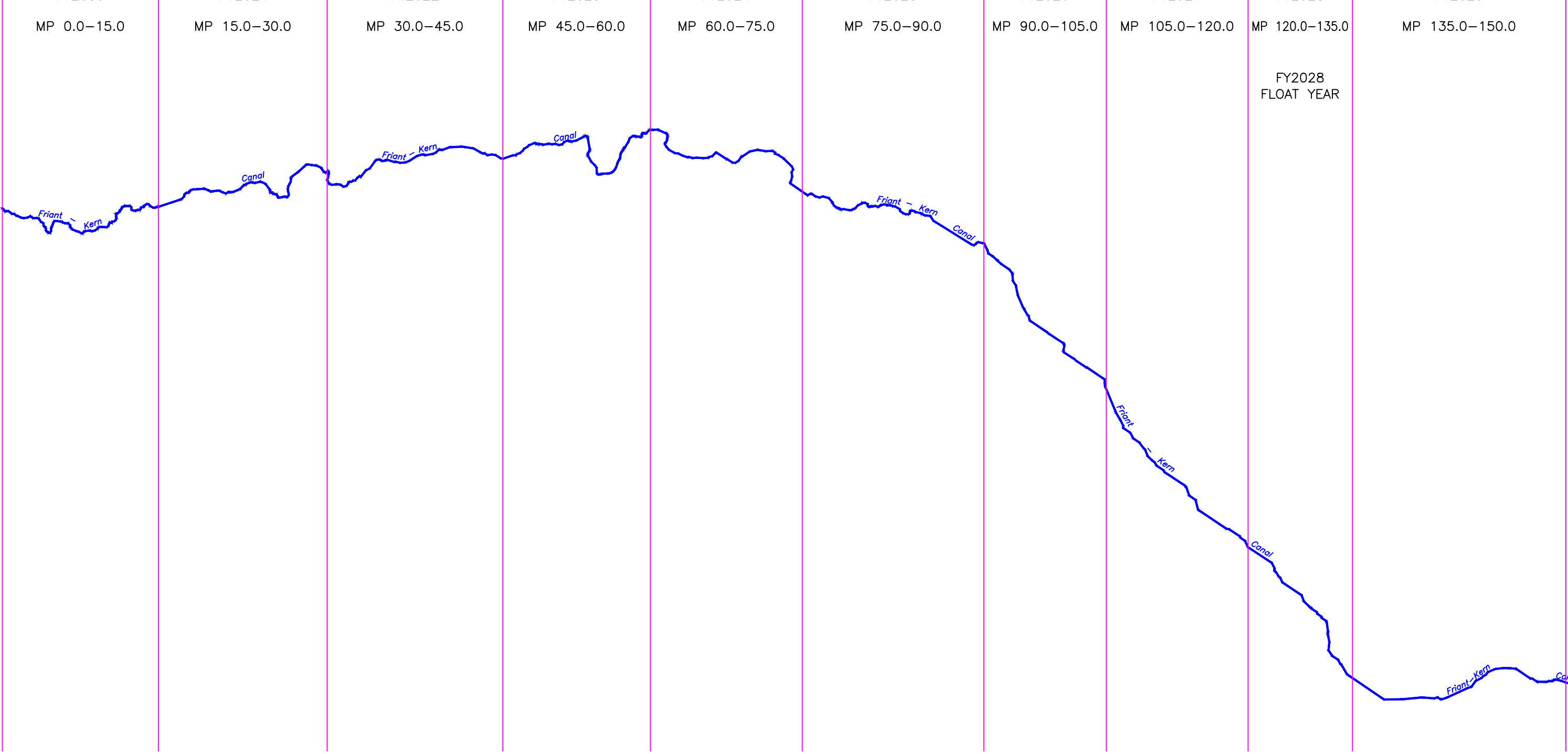
FRIANT WATER AUTHORITY
CHIP SEAL PROJECT
10-YEAR CYCLE

FY2030 MP 0.0–15.0 FY2021 MP 15.0–30.0 FY2022 MP 30.0–45.0 FY2023 MP 45.0–60.0 FY2024 MP 60.0–75.0 FY2025 MP 75.0–90.0 FY2026 MP 90.0–105.0 FY2027 MP 105.0–120.0 FY2028 MP 120.0–135.0 FY2029 MP 135.0–150.0

FY2028
FLOAT YEAR

DAM

BAKERSFIELD



Friant Water Authority
Major Maintenance Projects
Summary Sheet
Proposed For FY 2021

Project Title: Gate Actuator Upgrade

Job Code: 6060

Project Location and Department: Scheduled Gate Actuator upgrade is schedule in various locations along the 152-mile system unless noted otherwise. / Operations.

Project Description: This will be a replacement of both the gate actuator and gate shaft that raise and lower the gates at these various sites. A total of eight actuators and shafts will be replaced. This is part of the standardization plan in the canal system.

Estimated Total Project Cost (x1000): \$ 150.0

Estimated Total Material Cost (Including Fuel Costs, x1000): \$ 120.2

General Justification: This effort is to bring the sites to a higher level of operational reliability and to standardize the gate actuators along the canal system.

Operating Impact: Replacement of these gate actuators will bring a higher level of operational reliability to the canal system by both having new components in service and having standardization in the event of a failure thereby reducing operational downtime.



View of Similar Conditions

Friant Water Authority
Major Maintenance Projects
Cost Summary
Proposed For FY 2021

Project Title: Gate Actuator Upgrade

Project Location and Department: Scheduled Gate Actuator upgrade is scheduled in various locations along the 152-mile system unless noted otherwise. / Operations.

Estimated Total Project Cost (x1000): \$150.0

Estimated Total Material Cost (Including Fuel Costs, x1000): \$120.2

Breakdown of Estimated Costs

Contract Service: n/a

Machine Shop Services

Subtotal: \$19,195

Materials:

6 - 1 Hp Gate Actuators and Shafts @ \$13,700 ea.

\$82,200

2- 4 Hp Gate Actuators and Shafts @ \$19,000 ea.

\$38,000

(Motor Prices include starters, breaks, and cabinets.)

Subtotal: \$120,200

Rental Equipment: n/a

Subtotal: n/a

Fuel: n/a

Subtotal: n/a

Regular Labor (Hours and Cost):

1 - Electrician (25 days @ 8 hr. @ \$30.77/hr.)

\$ 6,154

1 - CMW (20 days x 8 hr./day @ \$27.82/hr.)

\$ 4,451

Subtotal: \$10,605

Total: \$ 150,000

Friant Water Authority
Major Maintenance Projects
Summary Sheet
Proposed for FY2021
(Dewatering)

Project Title: 6060 Sandblast and paint metal work at Friant Kern Canal Structures.

Project Location and Maintenance Department: MP.69.42 and MP 71.29

Project Description: Sandblast and paint rusted radial gates & components at MP.69.42 St. Johns river Waste way and MP 71.29 Kaweah River Waste way structures on the Friant Kern Canal

Estimated Total Project Cost (x1000): 217K

Estimated Total Project Cost (Excluding Regular Labor Costs, x1000): 185k

General Justification: In 2017 dewatering an inspection was performed at all check structure locations, from that inspection a scheduled list of structures requiring painting was identified.

Operating Impact: Failure to sandblast and paint the identified locations may result in failure of gate components.

Photo of Existing Conditions MP. 69.42 Waste way Structure



**Friant Water Authority
Major Maintenance Projects
Cost Summary
Proposed for FY 2021**

Project Title: 6060 Sandblast and paint metalwork at Friant Kern Canal Radial Gates.

Project Location and Maintenance Department: MP.69.42 and MP 71.29

Project Description: Sandblast and paint rusted radial gates & components at MP.69.42at St. Johns Waste way and MP 71.29 Kaweah River Waste way on the Friant Kern Canal

Estimated Total Project Cost (x1000): 217k

Estimated Total Project Cost (Excluding Regular Labor Costs, x1000): 185K

Breakdown of Estimated Costs

Contract Services: (Temporary Employees)

Three Employees x 440 hrs. Each @ \$14.43/hr.	= \$ 19,048
55 days @ 4 hrs. OT/day x Three Employees @ \$21.12/hr.	= \$ 14,289
8 Saturdays @ 10 hrs. OT/day x Three Employees @ \$21.12/hr.	= \$ 5,196

Subtotal: \$38,533

Materials:

Paint/Thinners	= \$21,850
Blast Material	= \$21,263
Safety & Misc. Supplies	= \$ 3,000
J-Seals & Hardware	= \$37,481

Subtotal: \$ 83,594

Rental Equipment:

2 -Man lifts @ \$2,000 per month x 2	= \$8,000
1-Compressor @ \$1,800 per month x 2	= \$3,600
1-160 cubic foot Sandblasting pot @ \$2,400 Per month x 2	= \$4,800

Subtotal: \$16,400

Fuels:

2- Man lifts @ 14 gals a day x 63 days = 1,764 gals.	= \$6,791
Air Compressor @ 25 gals a day x 63 = 1,575 gals.	= \$6,064
Diesel = 3.85 a gal	

Subtotal: \$12,855

Regular Labor (Hours and Cost):

Three Employees x 440 hrs. Each @ \$24.68/hr.	= \$32,578
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Overtime Labor (Hours and Cost):

Eight Saturdays x three employees x 10 hrs. @ \$37.02/hr.	= \$ 8,885
55 days @ 4 hrs. OT/day x six employees @ \$37.02/hr.	= \$24,443

Subtotal: \$65,906

Total: \$217,288

Friant Water Authority
Major Maintenance Projects
Summary Sheet
Proposed for FY2021
(Dewatering)

Project Title: 6060 Maintenance and repair metal work at Friant Kern Canal turnouts.

