



**FIVE YEAR  
Capital Improvement Plan  
2015—2019**

**Approved October 14, 2014**



## 2015-2019 CAPITAL IMPROVEMENT PLAN

	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2019 PLANNED	FIVE-YEAR PLAN TOTAL
<b>FERC</b>	\$855,436	\$2,919,709	\$2,981,020	\$897,371	\$313,762	\$7,967,298
<b>Water</b>	\$4,903,680	\$6,641,000	\$4,678,600	\$5,544,000	\$5,811,000	\$27,578,280
<b>Wastewater</b>	\$6,137,000	\$2,672,750	\$3,579,750	\$3,607,750	\$1,587,750	\$17,585,000
<b>Recycled Water</b>	\$50,000	\$35,000	\$150,000	\$0	\$0	\$235,000
<b>Hydroelectric</b>	\$5,305,000	\$13,600,000	\$13,235,000	\$4,175,000	\$6,765,000	\$43,080,000
<b>Recreation</b>	\$92,000	\$0	\$0	\$0	\$0	\$92,000
<b>General District</b>	\$2,283,400	\$1,761,500	\$1,431,000	\$1,427,500	\$1,205,000	\$8,108,400
<b>TOTAL</b>	<b>\$19,626,516</b>	<b>\$27,629,959</b>	<b>\$26,055,370</b>	<b>\$15,651,621</b>	<b>\$15,682,512</b>	<b>\$104,645,978</b>

### EL DORADO IRRIGATION DISTRICT FIVE-YEAR CAPITAL IMPROVEMENT PLAN 2014-2018

	2014 PLANNED	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	FIVE-YEAR PLAN TOTAL
<b>FERC</b>	\$718,436	\$1,112,709	\$2,870,020	\$973,371	\$409,762	\$6,084,298
<b>Water</b>	\$5,612,000	\$4,447,400	\$4,485,600	\$4,966,000	\$3,703,000	\$23,214,000
<b>Wastewater</b>	\$3,831,000	\$4,165,500	\$3,295,500	\$3,265,500	\$2,395,500	\$16,953,000
<b>Recycled Water</b>	\$85,000	\$150,000	\$0	\$0	\$0	\$235,000
<b>Hydroelectric</b>	\$3,060,000	\$9,930,000	\$10,370,000	\$2,655,000	\$3,850,000	\$29,865,000
<b>Recreation</b>	\$100,000	\$92,000	\$90,500	\$100,000	\$0	\$382,500
<b>General District</b>	\$3,810,950	\$1,254,500	\$1,110,500	\$695,000	\$390,000	\$7,260,950
<b>TOTAL</b>	<b>\$17,217,386</b>	<b>\$21,152,109</b>	<b>\$22,222,120</b>	<b>\$12,654,871</b>	<b>\$10,748,262</b>	<b>\$83,994,748</b>



## 2015 - 2019 Capital Improvement Plan FERC Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2019 PLANNED	2015-2019 TOTAL
13019	FERC C59 SFAR North Structures	FERC	1	20,000	0	0	0	0	20,000
06019H	FERC C35 OYSTER CREEK	FERC	1	50,000	235,000	0	0	0	285,000
06021H	FERC C37.8 WATER TEMP	FERC	1	30,000	20,000	30,000	20,000	30,000	130,000
06076H	FERC:C38.4B CAPLES Spillway Channel Stabilization	FERC	1	50,000	50,000	250,000	0	0	350,000
06078H	FERC:C50.3 CAPLES DAM PRK Lot Improvements	FERC	1	10,000	10,000	0	0	0	20,000
06082H	FERC:C50.1 SILVER LAKE EAST CG FS Upgrade	FERC	1	150,000	1,000,000	1,000,000	500,000	0	2,650,000
07003H	FERC C37.9 WATER QUALITY	FERC	1	0	80,000	0	80,000	0	160,000
07008H	FERC C51.8 SILVER LAKE CG West Upgrade	FERC	1	25,000	25,000	300,000	0	0	350,000
07010H	FERC C15 PESTICIDE USE	FERC	1	70,000	70,000	70,000	70,000	70,000	350,000
07011H	FERC C38 ADAPTIVE MGMT	FERC	1	50,000	50,000	50,000	50,000	50,000	250,000
PLANNED	FERC:C50.2 CAPLES LAKE CAMPGROUND	FERC	1	150,000	900,000	900,000	0	0	1,950,000
10007	FERC C51.2 RM Caples Boat Launch	FERC	1	40,000	40,000	40,000	40,000	40,000	200,000
06023H	FERC C39 FISH SCREENS	FERC	1	40,000	0	0	0	0	40,000
06024H	FERC C40 Gaging Facility	FERC	1	15,000	40,000	0	0	0	55,000
06025H	FERC C41 Canal Release point	FERC	1	5,000	0	40,000	0	0	45,000
06081H	FERC:C50.8 Pacific Crest Trail Crossing	FERC	1	2,000	2,000	0	0	0	4,000
06086H	FERC:C33 LAKE ALOHA TROUT	FERC	1	12,000	12,000	12,000	12,000	12,000	60,000
06096H	FERC:C56 HERITAGE RSRCE	FERC	1	25,000	0	0	0	0	25,000
06098H	FERC:C46-9 RECREATION RSC	FERC	1	25,000	25,000	25,000	25,000	25,000	125,000
07005H	FERC C51.3 RM ECHO TRAIL	FERC	1	5,000	5,000	50,000	0	0	60,000
07006H	FERC C51.5&C51.7 RM USFS	FERC	1	42,436	43,709	45,020	46,371	47,762	225,298
07009H	FERC C51.8 RM WOODS CREEK	FERC	1	5,000	5,000	5,000	5,000	5,000	25,000
08025H	FERC C44 Noxious Weed Implementation	FERC	1	17,000	34,000	17,000	17,000	17,000	102,000
06087H	FERC:C37.1 FISH MONITORING	FERC	1	0	60,000	60,000	0	0	120,000
06088H	FERC:C37.2 MACROINVERTEB	FERC	1	0	55,000	55,000	0	0	110,000
06089H	FERC:C37.3 AMPHIBIAN MON	FERC	1	17,000	87,000	17,000	17,000	17,000	155,000
06090H	FERC:C37.4 RIPARIAN SPEC	FERC	1	0	14,000	0	0	0	14,000
06091H	FERC:C37.5 RIPARN RECRUIT	FERC	1	0	12,000	0	0	0	12,000
06092H	FERC:C37.7 GEOMORPH EVAL	FERC	1	0	45,000	10,000	10,000	0	65,000
06097H	FERC C59 Facility Management Plan	FERC	1	0	0	0	5,000	0	5,000
07030H	FERC C57 Transportation Management Plan	FERC	1	0	0	5,000	0	0	5,000
				<b>855,436</b>	<b>2,919,709</b>	<b>2,981,020</b>	<b>897,371</b>	<b>313,762</b>	<b>7,967,298</b>



## 2015 - 2019 Capital Improvement Plan Water Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2019 PLANNED	2015-2019 TOTAL
PLANNED	Greenstone Tank Telemetry Installation	WA	1	45,000	0	0	0	0	45,000
10022	Silva Valley Interchange (DOT)	WA	1	200,000	100,000	0	0	0	300,000
14015	R1WTP Spent Backwash Treatment	WA	1	50,000	250,000	336,600	1,000,000	0	1,636,600
09006E	Blakely Reservoir Improvements	WA	1	1,400,000	0	0	0	0	1,400,000
PLANNED	DOT Construction Projects - Water	WA	1	25,000	25,000	25,000	25,000	25,000	125,000
SDWL04	Reservoir Floating Cover Replacement Program	WA	1	30,000	30,000	30,000	30,000	30,000	150,000
11032	Main Ditch - Forebay to Res 1	WA	2	500,000	2,550,000	2,550,000	25,000	0	5,625,000
13014	Monte Vista Tank Replacement	WA	2	110,000	800,000	0	0	0	910,000
14003	Res 3 Tank Upgrade	WA	2	980,000	0	0	0	0	980,000
14006	Rancho Del Sol Waterline	WA	2	93,680	0	0	0	0	93,680
14019	Res A Chemical Feed/Containment	WA	2	265,000	200,000	0	0	0	465,000
PLANNED	Water Tank Recoating Program	WA	2	0	1,005,000	1,000,000	1,565,000	975,000	4,545,000
14027	PLC Replacement	WA	2	260,000	70,000	0	0	0	330,000
12028	Water Facility Replacement Program	WA	2	120,000	50,000	100,000	100,000	100,000	470,000
13008	Water Generator Replacement	WA	2	0	125,000	0	125,000	0	250,000
13015	Outingdale Lower Tank Replacement	WA	2	0	548,000	0	0	0	548,000
13043	Outingdale WTP Automation Replacement	WA	2	75,000	0	0	0	0	75,000
14016	Moosehall Pump Station Upgrade	WA	2	350,000	0	0	0	0	350,000
14025	Waterline Replacement Program	WA	2	25,000	25,000	25,000	25,000	25,000	125,000
PLANNED	Water SCADA Network Reliability Program	WA	2	155,000	150,000	0	0	0	305,000
PLANNED	Sly Park Intertie	WA	2	0	288,000	317,000	1,354,000	2,361,000	4,320,000
PLANNED	EDH Raw Water Pump Station Upgrades	WA	2	100,000	200,000	200,000	1,000,000	1,000,000	2,500,000
PLANNED	EDHWTP Process Controls Replacement	WA	2	0	0	0	200,000	1,200,000	1,400,000
10015	Water System Upgrades	WA	2	25,000	0	0	0	0	25,000
PLANNED	PRS Replacement Program	WA	2	10,000	10,000	10,000	10,000	10,000	50,000
PLANNED	Pump Station Upgrade Program	WA	2	10,000	10,000	10,000	10,000	10,000	50,000
PLANNED	Spencers Road Waterline Replacement	WA	2	0	130,000	0	0	0	130,000
PLANNED	Permit 21112 Change in Point of Diversion	WA	2	75,000	75,000	75,000	75,000	75,000	375,000
				<b>4,903,680</b>	<b>6,641,000</b>	<b>4,678,600</b>	<b>5,544,000</b>	<b>5,811,000</b>	<b>27,578,280</b>



## 2015 - 2019 Capital Improvement Plan Wastewater Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2019 PLANNED	2015-2019 TOTAL
14020	Carson Creek 1 Lift Station	WW	1	1,250,000	50,000	0	0	0	1,300,000
10018	Rancho Ponderosa Decommissioning	WW	1	10,000	0	0	0	0	10,000
12030	DCWWTP Permit Renewal	WW	1	175,000	50,000	0	0	0	225,000
13009	Camino Heights WWTP Permit	WW	1	75,000	25,000	0	0	0	100,000
14028	EDHWWTP Odor Control	WW	1	750,000	200,000	0	0	0	950,000
11011	Deer Creek WWTP Crossing	WW	1	3,000	3,000	0	0	0	6,000
14021	DOT Construction Projects - WW	WW	1	25,000	25,000	25,000	25,000	25,000	125,000
13024	El Dorado Lift Station Upgrades	WW	2	0	712,000	312,000	0	0	1,024,000
13026	2013 Lift Station Upgrades	WW	2	300,000	225,000	0	0	0	525,000
14007	Camino Heights Automation Replacement	WW	2	200,000	0	0	0	0	200,000
PLANNED	EDHWWTP WAS/DAFT	WW	2	95,000	265,000	0	0	0	360,000
PLANNED	Bridlewood Lift Station Rehab	WW	2	1,100,000	35,000	0	0	0	1,135,000
11028	Strolling Hills Sewer Pipeline	WW	2	0	0	0	25,000	100,000	125,000
12012	Wastewater Generator Replacement	WW	2	0	0	230,000	0	230,000	460,000
12021	WW SCADA System Reliability	WW	2	99,000	72,750	72,750	72,750	72,750	390,000
13005	Deer Creek - Motherlode Collection System (CAP)	WW	2	80,000	80,000	80,000	80,000	80,000	400,000
13021	EDHWWTP Corrective Action Plan	WW	2	80,000	80,000	80,000	80,000	80,000	400,000
13034	Wastewater Facility Replacement Program	WW	2	200,000	100,000	100,000	100,000	100,000	600,000
PLANNED	Business Park 3 Lift Station Improvements	WW	2	0	0	0	100,000	600,000	700,000
PLANNED	South Point Lift Station Rehab	WW	2	0	0	1,450,000	0	0	1,450,000
PLANNED	Summit 1 and 3 Lift Station Improvements	WW	2	0	0	100,000	1,075,000	0	1,175,000
PLANNED	Wastewater SCADA Network Reliability Program	WW	2	125,000	150,000	0	0	0	275,000
PLANNED	Rancho Ponderosa Lift Station Rehab	WW	2	0	0	30,000	700,000	0	730,000
PLANNED	Waterford 7 Lift Station Rehab	WW	2	0	0	700,000	0	0	700,000
PLANNED	Wastewater Corrosion Improvements	WW	2	50,000	125,000	125,000	125,000	125,000	550,000
PLANNED	Wastewater Pipeline Replacement Program	WW	2	25,000	25,000	25,000	25,000	25,000	125,000
14022	DCWWTP Biosolids	WW	2	775,000	250,000	0	0	0	1,025,000
13004	Lift Station Elimination Study	WW	2	50,000	50,000	50,000	0	0	150,000
14026	Ridgeview 10 Lift Station Removal	WW	2	350,000	0	0	0	0	350,000
PLANNED	EDHWWTP Energy and Process Audit	WW	2	70,000	0	0	0	0	70,000
12015	DCWWTP Change of Use Permit	WW	2	175,000	100,000	50,000	0	0	325,000
14001	Silva Valley Pipeline	WW	2	25,000	0	0	0	0	25,000
14002	El Dorado Hills Pipeline	WW	2	25,000	0	0	0	0	25,000
13023	Town Center Force Main	WW	2	25,000	50,000	150,000	1,200,000	150,000	1,575,000
				<b>6,137,000</b>	<b>2,672,750</b>	<b>3,579,750</b>	<b>3,607,750</b>	<b>1,587,750</b>	<b>17,585,000</b>



## 2015 - 2019 Capital Improvement Plan Recycled Water Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2019 PLANNED	2015-2019 TOTAL
PLANNED	Recycled Water Salt and Nutrient Mgmt Plan	RW	1	50,000	0	0	0	0	50,000
PLANNED	Recycled Water System Improvements	RW	2	0	35,000	150,000	0	0	185,000
				<b>50,000</b>	<b>35,000</b>	<b>150,000</b>	<b>0</b>	<b>0</b>	<b>235,000</b>



## 2015 - 2019 Capital Improvement Plan Hydroelectric Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2019 PLANNED	2015-2019 TOTAL
03011H	Forebay Dam Upgrades	HY	1	200,000	8,900,000	8,900,000	0	0	18,000,000
04005H	Powerhouse Upgrade	HY	1	120,000	0	0	0	0	120,000
11003	Caples Lake Dams Regulatory Improvements	HY	1	30,000	0	0	0	0	30,000
11004	Lake Aloha Dam Regulatory Improvements	HY	1	5,000	5,000	70,000	300,000	0	380,000
11005	Silver Lake Dam Regulatory Improvements	HY	1	50,000	0	0	0	0	50,000
14023	Flume 42-43 Replacement	HY	1	100,000	0	0	0	0	100,000
14029	Esmeralda Tunnel	HY	1	2,995,000	0	0	0	0	2,995,000
PLANNED	Pacific Tunnel	HY	2	50,000	450,000	0	0	0	500,000
11008	Flume 39-40 Replacement	HY	2	765,000	0	0	0	0	765,000
11009	Flume 45 Replacement	HY	2	250,000	3,000,000	0	0	0	3,250,000
PLANNED	2015 Canals and Flumes Upgrade	HY	2	100,000	100,000	100,000	100,000	100,000	500,000
PLANNED	Powerhouse PLC Replacement	HY	2	90,000	0	0	0	0	90,000
11023	Echo Conduit Replacement	HY	2	100,000	200,000	100,000	100,000	2,000,000	2,500,000
13022	Flume 52A Replacement	HY	2	0	0	0	3,100,000	0	3,100,000
14024	Flume 44 Replacement	HY	2	50,000	100,000	2,600,000	0	0	2,750,000
PLANNED	Hydro SCADA Network Reliability Program	HY	2	50,000	75,000	0	0	0	125,000
PLANNED	Penstock Assessment	HY	2	150,000	100,000	500,000	0	0	750,000
PLANNED	Silver Lake Dam Upgrades	HY	2	0	0	10,000	175,000	175,000	360,000
PLANNED	Flume 45A Replacement	HY	2	0	0	755,000	0	0	755,000
PLANNED	Flume 47 Replacement	HY	2	0	570,000	0	0	0	570,000
PLANNED	Alder and Plum Siphon Assessments	HY	2	0	0	50,000	0	0	50,000
PLANNED	Caples Outlet Works Improvements	HY	2	125,000	0	0	0	0	125,000
PLANNED	Flume 4 Replacement	HY	2	0	0	0	0	100,000	100,000
PLANNED	Flume 46A Replacement	HY	2	0	0	0	150,000	640,000	790,000
PLANNED	Flume 48 Replacement	HY	2	0	0	50,000	150,000	3,750,000	3,950,000
PLANNED	Project 184 SCADA System HW Replacement	HY	2	75,000	100,000	100,000	100,000	0	375,000
				<b>5,305,000</b>	<b>13,600,000</b>	<b>13,235,000</b>	<b>4,175,000</b>	<b>6,765,000</b>	<b>43,080,000</b>



## 2015 - 2019 Capital Improvement Plan Recreation Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2019 PLANNED	2015-2019 TOTAL
PLANNED	Main Day Use Improvements	RE	2	43,000	0	0	0	0	43,000
PLANNED	Bumpy Meadows Improvements	RE	3	49,000	0	0	0	0	49,000
				<b>92,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>92,000</b>

### General District Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2019 PLANNED	2015-2019 TOTAL
12026	ADA Title II Compliance	GD	1	20,000	0	0	0	0	20,000
89069E	Water Rights for 17,000 Acre Feet	GD	1	50,000	0	0	0	0	50,000
06004G	SMUD / El Dorado Agreement Water Rights	GD	1	442,000	150,000	120,000	0	0	712,000
PLANNED	Business IT Infrastructure Reliability Program	GD	2	337,000	516,000	425,000	525,000	660,000	2,463,000
PLANNED	SCADA Configuration and Alarm Response	GD	2	100,000	100,000	100,000	100,000	0	400,000
PLANNED	Security Equipment Reliability Program	GD	2	137,400	33,000	13,500	0	0	183,900
PLANNED	Cyber Security Improvements	GD	2	0	107,500	102,500	107,500	25,000	342,500
PLANNED	SCADA Hardware Replacement	GD	2	100,000	100,000	100,000	100,000	100,000	500,000
PLANNED	2015 Vehicle Replacement Program	GD	2	477,000	0	0	0	0	477,000
PLANNED	SCADA Disaster Recovery Software	GD	2	70,000	0	0	0	0	70,000
14012	AMR/Small Meter Replacement	GD	2	100,000	100,000	100,000	100,000	100,000	500,000
PLANNED	Business Application Software Enhancement Program	GD	3	150,000	150,000	150,000	150,000	150,000	750,000
PLANNED	Enterprise GIS	GD	3	300,000	505,000	320,000	345,000	170,000	1,640,000
				<b>2,283,400</b>	<b>1,761,500</b>	<b>1,431,000</b>	<b>1,427,500</b>	<b>1,205,000</b>	<b>8,108,400</b>



# FERC Projects

**2015****CAPITAL IMPROVEMENT PLAN Program:****FERC**

**Project Number:** 06019H  
**Project Name:** FERC: C35 Oyster Creek  
**Project Category:** Regulatory Requirements

**Priority:** 1      **PM:** Eymann      **Board Approval:** 10/14/14

**Project Description:**

This project is required by Condition 35 of the Settlement Agreement, and the USFS 4(e) Conditions part of the FERC License. The licensee shall be responsible for those portions of the plan that the FS, in cooperation with the licensee, determines to be Project-related by 2011. The District has conducted a channel assessment and prepared a stabilization plan as required by FS for the Oyster Creek channel. The FS and SWRCB have approved the District's revised plan in 2013. Environmental permitting is ongoing through 2015 with construction anticipated in 2016.

**Basis for Priority:**

EID would not be in compliance with the Settlement Agreement and USFS 4(e) Condition requirements contained in the FERC License.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 294,950	<b>Expenditures through end of year:</b>	\$ 197,953
<b>Spent to Date:</b>	\$ 192,953	<b>2015 - 2019 Planned Expenditures:</b>	\$ 285,000
<b>Cash flow through end of year:</b>	\$ 5,000	<b>Total Project Estimate:</b>	\$ 482,953
<b>Project Balance</b>	\$ 96,997	<b>Additional Funding Required</b>	\$ 188,003

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design	\$ 50,000					\$ 50,000
Construction		\$ 235,000				\$ 235,000
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ 235,000	\$ -	\$ -	\$ -	\$ 285,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number: 06021H  
 Project Name: FERC C37.8 Water Temperature  
 Project Category: Regulatory Requirements  
 Priority: 1 PM: Deason Board Approval: 10/14/14

**Project Description:**

Mandatory requirement of the FERC license. Funding is necessary to implement an annual water temperature monitoring program at project reservoirs and stream reaches. The data collected from this monitoring effort will be used to determine if the coldwater beneficial uses are being met in designated project reaches.

**Basis for Priority:**

If unfunded, EID would be out of compliance with the FERC license, Sections 7 and 12 of the Settlement Agreement, USFS 4(e) conditions 37 and 42, and SWRCB Water Quality Certification condition 14.

Project Financial Summary:			
Funded to Date:	\$ 191,000	Expenditures through end of year:	\$ 168,502
Spent to Date:	\$ 168,502	2015 - 2019 Planned Expenditures:	\$ 130,000
Cash flow through end of year:		Total Project Estimate:	\$ 298,502
Project Balance	\$ 22,498	Additional Funding Required	\$ 107,502

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Monitoring	\$25,000	\$15,000	\$25,000	\$15,000	\$25,000	\$ 105,000
Reporting	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 25,000
						\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 30,000</b>	<b>\$ 20,000</b>	<b>\$ 30,000</b>	<b>\$ 20,000</b>	<b>\$ 30,000</b>	<b>\$ 130,000</b>

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$3,976
Water Rates	47%		\$3,526
			\$0
<b>Total</b>	<b>100%</b>		<b>\$7,502</b>

**Funding Comments:**

Annual monitoring is required until it can be demonstrated that operation of the project reasonably protects the cold freshwater beneficial use as determined by the SWRCB, FS, and ERC; coordinated with water quality sampling in even numbered years

**Project Number:** 06023H  
**Project Name:** FERC C39 Fish Screens  
**Project Category:** Regulatory Requirements

**Priority:** 1      **PM:** Noel      **Board Approval:** 10/14/14

**Project Description:**

Required by the License Settlement Agreement and the USFS 4(e) Condition 39, the District developed a plan for screening Carpenter and Alder Creeks for all life stages of trout. The plan was approved by the FS and CDFG after consultation with the SWRCB and ERC prior to the licensee's implementing the plan. The Alder Creek fish screen was completed in 2010. The Carpenter Diversion structure was removed in 2013. In 2013, the USFS requested the District to remove the diversion structure at Mill Creek. Staff is developing a plan for approval by the USFS and FERC to remove the facility as a Project 184 feature.

**Basis for Priority:**

This project is currently underway to comply with the FERC License, Settlement Agreement and USFS 4(e) Condition requirements.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 303,200	<b>Expenditures through end of year:</b>	\$ 237,996
<b>Spent to Date:</b>	\$ 237,996	<b>2015 - 2019 Planned Expenditures:</b>	\$ 40,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 277,996
<b>Project Balance</b>	\$ 65,204	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design						\$ -
Construction	\$40,000				\$ -	\$ 40,000
						\$ -
<b>TOTAL</b>	<b>\$ 40,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 40,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

**Project Number:** 06024H  
**Project Name:** FERC: C40 Gaging Facilities  
**Project Category:** Regulatory Requirements

**Priority:** 1      **PM:** Noel      **Board Approval:** 10/14/14

**Project Description:**

Required by the License Settlement Agreement USFS 4(e) Conditions 40, the District must develop and file for FERC approval a Streamflow and Reservoir Storage Gaging Plan (gaging plan) that meets United States Geological Survey (USGS) standards. The licensee shall implement the plan upon approval. The plan was approved in 2008 and implementation is now ongoing.

Gage improvements completed to date: A-6, A-13, A-24,A-10, A-51,A-54 (in progress)  
 To be completed: No Name Cr below Diversion (A-50), Bull Cr Diversion (A-52), and Ogilby Cr below Diversion (A-53)

**Basis for Priority:**

The project is required by the Project 184 FERC License and is on-going.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 165,000	<b>Expenditures through end of year:</b>	\$ 119,032
<b>Spent to Date:</b>	\$ 119,032	<b>2015 - 2019 Planned Expenditures:</b>	\$ 65,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 184,032
<b>Project Balance</b>	\$ 45,968	<b>Additional Funding Required</b>	\$ 19,032

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Planning/Environmental	\$ 5,000					\$ 5,000
Design	\$ 10,000	\$ 10,000				\$ 20,000
Construction		\$ 30,000				\$ 30,000
						\$ -
<b>TOTAL</b>	\$ 15,000	\$ 40,000	\$ -	\$ -	\$ -	\$ 55,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number:

06025H

Project Name:

FERC: C41 Canal Release Points

Project Category:

Regulatory Requirements

Priority:

1

PM:

Noel

Board Approval:

10/14/14

Project Description:

Required by the License Settlement Agreement and USFS 4(e) Condition 41, the District must develop and file for FERC approval a canal drainage structure and release point plan. The licensee shall implement the plan upon approval. The plan has been approved and implementation is underway. An update to the plan is needed in 2015 to include the upgrades made at SW46 and the removal of SW47C.

Remaining work includes: SW 3 and SW20 A/B improvements as identified in the plan to be completed by 2017.

Basis for Priority:

This project is required by the Project 184 FERC License and is on-going.

Project Financial Summary:

Funded to Date:	\$ 50,000	Expenditures through end of year:	\$ 28,240
Spent to Date:	\$ 28,240	2015 - 2019 Planned Expenditures:	\$ 45,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 73,240
Project Balance	\$ 21,760	Additional Funding Required	\$ 23,240

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 5,000					\$ 5,000
Design						\$ -
Construction			\$ 40,000			\$ 40,000
						\$ -
<b>TOTAL</b>	\$ 5,000	\$ -	\$ 40,000	\$ -	\$ -	\$ 45,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 06076H  
**Project Name:** FERC C38.4b Caples Spillway Channel Stabilization  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Eymann **Board Approval:** 10/14/14

**Project Description:**

The USFS and SWRCB requires a stabilization plan (Plan) for the spillway channel below Caples Lake Auxiliary Dam. The level of stabilization has yet to be approved and it is conceptual to estimate the costs. The Plan has been submitted for approval with final design planned for 2014, permitting in 2014-2016 and construction in 2017. The construction estimate requires significant further detailed project development and cost estimating which will occur when regulatory input is received upon the plan.

