



**FIVE YEAR  
CAPITAL IMPROVEMENT PLAN  
2014—2018**

Approved October 15, 2013



## 2014-2018 CAPITAL IMPROVEMENT PLAN

	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>	\$5,622,000	\$4,607,400	\$4,485,600	\$4,966,000	\$3,703,000	\$23,384,000
<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>	\$3,910,950	\$1,354,500	\$1,210,500	\$795,000	\$490,000	\$7,760,950
<b>TOTAL</b>	<b>\$17,327,386</b>	<b>\$21,412,109</b>	<b>\$22,322,120</b>	<b>\$12,754,871</b>	<b>\$10,848,262</b>	<b>\$84,664,748</b>

### EL DORADO IRRIGATION DISTRICT FIVE-YEAR CAPITAL IMPROVEMENT PLAN 2013-2017

	2013 PLANNED	2014 PLANNED	2015 PLANNED	2016 PLANNED	2017 PLANNED	FIVE-YEAR PLAN TOTAL
<b>FERC</b>	\$598,200	\$907,436	\$912,709	\$3,340,020	\$426,371	\$6,184,736
<b>Water</b>	\$4,250,000	\$1,905,000	\$2,630,000	\$4,335,000	\$1,175,000	\$14,295,000
<b>Wastewater</b>	\$5,325,173	\$4,755,600	\$4,983,000	\$1,498,000	\$1,900,000	\$18,461,773
<b>Recycled Water</b>	\$25,000	\$0	\$0	\$0	\$0	\$25,000
<b>Hydroelectric</b>	\$7,461,000	\$8,805,000	\$11,652,500	\$5,410,000	\$7,000,000	\$40,328,500
<b>Recreation</b>	\$215,000	\$110,000	\$10,000	\$10,000	\$5,000	\$350,000
<b>General District</b>	\$1,928,500	\$1,499,550	\$1,115,500	\$885,000	\$765,000	\$6,193,550
<b>TOTAL</b>	<b>\$19,802,873</b>	<b>\$17,982,586</b>	<b>\$21,303,709</b>	<b>\$15,478,020</b>	<b>\$11,271,371</b>	<b>\$85,838,559</b>



## 2014 - 2018 Capital Improvement Plan FERC Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2014 PLANNED	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2014-2018 TOTAL
10007	FERC C51.2 RM Caples Boat Launch	FERC	1	35,000	35,000	35,000	35,000	35,000	175,000
13019	FERC C59 SFAR North Structures	FERC	1	20,000	25,000	55,000	0	0	100,000
06019H	FERC C35 OYSTER CREEK	FERC	1	70,000	235,000	0	0	0	305,000
06021H	FERC C37.8 WATER TEMP	FERC	1	35,000	35,000	35,000	35,000	35,000	175,000
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	0	0	0	40,000	0	40,000
06076H	FERC:C38.4B CAPLES Spillway Channel Stabilization	FERC	1	50,000	50,000	0	0	0	100,000
06078H	FERC:C50.3 CAPLES DAM PRK Lot Improvements	FERC	1	10,000	10,000	50,000	0	0	70,000
06081H	FERC:C50.8 Pacific Crest Trail Crossing	FERC	1	2,000	2,000	0	0	0	4,000
06082H	FERC:C50.1 SILVER LAKE EAST CG FS Upgrade	FERC	1	25,000	150,000	1,500,000	0	0	1,675,000
06086H	FERC:C33 LAKE ALOHA TROUT	FERC	1	12,000	0	0	0	0	12,000
06087H	FERC:C37.1 FISH MONITORING	FERC	1	0	0	70,000	70,000	0	140,000
06088H	FERC:C37.2 MACROINVERTEB	FERC	1	0	0	55,000	55,000	0	110,000
06089H	FERC:C37.3 AMPHIBIAN MON	FERC	1	0	0	100,000	0	0	100,000
06090H	FERC:C37.4 RIPARIAN SPEC	FERC	1	0	0	14,000	0	0	14,000
06091H	FERC:C37.5 RIPARN RECRUIT	FERC	1	0	0	12,000	0	0	12,000
06092H	FERC:C37.7 GEOMORPH EVAL	FERC	1	0	0	55,000	10,000	10,000	75,000
06096H	FERC:C56 HERITAGE RSRCE	FERC	1	25,000	0	0	0	0	25,000
06097H	FERC C59 Facility Management Plan	FERC	1	0	0	0	0	5,000	5,000
06098H	FERC:C46-9 RECREATION RSC	FERC	1	25,000	25,000	25,000	25,000	25,000	125,000
07003H	FERC C37.9 WATER QUALITY	FERC	1	100,000	0	100,000	0	100,000	300,000
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
07008H	FERC C51.8 SILVER LAKE CG West Upgrade	FERC	1	25,000	150,000	500,000	500,000	0	1,175,000
07009H	FERC C51.8 RM WOODS CREEK	FERC	1	5,000	5,000	0	0	0	10,000
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	65,000	65,000	65,000	65,000	65,000	325,000
07030H	FERC C57 Transportation Management Plan	FERC	1	0	0	0	5,000	0	5,000
08025H	FERC C44 Noxious Weed Implementation	FERC	1	17,000	17,000	34,000	17,000	17,000	102,000
PLANNED	FERC:C50.2 CAPLES LAKE CAMPGROUND	FERC	1	25,000	150,000	0	0	0	175,000
				<b>718,436</b>	<b>1,112,709</b>	<b>2,870,020</b>	<b>973,371</b>	<b>409,762</b>	<b>6,084,298</b>



## 2014 - 2018 Capital Improvement Plan Water Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2014 PLANNED	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2014-2018 TOTAL
10022	Silva Valley Interchange (DOT)	WA	1	200,000	150,000	0	0	0	350,000
11017	Reservoir A WTP Chlorine conversion	WA	1	425,000	0	0	0	0	425,000
12008	Patterson Intersection Improvements (DOT)	WA	1	296,000	0	0	0	0	296,000
12023	DOT Construction Projects - Water	WA	1	25,000	25,000	25,000	25,000	25,000	125,000
12024	Strawberry WTP Evaluation	WA	1	10,000	30,000	0	0	0	40,000
09006E	Blakely Reservoir Improvements	WA	1	70,000	70,000	800,000	0	0	940,000
PLANNED	Greenstone Tank Telemetry Installation	WA	1	5,000	40,000	0	0	0	45,000
PLANNED	R1WTP Spent Backwash Treatment	WA	1	163,000	130,400	336,600	1,000,000	0	1,630,000
SDWL04	Reservoir Floating Cover Replacement Program	WA	1	30,000	30,000	30,000	30,000	30,000	150,000
10015	Water System Upgrades	WA	2	25,000	25,000	0	0	0	50,000
11026	Reservoir A Process Improvements	WA	2	0	130,000	0	0	0	130,000
11032	Main Ditch - Forebay to Res 1	WA	2	200,000	200,000	250,000	250,000	2,500,000	3,400,000
12028	Water Facility Replacement Program	WA	2	100,000	100,000	100,000	100,000	100,000	500,000
13001	Water Tank Recoating Program	WA	2	1,520,000	1,520,000	720,000	720,000	720,000	5,200,000
13008	Water Generator Replacement	WA	2	250,000	250,000	125,000	125,000	0	750,000
13013	Tank 7 In-Conduit Hydro	WA	2	1,290,000	0	0	0	0	1,290,000
13014	Monte Vista Tank Replacement	WA	2	150,000	800,000	0	0	0	950,000
13015	Outingdale Lower Tank Replacement	WA	2	0	50,000	500,000	0	0	550,000
PLANNED	2014 Waterline Replacement Program	WA	2	25,000	25,000	25,000	25,000	25,000	125,000
PLANNED	EDHWTP Process Controls Replacement	WA	2	50,000	100,000	0	0	0	150,000
PLANNED	Moosehall Pump Station Upgrade	WA	2	0	25,000	50,000	0	0	75,000
PLANNED	Outingdale WTP Automation Replacement	WA	2	25,000	100,000	0	0	0	125,000
PLANNED	PLC Replacement	WA	2	260,000	70,000	0	0	0	330,000
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	Sly Park Intertie	WA	2	288,000	317,000	1,354,000	2,361,000	0	4,320,000
PLANNED	Spencers Road Waterline Replacement	WA	2	0	100,000	0	0	0	100,000
PLANNED	Water SCADA Network Reliability Program	WA	2	100,000	100,000	0	110,000	0	310,000
PLANNED	White Rock Diversion	WA	2	75,000	200,000	150,000	200,000	283,000	908,000
12029	Development Services Water Model	WA	3	20,000	0	0	0	0	20,000
				<b>5,622,000</b>	<b>4,607,400</b>	<b>4,485,600</b>	<b>4,966,000</b>	<b>3,703,000</b>	<b>23,384,000</b>



## 2014 - 2018 Capital Improvement Plan Wastewater Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2014 PLANNED	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2014-2018 TOTAL
10018	Rancho Ponderosa Decommissioning	WW	1	10,000	150,000	0	0	0	160,000
11011	Deer Creek WWTP Crossing	WW	1	3,000	3,000	0	0	0	6,000
11012	EDHWWTP Expansion Warranty	WW	1	250,000	0	0	0	0	250,000
11043	DOT Construction Projects - Wastewater	WW	1	25,000	25,000	25,000	25,000	25,000	125,000
12018	Motherlode Forcemain Phase IIC	WW	1	150,000	0	0	0	0	150,000
12030	DCWWTP Permit Renewal	WW	1	70,000	25,000	25,000	0	0	120,000
13009	Camino Heights WWTP Permit	WW	1	75,000	50,000	25,000	0	0	150,000
09015E	Yates Lift Station Upgrades	WW	1	100,000	0	0	0	0	100,000
PLANNED	Sewer System Management Plan Revision	WW	1	50,000	0	0	0	0	50,000
11010	DCWWTP Regulatory Compliance	WW	2	98,000	0	0	0	0	98,000
11028	Strolling Hills Sewer Pipeline	WW	2	0	25,000	50,000	50,000	150,000	275,000
12012	Wastewater Generator Replacement	WW	2	230,000	230,000	230,000	230,000	230,000	1,150,000
12015	DCWWTP Change of Use Permit	WW	2	75,000	200,000	75,000	0	0	350,000
12021	WW SCADA System Reliability	WW	2	198,000	145,500	145,500	145,500	145,500	780,000
13004	Lift Station Elimination Study	WW	2	50,000	0	0	0	0	50,000
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
13023	Town Center Force Main	WW	2	25,000	50,000	50,000	200,000	1,200,000	1,525,000
13024	El Dorado Lift Station Upgrades	WW	2	712,000	312,000	0	0	0	1,024,000
13026	2013 Lift Station Upgrades	WW	2	300,000	200,000	0	0	0	500,000
13027	EDHWWTP Odor Control Study	WW	2	110,000	100,000	0	0	0	210,000
13029	Ridgeview 7 Lift Station Removal	WW	2	40,000	0	0	0	0	40,000
13034	Wastewater Facility Replacement Program	WW	2	200,000	100,000	100,000	100,000	100,000	600,000
PLANNED	Bridlewood Lift Station Rehab	WW	2	100,000	1,000,000	0	0	0	1,100,000
PLANNED	Business Park 2 Lift Station Improvements	WW	2	100,000	1,200,000	0	0	0	1,300,000
PLANNED	Business Park 3 Lift Station Improvements	WW	2	0	0	100,000	1,075,000	0	1,175,000
PLANNED	Camino Heights Automation Replacement	WW	2	200,000	0	0	0	0	200,000
PLANNED	EDHWWTP WAS/DAFT	WW	2	150,000	150,000	0	0	0	300,000
PLANNED	El Dorado Hills Pipeline	WW	2	50,000	0	0	0	0	50,000
PLANNED	Fairchild Pipeline Replacement	WW	2	0	15,000	20,000	150,000	0	185,000
PLANNED	North Uplands Lift Station Pump Replacement	WW	2	0	0	0	0	30,000	30,000
PLANNED	Pioneer Place Lift Station Pump Replacement	WW	2	0	0	0	0	30,000	30,000
PLANNED	Rancho Ponderosa Lift Station Rehab	WW	2	0	0	0	30,000	300,000	330,000
PLANNED	Silva Valley Pipeline	WW	2	50,000	0	0	0	0	50,000
PLANNED	South Point Lift Station Rehab	WW	2	0	0	1,000,000	0	0	1,000,000
PLANNED	Summit 1 and 3 Lift Station Improvements	WW	2	0	0	100,000	1,075,000	0	1,175,000
PLANNED	Wastewater Pipeline Replacement Program	WW	2	25,000	25,000	25,000	25,000	25,000	125,000
PLANNED	Wastewater SCADA Network Reliability Program	WW	2	150,000	0	165,000	0	0	315,000
PLANNED	Waterford 7 Lift Station Rehab	WW	2	0	0	1,000,000	0	0	1,000,000
04013E	DCWWTP Maintenance Building	WW	3	50,000	0	0	0	0	50,000
PLANNED	EDHWWTP Solar	WW	3	25,000	0	0	0	0	25,000
				<b>3,831,000</b>	<b>4,165,500</b>	<b>3,295,500</b>	<b>3,265,500</b>	<b>2,395,500</b>	<b>16,953,000</b>



## 2014 - 2018 Capital Improvement Plan Recycled Water Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2014 PLANNED	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2014-2018 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	35,000	150,000	0	0	0	185,000
				<b>85,000</b>	<b>150,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>235,000</b>



## 2014 - 2018 Capital Improvement Plan Hydroelectric Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2014 PLANNED	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2014-2018 TOTAL
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	60,000	255,000	0	325,000
11005	Silver Lake Dam Regulatory Improvements	HY	1	50,000	150,000	150,000	0	0	350,000
11023	Echo Conduit Replacement	HY	1	0	0	200,000	200,000	400,000	800,000
03011H	Forebay Dam Upgrades	HY	1	500,000	8,750,000	8,750,000	0	0	18,000,000
04005H	Powerhouse Upgrade	HY	1	85,000	0	0	0	0	85,000
08003H	Flume 41 Replacement	HY	1	450,000	0	0	0	0	450,000
11008	Flume 39-40 Replacement	HY	2	300,000	0	0	0	0	300,000
11009	Flume 45 Replacement	HY	2	100,000	150,000	100,000	0	0	350,000
13022	Flume 52A Replacement	HY	2	0	0	0	1,700,000	0	1,700,000
13038	Flume 42-46 Feasibility Study	HY	2	190,000	0	0	0	0	190,000
06030H	Bridge Replacement at Camp 2	HY	2	1,000,000	0	0	0	0	1,000,000
PLANNED	2014 Canals and Flumes Upgrade	HY	2	100,000	100,000	100,000	100,000	100,000	500,000
PLANNED	Alder and Plum Siphon Assessments	HY	2	0	0	0	50,000	0	50,000
PLANNED	El Dorado Canal Relining Program	HY	2	0	0	0	0	150,000	150,000
PLANNED	Flume 4 Replacement	HY	2	0	0	0	100,000	0	100,000
PLANNED	Flume 42-43 Replacement	HY	2	50,000	50,000	100,000	0	3,000,000	3,200,000
PLANNED	Flume 44 Replacement	HY	2	50,000	50,000	50,000	0	0	150,000
PLANNED	Flume 45A Replacement	HY	2	0	0	500,000	0	0	500,000
PLANNED	Flume 47 Replacement	HY	2	0	500,000	0	0	0	500,000
PLANNED	Flume 48 Replacement	HY	2	50,000	50,000	50,000	50,000	0	200,000
PLANNED	Hydro SCADA Network Reliability Program	HY	2	100,000	0	110,000	0	0	210,000
PLANNED	Penstock Assessment	HY	2	0	50,000	0	0	0	50,000
PLANNED	Project 184 SCADA System HW Replacement	HY	2	0	75,000	200,000	200,000	200,000	675,000
				<b>3,060,000</b>	<b>9,930,000</b>	<b>10,370,000</b>	<b>2,655,000</b>	<b>3,850,000</b>	<b>29,865,000</b>



## 2014 - 2018 Capital Improvement Plan Recreation Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2014 PLANNED	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2014-2018 TOTAL
PLANNED	Sierra Restroom	RE	1	25,000	0	0	0	0	25,000
PLANNED	Silver Lake Boat Ramp	RE	2	0	7,500	30,000	100,000	0	137,500
10013	Vegetation Rehabilitation	RE	3	5,000	5,000	5,000	0	0	15,000
11006	Sly Park Day Use Parking Improvements	RE	3	15,000	0	0	0	0	15,000
11045	Sly Park Trail Improvements	RE	3	25,000	10,000	0	0	0	35,000
PLANNED	Hazel Bridge	RE	3	30,000	0	0	0	0	30,000
PLANNED	Sly Park Dump Station	RE	3	0	69,500	55,500	0	0	125,000
				<b>100,000</b>	<b>92,000</b>	<b>90,500</b>	<b>100,000</b>	<b>0</b>	<b>382,500</b>

## General District Projects

PROJECT NO.	PROJECT DESCRIPTION	PROGRAM	PRIORITY	2014 PLANNED	2015 PLANNED	2016 PLANNED	2017 PLANNED	2018 PLANNED	2014-2018 TOTAL
12026	ADA Title II Compliance	GD	1	129,550	9,500	0	0	0	139,050
13030	Paint Booth Sand Blasting Facility	GD	1	385,000	0	0	0	0	385,000
06004G	SMUD / El Dorado Agreement Water Rights	GD	1	600,000	290,000	120,000	0	0	1,010,000
89069E	Water Rights for 17,000 Acre Feet	GD	1	50,000	0	0	0	0	50,000
PLANNED	Sandy Cove and Woods Creek ADA Compliance	GD	1	50,000	0	0	0	0	50,000
13002	AMR/Small Meter Replacement - Phase III	GD	2	100,000	100,000	100,000	100,000	100,000	500,000
13007	Window7 Virtual Machine	GD	2	32,000	0	0	0	0	32,000
PLANNED	2014 Vehicle Replacement	GD	2	720,000	0	0	0	0	720,000
PLANNED	Business IT Infrastructure Reliability Program	GD	2	797,000	447,000	302,000	120,000	190,000	1,856,000
PLANNED	Cyber Security Improvements	GD	2	200,000	0	200,000	100,000	0	500,000
PLANNED	SCADA Configuration and Alarm Response	GD	2	125,000	125,000	125,000	125,000	0	500,000
PLANNED	SCADA Hardware Replacement	GD	2	75,000	100,000	100,000	100,000	100,000	475,000
PLANNED	Security Alarm System Replacement	GD	2	60,000	0	0	0	0	60,000
PLANNED	Security Equipment Reliability Program	GD	2	137,400	33,000	13,500	0	0	183,900
PLANNED	Technology Master Plan	GD	2	200,000	0	0	0	0	200,000
PLANNED	Business Application Software Enhancement Program	GD	3	250,000	250,000	250,000	250,000	100,000	1,100,000
				<b>3,910,950</b>	<b>1,354,500</b>	<b>1,210,500</b>	<b>795,000</b>	<b>490,000</b>	<b>7,760,950</b>



# FERC Projects

2014

CAPITAL IMPROVEMENT PLAN Program:

FERC

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

Priority: 1 PM: Eymann Board Approval: 10/15/13

**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 2014 with construction anticipated in 2015.

**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:			
Funded to Date:	\$ 294,950	Expenditures through end of year:	\$ 194,029
Spent to Date:	\$ 189,029	2014 - 2018 Planned Expenditures:	\$ 305,000
Cash flow through end of year:	\$ 5,000	Total Project Estimate:	\$ 499,029
Project Balance	\$ 100,921	Additional Funding Required	\$ 204,079

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design	\$ 70,000					\$ 70,000
Construction		\$ 235,000				\$ 235,000
						\$ -
<b>TOTAL</b>	\$ 70,000	\$ 235,000	\$ -	\$ -	\$ -	\$ 305,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2014

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:

10/15/13

**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:**

<b>Funded to Date:</b>	\$ 163,000	<b>Expenditures through end of year:</b>	\$ 149,474
<b>Spent to Date:</b>	\$ 139,474	<b>2014 - 2018 Planned Expenditures:</b>	\$ 175,000
<b>Cash flow through end of year:</b>	\$ 10,000	<b>Total Project Estimate:</b>	\$ 324,474
<b>Project Balance</b>	\$ 13,526	<b>Additional Funding Required</b>	\$ 161,474

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Monitoring	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$ 150,000
Reporting	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 25,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 175,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$11,381
Water Rates	47%		\$10,093
			\$0
<b>Total</b>	<b>100%</b>		<b>\$21,474</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.