Project Location and Maintenance Department: Delano section

Project Description: Maintenance and repair metal components at turnout locations MP. 107.34 to 151.81 on the Friant Kern Canal

Estimated Total Project Cost (x1000): 201.3K

Estimated Total Project Cost (Excluding Regular Labor Costs, x1000): 136.1K

General Justification: Last dewatering inspection was performed in the Delano section from that a list of turnouts requiring repairs and maintenance was identified.

Operating Impact: Failure to maintenance or repair the identified locations may result in failure of gate components.

Photo of Existing Conditions



Friant Water Authority
Major Maintenance Projects
Cost Summary
Proposed for FY 2021

Project Title 6060 Maintenance and repair metal work at Friant Kern Canal turnouts

Project Location and Maintenance Department: Delano section.

Estimated Total Project Cost (x1000): 201.3K

Estimated Total Project Cost (Excluding Regular Labor Costs, x1000): 136.1K

Breakdown of Estimated Costs

Contract Services: (Temporary Employees)

Three Employees x 440 hrs. Each @ \$14.43/hr. = \$ 19,048
55 days @ 4 hrs. OT/day x Three Employees @ \$21.65/hr. = \$ 14,289
8 Saturdays @ 10 hrs. OT/day x Three Employees @ \$21.65/hr. = \$ 5,196

Subtotal: \$38,533

Materials:

Paint/Thinners = \$ 6,720
Blast Material = \$10,000
Safety. Supplies = \$ 1,000

Subtotal: \$ 17,720

Rental Equipment:

Man lift @ \$1,800/mo. x 2 mo. = \$3,600
Compressor @ \$1,800/mo. x 2 mo. = \$ 3,600

Subtotal: \$ 7,200

Fuels:

Man lift @ 10 gals a day x 63 days = 630 gals. = \$ 2,426
Compressor @ 15 gals a day x 63 = 945 gals. = \$ 3,638
Diesel = 3.85 a gal

Subtotal: \$ 6,064

Regular Labor (Hours and Cost):

Six Employees x 440 hrs. Each @ \$24.68/hr. = \$65,155

Subtotal: \$ 65,155

Overtime Labor (Hours and Cost):

Eight Saturdays x six employees x 10 hrs. @ \$37.02/hr. = \$17,770
55 days @ 4 hrs. OT/day x six employees @ \$37.02/hr. = \$48,866

Subtotal: \$ 66,636

Total: \$201,308

Friant Water Authority
Major Maintenance Projects
Summary Sheet
Proposed for FY 2021
(Dewatering)

Project Title: Concrete Liner Replacement

Job Code: 6120

Project Location and Maintenance Department: MP 30.50, MP 64.40 &-MP 106.19/Lindsay

Project Description: Replace Failed/Cracked Concrete Liner Panels – 8 Sites, 40 Panels

Estimated Total Project Cost (x 1000): \$283.9

Estimated Total Material Cost (Including Fuel Costs x 1000): \$98.9

General Justification: Concrete panels in the Lindsay section are cracked/failing causing leaks and embankment failures.

Operating Impact: By not repairing the concrete panels, further failure/cracking will occur which will cause embankment instability, leaks and possible canal failure.



Photo of Existing Conditions

Friant Water Authority
Major Maintenance Projects
Cost Summary
Proposed for FY 2021
(Dewatering)

Project Title: Concrete Liner Replacement

Project Location and Maintenance Department: MP 30.50, MP 64.40 & MP 106.19/Lindsay

Estimated Total Project Cost (x 1000): \$283.9

Estimated Total Material Cost (Including Fuel Costs x 1000): \$98.9

Breakdown of Estimated Costs

Contract Services: (Work Start 11/28)

3 Employee (43 days x 8 hr./day @ \$13.96/hr.)	\$14,407
3 Employee (43 days x 4 hr./day OT @ \$20.94/hr.)	\$10,806
3 Employee (8 Saturdays x 10 hr./day OT @ \$20.94/hr.)	\$ 5,026
Concrete Pump Truck	\$17,500
Subtotal:	\$47,739

Materials:

Concrete 300 yds x \$130/yd. (40 panels at 7.5 yds/panel)	\$39,000
Subtotal:	\$39,000

Rental Equipment:

N/A

Subtotal:

Fuel:

Excavator – 2,907 gal (57 gal/day x 51 days)	\$11,192
Roller Screed - 255 gal (5 gal/day x 51 days)	\$ 982
Diesel = \$3.85/gallon	
Subtotal:	\$12,174

Regular Labor (Hours and Cost):

12 CMW (43 days x 8 hr./day @ \$21.36/hr.)	\$88,175
Subtotal:	\$88,175

Overtime Labor (Hours and Cost):

12 CMW (43 days x 4 hr./day @ \$32.04/hr.)	\$66,131
12 CMW (8 Saturdays x 10 hr./day @ \$32.04/hr.)	\$30,759
Subtotal:	\$96,890

Total: \$283,978

FY 2021
NON-ROUTINE
O & M
PROJECT
JUSTIFICATIONS

**Non-Routine O&M Projects
FY 2021**

Job Code	Project Title	Project Location	Dept.	Total Project Cost
6221	FKC Pump-Back Project	Multiple Sites		\$ 25,000
6225 & 6226	FKC Capacity Correction Project	Middle Reach - Approx. MP 88.2 to MP 121.5		\$ 5,000,000
6230	Ground Water Sustainability Agencies Engagement	Friant Kern Canal and Associated Facilities		\$ 536,600
6370	Friant Kern Canal Water Quality Program	Entire Friant Kern Canal (152 Miles)		\$ 146,000
6402	Title Transfer	Friant Kern Canal, Madera Canal and Associated Facilities		\$ -
			Totals: \$	5,707,600

Friant Water Authority
Non-Routine O&M Project
Summary Sheet
Proposed for FY 2021

Project Title: Friant Kern Canal Reverse Pump-Back Project

Job Code: 6221

Project Location: Friant-Kern Canal from terminus MP 151.8 to Tule River pool MP 95.67

Project Description: The Secretary of the Interior is authorized in PL-111-11 Section 10201 and directed to conduct feasibility studies in coordination with Friant Water Authority and create improvements or reverse flow pump-back facilities on the Friant-Kern Canal to help manage for water supply lost as part of the San Joaquin River Restoration Program Settlement. In August 2016, Friant Water Authority (FWA) entered into a Financial Assistance Agreement (FAA) with the U. S. Bureau of Reclamation to design and construct Reverse flow Pump-Back facilities in the lower reaches of the FKC. The current project is at 30% design and is looking to build reverse flow pump-back facilities at Shafter Check, Woollomes Check and Deer Creek Check.

Estimated Project Costs (x1000): \$56,000 pre- 30% design estimate
Fiscal Year 2021 Budget = \$25.0

General Justification: This project originally stemmed from the SJRRP to help facilitate the Long-Term Recapture and Recirculation program. It was authorized as part of the settlement program to help Friant Division Contractors keep access to their water utilized to help restore the SJR fishery. This program helps keep the SJR settlement viable.

Operating Impact: The reverse flow pump-back project provides a significant amount of flexibility in making the San Joaquin River Settlement Water Supply initiatives successful. Facilities also have the potential for use by FKC contractors at other drought times when the return of supplies wouldn't be possible without this infrastructure.



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Friant Water Authority
Non-Routine O&M Project
Cost Summary
Proposed for FY 2021

Project Title: Friant Kern Canal Reverse Pump-Back Project

Project Location and Department: Friant-Kern Canal from terminus MP 151.8 to Tule River Check MP 95.67 / Maintenance Department.

Estimated Total Project Cost (x1000): \$56,000 pre- 30% design estimate
Fiscal Year 2021 Budget = \$25.0

Estimated Total Material Cost (Including Fuel Costs, x1000): \$25.0

Breakdown of Estimated Costs

Contract Service:

To assist in bridging the funding gap between the Federal FAA and the Financial Assistance Agreement with the Department of Water Resources

Subtotal: \$25.0

Materials: n/a

Subtotal: n/a

Rental Equipment: n/a

Subtotal: n/a

Fuel: n/a

Subtotal: n/a

Regular Labor (Hours and Cost): Labor Costs will be funded through the Financial

Executive Team (COO, CEO, etc...)..... Assistance Agreements

Senior Engineer.....

Engineering Technician.....

Subtotal: \$0.0

Total: \$ 25,000

Friant Water Authority
Non-Routine O&M Project
Summary Sheet
Proposed for FY 2021

Project Title: FKC Capacity Correction Project – Subsidence Correction

Job Code: 6225 & 6226

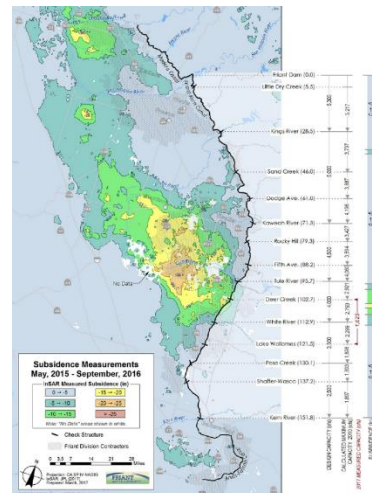
Project Location: Middle Reach - Approx. MP 88.2 to MP 121.5

Project Description: Friant Water Authority is undertaking evaluations of potential conveyance and operational improvements to the FKC to address original design and subsidence induced capacity reductions. The FKC has been subject to regional subsidence for several years. This subsidence-induced capacity reduction is most prevalent in the FKC Middle Reach (MP 88 and MP 122). Increased groundwater pumping during the drought period from 2012 through 2016 has caused further subsidence of the FKC and reduced canal capacity to levels that have the potential to impair water delivery operations.

Estimated Project Costs (x1000): \$350,000 to \$535,000
Fiscal Year 2021 Budget = \$5million

General Justification: For the Subsidence Correction Project, at the March 28, 2019 meeting, the Board of Directors authorize up to \$5M in pre-construction costs to be considered OM&R and directed Staff to budget accordingly. The allocation of the remaining balance of the Project will be determined once the scope of the Project is defined and the Board takes final action to proceed with the construction of the Project.

