



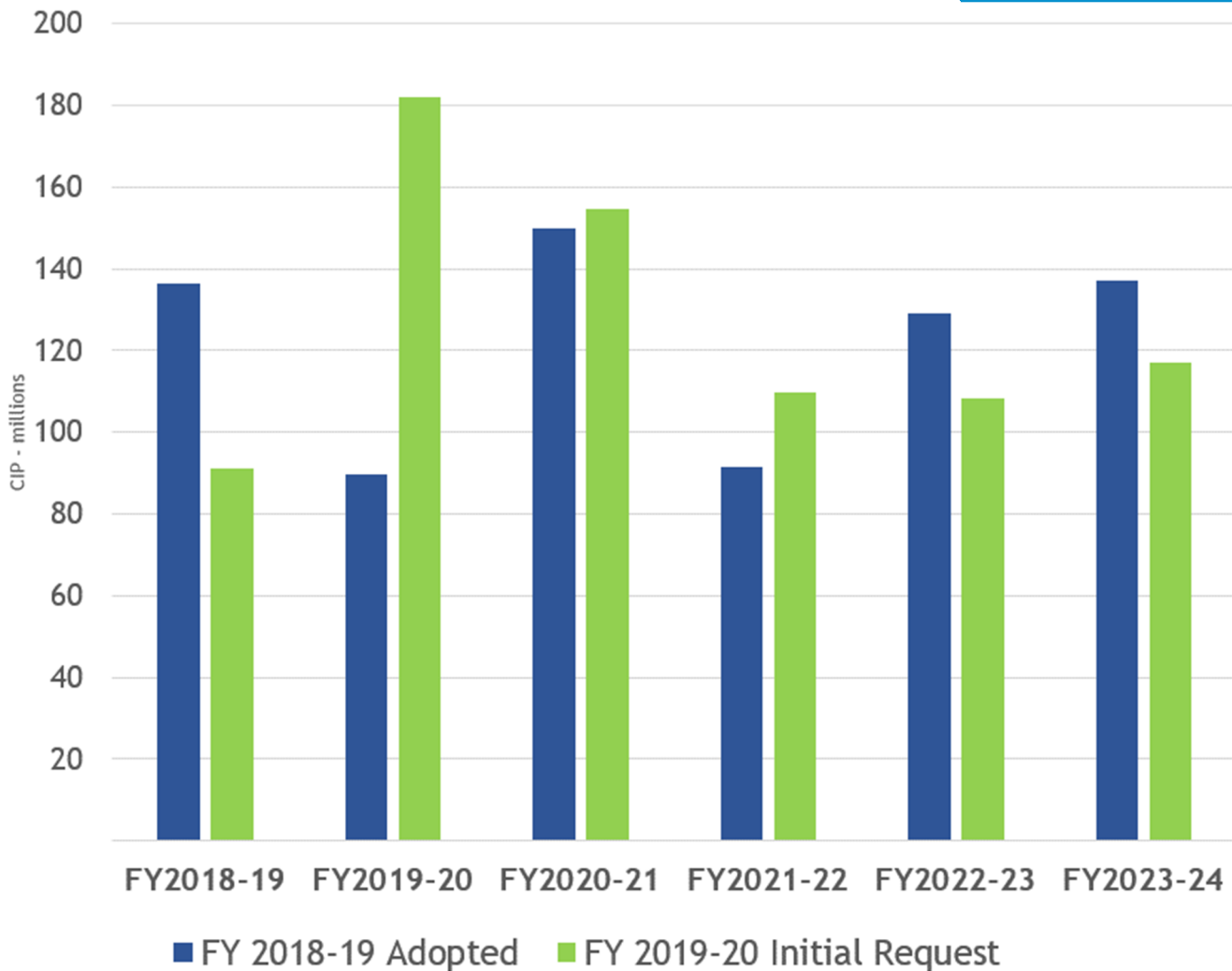
## Capital Improvement Program

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.