**Basis for Priority:**

Compliance with the FERC license, Section 8 of the Settlement Agreement, USFS 4(e) conditions 38.4b, and SWRCB Water Quality Certification condition 5.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 232,692	<b>Expenditures through end of year:</b>	\$ 193,464
<b>Spent to Date:</b>	\$ 188,464	<b>2015 - 2019 Planned Expenditures:</b>	\$ 350,000
<b>Cash flow through end of year:</b>	\$ 5,000	<b>Total Project Estimate:</b>	\$ 543,464
<b>Project Balance</b>	\$ 39,228	<b>Additional Funding Required</b>	\$ 310,772

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design	\$ 50,000	\$ 50,000				\$ 100,000
Construction			\$ 250,000			\$ 250,000
<b>TOTAL</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 250,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 350,000</b>

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$5,709
Water Rates	47%		\$5,063
			\$0
<b>Total</b>	<b>100%</b>		<b>\$10,772</b>

**Funding Comments:** Construction costs TBD after the stabilization plan has been approved by the USFS and SWRCB

**Project Number:** 06078H  
**Project Name:** FERC: C50.3 Caples Lake Dam Parking Improvements  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Noel **Board Approval:** 10/14/14

**Project Description:**

Required by the License Settlement Agreement, and the USFS 4(e) Conditions 50.3, the District must improve the Caples Lake Dam Parking area and shall be reconstructed and upgraded to meet the current FS design standards and the USDA Forest Service Region 5 access standards and the Americans with Disabilities Act. Construct a van-accessible parking space near the toilet, with required markings and signage.

The construction schedule shows that improvements to the Silver Lake East and West Campgrounds and the Caples Lake Dam Parking Project occurring at the same time to realize cost savings due to the close proximity, similarity of the work to be completed, and construction efficiencies. FERC and FS approved the Districts request to extend the project completion date to 2016.

**Basis for Priority:**

This project is required to comply with the FERC License Condition No. 50.3 and USFS 4(e) Condition requirements.

Project Financial Summary:			
Funded to Date:	\$ 12,000	Expenditures through end of year:	\$ 4,493
Spent to Date:	\$ 4,493	2015 - 2019 Planned Expenditures:	\$ 20,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 24,493
Project Balance	\$ 7,507	Additional Funding Required	\$ 12,493

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design	\$ 10,000	\$ 10,000				\$ 20,000
Construction				*		\$ -
						\$ -
<b>TOTAL</b>	\$ 10,000	\$ 10,000	\$ -	\$ -	\$ -	\$ 20,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$1,321
Water Rates	47%		\$1,172
			\$0
<b>Total</b>	<b>100%</b>		<b>\$2,493</b>

**Funding Comments:** Construction costs TBD after consultation with USFS



**Project Number:** 06081H  
**Project Name:** FERC: C50.8 Pacific Crest Trail Crossing  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Noel **Board Approval:** 10/14/14

**Project Description:**

Required by the new FERC License, Settlement Agreement, and the USFS 4(e) Conditions. Condition 50.8: Within 5 years, the licensee shall construct a crossing for the Pacific Crest National Scenic Trail across the Echo Conduit, to meet current FS design standards, at a location agreed to by the FS. Construction methods and types have not yet been determined.

FERC and FS approved the District's request to extend the project completion date to 2016.

**Basis for Priority:**

Project is required by Project 184 license, but the District has some discretion as to when construction occurs.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 12,000	<b>Expenditures through end of year:</b>	\$ 1,891
<b>Spent to Date:</b>	\$ 1,891	<b>2015 - 2019 Planned Expenditures:</b>	\$ 4,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 5,891
<b>Project Balance</b>	\$ 10,109	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning	\$ 2,000	\$ 2,000				\$ 4,000
Design			*			\$ -
Construction				*		\$ -
						\$ -
<b>TOTAL</b>	\$ 2,000	\$ 2,000	\$ -	\$ -	\$ -	\$ 4,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Construction costs TBD after consultation with USFS

**Project Number:** 06082H  
**Project Name:** FERC: C50.1 Silver Lake Campground East Re-Construction  
**Project Category:** Regulatory Requirements

**Priority:** 1      **PM:** Noel      **Board Approval:** 10/14/14

**Project Description:**

Required by the License Settlement Agreement and the USFS 4(e) Conditions, the District must reconstruct the paved surfaces, toilets, and water system at the 62-unit USFS Silver Lake Campground, including upgrade of this facility to meet the current FS design standards and the USDA Forest Service Region 5 accessibility standards requirements of the Americans with Disabilities Act (ADA). The construction schedule shows that improvements to the Silver Lake East and West Campgrounds and the Caples Lake Dam Parking Project occurring at the same time to realize cost savings due to the close proximity, similarity of the work to be completed, and construction efficiencies. FERC and FS approved the Districts request to extend the project completion date to 2016.

**Basis for Priority:**

This project is required to comply with the FERC License Condition No. 50.1 and USFS 4(e) Condition requirements.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 42,135	<b>Expenditures through end of year:</b>	\$ 34,073
<b>Spent to Date:</b>	\$ 34,073	<b>2015 - 2019 Planned Expenditures:</b>	\$ 2,650,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 2,684,073
<b>Project Balance</b>	\$ 8,062	<b>Additional Funding Required</b>	\$ 2,641,938

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 150,000	\$ 1,000,000	\$ 1,000,000	\$ 500,000		\$ 2,650,000
						\$ -
<b>TOTAL</b>	<b>\$ 150,000</b>	<b>\$ 1,000,000</b>	<b>\$ 1,000,000</b>	<b>\$ 500,000</b>	<b>\$ -</b>	<b>\$ 2,650,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$75,227
Water Rates	47%		\$66,711
			\$0
<b>Total</b>	<b>100%</b>		<b>\$141,938</b>

Funding Comments:

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number: 06086H  
 Project Name: FERC C33 Lake Aloha Trout Removal  
 Project Category: Regulatory Requirements  
 Priority: 1 PM: Deason Board Approval: 10/14/14

**Project Description:**

Mandatory requirement of the FERC license. Funding only necessary in years when a spill occurs over the auxiliary dams at Lake Aloha. If spill occurs, EID is required to manually remove trout from the pools downstream of the auxiliary dams to help reduce potential impacts to mountain yellow-legged frogs by trout predation.

**Basis for Priority:**

If unfunded, EID would be out of compliance with the FERC license, Section 7 of the Settlement Agreement, USFS 4(e) conditions 33, and SWRCB Water Quality Certification condition 4.

Project Financial Summary:			
Funded to Date:	\$ 87,000	Expenditures through end of year:	\$ 43,123
Spent to Date:	\$ 43,123	2015 - 2019 Planned Expenditures:	\$ 60,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 103,123
Project Balance	\$ 43,877	Additional Funding Required	\$ 16,123

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$ 60,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 12,000</b>	<b>\$ 12,000</b>	<b>\$ 12,000</b>	<b>\$ 12,000</b>	<b>\$ 12,000</b>	<b>\$ 60,000</b>

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments: Amphibian surveys also required if Lake Aloha spills; funding for amphibian surveys from CIP # 06089H

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

**Project Number:** 06087H  
**Project Name:** FERC C37.1 Fish Monitoring  
**Project Category:** Regulatory Requirements  
**Priority:** 1      **PM:** Deason      **Board Approval:** 10/14/14

**Project Description:**

Mandatory requirement of the FERC license. The objective of this monitoring effort is to evaluate the status of fish populations in selected stream reaches for comparison to the ecological resource objectives to help determine if ecological resource objectives are achievable and being met, as specified in the El Dorado Hydroelectric Project No. 184 Adaptive Management Program.

**Basis for Priority:**

If unfunded, EID would be out of compliance with the FERC license, Section 7 of the Settlement Agreement, USFS 4(e) conditions 37, and SWRCB Water Quality Certification condition 13.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 170,000	<b>Expenditures through end of year:</b>	\$ 157,281
<b>Spent to Date:</b>	\$ 157,281	<b>2015 - 2019 Planned Expenditures:</b>	\$ 120,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 277,281
<b>Project Balance</b>	\$ 12,719	<b>Additional Funding Required</b>	\$ 107,281

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Monitoring		\$ 50,000	\$ 50,000			\$ 100,000
Staff time		\$ 10,000	\$ 10,000			\$ 20,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 60,000	\$ 60,000	\$ -	\$ -	\$ 120,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number:

06088H

Project Name:

FERC: C37.2 Macroinvertebrate Monitoring

Project Category:

Regulatory Requirements

Priority:

1

PM:

Deason

Board Approval:

10/14/14

**Project Description:**

Mandatory requirement of the FERC license. The objective of this monitoring effort is to evaluate the status of macroinvertebrates in selected stream reaches for comparison to the ecological resource objectives to help determine if ecological resource objectives are achievable and being met, as specified in the El Dorado Hydroelectric Project No. 184 Adaptive Management Program.

**Basis for Priority:**

If unfunded, EID would be out of compliance with the FERC license, Section 7 of the Settlement Agreement, USFS 4(e) conditions 37, and SWRCB Water Quality Certification condition 13.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 106,000	<b>Expenditures through end of year:</b>	\$ 89,719
<b>Spent to Date:</b>	\$ 89,719	<b>2015 - 2019 Planned Expenditures:</b>	\$ 110,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 199,719
<b>Project Balance</b>	\$ 16,281	<b>Additional Funding Required</b>	\$ 93,719

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Monitoring		\$ 50,000	\$ 50,000			\$ 100,000
Staff time		\$ 5,000	\$ 5,000			\$ 10,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ 55,000	\$ 55,000	\$ -	\$ -	\$ 110,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

Project Number:

06089H

Project Name:

FERC: C37.3 Amphibian Monitoring

Project Category:

Regulatory Requirements

Priority:

1

PM:

Deason

Board Approval:

10/14/14

**Project Description:**

Mandatory requirement of the FERC license. Amphibian surveys are required June through September if at any time flows in the South Fork of the American River (SFAR) are 100 cfs or less and the diversion into the canal causes the flow in the SFAR to change 50 cfs or more in 1 day. The objective of these surveys is to assess the effects of flow fluctuations on foothill yellow-legged frog egg masses and tadpoles. Amphibian surveys for mountain yellow-legged frog (MYLF) and foothill yellow-legged frog (FYLF) are also required every five years at Project reservoirs and stream reaches as part of the Project 184 monitoring program. Amphibian surveys are also required in years when a spill occurs over the auxiliary dams at Lake Aloha. If spill occurs, EID is required to survey for mountain yellow-legged frogs in the pools downstream of the auxiliary dams.

**Basis for Priority:**

If unfunded, EID would be out of compliance with the FERC license, Section 7 of the Settlement Agreement, USFS 4(e) conditions 37, and SWRCB Water Quality Certification condition 13.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 228,000	<b>Expenditures through end of year:</b>	\$ 193,763
<b>Spent to Date:</b>	\$ 193,763	<b>2015 - 2019 Planned Expenditures:</b>	\$ 155,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 348,763
<b>Project Balance</b>	\$ 34,237	<b>Additional Funding Required</b>	\$ 120,763

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
FYLF/MYLF Monitoring		\$ 60,000				\$ 60,000
SFAR flow fluctuations	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 25,000
Lake Aloha monitoring	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000	\$ 60,000
Staff time		\$ 10,000				\$ 10,000
<b>TOTAL</b>	\$ 17,000	\$ 87,000	\$ 17,000	\$ 17,000	\$ 17,000	\$ 155,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:**

Flow fluctuation monitoring only required if license criteria is triggered. Monitoring at Lake Aloha is only necessary in years when a spill occurs over the auxiliary dams.

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number:

06090H

Project Name:

FERC: C37.4 Riparian Species Composition

Project Category:

Regulatory Requirements

Priority:

1

PM:

Deason

Board Approval:

10/14/14

Project Description:

Mandatory requirement of the FERC license. The objective of this monitoring effort is to evaluate riparian species composition at selected stream reaches for comparison to the ecological resource objectives to help determine if ecological resource objectives are achievable and being met, as specified in the El Dorado Hydroelectric Project No. 184 Adaptive Management Program.

Basis for Priority:

If unfunded, EID would be out of compliance with the FERC license, Section 7 of the Settlement Agreement, USFS 4(e) conditions 37, and SWRCB Water Quality Certification condition 13.

Project Financial Summary:

Funded to Date:	\$ 30,000	Expenditures through end of year:	\$ 16,369
Spent to Date:	\$ 16,369	2015 - 2019 Planned Expenditures:	\$ 14,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 30,369
Project Balance	\$ 13,631	Additional Funding Required	\$ 369

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Monitoring		\$ 12,000				\$ 12,000
Staff time		\$ 2,000				\$ 2,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ 14,000	\$ -	\$ -	\$ -	\$ 14,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number:

06091H

Project Name:

FERC: C37.5 Riparian Vegetation Recruitment

Project Category:

Regulatory Requirements

Priority:

1

PM:

Deason

Board Approval:

10/14/14

Project Description:

Mandatory requirement of the FERC license. The objective of this monitoring effort is to evaluate riparian vegetation recruitment at selected stream reaches for comparison to the ecological resource objectives to help determine if ecological resource objectives are achievable and being met, as specified in the El Dorado Hydroelectric Project No. 184 Adaptive Management Program.

Basis for Priority:

If unfunded, EID would be out of compliance with the FERC license, Section 7 of the Settlement Agreement, USFS 4(e) conditions 37, and SWRCB Water Quality Certification condition 13.

Project Financial Summary:

Funded to Date:	\$ 15,000	Expenditures through end of year:	\$ 13,713
Spent to Date:	\$ 13,713	2015 - 2019 Planned Expenditures:	\$ 12,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 25,713
Project Balance	\$ 1,287	Additional Funding Required	\$ 10,713

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Monitoring		\$ 10,000				\$ 10,000
Reporting		\$ 2,000				\$ 2,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ 12,000	\$ -	\$ -	\$ -	\$ 12,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:



2015

**CAPITAL IMPROVEMENT PLAN Program:**

**FERC**

**Project Number:**

06092H

**Project Name:**

**FERC: C37.7 Geomorphology Evaluation**

**Project Category:**

**Regulatory Requirements**

**Priority:**

1

**PM:**

Deason

**Board Approval:**

10/14/14

**Project Description:**

Mandatory requirement of the FERC license. The objective of this monitoring effort is to monitor representative stream channel areas for comparison to the ecological resource objectives to help determine if ecological resource objectives are achievable and being met, as specified in the El Dorado Hydroelectric Project No. 184 Adaptive Management Program.

**Basis for Priority:**

If unfunded, EID would be out of compliance with the FERC license, Section 7 of the Settlement Agreement, USFS 4(e) conditions 37, and SWRCB Water Quality Certification condition 13.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 49,276	<b>Expenditures through end of year:</b>	\$ 48,059
<b>Spent to Date:</b>	\$ 48,059	<b>2015 - 2019 Planned Expenditures:</b>	\$ 65,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 113,059
<b>Project Balance</b>	\$ 1,217	<b>Additional Funding Required</b>	\$ 63,783

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Monitoring		\$ 40,000	\$ 10,000	\$ 10,000		\$ 60,000
Staff time		\$ 5,000				\$ 5,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ 45,000	\$ 10,000	\$ 10,000	\$ -	\$ 65,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Includes post-project monitoring in 2016, 2017, and 2018 for Oyster Creek Stabilization Plan 06019H and Caples Spillway Channel Stabilization Plan 06076H

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

**Project Number:** 06096H  
**Project Name:** FERC: C55 Heritage Resources  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Deason **Board Approval:** 10/14/14

**Project Description:**

Mandatory requirement of the FERC license. Funding is necessary to complete and implement the Heritage Properties Management Plan (HPMP). The HPMP provides management protocols and mitigation measures for the ongoing protection of archaeological resources located within the FERC boundary.

**Basis for Priority:**

If unfunded, EID would be out of compliance with the FERC license and USFS 4(e) conditions 55 and 56.

Project Financial Summary:			
Funded to Date:	\$ 279,580	Expenditures through end of year:	\$ 206,857
Spent to Date:	\$ 206,857	2015 - 2019 Planned Expenditures:	\$ 25,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 231,857
Project Balance	\$ 72,723	Additional Funding Required	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Reporting	\$25,000	*	*	*	*	\$ 25,000
						\$ -
						\$ -
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ 25,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Finalize HPMP and implement upon approval

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number:

06097H

Project Name:

FERC: C59 Facility Management Plan

Project Category:

Regulatory Requirements

Priority:

1

PM:

Gibson

Board Approval:

10/14/14

**Project Description:**

Required by the License Settlement Agreement, and the USFS 4(e) Condition 59: Within 1 year of license issuance, the licensee shall file with FERC a Facility Management Plan that is approved by the FS. The licensee shall implement the plan upon approval. Every 5 years, the licensee shall prepare a 5-year plan that will identify the maintenance, reconstruction, and removal needs for Project facilities within the FERC boundary and located on Forest Service property. The plan was approved by the USFS and filed with FERC. Items remaining to be completed include: remove buildings at SW 20A boathouse, evaluation of the removal requirements for the structures across from the powerhouse, the winch house at the surge chamber, and the water tank shed. The next plan update is scheduled for 2018.

**Basis for Priority:**

Project is required by Project 184 license and is on-going.

Project Financial Summary:			
Funded to Date:	\$ 70,000	Expenditures through end of year:	\$ 43,512
Spent to Date:	\$ 43,512	2015 - 2019 Planned Expenditures:	\$ 5,000
Cash flow through end of year:		Total Project Estimate:	\$ 48,512
Project Balance	\$ 26,488	Additional Funding Required	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning				\$ 5,000		\$ 5,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ 5,000	\$ -	\$ 5,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 06098H  
**Project Name:** FERC: C46 thru C49 Recreation Resource Management  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Hawkins **Board Approval:** 10/14/14

**Project Description:**

Required by the new FERC License, Settlement Agreement, and the USFS 4(e) Conditions. Conditions 46-49: Condition No. 46 – Implementation Plan. A recreation implementation plan shall be developed by the licensee in coordination with the FS within 6 months of license issuance. Condition No. 47 - Recreation Survey. The licensee shall conduct a Recreational Survey and prepare a Report on Recreational Resources that is approved by the FS every 6 years from the date of license issuance. Condition No. 48 – Forest Service Liaison. The FS and the licensee shall each provide an individual for liaison whenever planning or construction of recreation facilities, other major Project improvements, and maintenance activities are taking place within the National Forest. Condition No. 49 - Review of Recreation Developments. The FS and the licensee shall meet at least every 6 years to review all recreation facilities and areas associated with the Project and to agree upon necessary maintenance, rehabilitation, construction, and reconstruction work needed and its timing, as described in Conditions No. 49 and 50. Following the review, the licensee shall develop a 6-year schedule for maintenance, rehabilitation, and reconstruction.

This is a mandatory requirement of the October 18, 2006 FERC Order Issuing New License

**Basis for Priority:**

EID would not be able to comply with the FERC License, Settlement Agreement and USFS 4(e) Condition requirements.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 149,000	<b>Expenditures through end of year:</b>	\$ 124,570
<b>Spent to Date:</b>	\$ 124,570	<b>2015 - 2019 Planned Expenditures:</b>	\$ 125,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 249,570
<b>Project Balance</b>	\$ 24,430	<b>Additional Funding Required</b>	\$ 100,570

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$ 125,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 125,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$302
Water Rates	47%		\$268
			\$0
<b>Total</b>	<b>100%</b>		<b>\$570</b>

Funding Comments:

**Project Number:** 07003H  
**Project Name:** FERC: C37.9 Water Quality  
**Project Category:** Regulatory Requirements

**Priority:** 1      **PM:** Deason      **Board Approval:** 10/14/14

**Project Description:**

Mandatory requirement of the FERC license. Funding is necessary to implement the water quality monitoring program at Project No. 184 reservoirs and stream reaches. The data collected from this monitoring effort will be used to characterize water quality under current project operations and help determine if applicable water quality objectives/criteria are being met and whether designated beneficial uses are protected.

**Basis for Priority:**

If unfunded, EID would be out of compliance with the FERC license, Section 7 of the Settlement Agreement, USFS 4(e) conditions 37, and SWRCB Water Quality Certification condition 13.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ 392,000	<b>Expenditures through end of year:</b>	\$ 290,279
<b>Spent to Date:</b>	\$ 290,279	<b>2015 - 2019 Planned Expenditures:</b>	\$ 160,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 450,279
<b>Project Balance</b>	\$ 101,721	<b>Additional Funding Required</b>	\$ 58,279

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Monitoring		\$ 40,000		\$ 40,000		\$ 80,000
Lab analysis		\$ 25,000		\$ 25,000		\$ 50,000
Staff time		\$ 15,000		\$ 15,000		\$ 30,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ 80,000	\$ -	\$ 80,000	\$ -	\$ 160,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Future monitoring dependent on agency review of first three years monitoring results (2008, 2010, and 2012). Staff to prepare proposal to FS, SWRCB, and ERC to reduce or eliminate monitoring for parameters and/or at sites that are not affected by Project operations.

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

**Project Number:** 07005H  
**Project Name:** FERC: C51.3 RM Echo Trailhead  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Hawkins **Board Approval:** 10/14/14

**Project Description:**

Required by the new FERC License, Settlement Agreement, and the USFS 4(e) Conditions. Conditions 51.3: The licensee shall be responsible for the following annual maintenance items for USFS Property on USFS Lands.

- a. Toilet pumping.
- b. Trash removal/litter pick-up within the site.

This is a mandatory requirement of the October 18, 2006 FERC Order Issuing New License

**Basis for Priority:**

EID would not be able to comply with the FERC License, Settlement Agreement and USFS 4(e) Condition requirements.

Project Financial Summary:			
Funded to Date:	\$ 30,000	Expenditures through end of year:	\$ 13,123
Spent to Date:	\$ 13,123	2015 - 2019 Planned Expenditures:	\$ 60,000
Cash flow through end of year:		Total Project Estimate:	\$ 73,123
Project Balance	\$ 16,877	Additional Funding Required	\$ 43,123

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$5,000	\$5,000	\$50,000			\$ 60,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 5,000	\$ 5,000	\$ 50,000	\$ -	\$ -	\$ 60,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 07006H  
**Project Name:** FERC: C51.5 and C51.7 RM USFS Payments  
**Project Category:** Regulatory Requirements

**Priority:** 1      **PM:** Hawkins      **Board Approval:** 10/14/14

**Project Description:**

Required by the new FERC License, Settlement Agreement, and the USFS 4(e) Conditions. Conditions 51.5 and C51.7: (5.) Special Use Administration Funding: The licensee shall annually pay, by October 1, the amount of \$4,800 (year 2002 cost basis) to provide for performing monitoring and permit compliance assurance for the campground concessionaire special use permits at Caples Lake Campground and Silver Lake East Campground. The costs shall be escalated based on the U.S. Gross Domestic Product – Implicit Price Deflator (GDP-IDP). (7.) Dispersed Area Patrol Funding on Lands Affected by the Project: The licensee shall annually pay, by October 1, \$25,000 (year 2002 cost basis). The cost shall be escalated based on the U.S. Gross Domestic Product – Implicit Price Deflator (GDP-IDP). These funds are to provide for patrol and operation of non-concessionaire developed and dispersed recreation facilities, as well as trails and other locations utilized by visitors to the Project, within and adjacent to the Project boundary. The licensee shall annually provide a boat and operator at least twice each season (time to be determined by mutual agreement between the licensee and the FS) on Caples Lake and Silver Lake to share with the FS in policing the shoreline along Silver Lake and Caples Lake, and to clean up litter.

This is a mandatory requirement of the October 18, 2006 FERC Order Issuing New License

**Basis for Priority:**

EID would not be able to comply with the FERC License, Settlement Agreement and USFS 4(e) Condition requirements.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ 304,154	<b>Expenditures through end of year:</b>	\$ 295,977
<b>Spent to Date:</b>	\$ 295,977	<b>2015 - 2019 Planned Expenditures:</b>	\$ 225,298
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 521,275
<b>Project Balance</b>	\$ 8,177	<b>Additional Funding Required</b>	\$ 217,121

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$42,436	\$43,709	\$45,020	\$46,371	\$47,762	\$ 225,298
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 42,436</b>	<b>\$ 43,709</b>	<b>\$ 45,020</b>	<b>\$ 46,371</b>	<b>\$ 47,762</b>	<b>\$ 225,298</b>

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$18,157
Water Rates	47%		\$16,102
			\$0
<b>Total</b>	<b>100%</b>		<b>\$34,259</b>

Funding Comments:

**Project Number:** 07008H  
**Project Name:** FERC: C51.8 Silver Lake Campgrounds West Improvements  
**Project Category:** Regulatory Requirements

**Priority:** 1      **PM:** Noel      **Board Approval:** 10/14/14

**Project Description:**

Required by the Settlement Agreement, and the USFS 4(e) Conditions, Condition 51.8: the District shall reconstruct the EID Silver Lake Campground, or equivalent location into compliance with accessibility standards for the Americans with Disabilities Act (ADA). Within 5 years of license issuance, the licensee shall bring the Silver Lake East recreation facilities up to Forest Service standards and ADA compliance. The construction schedule shows the improvements to the Silver Lake West Campground and the FERC:C50 Caples Lake Dam Parking Project occurring at the same time to realize cost savings due to the close proximity and similarity of the work to be completed and construction efficiencies. FERC and FS approved the District's request to extend the project completion date to 2016. Planning is now underway to determine the improvements that may be needed.

**Basis for Priority:**

This project is required to comply with the FERC License Condition No. 51.8 and USFS 4(e) Condition requirements.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 25,504
<b>Spent to Date:</b>	\$ 25,504	<b>2015 - 2019 Planned Expenditures:</b>	\$ 350,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 375,504
<b>Project Balance</b>	\$ 24,496	<b>Additional Funding Required</b>	\$ 325,504

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design	\$ 25,000	\$ 25,000	\$ 300,000			\$ 350,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ 25,000	\$ 300,000	\$ -	\$ -	\$ 350,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$267
Water Rates	47%		\$237
			\$0
<b>Total</b>	<b>100%</b>		<b>\$504</b>

Funding Comments:



**Project Number:**

07009H

**Project Name:**

FERC: C51.8 RM Woods Creek Fishing Access

**Project Category:**

Regulatory Requirements

**Priority:**

1

**PM:**

Hawkins

**Board Approval:**

10/14/14

**Project Description:**

Required by the new FERC License, Settlement Agreement, and the USFS 4(e) Conditions. Conditions 51.8: Licensee Recreation Sites: Within 10 years of license issuance, the licensee shall bring the Ferguson Point, Sandy Cove, Woods Creek Fishing Access, and Silver Lake West recreation facilities or equivalent locations into compliance with accessibility standards for the Americans with Disabilities Act. These facilities, along with the Silver Lake Boat Ramp, shall continue to be operated and maintained by the licensee throughout the term of the license.

Woods Creek was erroneously listed in the license as EID Property, however this misstatement does not relieve EID from the obligation to maintain this facility.

This is a mandatory requirement of the October 18, 2006 FERC Order Issuing New License

**Basis for Priority:**

EID would not be able to comply with the FERC License, Settlement Agreement and USFS 4(e) Condition requirements.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 39,500	<b>Expenditures through end of year:</b>	\$ 32,145
<b>Spent to Date:</b>	\$ 32,145	<b>2015 - 2019 Planned Expenditures:</b>	\$ 25,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 57,145
<b>Project Balance</b>	\$ 7,355	<b>Additional Funding Required</b>	\$ 17,645

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$ 25,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 25,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number:

07010H

Project Name:

FERC: C15 Pesticide Use

Project Category:

Regulatory Requirements

Priority:

1

PM:

Gibson

Board Approval:

10/14/14

**Project Description:**

Mandatory requirement of the FERC license. Funding is requested to implement the integrated pest management plan (IPMP). The IPMP addresses pesticide use at EID facilities within the jurisdiction of the EI Dorado National Forest (ENF) and Lake Tahoe Basin Management Unit (LTBMU).

**Basis for Priority:**

If unfunded, EID would be out of compliance with the FERC license and USFS 4(e) condition 15.

