

ENGINEERING REPORT

March 30, 2018

To: PBCSD Board of Directors
From: Nick Becker, Principal Engineer
Subject: 2018/19 Long-Term Capital Outlay Program



RECOMMENDATION

Approve the 2018/19 Long-Term Capital Outlay Program.

SUMMARY OF ISSUES

The PBCSD 2018/19 Long-Term Capital Outlay Program (LTCOP) 15-year total cost is as follows:

Department	FY2018/19	FY2017/18	Variance
Administration	\$ 1,940,000	\$ 1,875,000	4%
Fire	\$ 5,658,000	\$ 4,891,000	16%
Wastewater	\$ 14,828,000	\$ 10,700,000	39%
Reclamation	\$ 4,465,000	\$ 4,450,000	1%
Undergrounding	\$ 21,000,000	\$ 17,550,000	20%
CAWD	\$ 7,967,000	\$ 7,687,000	4%
TOTAL	\$ 55,858,000	\$ 47,153,000	19%

PBCSD's financial responsibilities include Administration, Fire, and Wastewater Departments; Undergrounding Overhead Utility Projects; and a one-third (1/3) share of CAWD Treatment Plant costs. The anticipated total cost of PBCSD's financial responsibilities amount to \$51,393,000. The anticipated total capital cost for Reclamation is \$4,465,000; however, these costs will be reimbursed to the District by the Reclamation Project.

The 2018/19 LTCOP has increased approximately 19% from the previous year total of \$47,153,000. All departmental (Administration, Fire, Wastewater, Reclamation) capital costs have increased; most noticeable within the Wastewater department increasing 39% from the previous year. This large increase is mainly attributed by the addition of the SCADA Rehabilitation Project along with District's plans to complete three Sewer Line Replacement Projects over the next three years. Other significant factors contributing to this departmental increase were the inclusion of additional pump station capital and maintenance equipment items not included in prior plans.

Fire Department's projected capital costs have increased 16% from the previous year. This increase is largely attributed to the addition of equipment including a new Water Rescue Craft, Floating Dock, Polaris All-Terrain Vehicle, and inclusion of replacement schedule for hydraulic rescue tools associated with Ladder Truck 22, Medical Engine 22, and Medic Engine 28 (cost share). In addition the existing wastewater pump station at the Carmel Hill Fire Station was added, as it was not previously accounted for in prior plans.

Staff anticipates that it will require approximately \$2.6 million dollars allocated over FY2017/18 & FY2018/19 to complete Phase II, and begin working on the Phase III of the Undergrounding Overhead Utilities Program. Long term capital projections (future phases) for the Undergrounding Program beyond the Phase III project shall be determined as funding becomes available. As departmental capital improvement projects develop over the next year, anticipated costs and schedules will be updated and priorities revisited accordingly.

BACKGROUND

Each spring, staff presents to the Board the LTCOP for the following fiscal year. The plan outlines PBCSD's capital improvements goals for the subsequent 15 years. Costs are based on current estimated prices and have not been escalated over the life of the plan. Capital items include both new and replacement capital facilities and equipment. The schedules of capital outlays and cost estimates have been prepared in consultation with PBCSD Staff, Cal Fire Staff, and CAWD Treatment Plant Staff.



PEBBLE BEACH

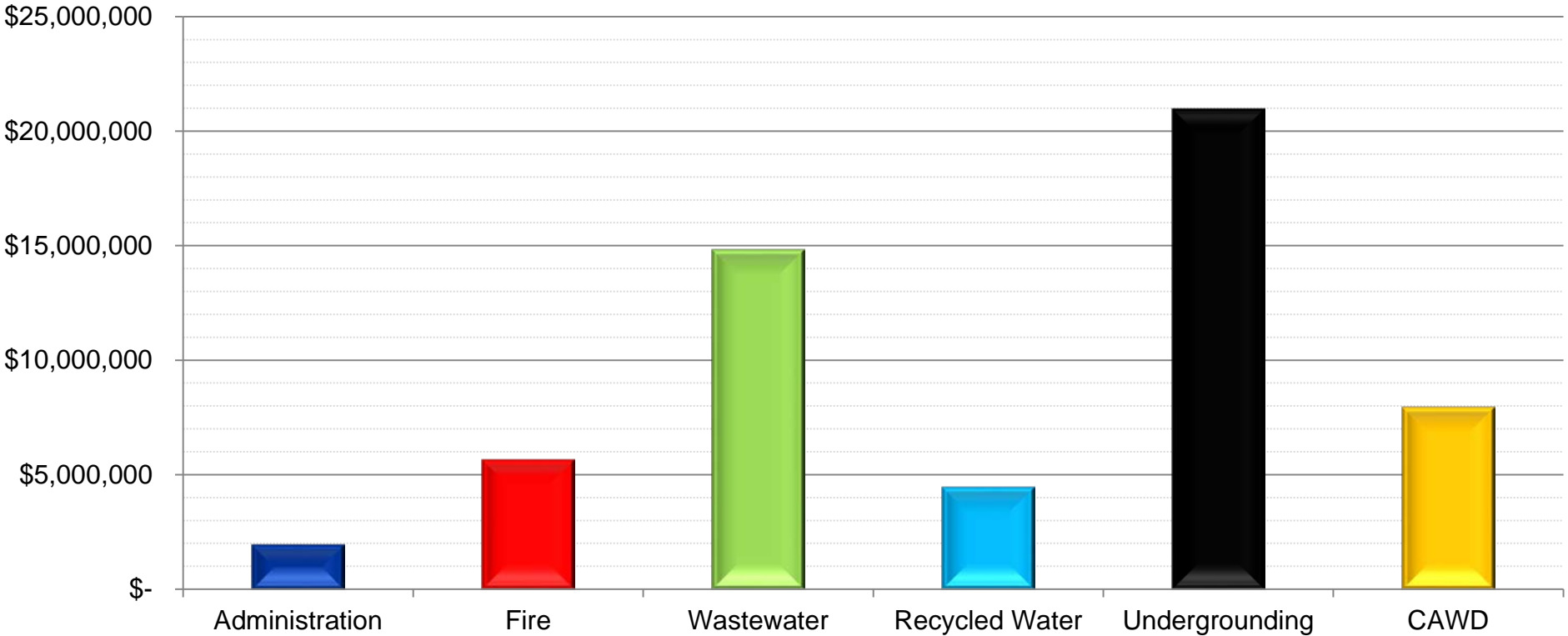
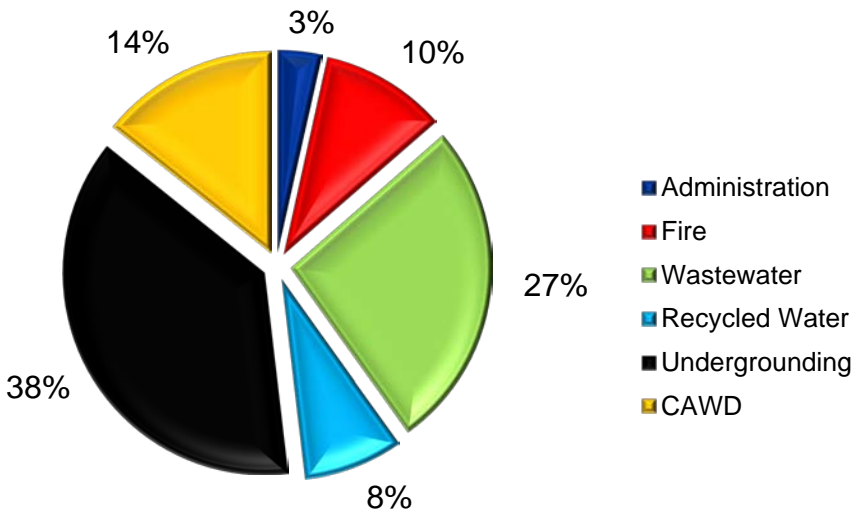
COMMUNITY SERVICES DISTRICT