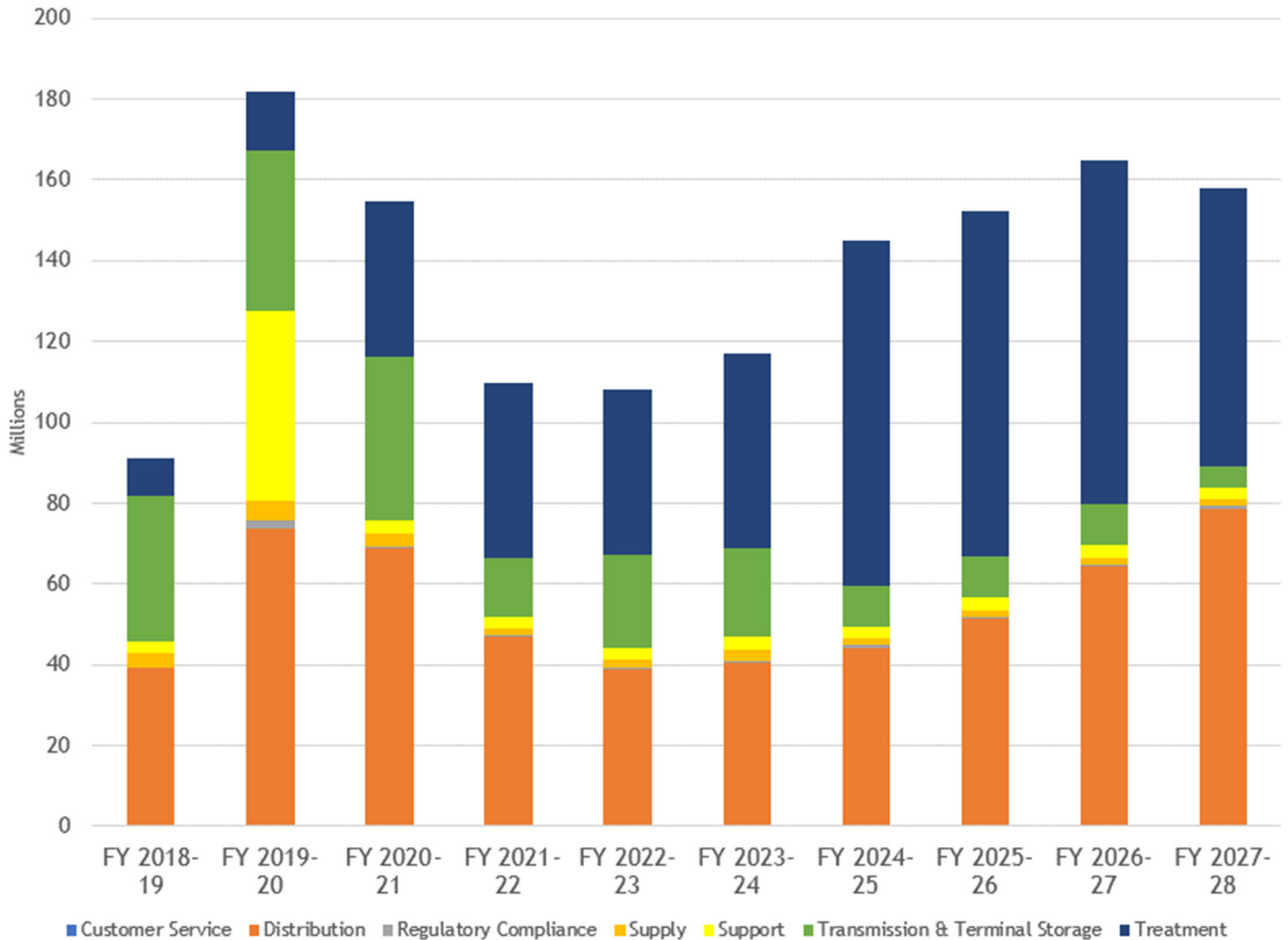
### PWB MAJOR BUDGET PROGRAMS

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

### Initial FY 2019-20 CIP 5-Year Comparison



## Initial FY 2019-20 CIP by Program



## FY 2019-20 5-Year CIP Program Comparison

	FY 2018-19 CIP	FY 2019-20 CIP	Difference
Customer Service	\$ 0.5 Million	\$ 0.5 Million	-
Distribution	\$ 218 Million	\$ 268 Million	\$ 50 Million
Regulatory Compliance	\$ 5.7 Million	\$ 4.0 Million	(\$ 1.7) Million
Supply	16.7 Million	\$ 14.9 Million	(\$ 1.8) Million
Support	\$58.5 Million	\$ 59.3 Million	\$ 0.8 Million
Transmission and Terminal Storage	\$ 169 Million	\$ 140 Million	(\$ 29.0) Million
Treatment	\$ 128 Million	\$ 185 Million	\$ 57 Million

## FY 2019-20 New Major Projects

For Fiscal Year (FY) 2019-20, the bureau proposes to begin over \$ 20 million in new projects including distribution main work to reduce the risk of damage to I-5, utility relocation to support of interagency projects, water storage tank and roof repairs replacements

	Initial Total Millions	FY 2019-20 Amount Millions
Sunnyside North	\$ 1.1	\$ 0.15
IA Capital Hwy	\$ 2.3	\$ 1.8
IA Rivergate	\$ 0.61	\$ 0.49
SE Holgate I205	\$ 0.53	\$ 0.33
NE Morris	\$ 0.45	\$0.36
NE Skidmore	\$ 0.47	\$ 0.41
WP PS 2 Transformer	\$ 1.0	\$ 0.19
Greenleaf Tank 3	\$ 3.1	\$ 0.03
SW Troy St	\$ 0.41	\$ 0.36
SE 1 <sup>st</sup> Ave	\$ 8.7	\$ 0.24
Groundwater PS Roof	\$ 0.73	\$ 0.08
Mt Tabor Interpretive	\$ 0.57	\$ 0.29
Headworks Screenhouse Roof	\$ 0.37	\$ 0.13