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

**Priority:** 1      **PM:** Noel      **Board Approval:** 10/15/13

**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 shall be 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>	\$ 242,472
<b>Spent to Date:</b>	\$ 232,472	<b>2014 - 2018 Planned Expenditures:</b>	\$ 40,000
<b>Cash flow through end of year:</b>	\$ 10,000	<b>Total Project Estimate:</b>	\$ 282,472
<b>Project Balance</b>	\$ 60,728	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</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>2014</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2014

CAPITAL IMPROVEMENT PLAN Program:

FERC

**Project Number:** 06024H  
**Project Name:** FERC: C40 Gaging Facilities  
**Project Category:** Regulatory Requirements  
**Priority:** 1      **PM:** Noel      **Board Approval:** 10/15/13

**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>	\$ 117,908
<b>Spent to Date:</b>	\$ 117,908	<b>2014 - 2018 Planned Expenditures:</b>	\$ 65,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 182,908
<b>Project Balance</b>	\$ 47,092	<b>Additional Funding Required</b>	\$ 17,908

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
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	2014	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

Project Number:

06025H

Project Name:

FERC: C41 Canal Release Points

Project Category:

Regulatory Requirements

Priority:

1

PM:

Noel

Board Approval:

10/15/13

**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.

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:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 28,240
<b>Spent to Date:</b>	\$ 28,240	<b>2014 - 2018 Planned Expenditures:</b>	\$ 40,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 68,240
<b>Project Balance</b>	\$ 21,760	<b>Additional Funding Required</b>	\$ 18,240

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction				\$ 40,000		\$ 40,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ 40,000	\$ -	\$ 40,000

Funding Sources	Percentage	2014	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:** 10/15/13

**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 premature to estimate the costs. The Plan has been submitted for approval with final design planned for 2014, permitting in 2014-2015 and construction in 2016.

**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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 232,692	<b>Expenditures through end of year:</b>	\$ 188,977
<b>Spent to Date:</b>	\$ 176,977	<b>2014 - 2018 Planned Expenditures:</b>	\$ 100,000
<b>Cash flow through end of year:</b>	\$ 12,000	<b>Total Project Estimate:</b>	\$ 288,977
<b>Project Balance</b>	\$ 43,715	<b>Additional Funding Required</b>	\$ 56,285

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design	\$ 50,000	\$ 50,000				\$ 100,000
Construction			*			\$ -
<b>TOTAL</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 100,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water FCCs	53%		\$3,331
Water Rates	47%		\$2,954
			\$0
<b>Total</b>	<b>100%</b>		<b>\$6,285</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:** 10/15/13

**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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 12,000	<b>Expenditures through end of year:</b>	\$ 2,872
<b>Spent to Date:</b>	\$ 2,872	<b>2014 - 2018 Planned Expenditures:</b>	\$ 70,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 72,872
<b>Project Balance</b>	\$ 9,128	<b>Additional Funding Required</b>	\$ 60,872

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design	\$ 10,000	\$ 10,000	\$ 50,000			\$ 70,000
Construction				*		\$ -
						\$ -
<b>TOTAL</b>	\$ 10,000	\$ 10,000	\$ 50,000	\$ -	\$ -	\$ 70,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water FCCs	53%		\$462
Water Rates	47%		\$410
			\$0
<b>Total</b>	<b>100%</b>		<b>\$872</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:

10/15/13

**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, but may be a pedestrian bridge below Echo Tunnel or a simple graded trail at another location.

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.

**Project Financial Summary:**

Funded to Date:	\$ 12,000	Expenditures through end of year:	\$ -
Spent to Date:	\$ -	2014 - 2018 Planned Expenditures:	\$ 4,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 4,000
Project Balance	\$ 12,000	Additional Funding Required	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 2,000	\$ 2,000				\$ 4,000
Design			*			\$ -
Construction				*		\$ -
						\$ -
<b>TOTAL</b>	\$ 2,000	\$ 2,000	\$ -	\$ -	\$ -	\$ 4,000

Funding Sources	Percentage	2014	Amount
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:** 10/15/13

**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.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 42,135	<b>Expenditures through end of year:</b>	\$ 31,926
<b>Spent to Date:</b>	\$ 31,926	<b>2014 - 2018 Planned Expenditures:</b>	\$ 1,675,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 1,706,926
<b>Project Balance</b>	\$ 10,209	<b>Additional Funding Required</b>	\$ 1,664,791

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design	\$ 25,000	\$ 150,000				\$ 175,000
Construction			\$ 1,500,000			\$ 1,500,000
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ 150,000	\$ 1,500,000	\$ -	\$ -	\$ 1,675,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$7,839
Water Rates	47%		\$6,952
			\$0
<b>Total</b>	<b>100%</b>		<b>\$14,791</b>

Funding Comments:

**Project Number:** 06086H  
**Project Name:** FERC C33 Lake Aloha Trout Removal  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Deason **Board Approval:** 10/15/13

**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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 87,000	<b>Expenditures through end of year:</b>	\$ 43,123
<b>Spent to Date:</b>	\$ 43,123	<b>2014 - 2018 Planned Expenditures:</b>	\$ 12,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 55,123
<b>Project Balance</b>	\$ 43,877	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning	\$12,000	*	*	*	*	\$ 12,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 12,000	\$ -	\$ -	\$ -	\$ -	\$ 12,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
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

2014

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:** 10/15/13

**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>	\$ 156,259
<b>Spent to Date:</b>	\$ 156,259	<b>2014 - 2018 Planned Expenditures:</b>	\$ 140,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 296,259
<b>Project Balance</b>	\$ 13,741	<b>Additional Funding Required</b>	\$ 126,259

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Monitoring			\$ 60,000	\$ 60,000		\$ 120,000
Staff time			\$ 10,000	\$ 10,000		\$ 20,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 70,000	\$ 70,000	\$ -	\$ 140,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2014

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:

10/15/13

**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>	\$ 88,687
<b>Spent to Date:</b>	\$ 88,687	<b>2014 - 2018 Planned Expenditures:</b>	\$ 110,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 198,687
<b>Project Balance</b>	\$ 17,313	<b>Additional Funding Required</b>	\$ 92,687

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
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	2014	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2014

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number:

06089H

Project Name:

FERC: C37.3 Amphibian Monitoring

Project Category:

Regulatory Requirements

Priority:

1

PM:

Deason

Board Approval:

10/15/13

**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>	\$ 189,462
<b>Spent to Date:</b>	\$ 189,462	<b>2014 - 2018 Planned Expenditures:</b>	\$ 100,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 289,462
<b>Project Balance</b>	\$ 38,538	<b>Additional Funding Required</b>	\$ 61,462

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
FYLF/MYLF Monitoring			\$ 90,000			\$ 90,000
SFAR flow fluctuations	*	*	*		*	\$ -
Lake Aloha monitoring	*	*	*		*	\$ -
Staff time			\$ 10,000			\$ 10,000
<b>TOTAL</b>	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ 100,000

Funding Sources	Percentage	2014	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.

2014

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:

10/15/13

**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:**

<b>Funded to Date:</b>	\$ 30,000	<b>Expenditures through end of year:</b>	\$ 16,369
<b>Spent to Date:</b>	\$ 16,369	<b>2014 - 2018 Planned Expenditures:</b>	\$ 14,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 30,369
<b>Project Balance</b>	\$ 13,631	<b>Additional Funding Required</b>	\$ 369

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Monitoring			\$ 12,000			\$ 12,000
Staff time			\$ 2,000			\$ 2,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 14,000	\$ -	\$ -	\$ 14,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2014

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:

10/15/13

**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:**

<b>Funded to Date:</b>	\$ 15,000	<b>Expenditures through end of year:</b>	\$ 13,713
<b>Spent to Date:</b>	\$ 13,713	<b>2014 - 2018 Planned Expenditures:</b>	\$ 12,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 25,713
<b>Project Balance</b>	\$ 1,287	<b>Additional Funding Required</b>	\$ 10,713

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Monitoring			\$ 10,000			\$ 10,000
Reporting			\$ 2,000			\$ 2,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 12,000	\$ -	\$ -	\$ 12,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:



2014

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:

10/15/13

**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>2014 - 2018 Planned Expenditures:</b>	\$ 75,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 123,059
<b>Project Balance</b>	\$ 1,217	<b>Additional Funding Required</b>	\$ 73,783

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Monitoring			\$ 50,000	\$ 10,000	\$ 10,000	\$ 70,000
Staff time			\$ 5,000			\$ 5,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 55,000	\$ 10,000	\$ 10,000	\$ 75,000

Funding Sources	Percentage	2014	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

2014

CAPITAL IMPROVEMENT PLAN Program:

FERC

**Project Number:** 06096H  
**Project Name:** FERC: C55 Heritage Resources  
**Project Category:** Regulatory Requirements  
**Priority:** 1      **PM:** Deason      **Board Approval:** 10/15/13

**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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 279,580	<b>Expenditures through end of year:</b>	\$ 205,348
<b>Spent to Date:</b>	\$ 205,348	<b>2014 - 2018 Planned Expenditures:</b>	\$ 25,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 230,348
<b>Project Balance</b>	\$ 74,232	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Reporting	\$25,000	*	*	*	*	\$ 25,000
						\$ -
						\$ -
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ 25,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
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

2014

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:

10/15/13

**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:	\$ 43,250
Spent to Date:	\$ 43,250	2014 - 2018 Planned Expenditures:	\$ 5,000
Cash flow through end of year:		Total Project Estimate:	\$ 48,250
Project Balance	\$ 26,750	Additional Funding Required	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning					\$ 5,000	\$ 5,000
Design						\$ -
Construction	\$ -	\$ -		\$ -		\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 5,000

Funding Sources	Percentage	2014	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 Mgmt  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Jagers **Board Approval:** 10/15/13

**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>	\$ 124,000	<b>Expenditures through end of year:</b>	\$ 124,570
<b>Spent to Date:</b>	\$ 124,570	<b>2014 - 2018 Planned Expenditures:</b>	\$ 125,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 249,570
<b>Project Balance</b>	\$ (570)	<b>Additional Funding Required</b>	\$ 125,570

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</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>2014</b>	<b>Amount</b>
Water FCCs	53%		\$13,552
Water Rates	47%		\$12,018
			\$0
<b>Total</b>	<b>100%</b>		<b>\$25,570</b>

**Funding Comments:**

2014

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number:

07003H

Project Name:

FERC: C37.9 Water Quality

Project Category:

Regulatory Requirements

Priority:

1

PM:

Deason

Board Approval:

10/15/13

**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>	\$ 300,000	<b>Expenditures through end of year:</b>	\$ 277,702
<b>Spent to Date:</b>	\$ 277,702	<b>2014 - 2018 Planned Expenditures:</b>	\$ 300,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 577,702
<b>Project Balance</b>	\$ 22,298	<b>Additional Funding Required</b>	\$ 277,702

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Monitoring	\$85,000		\$85,000		\$85,000	\$ 255,000
Staff time	\$15,000		\$15,000		\$15,000	\$ 45,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ 100,000	\$ -	\$ 100,000	\$ -	\$ 100,000	\$ 300,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$41,182
Water Rates	47%		\$36,520
			\$0
<b>Total</b>	<b>100%</b>		<b>\$77,702</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.

**Project Number:** 07005H  
**Project Name:** FERC: C51.3 RM Echo Trailhead  
**Project Category:** Regulatory Requirements  
**Priority:** 1      **PM:** Jagers      **Board Approval:** 10/15/13

**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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 30,000	<b>Expenditures through end of year:</b>	\$ 13,048
<b>Spent to Date:</b>	\$ 12,048	<b>2014 - 2018 Planned Expenditures:</b>	\$ 60,000
<b>Cash flow through end of year:</b>	\$ 1,000	<b>Total Project Estimate:</b>	\$ 73,048
<b>Project Balance</b>	\$ 16,952	<b>Additional Funding Required</b>	\$ 43,048

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning	\$5,000	\$5,000	\$50,000			\$ 60,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 5,000	\$ 5,000	\$ 50,000	\$ -	\$ -	\$ 60,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</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:** 07006H  
**Project Name:** FERC: C51.5 and C51.7 RM USFS Payments  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Jagers **Board Approval:** 10/15/13

**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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 261,718	<b>Expenditures through end of year:</b>	\$ 257,805
<b>Spent to Date:</b>	\$ 257,805	<b>2014 - 2018 Planned Expenditures:</b>	\$ 225,298
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 483,103
<b>Project Balance</b>	\$ 3,913	<b>Additional Funding Required</b>	\$ 221,385

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning	\$42,436	\$43,709	\$45,020	\$46,371	\$47,762	\$ 225,298
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 42,436	\$ 43,709	\$ 45,020	\$ 46,371	\$ 47,762	\$ 225,298

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water FCCs	53%		\$20,417
Water Rates	47%		\$18,106
			\$0
<b>Total</b>	<b>100%</b>		<b>\$38,523</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:** 10/15/13

**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>	\$ 21,013
<b>Spent to Date:</b>	\$ 21,013	<b>2014 - 2018 Planned Expenditures:</b>	\$ 1,175,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 1,196,013
<b>Project Balance</b>	\$ 28,987	<b>Additional Funding Required</b>	\$ 1,146,013

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design	\$ 25,000	\$ 150,000				\$ 175,000
Construction			\$ 500,000	\$ 500,000		\$ 1,000,000
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ 150,000	\$ 500,000	\$ 500,000	\$ -	\$ 1,175,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</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:** 07009H  
**Project Name:** FERC: C51.8 RM Woods Creek Fishing Access  
**Project Category:** Regulatory Requirements

**Priority:** 1 **PM:** Jagers **Board Approval:** 10/15/13

**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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 34,500	<b>Expenditures through end of year:</b>	\$ 34,079
<b>Spent to Date:</b>	\$ 31,079	<b>2014 - 2018 Planned Expenditures:</b>	\$ 10,000
<b>Cash flow through end of year:</b>	\$ 3,000	<b>Total Project Estimate:</b>	\$ 44,079
<b>Project Balance</b>	\$ 421	<b>Additional Funding Required</b>	\$ 9,579

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning	\$5,000	\$5,000				\$ 10,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 5,000	\$ 5,000	\$ -	\$ -	\$ -	\$ 10,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water FCCs	53%		\$2,427
Water Rates	47%		\$2,152
			\$0
<b>Total</b>	<b>100%</b>		<b>\$4,579</b>

**Funding Comments:**

2014

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number:

07010H

Project Name:

FERC: C15 Pesticide Use

Project Category:

Regulatory Requirements

Priority:

1

PM:

Gibson

Board Approval:

10/15/13

**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 El 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:	\$ 492,000	Expenditures through end of year:	\$ 417,260
Spent to Date:	\$ 417,260	2014 - 2018 Planned Expenditures:	\$ 350,000
Cash flow through end of year:		Total Project Estimate:	\$ 767,260
Project Balance	\$ 74,740	Additional Funding Required	\$ 275,260

Description of Work	Estimated Annual Expenditures					
	2014	2015	2016	2017	2018	Total
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	2014	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2014

CAPITAL IMPROVEMENT PLAN Program:

FERC

Project Number:

07011H

Project Name:

FERC: C38 Adaptive Mgmt Program

Project Category:

Regulatory Requirements

Priority:

1

PM:

Deason

Board Approval:

10/15/13

**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:**

Funded to Date:	\$ 455,000	Expenditures through end of year:	\$ 428,593
Spent to Date:	\$ 408,593	2014 - 2018 Planned Expenditures:	\$ 325,000
Cash flow through end of year:	\$ 20,000	Total Project Estimate:	\$ 753,593
Project Balance	\$ 26,407	Additional Funding Required	\$ 298,593

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Implementation	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000	\$ 325,000
						\$ -
						\$ -
						\$ -
<b>TOTAL</b>	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 325,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$20,454
Water Rates	47%		\$18,139
			\$0
<b>Total</b>	<b>100%</b>		<b>\$38,593</b>

Funding Comments:

2014

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:

10/15/13

**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 includes: construction of the Camp 2 bridge (included under a separate CIP), buttress work to the Camp 2 access road near Plum Creek, replacement of the culvert and outfall on the Camp 1 road, an 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:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 41,306
<b>Spent to Date:</b>	\$ 41,306	<b>2014 - 2018 Planned Expenditures:</b>	\$ 5,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 46,306
<b>Project Balance</b>	\$ 8,694	<b>Additional Funding Required</b>	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning				\$ 5,000		\$ 5,000
Design						\$ -
Construction	\$ -	\$ -		\$ -	\$ -	\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ 5,000	\$ -	\$ 5,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2014

CAPITAL IMPROVEMENT PLAN Program:

FERC

**Project Number:** 08025H  
**Project Name:** FERC C44 Noxious Weed Monitoring  
**Project Category:** Regulatory Requirements

**Priority:** 1 **PM:** Deason **Board Approval:** 10/15/13

**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>	\$ 135,323
<b>Spent to Date:</b>	\$ 130,323	<b>2014 - 2018 Planned Expenditures:</b>	\$ 102,000
<b>Cash flow through end of year:</b>	\$ 5,000	<b>Total Project Estimate:</b>	\$ 237,323
<b>Project Balance</b>	\$ 17,505	<b>Additional Funding Required</b>	\$ 84,495

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Implementation	\$15,000	\$15,000	\$30,000	\$15,000	\$15,000	\$ 90,000
Reporting	\$ 2,000	\$ 2,000	\$ 4,000	\$ 2,000	\$ 2,000	\$ 12,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ 17,000	\$ 17,000	\$ 34,000	\$ 17,000	\$ 17,000	\$ 102,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</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.