FY 2018/19

LONG-TERM CAPITAL OUTLAY PROGRAM

MARCH 30, 2018

COST SUMMARY BY DEPARTMENT
2018/19 LONG-TERM CAPITAL OUTLAY PROGRAM



15yr SUMMARY
2018/19 LONG-TERM CAPITAL OUTLAY PROGRAM

FISCAL YEAR	Exhibit A Administration	Exhibit B Fire	Exhibit C Wastewater	Exhibit D Recycled Water	Exhibit E Undergrounding	Exhibit F CAWD	FISCAL YEAR TOTAL
2018/19	\$ 120,000	\$ 229,000	\$ 2,335,000	\$ 490,000	\$1,400,000	\$1,364,000	\$ 5,938,000
2019/20	\$ 390,000	\$ 594,000	\$ 1,681,000	\$ 90,000	\$1,400,000	\$672,000	\$ 4,827,000
2020/21	\$ 130,000	\$ 1,053,000	\$ 1,467,000	\$ 185,000	\$1,400,000	\$1,290,000	\$ 5,525,000
2021/22	\$ 80,000	\$ 27,000	\$ 1,125,000	\$ 140,000	\$1,400,000	\$805,000	\$ 3,577,000
2022/23	\$ 35,000	\$ 35,000	\$ 1,780,000	\$ 120,000	\$1,400,000	\$586,000	\$ 3,956,000
2023/24	\$ 115,000	\$ 154,000	\$ 285,000	\$ 20,000	\$1,400,000	\$317,000	\$ 2,291,000
2024/25	\$ 135,000	\$ 302,000	\$ 1,575,000	\$ -	\$1,400,000	\$172,000	\$ 3,584,000
2025/26	\$ 140,000	\$ 1,053,000	\$ 177,000	\$ 30,000	\$1,400,000	\$452,000	\$ 3,252,000
2026/27	\$ 35,000	\$ 256,000	\$ 765,000	\$ 2,870,000	\$1,400,000	\$333,000	\$ 5,659,000
2027/28	\$ 110,000	\$ 34,000	\$ 265,000	\$ 20,000	\$1,400,000	\$580,000	\$ 2,409,000
2028/29	\$ 70,000	\$ 192,000	\$ 935,000	\$ 190,000	\$1,400,000	\$615,000	\$ 3,402,000
2029/30	\$ 165,000	\$ 174,000	\$ 186,000	\$ 90,000	\$1,400,000	\$220,000	\$ 2,235,000
2030/31	\$ 135,000	\$ 996,000	\$ 737,000	\$ 40,000	\$1,400,000	\$163,000	\$ 3,471,000
2031/32	\$ 230,000	\$ 125,000	\$ 380,000	\$ 60,000	\$1,400,000	\$278,000	\$ 2,473,000
2032/33	\$ 50,000	\$ 434,000	\$ 1,135,000	\$ 120,000	\$1,400,000	\$120,000	\$ 3,259,000
DEPT TOTAL	\$ 1,940,000	\$ 5,658,000	\$ 14,828,000	\$ 4,465,000	\$21,000,000	\$7,967,000	\$ 55,858,000

2017/18 TOTAL \$ 1,875,000 \$ 4,891,000 \$ 10,700,000 \$ 4,450,000 \$ 17,550,000 \$ 7,687,000 \$ 47,153,000

DIFFERENCE 3.5% 15.7% 38.6% 0.3% 19.7% 3.6% 18.5%

Dept % of Ttl Plan 3.5% 10.1% 26.5% 8.0% 37.6% 14.3% 100.0%

EXHIBIT A
Administration Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM	USEFUL LIFE	ROLL OVER	FISCAL YEAR COSTS (1,000)															
				18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	
FACILITIES	1	Furnaces (4)	10 years		\$10										\$10				
	2	Board Room Chairs (9)	10 years		\$15										\$15				
	3	Board Room Audience Chairs (50)	10 years		\$20										\$20				
	4	Board Room Furniture	10 years		\$20										\$20				
	5	Board Room Sound System/Microphones	10 years				\$20											\$20	
	6	Carpeting	10 years	\$30										\$30					
	7	Paint Building Exterior (Admin. & Fire)	10 years			\$30											\$30		
	8	Window Coverings	12 years		\$20													\$20	
	9	Training Room Furniture	12 years			\$15													
	10	File Storage Space Saver	15 years		\$10														
	11	Ergonomic Furniture - Front Office (4)	15 years		\$30														
	12	Ergonomic Furniture - Back Offices (4)	15 years		\$35														
	13	Replace Building Generator	20 years		\$60														
	14	Roof Replacement (Admin. & Fire)	30 years								\$65								
COMPUTERS & COMM.	15	GIS/Information Systems Development	Annual	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35	\$35	
	16	Network Routers & Switches	4 years		\$10				\$10				\$10				\$10		
	17	Network Servers (2): File/Email Server Document Management Server	4 years				\$25				\$25				\$25				
	18	Network Servers (2): InfoSys/GIS Server Backup/Security Server	4 years		\$25				\$25				\$25				\$25		
	19	Workstation/Laptop Computers (10) + Install	4 years		\$40				\$40				\$40				\$40		
	20	Telephone & Voicemail System	10 years			\$50											\$50		
	21	1620 AM Radio Station Equipment (2)	10 years		\$25										\$25				
EQUIPMENT	22	Digital Scanner	5 years	\$5					\$5					\$5					
	23	Network Plotter	5 years		\$15					\$15					\$15				
	24	Board Room Presentation System	6 years		\$35						\$35						\$35		
	25	Training Room Presentation System	6 years		\$25						\$25						\$25		
	26	Network Combination Copier/Printer/Scanner	6 years	\$20						\$20							\$20		
	27	Traffic Monitoring Radar Units (4)	6 years		\$20						\$20						\$20		
TOTAL FISCAL YEAR COST (1,000)					\$120	\$390	\$130	\$80	\$35	\$115	\$135	\$140	\$35	\$110	\$70	\$165	\$135	\$230	\$50

