



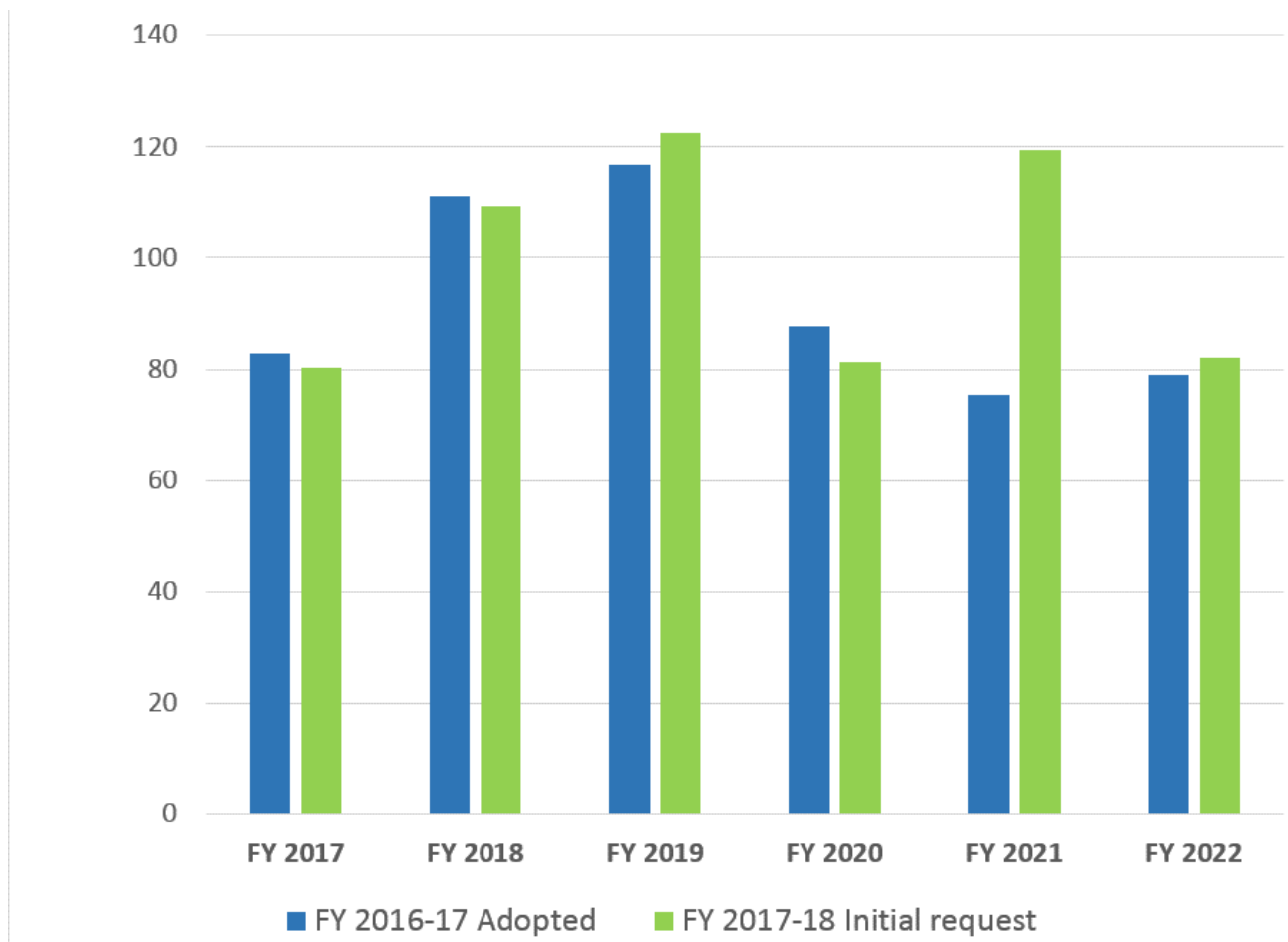
Capital Improvement Program

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.

