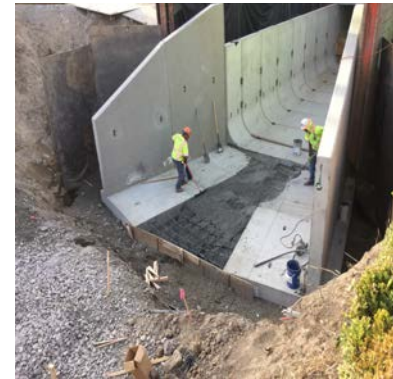




working for clean rivers



Capital Improvement Program Update

For the Fiscal Year ending June 30, 2018, BES spent \$88M on Capital programs and major projects. This represents expenditures of approximately 77% of the \$114M budget. These expenditures are very close to those for 2 of the previous 3 fiscal years (only FY 2016 had a dip in spending levels). Major accomplishments and upcoming work are listed in the next pages.

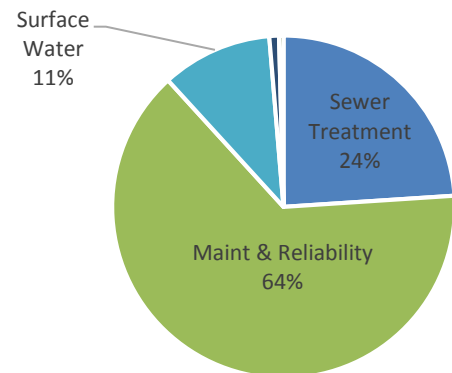
BES MAJOR CIP PROGRAMS

- Maintenance and Reliability
- Sewage Treatment
- Surface Water Management
- Systems Development

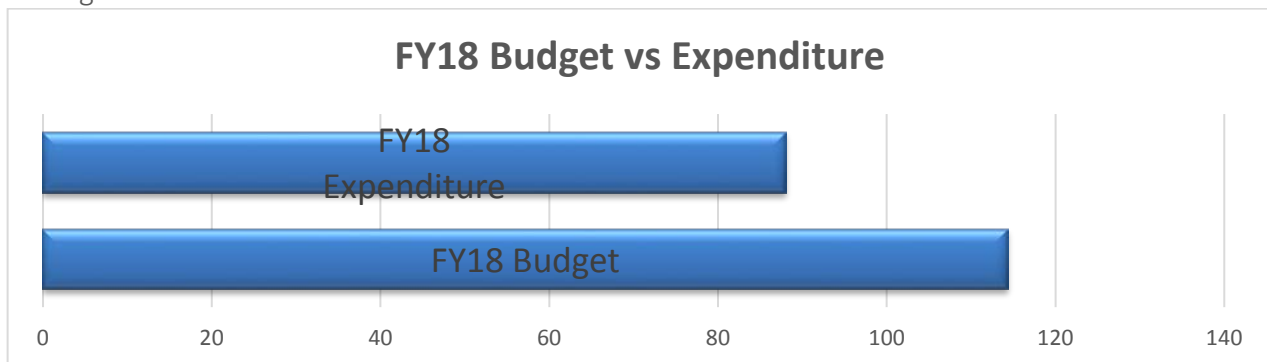
Challenges, Risks and Opportunities

- Tryon Creek Wastewater Treatment Plant expansion and upgrade uncertainty around Lake Oswego consideration of alternate treatment facility.
- Continued scope and cost growth across the system and facilities due to initial uncertainty of asset conditions.
- Fluctuating commodity prices, in particular steel and concrete, based in part on tariff uncertainty.
- Rising construction bids, due in part to robust economy and limits to contractor pool
- Continuing challenge to hire and retain resources in high-demand market

FY 18 Expenditure by Program



FY18 Budget vs Expenditure



Fiscal Year 2018 – Highlights of Work Completed

- Opened compressed natural gas fueling station in March 2018 at Columbia Blvd Water Treatment Plant (CBWTP). Facility will eventually provide renewable CNG for city fleet.