ADMINISTRATION DEPARTMENT TOTAL PLAN COST \$1,940,000

EXHIBIT A
Administration Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
1	<u>Furnaces (4)</u> Replace the four furnaces (Front Office/Board Room/Training Room/Back Offices & DMFC/DMFPO) that serve the administration offices every ten years.
2	<u>Board Room Chairs (9)</u> Replace nine chairs used by the Board Members, General Manager, Chief Financial Officer, Legal Council and Clerk during Board Meetings every ten years.
3	<u>Board Room Audience Chairs (50)</u> Replace the audience chairs in the Board Room every ten years.
4	<u>Board Room Furniture</u> Replace the Board Room desks and tables every ten years.
5	<u>Board Room Sound System/Microphones</u> Replace the sound system and microphones in the Board Room every ten years.
6	<u>Carpeting</u> Replace the carpeting in the administration offices every ten years.
7	<u>Paint Administration Building Exterior (Admin. & Fire)</u> Paint exterior of administration & fire buildings every ten years.
8	<u>Window Coverings</u> Replace the window coverings in the administration offices every twelve years.
9	<u>Training Room Furniture</u> Replace the Training Room tables every twelve years.
10	<u>File Storage Space Saver</u> Replace the file storage space saver used to store administration department records every fifteen years.
11	<u>Ergonomic Furniture - Front Office (4)</u> Replace the ergonomically designed workstation furniture in four administrative staff cubicles every fifteen years.
12	<u>Ergonomic Furniture - Back Offices (4)</u> Replace the ergonomically designed workstation furniture in four management offices every fifteen years.
13	<u>Replace Building Generator</u> Replace the 100 KW generator that provides emergency back-up power to the administration building complex every twenty years. The generator is fueled by natural gas and includes a back-up propane system.
14	<u>Roof Replacement (Admin. & Fire)</u> Replace the administration and fire building roof every thirty years.
15	<u>GIS/Information Systems Development</u> Improve the Geographic Information System (GIS) and InfoSys annually and make any necessary revisions to the data or systems to better serve employees to provide better services to customers.

EXHIBIT A
Administration Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
16	<u>Network Routers & Switches</u> Replace the equipment, including routers and switches, for the local area computer network every four years.
17	<u>Network Servers (2): File/Email Server & Document Management Server</u> Replace the File/Email Server & Document Management Server that serve the administration, fire and maintenance departments, which are planned to be upgraded every four years.
18	<u>Network Servers (2): InfoSys/GIS Server & Backup/Security Server</u> Replace the InfoSys/GIS Server and the dedicated Backup/Security Server that serve the administration, fire and maintenance departments, which are planned to be upgraded every four years.
19	<u>Workstation/Laptop Computers (9)</u> Replace and upgrade nine administration computer/laptop workstations every four years.
20	<u>Telephone & Voicemail System</u> Upgrade/replace telephone and voicemail system every ten years.
21	<u>1620 AM Radio Station Equipment (2)</u> Replace the AM information radio station equipment every ten years. Main station equipment is located at Forest Lake and the backup unit is at District Maintenance Building.
22	<u>Digital Scanner</u> Replace the workstation digital scanner used to transfer printed material to an electronic copy every five years.
23	<u>Network Plotter</u> Replace the plotter used print drawings, maps and exhibits larger than 11"x17" paper every 5 years.
24	<u>Board Room Presentation System</u> Replace the Presentation System in the Board Room every six years, including video digital display unit, controllers and presentation console. The presentation console includes a computer and other equipment to connect to the District network.
25	<u>Training Room Presentation System</u> Replace the Presentation System in the Training Room every six years, including video digital display unit, controllers and presentation console. The presentation console includes a computer and other equipment to connect to the District network.
26	<u>Network Combination Copier/Printer/Scanner</u> Replace the primary network combination color copier/printer/scanner every six years. The replaced unit will serve as back-up to the new unit.
27	<u>Traffic Monitoring Radar Units (4)</u> Replace four traffic monitoring radar units every six years.

EXHIBIT B
Fire Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM	USEFUL LIFE	ROLL OVER	FISCAL YEAR COSTS (1,000)																
				18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33		
FACILITIES	1	Kitchen & Living Room Furniture	7 years		\$9							\$9								
	2	Media Center and Electronic Components	7 years			\$4							\$4							
	3	Dormitory Furniture	7 years		\$12							\$12						\$12		
	4	Carmel Hill Physical Fitness Equipment**	8 years									\$5								
	5	Physical Fitness Equipment	8 years								\$10							\$10		
	6	Universal Weight Machine	10 years				\$7											\$7		
	7	Furnace	10 years									\$10								
	8	Carpet	10 years	\$20											\$20					
	9	Ergonomic Office Furniture	10 years		\$50											\$50				
	10	Window Coverings	12 years		\$10													\$10		
	11	Overhead Electric Door Motors (8)	15 years			\$16														
	12	Vinyl Tile Flooring	15 years										\$20							
	13	PPE Lockers	20 years																	
	14	Gym Athletic Rubber Flooring	20 years										\$15							
	15	Lower-Level Restroom Remodel	20 years															\$20		
	16	Kitchen Remodel	20 years		\$100															
	17	Upper-Level Restroom Remodel	20 years																	
18	Pump St. @ Carmel Hill Fire Station**	Rehab.		\$18																
19	Instrumentation**	5 years								\$3					\$3					
20	Pump Replacement**	10 years													\$4					
21	Valves & Appurtenances**	15 years																		
22	Control Panel**	15 years	\$2																	
23	Force Main**	25 years																		
COMPUTERS & COMM.	24	Command Staff Computers (4)	4 years				\$10				\$10				\$10					
	25	Workstation Computers (8)	4 years			\$25				\$25				\$25			\$25			
	26	Mobile Data Computers (9)	5 years				\$20						\$20				\$20			
	27	Network Combination Copier/Printer/Scanner	6 years			\$12						\$12						\$12		
	28	Portable Radios	10 years									\$55								
	29	Radio Repeater Equipment	10 years									\$3								
	30	Base Radio	10 years			\$5										\$5				

**EXHIBIT B
Fire Department Capital Outlay Plan**

ITEM NO.	CAPITAL ITEM	USEFUL LIFE	ROLL OVER	FISCAL YEAR COSTS (1,000)																
				18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33		
EQUIPMENT	31	Carmel Hill Equipment**	Annual	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10		
	32	AED Defibrillators (2)	5 years			\$6						\$6					\$6			
	33	Battalion Training Program Equipment**	5 years	\$7						\$7					\$7					
	34	Thermal Imaging Cameras (5)**	5 years	\$60						\$60					\$60					
	35	Paramedic EKG Monitors (3)**	5 years		\$67						\$67					\$67				
	36	Active Shooter PPE	5 years		\$5						\$5					\$5				
	37	SCBA Units & Spare Tanks (27)**	15 years															\$200		
	38	Air Compressor, Rack, and Fill Station (2)**	15 years										\$65							
RESCUE EQUIPMENT	39	Water Rescue Program Equipment	5 years		\$5						\$5					\$5				
	40	Confined Space Rescue Equipment	10 years	\$17										\$17						
	41	High-Pressure Rescue Airbag Kit (2)**	10 years									\$7								
	42	Rope Rescue Gear Ropes**	10 years					\$5									\$5			
	43	Rope Rescue Line Gun	10 years	\$3										\$3						
	44	Hydraulic Rescue Tools (Ladder Truck 22)	10 years								\$37									
	45	Hydraulic Rescue Tools (Medic Engine 22)	10 years	\$15											\$15					
	46	Hydraulic Rescue Tools (Medic Engine 28) **	10 years	\$18											\$18					
VEHICLES	47	Water Rescue Craft Floating Dock	15 years	\$8																
	48	Rescue Struts	15 Years														\$8			
	49	Water Recuse Craft**	5 years	\$7					\$7					\$7						
	50	4WD Command Vehicle 4601**	8 years	\$30								\$30								
	51	4WD Command Vehicle 4605**	8 years	\$30								\$30								
	52	Battalion Training Officer Vehicle 4651**	8 years						\$20								\$20			
	53	Paramedic Vehicle 4617**	8 years							\$30							\$30			
	54	4WD Command Vehicles 4612**	8 years							\$30							\$30			
	55	4WD Command Vehicles 4618**	8 years							\$30							\$30			
	56	Fire Protection and Planning Vehicle 4626	8 years						\$50								\$50			
	57	Fire Protection and Planning Vehicle 4624	8 years							\$50							\$50			
	58	Station Utility Truck 7292** (Carmel Hill)	10 years		\$20										\$20					
	59	Medic Engine 22	10 years			\$650										\$650				
	60	Ladder Truck 22	10 years								\$1,000									
	61	Medic Engine 28** (Carmel Hill)	10 years			\$325										\$325				
62	Polaris All-Terrain Vehicle**	10 years	\$10										\$10							
63	Wildland Patrol Vehicle 22	15 years		\$300																
TOTAL FISCAL YEAR COST (1,000)				\$229	\$594	\$1,053	\$27	\$35	\$154	\$302	\$1,053	\$256	\$34	\$192	\$174	\$996	\$125	\$434		

