



Capital Improvement Program

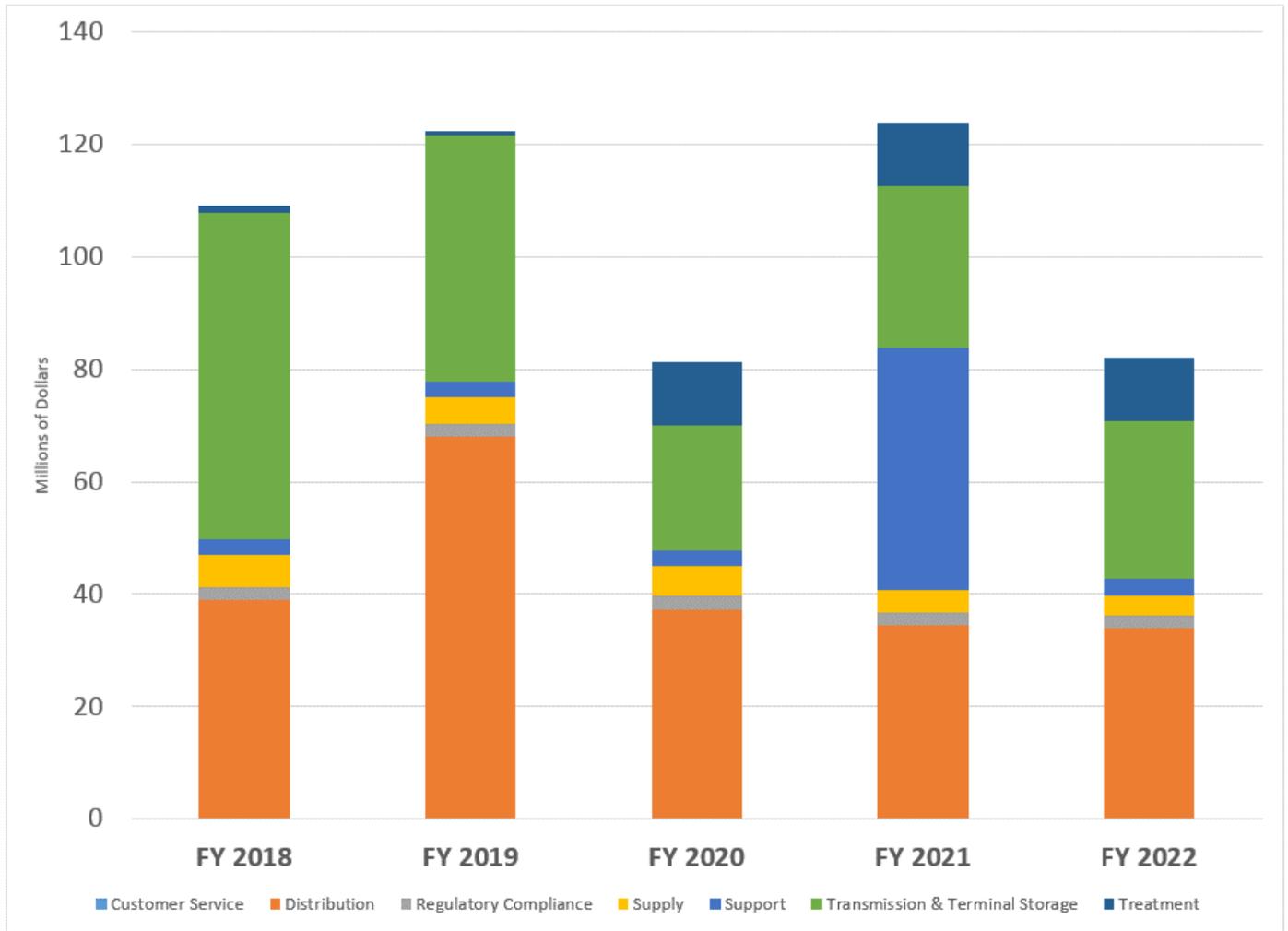
Capital program planning at the Water Bureau is a collaborative effort among CIP Planning, Asset Management, and Engineering teams. The primary drivers of the bureau’s capital work are ensuring the reliable functioning of the drinking water system, replacing assets that are at or near the end of their useful lives, and achieving compliance with federal and state drinking water regulations. The bureau combines asset-management planning with master planning and other types of studies to recommend the most effective mix of capital projects for a five-year budget cycle.