- Selected design, and program support firms and short-listed contractors for Secondary Treatment Expansion at CBWTP.
- Submitted land use applications covering all CBWTP work for the next ten years.
- Completed 30% design of the large plant improvement program at Tryon Creek Water Treatment Plant.
- Removed two culverts at Catkin Marsh to improve hydrology and water quality.
- Began construction to reconnect Oaks Bottom to the Willamette River and enhance the 75-acre wetland for salmon and wildlife.
- Designed, permitted, and bid Oxbow Permanent Scour Repair to restore essential fish habitat and protect adjacent roads and property from erosion.
- Replaced SW 45th Ave. Culvert on Fanno Creek to improve capacity and allow fish movement
- Daylighted a tributary of Fanno Creek through a section of Albert Kelly Park.
- Work commenced on Wheeler Reconstruction and Green Streets project consisting of approximately 12,000 LF of mainline pipe and eight vegetated stormwater facilities.
- Completed construction of SW 19th Ave joint BES/PBOT transportation and stormwater management project.
- Constructed Woodlawn King Alleys; lined 15,165 LF of existing pipe and 250 laterals, and installed 763 LF of new pipe and 540 LF of laterals.
- Constructed CSO Pressure Relief which installed three vaults to release pressure surges from the CSO storage system.
- Sunnyside East: Completed design and Ad Phase. Project will build 2,800 new and replacement combined and sanitary sewers, and 16 vegetated stormwater facilities in Southeast Portland's Sunnyside Neighborhood, totaling \$2.7M in improvements.
- 30th & Klickitat: Lined 440' of 8" CSP sewer, 165' of 6" sewer laterals, 11 cleanouts.

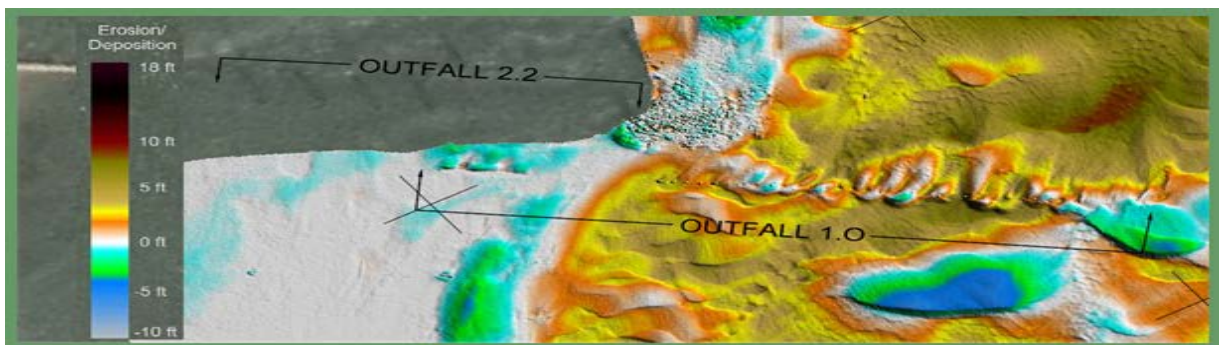
Fiscal Year 2019 – Highlights of Upcoming Work

- Currently have over \$100M of work in the construction phase of the projects.
- CBWTP secondary treatment expansion design will kick-off
- Begin CBWTP Biogas Treatment Facility construction. This will provide the renewable component to the CNG facility.