**Items are cost-shared with other fire districts

FIRE DEPARTMENT TOTAL PLAN COST

\$5,658,000

EXHIBIT B
Fire Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
1	<u>Kitchen & Living Room Furniture</u> Replace kitchen table and chairs, and seating furniture for upstairs and downstairs living areas.
2	<u>Media Center and Electronic Components</u> Replace televisions, dvd players and storage center in upstairs and downstairs living areas.
3	<u>Dormitory Furniture</u> Replace dormitory furniture, including mattresses, beds, and nightstands (12).
4	<u>Carmel Hill Station Physical Fitness Equipment**</u> Replace physical fitness exercise equipment for the Carmel Hill fire station every five years at a 50% cost-share with Cypress District.
5	<u>Physical Fitness Equipment</u> Replace two commercial-grade treadmill and an elliptical machine in gym every five years.
6	<u>Universal Weight Machine</u> Replace the universal weight machine used in the gym every ten years.
7	<u>Furnace</u> Replace the furnace every ten years
8	<u>Carpet</u> Replace the carpeting in the fire department every ten years.
9	<u>Ergonomic Office Furniture</u> Replace ergonomically designed workstation furniture in the Fire Department offices every ten years.
10	<u>Window Coverings</u> Replace the window coverings in the fire department every twelve years.
11	<u>Overhead Electric Door Motors (8)</u> Electric motors will be installed on 8 metal overhead doors on for Fire Department parking bays.
12	<u>Vinyl Tile Flooring</u> Replace tile flooring in high-traffic areas in lower-level of the Fire Department.
13	<u>PPE Lockers</u> Replacement of existing lockers. Current lockers have poor ventilation and do not have enough room to hold all PPE equipment.
14	<u>Gym Athletic Rubber Flooring</u> Replace athletic rubber flooring in the Fire Department gym.
15	<u>Lower-Level Restroom Remodel (2)</u> Rehabilitate lower-level restrooms (2) located in entrance way and hallway of the Fire Department every 20 years. Includes replacing tile, sink, toilet, mirror, lighting, etc. Next replacement scheduled for FY 31/32.
16	<u>Kitchen Remodel</u> Rehabilitate Fire Department Kitchen every 20 years. Includes replacing appliances, cabinetry, countertops, etc.
17	<u>Upper Level Restroom Remodel</u> Rehabilitate Fire Department Upper Level Restroom every 20 years. Includes replacing tile, sink, toilet, showers, mirror, lighting, etc
18	<u>Sewer Pump Station @ Carmel Hill Fire Station**</u> Rehabilitate sewer pump station at Carmel Hill Fire Station

EXHIBIT B
Fire Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
19	<u>Instrumentation**</u> Replace Sewer Pump Station Instrumentation every 5 years
20	<u>Pump Replacement**</u> Replace Sewer Pump Station Pumps every 10 years
21	<u>Valves & Appurtanances**</u> Replace Sewer Pump Station Valves & Appurtanances every 15 years
22	<u>Control Panel**</u> Replace Sewer Pump Station Control Panel every 15 years
23	<u>Force-Main**</u> Replace Sewer Pump Station Force-Main every 25 years
24	<u>Command Staff Computers (4)**</u> Replace four cost-shared computer used by fire command positions every four years. Each workstation will include a computer, monitor, keyboard and printer.
25	<u>Workstation Computers (8)</u> Replace seven computer workstations used by the operations and prevention staff every four years. Each workstation will include a computer, monitor, keyboard and printer.
26	<u>Mobile Data Computers (9)</u> Replace nine laptop computers installed in each apparatus and command vehicle every five years.
27	<u>Network Combination Copier/Printer/Scanner</u> Replace the fire department network combination copier/printer/scanner every six years.
28	<u>Portable Radios</u> District's current portable radios were purchased as part of a County wide grant. Radios have out lived their operational/useful life.
29	<u>Radio Repeater Equipment</u> Replace radio repeater equipment every ten years.
30	<u>Base Radio</u> Replace the base radio station located at fire operations offices every ten years.
31	<u>Carmel Hill Station Equipment**</u> The Carmel Hill Fire Station is operated jointly with Cal Fire and the Cypress Fire Protection District. An annual allocation of \$10,000 per year is included for the PBCSD's share (50%) of replacing capital equipment.
32	<u>AED Defibrillators (2)</u> Replace two semi-automatic defibrillators used on first response emergency calls every five years.
33	<u>Battalion Training Program Equipment**</u> Replace the cost-shared SCBA Fit Tester, Forcible Entry Prop, and Fire Extinguisher Simulator used in the Battalion Training Program every five years. PBCSD is responsible for 37.5%.
34	<u>Thermal Imaging Cameras (5)**</u> Replace five thermal imaging cameras every five years. The camera can detect dangerous, unseen obstacles and assist in rescue operations during low-visibility conditions. 1 camera is located on the medic engine, 1 on the reserve engine, 1 on the ladder truck, 1 on the reserve ladder truck, and 1 on the Carmel Hill medic engine at 50% cost-share.