**Project Number:** 10007  
**Project Name:** FERC C51.2 RM Caples Boat Launch  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Jagers **Board Approval:** 10/15/13

**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.

**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>	\$ 140,000	<b>Expenditures through end of year:</b>	\$ 137,778
<b>Spent to Date:</b>	\$ 112,778	<b>2014 - 2018 Planned Expenditures:</b>	\$ 175,000
<b>Cash flow through end of year:</b>	\$ 25,000	<b>Total Project Estimate:</b>	\$ 312,778
<b>Project Balance</b>	\$ 2,222	<b>Additional Funding Required</b>	\$ 172,778

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$ 175,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 175,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$17,372
Water Rates	47%		\$15,406
			\$0
<b>Total</b>	<b>100%</b>		<b>\$32,778</b>

Funding Comments:

**Project Number:** 13019  
**Project Name:** FERC C59 SFAR North Structures  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Noel **Board Approval:** 10/15/13

**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, and demolition of the structures must be completed by 2017.

Remaining work includes: SW 3 and SW20 A/B improvements as identified in the plan to 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:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 12,852
<b>Spent to Date:</b>	\$ 852	<b>2014 - 2018 Planned Expenditures:</b>	\$ 100,000
<b>Cash flow through end of year:</b>	\$ 12,000	<b>Total Project Estimate:</b>	\$ 112,852
<b>Project Balance</b>	\$ 37,148	<b>Additional Funding Required</b>	\$ 62,852

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 20,000	\$ 10,000				\$ 30,000
Design		\$ 15,000				\$ 15,000
Construction			\$ 55,000			\$ 55,000
						\$ -
<b>TOTAL</b>	\$ 20,000	\$ 25,000	\$ 55,000	\$ -	\$ -	\$ 100,000

Funding Sources	Percentage	2014	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:

10/15/13

**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.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 175,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 175,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 175,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design	\$ 25,000	\$ 150,000				\$ 175,000
Construction				*		\$ -
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ 150,000	\$ -	\$ -	\$ -	\$ 175,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$13,250
Water Rates	47%		\$11,750
			\$0
<b>Total</b>	<b>100%</b>		<b>\$25,000</b>

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



# Water Projects

2014

CAPITAL IMPROVEMENT PLAN Program:

Water

Project Number:

09006E

Project Name:

Blakeley Reservoir Improvements

Project Category:

Regulatory Requirements

Priority:

1

PM:

Eymann

Board Approval:

10/15/13

**Project Description:**

Annual cycling of the outlet works at Blakeley reservoir are required by DSOD and best dam safety management practices. 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 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.

**Basis for Priority:**

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

**Project Financial Summary:**

Funded to Date:	\$ 327,559	Expenditures through end of year:	\$ 199,640
Spent to Date:	\$ 174,640	2014 - 2018 Planned Expenditures:	\$ 940,000
Cash flow through end of year:	\$ 25,000	Total Project Estimate:	\$ 1,139,640
Project Balance	\$ 127,919	Additional Funding Required	\$ 812,081

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design	\$ 70,000	\$ 30,000				\$ 100,000
Construction		\$ 40,000	\$ 800,000			\$ 840,000
						\$ -
<b>TOTAL</b>	\$ 70,000	\$ 70,000	\$ 800,000	\$ -	\$ -	\$ 940,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 10015  
**Project Name:** Water System Upgrades  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Strahan **Board Approval:** 10/15/13

**Project Description:**

Capital improvements to water distribution infrastructure. These improvements help meet regulatory compliance and water use accountability. Stage 2 of the Disinfectants/Disinfection By-Product Rule (Stage 2) establishes new 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. Installed cost estimate is \$25,000 for each bulk water station. In 2014 - 2015, up to 10 auto flush stations will be installed.

**Basis for Priority:**

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

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 120,000	<b>Expenditures through end of year:</b>	\$ 125,713
<b>Spent to Date:</b>	\$ 100,713	<b>2014 - 2018 Planned Expenditures:</b>	\$ 50,000
<b>Cash flow through end of year:</b>	\$ 25,000	<b>Total Project Estimate:</b>	\$ 175,713
<b>Project Balance</b>	\$ (5,713)	<b>Additional Funding Required</b>	\$ 55,713

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$25,000	\$25,000				\$ 50,000
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ 25,000	\$ -	\$ -	\$ -	\$ 50,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$30,713
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$30,713</b>

Funding Comments:

**Project Number:** 10022  
**Project Name:** Silva Valley Interchange (DOT)  
**Project Category:** State/County Road Projects  
**Priority:** 1      **PM:** Brink      **Board Approval:** 10/15/13

**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. The county is currently bidding the project (September 2013) and anticipates awarding the construction contract in the fall 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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 431,872	<b>Expenditures through end of year:</b>	\$ 49,203
<b>Spent to Date:</b>	\$ 44,203	<b>2014 - 2018 Planned Expenditures:</b>	\$ 350,000
<b>Cash flow through end of year:</b>	\$ 5,000	<b>Total Project Estimate:</b>	\$ 399,203
<b>Project Balance</b>	\$ 382,669	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 200,000	\$ 150,000				\$ 350,000
						\$ -
<b>TOTAL</b>	\$ 200,000	\$ 150,000	\$ -	\$ -	\$ -	\$ 350,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
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:** 11017  
**Project Name:** Reservoir A WTP Chlorine Conversion  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 1 **PM:** Rice **Board Approval:** 10/15/13

**Project Description:**

This program consists of conversion of existing gaseous chlorination storage and feed facilities to a safer alternative disinfection system. Conversion to sodium hypochlorite necessitates a change in pH control away from lime. The project therefore includes demolition of the lime silo and installation of a new sodium hydroxide feed system. Project construction is progressing with completion of the sodium hypochlorite installation projected for 2013. Installation of the sodium hydroxide storage and feed system will occur in early 2014 and therefore a portion of the authorized funding will be expended in 2014.

**Basis for Priority:**

The project mitigates continued liability associated with large scale delivery, handling, and storage of chlorine gas and safety concerns with quick lime.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 2,141,548	<b>Expenditures through end of year:</b>	\$ 1,668,845
<b>Spent to Date:</b>	\$ 868,845	<b>2014 - 2018 Planned Expenditures:</b>	\$ 425,000
<b>Cash flow through end of year:</b>	\$ 800,000	<b>Total Project Estimate:</b>	\$ 2,093,845
<b>Project Balance</b>	\$ 472,703	<b>Additional Funding Required</b>	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction Costs	\$425,000					\$ 425,000
						\$ -
<b>TOTAL</b>	\$ 425,000	\$ -	\$ -	\$ -	\$ -	\$ 425,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$0
			\$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.

**Project Number:** 11026  
**Project Name:** Reservoir A Process Improvements  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Rice **Board Approval:** 10/15/13

**Project Description:**

Funding will be utilized to continue rehabilitation of the remaining two drying beds. The first bed was rehabilitated in 2012 and included a new temporary polymer feed system. This project will include a permanent housing for the polymer feed, installation of improved basin drainage, and routing of power and water to the drying bed area for maintenance purposes.

**Basis for Priority:**

Water treatment solids residuals are dewatered utilizing gravity drying beds that have failed and are in need of redesign and rebuild.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 320,855	<b>Expenditures through end of year:</b>	\$ 276,097
<b>Spent to Date:</b>	\$ 271,097	<b>2014 - 2018 Planned Expenditures:</b>	\$ 130,000
<b>Cash flow through end of year:</b>	\$ 5,000	<b>Total Project Estimate:</b>	\$ 406,097
<b>Project Balance</b>	\$ 44,758	<b>Additional Funding Required</b>	\$ 85,242

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction Costs	\$0	\$130,000				\$ 130,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 130,000	\$ -	\$ -	\$ -	\$ 130,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water Rates	100%		\$0
			\$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.

**Project Number:** 11032  
**Project Name:** Main Ditch - Forebay to Reservoir 1  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Rice **Board Approval:** 10/15/13

**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 per previous studies, 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 evaluation will prepare alternatives for the Main Ditch to conserve water and protect public health. In 2012, the District was awarded a grant from the EDCWA for up to \$40,000 in matching funds to perform preliminary environmental and feasibility work to pipe the ditch. In 2013 a second grant for up to \$195,000 in matching funds was awarded to support survey and pipeline design work. The grants are required to be expended by June 30, 2014 and therefore the survey will be initiated in 2013 with design work continuing into 2014.

**Basis for Priority:**

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

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 49,688
<b>Spent to Date:</b>	\$ 19,688	<b>2014 - 2018 Planned Expenditures:</b>	\$ 3,400,000
<b>Cash flow through end of year:</b>	\$ 30,000	<b>Total Project Estimate:</b>	\$ 3,449,688
<b>Project Balance</b>	\$ 312	<b>Additional Funding Required</b>	\$ 3,399,688

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design/Environmental	\$200,000	\$200,000	\$250,000	\$250,000		\$ 900,000
Construction Costs					\$2,500,000	\$ 2,500,000
Land Procurement						\$ -
<b>TOTAL</b>	<b>\$ 200,000</b>	<b>\$ 200,000</b>	<b>\$ 250,000</b>	<b>\$ 250,000</b>	<b>\$ 2,500,000</b>	<b>\$ 3,400,000</b>

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$199,688
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$199,688</b>

**Funding Comments:** Staff has acquired grant funding in the amount of \$195,000 for design

**Project Number:** 12008  
**Project Name:** Patterson Intersection Improvements (DOT)  
**Project Category:** State/County Road Projects  
**Priority:** 1 **PM:** Rice **Board Approval:** 10/15/13

**Project Description:**

This project is required due to DOT improvements scheduled at the intersection of Patterson Rd and Pleasant Valley Rd which require relocation of the existing Patterson pressure regulating station (PRS) plus lowering of an existing 200 LF section of waterline with insufficient cover. DOT has issued a mandate to relocate utilities in conflict and the District is required to comply. The project also includes replacement of the Patterson PRS which is contained within an underground vault that due to topography is continuously flooded and the pipe and valving system has corroded to the point that it no longer will be serviceable when the next maintenance is required. Initially planned for implementation in 2012, the intersection improvements have been delayed by DOT and the District project therefore has been delayed to match the DOT schedule. The budget for 2014 will be to replace the PRS and relocate the 200 lf of 12-inch waterline.

**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. This DOT project requires District facilities within DOT Right of Way to be relocated.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 372,825	<b>Expenditures through end of year:</b>	\$ 91,673
<b>Spent to Date:</b>	\$ 71,673	<b>2014 - 2018 Planned Expenditures:</b>	\$ 296,000
<b>Cash flow through end of year:</b>	\$ 20,000	<b>Total Project Estimate:</b>	\$ 387,673
<b>Project Balance</b>	\$ 281,152	<b>Additional Funding Required</b>	\$ 14,848

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction Costs	\$296,000					\$ 296,000
						\$ -
<b>TOTAL</b>	<b>\$ 296,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 296,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water Rates	100%		\$14,848
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$14,848</b>

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



**Project Number:** 12023  
**Project Name:** DOT Construction Projects - Water  
**Project Category:** State/County Road Projects

**Priority:** 1 **PM:** Rice **Board Approval:** 10/15/13

**Project Description:**

The Board has directed staff to streamline contracting procedures with the El Dorado County Department of Transportation (DOT) and City of Placerville for the two agencies' 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 identified several methods to improve mutual cooperation in conducting county road construction projects that impact EID facilities.

Individual projects identified under this program will be broken out and funded as a separate CIP project as needed.

**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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 20,252
<b>Spent to Date:</b>	\$ 12,252	<b>2014 - 2018 Planned Expenditures:</b>	\$ 125,000
<b>Cash flow through end of year:</b>	\$ 8,000	<b>Total Project Estimate:</b>	\$ 145,252
<b>Project Balance</b>	\$ 29,748	<b>Additional Funding Required</b>	\$ 95,252

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Total</b>
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

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

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

**Project Number:** 12024  
**Project Name:** Strawberry WTP Evaluation  
**Project Category:** Regulatory Requirements

**Priority:** 1 **PM:** Sullivan **Board Approval:** 10/15/13

**Project Description:**

The District has received a compliance order from CDPH for failure to meet disinfection by-product regulations. CDPH directed the District to issue notification to the Strawberry system customers and submit a plan and schedule of implementation by October 31, 2012 to bring the system into compliance. The plan was submitted to the state and is currently being implemented in steps. Staff has installed a mixer at the storage tank and will continue to monitoring the effects toward compliance through 2014. If the mixer is insufficient to comply then further pilot studies will be performed including the use of activated carbon and possibly fine particle filtration. Staff plans to continue this step by step process until compliance is assured.

Other design work will follow in preparation for improvements in future years. A partial list includes: repair or replace the backwash tank, replace existing river intake and pumps, install generator containment area.

**Basis for Priority:**

Project improves existing assets for regulatory compliance, improves water quality and reliability of supply.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 45,009
<b>Spent to Date:</b>	\$ 35,009	<b>2014 - 2018 Planned Expenditures:</b>	\$ 40,000
<b>Cash flow through end of year:</b>	\$ 10,000	<b>Total Project Estimate:</b>	\$ 85,009
<b>Project Balance</b>	\$ 4,991	<b>Additional Funding Required</b>	\$ 35,009

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$10,000					\$ 10,000
Design		\$30,000				\$ 30,000
Construction		*	*			\$ -
						\$ -
<b>TOTAL</b>	\$ 10,000	\$ 30,000	\$ -	\$ -	\$ -	\$ 40,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$5,009
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$5,009</b>

**Funding Comments:** Construction costs TBD after initial engineering study

2014

**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:** 10/15/13

**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>	\$ 112,846	<b>Expenditures through end of year:</b>	\$ 112,846
<b>Spent to Date:</b>	\$ 66,611	<b>2014 - 2018 Planned Expenditures:</b>	\$ 500,000
<b>Cash flow through end of year:</b>	\$ 46,235	<b>Total Project Estimate:</b>	\$ 612,846
<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>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 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

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water Rates	100%		\$100,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$100,000</b>

Funding Comments:

**Project Number:** 12029  
**Project Name:** Development Services Water Model  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 3 **PM:** Mackay **Board Approval:** 10/15/13

**Project Description:**

The District's existing water model consists of several regional models, one for each service zone. These models were developed several years ago and have gone through many alterations and additions by staff. This project would develop a new hydraulic model by utilizing the accurate information in the current model and bring in new, missing information to develop a complete hydraulic water model that staff can rely upon for analysis of our water distribution system and also allow trunk system analysis. The engineering staff processes many requests for pressure and flow as required for the design of fire sprinkler systems on a weekly basis. In addition, the model is utilized to determine if the District can supply adequate flow and pressure for new development. When staff is processing facility improvement letters and facility plan reports, it is often the water modeling that consumes the most staff time. A fully developed and calibrated water model would improve efficiency and respond to developers in a shorter timeframe. Grant funding of \$75,000 was awarded by the EDCWA to fund a consultant that is currently working on development of the model.

**Basis for Priority:**

This project would accomplish the following: improved reliability of our water distribution system model, improved staff efficiency, improved response time to developers and customers when processing fire flow requests, FILs and FPRs, improved data for our GIS program

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 182,175	<b>Expenditures through end of year:</b>	\$ 161,335
<b>Spent to Date:</b>	\$ 21,335	<b>2014 - 2018 Planned Expenditures:</b>	\$ 20,000
<b>Cash flow through end of year:</b>	\$ 140,000	<b>Total Project Estimate:</b>	\$ 181,335
<b>Project Balance</b>	\$ 20,840	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning	\$ 20,000					\$ 20,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ 20,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water Rates	50%		\$0
Water FCCs	50%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Funding will be offset by a 50% grant from EDCWA

**Project Number:** 13001  
**Project Name:** Water Tank Recoating Program  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Rice **Board Approval:** 10/15/13

**Project Description:**

The District operates 36 steel storage tanks, ranging in age from 2 to 60 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 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 two tanks each year to establish a 15 year rotation of routine coating maintenance. Multiple tanks have been inspected during the last two years to help prioritize coating repairs and upgrades. The proposed subsequent tanks to have their interiors recoated include two tanks at Outingdale WTP, Reservoir 6, Oak Ridge #1, Reservoirs 2 and 2A, and two tanks at Reservoir 7. The increased costs identified in 2014 and 2015 reflect the larger capacity storage tanks scheduled for those years.

**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>	\$ 42,346
<b>Spent to Date:</b>	\$ 36,346	<b>2014 - 2018 Planned Expenditures:</b>	\$ 5,200,000
<b>Cash flow through end of year:</b>	\$ 6,000	<b>Total Project Estimate:</b>	\$ 5,242,346
<b>Project Balance</b>	\$ 7,654	<b>Additional Funding Required</b>	\$ 5,192,346

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 100,000
Construction Costs	\$1,500,000	\$1,500,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 5,100,000
						\$ -
<b>TOTAL</b>	\$ 1,520,000	\$ 1,520,000	\$ 720,000	\$ 720,000	\$ 720,000	\$ 5,200,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$1,512,346
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$1,512,346</b>

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

**Project Number:** 13008  
**Project Name:** Water Generator Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/15/13

**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 2013 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>	\$ 15,000	<b>Expenditures through end of year:</b>	\$ 225,352
<b>Spent to Date:</b>	\$ 5,352	<b>2014 - 2018 Planned Expenditures:</b>	\$ 750,000
<b>Cash flow through end of year:</b>	\$ 220,000	<b>Total Project Estimate:</b>	\$ 975,352
<b>Project Balance</b>	\$ (210,352)	<b>Additional Funding Required</b>	\$ 960,352

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 250,000	\$ 250,000	\$ 125,000	\$ 125,000	\$ -	\$ 750,000
						\$ -
<b>TOTAL</b>	\$ 250,000	\$ 250,000	\$ 125,000	\$ 125,000	\$ -	\$ 750,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$460,352
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$460,352</b>

Funding Comments:

**Project Number:** 13013  
**Project Name:** Tank 7 In-Conduit Hydro  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/15/13

**Project Description:**

The proposed Tank 7 In-conduit Hydroelectric Project consists of: (1) a proposed 24-inch-diameter, intake pipeline; (2) a proposed powerhouse containing three proposed generating units, (3) a proposed 24-inch-diameter, discharge pipeline; and (4) appurtenant facilities. The design estimates the project would have an average annual generation of 1.85 megawatt-hours.

The Tank 7 In-conduit Hydroelectric Project would be located on the Pleasant Oak Main. Along the main, water enters a pressure reducing facility and then travels for an additional 9 miles along the main for storage in Reservoir 7.

In 2013 the design phase was started and it was determined that two generators should be installed in the initial construction with the capability to install a future third generator. Construction of the two generator system is anticipated to start and finish in 2014.