Operating Impact: Without correction, the capacity of the FKC to deliver a full run of Class 2 supplies would be impaired below Deer Creek Check. This directly affects the flexibility of several districts to schedule contract supplies for delivery.



Friant Water Authority
Non-Routine O&M Project
Cost Summary
Proposed for FY 2021

Project Title: FKC Capacity Correction Project – Subsidence Correction

Project Location and Department: Middle Reach - Approx. MP 88.2 to MP 121.5 /
Maintenance Department.

Estimated Total Project Cost (x1000): \$350,000 to \$535,000
Fiscal Year 2021 Budget = \$5million

Estimated Total Material Cost (Including Fuel Costs, x1000): unknown

Breakdown of Estimated Costs

Of the \$5 million budgeted for FY 2021, \$348,000 is for FWA involvement in the completion of final permits, engineering designs, real estate transactions, finance plans, contract negotiations, construction contract administration, and construction management. \$4,650,000 is an estimate for FWA non-federal cost share requirements in FY 2021, if necessary. While the total FY 2021 non-federal cost-share is expected to be much greater than this amount, until a financing plan for the Project is finalized in the fall of 2020, the exact amount and allocation is not certain. Once a final amount is determined and approved by the FWA board of directors, an adjustment to this amount will be made.

Total: \$5,000,000

Friant Water Authority Non-Routine O&M Project Summary Sheet Proposed for FY 2021

Project Title: Groundwater Sustainability Agencies Engagement

Job Code: 6230

Project Location: Friant-Kern Canal and associated facilities

Project Description: Friant Water Authority has undertaken a review of the various Groundwater Sustainability Plans (GSP) that have the potential to affect the lands adjacent to the Friant-Kern Canal. Through the engagement of Groundwater Sustainability Agencies (GSA), the Authority seeks to protect the facility from adverse impacts like subsidence.

Estimated Project Costs (x1000): \$unknown
Fiscal Year 2021 Budget = \$536.6

General Justification: during the summer of 2019, the FWA Board of Directors sent notice letters regarding undesirable subsidence impacts on the Friant-Kern Canal. This letter requested that each GSP identify the effects of subsidence emanating from or within the various basins on the Friant-Kern Canal and treat it as an undesirable result that must be avoided. Fast forward to summer of 2020 and various GSA have identified impacts to the FKC through transitional pumping. The proposed budget is for the continuation of the monitoring of management actions and mitigation and to prepare for legal action if necessary.

Operating Impact: Potentially has a high operational impact if the Friant-Kern Canal continues to subside without mitigation.

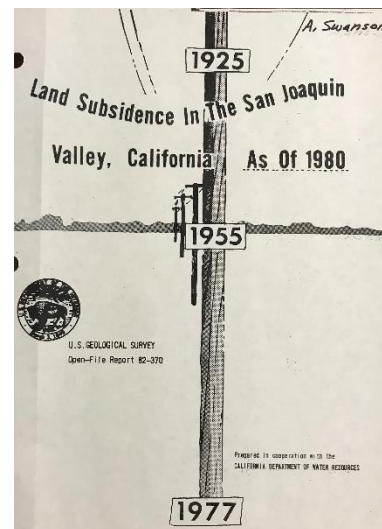
Sustainable Groundwater Management Act

Final Basin Prioritization

State Backstop

Steps to Sustainability

- June 1, 2016:** SGMA requires all basins to develop groundwater sustainability plans.
- June 30, 2017:** Groundwater sustainability plans are due.
- January 31, 2020:** High and medium priority basins must have GSPs approved by the State Water Resources Control Board.
- January 31, 2022:** All basins must have GSPs approved by the State Water Resources Control Board.
- January 31, 2042:** All basins must have GSPs approved by the State Water Resources Control Board.



Friant Water Authority
Non-Routine O&M Project
Cost Summary
Proposed for FY 2021

Project Title: Groundwater Sustainability Agencies Engagement

Estimated Total Project Cost (x1000): unknown
Fiscal Year 2021 Budget = \$536.6

Breakdown of Estimated Costs

Contract Service:

*Special Counsel for preparing legal actions, if necessary.
Subject matter experts for additional review of impacts.*

Subtotal: \$320,000

Contract Service:

Special Counsel for negotiation assistance

Subtotal: \$75,000

Regular Labor (Hours and Cost):

Executive Team (COO, CEO, etc...).....1024 hrs @138.27

Subtotal: \$141,589

Total: \$ 536,589

Friant Water Authority
Non-Routine O&M Project
Summary Sheet
Proposed for FY 2021

Project Title: Friant Kern Canal Water Quality Program

Job Code: 6370

Project Location: Friant-Kern Canal (entire 152 miles)

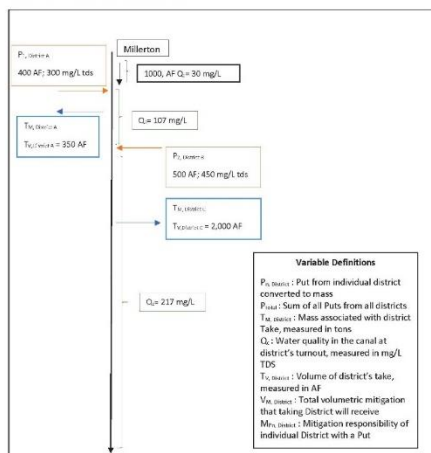
Project Description: Friant Water Authority is embarking on the management of the quality of water delivered through the Friant-Kern Canal. The FKC water quality program will consist of monitoring, measuring and reporting various water quality changes in the FKC associated with the introduction of non-Millerton Lake water. This is the initial costs of standing up a program to be able to satisfy the needs of contractors throughout the system.

Estimated Project Costs (x1000): \$unknwon (depends on the final constituents list and program requirements)
Fiscal Year 2021 Budget = \$146

General Justification: The Board of Directors, at the request of the Water Quality Ad Hoc group has requested that staff pursue management of a Water Quality Plan. This plan originally stemmed from the environmental requirements of both the Long-Term Recapture and Recirculation EIS/R (LTRREIS) and the Friant-Kern Canal Reverse Pump-back Project Environmental Assessment (EA). While the full water quality plan is still being scoped, the Water Quality Ad Hoc group and the Board of Directors requested Staff create a model, start monitoring as appropriate, and create notification when water from the cross-valley system were being introduced to the FKC.

Operating Impact: This estimate assumes implementation of the Friant-Kern Canal Water Quality Policy (Policy) will occur in this fiscal year. Although the costs for finalizing and implementing the Policy will be applied under a separate cost code (and reimbursed through FAA agreements with DWR and Reclamation), the administration and water quality monitoring outlined in the Policy will be applied 6370. A portion of these costs will be reimbursed through a surcharge applied to those Friant contractors that introduce water into the FKC once the Policy is implemented.

Ledger Example with Calculations:



Note: This example is purely hypothetical. All numbers are completely made up for the purpose of showing the process involved in calculating mitigation using the proposed ledger program. The example shown represents a very simplified version of the system. As described above, the program should evaluate various example scenarios including scenarios that include bidirectional flow and takes from the mixing pool.



Friant Water Authority
Non-Routine O&M Project
Cost Summary
Proposed for FY 2021

Project Title: Friant Kern Canal Water Quality Program

Project Location and Department: Friant-Kern Canal (entire 152 miles) /Operations
Department

Estimated Total Project Cost (x1000): \$unknown (depends on the final constituents list
and program requirements)
Fiscal Year 2021 Budget = \$146

Estimated Total Material Cost (Including Fuel Costs, x1000): \$71

Breakdown of Estimated Costs

Contract Service: (Stantec)

All contracting services billed under reimbursable tasks of 6221 (Pumpback) for technical support of managing CEQA mitigation requirements

Water Quality Testing Equipment and Laboratory Testing –

- Purchase and install of ten (10) Seametrics CT2X conductivity sensors at remaining FKC check structures - \$30,100
- Annual sensor and meter maintenance - \$5,150
- Periodic in-prism water quality laboratory testing - \$35,750

Subtotal: \$71,000

Regular Labor (Hours and Cost):

It is assumed that the implementation of the Policy will occur part-way through the fiscal year and will require the hiring of another full-time staff member. This staff member will be required to:

- Maintain and calibrate conductivity meters on a bi-weekly basis
- Perform water quality sampling during pump-in operations, coordinate laboratory water quality testing
- Oversee FWA staff , coordinate with Friant Division contractors on water quality data
- Manage water quality and operations database
- Perform weekly water quality reporting and forecasting using FKC Water Quality Model
- Perform weekly analysis to determine mitigation and distribution to respective Friant districts using the FKC Water Quality Mitigation Ledger
- Coordinate with U.S. Department of the Interior, Bureau of Reclamation's South-Central California Area Office on water quality reporting, mitigation, and contractual requirements
- Coordinate and facilitate FWA committee on water quality

Subtotal: \$75,000

Total: \$ 146,000

Friant Water Authority
Non-Routine O&M Project
Summary Sheet
Proposed for FY 2021