**Project Financial Summary:**

Funded to Date:	\$ 528,000	Expenditures through end of year:	\$ 459,254
Spent to Date:	\$ 459,254	2015 - 2019 Planned Expenditures:	\$ 350,000
Cash flow through end of year:		Total Project Estimate:	\$ 809,254
Project Balance	\$ 68,746	Additional Funding Required	\$ 281,254

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Implementation	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 300,000
Equipment / Supplies	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 50,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 350,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$665
Water Rates	47%		\$589
			\$0
<b>Total</b>	<b>100%</b>		<b>\$1,254</b>

Funding Comments:

2015

**CAPITAL IMPROVEMENT PLAN Program:**

**FERC**

**Project Number:**

07011H

**Project Name:**

**FERC: C38 Adaptive Management Program**

**Project Category:**

**Regulatory Requirements**

**Priority:**

1

**PM:**

Deason

**Board Approval:**

10/14/14

**Project Description:**

Mandatory requirement of the FERC license. Funding is requested for staff time to implement the adaptive management program (Condition 38) of the FERC license. This program requires coordination with the Ecological Resources Committee (ERC), implementation of the resource monitoring program, and evaluation of monitoring results to determine if resource objectives are achievable and being met.

**Basis for Priority:**

If unfunded, EID would be out of compliance with the FERC license, Section 14 of the Settlement Agreement, and USFS 4(e) condition 38.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 475,000	<b>Expenditures through end of year:</b>	\$ 435,006
<b>Spent to Date:</b>	\$ 435,006	<b>2015 - 2019 Planned Expenditures:</b>	\$ 250,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 685,006
<b>Project Balance</b>	\$ 39,994	<b>Additional Funding Required</b>	\$ 210,006

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Implementation	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$ 250,000
						\$ -
						\$ -
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 250,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$5,303
Water Rates	47%		\$4,703
			\$0
<b>Total</b>	<b>100%</b>		<b>\$10,006</b>

Funding Comments:

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number: 07030H  
 Project Name: FERC: C57 Transportation System Management Plan  
 Project Category: Regulatory Requirements  
 Priority: 1 PM: Gibson Board Approval: 10/14/14

Project Description:

Condition 57 states within 1 year of license issuance, the licensee shall file with FERC a transportation system management plan that is approved by the FS for roads on or affecting National Forest System lands. The plan was prepared and approved and established the level of licensee responsibility for project-related roads. Implementation of the plan and the 5-year updates are now underway. Remaining work to be completed is ongoing road maintenance. Also included in this CIP is the Trails Maintenance Plan with work along the South Penstock trail. The next plan update is scheduled for 2017.

Basis for Priority:

Project is required by Project 184 license and is on-going.

Project Financial Summary:			
Funded to Date:	\$ 50,000	Expenditures through end of year:	\$ 41,306
Spent to Date:	\$ 41,306	2015 - 2019 Planned Expenditures:	\$ 5,000
Cash flow through end of year:		Total Project Estimate:	\$ 46,306
Project Balance	\$ 8,694	Additional Funding Required	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning			\$ 5,000			\$ 5,000
Design						\$ -
Construction	\$ -	\$ -		\$ -	\$ -	\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 5,000	\$ -	\$ -	\$ 5,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 08025H  
**Project Name:** FERC C44 Noxious Weed Monitoring  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Deason **Board Approval:** 10/14/14

**Project Description:**

Mandatory requirement of the FERC license. Funding is requested to implement the noxious weed plan for the prevention and control of noxious weeds at Project No. 184 facilities. The plan was amended in 2012 to reduce annual monitoring requirements to conduct annual surveys only at areas where high priority noxious weeds are known to occur and at areas where ground disturbance occurred during the previous year. The amended plan also specifies that the entire project area only needs to be surveyed every 5 years. This amendment significantly reduced the scope and cost associated with this requirement.

**Basis for Priority:**

If unfunded, EID would be out of compliance with the FERC license, Section 8 of the Settlement Agreement, and USFS 4(e) condition 44.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 152,828	<b>Expenditures through end of year:</b>	\$ 137,303
<b>Spent to Date:</b>	\$ 137,303	<b>2015 - 2019 Planned Expenditures:</b>	\$ 102,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 239,303
<b>Project Balance</b>	\$ 15,525	<b>Additional Funding Required</b>	\$ 86,475

Description of Work	Estimated Annual Expenditures					
	2015	2016	2017	2018	2019	Total
Implementation	\$15,000	\$30,000	\$15,000	\$15,000	\$15,000	\$ 90,000
Reporting	\$ 2,000	\$ 4,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 12,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ 17,000	\$ 34,000	\$ 17,000	\$ 17,000	\$ 17,000	\$ 102,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$782
Water Rates	47%		\$693
			\$0
<b>Total</b>	<b>100%</b>		<b>\$1,475</b>

**Funding Comments:** The monitoring plan requires the entire project area be surveyed every five years - this survey is scheduled to be conducted in 2016.

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

**Project Number:** 10007  
**Project Name:** FERC C51.2 RM Caples Boat Launch  
**Project Category:** Regulatory Requirements

**Priority:** 1      **PM:** Hawkins      **Board Approval:** 10/14/14

**Project Description:**

This is a mandatory requirement of the October 18, 2006 FERC Order Issuing New License. Required by the new FERC License, Settlement Agreement, and the USFS 4(e) Conditions. Condition 51.2: The licensee shall be responsible for operating and maintaining the boat launching ramp, associated parking lot, and other public facilities constructed at this site for the term of the license. The licensee shall also be responsible for maintenance of signboards. The USFS shall be responsible for maintaining the information on those signboards to USFS standards. Caples Lake Auxiliary Dam maintenance (\$5k) responsibility rotates every 5th year with EID responsible from 2015-2019.

**Basis for Priority:**

EID would not be able to comply with the FERC License, Settlement Agreement and USFS 4(e) Condition requirements.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 161,000	<b>Expenditures through end of year:</b>	\$ 122,770
<b>Spent to Date:</b>	\$ 122,770	<b>2015 - 2019 Planned Expenditures:</b>	\$ 200,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 322,770
<b>Project Balance</b>	\$ 38,230	<b>Additional Funding Required</b>	\$ 161,770

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$ 200,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 200,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$938
Water Rates	47%		\$832
			\$0
<b>Total</b>	<b>100%</b>		<b>\$1,770</b>

Funding Comments:

2015

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number: 13019  
 Project Name: FERC C59 SFAR North Structures  
 Project Category: Regulatory Requirements  
 Priority: 1 PM: Noel Board Approval: 10/14/14

Project Description:

Required by the License Settlement Agreement and USFS 4(e) Condition 59, the District must develop a plan for removal of all structures on USFS property by 2014. Design, permitting, demolition, and removal of the structures must be completed by 2017.

Basis for Priority:

EID would not be able to comply with the FERC License, Settlement Agreement and USFS 4(e) Condition requirements

Project Financial Summary:			
Funded to Date:	\$ 50,000	Expenditures through end of year:	\$ 25,444
Spent to Date:	\$ 25,444	2015 - 2019 Planned Expenditures:	\$ 20,000
Cash flow through end of year:		Total Project Estimate:	\$ 45,444
Project Balance	\$ 24,556	Additional Funding Required	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 20,000					\$ 20,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ 20,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** FERC: C50.2 Caples Lake Campground Re-Construction  
**Project Category:** Regulatory Requirements

**Priority:** 1      **PM:** Noel      **Board Approval:** 10/14/14

**Project Description:**

Required by the License Settlement Agreement and the USFS 4(e) Conditions 50.2, the District must reconstruct the paved surfaces, toilets, and water system at the 36-unit USFS Caples Lake Campground, including upgrade of this facility to meet the current FS design standards and the USDA Forest Service Region 5 accessibility standards requirements of the Americans with Disabilities Act (ADA). The construction schedule shows that improvements to the Caples Lake Campground and the Caples Lake Dam Parking Project occurring at the same time to realize cost savings due to the close proximity, similarity of the work to be completed, and construction efficiencies. FERC and FS approved the District's request to extend the project completion date to 2016. Planning is now underway to determine what facilities require improvement.

**Basis for Priority:**

This project is required to comply with the FERC License Condition No. 50.2 and USFS 4(e) Condition requirements.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 1,950,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 1,950,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,950,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 150,000	\$ 900,000	\$ 900,000	*		\$ 1,950,000
						\$ -
<b>TOTAL</b>	<b>\$ 150,000</b>	<b>\$ 900,000</b>	<b>\$ 900,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,950,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$79,500
Water Rates	47%		\$70,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$150,000</b>

**Funding Comments:** Construction costs TBD after consultation with the USFS



# Water Projects

2015

**CAPITAL IMPROVEMENT PLAN** Program:

**Water**

**Project Number:**

09006E

**Project Name:**

Blakeley Reservoir Improvements

**Project Category:**

Regulatory Requirements

**Priority:**

1

**PM:**

Eymann

**Board Approval:**

10/14/14

**Project Description:**

The District has been out of compliance with DSOD requirements since 2008 to annually cycle the outlet works at Blakeley reservoir. The channel below the outlet works has not been maintained as it is part of the out-of-service ditch system and is accordingly no longer adequate to convey normal operational releases. ROV inspections in 2010 found additional safety deficiencies in the outlet pipe that require remediation as well. In order to cycle the release valve without conveying significant volumes of water, a downstream valve and slip lining of the outlet conduit is required. DSOD has approved the design and permitting continues. Final construction cost estimates will be refined when permitting and cost verification is complete. The project was amended in 2014 to include remediation of the ditch spillway channel to correct erosion during planned future annual reservoir releases for water rights purposes.

**Basis for Priority:**

To maintain public safety and comply with State law. The remediation is required by DSOD to mitigate a safety deficiency and in order to safely convey outlet works discharges.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 327,559	<b>Expenditures through end of year:</b>	\$ 271,138
<b>Spent to Date:</b>	\$ 241,138	<b>2015 - 2019 Planned Expenditures:</b>	\$ 1,400,000
<b>Cash flow through end of year:</b>	\$ 30,000	<b>Total Project Estimate:</b>	\$ 1,671,138
<b>Project Balance</b>	\$ 56,421	<b>Additional Funding Required</b>	\$ 1,343,579

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design	\$ 50,000					\$ 50,000
Construction	\$ 1,350,000					\$ 1,350,000
						\$ -
<b>TOTAL</b>	<b>\$ 1,400,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,400,000</b>

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$1,343,579
<b>Total</b>	<b>100%</b>		<b>\$1,343,579</b>

Funding Comments:

**Project Number:** 10015  
**Project Name:** Water System Upgrades  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Strahan **Board Approval:** 10/14/14

**Project Description:**

Capital improvements to water distribution infrastructure to help meet regulatory compliance and water use accountability. Stage 2 of the Disinfectants/Disinfection By-Product Rule (Stage 2) establishes health goals for the reduction and control of disinfection by-product (DBP) formation. To meet these health goals, distribution operators determine through water quality testing where in the distribution system water age has resulted or could result in elevated DBP formation and then conduct routine manual flushing to reduce water age. Auto flushers reduce staff time and enable staff to have better control over routine flushing, resulting in better accountability and conservation of water used for routine water quality system flushing while ensuring compliance with water regulations. In 2010 the District began installing card-lock bulk water stations to better serve customers that transport bulk water to end-users throughout the county. Ten permanent sites were selected. Planned for 2015 is the construction of the final 3 stations. Installed cost estimate is \$30,000 for each bulk water station. In 2015, additional water quality sample stations will be installed once the SWRCB Division of Drinking Water approves the District's Bacteriological Monitoring Plan.

**Basis for Priority:**

Improve reliability and service level in the water distribution system. Work force efficiency.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 120,000	<b>Expenditures through end of year:</b>	\$ 100,713
<b>Spent to Date:</b>	\$ 100,713	<b>2015 - 2019 Planned Expenditures:</b>	\$ 25,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 125,713
<b>Project Balance</b>	\$ 19,287	<b>Additional Funding Required</b>	\$ 5,713

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design						\$ -
Construction	\$25,000	\$0				\$ 25,000
						\$ -
<b>TOTAL</b>	<b>\$ 25,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 25,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water Rates	100%		\$70,713
<b>Total</b>	<b>100%</b>		<b>\$70,713</b>

Funding Comments:

**Project Number:** 10022  
**Project Name:** Silva Valley Interchange (DOT)  
**Project Category:** State/County Road Projects  
**Priority:** 1 **PM:** Brink **Board Approval:** 10/14/14

**Project Description:**

The new Silva Valley Interchange at Highway 50 has been in the planning stages for many years. EID has existing water, recycled water and sanitary sewer utilities in the public right-of-way that must be relocated at EID's cost. On October 22, 2012 the Board of Directors approved a Reimbursement Agreement with El Dorado County for the design and construction of the impacted facilities. The project will also impact an existing recycled water line that is located in a private easement, plus existing water service to a local business where EID has an existing easement. DOT will pay the full cost of the design and construction associated with relocations where EID has prior right. The design was performed by the same consultant DOT used for the design of the interchange, and the relocations will be performed by the contractor retained by the county. Construction started in mid-2013. EID will provide inspection of EID facilities during construction.

**Basis for Priority:**

Since we have utilities in the public right of way, EID must relocate them to make way for DOT's project.

Project Financial Summary:			
Funded to Date:	\$ 431,872	Expenditures through end of year:	\$ 70,167
Spent to Date:	\$ 70,167	2015 - 2019 Planned Expenditures:	\$ 300,000
Cash flow through end of year:		Total Project Estimate:	\$ 370,167
Project Balance	\$ 361,705	Additional Funding Required	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 200,000	\$ 100,000				\$ 300,000
						\$ -
<b>TOTAL</b>	<b>\$ 200,000</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 300,000</b>

Funding Sources	Percentage	2015	Amount
Water Rates	70%		\$0
Wastewater Rates	20%		\$0
Recycled Water Rates	10%		\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Funding split is proportional to impacted utilities

**Project Number:** 11032  
**Project Name:** Main Ditch - Forebay to Reservoir 1  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Rice **Board Approval:** 10/14/14

**Project Description:**

The Main Ditch is approximately three miles long and conveys a maximum of 15,080 acre-feet of raw water annually at a maximum rate of 40 cubic feet per second from Forebay Reservoir to the Reservoir 1 water treatment plant. Because the Main Ditch is an unlined earthen canal, a portion of the flow, as high as 1,300 acre-feet a year, is lost to seepage and evaporation. This water could be made available for drinking water or annual power generation of about 2,000 MWh. Also, the quality of the water is degraded as the water travels through the ditch and is vulnerable to contamination from roadway drainage. The District has received \$235,000 in matching grant funding which has been utilized to conduct environmental, wetlands, and cultural resources studies, surveys and initial design work. Construction was originally anticipated for 2019, however the severity of the drought has intensified the need for water conservation and acceleration of this project. The Regional Water Authority, on behalf of the District, has applied for \$1.1M in grant funding from the State specifically for this project, which will facilitate acceleration of the project schedule. The total project cost estimate was developed by a District On-Call Consultant during preparation of the Basis of Design Report completed in July 2014. Construction is planned to occur over two separate ditch outage seasons, 2016/17 and 2017/18.

**Basis for Priority:**

Improves water quality, conserves water supply and protects health and safety of service.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 286,670	<b>Expenditures through end of year:</b>	\$ 237,521
<b>Spent to Date:</b>	\$ 92,521	<b>2015 - 2019 Planned Expenditures:</b>	\$ 5,625,000
<b>Cash flow through end of year:</b>	\$ 145,000	<b>Total Project Estimate:</b>	\$ 5,862,521
<b>Project Balance</b>	\$ 49,149	<b>Additional Funding Required</b>	\$ 5,575,851

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design/Environmental	\$500,000	\$50,000	\$50,000	\$25,000		\$ 625,000
Construction Costs		\$2,500,000	\$2,500,000			\$ 5,000,000
Land Procurement						\$ -
<b>TOTAL</b>	<b>\$ 500,000</b>	<b>\$ 2,550,000</b>	<b>\$ 2,550,000</b>	<b>\$ 25,000</b>	<b>\$ -</b>	<b>\$ 5,625,000</b>

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$450,851
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$450,851</b>

**Funding Comments:**

Total project cost estimated to be \$6,625,000. CIP costs are reduced to reflect \$1M in grant funding to be awarded from the State of California, Prop 84 funding.

2015

**CAPITAL IMPROVEMENT PLAN** Program:

**Water**

**Project Number:** 12028  
**Project Name:** Water Facility Replacement Program  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Strahan **Board Approval:** 10/14/14

**Project Description:**

This is a program to replace equipment and facilities used in the water system that have failed or reached end of useful life. Funding will be used to replace pumps, valves, and other equipment that with replacement, extend the life of the asset.

**Basis for Priority:**

Project purpose is to maintain existing assets and prolong their useful service life and reliability.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 112,849	<b>Expenditures through end of year:</b>	\$ 103,857
<b>Spent to Date:</b>	\$ 103,857	<b>2015 - 2019 Planned Expenditures:</b>	\$ 470,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 573,857
<b>Project Balance</b>	\$ 8,992	<b>Additional Funding Required</b>	\$ 461,008

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 120,000	\$ 50,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 470,000
						\$ -
<b>TOTAL</b>	<b>\$ 120,000</b>	<b>\$ 50,000</b>	<b>\$ 100,000</b>	<b>\$ 100,000</b>	<b>\$ 100,000</b>	<b>\$ 470,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water Rates	100%		\$111,008
<b>Total</b>	<b>100%</b>		<b>\$111,008</b>

Funding Comments:

**Project Number:** 13008  
**Project Name:** Water Generator Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/14/14

**Project Description:**

The District does not maintain adequate emergency back-up power for many of the water pump stations and treatment facilities. In addition, some generators are at the end of their service life and are in need of replacement.

In 2014 four generators were purchased and installed by in-house staff of which one generator was a replacement at a water treatment facility and three were new installations for pumps stations that had no previous backup power. Staff intends to continue this program annually until a substantially reliable level of backup power is present in all critical locations.

**Basis for Priority:**

Treatment facilities and many of the pump stations supply fire hydrants yet do not have standby back-up power, posing significant public safety risk.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 395,694	<b>Expenditures through end of year:</b>	\$ 395,694
<b>Spent to Date:</b>	\$ 272,292	<b>2015 - 2019 Planned Expenditures:</b>	\$ 250,000
<b>Cash flow through end of year:</b>	\$ 123,402	<b>Total Project Estimate:</b>	\$ 645,694
<b>Project Balance</b>	\$ (0)	<b>Additional Funding Required</b>	\$ 250,000

Description of Work	Estimated Annual Expenditures					
	2015	2016	2017	2018	2019	Total
Study/Planning						\$ -
Design						\$ -
Construction		\$ 125,000		\$ 125,000		\$ 250,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 125,000	\$ -	\$ 125,000	\$ -	\$ 250,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 13014  
**Project Name:** Monte Vista Water Tank Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Rice **Board Approval:** 10/14/14

**Project Description:**

This project involves construction of a replacement water storage tank for the Zone 2 service area. The existing tank has a capacity of 130,000 gallons, which does not fully satisfy fire, emergency and equalization storage requirement regulations, and its condition is severely deteriorated, reducing the reliability of continued service. Additionally, the existing tank location at the extreme end of the distribution system is causing a 'water age' condition that has contributed to water quality concerns. This proposed tank replacement project includes feasibility review of alternative tank sites and evaluation of changes in access routes, piping requirements and modifications to the existing Monte Vista pump station.

The 2002 Storage Evaluation Report indicated a need at that time for 155,000 gallons storage plus an ultimate buildout need for 600,000 gallons storage. Dedication of neighboring parcels as ecological preserves has reduced the estimated buildout needs to 500,000 gallons. Current demands indicate a tank capacity need of 200,000 gallons. The recommended plan is to build one new 250,000 gallon tank now to meet near future demands and a second 250,000 gallon tank later as development occurs.

The proposed budget involves environmental study and permitting, tank design, new site review and selection, supply and discharge waterline installation and construction of one new 250,000 gallon tank at a new site to be determined, along with demolition of the old bolted steel tank.

**Basis for Priority:**

To replace a failing asset, ensure service reliability, and satisfy regulations for fire storage capacity.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 8,147
<b>Spent to Date:</b>	\$ 8,147	<b>2015 - 2019 Planned Expenditures:</b>	\$ 910,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 918,147
<b>Project Balance</b>	\$ 41,853	<b>Additional Funding Required</b>	\$ 868,147

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$30,000					\$ 30,000
Design	\$80,000					\$ 80,000
Construction Costs		\$800,000				\$ 800,000
						\$ -
<b>TOTAL</b>	\$ 110,000	\$ 800,000	\$ -	\$ -	\$ -	\$ 910,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$68,147
<b>Total</b>	<b>100%</b>		<b>\$68,147</b>

**Funding Comments:** Funding involves replacement of existing facilities as well as capacity to support additional growth as it occurs within the tank service area.



**Project Number:** 13015  
**Project Name:** Outingdale Lower Tank Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Rice **Board Approval:** 10/14/14

**Project Description:**

Originally constructed in 1993, the tank is 20 years old and has suffered serious corrosion and deterioration of the rafters, reducing structural reliability and confidence for continued service. The total combined storage provided by the Upper and Lower Outingdale tanks is insufficient to meet the total of two hour, 1,000 gpm fire flow plus emergency and equalization volume requirements. The proposed program is for initial planning to evaluate how best to sequence construction to replace the tank and still maintain critical service of chlorine contact time and backwash supply volumes. Costs to date have included a site survey and project feasibility evaluations. Design will involve specification and bidding of the replacement tank. This tank is prioritized to be constructed after the Monte Vista Tank which has greater immediate reliability concerns.

**Basis for Priority:**

This existing asset is critical to the operation of the Outingdale Water Treatment Plant and providing chlorine contact time in accordance with drinking water regulations.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 1,742
<b>Spent to Date:</b>	\$ 1,742	<b>2015 - 2019 Planned Expenditures:</b>	\$ 548,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 549,742
<b>Project Balance</b>	\$ 48,258	<b>Additional Funding Required</b>	\$ 499,742

Description of Work	Estimated Annual Expenditures					
	2015	2016	2017	2018	2019	Total
Study/Planning						\$ -
Design		\$ 48,000				\$ 48,000
Construction		\$ 500,000				\$ 500,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 548,000	\$ -	\$ -	\$ -	\$ 548,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Project involves storage capacity to meet current regulations only, with no planned increase in potable water delivery capacity, therefore funding is 100% water rates.

**Project Number:** 13043  
**Project Name:** Outingdale WTP Automation Replacement  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Strahan      **Board Approval:** 10/14/14

**Project Description:**

This project is for the replacement of all the automation and the addition of local SCADA recording equipment at Outingdale Water Treatment Plant (OWTP). A new control system and the elimination of an illegally transmitting Tesco radio is required to be able to bring OWTP into our SCADA system. This project will combine the current PLCs into one and replace end of service life automation controllers and radio. This project will also move the connectivity of the plant to a hardware network. Additionally, in 2015 we will add an onsite server to ensure data collection compliance during network outages. Outingdale is a small package plant with primitive SCADA controls. These controls have proven to be cumbersome and unreliable to monitor and control remotely putting the District at risk for compliance and service interruptions. The current controls only allow limited SCADA abilities at best. Adding full automation with onsite recording capability will ensure regulatory compliance. Additionally, engineering evaluation of the plant may be conducted to identify other needed improvements to improve the reliability.

**Basis for Priority:**

The Tesco PLC unit at OWTP is transmitting on an illegal frequency under the FCC's new regulations, as of 2013, and is not capable of being modified to meet narrow banding compliance. EID has been notified by the FCC to modify all of our licensed frequency to meet narrow banding requirements. The Tesco radio system that OWTP utilizes will be removed in a separate project due to FCC compliance issues. After this removal, we will not be able to monitor or control anything at OWTP remotely. This project must be completed before or at the same time as the Tesco PLC replacement CIP.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 21,805
<b>Spent to Date:</b>	\$ 21,805	<b>2015 - 2019 Planned Expenditures:</b>	\$ 75,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 96,805
<b>Project Balance</b>	\$ 28,195	<b>Additional Funding Required</b>	\$ 46,805

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Construction	\$ 75,000	\$ -				\$ 75,000
						\$ -
						\$ -
						\$ -
<b>TOTAL</b>	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ 75,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$46,805
<b>Total</b>	<b>100%</b>		<b>\$46,805</b>

Funding Comments:

**Project Number:** 14003  
**Project Name:** Res 3 Tank Upgrade  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Rice **Board Approval:** 10/14/14

**Project Description:**

The ongoing Tank Recoating Program reviews the status of the District's 36 steel water storage tanks, including their structural and coating conditions. The Reservoir 3 tank has been inspected and identified as having experienced severe paint failure, corrosion, and metal loss; placing it high on the current priority list. Environmental concerns due to limited access and adjacent forestry genetic research facilities resulted in this tank rehabilitation being re-scheduled to 2015. Due to limited safe access to the tank interior while it is in service, the rehabilitation cost estimate is based on very limited information as to the true condition of rafter and roof plate steel. The tank is scheduled for complete access in late 2014 which should allow for a detailed analysis and more precise cost estimate which will be carried forward to the final project costs.

**Basis for Priority:**

Maintain reliability of service for a facility critical for potable water transmission from the Reservoir 1 water treatment plant to Placerville and farther west.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 16,811
<b>Spent to Date:</b>	\$ 1,811	<b>2015 - 2019 Planned Expenditures:</b>	\$ 980,000
<b>Cash flow through end of year:</b>	\$ 15,000	<b>Total Project Estimate:</b>	\$ 996,811
<b>Project Balance</b>	\$ 33,189	<b>Additional Funding Required</b>	\$ 946,811

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 980,000					\$ 980,000
						\$ -
<b>TOTAL</b>	\$ 980,000	\$ -	\$ -	\$ -	\$ -	\$ 980,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$946,811
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$946,811</b>

**Funding Comments:** Project involves upgrade of existing facilities and no planned increase in capacity, therefore funding is 100% water rates.

2015

CAPITAL IMPROVEMENT PLAN Program:

Water

Project Number: 14006  
 Project Name: Rancho Del Sol Waterline  
 Project Category: Reliability & Service Level Improvements  
 Priority: 2 PM: Rice Board Approval: 10/14/14

Project Description:

A 600 lf foot section of 6-inch waterline near the entrance to the Rancho del Sol service area has failed in three separate locations within the last year, each time causing local private property damage and requiring immediate replacement. CIP funding for this repair was funded in 2014 and replacement materials have been procured. However due to current construction crew workloads and being tasked to assist with priority flume repairs this fall, the waterline repair is scheduled for 2015.

Basis for Priority:

Repair of the existing waterline is critical to continued reliable supply of potable water to the Rancho del Sol service area.

Project Financial Summary:

Funded to Date:	\$ 108,451	Expenditures through end of year:	\$ 14,771
Spent to Date:	\$ 14,771	2015 - 2019 Planned Expenditures:	\$ 93,680
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 108,451
Project Balance	\$ 93,680	Additional Funding Required	\$ 0

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 93,680					\$ 93,680
						\$ -
<b>TOTAL</b>	<b>\$ 93,680</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 93,680</b>

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments: Project involves an asset repair only, and no planned increase in capacity, therefore funding is 100% water rates.