Details of the projects are available as a separate package of information

Draft CIP												
11/13/2018	\$1,000s											
Display	Plan											
Water progr	(All)											
10-Year Tot	(All)											
Program												New 5-Year
in city	Proj Def	Name	Project Sum	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total			
Customer Service												
	WBCSSE	Emergency Management	1,100	100	100	100	100	100	500			
<b>Customer Service Total</b>			<b>1,100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>500</b>			
Distribution												
	W01590	Willamette River Pipe Crossing	88,074	38,675	33,635	6,410			78,720			
	W01842	N Jantzen Ave west of Pavilion	1,381	1,081					1,081			
	W01848	Council Crest Tank Roof Replacement	2,091	10					10			
	W01924	Outer Powell Transportation Safety	3,248	569	55				624			
	W02004	Penridge Mains	2,493	1,630	464				2,094			
	W02005	Willamette Blvd Bridge Main Replacement	4,496	624	2,553	462			3,639			
	W02073	SW Boones Ferry Rd at SW Arnold St Bridge	515	232					232			
	W02105	NE 49th and Roselawn Bundle	892	130	646				776			
	W02107	Fulton Pump Mains Replacement	5,080	560	259	3,540	105		4,464			
	W02115	NE 47th Ave and Columbia Blvd LID	1,396	580					580			
	W02222	SCADA System Upgrade 2017	1,386	250					250			
	W02237	<b>New Sunnyside North Reconstruction</b>	1,076	154					154			
	W02292	<b>New IA - SW Capitol Hwy fr Garden Home Rd S</b>	2,312	1,773					1,773			
	W02297	<b>New IA - N Rivergate Blvd Bridge Transport</b>	611	490					490			
	W02303	<b>New SE Holgate Blvd I-205 Bridge Main Rehab</b>	526	334	127				461			
	W02306	<b>New NE Morris St from 123rd Ave to 127th Ave</b>	447	365					365			
	W02311	<b>New NE Skidmore from 23rd to 27th Aves</b>	466	410	5				415			
	W02318	<b>New Wash Park PS 2 Transformer Replacement</b>	996	188					188			
	W02359	<b>New Greenleaf Tank 3</b>	3,100	30	60	320	345	555	1,310			
	W02361	<b>New SW Troy St from 25th Ave to 28th Ave</b>	409	364	3				367			
	W02363	<b>New SE 1st Ave from Oak to Market</b>	8,672	240	1,522	6,870	40		8,672			
	WBDIDM	Distribution Mains	325,779	10,309	12,775	12,855	21,952	23,712	81,603			
	WBDIFO	Fountains	1,000	100	100	100	100	100	500			
	WBDIFS	Field Support	46,876	4,275	4,275	4,275	4,275	4,275	21,373			
	WBDIHY	Distribution Hydrant	16,458	1,501	1,501	1,501	1,501	1,501	7,504			
	WBDIME	Distribution Meters	11,691	1,066	1,066	1,066	1,066	1,066	5,330			
	WBDIPT	Pump Stations Tanks	27,338	1,124	3,146	2,877	2,851	2,634	12,633			
	WBDISV	Distribution Service	70,200	6,400	6,400	6,400	6,400	6,400	32,000			
<b>Distribution Total</b>			<b>629,011</b>	<b>73,462</b>	<b>68,591</b>	<b>46,676</b>	<b>38,635</b>	<b>40,242</b>	<b>267,607</b>			
