



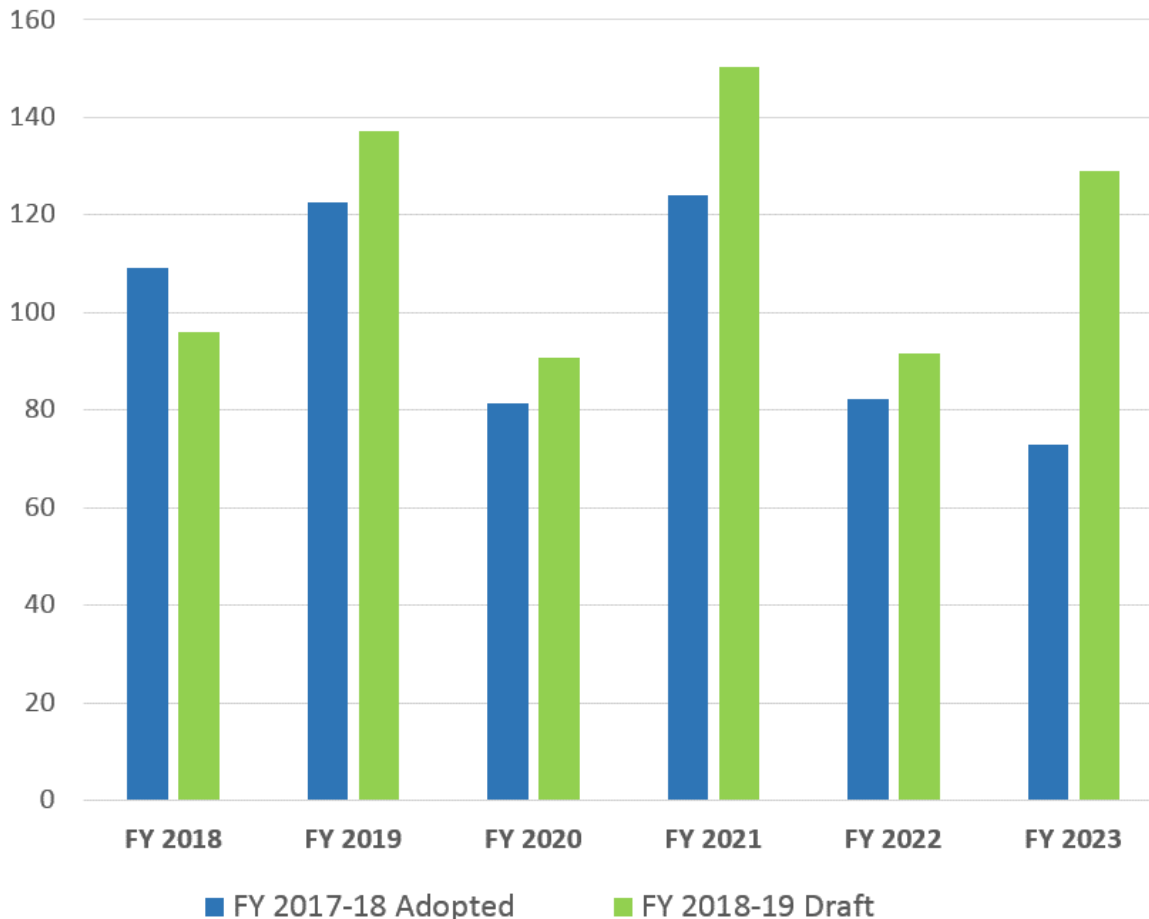
## Capital Improvement Program

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.