**Project Number:** 14015  
**Project Name:** Reservoir 1 WTP Spent Backwash Treatment  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Rice **Board Approval:** 10/14/14

**Project Description:**

In May 2001, EPA released a rule governing the process of recycling water generated by the backwashing of drinking water filters. The Filter Backwash Recycling Rule (FBRR) is required by the Safe Drinking Water Act as one method of reducing the risks posed to consumers by microbial contaminants that may be present in public drinking water supplies. Reservoir 1 WTP spent backwash does not under go any treatment prior to recycling of the waste stream back into the water treatment plant process. This results in solids accumulation and pathogen concentration in the sedimentation basin ahead of the filters, which reduces the performance of the plant over the course of the seasonal run. A spent backwash treatment process will separate the accumulated solids from the spent backwash allowing only a clear supernatant to return to the influent of the treatment process. Solids will be sent to existing dry beds for further dewatering and final off-site disposal. This project was identified in the 2013 Integrated Water Resources Master Plan as a needed facility upgrade.

**Basis for Priority:**

Regulatory compliance with the FBRR, and the recycle of untreated spent backwash to the treatment process has been noted as a sanitary deficiency for the past three CDPH inspections.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 836
<b>Spent to Date:</b>	\$ 836	<b>2015 - 2019 Planned Expenditures:</b>	\$ 1,636,600
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 1,637,436
<b>Project Balance</b>	\$ 49,164	<b>Additional Funding Required</b>	\$ 1,587,436

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 50,000					\$ 50,000
Design		\$ 250,000				\$ 250,000
Construction			\$ 336,600	\$ 1,000,000		\$ 1,336,600
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ 250,000	\$ 336,600	\$ 1,000,000	\$ -	\$ 1,636,600

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$836
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$836</b>

**Funding Comments:** Revised from the Integrated Water Resources Master Plan dated March, 2013. This project involves an upgrade of existing facilities and no planned increase in capacity.

2015

CAPITAL IMPROVEMENT PLAN Program:

Water

Project Number: 14016  
 Project Name: Moosehall Pump Station Upgrade  
 Project Category: Reliability & Service Level Improvements  
 Priority: 2 PM: Rice Board Approval: 10/14/14

**Project Description:**

This project consists of replacement of the District's existing Moosehall Pump Station which was quickly constructed as an emergency facility after the Cleveland Fire of 1992. The pumps and control valves utilized were the best fit immediately available for emergency service at the time, but have remained in place for 22 years of permanent service. Installation and operating conditions for the multistage high lift vertical turbine pumps results in very low energy efficiency and high incidence of difficult repairs. The station operates each year to provide treated water to Pollock Pines during the El Dorado Canal outage and treatment facility shutdowns. The pump station will be used during the Forebay Dam reconstruction in lieu of the contractor construction a temporary by-pass system during construction.

The proposed budget includes installation of new higher efficiency pumps within the existing station and utilization of the existing wet well for the pump supply.

**Basis for Priority:**

Reliability of potable water service to Pollock Pines area during canal outages and shutdowns of the Reservoir 1 WTP.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 15,766
<b>Spent to Date:</b>	\$ 766	<b>2015 - 2019 Planned Expenditures:</b>	\$ 350,000
<b>Cash flow through end of year:</b>	\$ 15,000	<b>Total Project Estimate:</b>	\$ 365,766
<b>Project Balance</b>	\$ 34,234	<b>Additional Funding Required</b>	\$ 315,766

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction Costs	\$350,000					\$ 350,000
						\$ -
<b>TOTAL</b>	<b>\$ 350,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 350,000</b>

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$315,766
<b>Total</b>	<b>100%</b>		<b>\$315,766</b>

Funding Comments:

**Project Number:** 14019  
**Project Name:** Reservoir A WTP Chemical Feed Containment  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Rice **Board Approval:** 10/14/14

**Project Description:**

The District's chlorine conversion program was successfully completed last year with the changeover from gaseous chlorine to liquid sodium hypochlorite. This project is for improvements to the remaining two chemical feed systems and includes replacement of a 26 year old polymer storage tank, installation of a new orthophosphate tank to replace one that failed two years ago, construction of secondary containment for compliance with Article 80 of the Uniform Fire Code concerning hazardous materials storage, and installation of replacement chemical feed equipment. The system improvements will eliminate the current practice of manually handling and transferring quantities of orthophosphate chemical and eliminate the liability of a leak event for orthophosphate and coagulant polymer. This project will bring the remainder of all chemical feed systems at the Reservoir A WTP into compliance with both the drinking water regulations for reliability and the Uniform Fire Code requirements governing storage, dispensing, use and handling of hazardous materials. Proposed funding includes design of the chemical and secondary containment storage, contract construction, as well as installation of the new chemical feed systems by District operations and maintenance staff. Construction will occur during the winter period of low plant demands and therefore span portions of the 2015 and 2016 calendar years.

**Basis for Priority:**

Replacement of aging chemical storage and feed equipment and compliance with regulatory requirements for safe storage of hazardous chemicals

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 48,016	<b>Expenditures through end of year:</b>	\$ 19,014
<b>Spent to Date:</b>	\$ 19,014	<b>2015 - 2019 Planned Expenditures:</b>	\$ 465,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 484,014
<b>Project Balance</b>	\$ 29,002	<b>Additional Funding Required</b>	\$ 435,998

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design	\$ 65,000					\$ 65,000
Construction	\$ 200,000	\$ 200,000				\$ 400,000
						\$ -
<b>TOTAL</b>	<b>\$ 265,000</b>	<b>\$ 200,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 465,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water Rates	100%		\$235,998
<b>Total</b>	<b>100%</b>		<b>\$235,998</b>

**Funding Comments:** Project involves upgrade of existing facilities and no planned increase in capacity, therefore funding is 100% water rates.

**Project Number:** 14025  
**Project Name:** Waterline Replacement Program  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Rice **Board Approval:** 10/14/14

**Project Description:**

This program consists of targeted replacement of leaking waterlines, including formerly private lines within the District. This multi-year program is to replace problem waterlines in the distribution system, bringing them up to District standards, increasing reliability, and reducing maintenance liabilities and water losses.

The proposed annual expenditures currently include a program level budget only to identify specific sections of waterlines and prepare detailed project cost estimates for subsequent approval by the Board. As the design moves forward, individual projects are created and funded for full construction costs. Currently identified sections of waterline known to need replacement include the following:

1. True Value Hardware at Pony Express in Pollock Pines – 300' of 4"
2. Easy Street at Ridge Way in Pollock Pines – Replacement 800' of 4"
3. Polaris Street & Drop Off Street in Pollock Pines - Replacement 800' of 8"
4. Safeway to Hazel Hwy 50 crossing – Replacement 325' of 8"

**Basis for Priority:**

Continued line breaks that affect the supply and quality of water to our customers and increased maintenance costs to continuously repair these lines. This project is required to protect and preserve the health and safety of customers, employees and the public.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 10,000	<b>Expenditures through end of year:</b>	\$ 9,445
<b>Spent to Date:</b>	\$ 9,445	<b>2015 - 2019 Planned Expenditures:</b>	\$ 125,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 134,445
<b>Project Balance</b>	\$ 555	<b>Additional Funding Required</b>	\$ 124,445

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 125,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 125,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$24,445
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$24,445</b>

**Funding Comments:** This funding is for overall program level budgeting only and does not include construction costs.



**Project Number:** 14027  
**Project Name:** PLC Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/14/14

**Project Description:**

The project involves replacing 8 antiquated and end of life cycle Tesco PLC control panels / radio units. The current units are controllers and radio units. Replacing these units fixes two issues at once. The new PLCs will have a separate modern radio, greatly stabilizing the network and control system. Additionally this also includes the removal of one Tesco repeater site (Res12) and two master Tesco PLCs (Res1 & Res A). Some of these sites are dependent on each other for proper control and radio communication. This interdependency makes it infeasible to replace these sites one at a time. This must be a coordinated effort requiring labor beyond our current staffing levels.

The following sites need to be replaced: Gold Hill Intertie, Dolomite, Union Mine PS, Pollock Pines, Sportsman's PS, Moose Hall Res, Res 2. (3) of these sites can be replaced with a smaller and less expensive control panel - Pollock Pines, Res A (incorporate into the current CL), Res 2 (remote I/O). The remaining (5) sites will need full control panels. These Tesco units are long past life cycle replacement by about 10 to 15 years.

**Basis for Priority:**

These units are transmitting on an illegal frequency under the FCC's new regulations, as of 2013, and are not capable of being modified to meet compliance. EID has been notified by the FCC to modify all of our licensed frequency to meet narrow banding requirements. The replacement of these units will bring our radio system into compliance and stabilize a fragile water distribution control system. In addition to the great risk of interrupted service to our customers, EID is needlessly spending a lot of resources (Mechanics, Operators, Electrician, & Control Technicians) in an attempt to keep this system running. New parts have not been available for this technology for years. Technical support is not available and the operating software is not supported.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 330,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 330,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 330,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Design & PM						\$ -
Construction	\$ 260,000	\$ 70,000				\$ 330,000
						\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 260,000</b>	<b>\$ 70,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 330,000</b>

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$260,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$260,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** DOT Construction Projects - Water  
**Project Category:** State/County Road Projects

**Priority:** 1      **PM:** Rice      **Board Approval:** 10/14/14

**Project Description:**

At Board direction, staff has streamlined contracting procedures with the El Dorado County Department of Transportation (DOT) and City of Placerville for joint projects. EID has many water and sewer lines in roads maintained by the El Dorado County Department of Transportation (DOT). From time to time, DOT initiates a road project where either the EID water, wastewater or recycled waterlines need to be relocated or upgraded, which presents opportunities to join forces with DOT in the project by simultaneously upgrading and/or relocating our facilities. EID and DOT staff have implemented methods to improve mutual cooperation in conducting county road construction projects that impact EID facilities.

Currently identified sections of waterline known to need replacement include the following:

Western Placerville Interchange - Phase 2.

Oakhill at Pleasant Valley Rd line relocation

Individual projects identified under this program will be broken out and funded as a separate CIP project as identified to the District by DOT.

**Basis for Priority:**

Projects are required by law, regulation, contract, agreement or license. This includes projects required to meet requirements imposed by federal, State, or local governments. This also includes relocation of District facilities necessitated by State or County road improvements.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 125,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 125,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 125,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$ 125,000
Construction Costs						\$ -
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 125,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$25,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$25,000</b>

**Funding Comments:** Typically work involves replacement or relocation of existing facilities. However, funding split will be further evaluated for each project.

**Project Number:** PLANNED  
**Project Name:** El Dorado Hills Raw Water Pump Station Improvements  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Rice **Board Approval:** 10/14/14

**Project Description:**

The adopted 2013 Integrated Water Resources Master Plan recommends construction of a new raw water pump station. The adopted plan includes firming up the capacity of the EDHWTP to 26 mgd as part of other renewal and replacement upgrades. All water produced at this plant must be pumped from Folsom Reservoir and then from the plant to the transmission and distribution system. Limiting the EDHWTP to 26 mgd capacity minimizes long-term O&M and power costs. The existing raw water pump station was designed as a temporary facility in anticipation of a new raw water pump station with a temperature control device. The pumps have been the source of repeated failures and costly repairs. However, that facility is not needed under the 2013 adopted plan because the EDHWTP will not be expanded. As a result, a temperature control device is not needed and the existing raw water pump station needs to be upgraded to provide for long-term operational needs. This project includes a feasibility study to look at alternatives for construction of a permanent, efficient, and cost effective replacement of the "C side" pumps to meet the 26 MGD firm capacity as well as environmental review and a Basis of Design report to develop a program schedule and cost estimate.

**Basis for Priority:**

This project will maintain existing assets, including life cycle replacement of the pump station and other assets, provide for reduced costs, and meet demands of increasing growth and increased water supply.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 2,500,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 2,500,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 2,500,000

Description of Work	Estimated Annual Expenditures					
	2015	2016	2017	2018	2019	Total
Study/Planning	\$100,000	\$200,000				\$ 300,000
Design			\$ 200,000			\$ 200,000
Construction Costs				\$ 1,000,000	\$ 1,000,000	\$ 2,000,000
						\$ -
<b>TOTAL</b>	\$ 100,000	\$ 200,000	\$ 200,000	\$ 1,000,000	\$ 1,000,000	\$ 2,500,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$100,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$100,000</b>

**Funding Comments:** 100% water rates, for replacement of an existing pump station facility.

**Project Number:** PLANNED  
**Project Name:** EDHWTP Process Controls Replacement  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Strahan      **Board Approval:** 10/14/14

**Project Description:**

This site needs all of its automation equipment removed and replaced. This will also require SCADA programming and configuration changes to meet the needs of the new equipment configuration. The proposed equipment is obsolete, parts are limited or no longer available and not supported by the manufacturer. The following PLCs will be removed and incorporated into the current Control Logix Master Plant PLC: Filters 1 & 2 PLC (PLC 5) , Filters 3 & 4 PLC (PLC 5) , Filter 5 & 6 PLC (PLC 5) , GE PLC and remote racks and the local interface panel in the control room. Additionally, in this project the Control Logix CPUs will need to be upgraded to a redundant system and replace (2) of the problematic 5555 series controllers. The plant PLC network will need to be evaluated and modified to secure the Salmon Falls network radio connection and to accommodate the new PLC I/O racks. Once the automation issues are corrected, the SCADA graphical interface will need to be modified to match the new setup and correct the current visualization short falls. This work will involve the modifications of 30 screens.

**Basis for Priority:**

Due to overdue life cycle replacement, this site's equipment is very difficult and time consuming to maintain and/or provide any new development. The current equipment provides inferior water reliability to where Operations, at times, struggles with some basic control and data collection tasks. This site has a nasty mixture of equipment that makes the automation difficult to troubleshoot, maintain and operate. Furthermore, this site becomes unstable when EID staff works on it. Remote corrective and preventative maintenance is not an option, needlessly requiring windshield time to resolve minor issues.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 1,400,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 1,400,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,400,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning				\$ 200,000		\$ 200,000
Design					\$ 1,200,000	\$ 1,200,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ 200,000	\$ 1,200,000	\$ 1,400,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$1,200,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$1,200,000</b>

**Funding Comments:** Implementation costs need further evaluation

**Project Number:** PLANNED  
**Project Name:** Greenstone Tank Telemetry Installation  
**Project Category:** Regulatory Requirements

**Priority:** 1      **PM:** Strahan      **Board Approval:** 10/14/14

**Project Description:**

CCR T22 §64585 (b)(6)(7) require control, monitoring and protection from unauthorized access of drinking water storage facilities. The Greenstone tank is the only drinking water storage tank operated by the District that does not meet these regulatory requirements. This CIP is to install operational and security monitoring control to the SCADA telemetry system for the protection of the public's drinking water.

**Basis for Priority:**

Currently the Greenstone tank is not in compliance for security and operation regulations for drinking water storage facilities.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 45,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 45,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 45,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design	\$ 5,000					\$ 5,000
Construction	\$ 40,000					\$ 40,000
						\$ -
<b>TOTAL</b>	\$ 45,000	\$ -	\$ -	\$ -	\$ -	\$ 45,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water Rates	100%		\$45,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$45,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Permit 21112 Change in Point of Diversion  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Mueller      **Board Approval:** 10/14/14

**Project Description:**

In 2013, the District adopted the Integrated Water Resources Master Plan which calls for construction of facilities to divert water at the White Rock Penstock, convey the raw water to a new treatment plant in the Western Region, and transmit the treated water. This project is to prepare feasibility studies required to finalize locations and alignments, refine design criteria and sizing, identify land requirements, and update costs estimates. The water to be diverted will be a combination of 1) supplies obtained by the El Dorado Water and Power Authority and made available under the El Dorado-SMUD Cooperation Agreement, and 2) Permit 21112. To take all or any portion of Permit 21112 water upstream, EID must successfully petition the State Water Resources Control Board (SWRCB) for permit changes to add points of diversion and rediversion. The SWRCB Change Petition process encompasses preparation of the Petition (including preliminary engineering, hydrologic, and biological analyses, mapping, legal review, and preliminary meetings with SWRCB staff, California Department of Fish & Wildlife staff, and other stakeholders); California Environmental Quality Act compliance; prosecution of the Petition; evidentiary hearings before the SWRCB if any protests are unresolved; and potentially administrative appeals and litigation. The planned annual expenditures reflect a timeline of Petition preparation in 2015, CEQA compliance and Petition prosecution in 2016 and 2017, and Petition prosecution and SWRCB hearing in 2018. Any post-hearing proceedings would require additional funding. Following completion of feasibility studies additional engineering will include pre-design, design and environmental studies for construction and construction of the facilities.

**Basis for Priority:**

This project provides measurable progress toward achieving the District's goals, meeting demands of increased growth within the District's service area, expansion of services made necessary by new development, and increases water supply and reliability. The Change Petition process can take many years, particularly if it requires a hearing before the SWRCB. Although construction of White Rock diversion facilities will not commence for some time, it is prudent to begin this regulatory approval process well in advance of construction.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 375,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 375,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 375,000

Description of Work	Estimated Annual Expenditures					
	2015	2016	2017	2018	2019	Total
Study/Planning	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000		\$ 300,000
Design					\$ 75,000	\$ 75,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 375,000

Funding Sources	Percentage	2015	Amount
Water FCCs	100%		\$75,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$75,000</b>

Funding Comments:

2015

**CAPITAL IMPROVEMENT PLAN Program:**

**Water**

**Project Number:** PLANNED  
**Project Name:** Pressure Reducing Station Replacement Program  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Rice      **Board Approval:** 10/14/14

**Project Description:**

The District has numerous pressure reducing stations throughout the service area to keep line pressures within acceptable ranges as it travels from Pollock Pines down to El Dorado Hills. This program is to identify specific stations to remove, replace or upgrade to maintain service reliability throughout the District. For 2015, improvements for the Moosehall, Res 9 Flow Control, Deep Haven, and Hess Extension pressure regulating stations are scheduled. These stations have suffered extensive corrosion and will be difficult to maintain in the future. Loss of pressure control or valve failure can result in extensive water line damage or complete failure. Program management expenditures identified include prioritizing and designing each PRS replacement. Actual PRS replacement costs for each individual station will be brought to the Board for specific approval.

**Basis for Priority:**

Existing stations are incurring increasing maintenance costs and reduced service reliability due to age and degradation.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 50,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 50,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 50,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning	\$10,000	\$10,000	\$10,000	\$ 10,000	\$ 10,000	\$ 50,000
Design						\$ -
Construction Costs						\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 10,000</b>	<b>\$ 10,000</b>	<b>\$ 10,000</b>	<b>\$ 10,000</b>	<b>\$ 10,000</b>	<b>\$ 50,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water Rates	100%		\$10,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$10,000</b>

**Funding Comments:** Projects involve upgrade of existing facilities and no planned increase in capacity, therefore funding is 100% water rates.

**Project Number:** PLANNED  
**Project Name:** Pump Station Upgrade Program  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Rice      **Board Approval:** 10/14/14

**Project Description:**

The District has numerous small to medium sized pump stations throughout the service area that operate to increase pressures to customers at higher elevations. This is an annual program to upgrade pump stations that have deteriorated or reached the end of their service life. Pump stations at Sportsman's, South Point, Crestview, Oro Loma, Dolomite, Thorson, Monte Vista and Arrow Bee are in need of upgrades to ensure reliable supply of the necessary pressure and flow to their respective service areas, and to comply with fire flow requirements and incorporate emergency standby power where needed. Replacement components include pumps, hydropneumatic tanks, pressure switches, valves, yard piping, SCADA equipment and possibly building upgrades to accommodate larger equipment. Proposed funding includes feasibility level study and prioritization of pump stations for replacement only. Specific pump stations identified for improvement will have design and construction estimates developed in detail for presentation to the Board.

**Basis for Priority:**

Potential interruption to service throughout the District in the event of failures and continued use of expiring equipment that may pose a threat to the health and safety of customers, employees, and the public.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 50,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 50,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 50,000

Description of Work	Estimated Annual Expenditures					
	2015	2016	2017	2018	2019	Total
Study/Planning	\$10,000	\$10,000	\$10,000	\$ 10,000	\$ 10,000	\$ 50,000
Design						\$ -
Construction Costs						\$ -
						\$ -
<b>TOTAL</b>	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 50,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$10,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$10,000</b>

**Funding Comments:** Work involves planning the upgrade of existing facilities for reliability of service and does not increase capacity.



**Project Number:** PLANNED  
**Project Name:** Sly Park Intertie Improvements  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2 **PM:** Noel **Board Approval:** 10/14/14

**Project Description:**

The Sly Park Intertie is a key component in alleviating shortages during drought conditions and provides operational flexibility between the Reservoir A and Reservoir 1 water treatment facilities. This project includes improvements to approximately 3.4 miles of 20-inch waterline. The existing waterline was constructed on a fast-track basis in 1977-78 with a bare steel interior that is now corroded. A basis of design report was completed in 2004 to identify scope and potential costs. The project will extend the life of the pipeline and provide the District greater reliability and operational flexibility to convey water between Reservoir 1 and Reservoir A. Improvements to the Sly Park Intertie will reduce pipe friction, reduce power costs and increase water delivery efficiency. This project was identified in the 2013 Integrated Water Resources Master Plan as a needed project for water supply reliability.

**Basis for Priority:**

Necessary to ensure continued water supply reliability as continuing corrosion degradation will eventually lead to failures of the pipeline.

**Project Financial Summary:**

<b>Funded to Date:</b>		<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>		<b>2015 - 2019 Planned Expenditures:</b>	\$ 4,320,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 4,320,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 4,320,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning		\$ 288,000				\$ 288,000
Design			\$317,000			\$ 317,000
Construction				\$1,354,000	\$ 2,361,000	\$ 3,715,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 288,000	\$ 317,000	\$ 1,354,000	\$ 2,361,000	\$ 4,320,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** The project extends the life of a facility and restores the intended design capacity, therefore project is funded by 100% water rates.

2015

**CAPITAL IMPROVEMENT PLAN** Program:

**Water**

**Project Number:** PLANNED  
**Project Name:** Spencers Road Waterline Replacement  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Rice      **Board Approval:** 10/14/14

**Project Description:**

This section of waterline has been identified by District construction staff for replacement to reduce ongoing maintenance liabilities and water losses. Portions of the existing AC waterline have insufficient cover and are even exposed in several sections. The proposed project scope includes relocation and burial of 700 lineal feet of 6-inch C-900 waterline to bring it up to District standards and improve reliability.

**Basis for Priority:**

Continued line breaks that affect the supply and quality of water to our customers and increased maintenance costs to continuously repair these lines. This project is required to maintain service reliability.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 130,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 130,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 130,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design		\$ 10,000				\$ 10,000
Construction		\$ 120,000				\$ 120,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 130,000	\$ -	\$ -	\$ -	\$ 130,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** The project improves service reliability to existing services.

**Project Number:** PLANNED  
**Project Name:** Water SCADA Network Reliability Program  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Eberhard      **Board Approval:** 10/14/14

**Project Description:**

Maintain the reliability and performance of the current SCADA infrastructure used to manage automated process control through timely upgrades to aging critical infrastructure, including local and wide-area process control networks, application software, server platform, server environment, and security systems.

Priority actions include:  
 Upgrade the core process control network for reliability, security, alerting, and management.

**Basis for Priority:**

Maintains the reliability and performance of the current SCADA system used to manage automated operations and perform regulatory reporting functions of the district. Operating SCADA infrastructure equipment beyond end of life may represent significant risks to service reliability, operating expenses, and regulatory compliance.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 305,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 305,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 305,000

Description of Work	Estimated Annual Expenditures					
	2015	2016	2017	2018	2019	Total
Res A WTP	\$ 35,000	\$ 50,000				\$ 85,000
Res 1 WTP		\$ 50,000				\$ 50,000
EDH WTP	\$ 35,000	\$ 50,000				\$ 85,000
Strawberry WTP	\$ 85,000					\$ 85,000
<b>TOTAL</b>	\$ 155,000	\$ 150,000	\$ -	\$ -	\$ -	\$ 305,000

Funding Sources	Percentage	2015	Amount
Water rates	100%		\$155,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$155,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Water Tank Recoating Program  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2 **PM:** Rice **Board Approval:** 10/14/14

**Project Description:**

The District operates 36 steel storage tanks, ranging in age from 3 to 61 years of age, most of which were constructed in the last 15 years as part of the District line and cover program. In the last two years three tanks have received complete tank and coating rehabilitation. Insufficient inspection and coating system maintenance can lead to excessive maintenance, small leaks, major repairs, or the need for replacement of rafters, roof deck or the complete tank.

The proposed budget is based on re-coating at least one tank each year to establish an 18 year rotation of routine coating maintenance. Multiple tanks have been inspected during the last two years to help prioritize coating repairs and upgrades. The water tanks proposed for rehabilitation within the next 5 year cycle include Reservoir 6, Oak Ridge #1, Reservoirs 2 and 2A, and Reservoir 7A, as well as one recycle and one wastewater storage tank. The tanks vary in the extent of steel rehabilitation required and the size of tanks varies from 2.0 to 5.0 mgd, all resulting in the various annual costs shown.

**Basis for Priority:**

Project purpose is to maintain existing assets and prolong their useful service life and reliability.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 4,545,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 4,545,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 4,545,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design		\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 100,000
Construction Costs		\$980,000	\$ 975,000	\$ 1,540,000	\$ 950,000	\$ 4,445,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 1,005,000	\$ 1,000,000	\$ 1,565,000	\$ 975,000	\$ 4,545,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Project involves no planned increase in capacity, therefore funding is 100% water rates.

**Project Number:** SDWL04  
**Project Name:** Reservoir Floating Cover Replacement Program  
**Project Category:** Regulatory Requirements

**Priority:** 1      **PM:** Noel      **Board Approval:** 10/14/14

**Project Description:**

This project consists of upgrades to the District's reservoirs currently fitted with floating covers. The District has completed a study that evaluated the condition of the existing floating covers and identified current deficiencies and repairs required to extend their useful life until such time as full replacement or capacity increases are needed. Maintenance of these reservoir covers is required by DDW to ensure public health and safety. Funding includes necessary repairs plus installation of various improvements to the existing floating covers to extend their life until replacement and proceeding with design and environmental work for the overall program. Existing cover maintenance will occur each year and in 2015 planning will begin to re-evaluate cover conditions, verification of replacement order and initiate planning for complete new covers or steel tank replacements. The priority for the floating covers are as follows:

Reservoir 1, Reservoir 11, Dolomite Cover, Pollock Pines Cover, and Reservoir B Cover

**Basis for Priority:**

Maintaining integrity of the floating covers is critical to ensuring water quality and protection of public health and safety.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 400,000	<b>Expenditures through end of year:</b>	\$ 191,568
<b>Spent to Date:</b>	\$ 191,568	<b>2015 - 2019 Planned Expenditures:</b>	\$ 150,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 341,568
<b>Project Balance</b>	\$ 208,432	<b>Additional Funding Required</b>	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction Costs	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$ 150,000
						\$ -
<b>TOTAL</b>	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 150,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Project involves no planned increase in capacity, therefore funding is 100% water rates.

# Wastewater Projects

**Project Number:** 10018  
**Project Name:** Rancho Ponderosa Decommission  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 1 **PM:** Caulfield **Board Approval:** 10/14/14

**Project Description:**

The Rancho Ponderosa WWTP (RPWWTP) has been replaced with a new lift station to carry the wastewater to the Deer Creek / Mother Lode collection system. The RPWWTP consisted of two small ponds and a small disinfection building and basin. In order to reclaim the property and properly demolish all the existing treatment facilities a decommission plan and then execution of the plan is necessary. Sludge disposal may be required based on ground testing results. The plan will require coordination with the RWQCB including a revocation of the operations license.

The soil in ponds 1 and 2 were tested in 2012 and the results indicated high levels of total nitrogen and nitrate. Rather than pay for expensive hauling of the sludge in the ponds to a landfill, operations staff have tilled the soil in the ponds to allow for natural decomposition of the nitrate in the soil. The funding is for staff time and further testing of the soil in 2015.