Project Title: Friant Division Title Transfer

Job Code: 6402

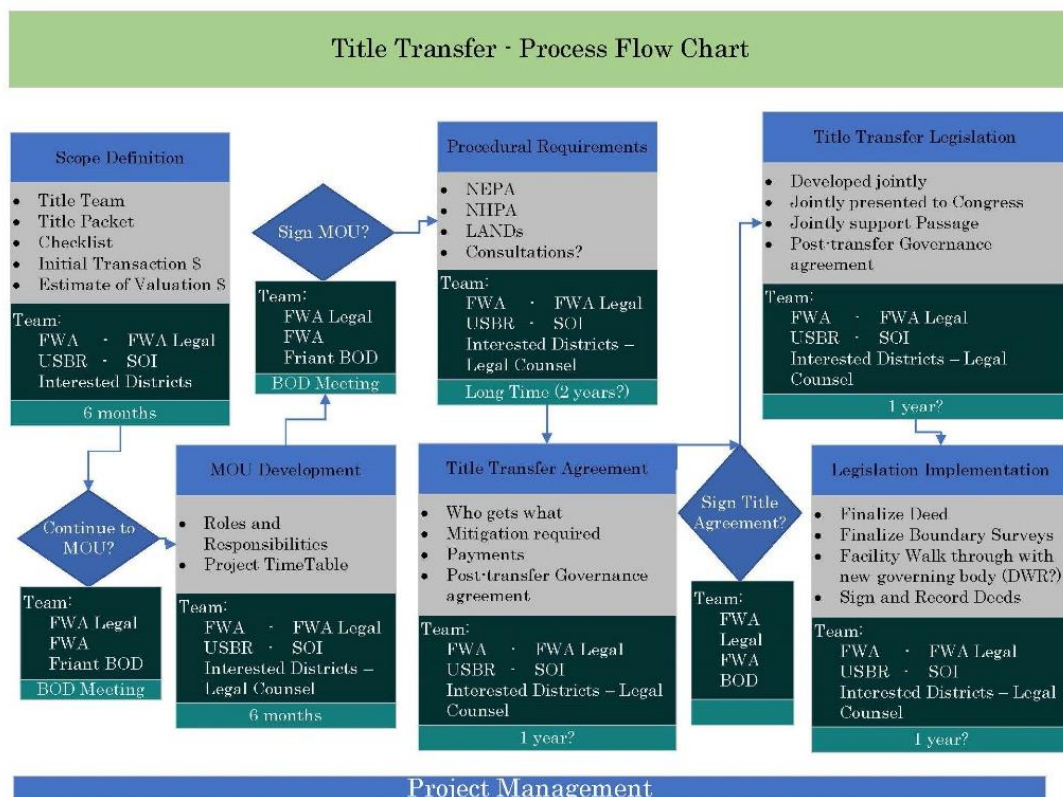
Project Location: Friant-Kern Canal and associated facilities, Madera Canal, federally owned distribution facilities in the Friant Division

Project Description: Friant Water Authority is undertaking evaluations of the potential to transfer in fee, the titles of the FKC, the Madera Canal and the federally owned distribution facilities in the Friant division. The title transfer process could take several years and include the need for lands, environmental and other procedural requirements as well as crafting both a memorandum of understanding (MOU) with Reclamation and a Title Transfer agreement.

Estimated Project Costs (x1000): \$2,547 in 2019 dollars
(\$1,783 in permitting and Title related costs)
(\$763.5 in outstanding balances of Friant district capital)
Fiscal Year 2021 Budget = \$0

General Justification: In November of 2017 and continually since, the Board of Directors has requested that staff pursue the transfer of title to the Friant-Kern Canal. The transfer of title would allow greater flexibility in operations, maintenance and replacement, will limit Endangered Species Act (ESA) exposure, provide eligibility for non-reclamation federal funding sources, and has the potential to provide flexibility to use the lands as collateral.

Operating Impact: None immediately, the advantages of transfer of title come after the facility is transferred and FWA can more appropriately manage the lands and the repairs needed by the FKC.



FY 2021
VEHICLES
&
EQUIPMENT

**Friant Water Authority
Vehicle/Equipment Replacement
Justification Form
Proposed FY 2021**

Date: 04-29-20

FY-2021

Vehicle/Equipment: 1021

Job Code: 6119

Replacement: **Addition:**

Estimated Cost: \$31,000

Proposed Delivery Date: FY-2021

Department: Maintenance

Maintenance Yard: Orange Cove

Purpose of Vehicle/Equipment: This vehicle is used by FWA canal maintenance staff primarily for herbicide transport /application.

Reason(s) for Replacement: Engine failure.

Description of How Vehicle/Equipment Augmentation Facilitates O&M Activities: This vehicle is used for weed and pest control.



Friant Water Authority
Vehicle/Equipment Replacement Justification
Mechanics Report
Proposed For FY 2020

Date: 04-29-2020

Vehicle/Equipment I.D. 1109

License #: 1215939

Year: 2008

Age (yrs.): 12

Make: Ford

Model: 3500

Department: Maintenance

Maintenance Yard: O.C.

Current Mileage/Hours: 110k miles very high hours.

GENERAL CONDITIONS:	POOR	FAIR	GOOD	EXCELLENT
Body and Interior:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suspension:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drive Train:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engine:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

History of Repairs: Engine & electrical issues.

Estimated Future Repair Cost: Engine, Transmission: \$10K

Safety Concerns: Engine failure.

Mechanic's Recommendations: Replace due to major component failure.

Estimated Salvage Value: \$2,500

Prepared By: Josh Taylor

Friant Water Authority
Vehicle/Equipment Replacement
Justification Form
Proposed FY 2021

Date: 04-29-20

FY-2021

Vehicle/Equipment: Portable Compressor

Job Code: 6119

Replacement: **Addition:**

Estimated Cost: \$31,000

Proposed Delivery Date: FY-2021

Department: Maintenance

Maintenance Yard: Orange Cove

Purpose of Vehicle/Equipment: Provide compressed air.

Reason(s) for Replacement: Previous unit was retired and scrapped under air quality regulation compliance.

Description of How Vehicle/Equipment Augmentation Facilitates O&M Activities: Portable compressor is used for many projects including bridge maintenance, concrete lining maintenance and sand blasting.



Friant Water Authority
Vehicle/Equipment Replacement Justification
Mechanics Report
Proposed For FY 2021

Date: 04-29-2020

Vehicle/Equipment I.D. 1501

License #:

Year: 1981

Age (yrs.): 39

Make: Sullair

Model: 185

Department: Maintenance

Maintenance Yard: O.C.

Current Mileage/Hours: 2200

GENERAL CONDITIONS:	POOR	FAIR	GOOD	EXCELLENT
Body and Interior:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suspension:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drive Train:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engine:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

History of Repairs:

Estimated Future Repair Cost:

Safety Concerns:

Mechanic's Recommendations:

Estimated Salvage Value: \$500.

Prepared By: Josh Taylor

Friant Water Authority
Vehicle/Equipment Replacement
Justification Form
Proposed for FY 2021

Date: 5/7/2020

FY-2021

Vehicle/Equipment: Ford F150 Pickup

Job Code: 6299

Replacement: **Addition:**

Estimated Cost: \$24,100

Proposed Delivery Date: FY-2021

Department: Water Operations

Maintenance Yard: Orange Cove

Purpose of Vehicle/Equipment: This vehicle is used by Canal System Operator to patrol and monitor the flow of water through the canal; it is driven on and off road. Presently 30.1K plus miles are put on the vehicle annually traveling to various sites in the canal service areas. This vehicle is available to respond to alarms and emergency call outs as may be required.

Reason(s) for Replacement: This vehicle is projected to be at sufficient mileage to warrant replacement as per FWA mileage guidelines.

Description of How Vehicle/Equipment Augmentation Facilitates O&M Activities: This vehicle is driven by the Canal System Operator to patrol the Friant-Kern Canal. CSO is subject to being called out at any time and needs a reliable vehicle to cover their service area and possibly work out of their respective service area.



Photo of similar CSO truck

Friant Water Authority
Vehicle/Equipment Replacement Justification
Mechanics Report
Proposed for FY 2021

Date: 5/7/2020

Vehicle/Equipment I.D.: 1026

License #: 1226622

Year: 2013

Age (yrs.): 8

Make: Ford

Model: F150

Department: Water Operations

Maintenance Yard: Orange Cove

Current Mileage/Hours: 221,245 *(Estimated at time of replacement)*

GENERAL CONDITIONS:	POOR	FAIR	GOOD	EXCELLENT
Body and Interior:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suspension:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drive Train:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engine:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

History of Repairs: Cooling system, brakes, heater, a/c, and normal maintenance items.

Estimated Future Repair Cost: Engine, transmission: \$5,000

Safety Concerns: This vehicle is subject to call out to respond to various alarms and public safety response.

Mechanic's Recommendations: Due to the high mileage and usage, it is recommended to replace this vehicle at the recommended replacement schedule.

Estimated Salvage Value: \$2,500

Prepared By: Chris Hickernell

Friant Water Authority
Vehicle/Equipment Replacement
Justification Form
Proposed For FY 2021

Date: 05-4-2020

FY-2021

Vehicle/Equipment: 1028

Job Code: 6299

Replacement: **Addition:**

Estimated Cost: \$30,000

Proposed Delivery Date: FY-2021

Department: Maintenance

Maintenance Yard: Orange Cove

Purpose of Vehicle/Equipment: This vehicle is used by the Maintenance Foreman to supervise Maintenance Department activities. Presently 23K plus miles are put on the vehicle annually traveling to various sites in the canal service area. This vehicle is available to respond to alarms and emergency call outs as required.

Reason(s) for Replacement: Oil Consumption-Potential engine failure.

Description of How Vehicle/Equipment Augmentation Facilitates O&M Activities: This vehicle is driven by the Maintenance Foreman to monitor Maintenance activities on the Friant-Kern Canal. The Maintenance Foreman is subject to being called out at any time and needs a reliable vehicle to cover their service area.



Friant Water Authority
Vehicle/Equipment Replacement Justification
Mechanics Report
Proposed For FY 2021

Date: 05-4-2020

Vehicle/Equipment I.D. 1028

License #: 1215939

Year: 2009

Age (yrs.): 10

Make: Chevy

Model: 1500

Department: Maintenance

Maintenance Yard: O.C.

Current Mileage/Hours: 179854

GENERAL CONDITIONS:	POOR	FAIR	GOOD	EXCELLENT
Body and Interior:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suspension:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drive Train:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engine:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

History of Repairs: Normal wear parts.

Estimated Future Repair Cost: Engine, Suspension: \$5,000

Safety Concerns: This vehicle is subject to call out to respond to various alarms and public safety response.