**Basis for Priority:**

The project was evaluated based on 20-year financing, although in actuality the District would use existing capital reserves to fund the project. A new analysis conservatively shows an expected payback period of 14-15 years. From a long-term view of the project, an additional \$4 million to \$5 million in revenue could be gained over a 30-year time period. A revised financial analysis using a new Renewable Energy Self-Generation Bill Credit Transfer (RES-BCT) program, which would provide gross savings for the project by incorporating a bill credit for the generation portion of the District's PG&E utility bills. RES-BCT allows a Local Government with one or more eligible renewable generating facilities to export energy to the grid and receive generation credits that can be used to offset electricity charges at one or more other locations.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 550,170	<b>Expenditures through end of year:</b>	\$ 454,312
<b>Spent to Date:</b>	\$ 84,312	<b>2014 - 2018 Planned Expenditures:</b>	\$ 1,290,000
<b>Cash flow through end of year:</b>	\$ 370,000	<b>Total Project Estimate:</b>	\$ 1,744,312
<b>Project Balance</b>	\$ 95,858	<b>Additional Funding Required</b>	\$ 1,194,142

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 1,290,000					\$ 1,290,000
						\$ -
<b>TOTAL</b>	\$ 1,290,000	\$ -	\$ -	\$ -	\$ -	\$ 1,290,000

Funding Sources	Percentage	2014	Amount
Water Rates	47%		\$561,247
Water FCCs	53%		\$632,895
			\$0
<b>Total</b>	<b>100%</b>		<b>\$1,194,142</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:** 10/15/13

**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 and its condition is severely deteriorated, reducing the reliability of future service. The 2002 Storage Evaluation Report indicated a current need for 155,000 gallons storage plus an ultimate build out need for 600,000 gallons storage. The program for this storage site is to build one new 300,000 gallon tank and demolish the old 130,000 gallon tank. Only as local system demands increase would the second 300,000 gallon tank be considered to provide storage and redundancy.

The proposed budget involves environmental study and permitting, tank design, road improvements to allow access to the site, repair of several hundred feet of shallow water line, and construction of a new 300,000 gallon tank at the existing site along with demolition of the old tank.

**Basis for Priority:**

To ensure service reliability

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 20,000
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 950,000
<b>Cash flow through end of year:</b>	\$ 20,000	<b>Total Project Estimate:</b>	\$ 970,000
<b>Project Balance</b>	\$ 30,000	<b>Additional Funding Required</b>	\$ 920,000

Description of Work	Estimated Annual Expenditures					
	2014	2015	2016	2017	2018	Total
Study/Planning						\$ -
Design	\$150,000	\$150,000				\$ 300,000
Construction Costs		\$650,000				\$ 650,000
						\$ -
<b>TOTAL</b>	\$ 150,000	\$ 800,000	\$ -	\$ -	\$ -	\$ 950,000

Funding Sources	Percentage	2014	Amount
Water Rates	95%		\$114,000
Water FCCs	5%		\$6,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$120,000</b>

Funding Comments:



**Project Number:** 13015  
**Project Name:** Outingdale Lower Tank Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Rice **Board Approval:** 10/15/13

**Project Description:**

Originally constructed in 1993, the tank is only 20 years old but has suffered serious corrosion and deterioration of the rafters, reducing structural reliability and confidence for continued service. 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 volume. 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 CDPH regulations.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 550,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 550,000
<b>Project Balance</b>	\$ 50,000	<b>Additional Funding Required</b>	\$ 500,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design		\$ 50,000				\$ 50,000
Construction			\$ 500,000			\$ 500,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 50,000	\$ 500,000	\$ -	\$ -	\$ 550,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$0
			\$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.

**Project Number:** PLANNED  
**Project Name:** 2014 Waterline Replacement Program  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2 **PM:** Rice **Board Approval:** 10/15/13

**Project Description:**

This program consists of targeted replacement of leaking waterlines, including formerly private lines within the District. This multi-year program provides funding 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 water line and prepare detailed construction estimates for subsequent approval by the Board. 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" C900
2. Easy Street at Ridge Way in Pollock Pines – Replacement 800' of 4" C900
3. Polaris Street & Drop Off Street in Pollock Pines - Replacement 800' of 8" C900
4. Placerville Drive – Replacement 800' of 10" C900
5. Safeway to Hazel Hwy 50 crossing – Replacement 325' of 8" C900

**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>2014 - 2018 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
	2014	2015	2016	2017	2018	
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	2014	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

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

**Priority:** 2      **PM:** Strahan      **Board Approval:** 10/15/13

**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>2014 - 2018 Planned Expenditures:</b>	\$ 150,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 150,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 150,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design	\$ 50,000	\$ 100,000				\$ 150,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ 100,000	\$ -	\$ -	\$ -	\$ 150,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$50,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$50,000</b>

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

2014

**CAPITAL IMPROVEMENT PLAN Program:**

**Water**

**Project Number:**

**PLANNED**

**Project Name:**

**Greenstone Tank Telemetry Installation**

**Project Category:**

**Regulatory Requirements**

**Priority:**

**1**

**PM:**

**Strahan**

**Board Approval:**

**10/15/13**

**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.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ 5,000
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 45,000
<b>Cash flow through end of year:</b>	\$ 5,000	<b>Total Project Estimate:</b>	\$ 50,000
<b>Project Balance</b>	\$ (5,000)	<b>Additional Funding Required</b>	\$ 50,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design	\$ 5,000					\$ 5,000
Construction		\$ 40,000				\$ 40,000
						\$ -
<b>TOTAL</b>	\$ 5,000	\$ 40,000	\$ -	\$ -	\$ -	\$ 45,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$10,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$10,000</b>

Funding Comments:

2014

CAPITAL IMPROVEMENT PLAN Program:

Water

Project Number:

PLANNED

Project Name:

Moosehall Pump Station Upgrade

Project Category:

Reliability &amp; Service Level Improvements

Priority:

2

PM:

Rice

Board Approval:

10/15/13

**Project Description:**

This project consists of replacement of the District's existing Moosehall Pump Station which was quickly constructed as an emergency 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 21 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 and treatment facility shutdowns. The turbine pumps are approaching the end of their service life.

The proposed budget includes design of a new pump station on the existing site, a small wet well for the pumps and demolition of the existing covered reservoir. The existing reservoir cover requires extensive repairs or complete replacement that will be avoided by construction of a new pump station wet well.

**Basis for Priority:**

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

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 75,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 75,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 75,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning		\$25,000				\$ 25,000
Design			\$50,000			\$ 50,000
Construction Costs						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ 25,000	\$ 50,000	\$ -	\$ -	\$ 75,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Construction costs TBD after initial engineering study

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

**Priority:** 2      **PM:** Sullivan      **Board Approval:** 10/15/13

**Project Description:**

This project requires 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 life cycle 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 in 2014 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>	\$ 150,000	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 125,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 125,000
<b>Project Balance</b>	\$ 150,000	<b>Additional Funding Required</b>	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Construction	\$ 25,000	\$ 100,000				\$ 125,000
						\$ -
						\$ -
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ 100,000	\$ -	\$ -	\$ -	\$ 125,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

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

**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/15/13

**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. As stated above, these units are combined radio and automation controllers. This compounds the issues we are experiencing. 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>2014 - 2018 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
	2014	2015	2016	2017	2018	
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	2014	Amount
Water Rates	100%		\$260,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$260,000</b>

Funding Comments:

2014

**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:** 10/15/13

**Project Description:**

An annual program to remove, replace or upgrade deteriorating pressure reducing stations to maintain service reliability throughout the District. For 2014, improvements for the GHI PRS6, 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. Program management expenditures identified include prioritizing and designing each PRS replacement. Actual PRS replacement costs 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.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 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					Total
	2014	2015	2016	2017	2018	
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	2014	Amount
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:** 10/15/13

**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, and Arrow Bee are in need of upgrades to supply 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, design and construction upgrades.

**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>2014 - 2018 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					Total
	2014	2015	2016	2017	2018	
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	2014	Amount
Water Rates	100%		\$10,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$10,000</b>

**Funding Comments:** Work involves upgrade to existing facilities for reliability of service and not increased capacity.

**Project Number:** PLANNED  
**Project Name:** Reservoir 1 WTP Spent Backwash Treatment  
**Project Category:** Regulatory Requirements

**Priority:** 1 **PM:** Rice **Board Approval:** 10/15/13

**Project Description:**

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.

**Basis for Priority:**

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>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 1,630,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 1,630,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,630,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 163,000					\$ 163,000
Design		\$ 130,400				\$ 130,400
Construction			\$ 336,600	\$ 1,000,000		\$ 1,336,600
						\$ -
<b>TOTAL</b>	\$ 163,000	\$ 130,400	\$ 336,600	\$ 1,000,000	\$ -	\$ 1,630,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$163,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$163,000</b>

**Funding Comments:** Costs are taken from the Integrated Water Resources Master Plan dated March, 2013

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

**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/15/13

**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.

**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>2014 - 2018 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
	2014	2015	2016	2017	2018	
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	2014	Amount
Water Rates	100%		\$288,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$288,000</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.

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

**Priority:** 2 **PM:** Rice **Board Approval:** 10/15/13

**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>2014 - 2018 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>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design		\$ 10,000				\$ 10,000
Construction		\$ 90,000				\$ 90,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ 100,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</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:** 10/15/13

**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>	\$ 50,000
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 310,000
<b>Cash flow through end of year:</b>	\$ 50,000	<b>Total Project Estimate:</b>	\$ 360,000
<b>Project Balance</b>	\$ (50,000)	<b>Additional Funding Required</b>	\$ 360,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Res A WTP	\$ 50,000			\$ 55,000		\$ 105,000
Res 1 WTP	\$ 50,000			\$ 55,000		\$ 105,000
EDH WTP		\$ 50,000				\$ 50,000
Strawberry WTP		\$ 50,000				\$ 50,000
<b>TOTAL</b>	\$ 100,000	\$ 100,000	\$ -	\$ 110,000	\$ -	\$ 310,000

Funding Sources	Percentage	2014	Amount
Water rates	100%		\$150,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$150,000</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:** White Rock Diversion  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2 **PM:** Megerdigian **Board Approval:** 10/15/13

**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 2014, CEQA compliance and Petition prosecution in 2015 and 2016, and Petition prosecution and SWRCB hearing in 2017. 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>2014 - 2018 Planned Expenditures:</b>	\$ 908,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 908,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 908,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 75,000	\$ 200,000	\$ 150,000	\$ 200,000		\$ 625,000
Design					\$ 283,000	\$ 283,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 75,000</b>	<b>\$ 200,000</b>	<b>\$ 150,000</b>	<b>\$ 200,000</b>	<b>\$ 283,000</b>	<b>\$ 908,000</b>

Funding Sources	Percentage	2014	Amount
Water FCCs	100%		\$75,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$75,000</b>

Funding Comments:

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

**Priority:** 1      **PM:** Rice      **Board Approval:** 10/15/13

**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 CDPH 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 design for replacement covers will be evaluated and implemented as required. Minimal District staff labor will be required to coordinate outside vendors performing the repair work. In 2015 planning will begin to reevaluate 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>	\$ 216,568
<b>Spent to Date:</b>	\$ 191,568	<b>2014 - 2018 Planned Expenditures:</b>	\$ 150,000
<b>Cash flow through end of year:</b>	\$ 25,000	<b>Total Project Estimate:</b>	\$ 366,568
<b>Project Balance</b>	\$ 183,432	<b>Additional Funding Required</b>	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
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	2014	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:** 04013E  
**Project Name:** Deer Creek Wastewater Treatment Plant Maintenance Building  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 3 **PM:** Sullivan **Board Approval:** 10/15/13

**Project Description:**

The current maintenance building is undersized, does not meet current needs for proper plant maintenance, and does not meet current OSHA and safety standards. In 2012 a building analysis was conducted to determine the current and future compliance with all applicable building, safety and occupancy codes. The analysis has been used to determine further refinement of the scope of this CIP. The current building does not allow for hot work, has improper ventilation, and insufficient lighting. Operations staff has been converting the old belt filter press building to a maintenance shop. The conversion involves electrical, HVAC, lighting, flooring, storage shelving, an overhead crane, and other modifications that shall be completed by staff. Since this project is performed by in house staff, the project is projected to continue at least through 2014.

**Basis for Priority:**

Reliable maintenance may not be possible without sufficient facilities.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 141,040	<b>Expenditures through end of year:</b>	\$ 131,492
<b>Spent to Date:</b>	\$ 116,492	<b>2014 - 2018 Planned Expenditures:</b>	\$ 50,000
<b>Cash flow through end of year:</b>	\$ 15,000	<b>Total Project Estimate:</b>	\$ 181,492
<b>Project Balance</b>	\$ 9,548	<b>Additional Funding Required</b>	\$ 40,452

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design/PM						\$ -
Construction	\$ 50,000					\$ 50,000
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	65%		\$26,294
Wastewater FCC	35%		\$14,158
			\$0
<b>Total</b>	<b>100%</b>		<b>\$40,452</b>

Funding Comments:

**Project Number:** 09015E  
**Project Name:** Yates Lift Station Upgrade  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 1      **PM:** Sullivan      **Board Approval:** 10/15/13

**Project Description:**

The project involves the replacement of the Yates Lift Station. Currently the lift station has an old steel corroded wet well with a high maintenance and call out history. Spills have occurred at this lift station. The controls, wet well, and building are corroded beyond repair. Existing valves and piping present a high liability due to improper materials used for past repair and replacement. The new wet well will increase operational efficiency and reliability.

The project was bid in mid 2013 for construction and will be completed in late 2013, with final payment in 2014.

**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:	\$ 790,828	Expenditures through end of year:	\$ 690,828
Spent to Date:	\$ 100,121	2014 - 2018 Planned Expenditures:	\$ 100,000
Cash flow through end of year:	\$ 590,707	Total Project Estimate:	\$ 790,828
Project Balance	\$ 100,000	Additional Funding Required	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design/CM/Inspection						\$ -
Construction	\$ 100,000					\$ 100,000
						\$ -
<b>TOTAL</b>	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** 100% rates, project replaces an existing lift station for current customers.

**Project Number:** 10018  
**Project Name:** Rancho Ponderosa Decommission  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 1 **PM:** Wells **Board Approval:** 10/15/13

**Project Description:**

The Rancho Ponderosa WWTP (RPWWTP) has been replaced with a new lift station to carry the sewage to the Deer Creek / Mother Load 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.

**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 required by the RWQCB.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 167,919	<b>Expenditures through end of year:</b>	\$ 11,315
<b>Spent to Date:</b>	\$ 11,315	<b>2014 - 2018 Planned Expenditures:</b>	\$ 160,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 171,315
<b>Project Balance</b>	\$ 156,604	<b>Additional Funding Required</b>	\$ 3,396

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning	\$ 10,000					\$ 10,000
Design						\$ -
Construction		\$ 150,000				\$ 150,000
						\$ -
<b>TOTAL</b>	\$ 10,000	\$ 150,000	\$ -	\$ -	\$ -	\$ 160,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2014

CAPITAL IMPROVEMENT PLAN Program:

Wastewater

Project Number: 11010  
 Project Name: DCWWTP Regulatory Compliance  
 Project Category: Reliability & Service Level Improvements  
 Priority: 2 PM: Sullivan Board Approval: 10/15/13

**Project Description:**

This project is for painting the UV channels at the DCWWTP.

**Basis for Priority:**

The improvements will protect the current District assets from further degradation while ensuring operational reliability of the DCWWTP to meet regulatory compliance.

Project Financial Summary:			
Funded to Date:	\$ 202,527	Expenditures through end of year:	\$ 104,331
Spent to Date:	\$ 104,331	2014 - 2018 Planned Expenditures:	\$ 98,000
Cash flow through end of year:		Total Project Estimate:	\$ 202,331
Project Balance	\$ 98,196	Additional Funding Required	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design/PM						\$ -
Construction	\$ 98,000					\$ 98,000
						\$ -
<b>TOTAL</b>	\$ 98,000	\$ -	\$ -	\$ -	\$ -	\$ 98,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	70%		\$0
Wastewater FCCs	30%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments: funding split based on available capacity at the plant

2014

CAPITAL IMPROVEMENT PLAN Program:

Wastewater

**Project Number:** 11011  
**Project Name:** Deer Creek WWTP Crossing  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Brink **Board Approval:** 10/15/13

**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 Game 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 permits.

Project Financial Summary:			
Funded to Date:	\$ 146,629	Expenditures through end of year:	\$ 23,538
Spent to Date:	\$ 22,038	2014 - 2018 Planned Expenditures:	\$ 6,000
Cash flow through end of year:	\$ 1,500	Total Project Estimate:	\$ 29,538
Project Balance	\$ 123,091	Additional Funding Required	\$ -

Description of Work	Estimated Annual Expenditures					
	2014	2015	2016	2017	2018	Total
Study/Planning						\$ -
Design						\$ -
Construction	\$ 3,000	\$ 3,000				\$ 6,000
						\$ -
<b>TOTAL</b>	\$ 3,000	\$ 3,000	\$ -	\$ -	\$ -	\$ 6,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	75%		\$0
Wastewater FCCs	25%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 11012  
**Project Name:** EDHWWTP Expansion - Warranty  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 1      **PM:** Sullivan      **Board Approval:** 10/15/13

**Project Description:**

The expansion of the EDHWWTP was substantially completed in 2010. This new project will cover any additional follow-up and warranty items necessary to refine the new components installed.

Items currently identified include:

- Repair to coating system inside both influent equalization tanks
- Cover primary clarifiers to mitigate odors

**Basis for Priority:**

In order to maintain plant reliability modifications to Phase IIIA project components require refinement.

Project Financial Summary:			
<b>Funded to Date:</b>	\$ 771,668	<b>Expenditures through end of year:</b>	\$ 218,008
<b>Spent to Date:</b>	\$ 208,008	<b>2014 - 2018 Planned Expenditures:</b>	\$ 250,000
<b>Cash flow through end of year:</b>	\$ 10,000	<b>Total Project Estimate:</b>	\$ 468,008
<b>Project Balance</b>	\$ 553,660	<b>Additional Funding Required</b>	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 250,000					\$ 250,000
						\$ -
<b>TOTAL</b>	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 250,000

Funding Sources	Percentage	2014	Amount
Wastewater FCCs	66%		\$0
Wastewater Rates	34%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Project modifies Phase IIIA components. Funding is based on the current service EDU for compliance and design EDU capacity.