- PWB MAJOR BUDGET PROGRAMS**
- Customer Service
 - Distribution
 - Regulatory Compliance and Water Quality
 - Supply
 - Support
 - Transmission and Terminal Storage
 - Treatment

FY 2017-18 5-Year CIP Program Comparison

	FY 2016-17 CIP	FY 2017-18 Requested CIP	Difference
Customer Service	\$0.3 Million	\$0.5 Million	\$0.2 Million
Distribution	\$218 Million	\$212 Million	(\$6.0) Million
Regulatory Compliance	\$11.6 Million	\$11.5 Million	-
Supply	\$24.6 Million	\$23.2 Million	(\$1.4) Million
Support	\$13.7 Million	\$54 Million	\$40.3 Million
Transmission and Terminal Storage	\$181 Million	\$181 Million	-
Treatment	\$24.4	\$36 Million	\$11.6 Million

Requested FY 2017-18 CIP by Program



FY 2017-18 New Major Projects

For Fiscal Year (FY) 2017-18, the bureau proposes to begin \$10 million in new projects including distribution main work to reduce the risk of damage to I-5, expansion of the groundwater supply and a project to improve conduit operations.

	Initial Total	FY 2017-18 Amount
Fulton Pump Mains	\$5.1 Million	\$60,000
Vivian GW Supply	\$1.7 Million	\$160,000
Sandy River Crossing Outfall	\$0.65 Million	\$190,000
NE 49 th Roselawn	\$0.92 Million	\$127,000
Road 10E	\$1.7 Million	\$110,000

- The **Fulton Pump Mains Project (\$5.1 million)** will install approximately 3,350 feet of replacement main including about 300 feet to be bored under the I-5 freeway.
- The **Vivian Groundwater Supply Improvements (\$1.7 million)** will provide an ammonia treatment system, corrosion control system, chlorine system improvements, two new booster pumps, and electrical upgrades at the Vivian site, acquired as part of the Powell Valley Water District annexation.
- The **Sandy River Crossing Outfall Project (\$0.65 million)** will install approximately 300 linear feet of 36-inch pipe for a new outfall at the Sandy River Crossing. The project will reduce the time needed to flush or reactivate Conduits 2 or 4, and reduce the use of groundwater necessary during turbidity events in the Bull Run Watershed.
- The **NE 49th and Roselawn Bundle (\$0.92 million)** project will install 2,970 feet of 6-inch ductile iron (DI) main, install 125 ft of 4-inch DI main, renew 82 services, and install 4 hydrants.
- The **Road 10E (\$1.7 million)** project will grind existing pavement, restore road subgrade, pave, and stripe 2 miles of Road 10. The road will be brought up to current standards, using fill and walls to add an average of 2 feet of width to the segment. Approximately 10 culverts will be replaced with aluminum alloy pipe.

Updates

- Spring BMP will propose decreasing the overall FY 2016-17 CIP by \$11.6 million based on year-end spending projections.
- The high level of requested improvements in support of development work continues to impact the resources available for PWB planned projects.
- **Cayenta Billing System Upgrade (\$0.90 million)**, When reviewing the scope of the upgrade, it was determined that the added new functionality will need to be reported as capital improvements in accordance with accounting standards.
- The **Water System Seismic Study (\$1.5 million)** final report is scheduled to be available this month.
- The **Water Quality Corrosion Study (\$0.5 million)** final report is also scheduled to be completed this month.
- The **Corrosion Control Treatment Pilot Project (\$0.65 million)** This planning project will evaluate alternatives for improved corrosion control treatment to further reduce lead at customer taps and provide a recommendation for full scale implementation of improved corrosion control.
- The **Corrosion Improvement Project (\$20 million)** will design and construct the recommended improvements from the **Corrosion Control Treatment Pilot Project**.