Mechanic's Recommendations: Replace before major component failure.

Estimated Salvage Value: \$2,500

Prepared By: Josh Taylor

Friant Water Authority
Vehicle/Equipment Replacement
Justification Form
Proposed for FY 2021

Date: 5/7/2020

FY-2021

Vehicle/Equipment: Ford F150 Pickup

Job Code: 6299

Replacement: **Addition:**

Estimated Cost: \$24,100

Proposed Delivery Date: FY-2021

Department: Water Operations

Maintenance Yard: Lindsay

Purpose of Vehicle/Equipment: This vehicle is used by Canal System Operator to patrol and monitor the flow of water through the canal; it is driven on and off road. Presently 30.1K plus miles are put on the vehicle annually traveling to various sites in the canal service areas. This vehicle is available to respond to alarms and emergency call outs as may be required.

Reason(s) for Replacement: This vehicle is projected to be at sufficient mileage to warrant replacement as per FWA mileage guidelines.

Description of How Vehicle/Equipment Augmentation Facilitates O&M Activities: This vehicle is driven by the Canal System Operator to patrol the Friant-Kern Canal. CSO is subject to being called out at any time and needs a reliable vehicle to cover their service area and possibly work out of their respective service area.



Photo of similar CSO truck

Friant Water Authority
Vehicle/Equipment Replacement Justification
Mechanics Report
Proposed for FY 2021

Date: 5/7/2020

Vehicle/Equipment I.D.: 2032

License #: 1226585

Year: 2011

Age (yrs.): 10

Make: Ford

Model: F150

Department: Water Operations

Maintenance Yard: Lindsay

Current Mileage/Hours: 203,245 *(Estimated at time of replacement)*

GENERAL CONDITIONS:	POOR	FAIR	GOOD	EXCELLENT
Body and Interior:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suspension:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drive Train:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engine:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

History of Repairs: Cooling system, brakes, heater, a/c, and normal maintenance items.

Estimated Future Repair Cost: Engine, transmission: \$5,000

Safety Concerns: This vehicle is subject to call out to respond to various alarms and public safety response.

Mechanic's Recommendations: Due to the high mileage and usage, it is recommended to replace this vehicle at the recommended replacement schedule.

Estimated Salvage Value: \$2,500

Prepared By: Chris Hickernell

**Friant Water Authority
Vehicle/Equipment Justification Form**

Date: 5/5/2020

FY - 2021

Vehicle/Equipment: (RTA 3304) Utility Tractor

Job Code: 1991

Replacement: **Addition:**

ESTIMATED COSTS: \$110K

Proposed Delivery Date: 2021

Department: Delano Maintenance Facility

Purpose of Vehicle/Equipment: The utility tractor is one of the most versatile pieces of equipment used in the maintenance of the canal. In normal years, the maintenance department used an average 500 hours of utility tractor operation time per year. Daily maintenance activities for our utility tractor include road work, stock piling, drain ditch clearing, loading trucks, back dragging, digging, filling washes, pulling equipment, trash removal, mowing ROW'S, and lifting. The Delano maintenance section has sandy soil conditions, requiring increased embankment work for which the utility tractor is frequently needed.

Reason(s) for Replacement: The present 570XL Case tractor located in the Delano yard has been in service for 22 years. Environmental regulations require turnover of the equipment. Installing a particulate filter on the equipment is not feasible.

Description of How Vehicle/Equipment Augmentation Facilitates O&M Activities: The proposed utility tractor would comply with state and federal laws. reduce downtime for repairs and would be a great help on future projects. Upcoming maintenance where the tractor would be valuable are canal lining replacement, major roadwork, drain ditch cleaning, riprap at Lake Woollomes and mowing vegetation along the Friant Kern Canal Right of Ways.



**Friant Water Authority
Vehicle/Equipment Replacement Justification
Mechanics Report**

Date: 5/5/2021

Vehicle/Equipment: Utility Tractor

RTA: 3304

Year: 1998

Age (yrs.): 22

Make: Case

Model: 570XL

Department: Maintenance

Maintenance Yard: Delano

Current Mileage/Hours:

GENERAL CONDITIONS:	POOR	FAIR	GOOD	EXCELLENT
Body and Interior:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suspension:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Drive Train:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Engine:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

History of Repairs: Normal repair and maintenance items as well as transmission repairs and control valve repairs.

Estimated Future Repair Cost: Normal Radiator replacement \$2,000, Hydraulic system overhaul along with pins and bushings \$5,000.

Safety Concerns: N/A

Mechanic's Recommendations: Replace backhoe with a modern and emission compliant machine.

ESTIMATED SALVAGE VALUE: \$15,000.00

FY 2022

ASSUMPTIONS

&

CONSIDERATIONS

Friant Water Authority
Proposed Fiscal Year 2022 Budget
for
Operation and Maintenance
Friant-Kern Canal and Supporting Facilities

Summary of Assumptions and Considerations

1. Labor

A. Total staffing levels for FY 2022 are proposed as follows:

<u>Position</u>	<u>Total Positions</u>
1. Chief Executive Officer	1
2. Chief Operating Officer	1
3. Chief of External Affairs	1
4. Director of Water Policy*	1
5. Governmental Affairs & Communications Manager.....	1
6. Water Resources Manager	1
7. Business Administration Manager	1
8. Accounting Operations Administrator	1
9. Senior Accountant	1
10. Accounting Technician.....	1
11. Payroll Specialist & Analyst	1
12. Director of Technology	1
13. Human Resources/Risk Analyst.....	1
14. Executive Secretary.....	1
15. Executive Assistant	1
16. Administrative Assistant*	1
17. Office Technician	2
18. General Superintendent	1
19. Operations Supervisor	1
20. Resources Manager*	1
21. Water Resources Technician	1
22. Senior Engineer	1
23. Engineering Technician.....	1
24. Maintenance Foreman	3
25. Maintenance Supervisor*	1
26. Canal Maintenance Worker *	21
27. Canal System Operator	6
28. Electrician.....	1
29. Electronic Technician	2
30. Equipment Mechanic.....	2
31. Equipment Operator	4
32. Instrumentation Technician	1
33. Intern(s) (Ops./Engineering & Technical Services)*	3
Total Full Time Positions.....	<u>68</u>

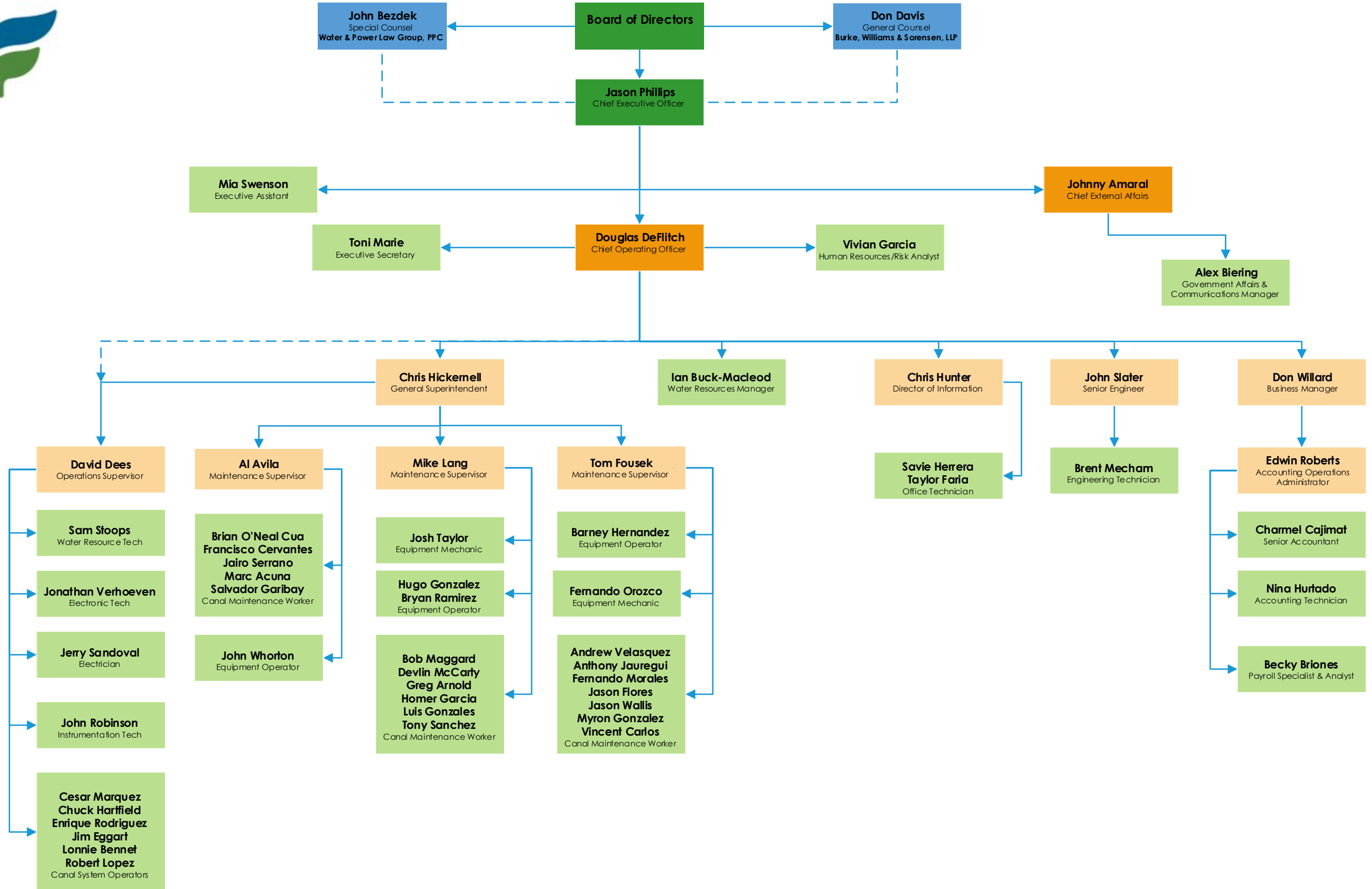
* The following positions will remain vacant and no dollar amount will be budgeted for FY 2022, Director of Water Policy, one Administrative Assistant, one Maintenance Supervisor, one Resources Manager and three Canal Maintenance Worker positions.