**Basis for Priority:**

The facility was taken off line in 2009. In order to reclaim the property for other uses in an environmentally responsible manner, a proper decommissioning is necessary and a decommissioning plan would need to be approved by the RWQCB.

Project Financial Summary:			
Funded to Date:	\$ 167,919	Expenditures through end of year:	\$ 11,135
Spent to Date:	\$ 11,135	2015 - 2019 Planned Expenditures:	\$ 10,000
Cash flow through end of year:		Total Project Estimate:	\$ 21,135
Project Balance	\$ 156,784	Additional Funding Required	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 10,000					\$ 10,000
Design						\$ -
Construction		\$ -				\$ -
						\$ -
<b>TOTAL</b>	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ 10,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 11011  
**Project Name:** Deer Creek WWTP Crossing  
**Project Category:** Regulatory Requirements  
**Priority:** 1      **PM:** Brink      **Board Approval:** 10/14/14

**Project Description:**

In 2008 the Board approved the final design of the bridge, and in 2010 approved the construction contract. Construction was completed in 2010, along with mitigation planting for trees removed during the construction of the bridge. Per the regulatory permit requirements, mitigation monitoring of the tree plantings is required for five years after project completion. Annual reports must be submitted to the Department of Fish and Wildlife to document the plant survival rate. Replacement of plants may be required if the plant survival rate is below requirements.

**Basis for Priority:**

Regulatory requirement per the construction permit.

Project Financial Summary:			
Funded to Date:	\$ 146,629	Expenditures through end of year:	\$ 28,336
Spent to Date:	\$ 25,336	2015 - 2019 Planned Expenditures:	\$ 6,000
Cash flow through end of year:	\$ 3,000	Total Project Estimate:	\$ 34,336
Project Balance	\$ 118,293	Additional Funding Required	\$ -

Description of Work	Estimated Annual Expenditures					
	2015	2016	2017	2018	2019	Total
Study/Planning						\$ -
Design						\$ -
Construction	\$ 3,000	\$ 3,000				\$ 6,000
						\$ -
<b>TOTAL</b>	<b>\$ 3,000</b>	<b>\$ 3,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,000</b>

Funding Sources	Percentage	2015	Amount
Wastewater Rates	75%		\$0
Wastewater FCCs	25%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:



**Project Number:** 11028  
**Project Name:** Strolling Hills Sewer Pipeline  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Brink **Board Approval:** 10/14/14

**Project Description:**

The Strolling Hills Sewer pipeline is located at the end of the Mother Lode force main within the Cameron Estates residential development. It consists of approximately 1/2-mile of 12-inch asbestos cement force main located primarily in easements in private property and approximately 1-mile of 12-inch gravity PVC sewer line. Visual observations and the dynamic pipe model indicate the gravity lines are surcharging in the manholes during peak flow events. Flow monitoring equipment was placed within the manholes to collect flow data. The 12-inch pipe limits capacity, prohibiting the use of the high capacity pumps at the El Dorado Lift Station. During peak rain events, the District has had to use septic hauling companies and District staff to haul wastewater from Pond 1 at the El Dorado Lift Station to prevent spilling of wastewater from Pond 1 which would result in a sanitary sewer overflow. The replacement pipe will be of a larger size to accommodate the larger pumps, and approved growth with the resulting increased flow. The existing gravity manholes are also in poor condition due to hydrogen sulfide corrosion and will be replaced as part of the project. This CIP includes planning and design dollars in 2018-2019

**Basis for Priority:**

If the pipe is not replaced, subsequent sewer spills may occur. If sewer spills occur, the District may be subject to regulatory fines.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 5,707
<b>Spent to Date:</b>	\$ 5,707	<b>2015 - 2019 Planned Expenditures:</b>	\$ 125,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 130,707
<b>Project Balance</b>	\$ 44,293	<b>Additional Funding Required</b>	\$ 80,707

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design/CM/Inspection				\$ 25,000	\$ 100,000	\$ 125,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ 25,000	\$ 100,000	\$ 125,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Wastewater Rates	65%		\$0
Wastewater FCCs	35%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Rates 65%, wastewater FCC 35%

**Project Number:** 12012  
**Project Name:** Wastewater Generator Replacement Program  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Sullivan      **Board Approval:** 10/14/14

**Project Description:**

The District currently has 45 permanently located (stationary) generators within the wastewater collections system. Thirteen are larger than 200 Kw and are emergency standby power at the wastewater and water treatment plants as well as pumping stations. Some of the sewer lift stations also have either diesel or propane generators for emergency power. This program is to replace these aging assets to ensure reliable service and safe operations at our facilities.

**Basis for Priority:**

Replace failing assets to ensure operation of collection system lift stations.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 265,053	<b>Expenditures through end of year:</b>	\$ 426,473
<b>Spent to Date:</b>	\$ 216,473	<b>2015 - 2019 Planned Expenditures:</b>	\$ 460,000
<b>Cash flow through end of year:</b>	\$ 210,000	<b>Total Project Estimate:</b>	\$ 886,473
<b>Project Balance</b>	\$ (161,420)	<b>Additional Funding Required</b>	\$ 621,420

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning			\$ 10,000		\$ 10,000	\$ 20,000
Design			\$ 20,000		\$ 20,000	\$ 40,000
Construction			\$200,000		\$200,000	\$ 400,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 230,000	\$ -	\$ 230,000	\$ 460,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Wastewater Rates	100%		\$161,420
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$161,420</b>

**Funding Comments:** Project replaces existing assets to ensure reliability in collection system.

**Project Number:** 12015  
**Project Name:** DCWWTP Change of Use Petition  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Wells **Board Approval:** 10/14/14

**Project Description:**

The State Water Resources Control Board (SWRCB) issued Water Rights Order (WRO-95-9) in 1995 that mandates the District to discharge a minimum of 1.0 million gallons per day (mgd) of treated wastewater from the DCWWTP into Deer Creek. Staff would like to revisit WRO 95-9 and file a change of use petition with the water rights division of the SWRCB. The goal of the project is to reduce or eliminate the minimum discharge requirement to Deer Creek. If the minimum discharge requirement is reduced or eliminated, that effluent can be utilized as recycled water to help meet peak day recycled water demands. Currently, the District has to supplement the recycled water system with potable water during the peak demand months. In the last three years, the District has supplemented the recycled water system with an average of 350 acre-feet of potable water each year. Reducing the minimum discharge requirement will allow the District to reduce or cease potable water supplementation to the recycled water system. Reducing the potable water production during peak summer months will save on potable water treatment and energy costs. Further, it would reduce/eliminate selling the potable water supplemented into the recycled water system at recycled water rates.

In June 2011, staff met with the California Department of Fish and Game (CDFG) to discuss the District's interest in re-visiting WRO 95-9. Discussions at the meeting were encouraging. CDFG staff were receptive to the District's desire to make greater use of recycled water, and reduce its dependence on upper watershed uses for potable water production, yet they were also interested in continuing to protect the riparian and aquatic resource downstream of the DCWWTP. Therefore, staff developed a three-phased approach for this project: Phase 1 consisted of a hydrologic model and gathering of ecological information, Phase 2 will consist of field surveys and development of the environmental document that will accompany the change of use petition, and Phase 3 will consist of filing the change of use petition with the SWRCB and agency correspondence. Board support and public outreach will be a critical element if this effort is to be successful.

Phase I is complete and staff briefed the board on the results and the recommended next steps. The funding in 2015 and 2016 is for the following: to conduct field surveys of the riparian habitat and develop and EIR for the project, coordination with regulatory agencies, filing of the change of use petition and staff time.

**Basis for Priority:**

Compliance with SWRCB directives; increase operational and financial efficiencies.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 177,905	<b>Expenditures through end of year:</b>	\$ 139,590
<b>Spent to Date:</b>	\$ 139,590	<b>2015 - 2019 Planned Expenditures:</b>	\$ 325,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 464,590
<b>Project Balance</b>	\$ 38,315	<b>Additional Funding Required</b>	\$ 286,685

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 175,000	\$ 100,000	\$ 50,000			\$ 325,000
Design						\$ -
Construction						\$ -
<b>TOTAL</b>	<b>\$ 175,000</b>	<b>\$ 100,000</b>	<b>\$ 50,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 325,000</b>

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$136,685
<b>Total</b>	<b>100%</b>		<b>\$136,685</b>

Funding Comments:

**Project Number:** 12021  
**Project Name:** Wastewater SCADA System Reliability Program  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/14/14

**Project Description:**

This project will replace (19) PLC/RTUs and add the required monitoring equipment (instrumentation) at the following lift stations: Thunderhead, Indian Creek, Arlette, Buckeye, Bar J, Deer Park, Diamond Industrial, Starbuck, Summit View 1, Marina Hills, Summit 2 & 5, Oakridge, Waterford 8 & 9, BLT Master RTU, North Uplands, Browns Ravine 1 & 2.

In 2013 and 2014 staff went through an extensive process to define a standardized PLC system setup for all lift stations. Two PLCs were installed in late 2013 and 2014 by staff to wring out the process for planning future installations. 2015 through 2019 will see a significant catch up effort to address deferred upgrades of existing out-of-date PLCs used extensively for process control in the collection systems. The existing PLCs are now about 30 years old and 10 years beyond their expected useful life. Additionally, these PLCs only provide 10-20% of the monitoring capabilities compared to current standard PLC's (3 to 5 monitoring points versus 30) meaning these facilities have no ability to report pump failures or incrementally report on wet well levels before reaching the high water limit. Also, they can go up to 24 hours before alerting of a communications or control issue, while current standard PLCs will alert within 5 minutes (a 288% increase in time to detect issues proactively). Locating replacement parts and technical support for the old PLCs is nearly impossible.

This project also includes professional services funding to design the electrical and mechanical elements for installation and integration of the PLCs into the facilities and outside construction to install the new PLC systems.

**Basis for Priority:**

End of Life cycle replacement for PLCs / radios controlling wastewater collections. These units are 10 years beyond end of life (15 years in some cases) and require above normal maintenance attention. The District struggles with finding parts and keeping these units in service. The SCADA Group highly recommends immediate replacement to significantly reduce the risks of sanitary sewer overflows (SSO).

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 83,717	<b>Expenditures through end of year:</b>	\$ 83,717
<b>Spent to Date:</b>	\$ 51,995	<b>2015 - 2019 Planned Expenditures:</b>	\$ 390,000
<b>Cash flow through end of year:</b>	\$ 31,722	<b>Total Project Estimate:</b>	\$ 473,717
<b>Project Balance</b>	\$ 0	<b>Additional Funding Required</b>	\$ 390,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Design						\$ -
Installation	\$ 99,000	\$ 72,750	\$ 72,750	\$ 72,750	\$ 72,750	\$ 390,000
						\$ -
<b>TOTAL</b>	<b>\$ 99,000</b>	<b>\$ 72,750</b>	<b>\$ 72,750</b>	<b>\$ 72,750</b>	<b>\$ 72,750</b>	<b>\$ 390,000</b>

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$99,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$99,000</b>

Funding Comments:

2015

CAPITAL IMPROVEMENT PLAN Program:

Wastewater

**Project Number:** 12030  
**Project Name:** DCWWTP Permit Renewal  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Wells **Board Approval:** 10/14/14

**Project Description:**

This CIP is for a NPDES permit renewal at the DCWWTP and compliance requirements.

NPDES permit renewal

The Regional Water Quality Control Board (RWQCB) issues a new NPDES permit every 5 years. Staff submitted a report of waste discharge (ROWD) to the RWQCB in June of 2013. The RWQCB issued a new permit that went into effect on August 1, 2014. The permit contains effluent limitations for zinc that the DCWWTP currently cannot comply with. The RWQCB issued a time schedule order (TSO) for zinc. The TSO allows the District time (until October 2017) to come into compliance with the zinc effluent limitation in the permit. The funding is for a study to determine site-specific water quality criteria for zinc within Deer Creek.

**Basis for Priority:**

The District is required to maintain compliance with effluent limitations in our discharge permits, otherwise the District will be subject to permit violations and regulatory fines.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 102,460	<b>Expenditures through end of year:</b>	\$ 102,460
<b>Spent to Date:</b>	\$ 76,044	<b>2015 - 2019 Planned Expenditures:</b>	\$ 225,000
<b>Cash flow through end of year:</b>	\$ 26,416	<b>Total Project Estimate:</b>	\$ 327,460
<b>Project Balance</b>	\$ (0)	<b>Additional Funding Required</b>	\$ 225,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning	\$ 175,000	\$ 50,000				\$ 225,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 175,000	\$ 50,000	\$ -	\$ -	\$ -	\$ 225,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Wastewater Rates	70%		\$122,500
Wastewater FCCs	30%		\$52,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$175,000</b>

**Funding Comments:** Funding split is based on available capacity at the plant

**Project Number:** 13004  
**Project Name:** Lift Station Elimination Study  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/14/14

**Project Description:**

Several lifts stations are in need of rehabilitation which can exceed \$1,000,000 per station; however staff has preliminary information that some of the lift stations in need of rehabilitation may be eliminated by diverting flows to a nearby downhill lift station. Staff continue perform preliminary studies to determine the feasibility of eliminating lift stations by analyzing the hydraulics, capacities, easements and constructability of several candidate locations. Eliminating lift stations reduces the cost of operating, maintaining in addition to rehabilitation costs.

If the study conclusions indicate that the elimination of specific lift station(s) can be accomplished, then staff will return to the board for further funding to design and construct the necessary infrastructure to proceed.

In 2013, staff found that three lift stations can be eliminated in the El Dorado collections system. The Ridgeview 7 lift station was eliminated in 2013. The elimination of Mormon Island and Lake Ridge Oak stations have been designed and are awaiting final CEQA approvals with the anticipation they will be eliminated in 2015. Staff is currently investigating the elimination of Ridgeview 10 and Marina Village 2. This study will continue in 2015 to follow through with current and future potential locations.

**Basis for Priority:**

Reliability and cost reduction are District priority goals. Several candidate lift stations which are scheduled for rehabilitation may be eliminated, saving the cost of the rehabilitation, periodic labor to operate and maintain and future subsequent rehabilitation cycles. If investigation of eliminating candidate lift stations is performed early enough, it may avoid costly scheduled rehabilitation.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 112,000	<b>Expenditures through end of year:</b>	\$ 112,000
<b>Spent to Date:</b>	\$ 82,043	<b>2015 - 2019 Planned Expenditures:</b>	\$ 150,000
<b>Cash flow through end of year:</b>	\$ 29,957	<b>Total Project Estimate:</b>	\$ 262,000
<b>Project Balance</b>	\$ (0)	<b>Additional Funding Required</b>	\$ 150,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 20,000	\$ 20,000	\$ 20,000			\$ 60,000
Design	\$ 30,000	\$ 30,000	\$ 30,000			\$ 90,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ 150,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$50,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$50,000</b>

Funding Comments:

**Project Number:** 13005  
**Project Name:** 2013 Deer Creek - Mother Lode Collection System Corrective Action Plan  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Sullivan      **Board Approval:** 10/14/14

**Project Description:**

The objective of this project is to reduce sanitary sewer overflows and sources of inflow and infiltration (I/I). This CIP will target replacement of worn pumps, level sensors, flow meters, air relief valves, repair/rehabilitation of manholes, pipelines, cleanouts and minor repairs at the lift stations and pipelines.

**Basis for Priority:**

Reduction of sanitary sewer overflows is a high-priority for the District. If failing components within the collection system are not replaced and rehabilitated, sanitary sewer overflows may worsen and expose the district to regulatory violations, mandatory fines and citizen law suits.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ 89,394	<b>Expenditures through end of year:</b>	\$ 89,394
<b>Spent to Date:</b>	\$ 52,703	<b>2015 - 2019 Planned Expenditures:</b>	\$ 400,000
<b>Cash flow through end of year:</b>	\$ 36,691	<b>Total Project Estimate:</b>	\$ 489,394
<b>Project Balance</b>	\$ 0	<b>Additional Funding Required</b>	\$ 400,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction Costs	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$ 400,000
						\$ -
<b>TOTAL</b>	<b>\$ 80,000</b>	<b>\$ 80,000</b>	<b>\$ 80,000</b>	<b>\$ 80,000</b>	<b>\$ 80,000</b>	<b>\$ 400,000</b>

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$80,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$80,000</b>

**Funding Comments:** Funding is 100% wastewater rates as no new capacity is being added.

**Project Number:** 13009  
**Project Name:** Camino Heights WWTP Permit Requirements  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Wells **Board Approval:** 10/14/14

**Project Description:**

The Camino Heights WWTP permit was revised and issued to the District in June of 2012. The permit contains technical reports and a sludge removal plan and groundwater coliform investigation report that this CIP will address.

The following is a list of the requirements in the permit:

- 1) Effluent salinity work plan, due 3/1/2013 (item complete)
- 2) Local agricultural beneficial use study, due 12/1/2013 (item complete)
- 3) Groundwater monitoring well disinfection work plan and sampling analysis plan, due 3/1/2013 (item complete)
- 4) Report documenting completion of monitoring well disinfection and SAP implementation, due 10/1/2013 (item complete)
- 5) Sludge removal analysis, due 2013 (item complete)
- 6) Sludge cleanout plan, due 180 days after the removal analysis
- 7) Removal of sludge, within 360 days of the sludge analysis
- 6) Groundwater coliform investigation and source identification report, due 2016

**Basis for Priority:**

The District must maintain compliance with the permit for this facility.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ 82,573	<b>Expenditures through end of year:</b>	\$ 19,917
<b>Spent to Date:</b>	\$ 19,917	<b>2015 - 2019 Planned Expenditures:</b>	\$ 100,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 119,917
<b>Project Balance</b>	\$ 62,656	<b>Additional Funding Required</b>	\$ 37,344

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 75,000	\$ 25,000				\$ 100,000
						\$ -
<b>TOTAL</b>	<b>\$ 75,000</b>	<b>\$ 25,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 100,000</b>

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$12,344
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$12,344</b>

Funding Comments:



**Project Number:** 13021  
**Project Name:** 2013 El Dorado Hills Collection System Corrective Action Plan  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/14/14

**Project Description:**

The objective of this project is to reduce sanitary sewer overflows and sources of inflow and infiltration (I/I). This CIP will target replacement of worn pumps, level sensors, flow meters, air relief valves, repair/rehabilitation of manholes, pipelines, cleanouts and minor repairs at the lift stations and pipelines.

**Basis for Priority:**

Reduction of sanitary sewer overflows is a high-priority for the District. If failing components within the collection system are not replaced and rehabilitated, sanitary sewer overflows may worsen and expose the district to regulatory violations, mandatory fines and citizen law suits.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 290,746	<b>Expenditures through end of year:</b>	\$ 290,746
<b>Spent to Date:</b>	\$ 217,384	<b>2015 - 2019 Planned Expenditures:</b>	\$ 400,000
<b>Cash flow through end of year:</b>	\$ 73,362	<b>Total Project Estimate:</b>	\$ 690,746
<b>Project Balance</b>	\$ 0	<b>Additional Funding Required</b>	\$ 400,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$ 400,000
						\$ -
<b>TOTAL</b>	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 400,000

Funding Sources	Percentage	0	Amount
Wastewater Rates	100%		\$80,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$80,000</b>

**Funding Comments:** Project funding is for replacement/rehabilitation work.

**Project Number:** 13023  
**Project Name:** Town Center Force Main  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Brink **Board Approval:** 10/14/14

**Project Description:**

This project has been identified as "high priority" due to three pipeline failures in the last 2 years. The objective of this project is to reduce the potential of sanitary sewer overflows caused by pipe failures. The eight-inch force main runs from the Town Center lift station for approximately 2.6 miles until it ties into the Mother Lode force main at the E Dorado "Y" located two miles west of El Dorado along Mother Lode Drive. The pipe was constructed in 1981 and serves approximately 167 accounts. The pipe is asbestos cement (AC) pipe which is the same material used in the Mother Lode force main. Like the Mother Lode force main, this pipeline is failing due to the AC pipe's low corrosion resistance from the hydrogen sulfide gasses in the pipeline. Also, the back pressure from the Mother Lode force main during high flow events causes additional stresses to the pipe. Staff installed a check valve near the force main tie in location in late 2013 to help reduce the overstressing. In July 2013, the Board approved a construction contract to replace approximately 900 feet of the pipeline in the vicinity of the breaks. The project will be completed in early 2014.

The recommended schedule for future work is as follows:

- 2015 - Complete construction of the current project.
- 2016-17 - Hire a consultant to design a replacement pipe line and produce biddable documents and conduct environmental review.
- 2018 - replace approximately one mile of the pipeline with the District's standard plastic pipe.
- 2019 - Design future replacements. Additional CIP funding in 2020 and beyond will be required to replace all the pipeline.

**Basis for Priority:**

Current project is in active construction. If additional portions of the pipe is not replaced, subsequent sewer spills may occur. If sewer spills occur, the District may be subject to regulatory fines.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 442,071	<b>Expenditures through end of year:</b>	\$ 338,139
<b>Spent to Date:</b>	\$ 63,139	<b>2015 - 2019 Planned Expenditures:</b>	\$ 1,575,000
<b>Cash flow through end of year:</b>	\$ 275,000	<b>Total Project Estimate:</b>	\$ 1,913,139
<b>Project Balance</b>	\$ 103,932	<b>Additional Funding Required</b>	\$ 1,471,068

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 25,000					\$ 25,000
Design		\$ 50,000	\$ 150,000		\$ 150,000	\$ 350,000
Construction				\$ 1,200,000		\$ 1,200,000
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ 50,000	\$ 150,000	\$ 1,200,000	\$ 150,000	\$ 1,575,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 13024  
**Project Name:** El Dorado Lift Station Improvements  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/14/14

**Project Description:**

The El Dorado Lift Station (EDLS) is the main pumping facility for the Mother Lode (eastern area) of the District to the DCWWTP via the Mother Lode force main. The EDLS is a critical District facility located in the town of El Dorado and currently serves 2534 EDUs. The facility was constructed in 1975 and is in need of major repairs to the majority of the key components to increase reliability and facilitate operations. The project will be phased over a few years.

The phasing includes:

2013 - Partial replacement of the existing SCADA system and the bar screen / washer compactor system was completed.

2014 - Full pre-design study and start design for next phase in 2016

2016 - 2017 Replacement of original electrical components that are no longer reliable and no longer have replacement parts available. Upgrade and replace remainder of SCADA system. Install a flow meter and pressure transducer to monitor and protect the fragile Mother Lode force main. Upgrade, replace the existing pumps to provide better power efficiency. Possibly add another pump to fill a flow void in the current pump system range.

**Basis for Priority:**

This project provides replacement of failing components at this critical facility; thereby providing safe, reliable collection system assets.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ 345,591	<b>Expenditures through end of year:</b>	\$ 345,591
<b>Spent to Date:</b>	\$ 262,859	<b>2015 - 2019 Planned Expenditures:</b>	\$ 1,024,000
<b>Cash flow through end of year:</b>	\$ 82,732	<b>Total Project Estimate:</b>	\$ 1,369,591
<b>Project Balance</b>	\$ (0)	<b>Additional Funding Required</b>	\$ 1,024,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design/CM/Inspection						\$ -
Construction	\$ -	\$ 712,000	\$ 312,000			\$ 1,024,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 712,000	\$ 312,000	\$ -	\$ -	\$ 1,024,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	65%		\$0
Wastewater FCC	35%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** funding split based on plant capacity

2015

CAPITAL IMPROVEMENT PLAN Program:

Wastewater

**Project Number:** 13026  
**Project Name:** 2013 Lift Station Upgrades Design  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Brink **Board Approval:** 10/14/14

**Project Description:**

This project is for the design of replacement projects for the Business Park 2, Waterford 7, South Point and Bridlewood Canyon Lift Station projects as part of the program level design CIP to address issues of safety and reliability within the District's system of sewer lift stations. As part of the approved 2013 Wastewater Facilities Master Plan, consulting engineers and District staff performed condition assessments of existing lift stations. Results of these assessments were used to identify these lift stations for replacement or repairs. In November 2013 the Board approved design contract with HydroScience Engineers. They have since completed the design of the Business Park 2 replacement lift station (the Carson Creek 1 lift station), which will be built under CIP 14020. The design of the other three lift stations will be completed in 2015 and 2016. This CIP is for the design only. Construction of the projects will be conducted under individual CIP projects.

**Basis for Priority:**

This project provides life-cycle replacement of sewer lift stations thereby providing safe, reliable collection system assets.

Project Financial Summary:			
Funded to Date:	\$ 569,966	Expenditures through end of year:	\$ 211,952
Spent to Date:	\$ 211,952	2015 - 2019 Planned Expenditures:	\$ 525,000
Cash flow through end of year:		Total Project Estimate:	\$ 736,952
Project Balance	\$ 358,014	Additional Funding Required	\$ 166,986

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design	\$ 300,000	\$ 225,000				\$ 525,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 300,000</b>	<b>\$ 225,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 525,000</b>

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 13034  
**Project Name:** Wastewater Facility Replacement Program  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Caulfield/Wells **Board Approval:** 10/14/14

**Project Description:**

This is an annual program to replace equipment and facilities used in the wastewater system that have failed or reached end of useful life. Funding will be used to replace pumps, valves, and other equipment that, with replacement, extend the life of the asset. Below is a list of items in need of repair/replacement for the EDHWWTP, DCWWTP and CHWWTP:

**EDHWWTP**

- Chemical Tanks
- HACH N2 Meter
- Lab equipment
- Solar inverter replacement
- Corrosion prevention

**DCWWTP**

- Outdoor main switch for upper transformer
- Backwash building repair
- MCC replacement for the US Filter
- Corrosion prevention

**CHWWTP**

- Tail water return rehabilitation

**Basis for Priority:**

Project purpose is to maintain existing assets and prolong their useful service life and reliability.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 49,556
<b>Spent to Date:</b>	\$ 49,556	<b>2015 - 2019 Planned Expenditures:</b>	\$ 600,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 649,556
<b>Project Balance</b>	\$ 444	<b>Additional Funding Required</b>	\$ 599,556

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 200,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 600,000
						\$ -
<b>TOTAL</b>	<b>\$ 200,000</b>	<b>\$ 100,000</b>	<b>\$ 100,000</b>	<b>\$ 100,000</b>	<b>\$ 100,000</b>	<b>\$ 600,000</b>

Funding Sources	Percentage	2015	Amount
Wastewater Rates	70%		\$139,689
Wastewater FCCs	30%		\$59,867
			\$0
<b>Total</b>	<b>100%</b>		<b>\$199,556</b>

**Funding Comments:** Funding split based on available plant capacity

**Project Number:** 14001  
**Project Name:** Silva Valley Pipeline  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/14/14

**Project Description:**

The Wastewater Facility Master Plan (WWMP) collection system model identified this gravity line as having capacity issues in some sections of the pipeline. This project is to survey manhole inverts and above ground topography of the lower section of the gravity line. Additionally, staff proposes to install flow monitors to analyze the wet weather flows of the pipeline. The results of the survey and the flow monitoring will be modeled with the District's collection system model to determine if there is remaining capacity in the pipeline. The capacity results will aid staff in determining when the pipeline needs to be upsized. Increasing the capacity of the Silva Valley pipeline is included in the District's FCC and is planned for in the WWMP. The WWMP identified 2,100 feet of pipeline that will need upsizing in the future.