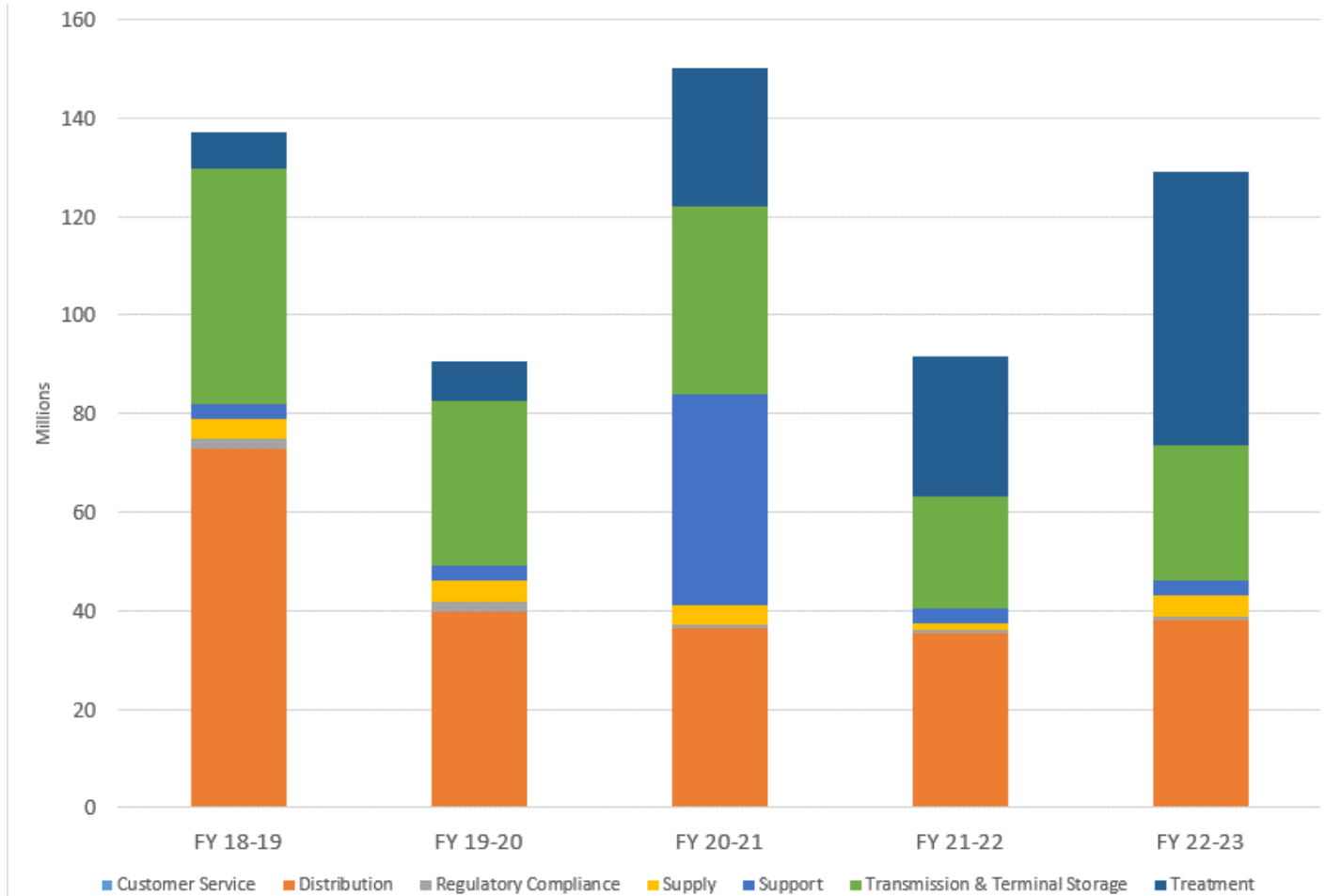
### PWB MAJOR BUDGET PROGRAMS

- Customer Service
- Distribution
- Regulatory Compliance and Water Quality
- Supply Support
- Transmission and Terminal Storage
- Treatment

## Draft FY 2018-19 CIP Comparison



## Draft FY 2018-19 CIP by Program



## Draft FY 2018-19 5-Year CIP Program Comparison

	FY 2017-18 CIP	FY 2018-19 CIP	Difference (M)
Customer Service	\$ 0.8 Million	\$ 0.5 Million	(\$0.3)
Distribution	\$ 212 Million	\$ 222 Million	\$10
Regulatory Compliance	\$ 11.5 Million	\$ 9.8 Million	(\$5.8)
Supply	\$ 23.2 Million	\$ 18.3 Million	(\$4.9)
Support	\$ 54 Million	\$ 55 Million	\$ 1
Transmission and Terminal Storage	\$ 181 Million	\$ 170 Million	(\$11)
Treatment	\$ 36 Million	\$ 128 Million	\$ 92

## FY 2018-19 Proposed New Major Projects

For Fiscal Year (FY) 2018-19, the bureau proposes to begin \$1.6 million in new PWB initiated work, \$5.3 million of utility relocation work for others, and over \$500,000 for treatment improvements.