		PWB Requested FY 2017-18							
3/7/2017		\$ in 1,000's							
Proj Def	Name	Project Total	FY 16-17 Adopted	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	5 year Total
WBCSSE	Emergency Management (<\$500k/project)		66	100	100	100	100	100	500
Customer Service Sum			66	100	100	100	100	100	500
WBDIDM	Distribution Mains (<\$500k/project)		14,276	14,730	12,150	9,950	18,650	15,650	71,130
W01590	Willamette River Pipe Crossing	55,929	2,520	6,600	38,600	7,900			53,100
W01842	N Jantzen Ave west of Pavilion	1,283	1,135	19					19
W01880	SW Vista Ave from Spring St to Laurel St	867	493	766	10				776
W02004	Penridge Mains	2,530	300	230	2,000				2,230
W02005	Willamette Blvd Bridge Main Replacement	4,500	250	860	440	2,670	280		4,250
W02073	SW Boones Ferry Rd at SW Arnold St Bridge	554		356					356
W02077	SE 20th Ave Oak St north of SE Pine St	453		330					330
W02105	NE 49th and Roselawn Bundle	916		127	101	678	10		916
W02107	Fulton Pump Mains Replacement	5,079		60	570	630	30	2,835	4,125
W01400	Interstate Facility Rehabilitation	49,244	400						
WBDIHY	Distribution Hydrant		1,369	1,400	1,400	1,400	1,400	1,400	7,000
WBDIME	Distribution Meters		1,139	1,000	1,000	1,000	1,000	1,000	5,000
WBDIPT	Pump Stations Tanks (<\$500k/project)		1,413	800	1,658	3,000	3,000	3,000	11,458
W01358	Fulton Pump Station Improvements	18,807	4,215						
W01446	Greenleaf Pump Station	1,727	140	1,000	1				1,001
W01848	Council Crest Tank Roof Replacement	849	163	502					502
WBDISV	Distribution Service		4,545	6,000	6,000	6,000	6,000	6,000	30,000
WBDIFS	Field Support		3,855	4,000	4,000	4,000	4,000	4,000	20,000
Distribution Sum			36,213	38,780	67,930	37,228	34,370	33,885	212,193
WBCRCRC	Regulatory Compliance (<\$500k/project)		1,964	2,300	2,300	2,300	2,300	2,300	11,500
Regulatory Compliance Sum			1,964	2,300	2,300	2,300	2,300	2,300	11,500
WBSUBR	Bull Run Watershed (<\$500k/project)		392	500	500	2,500	3,000	3,000	9,500
W01874	Road 10R MP 28.77 - 31.85	2,092	200	740	1,150				1,890
W01875	Road 10H MP 10.95 - 12.56	1,221	161	1,018					1,018
W02001	Dam 1 Needle Valve Replacement	3,261	370	252	2,365	473			3,090
W02003	Headworks Septic System Replacement	470	65	410					410
W02021	Microwave Communications System	2,199	518	1,626					1,626
W02110	Road 10E MP 6.2 - 8.2	1,652		135	110	1,407			1,652
WBSUGW	Groundwater (<\$500k/project)		515	390	210	50	550	550	1,750
W01371	Groundwater Electrical Supply Improvements	1,228	525	550					550
W02106	Vivian Groundwater Improvements	1,730		160	340	830	400		1,730
			2,746	5,781	4,675	5,260	3,950	3,550	23,216
W02128	Portland Building Contribution	40,000					40,000		40,000
WBASPL	Planning		2,278	2,900	2,900	2,900	2,900	2,900	14,500
Support Sum			2,278	2,900	2,900	2,900	42,900	2,900	54,500
WBTTC	Conduits Transmission (<\$500k/project)		1,104	2,743	5,226	5,314	16,000	16,000	45,283
W01489	Rockwood PUD Meter Vault	531	5						
W02006	Gresham Conduit 2 Trestle Upgrades	1,147	250	655	230				885
W02057	Conduit 3 Internal Inspection	1,031		62					62
W02104	Sandy River Crossing Outfall	650		190	274	186			650
WBTTR	Terminal Reservoirs (<\$500k/project)		110	100	100	100	100	100	500
W01402	Washington Park Reservoir 3	190,000	31,000	54,100	37,700	15,100	6,900	12,000	125,800
W01424	Kelly Butte Reservoir	63,570							
W01524	Tabor Reservoir Adjustments	8,145	2,800	159					159
W02108	WA Park Hypochlorite	1,740			188	344	1,208		1,740
W02111	Powell Butte Reservoir 1 Roof Upgrades	6,056			125	1,211	4,720		6,056
Transmission & Terminal Storage Sum		272,870	35,269	58,009	43,843	22,255	28,928	28,100	181,135
WBTMTM	Treatment Improvements (<\$500k/project)		55	60	575	11,300	11,300	11,300	34,535
W01860	Headworks Generator Improvements	1,500	300	890	145				1,035
W02002	Chlorine Scrubber Replacement	485	85	400					400
Treatment Sum		1,985	440	1,350	720	11,300	11,300	11,300	35,970
Grand Total			78,976	109,220	122,468	81,343	123,848	82,135	519,015