**Project Number:** 11028  
**Project Name:** Strolling Hills Sewer Pipeline  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Brink **Board Approval:** 10/15/13

**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 an SSO. 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.

**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.

Project Financial Summary:			
Funded to Date:	\$ 50,000	Expenditures through end of year:	\$ 5,707
Spent to Date:	\$ 5,707	2014 - 2018 Planned Expenditures:	\$ 275,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 280,707
Project Balance	\$ 44,293	Additional Funding Required	\$ 230,707

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design/CM/Inspection		\$ 25,000	\$ 50,000	\$ 50,000	\$ 150,000	\$ 275,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ 25,000	\$ 50,000	\$ 50,000	\$ 150,000	\$ 275,000

Funding Sources	Percentage	2014	Amount
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:** 11043  
**Project Name:** DOT Construction Projects - Wastewater  
**Project Category:** State/County Road Projects  
**Priority:** 1 **PM:** Brink **Board Approval:** 10/15/13

**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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 24,093	<b>Expenditures through end of year:</b>	\$ 19,342
<b>Spent to Date:</b>	\$ 13,342	<b>2014 - 2018 Planned Expenditures:</b>	\$ 125,000
<b>Cash flow through end of year:</b>	\$ 6,000	<b>Total Project Estimate:</b>	\$ 144,342
<b>Project Balance</b>	\$ 4,751	<b>Additional Funding Required</b>	\$ 120,249

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Total</b>
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

<b>Funding Sources</b>	<b>Percentage</b>	<b>0</b>	<b>Amount</b>
Wastewater Rates	100%		\$20,249
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$20,249</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:** 12012  
**Project Name:** Wastewater Generator Replacement Program  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/15/13

**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.

In 2013 District staff converted three portable generators to permanent and installed them in lift stations. Staff also replaced two generators with new ones. In 2014 this project will continue to replace at least two lift station generators on a priority basis. The cost of replacement will significantly increase starting in 2014 since in house staff will no longer be performing the installations.

**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>	\$ 265,053
<b>Spent to Date:</b>	\$ 169,346	<b>2014 - 2018 Planned Expenditures:</b>	\$ 1,150,000
<b>Cash flow through end of year:</b>	\$ 95,707	<b>Total Project Estimate:</b>	\$ 1,415,053
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,150,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000	\$ 50,000
Design	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 100,000
Construction	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$ 1,000,000
						\$ -
<b>TOTAL</b>	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 230,000	\$ 1,150,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Wastewater Rates	100%		\$230,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$230,000</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:** 10/15/13

**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 will consist 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 currently underway and the hydrologic model results will be complete by the end of 2012. Once the model results are known, staff will brief the board on the results and the recommended next steps. The funding in 2013 and 2014 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>	\$ 123,140	<b>Expenditures through end of year:</b>	\$ 81,584
<b>Spent to Date:</b>	\$ 75,584	<b>2014 - 2018 Planned Expenditures:</b>	\$ 350,000
<b>Cash flow through end of year:</b>	\$ 6,000	<b>Total Project Estimate:</b>	\$ 431,584
<b>Project Balance</b>	\$ 41,556	<b>Additional Funding Required</b>	\$ 308,444

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 75,000	\$ 200,000	\$ 75,000			\$ 350,000
Design						\$ -
Construction						\$ -
<b>TOTAL</b>	\$ 75,000	\$ 200,000	\$ 75,000	\$ -	\$ -	\$ 350,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$33,444
<b>Total</b>	<b>100%</b>		<b>\$33,444</b>

Funding Comments:

**Project Number:** 12018  
**Project Name:** Motherlode Force Main Phase IIC  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 1 **PM:** Brink **Board Approval:** 10/15/13

**Project Description:**

The Motherlode force main runs from the El Dorado lift station to the Deer Creek WWTP. This section of pipe and other sections experience full pipe and open channel conditions making them susceptible to hydrogen sulfide corrosion. There is evidence that many sections along the force main are deteriorated. The pipeline is also nearing capacity and in the future, the entire length of the force main will need to be replaced. The replacement pipe will be of a larger size to accommodate approved growth and the resulting increased flow. The Phase IIC portion will replace approximately 2,500 feet of pipeline in Oakmont Lane and private easements in Shingle Springs. The private easements have poor access and the plan is to relocate this portion of the pipeline into public right of way in Lakeview Drive and South Shingle Road. The new pipeline will connect to a pipeline that was replaced in earlier phases. In June 2013 the Board approved the award of the construction contract. The majority of construction will be completed in 2013; final completion and punch list may extend into 2014.

**Basis for Priority:**

If the pipe is not replaced, additional line breaks and subsequent sewer spills may occur. If sewer spills occur, the District may be subject to regulatory fines. The District has entered into agreement with a Contractor to construct the project and the project is in active construction.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 1,415,682	<b>Expenditures through end of year:</b>	\$ 1,154,281
<b>Spent to Date:</b>	\$ 104,281	<b>2014 - 2018 Planned Expenditures:</b>	\$ 150,000
<b>Cash flow through end of year:</b>	\$ 1,050,000	<b>Total Project Estimate:</b>	\$ 1,304,281
<b>Project Balance</b>	\$ 261,401	<b>Additional Funding Required</b>	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 150,000					\$ 150,000
						\$ -
<b>TOTAL</b>	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000

Funding Sources	Percentage	2014	Amount
Wastewater FCCs	35%		\$0
Wastewater Rates	65%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</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:** 10/15/13

**Project Description:**

This project will replace (24) PLC/RTUs and add the required monitoring equipment (instrumentation) at the following lift stations: Thunderhead, Mother Lode, Indian Creek, Arlette, Buckeye, Bar J, Deer Park, Diamond Industrial, Starbuck, Summit View 1, Marina Hills, Marina Village 2, Marina Woods, Summit 2, 3 & 5, Oakridge, Ridgeview, Waterford 8 & 9, BLT Master RTU, North Uplands, Browns Ravine 1 & 2.

In 2013 staff went through an extensive process to define a standardized PLC system setup for all lift stations. Two PLC were installed in late 2013 by staff to wring out the process for planning future installations. 2014 through 2018 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).

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>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 50,000
<b>Spent to Date:</b>	\$ 42,851	<b>2014 - 2018 Planned Expenditures:</b>	\$ 780,000
<b>Cash flow through end of year:</b>	\$ 7,149	<b>Total Project Estimate:</b>	\$ 830,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 780,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Design						\$ -
Installation	\$ 198,000	\$ 145,500	\$ 145,500	\$ 145,500	\$ 145,500	\$ 780,000
						\$ -
<b>TOTAL</b>	<b>\$ 198,000</b>	<b>\$ 145,500</b>	<b>\$ 145,500</b>	<b>\$ 145,500</b>	<b>\$ 145,500</b>	<b>\$ 780,000</b>

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$198,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$198,000</b>

Funding Comments:

**Project Number:** 12030  
**Project Name:** DCWWTP Permit Renewal  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Wells **Board Approval:** 10/15/13

**Project Description:**

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

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 current DCWWTP permit expires on December 1, 2013. The RWQCB will issue the District a new permit near the permit expiration date. Funding is needed to prepare a ROWD, review the draft versions of the permit, analyze effluent limits, provide comments on the draft versions of the permit, meet with RWQCB staff, and attend and testify at the permit adoption hearing.

The funding in 2014, 2015 and 2016 are estimates of cost for studies and reports that are typically required in NPDES permits. These funding estimates will be refined once the final permit is adopted.

**Basis for Priority:**

The District is required to maintain compliance with effluent limitations in our discharge permits. Staff will review, analyze and negotiate the permit effluent limitations such that when the permit is adopted, it is a fair and reasonable permit that does not contain unnecessary effluent limitations, monitoring and reporting and special studies.

<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>	\$ 35,010	<b>2014 - 2018 Planned Expenditures:</b>	\$ 120,000
<b>Cash flow through end of year:</b>	\$ 14,990	<b>Total Project Estimate:</b>	\$ 170,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 120,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning	\$ 70,000	\$ 25,000	\$ 25,000			\$ 120,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 70,000	\$ 25,000	\$ 25,000	\$ -	\$ -	\$ 120,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Wastewater Rates	70%		\$49,000
Wastewater FCCs	30%		\$21,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$70,000</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:** 10/15/13

**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 will perform 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.

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 lifts station is scheduled to be eliminated in 2013 and the Mormon Island and Lake Ridge Oak stations in 2014. This study will continue in 2014 to follow through with the planned 2014 elimination and evaluate other 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>	\$ 66,000	<b>Expenditures through end of year:</b>	\$ 66,000
<b>Spent to Date:</b>	\$ 52,688	<b>2014 - 2018 Planned Expenditures:</b>	\$ 50,000
<b>Cash flow through end of year:</b>	\$ 13,312	<b>Total Project Estimate:</b>	\$ 116,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 50,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 30,000					\$ 30,000
Design	\$ 20,000					\$ 20,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

Funding Sources	Percentage	2014	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 (CAP)  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Sullivan      **Board Approval:** 10/15/13

**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 this project is not approved, sanitary sewer overflows may worsen and expose the district to regulatory violations, mandatory fines and citizen law suits.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 89,394	<b>Expenditures through end of year:</b>	\$ 89,394
<b>Spent to Date:</b>	\$ 35,627	<b>2014 - 2018 Planned Expenditures:</b>	\$ 400,000
<b>Cash flow through end of year:</b>	\$ 53,767	<b>Total Project Estimate:</b>	\$ 489,394
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 400,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
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>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
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:** 10/15/13

**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 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
- 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
- 5) Sludge removal analysis, due 2013
- 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>	\$ 38,037
<b>Spent to Date:</b>	\$ 13,037	<b>2014 - 2018 Planned Expenditures:</b>	\$ 150,000
<b>Cash flow through end of year:</b>	\$ 25,000	<b>Total Project Estimate:</b>	\$ 188,037
<b>Project Balance</b>	\$ 44,536	<b>Additional Funding Required</b>	\$ 105,464

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 75,000	\$ 50,000	\$ 25,000			\$ 150,000
						\$ -
<b>TOTAL</b>	<b>\$ 75,000</b>	<b>\$ 50,000</b>	<b>\$ 25,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 150,000</b>

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$30,464
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$30,464</b>

Funding Comments:



Project Number: 13021  
 Project Name: 2013 El Dorado Hills Collection System (CAP)  
 Project Category: Reliability & Service Level Improvements  
 Priority: 2 PM: Sullivan Board Approval: 10/15/13

**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 this project is not approved, sanitary sewer overflows may worsen and expose the district to regulatory violations, mandatory fines and citizen law suits.

**Project Financial Summary:**

Funded to Date:	\$ 90,546	Expenditures through end of year:	\$ 90,546
Spent to Date:	\$ 36,105	2014 - 2018 Planned Expenditures:	\$ 400,000
Cash flow through end of year:	\$ 54,441	Total Project Estimate:	\$ 490,546
Project Balance	\$ -	Additional Funding Required	\$ 400,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$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	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:** Sullivan **Board Approval:** 10/15/13

**Project Description:**

This project has been identified as "high priority" due to recent pipeline failures including a 200 gallon category 1 SSO failure in November 2012. 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 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 sulfides in the pipeline. Also, the back pressure from the Mother Lode force main during high flow events causes additional stresses to the pipe. Staff is scheduled to install a check valve near the force main tie in location in late 2013 to help reduce the overstressing. Staff recommends that the force main be completely replaced.

The recommended schedule is as follows:

2014-17 - Hire a consultant to design a replacement pipe line and produce biddable documents and conduct environmental review  
 2018 - replace 50% of the pipeline with the District's standard plastic pipe  
 Beyond 2018 - replace remaining 50% of pipeline

In 2013 staff hired a locating consultant that used ground penetrating radar to exactly locate the pipe alignment. Staff also attempted to find a reliable method of determining the current force main condition while keeping the force main in service. Unfortunately no such method currently exists. Like the Mother Lode force main, the Town Center force main is expected to eventually fail over the entire length.

**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.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 50,000
<b>Spent to Date:</b>	\$ 18,191	<b>2014 - 2018 Planned Expenditures:</b>	\$ 1,525,000
<b>Cash flow through end of year:</b>	\$ 31,809	<b>Total Project Estimate:</b>	\$ 1,575,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,525,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 25,000					\$ 25,000
Design		\$ 50,000	\$ 50,000	\$ 200,000		\$ 300,000
Construction					\$ 1,200,000	\$ 1,200,000
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ 50,000	\$ 50,000	\$ 200,000	\$ 1,200,000	\$ 1,525,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$25,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$25,000</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:** 10/15/13

**Project Description:**

The El Dorado Lift Station is the main pumping facility that pumps the collected wastewater from the Mother Lode (eastern area) of the District to the DCWWTP via the Mother Lode force main. The El Dorado Lift Station 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 repair to some 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. Full study and start design for next phase in 2014

2014 - 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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 376,591	<b>Expenditures through end of year:</b>	\$ 376,591
<b>Spent to Date:</b>	\$ 3,279	<b>2014 - 2018 Planned Expenditures:</b>	\$ 1,024,000
<b>Cash flow through end of year:</b>	\$ 373,312	<b>Total Project Estimate:</b>	\$ 1,400,591
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,024,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design/CM/Inspection						\$ -
Construction	\$ 712,000	\$ 312,000				\$ 1,024,000
						\$ -
<b>TOTAL</b>	\$ 712,000	\$ 312,000	\$ -	\$ -	\$ -	\$ 1,024,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Wastewater Rates	65%		\$462,800
Wastewater FCC	35%		\$249,200
			\$0
<b>Total</b>	<b>100%</b>		<b>\$712,000</b>

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

**Project Number:** 13026  
**Project Name:** 2013 Lift Station Upgrades Design  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Brink **Board Approval:** 10/15/13

**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 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 June 2013 staff issued a Request for Qualifications for the design of these lift stations. Subsequently a Request for Proposals was issued to the three most qualified consultants. Proposals are due in September 2013. It is anticipated award of the design contract will be brought to the Board in October 2013 for consideration of award. This CIP is for the design only, which is expected to occur over a two year period. 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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 30,000	<b>Expenditures through end of year:</b>	\$ 36,527
<b>Spent to Date:</b>	\$ 6,527	<b>2014 - 2018 Planned Expenditures:</b>	\$ 500,000
<b>Cash flow through end of year:</b>	\$ 30,000	<b>Total Project Estimate:</b>	\$ 536,527
<b>Project Balance</b>	\$ (6,527)	<b>Additional Funding Required</b>	\$ 506,527

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design	\$ 300,000	\$ 200,000				\$ 500,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 300,000	\$ 200,000	\$ -	\$ -	\$ -	\$ 500,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Wastewater Rates	100%		\$306,527
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$306,527</b>

Funding Comments:

**Project Number:** 13027  
**Project Name:** EDHWWTP Odor Control Study  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Wells **Board Approval:** 10/15/13

**Project Description:**

The EDHWWTP National Pollutant Discharge Elimination System (NPDES) permit does not allow for objectionable odors:

- iii. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the wastewater treatment and disposal areas (or property owned by the Discharger). (NPDES R5-2013-003 Standard Provisions, pg.22)

Recently, the EDHWWTP received numerous odor complaints. The District typically receives an average of 6 odor complaints per year for this area. However since January 2013, with construction of additional homes and schools resuming south of Latrobe Road next to the El Dorado Hills Wastewater Treatment Plant, the District has received 8 odor complaints thus far. More complaints are to be anticipated.

The scope of this project includes: consultant shall perform odor sampling; analytical work that includes analysis of readings and interpretation; ambient monitoring; odor dispersing modeling; an evaluation of alternatives; consultant prepares a Draft and Final Odor Study Report.

**Basis for Priority:**

Compliance with NPDES permit.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 59,465	<b>Expenditures through end of year:</b>	\$ 59,465
<b>Spent to Date:</b>	\$ 372	<b>2014 - 2018 Planned Expenditures:</b>	\$ 210,000
<b>Cash flow through end of year:</b>	\$ 59,093	<b>Total Project Estimate:</b>	\$ 269,465
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 210,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design	\$ 10,000					\$ 10,000
Construction	\$ 100,000	\$ 100,000				\$ 200,000
						\$ -
<b>TOTAL</b>	\$ 110,000	\$ 100,000	\$ -	\$ -	\$ -	\$ 210,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	65%		\$71,500
Wastewater FCC	35%		\$38,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$110,000</b>

Funding Comments:

**Project Number:** 13029  
**Project Name:** Ridgeview 7 Lift Station Removal  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/15/13

**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 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 7 lift station was identified for removal and the design was completed in mid 2013. The project was bid out in the summer of 2013 and should be completed by late 2013. Some items of this project may carry over to 2014 but no additional expenses beyond the 2013 funding are expected.

In order to remove the lift station from service the following is scheduled to be performed in 2013:

- Bypass lift station to existing gravity system
- Add four manholes and about 550 feet of new gravity piping
- Demolish existing lift station

**Basis for Priority:**

The existing lift station was built in 1987 and has exceeded its use life. The main components are failing and the station is no longer necessary because pre-planned gravity lines were installed to eventually eliminate the lift station and carry the sewage further down hill by gravity through infrastructure built after 1987.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 12,000	<b>Expenditures through end of year:</b>	\$ 207,666
<b>Spent to Date:</b>	\$ 7,666	<b>2014 - 2018 Planned Expenditures:</b>	\$ 40,000
<b>Cash flow through end of year:</b>	\$ 200,000	<b>Total Project Estimate:</b>	\$ 247,666
<b>Project Balance</b>	\$ (195,666)	<b>Additional Funding Required</b>	\$ 235,666

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 40,000					\$ 40,000
						\$ -
<b>TOTAL</b>	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ 40,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$235,666
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$235,666</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:** 10/15/13

**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 and the DCWWTP:

## EDHWWTP

Flow meters on aeration headers, Rexa actuators, VFD's for blowers  
Chemical Tanks (NaHCl and Al2)

## DCWWTP

Chemical tanks (NaHCl)  
Solids meters for Digester, MLSS, RAS  
3 DO meters, # HACH NH3/NO3 meters  
Outdoor main switch for upper transformer  
Backwash building repair  
MCC replacement for the US Filter

**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>	\$ 50,000
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 600,000
<b>Cash flow through end of year:</b>	\$ 50,000	<b>Total Project Estimate:</b>	\$ 650,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 600,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 200,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 600,000
						\$ -
<b>TOTAL</b>	\$ 200,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 600,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	70%		\$140,000
Wastewater FCCs	30%		\$60,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$200,000</b>

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

**Project Number:** PLANNED  
**Project Name:** Bridlewood Lift Station Rehabilitation Project  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/15/13

**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. 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 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 controls and generator. The site will be repaved as needed and a new fence will be installed around the perimeter. This CIP is for construction only. Design will be performed under the 2013 Lift Station Upgrades design CIP. Construction is scheduled to commence in the end of 2014 and be completed in 2015.

**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>2014 - 2018 Planned Expenditures:</b>	\$ 1,100,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 1,100,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,100,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 100,000	\$ 1,000,000				\$ 1,100,000
						\$ -
<b>TOTAL</b>	\$ 100,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ 1,100,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$100,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$100,000</b>

Funding Comments:



**Project Number:** PLANNED  
**Project Name:** Business Park 2 Lift Station Improvements  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2 **PM:** Brink **Board Approval:** 10/15/13

**Project Description:**

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 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. The site is located adjacent to Carson Creek, and any sanitary sewer overflows could impact the creek. This CIP is for construction only. Design will be performed under the 2013 Lift Station Upgrades design CIP. Construction is scheduled to commence in the end of 2014 and be completed in 2015. Complete replacement of the site is required. Depending on the construction schedule of a planned development near the lift station, the new replacement lift station may be built on an adjacent site as a combined cost-sharing project with the developer.