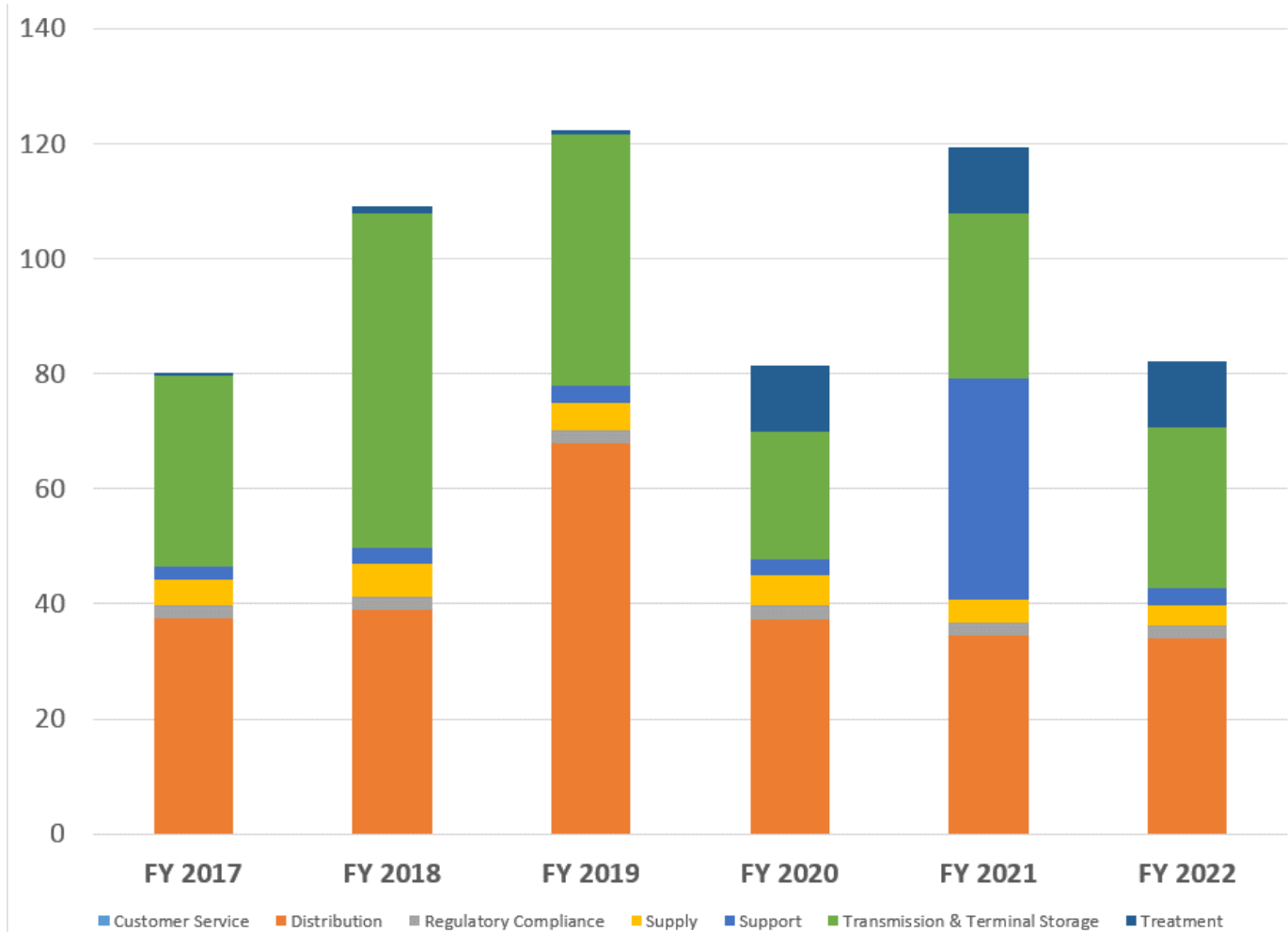
PWB MAJOR BUDGET PROGRAMS

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

Initial FY 2017-18 CIP 5-Year Comparison



Initial FY 2017-18 CIP by Program



FY 2017-18 5-Year CIP Program Comparison

	FY 2016-17 CIP	FY 2017-18 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	\$ 50 Million	\$ 36.3 Million
Transmission and Terminal Storage	\$ 181 Million	\$ 181 Million	-
Treatment	\$ 24.4	\$ 36 Million	\$ 11.6 Million

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

- 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 **Sand 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 time to flush or reactivate Conduits 2 or 4, and reduce the use of groundwater necessary during turbidity events in the Bull Run Watershed.