	Initial Total	FY 2018-19 Amount
Outer Powell Safety	\$1.9 Million	\$1.7 Million
NE 47 <sup>th</sup> LID	\$1.4 Million	\$90,000
NE Wheeler	\$0.83 Million	\$60,000
Sunnyside North	\$1.1 Million	\$0.79 Million
SCADA System	\$1.4 Million	\$1.1 Million
Howell Bunger Valves	\$1.7 Million	0
Filtration	\$500 Million	\$5.6 Million

- The **Outer Powell Safety (\$ 1.9 million)** project will relocate up to 2,400 ft. of main in support of ODOT improvements of Powell Blvd.
- The **NE 47th Ave LID (\$ 1.4 million)** project will relocate over 2,000 ft. of main in support of PBOT's street improvement project.
- **NE Wheeler and Sunnyside North Projects (\$0.83 and \$1.1 million)** provide utility relocations in support of BES sewer rehabilitation work.
- The **SCADA System Upgrade Project (\$ 0.65 Million)** This project will replace all PWB Supervisory control and data acquisition (SCADA) machines (11 servers and 25 workstations) and upgrade the OASyS SCADA application and operating software to the latest supported versions.
- The **Howell Bunger Valve Improvements (\$ 1.7 million)** project will replace the existing flow control valves and apparatus used to control the release of water from Dam 2 to the Diversion Pool.
- **Water System Filtration (\$ 500 million)** project will plan, design and construct a new filtration plant for the City of Portland's water supply.