EXHIBIT B
Fire Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
35	<u>Paramedic EKG Monitors (3)**</u> Replace three cost-shared 12-lead monitor EKGs used by paramedics to monitor heart rhythms every five years. 1 monitor will be located on Medic Engine 22, 1 on the Carmel Hill medic engine at 50% cost-share, and 1 on the paramedic vehicle at 37.5% cost-share.
36	<u>Active Shooter PPE</u> Replace built proof vests every 5 years
37	<u>SCBA Units & Spare Tanks (27)**</u> Replace twenty Self-Contained Breathing Apparatuses (SCBA) every fifteen years. Units include a pack, an air cylinder rated for 45 minutes of use, a full-face air mask, mic, and related valves and hoses. 5 SCBAs are located in the medic engine, 5 in the reserve engine, 5 in the ladder truck, and 5 in staff vehicles (2 for prevention and 3 at 37.5% cost-share) & purchase twenty-seven spare tanks for Self-Contained Breathing Apparatus units.
38	<u>Air Compressor, Rack, and Fill Station (2)**</u> Replace the air compressor used to fill air bottles, rack to store air bottles, and the fill station every fifteen years. One unit is located at PBCSD and one at Carmel Hill Station at 50% cost-share.
39	<u>Water Rescue Program Equipment</u> Replace fire department water rescue equipment (paddle boards, wetsuits, life vest) every five years.
40	<u>Confined Space Rescue Equipment</u> Purchase equipment to perform a confined-space emergency rescue. Including tripod, winch, rescue lines, portable ventilation units and rescue baskets used for permit required confined space entry and rescue.
41	<u>High-Pressure Rescue Airbag Kit (2)**</u> Replace two airbag kits containing items required to lift heavy objects during rescue operations every ten years, 1 at a 50% cost-share with Cypress District.
42	<u>Rope Rescue Gear Ropes**</u> Rope rescue gear on Truck 22, Medic Engine 22, and Medic Engine 28 (PBCSD Cost Share = 50%). Replace rope rescue gear every ten years.
43	<u>Rope Rescue Line Gun</u> Replace the equipment used to shoot a rope rescue line for use in coastal rescue operations every ten years.
44	<u>Hydraulic Rescue Tools on Ladder Truck 22</u> Replace hydraulic rescue tool set on Ladder Truck 22 used to provide access to damaged vehicles every ten years.
45	<u>Hydraulic Rescue Tools on Medic Engine 22</u> Replace hydraulic rescue tool (jaws of life) on Medic Engine 22 used to provide access to damaged vehicles every ten years.
46	<u>Hydraulic Rescue Tools on Medic Engine 28**</u> Replace hydraulic rescue tool set on Medic Engine 28 used to provide access to damaged vehicles every ten years. Cost Share 50%
47	<u>Water Rescue Craft Floating Dock</u> Water Rescue Craft Floating Dock to be installed at Stillwater Pier, to be replaced every five years.
48	<u>Rescue Struts</u> Rescue struts will be stowed on Ladder Truck 22 and used in vehicle accident response to stabilize vehicles allowing for patient access/extraction.
49	<u>Water Rescue Craft**</u> Water Rescue Craft to be replaced every 5 years. Cost Share 50%
50	<u>4WD Command Vehicle 4601**</u> Replace four-wheel drive utility vehicle 4601 used by the fire division chief, including lights, radio console and command box every eight years at 37.5% cost-share.

EXHIBIT B
Fire Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
51	<u>4WD Command Vehicle 4605**</u> Replace four-wheel drive utility vehicle 4605 used by the fire protection and planning chief including lights, radio console and command box every eight years at 37.5% cost-share.
52	<u>Battalion Training Officer Vehicle 4651**</u> Replace utility pickup truck used by training officer, which has an expected useful life of eight years. The cost reported for this vehicle represents PBCSD's 37.5% share.
53	<u>Paramedic Vehicle 4617**</u> Replace the cost-shared pickup truck used by the EMS Captain, including lights, radio console and command box every eight years. The vehicle is cost-shared with Cypress & Carmel Highlands Fire Protection Districts. PBCSD Cost Share = 37.5%.
54	<u>4WD Command Vehicles 4612**</u> Replace cost-shared four-wheel drive utility vehicles 4612 used by the battalion operations chief including lights, radio console and command box every eight years. Vehicles are cost-shared with Cypress & Carmel Highlands Fire Protection Districts. Replace every eight years.
55	<u>4WD Command Vehicles 4618**</u> Replace two cost-shared four-wheel drive utility vehicles 4618 used by the battalion operations chief including lights, radio console and command box every eight years. Vehicles are cost-shared with Cypress & Carmel Highlands Fire Protection Districts. Replace every eight years.
56	<u>Fire Protection and Planning Vehicle 4626</u> Replace utility pickup truck 4624 used by the fire protection and planning captain including lights, radio console and command box every eight years.
57	<u>Fire Protection and Planning Vehicle 4624</u> Replace utility pickup truck 4626 used by the fire protection and planning captain including lights, radio console and command box every eight years.
58	<u>Station Utility Truck 7292** (Carmel Hill)</u> Replace the cost-shared utility pickup truck with ladder rack for use at the Carmel Hill station every ten years at 50%.
59	<u>Medic Engine 22</u> Replace the first-line medic engine with a pumping capacity of 1500 gpm every ten years. The replaced medic engine will be reassigned as the reserve engine 22, and the replaced reserve engine will become surplus equipment. The expected useful life is 20 years with approximately 10 years as a first-line engine, and the remaining years as the reserve engine.
60	<u>Ladder Truck 22</u> Replace the quint 70-foot ladder Truck engine 22 with a pumping capacity of 1500 gpm every fifteen years. Quint refers to the five components of the vehicle including pump, water tank, fire hose, aerial device and ground ladders.
61	<u>Medic Engine 28** (Carmel Hill)</u> Replace the Carmel Hill Station medic engine with a pumping capacity of 1500 gpm every fifteen years at 50% cost-share.
62	<u>Polaris All-Terrain Vehicle**</u> All-Terrain Vehicle to be replaced every 10yrs. Cost Share 37.5%
63	<u>Wildland Patrol Vehicle 22</u> Replace the Type IV wildland engine 22 every fifteen years. This vehicle is used for patrolling open space areas daily during peak fire conditions and for initial response to incidents in open spaces. It includes a 300-gallon water storage tank and 190 gpm pump.

**Items are cost-shared with other fire districts

EXHIBIT C
Wastewater Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM	USEFUL LIFE	ROLL OVER	FISCAL YEAR COSTS (1,000)															
				18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	
PUMP ST. No.07	67 Pump Station P-7 (PBGL 18th) Est. 2012	Rehab.																	
	68 Instrumentation	5 years		\$10					\$10							\$10			
	69 Flow Meter	10 years						\$10										\$10	
	70 Wet Well Mixer	10 years						\$20										\$20	
	71 Pump Replacement	10 years						\$80										\$80	
	72 Valves & Appurtenances	15 years												\$15					
	73 Control Panel	15 years												\$50					
	74 Emergency Power Generator	15 years												\$75					
	75 Underground Diesel Storage Tank	25 years																	
	76 Force Main	25 years																	
PUMP ST. No.08	77 Pump Station P-8 (SPANISH BAY) Est. 2007	Rehab.																	
	78 Instrumentation	5 years		\$10						\$10						\$10			
	79 Wet Well Mixer	10 years	\$20											\$10					
	80 Pump Replacement	10 years				\$20												\$20	
	81 Valves & Appurtenances	15 years											\$15						
	82 Control Panel	15 years											\$50						
	83 Force Main	25 years																	
VEHICLES / MOBILE EQUIP.	84 PB-1 Light Utility Truck (General)	10 years				\$45												\$45	
	85 PB-2 Vac-Con Line/Vacuum Truck	10 years						\$250										\$250	
	86 PB-4 Heavy Utility Truck (Pump Station Crew)	10 years											\$75						
	87 PB-5 Utility Truck (Superintendent)	10 years										\$45							
	88 PB-8 Line Cleaning Truck	10 years								\$250									
	89 PB-6 Dump Truck	15 years		\$65															
	90 Trailer Mounted Sewer Rodder	15 years									\$120								
	91 10" Portable Pump	15 years		\$120															
	92 6" Portable Pump	15 years								\$75									
	93 G1 Portable Generator	15 years			\$100														
	94 G2 Portable Generator	15 years			\$100														
	95 G3 Portable Generator	15 years				\$100													
	96 G4 Portable Generator	15 years				\$100													
	97 PB-3 CCTV Camera Truck	20 years		\$120															
	98 PB-7 Crane Truck	20 years			\$100														
	99 Backhoe Loader	20 years			\$80														
	100 Easement Line Cleaning Equipment	20 years							\$25										
TOTAL FISCAL YEAR COST (1,000)					\$2,335	\$1,681	\$1,467	\$1,125	\$1,780	\$285	\$1,575	\$177	\$765	\$265	\$935	\$186	\$737	\$380	\$1,135