An inflation factor of 3.00% per year was used in the projected wage rates to cover both the "merit increases" and "cost of living adjustment (COLA)" that will occur in FY 2022 (FY 2021 wages were used as the base).

- B. Overtime hours associated with routine and extra ordinary projects equaling a total of 2.9% of total man-hours.

2. Materials

- A. An inflation factor of 2.5% per year and 8.75% sales tax was used in the calculation of the majority of the required materials for FY 2022. The inflation factor and sales tax is computed on the budget worksheets. **Supporting documentation reflects current dollars and current sales tax.**
- B. Routine maintenance materials were budgeted with the assumption that the planned FY 2022 purchases occur in full.
- C. It is the policy of the Authority to capitalize all property, plant and equipment, except equipment costing less than \$1,000 and equipment installed directly onto the Friant-Kern Canal, which is a federally owned facility. The budgeted costs for capitalize property are in the accounts of 6299, 6399 and 6799.



**FY 2022
MAJOR
MAINTENANCE
PROJECT
JUSTIFICATIONS**

**Major Maintenance Projects
FY 2022**

Job Code	Project Title	Project Location	Dept.	Total Project Cost
6040	Roadway Chip Seal	MP 30.0 to MP 45.00 / Orange Cove	Maintenance	\$ 135,293
6060	Gate Actuator Upgrade	Multiple Sites	Maintenance	\$ 150,000
Totals: \$				285,293

Friant Water Authority
Major Maintenance Project
Summary Sheet
Proposed for FY 2022

Project Title: Operation and Maintenance Roadway Chip Seal.

Job Code: 6040

Project Location and Maintenance Department: Approx. MP 30.0 to MP 45.00 / Orange Cove

Project Description: Chip seal a 15 mile section of canal roadway with 3/8” rock and CRS-2H asphalt emulsion. An in-house hauling operation will stock pile chip material from a local plant staging it along the 15-mile section of roadway. Outside service contractor will provide emulsion trucks to disperse asphaltic emulsion onto the existing road. Authority staff will follow behind operating a chipping machine, placing rock chips over the emulsion. The rock chips will be forced into the emulsion with two rented roller compactors. Once the rock/emulsion mixture sets, the roadway is swept to remove loose chips.

Estimated Total Project Cost (x1000): \$135.3

Estimated Total Project Cost (Excluding Regular Labor Costs, x1000): \$117.6

General Justification: Chip seal applications are repeated on a 10-year rolling cycle. Chip sealing slows down serious deterioration of the operational canal roadways lessening the need for road removal and reconstruction. An inspection of the 152 miles of operational roadway is conducted each year to determine sections to be chip sealed.

Operating Impact: Failure to maintain good road conditions could directly delay operation and maintenance in the event of road failure, as well as pose a serious threat to the safety of those traveling on the canal roadways.



Photo of Existing Conditions

Friant Water Authority
Major Maintenance Projects
Cost Summary
Proposed for FY 2022

Project Title: Roadway Chip Seal Project

Project Location and Maintenance Department: Approx. MP 30.0 to MP 45.00 / Orange Cove

Estimated Total Project Cost (x1000): \$135.3

Estimated Total Project Cost (Excluding Regular Labor Costs x1000): \$117.6

Breakdown of Estimated Costs

Contract Services: (3 day project)

Emulsion Truck Spread Time - (\$135/hr. for 24 hours.)	\$ 3,240
Chip Spreader w/Operator - (\$5,000 per 8 hr. day)	\$15,000
	Subtotal: \$18,240

Materials:

Emulsion (150 Ton @ \$415/Ton)	\$62,250
Screenings (1,700 Ton @ \$15/Ton)	\$25,500
	Subtotal: \$87,750

Rental Equipment:

Roller - (\$1,300 per week x 2 units)	\$ 2,600
Sweeper - (\$1,135 per week)	\$ 1,135
	Subtotal: \$3,735

Fuel:

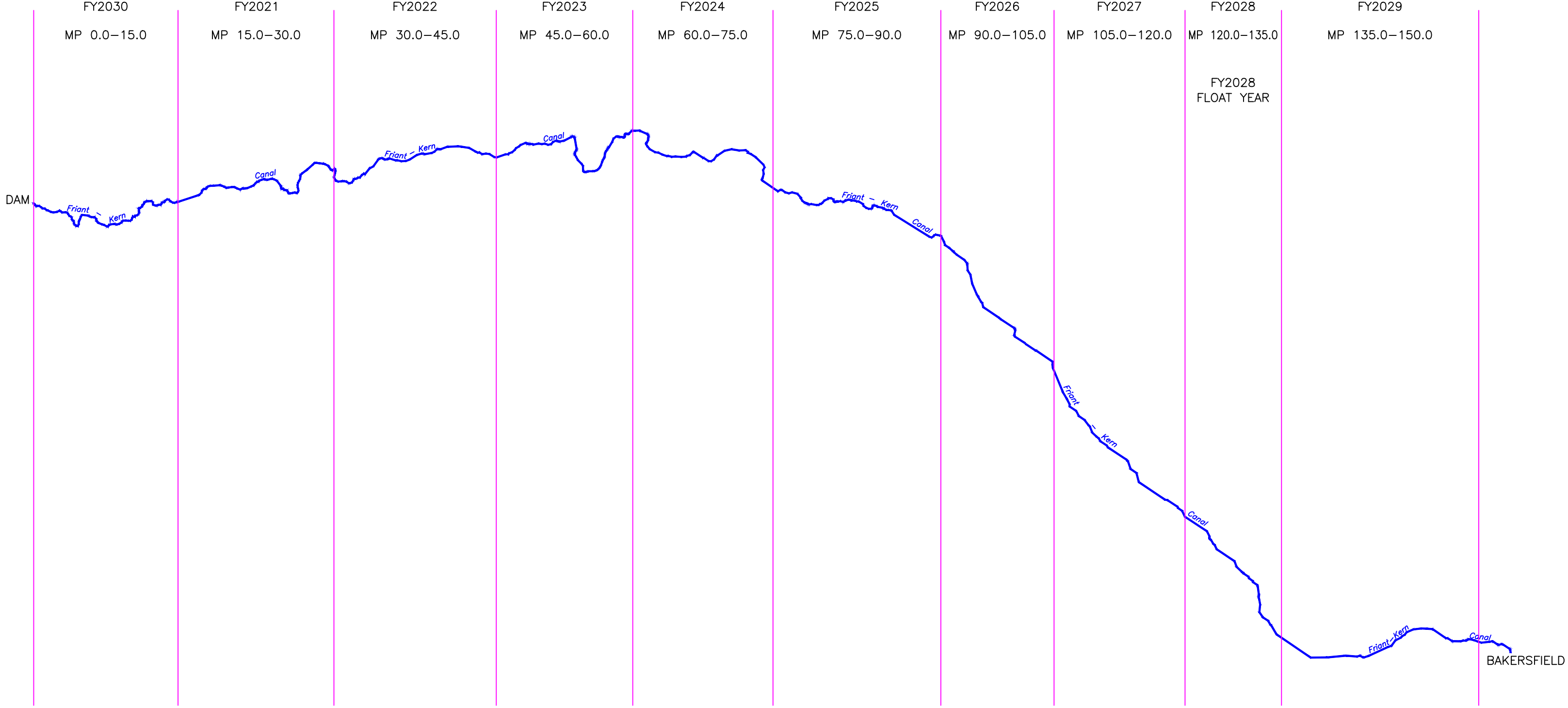
Stockpile - 1,932 gal (23 gal/day x 28 days x 3 trucks)	\$ 7,438
Roller - 90 gal (15 gal/day x 3 days x 2 units)	\$ 347
Sweeper - 30 gal (10 gal/day x 3 days)	\$ 115
Diesel = \$3.85/gallon	
	Subtotal: \$7,900

Regular Labor (Hours and Cost):

Stockpile - 3 CMW (28 days x 8 hr./day @ \$21.65/hr.)	\$14,550
Chip-Seal - 6 CMW (3 days x 8 hr./day @ \$21.65/hr.)	\$ 3,118
	Subtotal: \$17,668

Total: \$135,293

FRIANT WATER AUTHORITY
CHIP SEAL PROJECT
10-YEAR CYCLE



Friant Water Authority
Major Maintenance Projects
Summary Sheet
Proposed for FY 2022

Project Title: Gate Actuator Upgrade

Job Code: 6060

Project Location and Department: Scheduled Gate Actuator upgrade is schedule in various locations along the 152-mile system unless noted otherwise. / Operations.

Project Description: This will be a replacement of both the gate actuator and gate shaft that raise and lower the gates at these various sites. A total of eight actuators and shafts will be replaced. This is part of the standardization plan in the canal system.

Estimated Total Project Cost (x1000): \$ 150.0

Estimated Total Material Cost (Including Fuel Costs, x1000): \$ 120.2

General Justification: This effort is to bring the sites to a higher level of operational reliability and to standardize the gate actuators along the canal system.

Operating Impact: Replacement of these gate actuators will bring a higher level of operational reliability to the canal system by both having new components in service and having standardization in the event of a failure thereby reducing operational downtime.



View of Similar Conditions

Friant Water Authority
Major Maintenance Projects
Cost Summary
Proposed for FY 2022

Project Title: Gate Actuator Upgrade

Project Location and Department: Scheduled Gate Actuator upgrade is scheduled in various locations along the 152-mile system unless noted otherwise. / Operations.