**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>2014 - 2018 Planned Expenditures:</b>	\$ 1,300,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 1,300,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,300,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 100,000	\$ 1,200,000				\$ 1,300,000
						\$ -
<b>TOTAL</b>	<b>\$ 100,000</b>	<b>\$ 1,200,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,300,000</b>

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$100,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$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:** 10/15/13

**Project Description:**

Based on assessments performed by Engineering and Operations, the Business Park 3 lift station is one of the highest priority sites 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 design of the replacement will be conducted in 2016 followed by construction in 2017. This CIP includes both design and construction.

**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>2014 - 2018 Planned Expenditures:</b>	\$ 1,175,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 1,175,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,175,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design			\$ 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	2014	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Camino Heights Automation Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Strahan      **Board Approval:** 10/15/13

**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>2014 - 2018 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
	2014	2015	2016	2017	2018	
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	2014	Amount
Wastewater Rates	100%		\$200,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$200,000</b>

Funding Comments:

Project Number:

PLANNED

Project Name:

EDHWWTP Solar

Project Category:

Reliability &amp; Service Level Improvements

Priority:

3

PM:

Sullivan

Board Approval:

10/15/13

**Project Description:**

A number of power systems were moved to the new headworks feed to prevent the current blower meter from being overloaded by the new equipment loads and to allow for future loads coming from the next phase's aeration basins, and other equipment in that area. The equalization system has essentially leveled the flow going through the plant and has enhanced the efficiency of the power usage at the blowers. High hourly diurnal power demands during the day no longer exist. Solar power is generated during the day at the highest payback rate and the District pulls power off the grid at the lowest cost period at night. The cost between the two rates is about 3:1 in favor of solar credits. With the elimination of the high hourly flows and reducing load at the current meter location, the solar plant now produces more power than the plant's power demand at the new meter location. Therefore, at the end of the year (true-up period) we now have several thousand dollars in unused credits. This project proposes to move the net meter location from the aeration basins to the headworks.

This project includes staff time to investigate the potential for adding an additional net meter solar generation facility.

**Basis for Priority:**

Optimize system efficiency.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ 25,000
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 25,000
<b>Cash flow through end of year:</b>	\$ 25,000	<b>Total Project Estimate:</b>	\$ 50,000
<b>Project Balance</b>	\$ (25,000)	<b>Additional Funding Required</b>	\$ 50,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 25,000					\$ 25,000
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ 25,000

Funding Sources	Percentage	2014	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:** EDHWWTP WAS DAFT  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Caulfield/Wells **Board Approval:** 10/15/13

**Project Description:**

The 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 solids ratio greater than 4% will result in less water sent to the digester, increasing the efficiency of the digester. In addition, if there is a thicker sludge being fed to the digester, there will be more gas production. If the gas production increases, the District may be able to capture the energy from the gas produced through a renewable energy project.

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>2014 - 2018 Planned Expenditures:</b>	\$ 300,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 300,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 300,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 10,000					\$ 10,000
Design	\$ 40,000					\$ 40,000
Construction	\$ 100,000	\$ 150,000				\$ 250,000
						\$ -
<b>TOTAL</b>	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ 300,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	65%		\$97,500
Wastewater FCCs	35%		\$52,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$150,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** EI Dorado Hills Pipeline  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Brink **Board Approval:** 10/15/13

**Project Description:**

The Wastewater Facility Master Plan 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 EI Dorado Hills pipeline is included in the District's FCC and is planned for in the Wastewater Master Plan. The Wastewater Master Plan 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>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 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					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 50,000					\$ 50,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

Funding Sources	Percentage	2014	Amount
Wastewater FCCs	100%		\$50,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$50,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Fairchild Pipeline Replacement  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Sullivan      **Board Approval:** 10/15/13

**Project Description:**

Fairchild Drive pipeline is located in El Dorado Hills near Brackenwood Place. 600 feet of the existing pipeline has insufficient flow capacity and needs to be upsized. Although no overflows have occurred it was found that surcharging has occurred within one foot of overflowing the manholes.

The project includes the following:

- Investigation of pipeline using CCTV and sewer modeling
- Sizing the pipeline to accommodate existing capacity flows possibly from 8" to a 10"
- Design of the new pipeline
- Installation of larger pipeline including necessary bypass work and coordination with County DOT

**Basis for Priority:**

The pipeline will continue to be a risk of potential overflows 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>2014 - 2018 Planned Expenditures:</b>	\$ 185,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 185,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 185,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning		\$ 15,000				\$ 15,000
Design/CM/Inspection			\$ 20,000			\$ 20,000
Construction				\$ 150,000		\$ 150,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 15,000	\$ 20,000	\$ 150,000	\$ -	\$ 185,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** North Uplands Lift Station Pump Replacement  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Sullivan      **Board Approval:** 10/15/13

**Project Description:**

North Uplands Lift Station was originally constructed in 1994 and is located on Greyson Creek drive in the Serrano development and serves 381 EDUs. The North Uplands lift station existing pumps are undersized and can not accommodate the inflow associated with 10-year, 24-hour design storm events. It will be necessary to replacement the two existing 325 gpm pumps with two larger 650 gpm pumps to reduce the potential for SSOs.

The project would include:

- Two new pumps, discharge pipes, and plug valves
- Upsizing the electrical and control system for the larger pumps
- Updating the SCADA system per current district standards
- Installing a flow meter and pressure transducer for the force main
- Upsizing the backup generator to work with the larger pumps
- New wet well hatch for larger pump access

**Basis for Priority:**

The lift station will continue to be a risk of potential overflows 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>2014 - 2018 Planned Expenditures:</b>	\$ 30,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 30,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 30,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design/CM/Inspection					\$ 30,000	\$ 30,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ -	\$ 30,000	\$ 30,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:



**Project Number:** PLANNED  
**Project Name:** Pioneer Place Lift Station Pump Replacement  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Sullivan      **Board Approval:** 10/15/13

**Project Description:**

Pioneer Place Lift Station is located north of Cameron Park and serves 173 EDUs. The lift station was found to be undersized and the existing pumps are unable to keep up with the influent flow during the 10-year, 24-hour storm events. It will be necessary to replace the two existing 200 gpm pumps with two larger 400 gpm pumps to reduce the potential for SSOs. This recommended increase in pump capacity was anticipated during the original design of the lift station.

The project would include:

- Two new pumps, discharge pipes, and plug valves
- Upsizing the electrical and control system for the larger pumps
- Updating the SCADA system per current district standards
- Installing a flow meter and pressure transducer for the force main
- Upsizing the backup generator to work with the larger pumps
- New wet well hatch for larger pump access

**Basis for Priority:**

The lift station will continue to be a risk of potential overflows 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>2014 - 2018 Planned Expenditures:</b>	\$ 30,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 30,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 30,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design/CM/Inspection					\$ 30,000	\$ 30,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ -	\$ 30,000	\$ 30,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</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:** 10/15/13

**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 one of the highest priority sites 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 trust worthy. 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, flow meter.

The rehabilitation design will be performed by District staff engineering.

**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>2014 - 2018 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
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design/CM/Inspection				\$ 30,000		\$ 30,000
Construction					\$ 300,000	\$ 300,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ 30,000	\$ 300,000	\$ 330,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Silva Valley Pipeline  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Brink **Board Approval:** 10/15/13

**Project Description:**

The Wastewater Facility Master Plan 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 Wastewater Master Plan. The Wastewater Master Plan 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>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 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>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning	\$ 50,000					\$ 50,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Wastewater FCC	100%		\$50,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$50,000</b>

Funding Comments:

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

**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/15/13

**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 and has succumbed to deterioration. This lift station has experienced an 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. Design will be performed under the 2013 Lift Station Upgrades design CIP. Construction is scheduled to occur 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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>		<b>Expenditures through end of year:</b>	
<b>Spent to Date:</b>		<b>2014 - 2018 Planned Expenditures:</b>	\$ 1,000,000
<b>Cash flow through end of year:</b>		<b>Total Project Estimate:</b>	\$ 1,000,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,000,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design/CM/Inspection						\$ -
Construction			\$ 1,000,000			\$ 1,000,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ 1,000,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
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.

2014

**CAPITAL IMPROVEMENT PLAN Program:**

**Wastewater**

**Project Number:** PLANNED  
**Project Name:** Sewer System Management Plan Revision  
**Project Category:** Regulatory Requirements

**Priority:** 1      **PM:** Wells      **Board Approval:** 10/15/13

**Project Description:**

Per the District Waste Discharge Requirements for the District collection systems, the District must revise the Sewer System Management Plan (SSMP) every 5 years. This CIP is for auditing and revising the SSMP.

**Basis for Priority:**

Regulatory requirement

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 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					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 50,000					\$ 50,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

Funding Sources	Percentage	2014	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:** Summit 1 and 3 Lift Station Improvements  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Brink      **Board Approval:** 10/15/13

**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 stations are critical facilities that have reached the end of their useful life.

Project Financial Summary:			
Funded to Date:	\$ -	Expenditures through end of year:	\$ -
Spent to Date:	\$ -	2014 - 2018 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
	2014	2015	2016	2017	2018	
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	2014	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Wastewater Pipeline Replacement Program  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Sullivan **Board Approval:** 10/15/13

**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:	\$ -	2014 - 2018 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					Total
	2014	2015	2016	2017	2018	
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	2014	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:** 10/15/13

**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>	\$ 50,000
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 315,000
<b>Cash flow through end of year:</b>	\$ 50,000	<b>Total Project Estimate:</b>	\$ 365,000
<b>Project Balance</b>	\$ (50,000)	<b>Additional Funding Required</b>	\$ 365,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
EDH WWTP	\$ 50,000		\$ 55,000			\$ 105,000
Deer Creek WWTP	\$ 50,000		\$ 55,000			\$ 105,000
Collections Facilities	\$ 50,000		\$ 55,000			\$ 105,000
						\$ -
<b>TOTAL</b>	\$ 150,000	\$ -	\$ 165,000	\$ -	\$ -	\$ 315,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$200,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$200,000</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:** 10/15/13

**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 one of the highest priority sites scheduled for rehabilitation.

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 and generator. The site will be repaved and a new fence will be installed around the perimeter. This CIP is for construction only. Design will be performed under the 2013 Lift Station Upgrades design CIP. Construction is scheduled to occur 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. 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>2014 - 2018 Planned Expenditures:</b>	\$ 1,000,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 1,000,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,000,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction			\$ 1,000,000			\$ 1,000,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ 1,000,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

# Recycled Water Projects

**Project Number:** PLANNED  
**Project Name:** Recycled Water Salt and Nutrient Management Plan  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Wells **Board Approval:** 10/15/13

**Project Description:**

The State Water Resources Control Board (SWRCB) adopted a Recycled Water Policy in February 2009. The purpose of the Policy is to increase the use of recycled water in a manner that implements state and federal water quality laws. When recycled water is used in compliance with the Policy, Title 22, and all applicable state and federal water quality laws, the State Board and Los Angeles Regional Board strongly support its use as a safe alternative to potable water for approved uses. The Recycled Water Policy requires that Salt and Nutrient Management Plans are completed by 2014 to facilitate basin-wide management of salts and nutrients from all sources in a manner that optimizes recycled water use while ensuring protection of groundwater supply and beneficial uses, agricultural beneficial uses, and human health. The Recycled Water Policy requires stakeholders to develop implementation plans to meet these objectives for salts and nutrients. The implementation plans will then be adopted by Regional Boards as amendments to the region's Basin Plan. Regional Board staff are available to provide guidance as during the stakeholder-led development of these plans.

**Basis for Priority:**

Compliance with SWRCB regulatory requirement.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 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					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 50,000					\$ 50,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

Funding Sources	Percentage	2014	Amount
Recycled Water Rates	100%		\$50,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$50,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Recycled Water System Improvements  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Brink      **Board Approval:** 10/15/13

**Project Description:**

Based on input from Operations, the recycled water pumps at EDHWWTP appear to be at capacity and will be unable to meet future anticipated recycled water demands. This project will evaluate the pumps and the recycled water system as a whole, and make improvements as warranted. It is anticipated a pump will be added at the EDHWWTP to provide redundancy and help meet peak demands. In addition, this CIP will allow for installation of flow meters within the RW distribution system.

**Basis for Priority:**

Improves system reliability and performance.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 185,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 185,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 185,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 10,000					\$ 10,000
Design	\$ 25,000					\$ 25,000
Construction		\$ 150,000				\$ 150,000
						\$ -
<b>TOTAL</b>	<b>\$ 35,000</b>	<b>\$ 150,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 185,000</b>

Funding Sources	Percentage	2014	Amount
Recycled Water Rates	100%		\$35,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$35,000</b>

**Funding Comments:** This project does not add any new capacity to the recycled water system, so the funding source is 100% recycled water rates.

# Hydroelectric Projects

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

**Priority:** 1 **PM:** Eymann **Board Approval:** 10/15/13

**Project Description:**

The reservoir is currently restricted 3 feet below the spillway crest by DSOD and FERC. DSOD and FERC requires that the dam's stability be improved to minimum standards. Reservoir sediments under the reservoir restriction negatively impact El Dorado Project operations and have reached concerning levels. The spillway outfall, canal inlet to the reservoir, dam face, require remediation as well as the two unused penstocks within the dam which require permanent abandonment. To mitigate these deficiencies, to optimize power generation and increase emergency water storage, the District plans to buttress and raise the dam 10 feet. DSOD and FERC have completed their review of the 90% design package and the District plans to have the 100% design to DSOD/FERC by the end of 2013. Permitting is ongoing through 2014, and construction 2015-2016.

**Basis for Priority:**

Public safety is to be maintained and DSOD/FERC have issued a dam safety mandate.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 4,272,490	<b>Expenditures through end of year:</b>	\$ 3,568,858
<b>Spent to Date:</b>	\$ 3,168,858	<b>2014 - 2018 Planned Expenditures:</b>	\$ 18,000,000
<b>Cash flow through end of year:</b>	\$ 400,000	<b>Total Project Estimate:</b>	\$ 21,568,858
<b>Project Balance</b>	\$ 703,632	<b>Additional Funding Required</b>	\$ 17,296,368

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design	\$ 500,000					\$ 500,000
Construction		\$ 8,750,000	\$ 8,750,000			\$ 17,500,000
						\$ -
<b>TOTAL</b>	\$ 500,000	\$ 8,750,000	\$ 8,750,000	\$ -	\$ -	\$ 18,000,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2014

CAPITAL IMPROVEMENT PLAN Program:

Hydroelectric

Project Number: 04005H  
 Project Name: Powerhouse Upgrades  
 Project Category: Reliability & Service Level Improvements  
 Priority: 1 PM: Noel Board Approval: 10/15/13

**Project Description:**

Design of the emergency egress is completed and approved by FERC. Construction is planned for 2014.

**Basis for Priority:**

These are needed safety improvements

Project Financial Summary:			
Funded to Date:	\$ 427,556	Expenditures through end of year:	\$ 404,115
Spent to Date:	\$ 404,115	2014 - 2018 Planned Expenditures:	\$ 85,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 489,115
Project Balance	\$ 23,441	Additional Funding Required	\$ 61,559

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design	\$10,000					\$ 10,000
Construction	\$75,000					\$ 75,000
<b>TOTAL</b>	<b>\$ 85,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 85,000</b>

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$61,559
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$61,559</b>

Funding Comments:

**Project Number:** 06030H  
**Project Name:** Bridge Replacement at Camp 2  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Eymann      **Board Approval:** 10/15/13

**Project Description:**

The District-owned bridge which serves Camp 2 is located on lands managed by the USFS and has been de-rated to pedestrians and small ATV traffic only due to structural and age related deficiencies. To safely construct and protect the crossing from boulder slides, the currently unstable rock slope immediately above the bridge requires scaling and stabilization. The 90% design was completed in 2011 with permitting ongoing from 2011-2014. The USFS approved the project in 2013. Construction is anticipated for summer/fall 2014.

**Basis for Priority:**

Bridge replacement and rock scaling/stabilization is necessary in order to maintain the safety and reliability of the El Dorado Canal system and our employees.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 434,786	<b>Expenditures through end of year:</b>	\$ 309,952
<b>Spent to Date:</b>	\$ 289,952	<b>2014 - 2018 Planned Expenditures:</b>	\$ 1,000,000
<b>Cash flow through end of year:</b>	\$ 20,000	<b>Total Project Estimate:</b>	\$ 1,309,952
<b>Project Balance</b>	\$ 124,834	<b>Additional Funding Required</b>	\$ 875,166

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 1,000,000					\$ 1,000,000
						\$ -
<b>TOTAL</b>	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water FCCs	53%		\$463,838
Water Rates	47%		\$411,328
			\$0
<b>Total</b>	<b>100%</b>		<b>\$875,166</b>

**Funding Comments:**



**Project Number:** 08003H  
**Project Name:** Flume 41 Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 1      **PM:** Noel      **Board Approval:** 10/15/13

**Project Description:**

This project will replace Flume 41 and Spillway 23 which consists of 700 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. The project scope includes Rock Crusher Road improvements that reduce construction costs by nearly eliminating helicopter use and for canal and flume maintenance, which was completed in May 2013. Canal, flume, and spillway replacements are necessary in order to maintain reliability of the water supply. This project will help ensure reliability of power generation. Flume 41 was given the highest replacement ranking due to the degraded condition of this facility.

**Basis for Priority:**

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

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 8,301,537	<b>Expenditures through end of year:</b>	\$ 7,268,908
<b>Spent to Date:</b>	\$ 2,768,908	<b>2014 - 2018 Planned Expenditures:</b>	\$ 450,000
<b>Cash flow through end of year:</b>	\$ 4,500,000	<b>Total Project Estimate:</b>	\$ 7,718,908
<b>Project Balance</b>	\$ 1,032,629	<b>Additional Funding Required</b>	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 450,000					\$ 450,000
						\$ -
<b>TOTAL</b>	\$ 450,000	\$ -	\$ -	\$ -	\$ -	\$ 450,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** 2013 includes funding for completion of Rock Crusher Road and Flume 41.

**Project Number:** 11003  
**Project Name:** Caples Lake Dam Regulatory Improvements  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Eymann **Board Approval:** 10/15/13

**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 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>	\$ 74,369
<b>Spent to Date:</b>	\$ 59,369	<b>2014 - 2018 Planned Expenditures:</b>	\$ 30,000
<b>Cash flow through end of year:</b>	\$ 15,000	<b>Total Project Estimate:</b>	\$ 104,369
<b>Project Balance</b>	\$ 228,665	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning	\$30,000	*	*			\$ 30,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</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:** 10/15/13

**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. Design and permitting is planned for 2015 and construction for 2016.