- Complete the Oxbow Scour project by August 2018



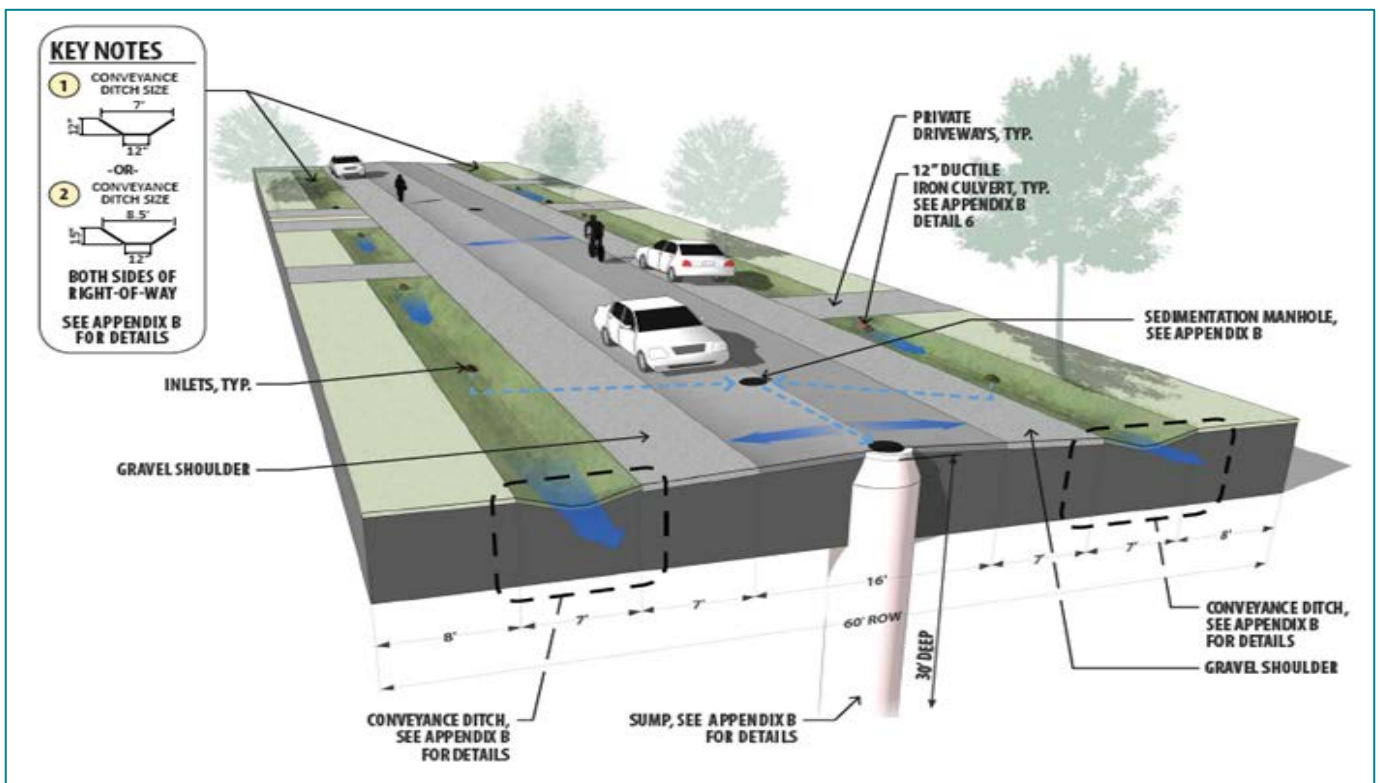
- Continue construction of Sunnyside North Green Street and Sewer Project. This includes approximately 11,000 LF of mainline pipe and 40 vegetated stormwater facilities.
- At the Luther Road site, widen the floodplain and build a roughened channel over the Lents Interceptor to bury and protect it from future erosion, improve fish passage and repair damage from the December 2015 historic flood.
- Construction of two outfall repair projects in Stephens Creek
- Make improvements to the Columbia outfall diffusers



- Construction on a major stormwater management/retrofit project at SW Beaverton Hillsdale Hwy. and Shattuck Rd.
- Spot repairs on a sewer main via injection grouting and liner repair on two sections of mainline pipe on Southeast Interceptor project.
- Upgrade and repair to neighborhood sewers by installing new pipe and service laterals using pipe bursting, CIPP lined laterals on Montavilla North and South projects.



- Completion of Slough Outfall 104B construction.
- Beaverton-Hillsdale Highway, stormwater retrofit to improve the water quality of runoff discharging into Fanno Creek. The project will install seven stormwater filter catch basins and four stormwater facilities, construction in FY19. The stormwater catch basins are part of a pilot program to evaluate the storm filter for future use within the city.
- SW Capitol Hwy Stormwater Improvements – joint City project (PBOT, BES, PWB) to build multi-modal transportation, install new stormwater collection, conveyance, and treatment