Estimated Total Project Cost (x1000): \$150.0

Estimated Total Material Cost (Including Fuel Costs, x1000): \$120.2

Breakdown of Estimated Costs

Contract Service: n/a

Machine Shop Services

Subtotal: \$19,195

Materials:

6 - 1 Hp Gate Actuators and Shafts @ \$13,700 ea.

\$82,200

2- 4 Hp Gate Actuators and Shafts @ \$19,000 ea.

\$38,000

(Motor Prices include starters, breaks, and cabinets.)

Subtotal: \$120,200

Rental Equipment: n/a

Subtotal: n/a

Fuel: n/a

Subtotal: n/a

Regular Labor (Hours and Cost):

1 - Electrician (25 days @ 8 hr. @ \$30.77/hr.)

\$ 6,154

1 – CMW (20 days x 8 hr./day @ \$27.82/hr.)

\$ 4,451

Subtotal: \$10,605

Total: \$ 150,000

FY 2022
NON-ROUTINE
O & M
PROJECT
JUSTIFICATIONS

**Non-Routine O&M Projects
FY 2022**

Job Code	Project Title	Project Location	Dept.	Total Project Cost
6221	FKC Pump-Back Project	Multiple Sites		\$ 25,000
6225 & 6226	FKC Capacity Correction Project	Middle Reach - Approx. MP 88.2 to MP 121.5		\$ 5,000,000
6230	Ground Water Sustainability Agencies Engagement	Friant Kern Canal and Associated Facilities		\$ 536,600
6370	Friant Kern Canal Water Quality Program	Entire Friant Kern Canal (152 Miles)		\$ 100,000
Totals: \$				5,661,600

Friant Water Authority
Non-Routine O&M Project
Summary Sheet
Proposed for FY 2022

Project Title: Friant Kern Canal Reverse Pump-Back Project

Job Code: 6221

Project Location: Friant-Kern Canal from terminus MP 151.8 to Tule River pool MP 95.67

Project Description: The Secretary of the Interior is authorized in PL-111-11 Section 10201 and directed to conduct feasibility studies in coordination with Friant Water Authority and create improvements or reverse flow pump-back facilities on the Friant-Kern Canal to help manage for water supply lost as part of the San Joaquin River Restoration Program Settlement. In August 2016, Friant Water Authority (FWA) entered into a Financial Assistance Agreement (FAA) with the U. S. Bureau of Reclamation to design and construct Reverse flow Pump-Back facilities in the lower reaches of the FKC. The current project is at 30% design and is looking to build reverse flow pump-back facilities at Shafter Check, Woollomes Check and Deer Creek Check.

Estimated Project Costs (x1000): \$56,000 pre- 30% design estimate
Fiscal Year 2022 Budget = \$25.0

General Justification: This project originally stemmed from the SJRRP to help facilitate the Long-Term Recapture and Recirculation program. It was authorized as part of the settlement program to help Friant Division Contractors keep access to their water utilized to help restore the SJR fishery. This program helps keep the SJR settlement viable.

Operating Impact: The reverse flow pump-back project provides a significant amount of flexibility in making the San Joaquin River Settlement Water Supply initiatives successful. Facilities also have the potential for use by FKC contractors at other drought times when the return of supplies wouldn't be possible without this infrastructure.



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Friant Water Authority
Non-Routine O&M Project
Cost Summary
Proposed for FY 2022

Project Title: Friant Kern Canal Reverse Pump-Back Project

Project Location and Department: Friant-Kern Canal from terminus MP 151.8 to Tule River Check MP 95.67 / Maintenance Department.

Estimated Total Project Cost (x1000): \$56,000 pre- 30% design estimate
Fiscal Year 2022 Budget = \$25.0

Estimated Total Material Cost (Including Fuel Costs, x1000): \$25.0

Breakdown of Estimated Costs

Contract Service:

To assist in bridging the funding gap between the Federal FAA and the Financial Assistance Agreement with the Department of Water Resources

Subtotal: \$25.0

Materials: n/a

Subtotal: n/a

Rental Equipment: n/a

Subtotal: n/a

Fuel: n/a

Subtotal: n/a

Regular Labor (Hours and Cost): Labor Costs will be funded through the Financial Assistance Agreements

Executive Team (COO, CEO, etc....)
Senior Engineer.....	
Engineering Technician.....	

Subtotal: \$0.0

Total: \$ 25,000

Friant Water Authority
Non-Routine O&M Project
Summary Sheet
Proposed for FY 2022

Project Title: FKC Capacity Correction Project – Subsidence Correction

Job Code: 6225 & 6226

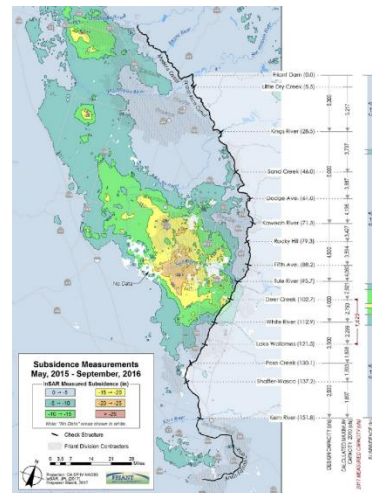
Project Location: Middle Reach - Approx. MP 88.2 to MP 121.5

Project Description: Friant Water Authority is undertaking evaluations of potential conveyance and operational improvements to the FKC to address original design and subsidence induced capacity reductions. The FKC has been subject to regional subsidence for several years. This subsidence-induced capacity reduction is most prevalent in the FKC Middle Reach (MP 88 and MP 122). Increased groundwater pumping during the drought period from 2012 through 2016 has caused further subsidence of the FKC and reduced canal capacity to levels that have the potential to impair water delivery operations.

Estimated Project Costs (x1000): \$350,000 to \$535,000
Fiscal Year 2022 Budget = \$5million

General Justification: For the Subsidence Correction Project, at the March 28, 2019 meeting, the Board of Directors authorize up to \$5M in pre-construction costs to be considered OM&R and directed Staff to budget accordingly. The allocation of the remaining balance of the Project will be determined once the scope of the Project is defined and the Board takes final action to proceed with the construction of the Project.

Operating Impact: Without correction, the capacity of the FKC to deliver a full run of Class 2 supplies would be impaired below Deer Creek Check. This directly affects the flexibility of several districts to schedule contract supplies for delivery.



Friant Water Authority
Non-Routine O&M Project
Cost Summary
Proposed for FY 2022

Project Title: FKC Capacity Correction Project – Subsidence Correction

Project Location and Department: Middle Reach - Approx. MP 88.2 to MP 121.5 /
Maintenance Department.

Estimated Total Project Cost (x1000): \$350,000 to \$535,000
Fiscal Year 2022 Budget = \$5million

Estimated Total Material Cost (Including Fuel Costs, x1000): unknown

Breakdown of Estimated Costs

The \$5 million budgeted for FY 2022 is an estimate for FWA non-federal cost share requirements in FY 2022. While the total FY 2022 non-federal cost-share could be much greater than this amount, until a financing plan for the Project is finalized in the fall of 2020, the exact amount and allocation is not certain. Once a final amount is determined and approved by the FWA board of directors, an adjustment to this amount will be made.

Total: \$5,000,000

Friant Water Authority Non-Routine O&M Project Summary Sheet Proposed for FY 2022

Project Title: Groundwater Sustainability Agencies Engagement

Job Code: 6230

Project Location: Friant-Kern Canal and associated facilities

Project Description: Friant Water Authority has undertaken a review of the various Groundwater Sustainability Plans (GSP) that have the potential to affect the lands adjacent to the Friant-Kern Canal. Through the engagement of Groundwater Sustainability Agencies (GSA), the Authority seeks to protect the facility from adverse impacts like subsidence.

Estimated Project Costs (x1000): \$unknown
Fiscal Year 2022 Budget = \$536.6

General Justification: during the summer of 2019, the FWA Board of Directors sent notice letters regarding undesirable subsidence impacts on the Friant-Kern Canal. This letter requested that each GSP identify the effects of subsidence emanating from or within the various basins on the Friant-Kern Canal and treat it as an undesirable result that must be avoided. Fast forward to summer of 2020 and various GSA have identified impacts to the FKC through transitional pumping. The proposed budget is for the continuation of the monitoring of management actions and mitigation and to prepare for legal action if necessary.

Operating Impact: Potentially has a high operational impact if the Friant-Kern Canal continues to subside without mitigation.

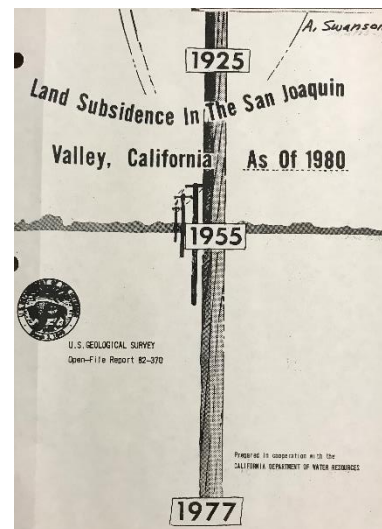
Sustainable Groundwater Management Act

Final Basin Prioritization

State Backstop

Steps to Sustainability

- June 1, 2016:** SGMA requires all basins to develop groundwater sustainability plans.
- June 30, 2017:** Groundwater sustainability plans are due.
- January 31, 2020:** High and medium priority basins must have approved groundwater sustainability plans.
- January 31, 2022:** All basins must have approved groundwater sustainability plans.
- January 31, 2042/52:** All basins must have approved groundwater sustainability plans.



Friant Water Authority
Non-Routine O&M Project
Cost Summary
Proposed for FY 2022

Project Title: Groundwater Sustainability Agencies Engagement

Estimated Total Project Cost (x1000): unknown
Fiscal Year 2022 Budget = \$536.6

Breakdown of Estimated Costs

Contract Service:
Special Counsel for preparing legal actions, if necessary.
Subject matter experts for additional review of impacts.