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

**Basis for Priority:**

Non-compliance with FERC dam safety regulations.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 276,583	<b>Expenditures through end of year:</b>	\$ 33,428
<b>Spent to Date:</b>	\$ 30,428	<b>2014 - 2018 Planned Expenditures:</b>	\$ 325,000
<b>Cash flow through end of year:</b>	\$ 3,000	<b>Total Project Estimate:</b>	\$ 358,428
<b>Project Balance</b>	\$ 243,155	<b>Additional Funding Required</b>	\$ 81,845

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 5,000					\$ 5,000
Design		\$ 5,000				\$ 5,000
Construction			\$ 60,000	\$ 255,000		\$ 315,000
						\$ -
<b>TOTAL</b>	\$ 5,000	\$ 5,000	\$ 60,000	\$ 255,000	\$ -	\$ 325,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$0
Water Rates	47%		\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

**Project Number:** 11005  
**Project Name:** Silver Lake Dam Regulatory Improvements  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Eymann **Board Approval:** 10/15/13

**Project Description:**

Part 12D studies and remediation work are required for Silver Lake Dam: the studies include performing new hydrologies, stability analysis, and structural analysis. FERC and the 2009 Part 12D Independent Consultant are reviewing the flood study and stability study. The District is preparing an initial response to FERC's questions on these studies. Significant further studies are anticipated. Due to age related degradation of the upstream face of the dam, re-facing is planned for 2017. Design has not been initiated and price estimates will be refined.

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

**Basis for Priority:**

Non-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>	\$ 128,212
<b>Spent to Date:</b>	\$ 125,212	<b>2014 - 2018 Planned Expenditures:</b>	\$ 350,000
<b>Cash flow through end of year:</b>	\$ 3,000	<b>Total Project Estimate:</b>	\$ 478,212
<b>Project Balance</b>	\$ 426,022	<b>Additional Funding Required</b>	\$ -

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design	\$50,000	\$150,000	\$150,000			\$ 350,000
Construction				*		\$ -
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ 350,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</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:** 11008  
**Project Name:** Flume 39-40 Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Noel      **Board Approval:** 10/15/13

**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. Staff will seek proposals from engineering firms for the design of the abutments and clear span over the creek. District crews will be utilized to replace this last section of elevated flume during the scheduled 2014 canal outage.

**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>	\$ 630,891
<b>Spent to Date:</b>	\$ 600,891	<b>2014 - 2018 Planned Expenditures:</b>	\$ 300,000
<b>Cash flow through end of year:</b>	\$ 30,000	<b>Total Project Estimate:</b>	\$ 930,891
<b>Project Balance</b>	\$ 208,040	<b>Additional Funding Required</b>	\$ 91,960

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction Costs	\$300,000					\$ 300,000
						\$ -
<b>TOTAL</b>	<b>\$ 300,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 300,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water FCCs	53%		\$48,739
Water Rates	47%		\$43,221
			\$0
<b>Total</b>	<b>100%</b>		<b>\$91,960</b>

Funding Comments:

**Project Number:** 11009  
**Project Name:** Flume 45 Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Noel      **Board Approval:** 10/15/13

**Project Description:**

This project will replace Flume 45, which consists of a 1,942 feet of wooden flume that will either be bypassed with a tunnel or replaced with a new concrete 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. Replacement is planned for 2019.

**Basis for Priority:**

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

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 11,264
<b>Spent to Date:</b>	\$ 11,264	<b>2014 - 2018 Planned Expenditures:</b>	\$ 350,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 361,264
<b>Project Balance</b>	\$ 38,736	<b>Additional Funding Required</b>	\$ 311,264

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$50,000					\$ 50,000
Design	\$50,000	\$ 150,000	\$ 100,000			\$ 300,000
Construction Costs						\$ -
						\$ -
<b>TOTAL</b>	\$ 100,000	\$ 150,000	\$ 100,000	\$ -	\$ -	\$ 350,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$32,470
Water Rates	47%		\$28,794
			\$0
<b>Total</b>	<b>100%</b>		<b>\$61,264</b>

Funding Comments:

**Project Number:** 11023  
**Project Name:** Echo Conduit Replacement  
**Project Category:** Regulatory Requirements

**Priority:** 1 **PM:** Eymann **Board Approval:** 10/15/13

**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.

**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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 5,263
<b>Spent to Date:</b>	\$ 5,263	<b>2014 - 2018 Planned Expenditures:</b>	\$ 800,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 805,263
<b>Project Balance</b>	\$ 44,737	<b>Additional Funding Required</b>	\$ 755,263

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>Total</b>
Study/Planning			\$200,000			\$ 200,000
Design				\$200,000	\$400,000	\$ 600,000
Construction Costs						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 200,000	\$ 200,000	\$ 400,000	\$ 800,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</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:** 13022  
**Project Name:** Flume 52A Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Noel      **Board Approval:** 10/15/13

**Project Description:**

This project will replace Flume 52A, which consists of 400-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 power generation. The CIP assumes the flumes will be replaced by District crews in-kind with wooden flumes. The work is to be performed in 2017 and includes the removal of the Spillway 47C gates and box structure. This work will be completed after the improvements to Spillway 46 and 14-Mile Tunnel headworks are completed.

**Basis for Priority:**

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

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 1,700,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 1,700,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 1,700,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction				\$ 1,700,000		\$ 1,700,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ 1,700,000	\$ -	\$ 1,700,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</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:** 13038  
**Project Name:** Flume 42-46 Feasibility Study  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Noel      **Board Approval:** 10/15/13

**Project Description:**

A Flume Conditions Evaluation Report was prepared by Carlton Engineering that identified thirteen flumes that are near or beyond the estimated 50-year service life of wooden flumes and numerous existing canal sections need to be upgraded or replaced to increase the reliability of the water conveyance system. Flumes 42-43, 44, 45, 45A, and 46 were given high replacement priorities due to their age and degraded condition. The combined total length of flumes and Canal between Flume 41 and Flume 46 consist of approximately 2,035 feet of old degraded wooden flume and 7,275 feet of Canal. Staff is requesting funding to retain a consulting firm to conduct a feasibility study to determine if replacing Flumes 42 through 46 with concrete flumes or tunneling from downstream of Flume 41 to Flume 46 is more feasible.

**Basis for Priority:**

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

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 10,000
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 190,000
<b>Cash flow through end of year:</b>	\$ 10,000	<b>Total Project Estimate:</b>	\$ 200,000
<b>Project Balance</b>	\$ 40,000	<b>Additional Funding Required</b>	\$ 150,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 190,000					\$ 190,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 190,000	\$ -	\$ -	\$ -	\$ -	\$ 190,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$79,500
Water Rates	47%		\$70,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$150,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** 2014 Canals & Flumes Upgrades  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Noel      **Board Approval:** 10/15/13

**Project Description:**

Canals and flumes are assessed every six months 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 crews. Canal, flume, and spillway improvements are necessary in order to maintain reliability of the water supply. Interim improvements to Flume 48 are scheduled to occur in 2014.

**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>2014 - 2018 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
	2014	2015	2016	2017	2018	
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	2014	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:** 10/15/13

**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 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>2014 - 2018 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>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning				\$ 50,000		\$ 50,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ 50,000	\$ -	\$ 50,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</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:** EI Dorado Canal Relining Program  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Noel      **Board Approval:** 10/15/13

**Project Description:**

EID conducts annual assessments of the EI Dorado Canal from the diversion dam in Kyburz to Forebay to identify structural deficiencies. The findings of the annual assessment would be prioritized and incorporated into the CIP for repair and or replacement. Associated costs of this activity include planning, permitting, design and construction. Canal maintenance and replacements are imperative to the safe reliable operation of the Districts hydroelectric facility, power generation revenue, and water supply.

**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:			
Funded to Date:	\$ -	Expenditures through end of year:	\$ -
Spent to Date:	\$ -	2014 - 2018 Planned Expenditures:	\$ 150,000
Cash flow through end of year:	\$ -	Total Project Estimate:	\$ 150,000
Project Balance	\$ -	Additional Funding Required	\$ 150,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning					\$ 150,000	\$ 150,000
Design						\$ -
Construction Costs						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ 150,000

Funding Sources	Percentage	2014	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:** Flume 4 Replacement  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Noel      **Board Approval:** 10/15/13

**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.

**Basis for Priority:**

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

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 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>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction Costs				\$ 100,000		\$ 100,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</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 42-43 Replacement  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Noel      **Board Approval:** 10/15/13

**Project Description:**

This project will replace 432 feet of wooden flume with a new concrete flume, reline approximately 800 feet of canal, and removal 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 and help ensure reliability of power generation. Due to the scope of this project District construction crews will not be used to replace this flume.

**Basis for Priority:**

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

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 3,200,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 3,200,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 3,200,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$ 50,000					\$ 50,000
Design		\$ 50,000	\$ 100,000			\$ 150,000
Construction					\$ 3,000,000	\$ 3,000,000
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ 50,000	\$ 100,000	\$ -	\$ 3,000,000	\$ 3,200,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$26,500
Water Rates	47%		\$23,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$50,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Flume 44 Replacement  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Noel      **Board Approval:** 10/15/13

**Project Description:**

This project will replace 473 feet of old wooden flume and will either be bypassed with a tunnel or replaced with a new concrete 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. Due to the scope of this project District construction crews will not be used to replace this flume.

**Basis for Priority:**

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

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 150,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 150,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 150,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$25,000	\$25,000				\$ 50,000
Design	\$25,000	\$25,000	\$50,000	\$0	\$0	\$ 100,000
Construction Costs						\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 150,000</b>

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$26,500
Water Rates	47%		\$23,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$50,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Flume 45A Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Noel      **Board Approval:** 10/15/13

**Project Description:**

Flume 45A is 155 feet in length and constructed by PG&E in 1956 resulting in a blow-out of the canal. This flume was relined with fiberglass in 1989. District crews will be utilized to replace this flume during the scheduled canal outage in 2015.

**Basis for Priority:**

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

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 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>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction			\$ 500,000			\$ 500,000
						\$ -
<b>TOTAL</b>	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ 500,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</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:** 10/15/13

**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 2015.

**Basis for Priority:**

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

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 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>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction		\$ 500,000				\$ 500,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ 500,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</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 &amp; Service Level Improvements

Priority:

2

PM:

Noel

Board Approval:

10/15/13

**Project Description:**

This project will replace 448 feet of old wooden flume and will be replaced with a new concrete 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. Due to the scope of this project District construction crews will not be used to replace this flume and replacement is scheduled for 2019.

**Basis for Priority:**

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

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 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
	2014	2015	2016	2017	2018	
Environmental	\$ 50,000					\$ 50,000
Design		\$ 50,000	\$ 50,000	\$ 50,000	\$ -	\$ 150,000
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ -	\$ 200,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$26,500
Water Rates	47%		\$23,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$50,000</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:** 10/15/13

**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>	\$ 50,000
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 210,000
<b>Cash flow through end of year:</b>	\$ 50,000	<b>Total Project Estimate:</b>	\$ 260,000
<b>Project Balance</b>	\$ (50,000)	<b>Additional Funding Required</b>	\$ 260,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Camp 5	\$ 50,000		\$ 55,000			\$ 105,000
Power House	\$ 50,000		\$ 55,000			\$ 105,000
Conveyance Facilities						\$ -
						\$ -
<b>TOTAL</b>	\$ 100,000	\$ -	\$ 110,000	\$ -	\$ -	\$ 210,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$150,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$150,000</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:** Penstock Assessment  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Eymann      **Board Approval:** 10/15/13

**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.

**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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 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>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design		\$ 50,000	*			\$ 50,000
Construction				*		\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ 50,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water FCCs	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:**

**Project Number:** PLANNED  
**Project Name:** Project 184 SCADA System Hardware Replacement  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Strahan      **Board Approval:** 10/15/13

**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.

**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.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 675,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 675,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 675,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Design	\$ -	\$ 75,000				\$ 75,000
Construction			\$ 200,000	\$ 200,000	\$ 200,000	\$ 600,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ -	\$ 75,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 675,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

**Funding Comments:** Funding is for preliminary study only at this time

# Recreation Projects

**Project Number:** 10013  
**Project Name:** Vegetation Rehabilitation  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 3 **PM:** Jagers **Board Approval:** 10/15/13

**Project Description:**

Sly Park Recreation Area is an extremely popular regional destination attracting nearly 300,000 visitors annually. Due to the high visitor use, uncontrolled access, and beetle infestation many areas are now void of vegetation. Winter storms wash the soil from these areas into streams and the lake, resulting in further erosion and water quality concerns. Visitor conflicts occur at a higher percentage in the areas with decreased vegetation, increasing staff time and health and safety of the visitors. The El Dorado County special use permit for the implementation of the Sly Park Master Plan includes "Objective 7.4.4: Forest and Oak Woodland Resources. Protect and conserve forest and woodland resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values". Planting and protecting native trees and shrubs with fencing and barrier rocks will reduce environmental damage by stabilizing soils. To reduce costs, small trees and shrubs will be transplanted from heavily vegetated locations whenever possible.

**Basis for Priority:**

Environmental damage will continue resulting in negative effects on recreation grounds, water quality, wildlife, fisheries, visitor experience and revenue.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 30,000	<b>Expenditures through end of year:</b>	\$ 27,393
<b>Spent to Date:</b>	\$ 22,393	<b>2014 - 2018 Planned Expenditures:</b>	\$ 15,000
<b>Cash flow through end of year:</b>	\$ 5,000	<b>Total Project Estimate:</b>	\$ 42,393
<b>Project Balance</b>	\$ 2,607	<b>Additional Funding Required</b>	\$ 12,393

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction Costs	\$5,000	\$5,000	\$5,000			\$ 15,000
						\$ -
<b>TOTAL</b>	\$ 5,000	\$ 5,000	\$ 5,000	\$ -	\$ -	\$ 15,000

Funding Sources	Percentage	2014	Amount
Property Tax	100%		\$2,393
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$2,393</b>

Funding Comments:

**Project Number:** 11006  
**Project Name:** Sly Park Day Use Parking Improvements  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 3      **PM:** Jagers      **Board Approval:** 10/15/13

**Project Description:**

The Sly Park Master Plan includes a provision for improved day use parking throughout the grounds. Sly Park Recreation Area continues to see increased use. In 2010 the recreation area day use filled to capacity on 3 consecutive weekends in July and 7 consecutive weekends in 2011 beginning in June and ending in August. The majority of the visitor-preferred day use areas provide undefined parking on dirt surfaces. Vegetation needed to prevent soil erosion and water quality degradation is being destroyed rapidly. Improving the day use parking would result in improved vegetation, water quality, and revenue.

**Basis for Priority:**

Improving the day use parking would result in improved vegetation, water quality, and revenue.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 45,000	<b>Expenditures through end of year:</b>	\$ 33,214
<b>Spent to Date:</b>	\$ 23,214	<b>2014 - 2018 Planned Expenditures:</b>	\$ 15,000
<b>Cash flow through end of year:</b>	\$ 10,000	<b>Total Project Estimate:</b>	\$ 48,214
<b>Project Balance</b>	\$ 11,786	<b>Additional Funding Required</b>	\$ 3,214

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction Costs	\$15,000					\$ 15,000
						\$ -
<b>TOTAL</b>	\$ 15,000	\$ -	\$ -	\$ -	\$ -	\$ 15,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Property Tax	100%		\$3,214
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$3,214</b>

Funding Comments:



**Project Number:** 11045  
**Project Name:** Sly Park Trail Improvements  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 3      **PM:** Jagers      **Board Approval:** 10/15/13

**Project Description:**

The Sly Park Master Plan includes a provision for many trail improvements within the Sly Park Recreation Area. Modify and/or develop sections of the trail to provide ADA access.

**Basis for Priority:**

Adequate trails are needed for visitor safety, and protection of natural resources.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 15,000	<b>Expenditures through end of year:</b>	\$ 12,513
<b>Spent to Date:</b>	\$ 6,513	<b>2014 - 2018 Planned Expenditures:</b>	\$ 35,000
<b>Cash flow through end of year:</b>	\$ 6,000	<b>Total Project Estimate:</b>	\$ 47,513
<b>Project Balance</b>	\$ 2,487	<b>Additional Funding Required</b>	\$ 32,513

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction Costs	\$ 25,000	\$ 10,000				\$ 35,000
						\$ -
<b>TOTAL</b>	<b>\$ 25,000</b>	<b>\$ 10,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 35,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Property Tax	100%		\$22,513
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$22,513</b>

Funding Comments:

2014

**CAPITAL IMPROVEMENT PLAN Program:**

**Recreation**

**Project Number:** PLANNED  
**Project Name:** Hazel Bridge  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 3      **PM:** Jagers      **Board Approval:** 10/15/13

**Project Description:**  
 Replace 3' wide existing trail bridge across Hazel Creek at Hazel Campground with 6' bridge.

**Basis for Priority:**

New bridge width will increase visitor safety and park maintenance efficiencies. Over 100,000 visitors cross the bridge annually to access trails around the lake and the south shore.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 30,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 30,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 30,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 30,000					\$ 30,000
						\$ -
<b>TOTAL</b>	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Property Tax	100%		\$30,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$30,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Sierra Restroom  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 1 **PM:** Jagers **Board Approval:** 10/15/13

**Project Description:**

Purchase and install additional restroom in Sierra Campground in approved location near campsite site 90. Restroom will be prefab waterless pump out vault and ADA compliant.

**Basis for Priority:**

Reduced risk of soils contamination for human body waste. Number of restrooms and distance between restrooms in Sierra are insufficient to meet visitor needs. This results in visitors depositing human body waste directly on the ground on a continual basis.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 25,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 25,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 25,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning	\$ 5,000					\$ 5,000
Design						\$ -
Construction	\$ 20,000					\$ 20,000
						\$ -
<b>TOTAL</b>	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ 25,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Property Tax	100%		\$25,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$25,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Silver Lake Boat Ramp  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2 **PM:** Jagers **Board Approval:** 10/15/13

**Project Description:**

The existing boat ramp at Silver Lake has experienced loss of soil near the edges of the ramp resulting in the edges of the ramp deteriorating. Required repairs may include up to removal and replacement of concrete boat ramp. El Dorado Irrigation District is required by the FERC License, Settlement Agreement, and the USFS 4(e) Conditions. Condition 51.8: 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.

**Basis for Priority:**

Operating the Silver Lake Boat Ramp is a mandatory requirement of the October 18, 2006 FERC Order Issuing New License. If not repaired Deterioration of the ramp will escalate resulting in the closure of the ramp.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 137,500
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 137,500
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 137,500

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning		\$ 7,500				\$ 7,500
Design			\$ 30,000			\$ 30,000
Construction				\$ 100,000		\$ 100,000
						\$ -
<b>TOTAL</b>	\$ -	\$ 7,500	\$ 30,000	\$ 100,000	\$ -	\$ 137,500

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</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:** Sly Park Dump Station  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 3 **PM:** Jagers **Board Approval:** 10/15/13

**Project Description:**

Current dump station entrance requires pulling into the park exit lane and then backing in. There is no waiting area resulting in dangerous traffic congestion at the front gate. The current dump station access will be modified from "back-in" entrance to "pull-through". The entrance to the pull-through dump station will be a new road beginning in main day use area and terminating at existing dump station. The new road, exclusively for the dump station, will serve as waiting area relieving congestion at front gate. During road construction the Main Day use parking on the north side will be reconfigured from parallel to pull-in. The improvements are needed to decrease traffic congestion, opportunity for accidents both at the gatehouse and on Sly Park Road while increasing safety for vehicles, pedestrians and recreation staff.