Regulatory Compliance												
	WBRCRC	Regulatory Compliance	6,500	2,000	500	500	500	500	4,000			
<b>Regulatory Compliance Total</b>			<b>6,500</b>	<b>2,000</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>4,000</b>			
Supply												
	W01874	Road 10R MP 28.77 - 31.85	2,110	1,795					1,795			
	W02001	Dam 1 Needle Valve Replacement	3,844	2,034					2,034			
	W02021	Microwave Communications System	1,578	310					310			
	W02110	Road 10E MP 6.2 - 8.2	1,735	110	1,465				1,575			
	W02223	<b>Future Howell-Bunger Valve Improvements</b>	1,647				273	1,360	1,633			
	W02355	<b>New Groundwater PS Roof Replacement</b>	728	80	638				718			
	WBSUBR	Bull Run Watershed	8,725	145	705	765	1,060	1,000	3,675			
	WBSUGW	Groundwater	6,910	600	600	600	600	600	3,000			
<b>Supply Total</b>			<b>27,277</b>	<b>5,074</b>	<b>3,408</b>	<b>1,365</b>	<b>1,933</b>	<b>2,960</b>	<b>14,740</b>			
Support												
	W02128	Portland Building Contribution	43,500	43,500					43,500			
	W02239	<b>New Mt. Tabor Interpretive Project</b>	571	292	6				298			
	W70305	Sandy River Station Facilities Plan	863	288					288			
	WBASBS	Bureau Support	100						100			
	WBASPL	Planning	31,855	2,204	3,105	3,105	3,105	3,105	14,624			
	WPLN17	Supply System Master Plan	1,215	583	13				596			
<b>Support Total</b>			<b>78,104</b>	<b>46,867</b>	<b>3,124</b>	<b>3,105</b>	<b>3,105</b>	<b>3,105</b>	<b>59,406</b>			
Transmission & Terminal Storage												
	W01402	Washington Park Reservoir 3	204,998	35,276	31,795	9,300	12,750	11,820	100,941			
	W01489	Rockwood PUD Meter Vault	627	245	185				430			
	W02006	Gresham Conduit 2 Trestle Upgrades	1,302	627					627			
	W02108	WA Park Hypochlorite	1,740	344	1,208				1,552			
	W02111	Powell Butte Reservoir 1 Roof Upgrades	6,056	1,211	4,720				5,931			
	WBTCT	Conduits Transmission	70,525	2,070	2,500	5,000	10,000	10,000	29,570			
	WBTTR	Terminal Reservoirs	1,100	100	100	100	100	100	500			
<b>Transmission &amp; Terminal Storage Total</b>			<b>286,348</b>	<b>39,873</b>	<b>40,508</b>	<b>14,400</b>	<b>22,850</b>	<b>21,920</b>	<b>139,551</b>			
Treatment												
	W02190	Corrosion Control Improvements	19,916	1,601	7,482	8,230	461		17,774			
	W02229	Bull Run Filtration	500,000	12,735	30,750	34,875	40,650	48,000	167,010			
	W02365	<b>New Headworks Screenhouse 3 Roof Replacement</b>	370	125					125			
	WBTMTM	Water Program Treatment	900		100	100	100	100	400			
<b>Treatment Total</b>			<b>521,186</b>	<b>14,461</b>	<b>38,332</b>	<b>43,205</b>	<b>41,211</b>	<b>48,100</b>	<b>185,309</b>			
<b>Grand Total</b>			<b>1,549,527</b>	<b>181,837</b>	<b>154,563</b>	<b>109,351</b>	<b>108,334</b>	<b>116,927</b>	<b>671,112</b>			