**Basis for Priority:**

The collection system model identified this gravity line as having capacity issues in some sections of the pipeline. If the line is at capacity, it could overflow resulting in significant sanitary sewer overflows. Additionally, future connections to the collection system will be limited if the pipeline is out of capacity.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 50,000
<b>Spent to Date:</b>	\$ 19,703	<b>2015 - 2019 Planned Expenditures:</b>	\$ 25,000
<b>Cash flow through end of year:</b>	\$ 30,297	<b>Total Project Estimate:</b>	\$ 75,000
<b>Project Balance</b>	\$ (0)	<b>Additional Funding Required</b>	\$ 25,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning	\$ 25,000					\$ 25,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ 25,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Wastewater FCC	100%		\$25,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$25,000</b>

Funding Comments:

**Project Number:** 14002  
**Project Name:** El Dorado Hills Pipeline  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/14/14

**Project Description:**

The Wastewater Facility Master Plan (WWMP) collection system model identified this gravity line as having capacity issues in some sections of the pipeline. This project is to survey manhole inverts and above ground topography of the lower section of the gravity line. Additionally, staff proposes to install flow monitors to analyze the wet weather flows of the pipeline. The results of the survey and the flow monitoring will be modeled with the District's collection system model to determine if there is remaining capacity in the pipeline. The capacity results will aid staff in determining when the pipeline needs to be upsized. Increasing the capacity of the El Dorado Hills pipeline is included in the District's FCC and is planned for in the WWMP. The WWMP identified 4,500 feet of pipeline that will need upsizing in the future.

**Basis for Priority:**

The collection system model identified this gravity line as having capacity issues in some sections of the pipeline. If the line is at capacity, it could overflow resulting in significant sanitary sewer overflows. Additionally, future connections to the collection system will be limited if the pipeline is out of capacity.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 50,000
<b>Spent to Date:</b>	\$ 13,226	<b>2015 - 2019 Planned Expenditures:</b>	\$ 25,000
<b>Cash flow through end of year:</b>	\$ 36,774	<b>Total Project Estimate:</b>	\$ 75,000
<b>Project Balance</b>	\$ 0	<b>Additional Funding Required</b>	\$ 25,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 25,000					\$ 25,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ 25,000

Funding Sources	Percentage	2015	Amount
Wastewater FCCs	100%		\$25,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$25,000</b>

Funding Comments:

**Project Number:** 14007  
**Project Name:** Camino Heights Automation Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Strahan      **Board Approval:** 10/14/14

**Project Description:**

This project requires the complete reprogramming of the automation and graphical interface of this treatment plant. The PLC control hardware and network needs simplification and the ability to record critical compliance data locally.

**Basis for Priority:**

This plant lacks basic functions for reliable monitoring, recording and controlling of the treatment process via automation. Camino Heights Treatment Plant's current automation is a liability to the District, in regards to compliance with our permit. This is a satellite plant that would ideally not require onsite staff for minor adjustments. However, due to the current disrepair of the automation, this site is maintenance intensive and requires extensive windshield time.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 200,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 200,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 200,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Design	\$ 50,000					\$ 50,000
Construction	\$ 150,000					\$ 150,000
						\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 200,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 200,000</b>

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$200,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$200,000</b>

Funding Comments:



**Project Number:** 14020  
**Project Name:** Carson Creek 1 Lift Station  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 1 **PM:** Brink **Board Approval:** 10/14/14

**Project Description:**

This CIP was formally known as the Business Park 2 Lift Station Replacement Project. Based on assessments performed by engineering and operations, the Business Park 2 lift station is one of the highest priority sites for replacement. The Business Park 2 Lift Station was constructed in 1985 and has reached the end of its useful life. The site receives gravity flows from within the east end of the El Dorado Hills business park and also receives flows from the Business Park 3 lift station. The pumps are original and have had many repairs. The steel discharge piping within the wet well has been repaired numerous times. The steel wet well and pump rails have severe corrosion. The existing original generator and controls are now obsolete.

Lennar is planning to build homes in the Carson Creek development adjacent to the BP2 site starting in 2014. The new development will require a new lift station. On March 24, 2013, the Board approved a reimbursement agreement with Lennar to build a single new lift station that will serve to replace BP2 and will serve Lennar's Carson Creek Unit 1. Per the agreement, Lennar will be responsible for 60.5% of the design and construction costs. The District will also share costs on the sewer lines and force mains necessary to divert BP2 flows to the new lift station. This CIP includes funding for the District's portion of the construction costs (39.5 % of design and construction costs). Design is performed under the 2013 Lift Station Upgrades Design CIP (PN 13026).

**Basis for Priority:**

The Board has approved the Reimbursement Agreement with Lennar which commits the District to build the lift station. In addition, the Business Park 2 lift station has reached the end of its useful life. Failure of the lift station could have severe impacts to customers and result in sanitary sewer overflows.

Project Financial Summary:			
<b>Funded to Date:</b>		<b>Expenditures through end of year:</b>	\$ 200,000
<b>Spent to Date:</b>		<b>2015 - 2019 Planned Expenditures:</b>	\$ 1,300,000
<b>Cash flow through end of year:</b>	\$ 200,000	<b>Total Project Estimate:</b>	\$ 1,500,000
<b>Project Balance</b>	\$ (200,000)	<b>Additional Funding Required</b>	\$ 1,500,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 1,250,000	\$ 50,000				\$ 1,300,000
						\$ -
<b>TOTAL</b>	<b>\$ 1,250,000</b>	<b>\$ 50,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,300,000</b>

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$1,450,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$1,450,000</b>

**Funding Comments:** Approximately 60.5% of cost to be reimbursed by Lennar

**Project Number:** 14021  
**Project Name:** DOT Construction Projects - Wastewater  
**Project Category:** State/County Road Projects  
**Priority:** 1 **PM:** Brink **Board Approval:** 10/14/14

**Project Description:**

The Board has directed staff to streamline contracting procedures with the El Dorado County Department of Transportation (DOT) for the two agencies' joint projects. EID has many water and sewer lines in roads maintained by the DOT. From time to time, DOT initiates a road project where either EID water, wastewater or recycled waterlines need to be relocated or upgraded, which presents opportunities to join forces with DOT in the project by simultaneously upgrading and/or relocating our facilities. EID and DOT staffs have identified several methods to improve mutual co-operation in conducting County road construction projects that impact EID facilities.

This CIP is intended for staff coordination with DOT throughout the year and for minor projects. The large utility relocation projects will have a specific CIP that identifies all the work associated with that project.

**Basis for Priority:**

Projects are required by law, regulation, contract, agreement or license. This includes projects required to meet requirements imposed by federal, State, or local governments. This also includes relocation of District facilities necessitated by State or County road improvements.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 31,561	<b>Expenditures through end of year:</b>	\$ 20,585
<b>Spent to Date:</b>	\$ 585	<b>2015 - 2019 Planned Expenditures:</b>	\$ 125,000
<b>Cash flow through end of year:</b>	\$ 20,000	<b>Total Project Estimate:</b>	\$ 145,585
<b>Project Balance</b>	\$ 10,976	<b>Additional Funding Required</b>	\$ 114,024

Description of Work	Estimated Annual Expenditures					
	2015	2016	2017	2018	2019	Total
Study/Planning						\$ -
Design/Inspection	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$ 125,000
Construction Costs						\$ -
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 125,000

Funding Sources	Percentage	0	Amount
Wastewater Rates	100%		\$14,024
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$14,024</b>

**Funding Comments:** Funding is 100% rates. Typically work involves replacement or relocation of existing facilities. However, funding split will be further evaluated for each project.

**Project Number:** 14022  
**Project Name:** DCWWTP Biosolids  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Wells **Board Approval:** 10/14/14

**Project Description:**

The DCWWTP consists of a headworks, primary and secondary treatment, tertiary filtration, UV disinfection and an outfall to Deer Creek. The solids process consists of activated sludge that is wasted to a pair of gravity thickeners which discharge to a 4-cell aerobic digester which also provides sludge storage. Sludge transfer pumps convey thickened, aerobically-digested sludge to a day tank for processing at an existing belt press which was installed in the 1990s. The existing system does not provide adequate dewatering performance. The DCWWTP has contracted with Synagro for about 10 years for solids cake off-hauling and disposal in accordance with Class B requirements. Due to the inability to achieve a minimum of 15 percent solids in the dewatered cake, Synagro recently informed the District that it will not renew the disposal contract, the cost is expected to rise and the future viability of this disposal method is not guaranteed. The District has initiated an engineering study to identify potential long-term solutions to achieve reliable dewatering performance. It is expected that the engineering study will be complete by the end of 2014. Staff will present the alternatives analysis and recommendation to the Board and request funding for a engineering design contract in late 2014/early 2015. If the project is approved by the Board, construction would begin in 2015.

**Basis for Priority:**

Maintain plant operational reliability and ultimately reduce sludge hauling costs.

Project Financial Summary:			
Funded to Date:	\$ 63,440	Expenditures through end of year:	\$ 63,440
Spent to Date:	\$ 48,440	2015 - 2019 Planned Expenditures:	\$ 1,025,000
Cash flow through end of year:	\$ 15,000	Total Project Estimate:	\$ 1,088,440
Project Balance	\$ -	Additional Funding Required	\$ 1,025,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design	\$ 125,000					\$ 125,000
Construction	\$ 650,000	\$ 250,000				\$ 900,000
						\$ -
<b>TOTAL</b>	<b>\$ 775,000</b>	<b>\$ 250,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,025,000</b>

Funding Sources	Percentage	2015	Amount
Wastewater Rates	70%		\$542,500
Wastewater FCCs	30%		\$232,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$775,000</b>

Funding Comments:

**Project Number:** 14026  
**Project Name:** Ridgeview 10 Lift Station Removal  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/14/14

**Project Description:**

Several lift stations are in need of rehabilitation which can exceed \$1,000,000 per station; however staff has preliminary information that some of the lift stations in need of rehabilitation may be eliminated by diverting flows to a nearby downhill lift station. Staff performed a preliminary study to determine the feasibility of eliminating lift stations by analyzing the hydraulics, capacities, easements and constructability of several candidate locations. Eliminating lift stations reduces the cost of operating, maintaining and rehabilitation.

The Ridgeview 10 lift station was identified for removal. The design has started and is expected to be completed by fall 2014. The project design would be handed over to the developer to integrate into their Village 8 design which is scheduled to be bid in early 2015. Costs for the construction would be reimbursed to the developer.

In order to remove the lift station from service the following is scheduled to be performed:

- Bypass lift station to existing gravity system
- Install manholes and pipeline to the proposed Village 8 subdivision

**Basis for Priority:**

The existing lift station was built in 1988 and has exceeded its use life. The main components are failing and the station is no longer necessary because gravity lines can be installed to eliminate the lift station and carry the sewage further down hill to the Promontory 1 lift station.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ 46,870	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 350,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 350,000
<b>Project Balance</b>	\$ 46,870	<b>Additional Funding Required</b>	\$ 303,130

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 350,000					\$ 350,000
						\$ -
<b>TOTAL</b>	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ 350,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$303,130
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$303,130</b>

Funding Comments:

**Project Number:** 14028  
**Project Name:** EDHWWTP Odor Control  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Sullivan **Board Approval:** 10/14/14

**Project Description:**

The District has received odor complaints from near-by residences and businesses that surround the EDHWWTP. The plant has some odor control measures, but lacks odor control sufficient to contain foul odors on the plant site. Containing odors on the plant site is a requirement of the discharge permit and odors emitting offsite are a violation of the permit. The District has received a violation for plant odors.

In order to determine the specific treatment processes that are the source of the odors, a plant-wide odor study was conducted in order to evaluate, document and determine the odor sources that can lead to off-site complaints. Air sampling was performed and odor dispersion modeling was conducted to determine community impacts from the various odor sources. The study recommended removing the biofilter media and replacing it with a new underdrain system and new media, covering the primary clarifiers, plumbing the existing EQ tanks to the biofilter and removing the granular activated carbon (GAC) odor control system that currently scrubs the foul air from the EQ tanks, and some minor modifications to the foul air ducting. The removal of the GAC system will save the District approximately \$100,000 per year since the carbon has to be replaced every year or so.

Staff will present the odor analysis and recommendations to the board and request funding for design services in 2014 with construction following in 2015.

**Basis for Priority: regulatory requirement**

Odors emitting from the plant site are a violation of the discharge permit, and the District is subject to additional violations and fines.

Project Financial Summary:			
Funded to Date:	\$ -	Expenditures through end of year:	\$ 75,000
Spent to Date:	\$ -	2015 - 2019 Planned Expenditures:	\$ 950,000
Cash flow through end of year:	\$ 75,000	Total Project Estimate:	\$ 1,025,000
Project Balance	\$ (75,000)	Additional Funding Required	\$ 1,025,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design	\$ 150,000					\$ 150,000
Construction	\$ 600,000	\$ 200,000				\$ 800,000
						\$ -
<b>TOTAL</b>	<b>\$ 750,000</b>	<b>\$ 200,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 950,000</b>

Funding Sources	Percentage	2015	Amount
FCC	35%		\$288,750
Wastewater Rates	65%		\$536,250
			\$0
<b>Total</b>	<b>100%</b>		<b>\$825,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Bridlewood Lift Station Rehabilitation Project  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/14/14

**Project Description:**

Based on a condition assessment performed by engineering and operations this lift station, which was constructed in 1989 and serves over 970 EDU's, has reached the end of its useful life. The lift station is one of the highest priority sites scheduled for rehabilitation. The lift station has an arc flash rating of category 3 and should be mitigated to a rating of 1.

New pumps and controls are required, along with associated piping, flow meters and odor control system. Based on preliminary investigations, it is assumed the existing fiberglass wet well can be rehabilitated and reused. After a new roof is installed and the building trim painted, the existing building will be reused to house the electrical controls. The site will be repaved as needed and a new fence will be installed around the perimeter. This CIP is for construction only. The lift station design is currently underway with the 2013 Lift Station Upgrades CIP. Construction is scheduled to commence in the 2015 and be completed in 2016.

**Basis for Priority:**

The lift station will continue to degrade increasing the risk of potential failures in the future which could result in hazards to the public and regulatory fines.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 1,135,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 1,135,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,135,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 1,100,000	\$ 35,000				\$ 1,135,000
						\$ -
<b>TOTAL</b>	<b>\$ 1,100,000</b>	<b>\$ 35,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,135,000</b>

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$1,100,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$1,100,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Business Park 3 Lift Station Improvements  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Brink      **Board Approval:** 10/14/14

**Project Description:**

Based on assessments performed by Engineering and Operations, the Business Park 3 lift station is a priority site for replacement. The Business Park 3 Lift Station was constructed in 1983, serves about 140 EDUs, and has reached the end of its useful life. The site receives gravity flows from within the El Dorado Hills business park and pumps into the Business Park 2 lift station. The pumps are original and have had many repairs. The steel discharge piping within the wet well has been repaired numerous times. The steel wet well and pump rails have severe corrosion. The existing original generator and controls are now obsolete. Complete replacement of the site is required.

The second phase of Lennar's planned Carson Creek development will require a new lift station. Based on the planned location of that lift station and local topography, it appears feasible that the Business Park 3 lift station could be abandoned and the associated sewer flows diverted to the new the new Carson Creek Unit 2 lift station. A cost sharing agreement for that new lift station would need to be executed with Lennar, similar to what was done for the Carson Creek 1 Lift Station. The District would share design and construction costs based on capacity. The funding included in this CIP is only for the District estimated portion of the costs. The schedule is dependent on Lennar's schedule to develop Unit 2 in Carson Creek.

**Basis for Priority:**

The site has reached the end of its useful life. Failure of the lift station could have severe impacts to customers and result in sanitary sewer overflows.

**Project Financial Summary:**

<b>Funded to Date:</b>		<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>		<b>2015 - 2019 Planned Expenditures:</b>	\$ 700,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 700,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 700,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design				\$ 100,000		\$ 100,000
Construction					\$ 600,000	\$ 600,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ 100,000	\$ 600,000	\$ 700,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Only includes the District's portion of the joint lift station

2015

CAPITAL IMPROVEMENT PLAN Program:

Wastewater

**Project Number:** PLANNED  
**Project Name:** EDHWWTP Energy and Process Audit  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Wells      **Board Approval:** 10/14/14

**Project Description:**

The purpose of this project is to conduct an equipment audit and a process audit to identify and quantify potential energy savings throughout the plant. The energy equipment audit involves looking at the major pieces of equipment at the WWTP and assessing the cost-effectiveness and energy savings of retrofit equipment. The process audit involves the review and evaluation of the District's processes and procedures at the WWTP to identify changes that would improve treatment facility performance, lower O&M costs, and save energy. With board concurrence, this study phase will commence in early 2015 and will take a few months to complete. Staff will brief the board on the study findings and recommendations.

**Basis for Priority:**

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 70,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 70,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 70,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 70,000					\$ 70,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ 70,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	65%		\$45,500
Wastewater FCCs	35%		\$24,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$70,000</b>

**Funding Comments:**



**Project Number:** PLANNED  
**Project Name:** EDHWWTP WAS DAFT  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Caulfield/Wells      **Board Approval:** 10/14/14

**Project Description:**

The WAS DAFT has reached its end of useful life. This project has been deferred for 2 to 3 years. The entire unit has failed already and we have taped it back together to "get-by". The motors and pumps have been rebuild several times, the circular arm unit has been repaired but is failing due to corrosion. A complete rehab is possible but at a large costs. The WAS DAFT is inherently labor intensive and it is worth the cost to investigate a different type of thickening unit with newer technology that would have lower energy costs as well as operating and maintenance costs. Staff recommends a study on this item for 2015, followed by design and construction start up in late 2016. A WAS DAFT is utilized as a sludge thickener before being pumped to the anaerobic digester. Ideally, solids thicker than 4% are best. The current WAS DAFT is labor intensive in order to reach a 4% thickened solids. There are other solid thickeners available today that can achieve greater than 4% solids. A study should occur to look at the options bearing in mind that phosphorus removal could be in the Districts near future permit cycle.

This CIP will include a feasibility analysis on the sludge thickening process at EDHWWTP and review the options for a renewable energy project. This CIP will also look at covering the WAS DAFT unit as there have been extreme foul odors produced from this existing facility.

**Basis for Priority:**

Repairing a failing facility at the EDHWWTP; improving efficiency of operations; eliminating an odor issue; analyzing a renewable energy project

Project Financial Summary:			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 360,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 360,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 360,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 20,000					\$ 20,000
Design	\$ 75,000					\$ 75,000
Construction		\$ 265,000				\$ 265,000
						\$ -
<b>TOTAL</b>	\$ 95,000	\$ 265,000	\$ -	\$ -	\$ -	\$ 360,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	65%		\$61,750
Wastewater FCCs	35%		\$33,250
			\$0
<b>Total</b>	<b>100%</b>		<b>\$95,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Rancho Ponderosa Lift Station Rehabilitation  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/14/14

**Project Description:**

Based on a condition assessment performed by engineering and operations this lift station, which was constructed in 1964 and serves over 16 EDU's, has reached the end of its useful life and has succumbed to deterioration. The lift station is a priority site scheduled for rehabilitation.

The condition assessment concluded that both pumps are very old and require replacement. The wet well is concrete and corroded. A brick wall was added at one time, likely due to SSO issues, which extends two feet above ground and has a large hole in it. The lift station site security is nonexistent presenting a liability. The check and isolation valves, piping manifold are worn out. All electrical components are old and not trustworthy. Overall, this is one of the oldest and lowest quality non standard lift stations in the District.

Based on the above assessment this station presents a high liability of potential failures and should have the entire station replaced with a package pump station similar to the Yates Lift Station along with station piping, valves, wet well lid system, portable generator connector, switching gear, new PLC control system, control panel system, new odor control system, and flow meter.

**Basis for Priority:**

The lift station will continue to degrade increasing the risk of potential failures in the future which could result in hazards to the public and regulatory fines.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 730,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 730,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 730,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design/CM/Inspection			\$ 30,000			\$ 30,000
Construction				\$ 700,000		\$ 700,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 30,000	\$ 700,000	\$ -	\$ 730,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** South Pointe Lift Station Rehabilitation  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Brink      **Board Approval:** 10/14/14

**Project Description:**

Based on a condition assessment performed by engineering and operations this lift station, which was constructed in 1990 and serves over 65 EDU's, has reached the end of its useful life. This lift station has experienced a SSO in the recent past. This lift station electrical system is classified as an arc flash Category 3.

New pumps and controls are required, along with associated piping, flow meters and odor controls. Based on condition assessments, it is assumed the existing fiberglass wet well can be rehabilitated and reused. After a new roof is installed and the building trim painted, the existing building will be reused to house the controls. A new fence will be installed around the perimeter. The lift station is located in the public right of way with no formal easement. As part of the project, the District will obtain a formal easement for the lift station from the County. This CIP is for construction only. The design is currently underway with the 2013 Lift Station Upgrades design CIP (PN 13026). Construction is scheduled to occur in 2017.

**Basis for Priority:**

The lift station will continue to degrade increasing the risk of potential failures in the future which could result in hazards to the public and regulatory fines.

Project Financial Summary:			
<b>Funded to Date:</b>		<b>Expenditures through end of year:</b>	
<b>Spent to Date:</b>		2015 - 2019 <b>Planned Expenditures:</b>	\$ 1,450,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 1,450,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,450,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design/CM/Inspection						\$ -
Construction			\$ 1,450,000			\$ 1,450,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 1,450,000	\$ -	\$ -	\$ 1,450,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Project replaces an existing lift station for current customers.

**Project Number:** PLANNED  
**Project Name:** Summit 1 and 3 Lift Station Improvements  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Brink      **Board Approval:** 10/14/14

**Project Description:**

The original Summit 1 and Summit 3 Lift Stations were constructed in 1989 and both have reached the end of their useful life. The lift stations receives flows from other lift stations, along with gravity flows, and are a critical part of the collection system. Combined they handle about 650 EDUs. There have been several near miss overflows that could have resulted in Category 1 SSO's. Based on preliminary evaluation it appears feasible to abandon Summit 1 lift station and divert all of its flows by gravity to Summit 3. If feasible, this improvement would be a great benefit to the District as it would remove a lift station from the system, along with its associated operating costs and replacement costs. Summit 3 would be upgraded to handle the increased flows from Summit 1, along with its existing flows. It is anticipated a new wet well will be required, along with new pumps, controls, odor control and generator. A new gravity line between Summit 1 and Summit 3 would be required, along with an extension of the force main from Summit 3.

**Basis for Priority:**

The lift station will continue to degrade increasing the risk of potential failures in the future which could result in hazards to the public and regulatory fines.

Project Financial Summary:			
Funded to Date:	\$ -	Expenditures through end of year:	\$ -
Spent to Date:	\$ -	2015 - 2019 Planned Expenditures:	\$ 1,175,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 1,175,000
Project Balance	\$ -	Additional Funding Required	\$ 1,175,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design/CM/Insp			\$ 100,000	\$ 75,000		\$ 175,000
Construction				\$ 1,000,000		\$ 1,000,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 100,000	\$ 1,075,000	\$ -	\$ 1,175,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2015

CAPITAL IMPROVEMENT PLAN Program:

Wastewater

Project Number: **PLANNED**  
 Project Name: **Wastewater Facilities Corrosion**  
 Project Category: **Reliability & Service Level Improvements**  
 Priority: **2** PM: **Caulfield** Board Approval: **10/14/14**

**Project Description:**

Pipes, buildings, pumps, tanks, filters are corroding to a point of failure at both wastewater facilities.

**Basis for Priority:**

Filters are developing holes and wall thinness due to corrosion, as well as other facility appurtenances.

<b>Project Financial Summary:</b>			
Funded to Date:	\$ -	Expenditures through end of year:	\$ -
Spent to Date:	\$ -	2015 - 2019 Planned Expenditures:	\$ 550,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 550,000
Project Balance	\$ -	Additional Funding Required	\$ 550,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction						\$ -
	\$ 50,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 550,000
<b>TOTAL</b>	\$ 50,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 550,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$50,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$50,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Wastewater Pipeline Replacement Program  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/14/14

**Project Description:**

This project is for the replacement/repair of failing pipelines in the wastewater collection system. This CIP will be for staff time associated with the investigation of pipelines that are in need of repair/replacement in the wastewater collection system, collection system modeling updates, and design work associated with improving the assets in the collection system. As individual pipeline replacement projects are identified, a separate CIP project will be developed with construction cost estimates.

In addition, the District is investigating adopting the National Association of Sewer Service Companies (NASSCO) standards and train staff in the following programs: Pipeline Assessment and Certification Program (PACP) and Manhole Assessment and Certification Program (MACP) and the Lateral Assessment and Certification Program (LACP). These standards can possibly be carried over to the Hansen system for monitoring and scheduling of replacements.

**Basis for Priority:**

This project provides life-cycle replacement of failing sewer pipelines thereby providing safe, reliable collection system assets.

Project Financial Summary:			
Funded to Date:	\$ -	Expenditures through end of year:	\$ -
Spent to Date:	\$ -	2015 - 2019 Planned Expenditures:	\$ 125,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 125,000
Project Balance	\$ -	Additional Funding Required	\$ 125,000

Description of Work	Estimated Annual Expenditures					
	2015	2016	2017	2018	2019	Total
Study/Planning	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 125,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 25,000</b>	<b>\$ 25,000</b>	<b>\$ 25,000</b>	<b>\$ 25,000</b>	<b>\$ 25,000</b>	<b>\$ 125,000</b>

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$25,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$25,000</b>

**Funding Comments:** Repair/replacement of existing assets

**Project Number:** PLANNED  
**Project Name:** Wastewater SCADA Network Reliability Program  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Eberhard **Board Approval:** 10/14/14

**Project Description:**

Maintain the reliability and performance of the current SCADA infrastructure used to manage automated process control through timely upgrades to aging critical infrastructure, including local and wide-area process control networks, application software, server platform, server environment, and security systems.

Priority actions include:  
 Upgrade the core process control network for reliability, security, alerting, and management.

**Basis for Priority:**

Maintains the reliability and performance of the current SCADA system used to manage automated operations and perform regulatory reporting functions of the district. Operating SCADA infrastructure equipment beyond end of life may represent significant risks to service reliability, operating expenses, and regulatory compliance.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 275,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 275,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 275,000

Description of Work	Estimated Annual Expenditures					
	2015	2016	2017	2018	2019	Total
EDH WWTP	\$ 40,000	\$ 50,000				\$ 90,000
Deer Creek WWTP	\$ 50,000	\$ 50,000				\$ 100,000
Collections Facilities	\$ 35,000	\$ 50,000				\$ 85,000
						\$ -
<b>TOTAL</b>	<b>\$ 125,000</b>	<b>\$ 150,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 275,000</b>

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$125,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$125,000</b>

**Funding Comments:** Funding for the core process control network upgrade was previously in the 2012 SCADA System Reliability Program CIP.

**Project Number:** PLANNED  
**Project Name:** Waterford 7 Lift Station Rehabilitation  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Sullivan      **Board Approval:** 10/14/14

**Project Description:**

Based on a condition assessment performed by engineering and operations this lift station, which was constructed in 1988 and serves over 180 EDU's, has reached the end of its useful life. The lift station is a high priority sites scheduled for rehabilitation.

New pumps and controls are required, along with associated piping, flow meters and odor control system. Based on condition assessments, it is assumed the existing fiberglass wet well can be rehabilitated and reused. After a new roof is installed and the building trim painted, the existing building will be reused to house the electrical controls. The site will be repaved and a new fence will be installed around the perimeter. This CIP is for construction only. The design is currently underway with the 2013 Lift Station Upgrades design CIP. Construction is scheduled to occur in 2017.