**Items are cost-shared with Recycled Water

WASTEWATER DEPARTMENT TOTAL PLAN COST

\$14,828,000

EXHIBIT C
Wastewater Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
1	<u>Fueling Station Rehabilitation</u> The fuel pump and monitoring and security system for the diesel and gasoline fueling station will be rehabilitated.
2	<u>Overhead Electric Door Motors (8)</u> Replace eight electric motors on metal overhead doors for Maintenance Building bays.
3	<u>Fiberglass Bay Doors (5)</u> Replace five fiberglass bay doors for Maintenance Building bays. Includes electric door openers.
4	<u>Paint Exterior Buildings (2)</u> Paint exterior of maintenance shop and maintenance vehicle garage buildings every ten years.
5	<u>Fire Alarm System</u> The fire alarm system for the District Offices will be replaced every 20 years
6	<u>Roof Replacement (Maintenance Buildings)</u> Replace the roof on the maintenance shop and maintenance vehicle garage every 30 years
7	<u>SCADA System Rehabilitation</u> Supervisory Control And Data Acquisition (SCADA) System shall be rehabilitated in FY2018/19
8	<u>SCADA System Servers</u> Replace three servers for the SCADA system every 5 years, servers facilitates communication amongst Wastewater and Reclamation facilities.
9	<u>SCADA System Software</u> Update SCADA System software every 5 years.
10	<u>Work Station Computers (4)</u> Replace four maintenance computer workstations and two black and white laser printers every five years.
11	<u>SCADA System Hardware</u> Update SCADA System hardware every 10 years.
12	<u>Maintenance Equipment</u> An annual allocation of \$25,000 has been included each year for the purchase of capital equipment not previously identified on the Capital Outlay Plan.
13	<u>Underground Pipe Locator</u> Improved technology will increase the speed and accuracy of locating underground pipes for Underground Service Alert (USA) work requests.
14	<u>Confined Space Safety Equipment</u> Replace the confined space safety equipment, including tripod, winch, rescue lines, portable ventilation units, rescue baskets and air bottles used for permit required confined space entry and rescue operations every four years.
15	<u>Portable CCTV Equipment</u> Replace portable cctv equipment every 10 years
16	<u>Portable Sewer Rodder</u> Replace potable sewer rodder every 10 years
17	<u>Portable Lighting Tower</u> Replace the portable lighting tower used for emergency night time repairs every 10 years

EXHIBIT C
Wastewater Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
18	<p><u>Sewer and Manhole Replacement Projects</u> The maintenance department inspects manholes and wastewater lines to identify problem areas. Each year the wastewater lines and manholes that require replacement or rehabilitation are identified and prioritized by condition. The annual sewer replacement project is designed to address the highest priority areas until the budget limit is reached. The allocation of \$600,000 allows the replacement of approximately one mile of sewer main lines in the wastewater collection system.</p>
19	<p><u>Carmel Gate Metering Station</u> Rehabilitate Carmel Gate flume metering station that meters all wastewater flow to CAWD treatment plant.</p>
20	<p><u>Pump Station P-1 (CYPRESS GROVE) Est. 1969</u> Rehabilitate sewer pump station P-1</p>
21	<p><u>Instrumentation</u> Replace Sewer Pump Station Instrumentation every 5 years</p>
22	<p><u>Pump Replacement</u> Replace Sewer Pump Station Pumps every 10 years</p>
23	<p><u>Valves & Appurtanances</u> Replace Sewer Pump Station Valves & Appurtanances every 15 years</p>
24	<p><u>Control Panel</u> Replace Sewer Pump Station Control Panel every 15 years</p>
25	<p><u>Force Main</u> Replace Sewer Pump Station Force-Main every 25 years</p>
26	<p><u>Pump Station P-2 (FANSHELL BEACH) Est. 1969</u> Rehabilitate sewer pump station P-2</p>
27	<p><u>Instrumentation</u> Replace Sewer Pump Station Instrumentation every 5 years</p>
28	<p><u>Pump Replacement</u> Replace Sewer Pump Station Pumps every 10 years</p>
29	<p><u>Valves & Appurtanances</u> Replace Sewer Pump Station Valves & Appurtanances every 15 years</p>
30	<p><u>Control Panel</u> Replace Sewer Pump Station Control Panel every 15 years</p>
31	<p><u>Force Main</u> Replace Sewer Pump Station Force-Main every 25 years</p>
32	<p><u>Pump Station P-3 (SEAL ROCK) Est. 1990</u> Rehabilitate sewer pump station P-3</p>
33	<p><u>Instrumentation</u> Replace Sewer Pump Station Instrumentation every 5 years</p>
34	<p><u>Flow Meter</u> Replace Flow Meter every 10 years</p>

EXHIBIT C
Wastewater Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
35	<u>Wet Well Mixer (2)</u> Replace two Wet Well Mixers every 10 years
36	<u>Pump Replacement (75hp)</u> Replace Sewer Pump Station Pumps every 10 years
37	<u>Pump Replacement (150hp)</u> Replace Sewer Pump Station Pumps every 10 years
38	<u>Sump Pump Replacement</u> Replace duplex sump pumps every 10 years
39	<u>Solids Grinder (A)</u> Replace Solids Grinder every 15 years, Grinder (A) scheduled for replacement in FY22/23
40	<u>Solids Grinder (B)</u> Replace Solids Grinder every 15 years, Grinder (B) scheduled for replacement in FY32/33
41	<u>Valves & Appurtanances</u> Replace Sewer Pump Station Valves & Appurtanances every 15 years
42	<u>Control Panel</u> Replace Sewer Pump Station Control Panel every 15 years
43	<u>Emergency Power Generator</u> Replace Emergency Power Generator every 15 years
44	<u>Underground Diesel Storage Tank</u> Replace Underground Diesel Storage Tank every 25 years
45	<u>Force Main</u> Replace Sewer Pump Station Force-Main every 25 years
46	<u>Pump Station P-4 (HWY 68) Est. 1969</u> Rehabilitate sewer pump station P-4
47	<u>Instrumentation</u> Replace Sewer Pump Station Instrumentation every 5 years
48	<u>Pump Replacement</u> Replace Sewer Pump Station Pumps every 10 years
49	<u>Valves & Appurtanances</u> Replace Sewer Pump Station Valves & Appurtanances every 15 years
50	<u>Control Panel</u> Replace Sewer Pump Station Control Panel every 15 years
51	<u>Force Main</u> Replace Sewer Pump Station Force-Main every 25 years
52	<u>Pump Station P-5 (SUNSET LN.) Est. 1969</u> Rehabilitate sewer pump station P-5