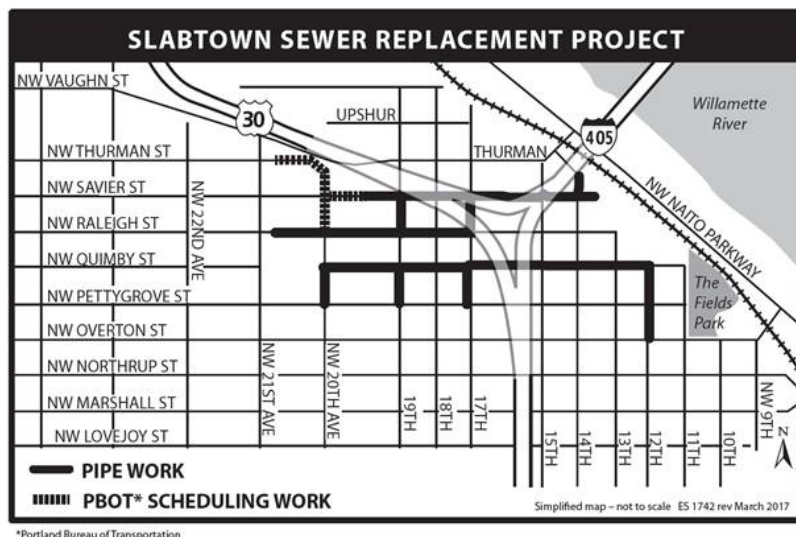


- Continue work on Slough Outfall 100, a joint project with PBOT to protect the Columbia Slough by treating stormwater from the Right-of-Way. The project will be incorporating three different treatment methods with an emphasis on infiltration. The three different treatment methods are, stormwater planters, underground injection systems(drywells) and stormwater filters. Construction is planned for the summer of 2019.



- Complete the Oaks Bottom project to replace the former 60" diameter culvert with a fish-passable 12' by 16' bottomless arch culvert, which will remove the water control structure, eliminate the fish trapping hazard, and regrade and enhance the channel leading to a 60-acre reservoir.

- Complete the Slabtown sewer replacement construction



Major Project Status following pages

Program Group	Proj Number	Project Name	Phase	Planned Completion Date	% Complete	Initial Estimate	Current Est @ Completion	Total Cost to Date	% EAC Expended
Sewer Treatment	E04891	Rehab; Repair & Modifications (Shell)	Various	Ongoing	Ongoing	\$4M Annual	\$4M Annual	19,108,808	Ongoing
Sewer Treatment	E06072	CBWTP Lagoon	Various	12/17/22	64%	27,633,362	30,372,949	19,713,262	65%
Sewer Treatment	E10753	Automation Network Reliability	Construction	11/28/19	50%	200,000	850,000	396,846	47%
Sewer Treatment	E10032	TCWTP PLC System Replacement	Construction	10/10/18	95%	487,243	1,241,707	1,245,324	100%
Sewer Treatment	E07947	CBWTP Secondary Trmt Expansion	Pre-design	07/23/24	1%	40,000,000	145,628,000	497,222	0%
Sewer Treatment	E10033	CBWTP Biogas	Construction	10/15/19	52%	10,899,341	13,599,341	5,161,663	38%
Sewer Treatment	E06923	WWTF Outfall Diffuser Improvement	Pre-design	07/19/23	4%	1,726,640	7,151,500	381,639	5%
Sewer Treatment	E10567	CBWTP WASH & HYPO TNL Piping REPLC	Advertise-NTP	03/08/22	20%	3,582,000	5,401,996	516,417	10%
Sewer Treatment	E10804	CBWTP Organic Waste Receiving Facility	Pre-design	11/03/21	9%	4,838,000	4,838,000	342,513	7%
Sewer Treatment	E10805	CBWTP Headworks Screenings Improvemts	Pre-design	04/15/25	1%	9,805,000	9,805,000	87,712	1%
Sewer Treatment	E10897	CBWTP - Substation Replacement	Pre-design	05/28/19	1%	5,054,400	5,054,400	45,339	1%
Sewer Treatment	E10898	CBWTP Fiber System Reliability	Pre-design	02/20/20	5%	790,000	790,000	86,036	11%
Sewer Treatment	E10657	Pump Station Improvement Program, FY15-19 (Shell)	Various	07/09/25	30%	\$6M Annual	\$6M Annual	14,549,270	Ongoing
Sewer Treatment	E10529	Airport 1 Pump Station Improvements	Construction	11/14/20	70%	941,000	2,937,000	2,162,071	74%
Sewer Treatment	E10611	Force Ave Pump Station Remodel	Pre-design	10/01/19	10%	5,127,000	5,127,000	536,559	10%
Sewer Treatment	E10359	Alder Pump Station Upgrade	Construction	03/19/21	70%	4,285,500	4,880,644	3,681,875	75%
Sewer Treatment	E10807	Inverness PS Force Main System Improvmts	Various	06/01/23	1%	3,404,000	6,052,000	33,921	1%