**Basis for Priority:**

Recommended to reduce visitor and staff safety risks.

Project Financial Summary:			
Funded to Date:	\$ -	Expenditures through end of year:	\$ -
Spent to Date:	\$ -	2014 - 2018 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					Total
	2014	2015	2016	2017	2018	
Study/Planning		\$ 7,500				\$ 7,500
Design		\$ 10,000				\$ 10,000
Construction		\$ 52,000	\$ 55,500			\$ 107,500
						\$ -
<b>TOTAL</b>	\$ -	\$ 69,500	\$ 55,500	\$ -	\$ -	\$ 125,000

Funding Sources	Percentage	2014	Amount
Property Tax	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

# General District Projects

Project Number:

06004G

Project Name:

SMUD / El Dorado Agreement Water Rights

Project Category:

Regulatory Requirements

Priority:

1

PM:

Cumpston

Board Approval:

10/15/13

**Project Description:**

The Sacramento Municipal Utility District and El 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/El 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 cost share agreement with the El Dorado Water and Power Authority (EDWPA) to pursue the water rights for the SMUD/El Dorado Agreement. For 2014, EDWPA has approved "calls" under this agreement through June that total \$196,875. For planning purposes, however, projected annual costs are considerably higher for 2014 and 2015, based upon anticipated work. Costs include \$10,000 annually of capitalized labor. 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 Board of Directors approved the EDWPA cost share agreement in 2007 and its commitment of funding. The existing funding commitment extends through 2014, but given the status of the project, staff anticipates that EDWPA will request an extension.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 2,156,875	<b>Expenditures through end of year:</b>	\$ 2,236,322
<b>Spent to Date:</b>	\$ 2,151,947	<b>2014 - 2018 Planned Expenditures:</b>	\$ 1,010,000
<b>Cash flow through end of year:</b>	\$ 84,375	<b>Total Project Estimate:</b>	\$ 3,246,322
<b>Project Balance</b>	\$ (79,447)	<b>Additional Funding Required</b>	\$ 1,089,447

Description of Work	Estimated Annual Expenditures					
	2014	2015	2016	2017	2018	Total
Study/Planning	\$600,000	\$290,000	\$120,000			\$ 1,010,000
Design						\$ -
Construction						\$ -
15,000 af acquisition						\$ -
<b>TOTAL</b>	\$ 600,000	\$ 290,000	\$ 120,000	\$ -	\$ -	\$ 1,010,000

Funding Sources	Percentage	2014	Amount
Water FCCs	100%		\$679,447
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$679,447</b>

Funding Comments:

**Project Number:** 12026  
**Project Name:** Americans with Disabilities Act (ADA), Title II Compliance  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Hoffman **Board Approval:** 10/15/13

**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.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 50,000	<b>Expenditures through end of year:</b>	\$ 45,788
<b>Spent to Date:</b>	\$ 15,788	<b>2014 - 2018 Planned Expenditures:</b>	\$ 139,050
<b>Cash flow through end of year:</b>	\$ 30,000	<b>Total Project Estimate:</b>	\$ 184,838
<b>Project Balance</b>	\$ 4,212	<b>Additional Funding Required</b>	\$ 134,838

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 129,550	\$ 9,500				\$ 139,050
						\$ -
<b>TOTAL</b>	<b>\$ 129,550</b>	<b>\$ 9,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 139,050</b>

Funding Sources	Percentage	2014	Amount
Water Rates	87%		\$109,044
Wastewater Rates	13%		\$16,294
			\$0
<b>Total</b>	<b>100%</b>		<b>\$125,338</b>

Funding Comments:



**Project Number:** 13002  
**Project Name:** AMR and Small Meter Replacement Phase III  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2 **PM:** Pritchard **Board Approval:** 10/15/13

**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 caused by scaling uneven and unsafe terrain; bending and stooping; raising heavy lids; and exposure to dangerous pets, snakes, spiders, and hazards on private property. As of September 4, 2013 there are 21,281 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

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 100,000	<b>Expenditures through end of year:</b>	\$ 100,000
<b>Spent to Date:</b>	\$ 69,063	<b>2014 - 2018 Planned Expenditures:</b>	\$ 500,000
<b>Cash flow through end of year:</b>	\$ 30,937	<b>Total Project Estimate:</b>	\$ 600,000
<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>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
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

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water Rates	100%		\$100,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$100,000</b>

Funding Comments:

2014

**CAPITAL IMPROVEMENT PLAN Program:**

**General District**

**Project Number:** 13007  
**Project Name:** Windows 7 Virtual Machine  
**Project Category:** Reliability & Service Level Improvements  
**Priority:** 2      **PM:** Ranstrom      **Board Approval:** 10/15/13

**Project Description:**

Contingency funding added in 2014 to complete upgrade to Windows 7 prior to Windows XP end-of-life in April 2014.

**Basis for Priority:**

Project is currently in progress.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 217,500	<b>Expenditures through end of year:</b>	\$ 217,494
<b>Spent to Date:</b>	\$ 99,044	<b>2014 - 2018 Planned Expenditures:</b>	\$ 32,000
<b>Cash flow through end of year:</b>	\$ 118,450	<b>Total Project Estimate:</b>	\$ 249,494
<b>Project Balance</b>	\$ 6	<b>Additional Funding Required</b>	\$ 31,994

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 32,000					\$ 32,000
						\$ -
<b>TOTAL</b>	\$ 32,000	\$ -	\$ -	\$ -	\$ -	\$ 32,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water Rates	60%		\$19,196
Wastewater Rates	40%		\$12,798
			\$0
<b>Total</b>	<b>100%</b>		<b>\$31,994</b>

Funding Comments:

**Project Number:** 13030  
**Project Name:** Paint Booth - Sand Blasting Facility  
**Project Category:** Regulatory Requirements  
**Priority:** 1 **PM:** Megerdigian **Board Approval:** 10/15/13

**Project Description:**

This project is to construct paint and sand blasting facilities at the Bass Lake facility. Currently, paint and sand blasting work is done in an open environment and needs to be performed in a controlled environment in order to meet El Dorado County permitting requirements. The current permit states that blasting shall not exceed 2 hours per day, 3 days per week for 45 weeks per calendar year. Outdoor blasting operations shall be allowed only on objects that exceed 8 feet in any dimension. The new facilities will include a painting spray booth, a separate sand blasting booth within a pre-fab metal building.

**Basis for Priority:**

Compliance with El Dorado County Air Quality Management District permitting requirements.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ 7,000	<b>Expenditures through end of year:</b>	\$ 6,207
<b>Spent to Date:</b>	\$ 1,207	<b>2014 - 2018 Planned Expenditures:</b>	\$ 385,000
<b>Cash flow through end of year:</b>	\$ 5,000	<b>Total Project Estimate:</b>	\$ 391,207
<b>Project Balance</b>	\$ 793	<b>Additional Funding Required</b>	\$ 384,207

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 385,000					\$ 385,000
						\$ -
<b>TOTAL</b>	<b>\$ 385,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 385,000</b>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water Rates	60%		\$230,524
Wastewater Rates	40%		\$153,683
			\$0
<b>Total</b>	<b>100%</b>		<b>\$384,207</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:** 10/15/13

**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. Staff continues to work to complete contract negotiations, NEPA/CEQA analysis, and Endangered Species Act (ESA) compliance in 2014. Once these steps are complete, USBR must sign the contract and EID must complete a successful validation action in El Dorado County Superior Court. Litigation involving the entire Central Valley Project's ESA compliance has significantly delayed USBR's efforts to engage the National Marine Fisheries Service in ESA consultation on this contract.

**Basis for Priority:**

The District made application to the USBR in July 2004 for a 40-year Warren Act Contract. Approval by the USFWS has occurred. NOAA Fisheries approval is still pending and is influenced by Delta litigation and environmental issues. Final approval of the Warren Act Contract is being sought in 2014, and funding is requested to cover the validation action in court and any delays in federal actions that must be completed for contract approval.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ 3,084,414	<b>Expenditures through end of year:</b>	\$ 3,025,046
<b>Spent to Date:</b>	\$ 3,020,046	<b>2014 - 2018 Planned Expenditures:</b>	\$ 50,000
<b>Cash flow through end of year:</b>	\$ 5,000	<b>Total Project Estimate:</b>	\$ 3,075,046
<b>Project Balance</b>	\$ 59,368	<b>Additional Funding Required</b>	\$ -

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning	\$50,000					\$ 50,000
Design						\$ -
Construction						\$ -
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

Funding Sources	Percentage	2014	Amount
Water FCCs	100%		\$0
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$0</b>

Funding Comments:

2014

**CAPITAL IMPROVEMENT PLAN Program:**

**General District**

**Project Number:**

**PLANNED**

**Project Name:**

**2014 Vehicle Replacement**

**Project Category:**

**Reliability & Service Level Improvements**

**Priority:**

**2**

**PM:**

**Touey**

**Board Approval:**

**10/15/13**

**Project Description:**

5ea 1/2 ton 2x4 pickup \$110,000	1ea 4X4 SUV \$40,000
4ea 1/2 ton 4x4 pickup \$100,000	1ea utility body with crane \$100,000
2ea 1 ton 4x4 pickup \$70,000	1ea mini excavator with trailer \$100,000
2ea 1 1/2 ton 4X4 utility truck \$170,000	1ea portable air compressor \$30,000

**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>2014 - 2018 Planned Expenditures:</b>	\$ 720,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 720,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 720,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Vehicles	\$ 720,000					\$ 720,000
						\$ -
						\$ -
						\$ -
<b>TOTAL</b>	\$ 720,000	\$ -	\$ -	\$ -	\$ -	\$ 720,000

Funding Sources	Percentage	2014	Amount
Water Rates	100%		\$720,000
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$720,000</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:** 10/15/13

**Project Description:**

Design and integrate enterprise databases and end user software 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 2014 include:

Complete implementation of an enterprise Geographic Information System (GIS) to improve efficiency and service.

Implement an intranet content management system to improve organization and search capabilities for over 3 million files currently located in network file shares.

**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>2014 - 2018 Planned Expenditures:</b>	\$ 1,100,000
<b>Cash flow through end of year:</b>	\$ 35,000	<b>Total Project Estimate:</b>	\$ 1,135,000
<b>Project Balance</b>	\$ (35,000)	<b>Additional Funding Required</b>	\$ 1,135,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Enterprise DB integrations	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000		\$ 600,000
Supplemental Modules or DB solutions	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 100,000	\$ 1,100,000

Funding Sources	Percentage	2014	Amount
Water Rates	60%		\$171,000
Wastewater Rates	40%		\$114,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$285,000</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:** 10/15/13

**Project Description:**

Maintain the reliability and performance of the current business IT infrastructure through upgrades to aging or over-utilized critical infrastructure including network switches and routers, servers, and data storage systems.

Major actions in 2014 include:

- Replacement of the SAN in the HQ data center which has reached end of life. The SAN provides consolidated data storage for all of the District's business databases and shared data repositories. The current SAN is operating at over 90% of capacity, is 5 years old, and can no longer be upgraded or expanded.
- Replacement, standardization, and consolidation of the District's fleet of multi-function printers/scanners/copiers. The current fleet ranges from 5 to 15 years old, is unreliable, and costly to maintain and operate. Replacement units are far less costly to operate and maintain - with an expected ROI of 3 years based on just O&M savings alone.

**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, and other critical and essential functions of the district.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ 100,000
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 1,856,000
<b>Cash flow through end of year:</b>	\$ 100,000	<b>Total Project Estimate:</b>	\$ 1,956,000
<b>Project Balance</b>	\$ (100,000)	<b>Additional Funding Required</b>	\$ 1,956,000

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
Servers / Storage	\$ 465,000	\$ 128,000	\$ 20,000	\$ 100,000	\$ 20,000	\$ 733,000
User systems	\$ 182,000	\$ 95,000	\$ 142,000	\$ 20,000	\$ 70,000	\$ 509,000
Network equipment	\$ 150,000	\$ 224,000	\$ 140,000	\$ -	\$ 100,000	\$ 614,000
						\$ -
<b>TOTAL</b>	\$ 797,000	\$ 447,000	\$ 302,000	\$ 120,000	\$ 190,000	\$ 1,856,000

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water Rates	60%		\$538,200
Wastewater Rates	40%		\$358,800
			\$0
<b>Total</b>	<b>100%</b>		<b>\$897,000</b>

**Funding Comments:** Funding carried over from prior year in CIP with the same name. User systems now contains items that were previously identified in HQ Office IT System Reliability Program.

**Project Number:** PLANNED  
**Project Name:** Cyber Security Improvements  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Eberhard      **Board Approval:** 10/15/13

**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 2014 actions include:

- Implement a Network Access Control (NAC) system to prevent unauthorized physical access to District networks.
- Upgrade anti-virus protection software to a solution designed for virtualized systems to improve reliability and efficiency.

**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:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 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
	2014	2015	2016	2017	2018	
Prevention Measures	\$200,000		\$200,000			\$ 400,000
Detection Measures				\$100,000		\$ 100,000
						\$ -
						\$ -
<b>TOTAL</b>	<b>\$ 200,000</b>	<b>\$ -</b>	<b>\$ 200,000</b>	<b>\$ 100,000</b>	<b>\$ -</b>	<b>\$ 500,000</b>

Funding Sources	Percentage	2014	Amount
Water Rates	60%		\$120,000
Wastewater Rates	40%		\$80,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$200,000</b>

**Funding Comments:** Funding carried over from prior year in CIP with the same name.



2014

CAPITAL IMPROVEMENT PLAN Program:

General District

Project Number: **PLANNED**  
 Project Name: **Sandy Cove & Woods Creek ADA Compliance**  
 Project Category: **Regulatory Requirements**  
 Priority: **1** PM: **Noel** Board Approval: **10/15/13**

**Project Description:**

Install ADA compliant restroom facilities and ADA compliant parking. Work is to be done utilizing District crews.

**Basis for Priority:**

Regulatory compliance.

**Project Financial Summary:**

Funded to Date:	\$ -	Expenditures through end of year:	\$ -
Spent to Date:	\$ -	2014 - 2018 Planned Expenditures:	\$ 50,000
Cash flow through end of year:		Total Project Estimate:	\$ 50,000
Project Balance	\$ -	Additional Funding Required	\$ 50,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 50,000					\$ 50,000
						\$ -
<b>TOTAL</b>	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000

Funding Sources	Percentage	2014	Amount
Water FCCs	53%		\$26,500
Water Rates	47%		\$23,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$50,000</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:** 10/15/13

**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>2014 - 2018 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
	2014	2015	2016	2017	2018	
Programming	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000		\$ 500,000
						\$ -
						\$ -
						\$ -
<b>TOTAL</b>	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ -	\$ 500,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	50%		\$62,500
Water Rates	50%		\$62,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$125,000</b>

2014

**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:**

**10/15/13**

**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>2014 - 2018 Planned Expenditures:</b>	\$ 475,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 475,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 475,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Replacement Installation & Parts	\$ 75,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 475,000
						\$ -
						\$ -
						\$ -
<b>TOTAL</b>	\$ 75,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 475,000

Funding Sources	Percentage	2014	Amount
Wastewater Rates	50%		\$37,500
Water Rates	50%		\$37,500
			\$0
<b>Total</b>	<b>100%</b>		<b>\$75,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Security Alarm System Replacement  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Kilburg      **Board Approval:** 10/15/13

**Project Description:**

Replace 13 proprietary facility burglar alarm systems to reduce long-term operational expenditures, improve system reliability, and operational efficiency over the current business process. The existing systems are proprietary-closed systems that are under the control of a third-party service provider where the District receives these services at a premium cost. With the new enterprise system equipment staff will be able to efficiently and effectively manage the system through direct access and control system operation in real-time. In-house IT labor: \$2,000

**Basis for Priority:**

Improve alarm system operational performance, reduce long-term monitoring and service expenditures, and provide improved operational efficiency through direct system access by staff.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 60,000
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 60,000
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 60,000

Description of Work	Estimated Annual Expenditures					Total
	2014	2015	2016	2017	2018	
Study/Planning						\$ -
Design						\$ -
Construction	\$ 60,000					\$ 60,000
						\$ -
<b>TOTAL</b>	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ 60,000

Funding Sources	Percentage	2014	Amount
Water Rates	56%		\$33,600
Wastewater Rates	44%		\$26,400
			\$0
<b>Total</b>	<b>100%</b>		<b>\$60,000</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Security Equipment Reliability Program  
**Project Category:** Reliability & Service Level Improvements

**Priority:** 2      **PM:** Kilburg      **Board Approval:** 10/15/13

**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.

<b>Project Financial Summary:</b>			
<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 Planned Expenditures:</b>	\$ 185,400
<b>Cash flow through end of year:</b>	\$ -	<b>Total Project Estimate:</b>	\$ 185,400
<b>Project Balance</b>	\$ -	<b>Additional Funding Required</b>	\$ 185,400

<b>Description of Work</b>	<b>Estimated Annual Expenditures</b>					<b>Total</b>
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	
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>

<b>Funding Sources</b>	<b>Percentage</b>	<b>2014</b>	<b>Amount</b>
Water Rates	100%		\$137,400
			\$0
			\$0
<b>Total</b>	<b>100%</b>		<b>\$137,400</b>

Funding Comments:

**Project Number:** PLANNED  
**Project Name:** Technology Master Plan Development  
**Project Category:** Master Planning

**Priority:** 2      **PM:** Ranstrom      **Board Approval:** 10/15/13

**Project Description:**

This CIP will be utilized to further develop and update the District's technology plans.

For the next year, two major projects are required:

Develop the District's first SCADA Master Plan to guide necessary investments and improvements to the extensive computerized process control network that operates the District's water plants and facilities

Update the District's 5 year old IT Master Plan to guide necessary investments and improvements to the District's computerized business systems and IT infrastructure.

**Basis for Priority:**

The SCADA and IT systems are critical to the District providing reliable and cost effective services that meet customer and regulatory needs. These are both complex integrated systems that require effective Master Plans to serve as blue prints to fix areas of significant risk and implement enhancements that provide the greatest returns on investment.

**Project Financial Summary:**

<b>Funded to Date:</b>	\$ -	<b>Expenditures through end of year:</b>	\$ -
<b>Spent to Date:</b>	\$ -	<b>2014 - 2018 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
	2014	2015	2016	2017	2018	
SCADA Master Plan	\$ 100,000					\$ 100,000
IT Master Plan	\$ 100,000					\$ 100,000
						\$ -
						\$ -
<b>TOTAL</b>	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000

Funding Sources	Percentage	2014	Amount
Water Rates	50%		\$100,000
Wastewater Rates	50%		\$100,000
			\$0
<b>Total</b>	<b>100%</b>		<b>\$200,000</b>

**Funding Comments:** Funding is for preliminary study only at this time