EXHIBIT C
Wastewater Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
53	<u>Instrumentation</u> Replace Sewer Pump Station Instrumentation every 5 years
54	<u>Flow Meter</u> Replace Flow Meter every 10 years
55	<u>Pump Replacement</u> Replace Sewer Pump Station Pumps every 10 years
56	<u>Valves & Appurtanances</u> Replace Sewer Pump Station Valves & Appurtanances every 15 years
57	<u>Control Panel</u> Replace Sewer Pump Station Control Panel every 15 years
58	<u>Emergency Power Generator</u> Replace Emergency Power Generator every 15 years
59	<u>Underground Diesel Storage Tank</u> Replace Underground Diesel Storage Tank every 25 years
60	<u>Force Main</u> Replace Sewer Pump Station Force-Main every 25 years
61	<u>Pump Station P-6 (PESCADERO PT.) Est. 1969</u> Rehabilitate sewer pump station P-6
62	<u>Instrumentation</u> Replace Sewer Pump Station Instrumentation every 5 years
63	<u>Pump Replacement</u> Replace Sewer Pump Station Pumps every 10 years
64	<u>Valves & Appurtanances</u> Replace Sewer Pump Station Valves & Appurtanances every 15 years
65	<u>Control Panel</u> Replace Sewer Pump Station Control Panel every 15 years
66	<u>Force Main</u> Replace Sewer Pump Station Force-Main every 25 years
67	<u>Pump Station P-7 (PBGL 18th) Est. 2012</u> Rehabilitate sewer pump station P-7
68	<u>Instrumentation</u> Replace Sewer Pump Station Instrumentation every 5 years
69	<u>Flow Meter</u> Replace Flow Meter every 10 years
70	<u>Wet Well Mixer</u> Replace one Wet Well Mixers every 10 years

EXHIBIT C
Wastewater Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
71 <u>Pump Replacement</u> Replace Sewer Pump Station Pumps every 10 years	
72 <u>Valves & Appurtanances</u> Replace Sewer Pump Station Valves & Appurtanances every 15 years	
73 <u>Control Panel</u> Replace Sewer Pump Station Control Panel every 15 years	
74 <u>Emergency Power Generator</u> Replace Emergency Power Generator every 15 years	
75 <u>Underground Diesel Storage Tank</u> Replace Underground Diesel Storage Tank every 25 years	
76 <u>Force Main</u> Replace Sewer Pump Station Force-Main every 25 years	
77 <u>Pump Station P-8 (SPANISH BAY) Est. 2007</u> Rehabilitate sewer pump station P-8	
78 <u>Instrumentation</u> Replace Sewer Pump Station Instrumentation every 5 years	
79 <u>Wet Well Mixer</u> Replace one Wet Well Mixers every 10 years	
80 <u>Pump Replacement</u> Replace Sewer Pump Station Pumps every 10 years	
81 <u>Valves & Appurtanances</u> Replace Sewer Pump Station Valves & Appurtanances every 15 years	
82 <u>Control Panel</u> Replace Sewer Pump Station Control Panel every 15 years	
83 <u>Force Main</u> Replace Sewer Pump Station Force-Main every 25 years	
84 <u>PB-1 Light Utility Truck (General)</u> The PB-1 utility truck will be replaced. This vehicle is a half-ton four-wheel drive pickup truck with an estimated useful life of 10 years.	
85 <u>PB-2 Vac-Con Line/Vacuum Truck</u> Reserve Vac-Con Line/Vacuum truck is used to remove blockages, roots, and debris from the collection system using a water jetting system every ten years. It contains a water storage tank, a water pump, vacuum fan, debris storage tank and 800 feet of hose.	
86 <u>PB-4 Heavy Utility Truck (Pump Station Crew)</u> This is a one-ton 4WD utility truck used primarily for pump station maintenance. The truck has an expected useful life of ten years.	
87 <u>PB-5 Utility Truck (Superintendent)</u> This is a heavy-duty 4WD utility truck primarily used by the field operations manager every ten years.	

EXHIBIT C
Wastewater Department Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
88	<u>PB-8 Line Cleaning Truck</u> Front-line equipment used on a daily basis to perform line cleaning activities to be replaced every ten years
89	<u>PB-6 Dump Truck</u> This vehicle transports bulk material and allows the crew to perform more field construction work.
90	<u>Trailer Mounted Sewer Rodder</u> Replace the trailer-mounted continuous power rodder that is used to clear stoppages and perform routine root removal maintenance on wastewater lines and also provides a redundant capacity to clear sewer main lines if the line cleaning truck is out of service.
91	<u>10" Portable Pump</u> Replace the 10-inch, 3000-gpm portable wastewater pump, which allows the maintenance crew to bypass problem areas that require repair every 15 years. The 10-inch diameter pump is sized to handle the expected wet weather flow for the 27-inch diameter interceptor line and to bypass pump station P3. This replacement will include a noise-reduction enclosure.
92	<u>6" Portable Pump</u> A trailer mounted 6-inch pump with sound-reducing enclosure capable of transporting wastewater will be purchased for smaller pump station bypass operations.
93	<u>G1 Portable Generator</u> Replace 60KW portable generator mounted on trailers with noise reduction enclosures every fifteen years to (used to serve Pump Station P-1)
94	<u>G2 Portable Generator</u> Replace 60KW portable generator mounted on trailers with noise reduction enclosures every fifteen years to (used to serve Pump Station P-2)
95	<u>G3 Portable Generator</u> Replace 60KW portable generator mounted on trailers with noise reduction enclosures every fifteen years to (used to serve Pump Station P6)
96	<u>G4 Portable Generator</u> Replace 60KW portable generator mounted on trailers with noise reduction enclosures every fifteen years to (used to serve Pump Station P-4)
97	<u>PB-3 CCTV Camera Truck</u> Closed Circuit Television (CCTV) equipment on PB-3 is past its service life and in need of replacement. All hardware, software, camera, and camera support equipment is scheduled for replacement in FY2018/19, the truck chassis is in good working condition and will not need to be replaced in FY2018/19
98	<u>PB-7 Crane Truck</u> Flatbed truck and crane has a lifting capacity of 10,000 lbs
99	<u>Backhoe Loader</u> This piece of equipment allows the maintenance crew to perform more field construction work and can be modified to act as a forklift.
100	<u>Easement Line Cleaning Equipment</u> This equipment extends the range of the line cleaning truck so that sewer lines located in areas with no vehicle accessibility can be reached without manually pulling hose.

**Items are cost-shared with Recycled Water

EXHIBIT D
Recycled Water Distribution System Capital Outlay Plan

ITEM NO.	CAPITAL ITEM	USEFUL LIFE	ROLL OVER	FISCAL YEAR COSTS (1,000)															
				18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	
FACILITIES	1	Air Diffuser Membrane Replacement	10 years			\$15									\$15				
	2	Forest Lake Strainer Screens (3)	10 years			\$20									\$20				
	3	Storage Tank Exterior Coating	10 years	\$150										\$150					
	4	Forest Lake Generator	15 years								\$30								
	5	Viscaino Generator	15 years			\$50													
	6	Storage Tank Interior Coating	15 years	\$350															
	7	Acid Tank Replacement	15 years			\$50													
	8	Storage Tank Cathodic Protection Equipment	20 years	\$25															
	9	Pipeline Cathodic Protection in Carmel	20 years	\$50	\$200														
	10	Forest Lake Gates and Operators	20 years										\$120						
	11	Forest Lake Air System Stainless Steel Piping	20 years										\$250						
	12	Forest Lake Hypalon Liner	20 years										\$2,500						
SCADA	13	SCADA System Servers (3)**	5 years	\$10				\$10					\$10						
	14	SCADA System Software**	5 years	\$10				\$10					\$10						
	15	SCADA System Hardware**	10 years	\$20									\$20						
EQUIPMENT	16	Flow Meter Remote Measuring Systems (13)	10 years		\$25										\$25				
	17	Forest Lake Chemical Feed System	10 years			\$15										\$15			
	18	Forest Lake Chemical Bldg. Instrumentation	10 years			\$25										\$25			
	19	Forest Lake Feed Pumps (3)	10 years					\$120										\$120	
	20	Forest Lake Mixers (2)	10 years				\$60										\$60		
	21	Forest Lake Multi-Probe	10 years		\$15										\$15				
	22	Forest Lake Inlet Flow Meter	10 years		\$15										\$15				
	23	Viscaino Pumps & Motor Starters (2)	15 years			\$45													
	24	Forest Lake Blowers (2)	15 years				\$80												
	25	Pontoon Work (Crane) Boat	20 years										\$20						
	26	Forest Lake Pump Pit Rehabilitation	30 years		\$250														
TOTAL FISCAL YEAR COST (1,000)					\$490	\$90	\$185	\$140	\$120	\$20	\$0	\$30	\$2,870	\$20	\$190	\$90	\$40	\$60	\$120