## PWB Major Project Status for November 2018

Program in city budget	Proj Def	Name	Phase	Planned Completion Date	Percent Complete	Initial Estimate	Current		Percent EAC
							Estimate at Completion	Total Cost to Date	
Distribution	W01446	Greenleaf Pump Station	040	3/29/19	87%	\$1,710,000	\$2,752,100	\$2,688,728	97.70%
Distribution	W01590	Willamette River Pipe Crossing	030 Design	3/4/21	78%	\$57,000,000	\$88,074,000	\$3,635,694	4.13%
Distribution	W01842	N Jantzen Ave west of Pavilion	030 Design	6/5/20	71%	\$1,283,000	\$1,381,300	\$218,924	15.85%
Distribution	W01848	Council Crest Tank Roof Replacement	040 Constructi	9/5/19	64%	\$700,000	\$2,090,800	\$534,867	25.58%
Distribution	W01924	Outer Powell Transportation Safety	030 Design	2/5/21	61%	\$1,974,000	\$3,248,100	\$237,622	7.32%
Distribution	W02004	Penridge Mains	030 Design	1/5/21	45%	\$2,530,000	\$2,529,400	\$186,484	7.37%
Distribution	W02005	Willamette Blvd Bridge Main Replacement	030 Design	12/8/21	54%	\$4,500,000	\$4,496,100	\$223,863	4.98%
Distribution	W02073	SW Boones Ferry Rd at SW Arnold St Bridge	030 Design	12/6/19	53%	\$560,000	\$559,490	\$79,433	14.20%
Distribution	W02105	NE 49th and Roselawn Bundle	030 Design	4/5/21	32%	\$916,000	\$915,360	\$57,281	6.26%
Distribution	W02107	Fulton Pump Mains Replacement	030 Design	11/3/22	20%	\$5,079,000	\$5,080,300	\$102,382	2.02%
Distribution	W02115	NE 47th Ave and Columbia Blvd LID	030 Design	12/18/19	63%	\$1,400,000	\$1,396,400	\$85,971	6.16%
Distribution	W02134	Columbia Slough Outfall 104b	040 Constructi	1/7/19	86%	\$936,000	\$935,970	\$513,667	54.88%
Distribution	W02192	NE Wheeler Basin Relocations	040 Constructi	5/17/19	88%	\$832,000	\$823,200	\$419,211	50.92%
Distribution	W02222	SCADA System Upgrade 2017	030 Design	2/28/20	21%	\$1,386,000	\$1,386,000	\$23,490	1.69%
Distribution	W02237	Sunnyside North Reconstruction	030 Design	2/25/20	26%	\$1,077,000	\$1,076,400	\$146,650	13.62%
Distribution	W02292	IA - SW Capitol Hwy fr Garden Home Rd S	030 Design	8/20/20	13%	\$2,300,000	\$2,311,700	\$67,579	2.92%
Distribution	W02303	SE Holgate Blvd I-205 Bridge Main Rehab	030 Design	1/4/21	19%	\$543,000	\$526,390	\$51,092	9.71%
Distribution	W02318	Wash Park PS 2 Transformer Replacement	030 Design	1/7/20	27%	\$1,000,000	\$995,960	\$36,305	3.65%
Distribution	W02361	SW Troy St from 25th Ave to 28th Ave	030 Design	12/28/20	14%	\$409,000	\$409,000	\$12,135	2.97%
Distribution	W02363	SE 1st Ave from Oak to Market	001 Future Yea	7/25/22	1%	\$4,336,000	\$4,336,000	\$0	0.00%