Initial FY 2017-18 5-Year CIP

		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	
PROJECT	NAME	2018	2019	2020	2021	2022	5 Year Total
WBCSSE	Emergency Management (<\$500k/project)	100,000	100,000	100,000	100,000	100,000	500,000
	CUSTOMER SERVICE TOTAL	100,000	100,000	100,000	100,000	100,000	500,000
WBDIDM	Distribution Mains (<\$500k/project)	14,705,000	12,150,000	9,950,000	18,650,000	15,650,000	71,105,000
W01590	Willamette River Pipe Crossing	6,600,000	38,600,000	7,900,000			53,100,000
W01682	Cornell Road Services - Macleay Park	1,000					1,000
W01842	N Jantzen Ave west of Pavilion	19,000					19,000
W01865	SW Flower Terrace at Dosch	23,000					23,000
W01880	SW Vista Ave from Spring St to Laurel St	766,000	10,000				776,000
W02004	Penridge Mains	230,000	2,000,000				2,230,000
W02005	Willamette Blvd Bridge Main Replacement	860,000	440,000	2,670,000	280,000		4,250,000
W02073	SW Boones Ferry Rd at SW Arnold St Bridge	356,000					356,000
W02077	SE 20th Ave Oak St north of SE Pine St	330,000					330,000
W02100	Humboldt Sewer Repair	1,000					1,000
W02105	NE 49th and Roselawn Bundle	127,000	101,000	678,000	10,000		916,000
W02107	Fulton Pump Mains Replacement	60,000	570,000	630,000	30,000	2,835,000	4,125,000
W01400	Interstate Facility Rehabilitation						
WBDIHY	Distribution Hydrant	1,400,000	1,400,000	1,400,000	1,400,000	1,400,000	7,000,000
WBDIME	Distribution Meters	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
WBDIPT	Pump Stations Tanks (<\$500k/project)	800,000	1,658,300	3,000,000	3,000,000	3,000,000	11,458,300
W01446	Greenleaf Pump Station	1,000,000	1,000				1,001,000
W01848	Council Crest Tank Roof Replacement	502,000					502,000
WBDISV	Distribution Service	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000	30,000,000
WBDIFS	Field Support	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	20,000,000
	DISTRIBUTION TOTAL	38,780,000	67,930,300	37,228,000	34,370,000	33,885,000	212,193,300
WBRCRC	Regulatory Compliance (<\$500k/project)	2,300,000	2,300,000	2,300,000	2,300,000	2,300,000	11,500,000
	REGULATORY COMPLIANCE TOTAL	2,300,000	2,300,000	2,300,000	2,300,000	2,300,000	11,500,000
WBSUBR	Bull Run Watershed (<\$500k/project)	500,000	500,000	2,500,000	3,000,000	3,000,000	9,500,000
W01874	Road 10R MP 28.77 - 31.85	740,000	1,150,000				1,890,000
W01875	Road 10H MP 10.95 - 12.56	1,018,000					1,018,000
W02001	Dam 1 Needle Valve Replacement	252,000	2,365,000	473,000			3,090,000
W02003	Headworks Septic System Replacement	410,000					410,000
W02021	Microwave Communications System	1,626,000					1,626,000
W02110	Road 10E MP 6.2 - 8.2	135,000	110,000	1,407,000			1,652,000
WBSUGW	Groundwater (<\$500k/project)	390,000	210,000	50,000	550,000	550,000	1,750,000
W01371	Groundwater Electrical Supply Improvements	550,000					550,000
W02106	Vivian Groundwater Improvements	160,000	340,000	830,000	400,000		1,730,000
	SUPPLY TOTAL	5,781,000	4,675,000	5,260,000	3,950,000	3,550,000	23,216,000
W02128	Portland Building Contribution				35,500,000		35,500,000
WBASPL	Planning	2,900,000	2,900,000	2,900,000	2,900,000	2,900,000	14,500,000
	SUPPORT TOTAL	2,900,000	2,900,000	2,900,000	38,400,000	2,900,000	50,000,000
WBTCT	Conduits Transmission (<\$500k/project)	2,743,440	5,226,000	5,314,000	16,000,000	16,000,000	45,283,440
W02006	Gresham Conduit 2 Trestle Upgrades	655,000	230,000				885,000
W02057	Conduit 3 Internal Inspection	62,000					62,000
W02104	Sandy River Crossing Outfall	190,000	274,000	186,000			650,000
WBTTR	Terminal Reservoirs (<\$500k/project)	100,000	100,000	100,000	100,000	100,000	500,000
W01402	Washington Park Reservoir 3	54,100,000	37,700,000	15,100,000	6,900,000	12,000,000	125,800,000
W01524	Tabor Reservoir Adjustments	159,000					159,000
W02108	WA Park Hypochlorite		188,000	344,000	1,208,000		1,740,000
W02111	Powell Butte Reservoir 1 Roof Upgrades		125,000	1,211,000	4,720,000		6,056,000
	TRANSMISSION & TERMINAL STORAGE TOTAL	58,009,440	43,843,000	22,255,000	28,928,000	28,100,000	181,135,440
WBTMTM	Treatment Improvements (<\$500k/project)	60,000	575,000	11,300,000	11,300,000	11,300,000	34,535,000
W01860	Headworks Generator Improvements	890,000	145,000				1,035,000
W02002	Chlorine Scrubber Replacement	400,000					400,000
	TREATMENT TOTAL	1,350,000	720,000	11,300,000	11,300,000	11,300,000	35,970,000
	Grand Total	109,220,440	122,468,300	81,343,000	119,348,000	82,135,000	514,514,740
	Adopted FY16/17 5-YR CIP	110,990,000	116,542,000	87,771,000	75,494,000	80,783,000	471,580,000
	Inflation Adjusted (4.6%) Adopted FY16/17 5-YR CIP	116,095,540	121,902,932	91,808,466	78,966,724	84,499,018	493,272,680
	Difference	(6,875,100)	565,368	(10,465,466)	40,381,276	(2,364,018)	21,242,060