RECYCLED WATER DISTRIBUTION SYSTEM TOTAL PLAN COST \$4,465,000

**Items are cost-shared with Wastewater Department

EXHIBIT D
Recycled Water Distribution System Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
1	<u>Air Diffuser Membrane Replacement</u> Replace a total of (60) flexible membrane tube diffusers located at the bottom of the Forest Lake Reservoir; used for aeration / vertical mixing.
2	<u>Forest Lake Strainer Screens (3)</u> Three strainer screens that remove algae material prior to distribution will be replaced.
3	<u>Storage Tank Exterior Coating</u> Apply new protective layer of paint on the exterior of the 2.5 million-gallon recycled water storage tank.
4	<u>Forest Lake Generator</u> Replace 15KW electrical generator used at Forest Lake Reservoir.
5	<u>Viscaino Generator</u> Replace 250KW electrical generator at the Viscaino potable water pump station.
6	<u>Storage Tank Interior Coating</u> Apply new protective layer of paint on the interior of the 2.5 million-gallon recycled water storage tank.
7	<u>Acid Tank Replacement</u> Replaced acid storage tank within the Forest Lake Chemical Storage Building every fifteen years
8	<u>Storage Tank Cathodic Protection Equipment</u> Replace the cathodic protection system for the 2.5 million-gallon recycled water storage tank.
9	<u>Pipeline Cathodic Protection in Carmel</u> The recycled water transmission main throughout the City of Carmel is not protected against corrosion. A cathodic protection system is scheduled be designed and installed in FY2018/19 to reduce the potential for corrosion and extend the useful life of the pipeline.
10	<u>Forest Lake Gates and Operators</u> Replace sluice gates and operators located at the outlet structure every twenty years.
11	<u>Forest Lake Air System Stainless Steel Piping</u> Replace the stainless steel air piping located at the bottom of Forest Lake every twenty years.
12	<u>Forest Lake Hypalon Liner</u> Replace the Hypalon Liner for Forest Lake every twenty years.
13	<u>SCADA System Servers**</u> Cost Share replacement of three SCADA servers every 5 years, servers facilitates communication amongst reclamation facilities.
14	<u>SCADA System Software**</u> Cost Share Update SCADA System software every 5 years.
15	<u>SCADA System Hardware**</u> Update SCADA System hardware every 10 years.

EXHIBIT D
Recycled Water Distribution System Capital Outlay Plan

ITEM NO.	CAPITAL ITEM
16	<u>Flow Meter Remote Measuring Systems (13)</u> Replace remote sensors on the irrigation meter vault lids to allow recycled water meter readings to be electronically recorded without lifting the meter vault doors.
17	<u>Forest Lake Chemical Feed System</u> Miscellaneous pumps and measuring equipment for the chlorine and pH adjustment chemical feed systems will be replaced.
18	<u>Forest Lake Chemical Building Instrumentation</u> The chlorine analyzer and pH meter for the Forest Lake facilities will be replaced every ten years
19	<u>Forest Lake Feed Pumps (3)</u> Two feed pumps and one spare pump that transport recycled water to the distribution system will be replaced every ten years
20	<u>Forest Lake Mixers (2)</u> Replace two horizontal mixers in Forest Lake every ten years.
21	<u>Forest Lake Multi-Probe</u> Replace multi-probe which measures, pH, BO, temperature, and chloroform at Forest Lake Reservoir ever ten years
22	<u>Forest Lake Inlet Flow Meter</u> Replace inlet flow meter used to measure quantity of recycled water entering Forest Lake every ten years
23	<u>Viscaino Pumps & Motor Starters (2)</u> Replace the two potable water pumps and motor starters at the Viscaino pump station that supplies potable water to the 2.5 million-gallon storage tank.
24	<u>Forest Lake Blowers (2)</u> Replace two blowers at Forest Lake Chemical Building that supply air and vertical mixing at Forest Lake every fifteen years
25	<u>Pontoon Work (Crane) Boat</u> Replace Pontoon work boat allows safe heavy lifting for servicing and repair of equipment (underwater mixers and underwater slide gates) located out in the Forest Lake Reservoir every twenty years.
26	<u>Forest Lake Pump Pit Rehabilitation</u> Rehabilitation of failing suction and discharge pipe manifolds located in the pump pit adjacent to the Forest Lake Chemical Building is scheduled for FY2018/19

**Items are cost-shared with Wastewater Department

EXHIBIT E
Undergrounding Overhead Utility Projects
Capital Outlay Plan

ITEM NO.	CAPITAL ITEM	USEFUL LIFE	ROLL OVER	FISCAL YEAR COSTS (1,000)															
				18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	
1	Undergrounding Overhead Utility Projects	Annual	\$1,200	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	
TOTAL FISCAL YEAR COST (1,000)				\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400	\$1,400

UNDERGROUNDING OVERHEAD UTILITY PROJECTS TOTAL PLAN COST \$21,000,000

EXHIBIT F
Carmel Area Wastewater District Capital Outlay Plan

ITEM NO.	CAPITAL ITEM	ROLL OVER	FISCAL YEAR COSTS (1,000)															
			18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	
CARMEL AREA WASTEWATER DISTRICT	37	RAS Building Rehab															\$67	
	38	Aeration Basin Rehab									\$247							
	39	Chlorine Contact Channel Rehab (Recl 25%)					\$63											
	40	Plant Paving & Drainage	\$33	\$33		\$17										\$33		
	41	Outfall Crossing	\$40	\$400														
	42	Lunch Room/Meeting Hall Replacement				\$58	\$200											
	43	Misc. Yard Piping Rehab	\$17	\$40	\$30	\$30	\$30	\$30	\$30	\$30	\$30							
	44	Treatment Plant Planting and Screening	\$4		\$20		\$20				\$25						\$8	
	45	Cathodic Protection			\$10									\$10				
	46	Maintenance Building Addition							\$143									
	47	Rio Road Administration Building					\$23											
	48	Ocean Outfall Rehabilitation																
	49	Sea Level Rise Structural Protection																
	50	Short-Term Capital Improvements Projects		\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50
	51	Capital Purchase		\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50
TOTAL FISCAL YEAR COST (1,000)			\$1,364	\$672	\$1,290	\$805	\$586	\$317	\$172	\$452	\$333	\$580	\$615	\$220	\$163	\$278	\$120	

CAWD TOTAL PLAN COST \$7,967