**DRAFT FY 2018-19 CIP**

11/14/2017

Values in thousands

Year 1

Year 2

Year 3

Year 4

Year 5

Program	Project Name	Project Sum	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	5-Year	
<b>Customer Service</b>									
WBCSSE	Emergency Management		100	100	100	100	100	500	
<b>Customer Service Total</b>			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>500</b>	
<b>Distribution</b>									
W01446	Greenleaf Pump Station	2,587	372	0			0	372	
W01590	Willamette River Pipe Crossing	55,550	38,600	7,970				46,570	
W01842	N Jantzen Ave west of Pavilion	1,285	1,080	0				1,080	
W01848	Council Crest Tank Roof Replacer	1,309	820					820	
W01924	Outer Powell Transportation Sa	1,974	1,749	60				1,809	
W02004	Penridge Mains	2,524	1,229	978	0	0	0	2,207	
W02005	Willamette Blvd Bridge Main Repl	4,484	715	624	2,553	446	0	4,338	
W02073	SW Boones Ferry Rd at SW Arc	456	198	0				198	
W02105	NE 49th and Roselawn Bundle	916	101	678	10	0	0	789	
W02107	Fulton Pump Mains Replacement	5,079	570	630	30	2,835	954	5,019	
W02115	NE 47th Ave and Columbia Blv	1,400	89	0	0	0	0	89	
W02192	NE Wheeler Basin Relocations	824	55	0	0	0	0	55	
W02222	SCADA System Upgrade 2017	1,136	1,136		0	0	0	1,136	
W02237	Sunnyside North	1,077	790	90	0	0	0	880	
WBDIDM	Distribution Mains		10,613	12,792	17,805	16,170	19,630	77,010	
WBDIDMTM	Seismic Transmission Mains						1,583	1,583	
WBDIFS	Field Support		4,130	4,130	4,130	4,130	4,130	20,650	
WBDIHY	Distribution Hydrant		1,450	1,450	1,450	1,450	1,450	7,250	
WBDIME	Distribution Meters		1,030	1,030	1,030	1,030	1,030	5,150	
WBDIPT	Pump Stations Tanks		1,710	3,100	3,100	3,100	3,100	14,110	
WBDISV	Distribution Service		6,200	6,200	6,200	6,200	6,200	31,000	
<b>Distribution Total</b>			<b>80,599</b>	<b>72,637</b>	<b>39,732</b>	<b>36,308</b>	<b>35,361</b>	<b>38,077</b>	<b>222,115</b>
<b>Regulatory Compliance</b>									
WBRCRC	Regulatory Compliance		2,080	2,080	500	500	500	5,660	
<b>Regulatory Compliance Total</b>			<b>2,080</b>	<b>2,080</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>5,660</b>	
<b>Supply</b>									
W01371	Groundwater Electrical Supply Im	1,611	366					366	
W01874	Road 10R MP 28.77 - 31.85	2,097	620	1,250				1,870	
W01875	Road 10H MP 10.95 - 12.56	1,005	796					796	
W02001	Dam 1 Needle Valve Replacemen	3,260	1,647	1,215				2,862	
W02106	Vivian Groundwater Improvements	1,730	340	830	400			1,570	
W02110	Road 10E MP 6.2 - 8.2	1,735	160	110	1,465	0	0	1,735	
W02223	Howell-Bunger Valve Improvem	423	0	0	0	0	273	273	
WBSUBR	Bull Run Watershed		50	100	1,600	1,000	3,500	6,250	
WBSUGW	Groundwater		220	570	570	570	570	2,500	
<b>Supply Total</b>			<b>11,861</b>	<b>4,199</b>	<b>4,075</b>	<b>4,035</b>	<b>1,570</b>	<b>4,343</b>	<b>18,222</b>
<b>Support</b>									
W02128	Portland Building Contribution	40,000	0	0	40,000			40,000	
WBASPL	Planning		3,000	3,000	3,000	3,000	3,000	15,000	
<b>Support Total</b>			<b>40,000</b>	<b>3,000</b>	<b>3,000</b>	<b>43,000</b>	<b>3,000</b>	<b>3,000</b>	<b>55,000</b>
<b>Transmission &amp; Terminal Storage</b>									
W01402	Washington Park Reservoir 3	190,000	41,555	26,100	15,500	6,000	10,900	100,055	
W01489	Rockwood PUD Meter Vault	561	410					410	
W02006	Gresham Conduit 2 Trestle Upgra	1,305	821	0				821	
W02104	Sandy River Crossing Outfall	650	274	186	0			460	
W02108	WA Park Hypochlorite	1,740	188	344	1,208			1,740	
W02111	Powell Butte Reservoir 1 Roof Up	6,056	125	1,211	4,720	0	0	6,056	
W02209	Conduit 2 Internal Inspection	1,779	95	0	0	0	0	95	
WBTTCT	Conduits Transmission		4,260	5,490	16,530	16,530	16,530	59,340	
WBTTTR	Terminal Reservoirs		100	100	100	100	100	1	
<b>Transmission &amp; Terminal Storage Total</b>			<b>202,091</b>	<b>47,828</b>	<b>33,431</b>	<b>38,058</b>	<b>22,630</b>	<b>27,530</b>	<b>169,477</b>
<b>Treatment</b>									
W02190	Corrosion Control Improvemen	19,916	1,820	1,601	7,105	8,330	150	19,006	
W02229	Water System Filtration	500,000	5,590	6,500	21,060	19,890	55,120	108,160	
WBMTM	Water Program Treatment		0	100	100	100	100	400	
<b>Treatment Total</b>			<b>519,916</b>	<b>7,410</b>	<b>8,201</b>	<b>28,265</b>	<b>28,320</b>	<b>55,370</b>	<b>127,566</b>
<b>Grand Total</b>			<b>854,468</b>	<b>137,254</b>	<b>90,619</b>	<b>150,266</b>	<b>91,481</b>	<b>128,920</b>	<b>598,540</b>