Supply	W01371	Groundwater Electrical Supply Improvements	040 Constructi	2/19/19	86%	\$2,200,000	\$1,418,500	\$1,203,389	84.84%
Supply	W01874	Road 10R MP 28.77 - 31.85	030 Design	12/5/19	72%	\$2,100,000	\$2,109,900	\$267,757	12.69%
Supply	W01875	Road 10H MP 10.95 - 12.56	040 Constructi	1/4/19	93%	\$822,000	\$1,311,400	\$1,251,567	95.44%
Supply	W02001	Dam 1 Needle Valve Replacement	030 Design	4/29/20	67%	\$3,260,000	\$3,843,900	\$445,306	11.58%
Supply	W02003	Headworks Septic System Replacement	050 Closeout	1/16/19	94%	\$470,000	\$718,630	\$692,355	96.34%
Supply	W02021	Microwave Communications System	040 Constructi	1/28/20	67%	\$2,214,000	\$1,658,300	\$597,302	36.02%
Supply	W02110	Road 10E MP 6.2 - 8.2	030 Design	2/4/21	16%	\$1,652,000	\$1,735,000	\$27,087	1.56%
Supply	W02223	Howell-Bunger Valve Improvements	001 Future Yea	10/3/24	18%	\$1,647,000	\$1,647,000	\$0	0.00%
Supply	W02355	Groundwater PS Roof Replacement	001 Future Yea	4/2/21	10%	\$728,000	\$728,000	\$0	0.00%
Support	W02128	Portland Building Contribution	001 Future Yea	7/1/19	0%	\$35,500,000	\$43,500,000	\$0	0.00%
Support	W02239	Mt. Tabor Interpretive Project	030 Design	6/24/20	30%	\$470,000	\$571,170	\$136,515	23.90%
Transmission & Terminal Storage	W01402	Washington Park Reservoir 3	040 Constructi	3/29/24	58%	\$61,132,686	\$205,000,000	\$75,953,435	37.05%
Transmission & Terminal Storage	W01489	Rockwood PUD Meter Vault	030 Design	3/19/21	50%	\$530,000	\$626,960	\$142,175	22.68%
Transmission & Terminal Storage	W02006	Gresham Conduit 2 Trestle Upgrades	030 Design	6/29/20	58%	\$1,150,000	\$1,302,200	\$447,881	34.39%
Transmission & Terminal Storage	W02108	WA Park Hypochlorite	030 Design	4/2/21	16%	\$1,740,000	\$1,740,000	\$18,717	1.08%
Transmission & Terminal Storage	W02111	Powell Butte Reservoir 1 Roof Upgrades	030 Design	4/7/21	6%	\$6,056,000	\$6,056,000	\$8,870	0.15%
Transmission & Terminal Storage	W02209	Conduit 2 Internal Inspection	040 Constructi	12/21/18	83%	\$1,788,000	\$1,795,700	\$1,401,609	78.05%
Treatment	W02190	Corrosion Control Improvements	030 Design	9/9/22	22%	\$19,916,000	\$19,916,000	\$497,870	2.50%
Treatment	W02229	Bull Run Filtration	020 Planning	7/25/28	12%	\$500,000,000	\$500,000,000	\$1,279,074	0.26%
Treatment	W02365	Headworks Screenhouse 3 Roof Replacement	010 Initiation	1/1/20	6%	\$370,000	\$370,000	\$6,003	1.62%
			<b>Legend</b>	On Time				EAC/IE < 110%	
				Behind				EAC/IE < 150%	
				Late				EAC/IE > 150%	