Sewer Treatment	E10975	Tryon Creek PS Reconstruction (under E10970)	Pre-design	06/22/23	1%	3,500,000	3,500,000	18,621	1%
Sewer Treatment	E10976	Tryon Creek Interceptor Replacement (under E10970)	Pre-design	06/02/26	0%	23,699,500	23,699,500	13,255	0%
Sewer Treatment	E10694	TCWTP Secondary Process Improvements	Pre-design	11/21/23	5%	5,960,000	5,960,000	225,394	4%
Sewer Treatment	E10582	TCWTP Headworks Improvements	Pre-design	07/03/25	6%	38,522,427	57,022,419	3,924,264	7%
Maintenance & Reliability	E04861	Maintenance Capital - Construction (Shell)	Various	Ongoing	Ongoing	\$1M Annual	\$1M Annual	2,674,079	Ongoing
Maintenance & Reliability	E10216	Stark HSS-17	Pre-design	10/27/23	2%	11,777,000	11,777,000	91,937	1%
Maintenance & Reliability	E08656	Beech-Essex CP-J	Pre-design	10/27/23	2%	4,989,992	4,989,992	65,475	1%
Maintenance & Reliability	E10028	Southwest Tanner	Pre-design	10/27/23	2%	8,396,847	8,396,847	55,858	1%
Maintenance & Reliability	E10663	Slabtown Sewer Replacement	Construction	03/17/21	30%	11,150,000	11,150,000	3,791,282	34%
Maintenance & Reliability	E10696	NW Thurman St Reconstruction	Design	08/18/22	7%	2,542,000	5,158,901	299,677	6%
Maintenance & Reliability	E10030	SE Interceptor Rehabilitation	Construction	07/18/18	60%	14,229,000	7,385,559	4,064,261	55%
Maintenance & Reliability	E10031	Phase 2 Pipe Rehab	Various	05/14/20	90%	132,197,595	132,616,124	116,868,005	88%
Maintenance & Reliability	E10219	Wheeler WHE-04	Construction	02/24/21	50%	9,931,000	9,931,000	3,721,003	37%
Maintenance & Reliability	E10367	Sunnyside North Recon/GRST	Design	06/24/22	10%	8,975,400	12,523,222	1,256,076	10%
Maintenance & Reliability	E10368	Sunnyside South Recon/GRST	Pre-design	03/31/23	5%	6,165,400	6,165,400	251,348	4%
Maintenance & Reliability	E10369	Ladd's Addition South Recon/GRST	Pre-design	03/31/23	1%	4,383,100	4,383,100	6,390	0%
Maintenance & Reliability	E10370	Sunnyside East Recon/GRST	Advertise-NTP	09/17/21	20%	4,389,900	5,261,564	978,672	19%
Maintenance & Reliability	E10371	Buckman East Recon/GRST	Pre-design	10/27/23	2%	6,392,400	6,392,400	50,749	1%
Maintenance & Reliability	E10220	Structural Rehabilitation Taggart OF 30	Advertise-NTP	09/20/21	20%	14,805,000	14,805,000	2,359,882	16%
Maintenance & Reliability	E10474	Burlingame Basin I/I	Various	05/08/21	45%	7,640,000	9,305,544	4,166,038	45%
Maintenance & Reliability	E10500	Phase 3 Pipe Rehab	Various	02/01/24	28%	75,277,439	97,583,082	27,154,703	28%
Maintenance & Reliability	E10576	Large Diameter Sewer Rehab	Various	07/29/25	3%	104,837,018	106,489,915	3,443,722	3%
Maintenance & Reliability	E10594	Capital Maint-Non Process Facilities (Shell)	Various	Ongoing	Ongoing	\$1M Annual	\$1M Annual	1,395,181	Ongoing
Maintenance & Reliability	E10656	Maintenance Capital - Contract, FY15-19 (Shell)	Various	Ongoing	Ongoing	\$3M Annual	\$3M Annual	6,627,188	Ongoing