Subtotal: \$320,000

Contract Service:
Special Counsel for negotiation assistance

Subtotal: \$75,000

Regular Labor (Hours and Cost):
Executive Team (COO, CEO, etc...).....1024 hrs @138.27

Subtotal: \$141,589

Total: \$ 536,589

Friant Water Authority
Non-Routine O&M Project
Summary Sheet
Proposed for FY 2022

Project Title: Friant Kern Canal Water Quality Program

Job Code: 6370

Project Location: Friant-Kern Canal (entire 152 miles)

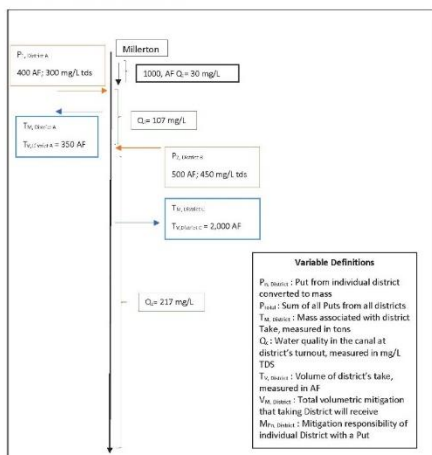
Project Description: Friant Water Authority is embarking on the management of the quality of water delivered through the Friant-Kern Canal. The FKC water quality program will consist of monitoring, measuring and reporting various water quality changes in the FKC associated with the introduction of non-Millerton Lake water. This is the initial costs of standing up a program to be able to satisfy the needs of contractors throughout the system.

Estimated Project Costs (x1000): \$unknwon (depends on the final constituents list and program requirements)
Fiscal Year 2022 Budget = \$100

General Justification: The Board of Directors, at the request of the Water Quality Ad Hoc group has requested that staff pursue management of a Water Quality Plan. This plan originally stemmed from the environmental requirements of both the Long-Term Recapture and Recirculation EIS/R (LTRREIS) and the Friant-Kern Canal Reverse Pump-back Project Environmental Assessment (EA). While the full water quality plan is still being scoped, the Water Quality Ad Hoc group and the Board of Directors requested Staff create a model, start monitoring as appropriate, and create notification when water from the cross-valley system were being introduced to the FKC.

Operating Impact: This estimate assumes implementation of the Friant-Kern Canal Water Quality Policy (Policy) will occur in this fiscal year. Although the costs for finalizing and implementing the Policy will be applied under a separate cost code (and reimbursed through FAA agreements with DWR and Reclamation), the administration and water quality monitoring outlined in the Policy will be applied 6370. A portion of these costs will be reimbursed through a surcharge applied to those Friant contractors that introduce water into the FKC once the Policy is implemented.

Ledger Example with Calculations:



Note: This example is purely hypothetical. All numbers are completely made up for the purpose of showing the process involved in calculating mitigation using the proposed ledger program. The example shown represents a very simplified version of the system. As described above, the program should evaluate various example scenarios including scenarios that include bidirectional flow and takes from the mixing pool.



Friant Water Authority
Non-Routine O&M Project
Cost Summary
Proposed for FY 2022

Project Title: Friant Kern Canal Water Quality Program

Project Location and Department: Friant-Kern Canal (entire 152 miles) /Operations
Department

Estimated Total Project Cost (x1000): \$unknown (depends on the final constituents list
and program requirements)
Fiscal Year 2022 Budget = \$100

Breakdown of Estimated Costs

Contract Service: (Stantec)

All contracting services billed under reimbursable tasks of 6221 (Pumpback) for technical support of managing CEQA mitigation requirements

Regular Labor (Hours and Cost):

It is assumed that the implementation of the Policy will occur part-way through the fiscal year and will require the hiring of another full-time staff member. This staff member will be required to:

- Maintain and calibrate conductivity meters on a bi-weekly basis
- Perform water quality sampling during pump-in operations, coordinate laboratory water quality testing
- Oversee FWA staff , coordinate with Friant Division contractors on water quality data
- Manage water quality and operations database
- Perform weekly water quality reporting and forecasting using FKC Water Quality Model
- Perform weekly analysis to determine mitigation and distribution to respective Friant districts using the FKC Water Quality Mitigation Ledger
- Coordinate with U.S. Department of the Interior, Bureau of Reclamation's South-Central California Area Office on water quality reporting, mitigation, and contractual requirements
- Coordinate and facilitate FWA committee on water quality

Subtotal: \$100,000

Total: \$ 100,000

FY 2022
VEHICLES
&
EQUIPMENT

**Equipment & Vehicles Acquisition
FY 2022**

Job Code	<u>Equipment & Vehicles</u>	Location	Dept.	Total Cost
6119	Forklift	Orange Cove	10	\$ 30,000
6119	1 Ton Flatbed Truck	Orange Cove	10	\$ 31,000
6299	RTA 2302 John Deere 770B Grader	Lindsay	20	\$ 541,000
6299	Front-End Loader	Lindsay	20	\$ 315,000
			Totals: \$	917,000

Friant Water Authority
Vehicle/Equipment Replacement
Justification Form
Proposed FY 2022

Date: 04-29-20

FY-2022

Vehicle/Equipment: 1401

Job Code: 6119

Replacement: **Addition:**

Estimated Cost: \$30,000

Proposed Delivery Date: FY-2022

Department: Maintenance

Maintenance Yard: Orange Cove

Purpose of Vehicle/Equipment: Heavy Lifting.

Reason(s) for Replacement: Current forklift engine smokes and needs overhaul. Transmission is slow to engage. Brake system is also in need of repair.

Description of How Vehicle/Equipment Augmentation Facilitates O&M Activities: Loading and unloading trucks.



Friant Water Authority
Vehicle/Equipment Replacement
Justification Form
Proposed FY 2022

Date: 04-29-20

FY-2022

Vehicle/Equipment: 1015

Job Code: 6119

Replacement: **Addition:**

Estimated Cost: \$31,000

Proposed Delivery Date: FY-2022

Department: Maintenance

Maintenance Yard: Orange Cove

Purpose of Vehicle/Equipment: This vehicle is used by FWA canal maintenance staff primarily for routine maintenance activities.

Reason(s) for Replacement: Reliability

Description of How Vehicle/Equipment Augmentation Facilitates O&M Activities: This vehicle is used to facilitate various routine and special projects including: Road maintenance, embankment projects, painting projects and copper sulfate applications.



Friant Water Authority
Vehicle/Equipment Replacement Justification
Mechanics Report
Proposed For FY 2022

Date: 04-29-2020

Vehicle/Equipment I.D. 1015

License #: 900544

Year: 2006

Age (yrs.): 14

Make: Ford

Model: 350

Department: Maintenance

Maintenance Yard: O.C.

Current Mileage/Hours: 110,350

GENERAL CONDITIONS:	POOR	FAIR	GOOD	EXCELLENT
Body and Interior:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suspension:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drive Train:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Engine:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

History of Repairs: Engine & electrical issues.

Estimated Future Repair Cost: Engine, Transmission: \$10K

Safety Concerns: Engine failure.

Mechanic's Recommendations: Replace before major component failure.

Estimated Salvage Value: \$3,500

Prepared By: Josh Taylor

Friant Water Authority
Vehicle/Equipment Replacement
Justification Form
Proposed for FY 2022

Date: 05/20/20

FY-2022

Vehicle/Equipment: RTA 2302 John Deere 770B Grader

Job Code: 6299

Replacement: **Addition:**

Estimated Cost: \$541,000

Proposed Delivery Date: FY-2022

Department: Maintenance

Maintenance Yard: Lindsay

Purpose of Vehicle/Equipment: The motor grader has been used for many routine and extraordinary projects such as: ROW maintenance, road maintenance, embankment repairs, canal lining replacement, and removal of debris.

Reason(s) for Replacement: Although the machine has been well maintained with over 15k hours, it is nearing its designed life expectancy. We are beginning to experience reliability issues with the machine and CARB requires this machine to be retired from the Friant Water Authority fleet by December 31, 2022. The engine is original and has had no major repairs; it should be expected to need overhauled in the next few years.

Description of How Vehicle/Equipment Augmentation Facilitates O&M Activities: The motor grader has been a very useful tool as indicated by the number of hours on it. It is an asset to the Authority. Rental for this type of machine runs \$9,500-\$10,500 per month currently and can be expected to go up as rental companies have to update their fleets. Rental units are subject to availability, sometimes requiring motor graders to be hauled in from other areas, incurring additional expenses.

Friant Water Authority
Vehicle/Equipment Replacement
Justification Form
Proposed for FY 2022

Date: 05/20/20

FY-2022

Vehicle/Equipment: RTA 2303 John Deere 624G

Job Code: 6299

Replacement: **Addition:**

Estimated Cost: \$315,000

Proposed Delivery Date: FY-2022

Department: Maintenance

Maintenance Yard: Lindsay

Purpose of Vehicle/Equipment: The front loader has been used for many routine and extraordinary projects such as: cleaning toe drains, cleaning out under drains, clearing vegetation from river over crossings, embankment repairs, canal lining replacement, canal de-silting, and removal of debris.

Reason(s) for Replacement: Although the machine has been well maintained with over 15k hours, it is nearing its designed life expectancy. We are beginning to experience reliability issues with the machine and CARB requires this machine to be retired from the Friant Water Authority fleet by December 31, 2022. The engine is original and has had no major repairs; it should be expected to need overhauled in the next few years.

Description of How Vehicle/Equipment Augmentation Facilitates O&M Activities: The excavator has been a very useful tool as indicated by the number of hours on it. It is an asset to the Authority. Rental for this type of machine runs \$9,500-\$10,500 per month currently and can be expected to go up as rental companies have to update their fleets. There is not an abundance of these machines in our area, so rental is subject to availability, sometimes requiring units to be hauled in from other areas, incurring additional expenses.