**Basis for Priority:**

The lift station will continue to degrade increasing the risk of potential failures in the future which could result in hazards to the public and regulatory fines. OSHA compliance issues for workplace safety.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 700,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 700,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 700,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction			\$ 700,000			\$ 700,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 700,000	\$ -	\$ -	\$ 700,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:



# Hydroelectric Projects

**Project Number:** 03011H  
**Project Name:** Forebay Dam Upgrades  
**Project Category:** Regulatory Requirements

**Priority:** 1      **PM:** Eymann      **Board Approval:** 10/14/14

**Project Description:**

The reservoir is currently restricted 3 feet below the spillway crest by DSOD and FERC until the safety of the dam is improved. DSOD and FERC require that the dam's stability and freeboard be improved to minimum safety standards. Reservoir sediments under the reservoir restriction negatively impact El Dorado Project operations and have reached concerning levels. The Project significantly defers the cost of sediment removal by instead raising the dam. This not only allows continued water and hydropower production, but it also substantially increases water supply reliability and increases non-rate income to the District via additional hydropower revenue. FERC also requires that the spillway outfall, canal inlet to the reservoir, dam face, the two unused penstocks all be remediated. To mitigate these deficiencies, to optimize power generation and increase emergency water storage, the dam will be buttressed and raised dam 10 feet. DSOD has issued their approval of the Project and of the certified EIR completed in 2014. FERC has issued their engineering approval for the Project and will issue their final authorization to construct with the completion of the FERC-required 3-stage License Amendment process. Environmental permitting is ongoing through 2015, and construction is planned for 2016. Project cost estimates will be refined when the permits/conditions are received and will be updated accordingly.

**Basis for Priority:**

- Public safety is to be maintained and DSOD/FERC have issued a dam safety mandate. The Project is required to achieve the following:
- Safety: Protect life and property below the dam and meet dam safety regulatory mandates of DSOD and FERC
  - Reliability: Protect and improve drinking water reliability for the District's customers
  - Financial: Protect District ratepayers from the cost of required repairs by optimizing hydroelectric generation and minimizing capital costs

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 4,272,490	<b>Expenditures through end of year:</b>	\$ 4,062,281
<b>Spent to Date:</b>	\$ 4,022,281	<b>2015 - 2019 Planned Expenditures:</b>	\$ 18,000,000
<b>Cash flow through end of year:</b>	\$ 40,000	<b>Total Project Estimate:</b>	\$ 22,062,281
<b>Project Balance</b>	\$ 210,209	<b>Additional Funding Required</b>	\$ 17,789,791

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design	\$ 200,000					\$ 200,000
Construction		\$ 8,900,000	\$ 8,900,000			\$ 17,800,000
						\$ -
<b>TOTAL</b>	\$ 200,000	\$ 8,900,000	\$ 8,900,000	\$ -	\$ -	\$ 18,000,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2015

**CAPITAL IMPROVEMENT PLAN Program:**

**Hydroelectric**

**Project Number:** 04005H  
**Project Name:** Powerhouse Upgrades  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 1      **PM:** Noel      **Board Approval:** 10/14/14

**Project Description:**

Design of the emergency exits and air shaft access is completed and approved by FERC. Construction is planned for 2015.

**Basis for Priority:**

These are needed safety improvements

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 447,556	<b>Expenditures through end of year:</b>	\$ 426,280
<b>Spent to Date:</b>	\$ 426,280	<b>2015 - 2019 Planned Expenditures:</b>	\$ 120,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 546,280
<b>Project Balance</b>	\$ 21,276	<b>Additional Funding Required</b>	\$ 98,724

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design	\$10,000					\$ 10,000
Construction	\$110,000					\$ 110,000
<b>TOTAL</b>	<b>\$ 120,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 120,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water Rates	100%		\$98,724
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$98,724</b>

Funding Comments:

**Project Number:** 11003  
**Project Name:** Caples Lake Dam Regulatory Improvements  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Eymann **Board Approval:** 10/14/14

**Project Description:**

Replacement piezometers were installed at the Auxiliary Dam due to high readings as required by DSOD and FERC and engineering is reviewing the data to determine if water levels are appropriate. Staff is evaluating and monitoring a new seepage condition at the Main Dam; investigations are in the early stages. FERC and DSOD are reviewing this seepage condition. The dam cross-section prepared by the previous owner was found to be in error in 2013 and a revised cross-section is being prepared to correct the drawings.

This project continues the work of the previously approved and funded PN 07012H.

**Basis for Priority:**

Non-compliance with FERC and DSOD requirements

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 303,034	<b>Expenditures through end of year:</b>	\$ 73,889
<b>Spent to Date:</b>	\$ 65,889	<b>2015 - 2019 Planned Expenditures:</b>	\$ 30,000
<b>Cash flow through end of year:</b>	\$ 8,000	<b>Total Project Estimate:</b>	\$ 103,889
<b>Project Balance</b>	\$ 229,145	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning	\$30,000	*	*			\$ 30,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 11004  
**Project Name:** Lake Aloha Dam Regulatory Improvements  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Eymann **Board Approval:** 10/14/14

**Project Description:**

Part 12D studies and remediation are required for Lake Aloha Dams: the studies included new hydrologies, stability analysis and outlet tower reinforcement. The new hydrology and stability analysis has been completed and submitted to FERC for their review. FERC approved these studies in 2012. The outlet tower reinforcement design is 90% complete. Maintenance to the masonry Main and auxiliary dams is also planned. Construction is planned for 2018.

This project continues the work of the previously approved and funded PN 04002H.

**Basis for Priority:**

Non-compliance with FERC dam safety regulations.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 276,583	<b>Expenditures through end of year:</b>	\$ 31,428
<b>Spent to Date:</b>	\$ 30,428	<b>2015 - 2019 Planned Expenditures:</b>	\$ 380,000
<b>Cash flow through end of year:</b>	\$ 1,000	<b>Total Project Estimate:</b>	\$ 411,428
<b>Project Balance</b>	\$ 245,155	<b>Additional Funding Required</b>	\$ 134,845

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning	\$ 5,000					\$ 5,000
Design		\$ 5,000				\$ 5,000
Construction			\$ 70,000	\$ 300,000		\$ 370,000
						\$ -
<b>TOTAL</b>	\$ 5,000	\$ 5,000	\$ 70,000	\$ 300,000	\$ -	\$ 380,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2015

**CAPITAL IMPROVEMENT PLAN** Program:

**Hydroelectric**

**Project Number:** 11005  
**Project Name:** Silver Lake Dam Regulatory Improvements  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Eymann **Board Approval:** 10/14/14

**Project Description:**

Part 12D studies and remediation work are required for Silver Lake Dam: the studies include performing new flood studies, stability analysis, and structural analysis. The flood study found that the Dam is significantly overtopped and at risk of failure under the extreme hypothetical storm event required by FERC. The results of the flood study are under review by FERC with significant further studies anticipated. Since the scope of these studies are not known, no cost estimates are included in this CIP.

This project continues the work of the previously approved and funded PN 06017H.

**Basis for Priority:**

Compliance with FERC dam safety program requirements.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 554,234	<b>Expenditures through end of year:</b>	\$ 126,212
<b>Spent to Date:</b>	\$ 125,212	<b>2015 - 2019 Planned Expenditures:</b>	\$ 50,000
<b>Cash flow through end of year:</b>	\$ 1,000	<b>Total Project Estimate:</b>	\$ 176,212
<b>Project Balance</b>	\$ 428,022	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design	\$50,000	*	*			\$ 50,000
Construction				*		\$ -
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2015

CAPITAL IMPROVEMENT PLAN Program:

Hydroelectric

**Project Number:** 11008  
**Project Name:** Flume 39-40 Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Noel **Board Approval:** 10/14/14

**Project Description:**

This is the third and final phase of the three phase Flume 39-40 Replacement Project. The remaining 200 feet of elevated flume spans a year-round stream that is a tributary to the South Fork of American River. Design and in-house fabrication of the steel support structure to span the flume over the creek is completed. This last section of elevated flume is scheduled to be replaced during the 2015 with either District crews or outside contractor.

**Basis for Priority:**

The flume system will continue to deteriorate potentially causing flume failures that can spill sediment and water into environmentally sensitive areas.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 838,931	<b>Expenditures through end of year:</b>	\$ 654,878
<b>Spent to Date:</b>	\$ 654,878	<b>2015 - 2019 Planned Expenditures:</b>	\$ 765,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 1,419,878
<b>Project Balance</b>	\$ 184,053	<b>Additional Funding Required</b>	\$ 580,947

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design						\$ -
Construction Costs	\$765,000					\$ 765,000
						\$ -
<b>TOTAL</b>	<b>\$ 765,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 765,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$307,902
Water Rates	47%		\$273,045
			\$0
<b>Total</b>	<b>100%</b>		<b>\$580,947</b>

Funding Comments:

**Project Number:** 11009  
**Project Name:** Flume 45 Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Noel      **Board Approval:** 10/14/14

**Project Description:**

Flume 45 is 1,942 feet in length and 1,150 feet was constructed in 1948 on an un-mortared hand-stacked rock wall. Approximately 792 feet of this wooden flume was replaced by PG&E in 1991. District crews are scheduled to perform In-kind wood flume replacement and interim repairs of the remaining degraded 1,150 feet of wooden flume in 2014. However full stabilization of the bench is needed and is planned for 2016 utilizing bench stabilization methods developed for the Flume 41 Replacement Project with some flume replacement also.

**Basis for Priority:**

The flume will continue to deteriorate potentially causing flume failures that would result in significant impacts to the public, Highway 50, and the South Fork of the American River. Additionally, water supply would be out of service for an extended period to make emergency repairs resulting in interruption of the reliable delivery of water for consumptive use and hydroelectric power generation.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 565,200	<b>Expenditures through end of year:</b>	\$ 3,011,952
<b>Spent to Date:</b>	\$ 11,952	<b>2015 - 2019 Planned Expenditures:</b>	\$ 3,250,000
<b>Cash flow through end of year:</b>	\$ 3,000,000	<b>Total Project Estimate:</b>	\$ 6,261,952
<b>Project Balance</b>	\$ (2,446,752)	<b>Additional Funding Required</b>	\$ 5,696,752

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design	\$250,000					\$ 250,000
Construction Costs		\$ 3,000,000				\$ 3,000,000
						\$ -
<b>TOTAL</b>	\$ 250,000	\$ 3,000,000	\$ -	\$ -	\$ -	\$ 3,250,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$1,429,278
Water Rates	47%		\$1,267,473
			\$0
<b>Total</b>	<b>100%</b>		<b>\$2,696,752</b>

**Funding Comments:**



**Project Number:** 11023  
**Project Name:** Echo Conduit Replacement  
**Project Category:** Regulatory Requirements  
**Priority:** 2      **PM:** Eymann      **Board Approval:** 10/14/14

**Project Description:**

The Echo conduit is a 36-inch steel pipe that is situated above grade directly above Highway 50 and delivers water from Echo Lake to an open ditch, the tunnel, and ultimately to the South Fork of the American River for diversion into the El Dorado Canal. The conduit is the sole means of bringing 1,890 acre-feet of pre-1914 water rights and direct diversion water to the SFAR for District uses. The water also constitutes substantial annual power generation. In 2005, the tunnel portion of the Echo Lake water conveyance system was slip-lined under an emergency project due to multiple cave-ins. The conduit portion of the conveyance and its supporting timber foundation has reached the end of its useful life. Snow loading has crushed the conduit at several locations and, in conjunction with corrosion, has caused cracking at the joints. One of the conduit sections failed in 2003 and in 2009 new failures were observed requiring the District to decrease the flow in the conduit by 1/3 until the conduit can be replaced. Various conduit replacement alternatives need to be evaluated. In the meantime, before replacement, the conduit will continue to be "band-aided" and operated at a reduced flow rate. If leakage rates or safety concerns increase, the project schedule may require acceleration.

**Basis for Priority:**

FERC has requested a plan and schedule to replace or repair the conduit. This project will maintain existing assets and provide increased water delivery safety, reliability, and power generation.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 6,543
<b>Spent to Date:</b>	\$ 6,043	<b>2015 - 2019 Planned Expenditures:</b>	\$ 2,500,000
<b>Cash flow through end of year:</b>	\$ 500	<b>Total Project Estimate:</b>	\$ 2,506,543
<b>Project Balance</b>	\$ 43,457	<b>Additional Funding Required</b>	\$ 2,456,543

Description of Work	Estimated Annual Expenditures					
	2015	2016	2017	2018	2019	Total
Study/Planning	\$100,000	\$200,000				\$ 300,000
Design			\$100,000	\$100,000		\$ 200,000
Construction Costs					\$2,000,000	\$ 2,000,000
						\$ -
<b>TOTAL</b>	\$ 100,000	\$ 200,000	\$ 100,000	\$ 100,000	\$ 2,000,000	\$ 2,500,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$29,968
Water Rates	47%		\$26,575
			\$0
<b>Total</b>	<b>100%</b>		<b>\$56,543</b>

Funding Comments:

**Project Number:** 13022  
**Project Name:** Flume 52A Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Noel      **Board Approval:** 10/14/14

**Project Description:**

This project will replace Flume 52A, which consists of 377 feet of wooden flume, with new flumes and remove hazardous trees and rocks from the hillside to reduce the potential for future flume damage. Canal, flume, and spillway replacements are necessary in order to maintain reliability of the water supply. In addition this project will help ensure reliability of the drinking water supply and power generation. The CIP assumes the flumes will be replaced by District crews in-kind with wooden flumes. The work is scheduled to be performed in 2018. Removal of the Spillway 47C gates and box structure was completed in 2013 and converted to flume.

**Basis for Priority:**

The flume system will continue to deteriorate potentially causing flume failures that would result in significant impacts to the public, the South Fork of the American River, and other environmentally sensitive areas. Additionally, water supply would be out of service for an extended period to make emergency repairs resulting in interruption of the reliable delivery of water for consumptive use and hydroelectric power generation.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 2,058
<b>Spent to Date:</b>	\$ 2,058	<b>2015 - 2019 Planned Expenditures:</b>	\$ 3,100,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 3,102,058
<b>Project Balance</b>	\$ 47,942	<b>Additional Funding Required</b>	\$ 3,052,058

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction				\$ 3,100,000		\$ 3,100,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ 3,100,000	\$ -	\$ 3,100,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 14023  
**Project Name:** Flume 42-43 Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 1 **PM:** Noel **Board Approval:** 10/14/14

**Project Description:**

Flume 42/43 is 430 feet in length. In 2007, approximately 80 feet of the bench was washed away due to a flume breach sustained from tree fall. The subsequent emergency repair resulted in replacing this 80-foot section of ground level (on-grade) flume with an elevated flume section to span the wash-out. Due to limited lumber inventory and availability of full dimensional treated lumber, the District utilized both standard and other available lumber to complete the emergency repair. The 2014 work is designed to provide a 25-year maintenance life with an opportunity for relining and extending the life to 50-years by replacing the portions of the emergency repairs that were not completed to standard. The flume bench would be reconstructed utilizing Mechanically Stabilized Earthen (MSE) or concrete retaining walls to correct the existing over steepened soil conditions. These improvements would also allow the flume to be reconstructed to its original on-grade condition and provide all weather construction and maintenance access to Flumes 42/43 and 44 minimizing the use of helicopters. The reconstructed bench would be approximately 370 feet in length and up to 30 feet in height.

**Basis for Priority:**

The flume will continue to deteriorate potentially causing flume failures that would result in significant impacts to the public, Highway 50, and the South Fork of the American River. Additionally, water supply would be out of service for an extended period to make emergency repairs resulting in interruption of the reliable delivery of water for consumptive use and hydroelectric power generation.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 147,200	<b>Expenditures through end of year:</b>	\$ 2,000,000
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 100,000
<b>Cash flow through end of year:</b>	\$ 2,000,000	<b>Total Project Estimate:</b>	\$ 2,100,000
<b>Project Balance</b>	\$ (1,852,800)	<b>Additional Funding Required</b>	\$ 1,952,800

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 100,000					\$ 100,000
						\$ -
<b>TOTAL</b>	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$1,034,984
Water Rates	47%		\$917,816
			\$0
<b>Total</b>	<b>100%</b>		<b>\$1,952,800</b>

**Funding Comments:** To be replaced in 2014; funding for close out work.

2015

CAPITAL IMPROVEMENT PLAN Program:

Hydroelectric

Project Number: 14024  
 Project Name: Flume 44 Replacement  
 Project Category: Reliability & Service Level Improvements  
 Priority: 2 PM: Noel Board Approval: 10/14/14

**Project Description:**

This project will replace 473 feet of old wooden that was constructed in 1948 and replaced flume with a new wooden flume. Canal, flume, and spillway replacements are necessary in order to maintain reliability of the water supply. In addition this project will help ensure reliability of power generation. District crews are making interim repairs to Flume 44 in 2014 to extend the life until full replacement can occur.

**Basis for Priority:**

The flume will continue to deteriorate potentially causing flume failures that would result in significant impacts to the public, Highway 50, and the South Fork of the American River. Additionally, water supply would be out of service for an extended period to make emergency repairs resulting in interruption of the reliable delivery of water for consumptive use and hydroelectric power generation.

**Project Financial Summary:**

Funded to Date:	\$ 73,504	Expenditures through end of year:	\$ 100,000
Spent to Date:	\$ -	2015 - 2019 Planned Expenditures:	\$ 2,750,000
Cash flow through end of year:	\$ 100,000	Total Project Estimate:	\$ 2,850,000
Project Balance	\$ (26,496)	Additional Funding Required	\$ 2,776,496

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design	\$50,000	\$100,000				\$ 150,000
Construction Costs			\$2,600,000			\$ 2,600,000
						\$ -
<b>TOTAL</b>	<b>\$ 50,000</b>	<b>\$ 100,000</b>	<b>\$ 2,600,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,750,000</b>

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$40,543
Water Rates	47%		\$35,953
			\$0
<b>Total</b>	<b>100%</b>		<b>\$76,496</b>

Funding Comments:

**Project Number:** 14029  
**Project Name:** Esmeralda Tunnel Emergency Repair  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 1 **PM:** Mueller **Board Approval:** 10/14/14

**Project Description:**

The Esmeralda Tunnel partially collapsed on September 21, 2014 and subsequently caused the El Dorado Canal annual shutdown to occur earlier than planned. In 2002, the timber sections were replaced/repared with untreated wood that has since failed. The repair consists of stabilizing the tunnel for worker safety and replacing the timber lined sections with reinforced shotcrete to provide a permeant repair. Preliminary construction cost estimate is \$3.7 million.

The construction will require an extended canal outage lasting into the spring of 2015 and normal Project 184 operations will not resume as usual in December. This means additional water supply would need to be drawn from Jenkinson Lake, additional pumping would be needed to serve Pollock Pines, and the El Dorado Powerhouse would be shut down for an extended duration until repairs are completed. If the drought continues into 2015 this would be an additional concern.

**Basis for Priority:**

Restore tunnel and canal system to operational status to provide continued water delivery for water supply and hydroelectric power generation

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ 1,500,000
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 2,995,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 4,495,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 4,495,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Construction	\$ 2,995,000					\$ 2,995,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ 2,995,000	\$ -	\$ -	\$ -	\$ -	\$ 2,995,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water Rates	47%		\$1,407,650
Water FCCs	53%		\$1,587,350
			\$0
<b>Total</b>	<b>100%</b>		<b>\$2,995,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** 2015 Canals & Flumes Upgrades  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Noel      **Board Approval:** 10/14/14

**Project Description:**

Canals and flumes are assessed annually by District staff to assess and prioritize needed improvements that will be implemented during the annual Canal outage. These improvements are needed to extend the service life of the asset and maintain system reliability. Improvements to the degraded canal and flume sections include materials, concrete, shotcrete, helicopter support, equipment, and District crew labor. Canal, flume, and spillway improvements are necessary in order to maintain reliability of the water supply. In 2015, 400 feet of Flume 46 is scheduled to be relined by District crews with marine grade plywood.

**Basis for Priority:**

These are projects that provide measurable progress toward achieving the District's goals, but over which the District has a moderate level of control as to when they should be performed.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 500,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 500,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 500,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction Costs	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$ 500,000
<b>TOTAL</b>	<b>\$ 100,000</b>	<b>\$ 100,000</b>	<b>\$ 100,000</b>	<b>\$ 100,000</b>	<b>\$ 100,000</b>	<b>\$ 500,000</b>

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$53,000
Water Rates	47%		\$47,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$100,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Alder and Plum Siphon Assessment  
**Project Category:** Master Planning

**Priority:** 2      **PM:** Eymann      **Board Approval:** 10/14/14

**Project Description:**

FERC regulations and our standard operating procedures require the siphons to be inspected and assessed at regular intervals. This project is to perform a large scale assessment of each siphon and determine if any upgrades or replacements need to be made for continued reliability of water supply for drinking water and power generation.

**Basis for Priority:**

The District does not have any condition assessments of the siphons to determine the adequacy of the facility. The project will allow continued water supply reliability and power generation and provides measurable progress toward achieving the District's goals, but over which the District has a moderate level of control as to when they should be performed.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 50,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 50,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 50,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning			\$ 50,000			\$ 50,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ 50,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Caples Outlet Works Improvements  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** J. Eymann      **Board Approval:** 10/14/14

**Project Description:**

The outlet gate system at Caples Lake Dam require improvements to achieve reliable operations. Because the existing gate system was malfunctioning, immediate in-kind replacement was required in 2014 under a heavily expedited schedule. Upon removal and inspection of the failed gates, it was determined that the relatively low-cost in-kind replacement is an interim fix until additional outlet work improvements can be performed. All normal reservoir outflows for hydropower and drinking water supply are managed through the outlet gate system. Preliminary feasibility analysis has been performed to look at options to achieve reliable outlet system. Further detailed evaluation is recommended to select the best option for design and construction.

**Basis for Priority:**

Caples Lake Dam is a critical part of the District's Project 184 system and reliable gate operation is required by FERC and DSOD.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 125,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 125,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 125,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 125,000					\$ 125,000
Design		*	*			\$ -
Construction				*		\$ -
						\$ -
<b>TOTAL</b>	\$ 125,000	\$ -	\$ -	\$ -	\$ -	\$ 125,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$66,250
Water Rates	47%		\$58,750
			\$0
<b>Total</b>	<b>100%</b>		<b>\$125,000</b>

**Funding Comments:** Funding only includes feasibility effort. Future costs to improve the facility are unknown at this time



**Project Number:** PLANNED  
**Project Name:** Flume 4 Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Noel **Board Approval:** 10/14/14

**Project Description:**

This project will replace Flume 4 which consist of 400 feet of wooden flume with a new concrete flume, and remove hazardous trees and rocks from the hillside to reduce the potential for future flume damage. Also SW 5 will be upgraded and automated. Canal, flume, and spillway replacements are necessary in order to maintain reliability of the water supply. In addition this project will help ensure reliability of power generation. Construction is scheduled for 2020.

**Basis for Priority:**

The flume will continue to deteriorate potentially causing flume failures that would result in significant impacts to the public and the South Fork of the American River. Additionally, the water supply would be out of service for an extended period to make emergency repairs resulting in interruption of the reliable delivery of water for consumptive use and hydroelectric power generation.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 100,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 100,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 100,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design					\$ 100,000	\$ 100,000
Construction Costs						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ 100,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Flume 45A Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Noel **Board Approval:** 10/14/14

**Project Description:**

Flume 45A is 130 feet in length and constructed by PG&E in 1956 as a result of a blow-out of the canal. This flume was relined with fiberglass in 1989. District crews will be utilized to replace this flume with wooden sections during the scheduled Canal outage in 2017.

**Basis for Priority:**

The flume system will continue to deteriorate potentially causing flume failures that would result in significant impacts to the public, Highway 50, and the South Fork of the American River. Additionally, water supply would be out of service for an extended period to make emergency repairs resulting in interruption of the reliable delivery of water for consumptive use and hydroelectric power generation.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 755,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 755,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 755,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design						\$ -
Construction			\$ 755,000			\$ 755,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 755,000	\$ -	\$ -	\$ 755,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2015

**CAPITAL IMPROVEMENT PLAN Program:**

**Hydroelectric**

**Project Number:** PLANNED  
**Project Name:** Flume 46A Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Noel **Board Approval:** 10/14/14

**Project Description:**

Flume 46A is 128 feet in length and constructed by PG&E in 1966. District crews will be utilized to replace this flume during the scheduled canal outage in 2019.

**Basis for Priority:**

The flume system will continue to deteriorate potentially causing flume failures that would result in significant impacts to the public, Highway 50, and the South Fork of the American River. Additionally, water supply would be out of service for an extended period to make emergency repairs resulting in interruption of the reliable delivery of water for consumptive use and hydroelectric power generation

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 790,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 790,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 790,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design				\$ 150,000		\$ 150,000
Construction					\$ 640,000	\$ 640,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ 150,000	\$ 640,000	\$ 790,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Flume 47 Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Noel      **Board Approval:** 10/14/14

**Project Description:**

Flume 47 is 110 feet in length and last replaced in 1948 and relined with plywood by PG&E in 1977. District crews will be utilized to replace this flume during the scheduled canal outage in 2016.

**Basis for Priority:**

The flume system will continue to deteriorate potentially causing flume failures that would result in significant impacts to the public, Highway 50, and the South Fork of the American River. Additionally, water supply would be out of service for an extended period to make emergency repairs resulting in interruption of the reliable delivery of water for consumptive use and hydroelectric power generation.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 570,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 570,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 570,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design		\$ 50,000				\$ 50,000
Construction		\$ 520,000				\$ 520,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 570,000	\$ -	\$ -	\$ -	\$ 570,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Flume 48 Replacement  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Noel      **Board Approval:** 10/14/14

**Project Description:**

This project will replace the existing wooden flume that was constructed in 1948 and is 448 feet with a new concrete flume. Based upon the most recent condition assessment, this flume is scheduled for replacement in 2019.

**Basis for Priority:**

The flume will continue to deteriorate potentially causing flume failures that would result in significant impacts to the public, Highway 50, and the South Fork of the American River. Additionally, water supply would be out of service for an extended period to make emergency repairs resulting in interruption of the reliable delivery of water for consumptive use and hydroelectric power generation.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 3,950,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 3,950,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 3,950,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Environmental						\$ -
Design			\$ 50,000	\$ 150,000		\$ 200,000
Construction					\$ 3,750,000	\$ 3,750,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 50,000	\$ 150,000	\$ 3,750,000	\$ 3,950,000

Funding Sources	Percentage	2015	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Hydro SCADA Network Reliability Program  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Eberhard      **Board Approval:** 10/14/14

**Project Description:**

Maintain the reliability and performance of the current SCADA infrastructure used to manage automated process control through timely upgrades to aging critical infrastructure, including local and wide-area process control networks, application software, server platform, server environment, and security systems.

Priority actions include:  
 Upgrade the core process control network for reliability, security, alerting, and management.

**Basis for Priority:**

Maintains the reliability and performance of the current SCADA network used to manage automated operations and perform regulatory reporting functions of the district. Operating SCADA infrastructure equipment beyond end of life may represent significant risks to service reliability, operating expenses, and regulatory compliance.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 125,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 125,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 125,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Camp 5	\$ 50,000					\$ 50,000
Power House		\$ 75,000				\$ 75,000
Conveyance Facilities						\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 50,000</b>	<b>\$ 75,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 125,000</b>

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$50,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$50,000</b>

**Funding Comments:** Funding for the core process control network upgrade was previously in the 2012 SCADA System Reliability Program CIP. Funding for the video surveillance system replacement was previously in the 2012-14 Cyber Security Enhancements CIP.

**Project Number:** PLANNED  
**Project Name:** Pacific Tunnel  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Mueller      **Board Approval:** 10/14/14

**Project Description:**

An inspection of the Pacific Tunnel was conducted in October 2014 after the Esmeralda Tunnel partially collapsed and subsequently caused the El Dorado Canal annual shutdown to occur earlier than planned. In 2002, some of the timber sections of the Pacific tunnel were replaced/repared with untreated wood that now requires replacement. The replacement may consist of in-kind timber replacement or replacing the timber lined sections with reinforced shotcrete to provide a permanent repair.