IC = current approved budget (not shown on spreadsheet), 85-100% shown as yellow as early warning to closely monitor

Program Group	Proj Number	Project Name	Phase	Planned Completion Date	% Complete	Initial Estimate	Current Est @ Completion	Total Cost to Date	% EAC Expended
Maintenance & Reliability	E10808	Small Urgent Capacity Projects (Shell)	Various	Ongoing	Ongoing	\$1M Annual	\$1M Annual	276,900	Ongoing
Maintenance & Reliability	E10901	SLRT/Vault Monitoring Install FY18-22	Various	07/11/22	1%	5,395,620	5,395,620	79,548	1%
Maintenance & Reliability	E10941	Hillsdale Crest RDII	Predesign	12/15/21	5%	75,000	6,800,000	342,890	5%
Maintenance & Reliability	E10771	OCIP Phase V	Predesign	12/30/20	60%	4,850,000	4,850,000	2,410,544	50%
Surface Water	E07158	Johnson Crk River Mile 9.6 Floodplain Re	Predesign	08/26/22	10%	1,265,825	1,971,646	260,458	13%
Surface Water	E07383	Springwater Wetland	Design	04/17/25	5%	372,401	8,038,459	165,719	2%
Surface Water	E08406	Johnson Cr Oxbow	Predesign	04/03/20	6%	1,228,722	5,495,130	370,425	7%
Surface Water	E10854	Luther Rd. Restoration	Design	12/01/21	18%	200,000	1,570,816	288,976	18%
Surface Water	E10993	West Lents Floodplain Restoration	Predesign	11/17/21	0%	6,500,000	6,500,000	17,237	0%
Surface Water	E10996	JC Oxbow Permanent Scour Repair	Design	09/08/20	40%	335,564	598,581	225,022	38%
Surface Water	E08675	Fanno Beaverton Hillsdale Hwy	Construction	07/29/21	50%	1,168,750	1,668,988	584,356	35%
Surface Water	E08682	Boones Ferry Culvert	Design	10/13/21	25%	3,410,000	6,441,000	1,635,529	25%
Surface Water	E08576	Oaks Bottom Culvert Replacement	Construction	03/22/25	72%	3,897,848	3,897,848	3,104,314	80%
Surface Water	E08782	Watershed Investment Program (Shell)	Various	06/30/24	66%	\$1.5M Annual	\$1.5M Annual	5,720,502	Ongoing
Surface Water	E08905	G2G Land Acquisition	Various	02/26/21	55%	17,331,000	17,509,721	9,869,009	56%
Surface Water	E09113	1% FOR GREEN	Various	11/28/22	Ongoing	1,601,070	1,595,245	1,280,940	80%
Surface Water	E10040	JC Willing Seller Phase 2	Various	01/03/23	70%	8,035,000	8,237,672	5,668,718	69%
Surface Water	E10373	Fanno/Tryon Drainage Shoulder Improvemnt	Various	06/30/23	0%	4,622,460	4,622,460	0	0%
Surface Water	E10486	Watershed Land Acquisition Program	Various	07/31/19	0%	10,750,000	10,750,000	0	0%
Surface Water	E10488	Stephens Creek Phase 1 Improvements	Various	05/26/22	10%	4,144,000	4,558,899	738,892	16%
Surface Water	E10721	SC Right of Way Retrofit	Design	06/01/24	0%	1,000,000	1,000,000	0	0%
Surface Water	E10502	Hwy 43 Tryon Creek Culvert	Design	06/30/21	0%	630,000	630,000	0	0%
Surface Water	E10563	CS Outfalls	Various	12/21/21	10%	28,119,800	28,631,459	3,538,425	12%
Surface Water	E10583	Balch Creek Trash Rack Retrofit	Design	02/19/22	15%	160,000	1,475,800	187,449	13%
Surface Water	E10809	Culverts Phase 3	Various	12/01/19	0%	2,089,776	2,089,776	0	0%
Surface Water	E10939	SW Capital Hwy Stormwater Improvements	Design	05/22/20	6%	370,000	10,586,800	843,077	8%
Surface Water	E10969	Reveg Plant Est Umbrella - New 2yrs Program	Various	Ongoing	Ongoing	\$250k Annual	\$250k Annual	128,092	0%
Systems Development	E04894	Drainage Improvement (Shell)	Various	Ongoing	Ongoing	\$250k Annual	\$250k Annual	31,116	Ongoing
Systems Development	E04895	PBOT Interagency (Shell)	Various	Ongoing	Ongoing	\$500k Annual	\$500k Annual	315,013	Ongoing
Systems Development	E05219	Permit Reimbursement (Shell)	Construction	Ongoing	Ongoing	1,000,000	1,000,000	169,222	17%
Systems Development	E08748	Party Sewers (Shell)	Various	Ongoing	Ongoing	\$1M Annual	\$1M Annual	4,632,457	Ongoing
Systems Development	E10263	Sewer Easements on Existing Sewers (Shell)	Various	Ongoing	Ongoing	\$50k Annual	\$50k Annual	0	Ongoing
Systems Development	E10491	Swr Ext Septic Sys w/High Failure Risk (Shell)	Various	Ongoing	Ongoing	\$1M Annual	\$1M Annual	264,616	Ongoing
Misc	E10461	Env Comp Info Mgmt Sys (ECIMS)	Predesign	06/30/23	33%	2,452,061	2,452,061	803,633	33%
					On Time				EAC/IC ≤ 85%
					Behind				EAC/IC > 85% and ≤100%
					Late				EAC/IC > 100%