**Basis for Priority:**

Improve the tunnel to provide continued water delivery for water supply and hydroelectric power generation

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 500,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 500,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 500,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning	\$ 50,000					\$ 50,000
Design						\$ -
Construction		\$ 450,000				\$ 450,000
<b>TOTAL</b>	\$ 50,000	\$ 450,000	\$ -	\$ -	\$ -	\$ 500,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water Rates	47%		\$23,500
Water FCCs	53%		\$26,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$50,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Penstock Assessment  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Eymann      **Board Approval:** 10/14/14

**Project Description:**

Water is provided from Forebay Reservoir to the El Dorado Powerhouse through a 60-inch diameter penstock for power generation. FERC regulations and our standard operating procedures require the penstock to be inspected and assessed at regular intervals. This project is to perform a large scale assessment of the penstock and determine if any upgrades or replacements need to be made for continued reliability. Corrosion and section loss was identified in maintenance activities in 2003 and in earlier penstock assessments. Steel pop outs were identified in the 2012 annual FERC dam safety inspection. The initial plan would be to phase the inspection: 2015 exterior inspection and 2016, interior inspection. The interior inspection will consist of penstock walkdowns, foundation inspections, ultrasonic thickness measurements, coating and coupler inspections. The scope of the interior inspection will be developed based in part upon the findings of the exterior inspection. Inspection costs will be refined during assessment development and the proposal solicitation.

**Basis for Priority:**

The project is to maintain penstock safety and to monitor the long-term wall thickness thinning which occurs over time in penstocks. The penstock is one of the highest pressure and oldest in the United States. The last detailed analysis was conducted by Pacific Gas and Electric Company approximately 30 years ago.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 750,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 750,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 750,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 150,000	\$ 100,000	\$ 500,000			\$ 750,000
Design			*			\$ -
Construction				*		\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 150,000</b>	<b>\$ 100,000</b>	<b>\$ 500,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 750,000</b>

Funding Sources	Percentage	2015	Amount
Water rates	100%		\$150,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$150,000</b>

Funding Comments:



2015

CAPITAL IMPROVEMENT PLAN Program:

Hydroelectric

Project Number: **PLANNED**  
 Project Name: **Powerhouse PLC Replacement**  
 Project Category: **Reliability & Service Level Improvements**  
 Priority: **2** PM: **Strahan** Board Approval: **10/14/14**

**Project Description:**

This project is to replace the sole Programmable Logic Controller (PLC) for the powerhouse.

**Basis for Priority:**

This controller is at the end of its life cycle. The spare parts for this system has 3 month lead time and are very expensive. Replacement parts have been quoted higher than an entire new modern controller. The current controller is computer technology from the 80s and suffers from operations issues and limitations. Price is for an outside company to build and replace the panel with staff converting the program.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 90,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 90,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 90,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 90,000					\$ 90,000
						\$ -
<b>TOTAL</b>	\$ 90,000	\$ -	\$ -	\$ -	\$ -	\$ 90,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water Rates	100%		\$90,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$90,000</b>

Funding Comments:

2015

**CAPITAL IMPROVEMENT PLAN** Program:

**Hydroelectric**

**Project Number:** **PLANNED**  
**Project Name:** **Project 184 SCADA System Hardware Replacement**  
**Project Category:** **Reliability & Service Level Improvements**  
**Priority:** **2** **PM:** **Strahan** **Board Approval:** **10/14/14**

**Project Description:**

This project is to replace end of life cycle SCADA Hardware, specifically the Moscad L RTUs. Replacement sites are: Alarms 3, 5,12, 14, 18, 20, 22, 23 Spills 10, 20A, 20, 23, 27, 32, 37, 42, 44, 47C, Echo Lake, Silver Lake, Pyramid Creek, Forebay, EDPH, Caples Lake. This system has served the district well and is no longer supported. This CIP would slowly replace the existing system over 5 years.

**Basis for Priority:**

This equipment is at the end of its life cycle and warrants replacement to retain the reliability of the system. Additionally new replacement parts are not available due to obsolescence. This system cannot be support on a modern computer.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 375,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 375,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 375,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Design	\$ 75,000					\$ 75,000
Construction		\$ 100,000	\$ 100,000	\$ 100,000		\$ 300,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ 75,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ 375,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$75,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$75,000</b>

**Funding Comments:** Funding is for preliminary study only at this time

**Project Number:** NEW  
**Project Name:** Silver Lake Dam Upgrades  
**Project Category:** Regulatory Requirements

**Priority:** 2      **PM:** Eymann      **Board Approval:** 10/14/14

**Project Description:**

The upstream face of Silver Lake Dam is at the end of its useful life. Four interim repair projects have been employed since the late 1990's to stem leakage through the 50 year old gunite lining to extend its life. The three most recent repairs began in 2006 and were approximately every 2 years thereafter. The gunite continues to thin and crumble making repairs less durable. Design of the complete face replacement has not been initiated and price estimates will be refined as design progresses. The timeline for upstream face work has been extended multiple times. If leakage increases through the dam, DSOD and FERC may require acceleration of the design and construction of the permanent repair.

**Basis for Priority:**

To maintain a safe operating dam in compliance with FERC and DSOD dam safety program requirements.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 554,234	<b>Expenditures through end of year:</b>	\$ 126,212
<b>Spent to Date:</b>	\$ 125,212	<b>2015 - 2019 Planned Expenditures:</b>	\$ 360,000
<b>Cash flow through end of year:</b>	\$ 1,000	<b>Total Project Estimate:</b>	\$ 486,212
<b>Project Balance</b>	\$ 428,022	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning						\$ -
Design			\$10,000	\$175,000	\$175,000	\$ 360,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 10,000	\$ 175,000	\$ 175,000	\$ 360,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

# Recreation Projects

2015

CAPITAL IMPROVEMENT PLAN Program:

Recreation

Project Number: **Planned**  
 Project Name: **Bumpy Meadows Improvements**  
 Project Category: **Reliability & Service Level Improvements**  
 Priority: **3** PM: **Hawkins** Board Approval: **10/14/14**

**Project Description:**

Sly Park Recreation Area continues to increase in popularity. Over 100,000 visitors annually park on the roadside and walk into Sly Park Recreation Area at Bumpy Meadows. Defined pathways and fencing are needed to protect vegetation. Currently visitors are creating multiple pathways by heavy use. Storm water run-off erodes the pathways and deposits silt into Jenkinson Lake. EID could consider a \$1 per person walk-in fee at this location. This fee would cover the costs of the needed improvements and staffing in less than 1 summer season.

**Basis for Priority:**

This project is a priority 3.

**Project Financial Summary:**

Funded to Date:	\$ -	Expenditures through end of year:	\$ -
Spent to Date:	\$ -	2015 - 2019 Planned Expenditures:	\$ 49,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 49,000
Project Balance	\$ -	Additional Funding Required	\$ 49,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 3,000					\$ 3,000
Design						\$ -
Construction	\$ 46,000					\$ 46,000
						\$ -
<b>TOTAL</b>	<b>\$ 49,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 49,000</b>

Funding Sources	Percentage	2015	Amount
Property Tax	100%		\$49,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$49,000</b>

Funding Comments:

2015

CAPITAL IMPROVEMENT PLAN Program:

Recreation

Project Number: **Planned**  
 Project Name: **Main Day Use Improvements**  
 Project Category: **Reliability & Service Level Improvements**  
 Priority: **2** PM: **Hawkins** Board Approval: **10/14/14**

**Project Description:**

Sly Park Recreation Area continues to increase in popularity. The main Day Use area is large with room for 20 additional tables and BBQ's. However there is not enough parking for the current Day Use visitors. Parking needs to be widened to replace the current 27 parallel parking stalls on the north side of the parking area with 54 pull-in stalls. These will fill and turn over 2 times per day on weekends during the summer months providing an additional \$5,000 in revenue per month.

**Basis for Priority:**

This project is a priority 3 with a ROI of 2 years.

**Project Financial Summary:**

Funded to Date:	\$ -	Expenditures through end of year:	\$ -
Spent to Date:	\$ -	2015 - 2019 Planned Expenditures:	\$ 43,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 43,000
Project Balance	\$ -	Additional Funding Required	\$ 43,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$ 3,000					\$ 3,000
Design						\$ -
Construction	\$ 40,000					\$ 40,000
						\$ -
<b>TOTAL</b>	<b>\$ 43,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 43,000</b>

Funding Sources	Percentage	2015	Amount
Property Tax	100%		\$43,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$43,000</b>

Funding Comments:

# General District Projects

**Project Number:** 06004G  
**Project Name:** SMUD / EI Dorado Agreement Water Rights  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Cumpston **Board Approval:** 10/14/14

**Project Description:**

The Sacramento Municipal Utility District and EI Dorado County interests, including EID, signed an agreement in 2005 that allows for the use of SMUD's UARP reservoirs for county water storage. The agreement did not include water rights. The transfer of City of Sacramento's or related water rights is the most logical source and application has been made to the SWRCB for that change. The SMUD/EI Dorado Agreement provides EID with 30,000 acre feet of storage annually up to 2030. Thereafter, 40,000 acre feet of storage annually is provided. Additionally the agreement allows for the banking of up to 15,000 acre feet for drought carryover storage in dry year conditions.

EID is a party to a 2007 cost share agreement with the EI Dorado Water and Power Authority (EDWPA) to pursue the water rights for the SMUD/EI Dorado Agreement. For its fiscal year 2014-15, EDWPA has approved "calls" under this agreement through June 2015 that total \$884,124; half of that amount has already been funded. Through June 2015, therefore, funding of \$442,062, plus some allowance for capitalized labor, is needed. Funding needs for the remainder of calendar year 2015 will depend upon the adopted 2014-2015 EDWPA budget, but has been estimated at approximately \$150,000. Any costs associated with one-time acquisition of up to 15,000 acre-feet of drought storage are not included in this request, although efforts to do so are ongoing, because of the uncertain timing and cost of such an acquisition.

**Basis for Priority:**

The District's 2010 Urban Water Management Plan, its 2013 Water Resources Master Plan, and several Water Supply Assessments completed in 2013 all identify this project as a source of water supply to serve the District's long-term needs.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 2,438,125	<b>Expenditures through end of year:</b>	\$ 2,433,197
<b>Spent to Date:</b>	\$ 2,433,197	<b>2015 - 2019 Planned Expenditures:</b>	\$ 712,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 3,145,197
<b>Project Balance</b>	\$ 4,928	<b>Additional Funding Required</b>	\$ 707,072

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning	\$442,000	\$150,000	\$120,000			\$ 712,000
Design						\$ -
Construction						\$ -
15,000 af acquisition						\$ -
<b>TOTAL</b>	<b>\$ 442,000</b>	<b>\$ 150,000</b>	<b>\$ 120,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 712,000</b>

Funding Sources	Percentage	2015	Amount
Water FCCs	100%		\$437,072
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$437,072</b>

Funding Comments:



**Project Number:** 12026  
**Project Name:** Americans with Disabilities Act (ADA), Title II Compliance  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Perez **Board Approval:** 10/14/14

**Project Description:**

Remove and/or modify barriers to fulfill the requirements set forth in Title II of the Americans with Disabilities Act. The ADA states that a public entity must reasonably modify its programs, activities, and services to avoid discrimination against people with disabilities. The 120 discrepancies (barriers) requiring modification and/or removal are identified in the District's ADA Self Evaluation and Transition Plan (SETP).

Project funding is based on the Transition Plan phasing schedule priorities to modify and/or remove barriers. Barriers percentages are classified in the following groups: Recreation: 78%, Headquarters: 17%, Operations: 5%

**Basis for Priority:**

ADA, Title II requires public entities to remove and/or modify barrier. Failure to modify or remove barriers may result in civil litigation against the District.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 100,000	<b>Expenditures through end of year:</b>	\$ 39,288
<b>Spent to Date:</b>	\$ 39,288	<b>2015 - 2019 Planned Expenditures:</b>	\$ 20,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 59,288
<b>Project Balance</b>	\$ 60,712	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning	\$ 20,000					\$ 20,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ 20,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water Rates	87%		\$0
Wastewater Rates	13%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 14012  
**Project Name:** AMR and Small Meter Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Pritchard **Board Approval:** 10/14/14

**Project Description:**

This project replaces old, inaccurate, or broken meters and adds automated meter read capability to new and existing meters. The project is MISSION REQUIRED because it provides for replacement of inaccurate and non-working meters and enables all meters to be read in time for billing. The LIABILITY/RISK to the District if this project is not implemented includes increased likelihood of employee injury, increased labor expenses for manually reading the meters and inputting manual data into the computer system, and loss of customer confidence due to inaccurate and estimated reads. REGULATORY: Continued implementation of meter replacement and AMR technology keeps the District in compliance with the CUWCC's MOU BMP# 4. SAFETY/SECURITY: This project reduces employee exposure to injury . As of August 5, 2014 there are 22,031 meters that are equipped with radio read devices. Project funding should allow the District to install approximately 300 radio read meters per year.

**Basis for Priority:**

Hiring of additional personnel, collection of inaccurate data, reduced customer satisfaction, increased likelihood of employee injuries, and non-compliance with BMP #4

Project Financial Summary:			
Funded to Date:	\$ 99,999	Expenditures through end of year:	\$ 99,999
Spent to Date:	\$ 41,641	2015 - 2019 Planned Expenditures:	\$ 500,000
Cash flow through end of year:	\$ 58,358	Total Project Estimate:	\$ 599,999
Project Balance	\$ 0	Additional Funding Required	\$ 500,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Implementation	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$ 500,000
						\$ -
						\$ -
						\$ -
<b>TOTAL</b>	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$100,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$100,000</b>

Funding Comments:

**Project Number:** 89069E  
**Project Name:** Water Rights for 17,000 Acre Feet  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 1 **PM:** Cumpston **Board Approval:** 10/14/14

**Project Description:**

The State Water Resources Control Board awarded 17,000-acre feet of new water rights to EID on August 16, 2001 with numerous conditions. The District challenged the Term 91 condition and won a 2006 court decision overturning it. A long-term Warren Act contract with the United States Bureau of Reclamation (USBR) is needed to use Folsom Reservoir as a point of diversion for this supply. The application for this contract has been pending for several years. The final Endangered Species Act approval was obtained in mid-2014, and circulation of the draft contract and environmental impact analysis document for public review and comment are pending. Once these steps are completed, the contract can be signed. Then, the District must initiate a lawsuit in El Dorado County Superior Court to validate the contract before it will become effective. All of these steps are anticipated to be completed in 2015.

**Basis for Priority:**

The District made application to the USBR in July 2004 for a 40-year Warren Act Contract. All Endangered Species Act approvals are complete, and final approval of the Warren Act Contract is pending public review and comment of the draft contract and environmental analysis document. Funding is requested to complete the public review process and to initiate and conclude the validation action in court.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 3,084,414	<b>Expenditures through end of year:</b>	\$ 3,027,424
<b>Spent to Date:</b>	\$ 3,027,424	<b>2015 - 2019 Planned Expenditures:</b>	\$ 50,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 3,077,424
<b>Project Balance</b>	\$ 56,990	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Study/Planning	\$50,000					\$ 50,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Water FCCs	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2015

**CAPITAL IMPROVEMENT PLAN** Program:

**General District**

**Project Number:**

**PLANNED**

**Project Name:**

**2015 Vehicle Replacement**

**Project Category:**

**Reliability & Service Level Improvements**

**Priority:**

**2**

**PM:**

**Touey**

**Board Approval:**

**10/14/14**

**Project Description:**

3ea 1/2 ton 2x4 pickup \$71,130                      1ea 1 ton crew cab 4X4 \$43,000  
 5ea 1/2 ton 4x4 pickup \$137,500                1ea 3 axle dump truck \$160,000  
 1ea 3/4 ton 4x4 pickup \$31,500  
 1ea 1 ton 4X4 pickup \$33,000

**Basis for Priority:**

Enhances District assets through life-cycle replacement of existing vehicles.

**Project Financial Summary:**

<b>Funded to Date:</b>		<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 477,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 477,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 477,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Vehicles	\$ 477,000					\$ 477,000
						\$ -
						\$ -
						\$ -
<b>TOTAL</b>	\$ 477,000	\$ -	\$ -	\$ -	\$ -	\$ 477,000

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$477,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$477,000</b>

**Funding Comments:**

**Project Number:** PLANNED  
**Project Name:** Business Application Software Enhancement Program  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 3 **PM:** Ranstrom **Board Approval:** 10/14/14

**Project Description:**

Design, implement, and integrate enterprise databases and end user technology applications that improve the data quality and efficiency of current business processes. Over 100 enterprise and departmental software applications and databases are used daily to perform functions including enterprise asset management, maintenance management, customer information management, employee information management, records management, email, financial management, procurement, and geospatial information management. Scores of departmental databases supplement these core databases and are largely stand-alone at this time, requiring duplicate sets of data to be maintained in multiple places and causing inefficiency to manage and locate the data, plus confusion and potentially poor decisions when attempting to use data where quality is poor or inconsistent.

Priority actions for 2015 include:

Enhance the intranet content management system to improve management and search capabilities for over 3 million files currently located in network file shares.

Automate the data gathering and production process of various recurring regulatory reports to remove manual actions that may compromise report quality or integrity.

**Basis for Priority:**

Improve the speed and accuracy of critical business processes used to perform operations, customer service, billing, financial management, regulatory reporting, and other key functions of the district.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ 35,000
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 750,000
<b>Cash flow through end of year:</b>	\$ 35,000	<b>Total Project Estimate:</b>	\$ 785,000
<b>Project Balance</b>	\$ (35,000)	<b>Additional Funding Required</b>	\$ 785,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Enterprise DB integrations	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 250,000
Supplemental Modules or DB solutions	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000
	\$ -					\$ -
						\$ -
<b>TOTAL</b>	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 750,000

Funding Sources	Percentage	2015	Amount
Water Rates	60%		\$111,000
Wastewater Rates	40%		\$74,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$185,000</b>

**Funding Comments:** Funding carried over from prior year in CIP with the same name.

**Project Number:** PLANNED  
**Project Name:** Business IT Infrastructure Reliability Program  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Ranstrom      **Board Approval:** 10/14/14

**Project Description:**

This ongoing project maintains the reliability and performance of the extensive IT infrastructure required to conduct daily District business by replacing end-of-life or over-utilized network switches and routers, servers, data storage systems, and assorted other pieces of critical and necessary IT equipment.

Major actions in 2015 include:

- Replacement of 60% of the District's network switches (35 units) which have reached their end of life. These units are scattered across numerous District facilities and collectively provide connectivity for over 400 network devices, including routers, workstations, printers, security equipment, and phones.

**Basis for Priority:**

Maintain the reliability and performance of the current business IT network used to perform operations, customer service, billing, financial management, regulatory reporting, security, and other critical and essential functions of the district.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 2,463,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 2,463,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 2,463,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Servers / Storage	\$ -	\$ 20,000	\$ 205,000	\$ 205,000	\$ 470,000	\$ 900,000
Network equipment	\$ 307,000	\$ 446,000	\$ -	\$ 150,000	\$ -	\$ 903,000
End-user systems	\$ 30,000	\$ 50,000	\$ 220,000	\$ 170,000	\$ 190,000	\$ 660,000
						\$ -
<b>TOTAL</b>	\$ 337,000	\$ 516,000	\$ 425,000	\$ 525,000	\$ 660,000	\$ 2,463,000

Funding Sources	Percentage	2015	Amount
Water Rates	60%		\$202,200
Wastewater Rates	40%		\$134,800
			\$0
<b>Total</b>	<b>100%</b>		<b>\$337,000</b>

**Funding Comments:** Funding carried over from prior year in CIP with the same name.

**Project Number:** PLANNED  
**Project Name:** Cyber Security Improvements  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Eberhard      **Board Approval:** 10/14/14

**Project Description:**

This project will enhance and implement technology, plans, policies, and procedures identified by the 2011 Enterprise Security Assessment Report and required to ensure the ongoing cyber security of District data and IT assets.

Priority 2016 actions include:  
 Replace network intrusion prevention equipment that has reached its end of life.

**Basis for Priority:**

If this project is not approved the District may not be able to effectively safeguard information against unauthorized use, disclosure, modification, damage, or loss. These projects address elevating concerns from government agencies to adequately protect utility information technology assets from cyber attack.

Project Financial Summary:			
Funded to Date:	\$ -	Expenditures through end of year:	\$ -
Spent to Date:	\$ -	2015 - 2019 Planned Expenditures:	\$ 342,500
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 342,500
Project Balance	\$ -	Additional Funding Required	\$ 342,500

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Prevention Measures	\$0	\$107,500	\$102,500		\$25,000	\$ 235,000
Detection Measures				\$107,500		\$ 107,500
Other	\$0					\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ 107,500	\$ 102,500	\$ 107,500	\$ 25,000	\$ 342,500

Funding Sources	Percentage	2015	Amount
Water Rates	60%		\$0
Wastewater Rates	40%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments: Funding carried over from prior year in CIP with the same name.

**Project Number:** PLANNED  
**Project Name:** Enterprise GIS  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 3      **PM:** Wells / Ranstrom      **Board Approval:** 10/14/14

**Project Description:**

Design and integrate enterprise GIS to existing customer information service database and maintenance management system to improve the data quality and efficiency of multiple current business processes. Project will enhance software applications and databases used daily to perform functions including enterprise asset management, maintenance management, customer information management, employee information management, records management, financial management, and geospatial information management. Scores of departmental databases supplement these core databases and are largely stand-alone at this time, requiring duplicate sets of data to be maintained in multiple places and causing inefficiency to manage and locate the data, plus confusion and potentially poor decisions when attempting to use data where quality is poor or inconsistent.

**Basis for Priority:**

Improve the speed and accuracy of critical and essential business processes used daily to perform operations, customer service, billing, financial management, regulatory reporting, and other key functions of the district.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ 60,000
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 1,640,000
<b>Cash flow through end of year:</b>	\$ 60,000	<b>Total Project Estimate:</b>	\$ 1,700,000
<b>Project Balance</b>	\$ (60,000)	<b>Additional Funding Required</b>	\$ 1,700,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Project #1: Align GIS Layers and Deploy	\$ 200,000					\$ 200,000
Project #2: GIS Schema Upgrade, Productivity, and Hansen Asset Synchronization		\$ 200,000				\$ 200,000
Project #3: GIS to Hansen Data Access and Website Development		\$ 205,000				\$ 205,000
Project #4: High Priority GIS Enrichment	\$ 100,000	\$ 100,000	\$ 165,000			\$ 365,000
Project #5: Workforce Automation			\$ 155,000	\$ 110,000		\$ 265,000
Project #6: GIS Maturation Development				\$ 235,000	\$ 170,000	\$ 405,000
<b>TOTAL</b>	<b>\$ 300,000</b>	<b>\$ 505,000</b>	<b>\$ 320,000</b>	<b>\$ 345,000</b>	<b>\$ 170,000</b>	<b>\$ 1,640,000</b>

Funding Sources	Percentage	2015	Amount
Water Rates	60%		\$216,000
Wastewater Rates	40%		\$144,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$360,000</b>

Funding Comments:



**Project Number:** PLANNED  
**Project Name:** SCADA Configuration & Alarm Response Project  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Strahan      **Board Approval:** 10/14/14

**Project Description:**

This project is to replace the current unsupported call out software, SCADAalarm. In addition, this project will be used to correct and replace SCADA graphics and configurations at the HMI level, since they are closely related to the alarm call out software configuration. This will allow the current system to be more user friendly and to more accurately represent the processes they control. The current visualization of the SCADA system is maintenance intensive and is not intuitive to the end user. This can lend itself to operational error and increased operation and reporting time.

**Basis for Priority:**

The current alarm software, SCADAalarm is obsolete and unsupported. SCADAalarm has known "bugs" that have caused notification service interruptions, put the District at risks for regulatory violations District wide. This software is key to providing reliable service to our ratepayers. Additionally, this software regularly requires staff attention and overtime for corrective maintenance.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 400,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 400,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 400,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Programming	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000		\$ 400,000
						\$ -
						\$ -
						\$ -
<b>TOTAL</b>	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ 400,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	50%		\$50,000
Water Rates	50%		\$50,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$100,000</b>

**Project Number:** PLANNED  
**Project Name:** SCADA Disaster Recovery Software  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Strahan      **Board Approval:** 10/14/14

**Project Description:**

Purchase and install SCADA software to track changes and backup software that runs our automation systems. This software would include the PLC programming and the SCADA systems main repository.

**Basis for Priority:**

The District has a significant amount of money invested in SCADA development. These assets need to be secured from disaster, cyber attack and unwanted software changes. This software will help ensure shorter downtimes in the vent of a disaster and ensure district standards are being followed in future development.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 70,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 70,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 70,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	
Installation	\$ 5,000	\$ -	\$ -	\$ -	\$ -	\$ 5,000
Software	\$ 65,000					\$ 65,000
						\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 70,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 70,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2015</b>	<b>Amount</b>
Wastewater Rates	50%		\$35,000
Water Rates	50%		\$35,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$70,000</b>

Funding Comments:

2015

**CAPITAL IMPROVEMENT PLAN** Program:

**General District**

**Project Number:**

**PLANNED**

**Project Name:**

**SCADA Hardware Replacement**

**Project Category:**

**Reliability & Service Level Improvements**

**Priority:**

**2**

**PM:**

**Strahan**

**Board Approval:**

**10/14/14**

**Project Description:**

Rolling CIP fund to replace end of life cycle SCADA hardware District wide. While specific areas of SCADA have been identified, this project is intended to replace failed hardware items identified in the SCADA Master Plan.

**Basis for Priority:**

Rolling CIP to replace end of life cycle SCADA hardware, ensure service reliability and to reduce problem areas of the SCADA system causing overtime.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2015 - 2019 Planned Expenditures:</b>	\$ 500,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 500,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 500,000

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Replacement Installation & Parts	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000
						\$ -
						\$ -
						\$ -
<b>TOTAL</b>	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000

Funding Sources	Percentage	2015	Amount
Wastewater Rates	50%		\$50,000
Water Rates	50%		\$50,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$100,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Security Equipment Reliability Program  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Kilburg      **Board Approval:** 10/14/14

**Project Description:**

Integrated security systems have been protecting the District's critical infrastructure and key resources since 2006, providing alarm verification through real-time CCTV system viewing of alarm events. Integrated security systems provide timely detection and law enforcement response elements that mitigate theft, vandalism, trespassing, other potentially serious malevolent incidents, and provide an important emergency response capability consistent with the District's Water Vulnerability Assessment, Emergency Operations and Department Emergency Actions Plans as required by the Federal Safe Drinking Water Act, Title IV - Drinking Water Security and Safety.

**Basis for Priority:**

Maintain integrated security system operational performance, and provide a real-time emergency response assessment tool.

Project Financial Summary:			
Funded to Date:	\$ -	Expenditures through end of year:	\$ -
Spent to Date:	\$ -	2015 - 2019 Planned Expenditures:	\$ 185,400
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 185,400
Project Balance	\$ -	Additional Funding Required	\$ 185,400

Description of Work	Estimated Annual Expenditures					Total
	2015	2016	2017	2018	2019	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 137,400	\$ 33,000	\$ 13,500			\$ 183,900
						\$ -
<b>TOTAL</b>	<b>\$ 137,400</b>	<b>\$ 33,000</b>	<b>\$ 13,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 183,900</b>

Funding Sources	Percentage	2015	Amount
Water Rates	100%		\$137,400
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$137,400</b>

Funding Comments: