



# ENGINEERING

## Monthly Report

Fiscal Year 2018-2019

April 2019

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**Financial Impact Review:** Review by the Finance Department determined no significant change to previously published financial information at this time. Future budget adjustments may be needed for projects with significant changes in scope and schedule, but estimates are unknown at this time.

**Operational Impact Review:** Review by Utility Director, Paul Rheault, determined operational impacts are in line with achieving greater efficiency in our systems.

## City of Bend 2019-2023 Capital Improvement Program Project List

Project Name & Number	Project Manager	Current Phase	Project Cost Estimate	Spent to Date	2018-19 Budget	2019-20 Projected	2020-21 Projected	2021-22 Projected	2022-23 Projected	Total 2019-2023	Notes	Budget	Percent Total Cost Est. Spent
<b>Water Reclamation</b>													
<b>1XSEI Southeast Interceptor Projects</b>													
1SP1X SEI Phase 1 Extension	J. MacClanahan	Sub. Complete	6,800,000	6,749,933	100,000	-	-	-	-	100,000			99%
1S2S3 SEI Schedule 2S&3	E. Forster	Sub. Complete	30,585,000	30,304,550	275,000	-	-	-	-	275,000	1		99%
<b>1XSEI Southeast Interceptor</b>			<b>37,385,000</b>	<b>37,054,483</b>	<b>375,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>375,000</b>			<b>99%</b>
<b>1XNAS North Area Sewer Projects</b>													
1SNAF North Area Force Main	G. Franklet	Sub. Complete	2,730,000	2,729,320	100,000	-	-	-	-	100,000			100%
1SNAS North Area Gravity Main	G. Franklet	Sub. Complete	2,900,000	2,890,869	100,000	-	-	-	-	100,000			100%
<b>1XNAS North Area Sewer Projects</b>			<b>5,630,000</b>	<b>5,620,189</b>	<b>200,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>200,000</b>			<b>100%</b>
<b>North Interceptor Projects</b>													
1SNI1 North Interceptor Phase I	J. MacClanahan	Design	40,000,000	3,608,244	11,000,000	12,000,000	-	-	-	23,000,000			9%
1SNI2 North Interceptor Phase II & III	Unassigned	Pending	40,200,000	-	-	-	-	6,700,000	6,700,000	13,400,000			0%
<b>North Interceptor Projects</b>			<b>80,200,000</b>	<b>3,608,244</b>	<b>11,000,000</b>	<b>12,000,000</b>	<b>-</b>	<b>6,700,000</b>	<b>6,700,000</b>	<b>36,400,000</b>			<b>4%</b>
<b>1XWRF Water Reclamation Facility Projects</b>													
1SCAP WRF Capacity Improvements	J. Robertson	Construction	8,000,000	5,716,780	6,465,000	-	-	-	-	6,465,000	1		71%
1SSHI Solids Handling Improvement Project	J. Robertson	Construction	5,500,000	199,430	1,450,000	2,500,000	1,500,000	-	-	5,450,000			4%
1SFPU Facilities Plan Update	J. Robertson	Pending	500,000	-	-	500,000	-	-	-	500,000			0%
1SHWK Headworks	J. Robertson	Pending	2,000,000	-	-	-	-	1,000,000	-	1,000,000			0%
1SSFU Support Facilities Upgrade	J. Robertson	Pending	2,500,000	-	-	-	-	1,250,000	1,250,000	2,500,000			0%
<b>1XWRF Water Reclamation Facility Projects</b>			<b>18,500,000</b>	<b>5,916,210</b>	<b>7,915,000</b>	<b>3,000,000</b>	<b>1,500,000</b>	<b>2,250,000</b>	<b>1,250,000</b>	<b>15,915,000</b>			<b>32%</b>
1SCSE Collection System Enhancement Program	O. Murray	Construction	11,800,000	160,691	2,360,000	2,360,000	2,360,000	2,360,000	2,360,000	11,800,000	*		1%
1SPSD Pump Station Decommissions Program	O. Murray	Construction	8,000,000	417,040	1,465,000	3,000,000	-	-	-	4,465,000			5%
1SBSS Bend Septic Solutions	S. Martin	Design	2,800,000	2,094,261	1,500,000	-	-	-	-	1,500,000	1		75%
1S036 Drake Lift Station Condition Upgrade	J. Robertson	Design	3,000,000	43,864	1,000,000	2,000,000	-	-	-	3,000,000			1%
1SAMM Amethyst Mahogany Street Sewer	E. Forster	Pending	2,440,000	-	-	500,000	470,000	1,470,000	-	2,440,000	1		0%
1SMTI Amethyst Mahogany Diversion	E. Forster	Design	3,900,379	187,569	500,000	2,400,000	1,000,000	-	-	3,900,000	1		5%
1SWRF Secondary Expansion	J. Robertson	Sub. Complete	43,800,000	42,605,289	3,640,000	-	-	-	-	3,640,000	1		97%
1SPIR Plant Interceptor Rehabilitation	J. Suhr	Sub. Complete	7,600,000	6,948,475	7,735,000	-	-	-	-	7,735,000			91%
1SPSO Parallel Sewer on Olney Avenue	Unassigned	Pending	600,000	-	-	600,000	-	-	-	600,000			0%
1SOC1 Odor Control Master Plan	Unassigned	Pending	1,155,000	-	-	-	-	1,155,000	-	1,155,000			0%
1SSLA Sewer Storage - Land Acquisition	Unassigned	Pending	730,000	-	-	-	-	730,000	-	730,000			0%
1SMP1 Collection System Master Plan (Years 6-10)	Unassigned	Pending	750,000	-	-	750,000	-	-	-	750,000			0%
1SGPA Gravity Pipe Condition Assessment	Unassigned	Pending	2,000,000	-	-	-	200,000	200,000	200,000	600,000			0%
<b>Total Water Reclamation Projects</b>			<b>230,290,379</b>	<b>104,656,313</b>	<b>37,690,000</b>	<b>26,610,000</b>	<b>5,530,000</b>	<b>14,865,000</b>	<b>10,510,000</b>	<b>95,205,000</b>			
<b>Stormwater</b>													
1RNPR Newport Pipe Replacement Design	Unassigned	Planning	442,000	-	442,000	-	-	-	-	442,000			0%
1RMP1 Stormwater Master Plan Update	Unassigned	Pending	500,000	-	500,000	-	-	-	-	500,000	1		0%
1RRMC Roosevelt & McKinley	Unassigned	Pending	579,000	-	-	-	104,000	475,000	-	579,000			0%
1RFGU Franklin & Greenwood Underpass	Unassigned	Pending	3,300,000	-	-	-	1,200,000	600,000	1,500,000	3,300,000			0%
1RMNW Minnesota & Wall Stormwater	Unassigned	Pending	250,000	-	-	-	-	-	250,000	250,000			0%
<b>Total Stormwater Projects</b>			<b>5,071,000</b>	<b>-</b>	<b>942,000</b>	<b>-</b>	<b>1,304,000</b>	<b>1,075,000</b>	<b>1,750,000</b>	<b>5,071,000</b>			

## City of Bend 2019-2023 Capital Improvement Program Project List

Project Name & Number	Project Manager	Current Phase	Project Cost Estimate	Spent to Date	2018-19 Budget	2019-20 Projected	2020-21 Projected	2021-22 Projected	2022-23 Projected	Total 2019-2023	Notes	Budget	Percent Total Cost Est. Spent
<b>Transportation</b>													
1TR3N Reed Mkt: 3rd to Newberry	G. Sabourin	Sub. Complete	13,600,000	13,539,678	160,000	-	-	-	-	160,000			100%
1TGCI Galveston Corridor Improvements	G. Sabourin	Design	950,000	614,233	265,000	-	-	-	-	265,000			65%
1TBKE Bicycle Greenways	R. Rowan	Design	900,000	17,281	440,000	225,000	225,000	-	-	890,000			2%
1TMPR Murphy & Parrell Roundabout	G. Sabourin	Sub. Complete	2,580,000	2,580,059	5,000	5,000	-	-	-	10,000			100%
1TNPS Neff and Purcell Intersection Design	S. Burr	Design	950,000	2,428	200,000	600,000	-	-	-	800,000			0%
1TCSI Citywide Safety Improvements	R. Rowan	Construction	2,940,600	967,726	1,590,600	1,000,000	-	-	-	2,590,600			33%
<b>14th Street Reconstruction Projects</b>													
1T14R 14th St. Reconstruction	G. Sabourin	Sub. Complete	4,600,000	4,798,795	1,888,000	-	-	-	-	1,888,000	1		104%
1T14B 14th St. Reconstruction Phase II	G. Sabourin	Sub. Complete	6,100,000	5,359,218	4,443,660	-	-	-	-	4,443,660	1		88%
<b>14th Street Reconstruction Projects</b>			<b>10,700,000</b>	<b>10,158,013</b>	<b>6,331,660</b>	-	-	-	-	<b>6,331,660</b>			<b>95%</b>
<b>1XECI Empire Corridor Improvement Projects</b>													
1TECI Purcell Roundabout	S. Burr	Sub. Complete	2,000,000	1,790,767	2,000,000	-	-	-	-	2,000,000			90%
1TEC2 Empire Corridor Modernization	S. Burr	Sub. Complete	1,900,000	1,172,594	1,900,000	-	-	-	-	1,900,000			62%
1TEC3 Empire Extension	S. Burr	Design	10,800,000	182,221	1,600,000	8,500,000	700,000	-	-	10,800,000			2%
1TEC4 Empire & 27th Street Roundabout	S. Burr	Design	3,500,000	22,741	300,000	2,300,000	700,000	200,000	-	3,500,000			1%
1TEC5 Purcell Butler Market	S. Burr	Design	2,500,000	24,196	-	100,000	200,000	2,000,000	200,000	2,500,000			1%
1TEC6 Purcell Modernization	S. Burr	Design	2,700,000	93,449	-	100,000	800,000	1,600,000	200,000	2,700,000			3%
<b>1XECI Empire Corridor Improvements Program</b>			<b>23,400,000</b>	<b>3,285,968</b>	<b>5,800,000</b>	<b>11,000,000</b>	<b>2,400,000</b>	<b>3,800,000</b>	<b>400,000</b>	<b>23,400,000</b>			<b>14%</b>
<b>1TMCI Murphy Corridor Improvement Projects</b>													
1TMC1 Murphy Railway Overcrossing	G. Sabourin	Design	6,739,000	57,475	842,400	5,896,600	-	-	-	6,739,000			1%
1TMC2 Murphy Brosterhous to 15	G. Sabourin	Design	6,781,200	154,914	673,900	3,706,500	2,400,800	-	-	6,781,200			2%
1TMC3 Murphy & Brosterhous Roundabout	G. Sabourin	Design	2,948,300	44,692	505,400	252,700	2,190,200	-	-	2,948,300			2%
1TMC4 Murphy & 15th Roundabout	G. Sabourin	Design	2,948,300	70,557	-	505,400	252,700	2,190,200	-	2,948,300			2%
1TMC5 Murphy & Country Club Design	G. Sabourin	Design	2,948,300	9,985	-	-	505,400	252,700	2,190,200	2,948,300			0%
1TMC6 Murphy Corridor Improvements Parrell to Brosterhous	G. Sabourin	Design	9,634,900	37,513	-	-	-	1,493,800	2,431,700	3,925,500			0%
<b>1TMCI Murphy Corridor Improvements</b>			<b>32,000,000</b>	<b>375,136</b>	<b>2,021,700</b>	<b>10,361,200</b>	<b>5,349,100</b>	<b>3,936,700</b>	<b>4,621,900</b>	<b>26,290,600</b>			<b>1%</b>
<b>1XCAI Citywide Accessibility Improvement Projects</b>													
1ACAI Citywide Accessibility Improvements	R. Rowan	Sub. Complete	1,111,000	1,140,293	220,000	-	-	-	-	220,000	1		103%
1ADSC Dean Swift Road Corridor	R. Rowan	Sub. Complete	60,495	113,982	150,000	-	-	-	-	150,000			188%
1ADIV NE Division Street Corridor	R. Rowan	Sub. Complete	500,000	200	500,000	-	-	-	-	500,000			0%
1ACA2 Lodge Pole Drive Corridor	R. Rowan	Pending	315,000	-	-	315,000	-	-	-	315,000			0%
1ACA3 Poplar Street Corridor	R. Rowan	Pending	250,000	-	-	250,000	-	-	-	250,000			0%
1ACA4 SW Truman Hill Taft Silver Lake Corridor	R. Rowan	Pending	440,000	-	-	-	440,000	-	-	440,000			0%
1ACA5 SW Cleveland Avenue Corridor	R. Rowan	Pending	190,000	-	-	-	190,000	-	-	190,000			0%
1ACA6 NW Delaware Avenue Corridor	R. Rowan	Pending	500,000	-	-	-	-	500,000	-	500,000			0%
1ACA7 NW Hill Street Corridor	R. Rowan	Pending	250,000	-	-	-	-	250,000	-	250,000			0%
1ACA8 NW Seismore Street Corridor	R. Rowan	Pending	125,000	-	-	-	-	125,000	-	125,000			0%
1ACA9 Riverwest Neighborhood	R. Rowan	Pending	350,000	-	-	-	-	-	350,000	350,000			0%
1A1CA Riverside Neighborhood	R. Rowan	Pending	350,000	-	-	-	-	-	350,000	350,000			0%
<b>1ACAI Citywide Accessibility Improvements</b>			<b>4,441,495</b>	<b>1,254,475</b>	<b>870,000</b>	<b>565,000</b>	<b>630,000</b>	<b>875,000</b>	<b>700,000</b>	<b>3,640,000</b>			<b>28%</b>
<b>Total Transportation Projects</b>			<b>92,462,095</b>	<b>31,827,270</b>	<b>17,683,960</b>	<b>23,756,200</b>	<b>8,604,100</b>	<b>8,611,700</b>	<b>5,721,900</b>	<b>64,377,860</b>			

## City of Bend 2019-2023 Capital Improvement Program Project List

Project Name & Number	Project Manager	Current Phase	Project Cost Estimate	Spent to Date	2018-19 Budget	2019-20 Projected	2020-21 Projected	2021-22 Projected	2022-23 Projected	Total 2019-2023	Notes	Budget	Percent Total Cost Est. Spent
<b>Water</b>													
1WEWL Egypt Waterline	E. Forster	Sub. Complete	771,000	510,877	400,000	-	-	-	-	400,000			66%
1WMP1 Water Master Plan Update	Unassigned	Planning	800,000	45,915	750,000	-	-	-	-	750,000			6%
1WAWP Awbrey Well Supply Expansion	Unassigned	Pending	2,021,760	-	-	2,021,760	-	-	-	2,021,760			0%
1WCPS College Parallel Pipe Study	Unassigned	Pending	1,215,760	-	-	1,215,760	-	-	-	1,215,760			0%
1WLPE Lafayette Pipe Enlargement	Unassigned	Pending	250,640	-	-	250,640	-	-	-	250,640			0%
1WVSS Valves Operational System Study	Unassigned	Pending	234,000	-	-	78,000	78,000	78,000	-	234,000			0%
1WSPP Parallel Piping Brookwood to Brosterhaus	Unassigned	Pending	1,596,400	-	-	-	1,596,400	-	-	1,596,400			0%
1WSSC New Water Well Near NE Shirley Court	Unassigned	Pending	2,830,464	-	-	-	2,830,464	-	-	2,830,464			0%
1WRBO Parallel Piping Rock Bluff to Brookwood	Unassigned	Pending	2,940,000	-	-	-	-	2,940,000	-	2,940,000			0%
1WSWO New Water Well Shiloh Site	Unassigned	Pending	2,721,600	-	-	-	-	2,721,600	-	2,721,600			0%
1WBRM Parallel Mains Brosterhaus/Reed Mkt	Unassigned	Pending	1,742,000	-	-	-	-	-	1,742,000	1,742,000			0%
<b>Total Water Projects</b>			<b>17,123,624</b>	<b>556,792</b>	<b>1,150,000</b>	<b>3,566,160</b>	<b>4,504,864</b>	<b>5,739,600</b>	<b>1,742,000</b>	<b>16,702,624</b>			
<b>Total 2019-2023 Capital Improvement Program</b>			<b>344,947,098</b>	<b>137,040,376</b>	<b>57,465,960</b>	<b>53,932,360</b>	<b>19,942,964</b>	<b>30,291,300</b>	<b>19,723,900</b>	<b>181,356,484</b>			

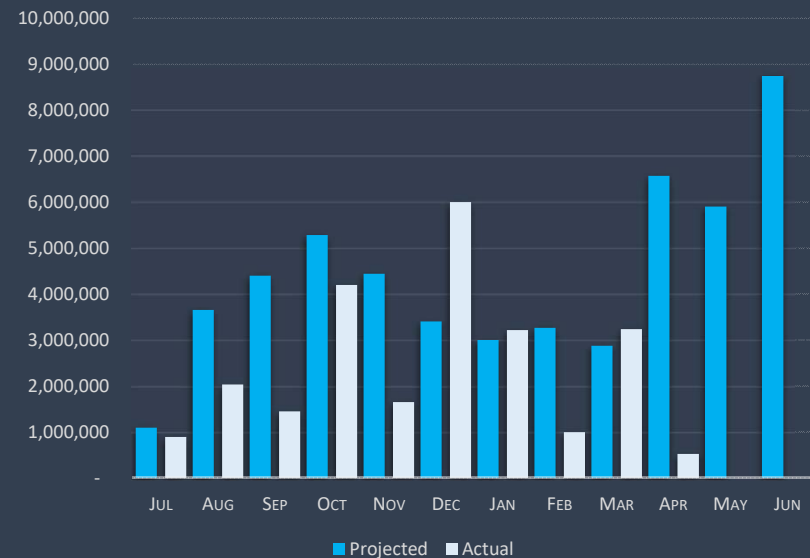
**Budget Notes & Revisions**

\* Capital R&R Program performed by EIPD but not included in the CIP budget documents.  
 1- Budget increased/project funded with 2018 fiscal year-end rollover - total adjustment \$342,072

# CAPITAL IMPROVEMENT PROGRAM *budget & spending*

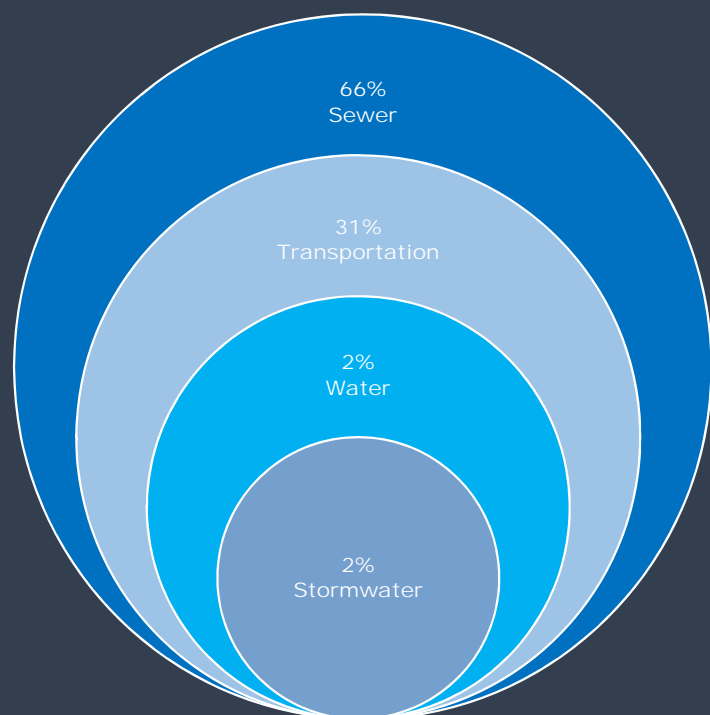
## 2019 PROJECTED MONTHLY SPENDING

The forecasted spending is based on current contract encumbrances and established project budgets. Projections are updated as projects contract throughout the year.



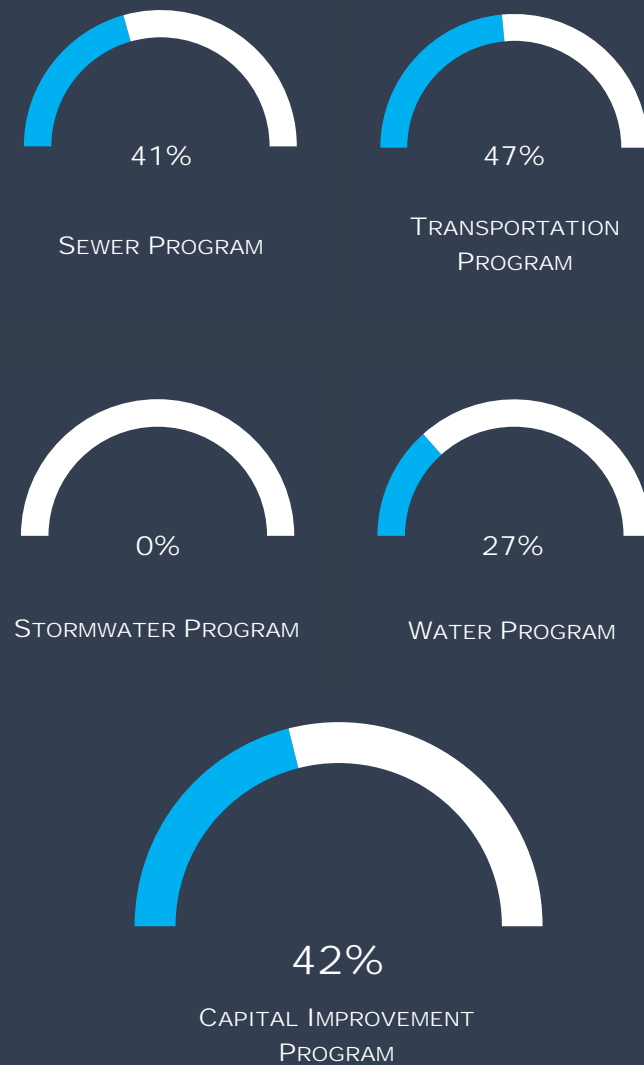
## 2019 BUDGETS BY PROGRAM

Sewer and Transportation, including Transportation Construction, Accessibility and General Obligation Bond projects, represent the majority of projects budgeted in the 2019 CIP.



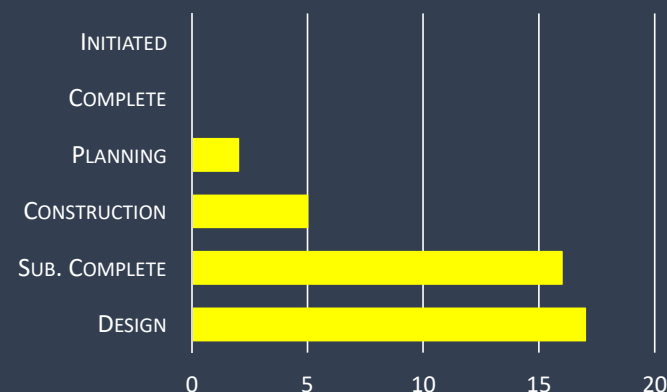
## BUDGETS SPENT *by program*

Total percent budget spent FY 2019 for each program.



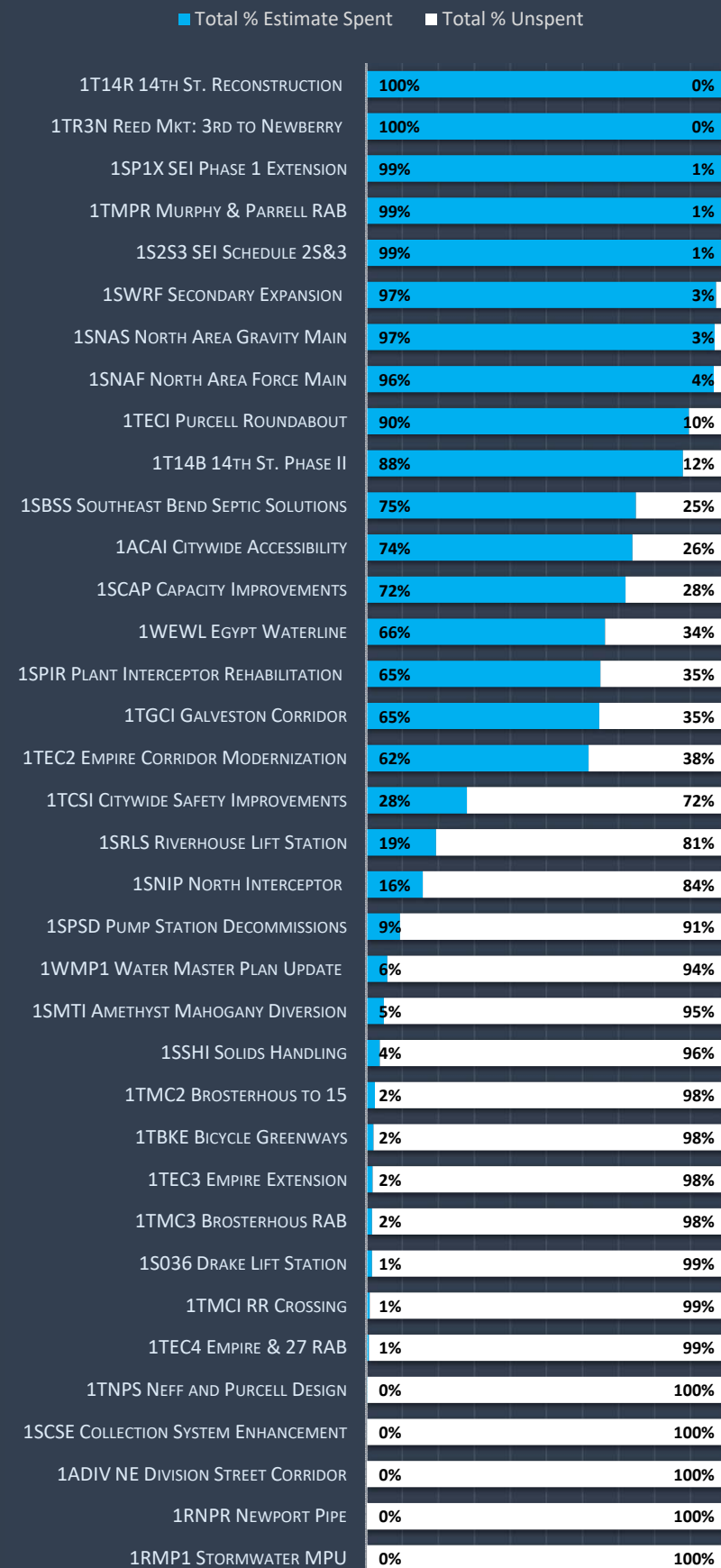
## PROJECT PHASE

Of the projects that are active this fiscal year, what phase are they in now in the overall project life cycle?



## SPENDING ON ACTIVE PROJECTS

Total percentage of budgets spent over the lifespan of the project for CIP projects that are active in fiscal year 2019.



## CLEAN WATER *State Revolving Fund*

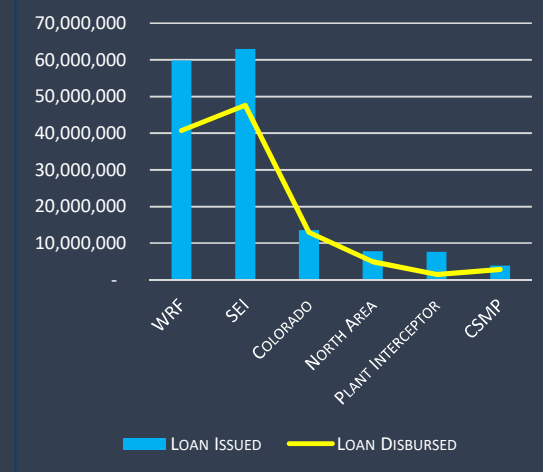
EIPD has participated in the Clean Water State Revolving Fund (CWSRF) loan program since 2011.

The program, administered by the State of Oregon Department of Environmental Quality, provides below market rate loans for the planning, design and construction of various water pollution control activities.

The of Bend has received significant assistance from the CWSRF program. We have over \$150 million in loans issued to date and in December 2018 we applied for an additional \$19.5 million in funding.

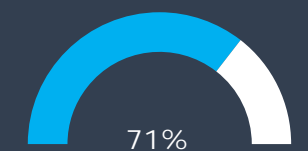
## LOANS BY PROJECT

Information is grouped by major project over the life of the program.

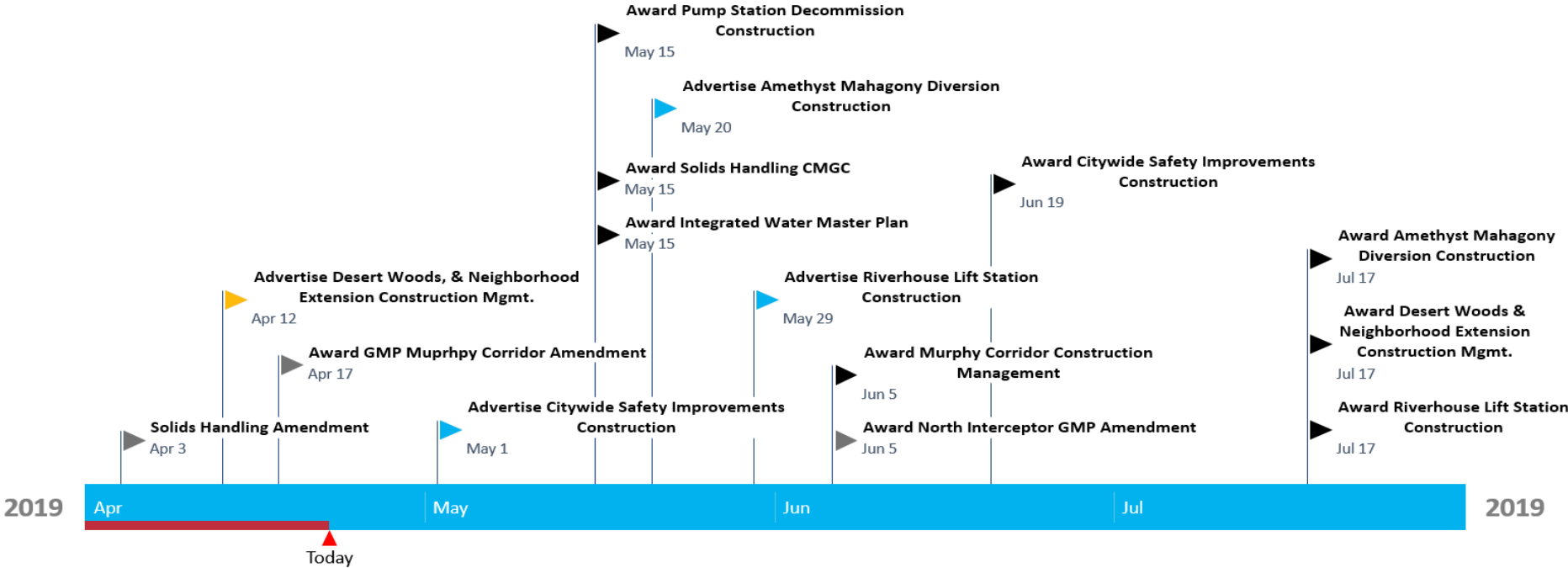


## TOTAL AMOUNT DISBURSED

Disbursements are processed monthly for projects active in construction.



# EIPD Procurement Timeline



*Information provided for forecasting purposes only and subject to change without prior notice.*

Key	
	Design RFP Advertised
	Construction Bid Advertised
	CM/OR Advertised
	PDB Advertised
	Design Build Advertised
	Alternative Delivery Exemption Advertised
	Direct Appoint Contract
	Contract Amendment to Council
	Contract Awarded

# Collection System Enhancement Program

This program includes approximately 100 capital repair and replacement projects identified in the Collection System Master Plan. The total work scheduled for all projects over the next 25 years is about \$120 million.

**Project Manager: Oliver Murray | [omurray@bendoregon.gov](mailto:omurray@bendoregon.gov)**

	Planning Complete	Design Complete	In Construction	Construction Complete	Close-Out Complete
#97B The Shire Lift Station Decommission	●				
#53 Underwood Lift Station Condition Upgrade	●	●	●		
#27 Pioneer Lift Station Condition Upgrade	●				
#45 Renwick Lift Station Condition Upgrade	●	●	●		
#65A Nottingham #1 Lift Station Decommission - Gravity Sewer Diversion	●				
Riverhouse Lift Station	●	●			
#35 Deschutes Business Lift Station Condition Upgrade	●				
#26 Canal View Lift Station Upgrade	●				
#41 Pacific Lift Station Condition Upgrade	●				
#46 Rimrock #1 Lift Station Condition Upgrade	●				
#47 Rimrock #2 Lift Station Condition Upgrade	●				
#48 Rimrock #4 Lift Station Condition Upgrade	●				
#49 Rimrock #5 Lift Station Condition Upgrade	●				
#42 Poplar Park Lift Station Capacity and Condition					
#62B Camden Lift Station Decommission					
#67A Ridgewater #2 Lift Station Decommission - Gravity Sewer Diversion					
#67B Ridgewater #2 Lift Station Decommission					
#65A Nottingham #1 Lift Station Decommission - Gravity Sewer Diversion					
#66B Nottingham #2 Lift Station Decommission					
#71A&B Old Mill Lift Station Hydraulic Upgrade					
#123 Renaissance Lift Station Condition Upgrade					



# Murphy Corridor Improvements Project

Primary Contact: Garrett Sabourin | gsabourin@bendoregon.gov

Murphy Road is a collector route located in the SE corner of Bend. The Corridor has undergone several transportation network upgrades over the previous decade and remaining upgrades will be seen between the intersections of Parrell and 15<sup>th</sup>. Additional improvements shall improve safety, efficiency, connectivity and reliability of the transportation system in SE Bend.



## Scope

Progressive design build delivery method will be utilized to complete several subprojects, including the Brosterhouse to 15<sup>th</sup> Roadway Extension, including Bridge at BNSF Railway Crossing, a roundabouts at Brosterhouse, Country Club, 15th and widening and complete street upgrades at Parrell to Brosterhouse.

## Schedule

Start Date: 11/1/2018  
 Substantial Completion: 10/31/2022  
 Final Closeout: 12/31/2022

## Cost

Total Estimated: \$32,000,000  
 Spent to Date: \$375,136  
 % Spent to Estimated: 1%

Sub-Projects:	Est.	Spent
RR/Bridge	\$6,739,000	\$57,475
Extension	\$6,781,200	\$154,914
B-haus RAB	\$2,948,300	\$44,692
15 <sup>th</sup> RAB	\$2,948,300	\$70,557
C. Club RAB	\$2,948,300	\$9,985
Corridor Imp.	\$9,634,900	\$27,513

Status: On Scope

Status: On Schedule

Status: On Budget

Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

**Status Update:** Initiated first Guaranteed Maximum Price (GMP) contract for early work associated with the Modernization and Corridor Improvements in coordination with the Bend La Pine School District and Parks and Recreation District.

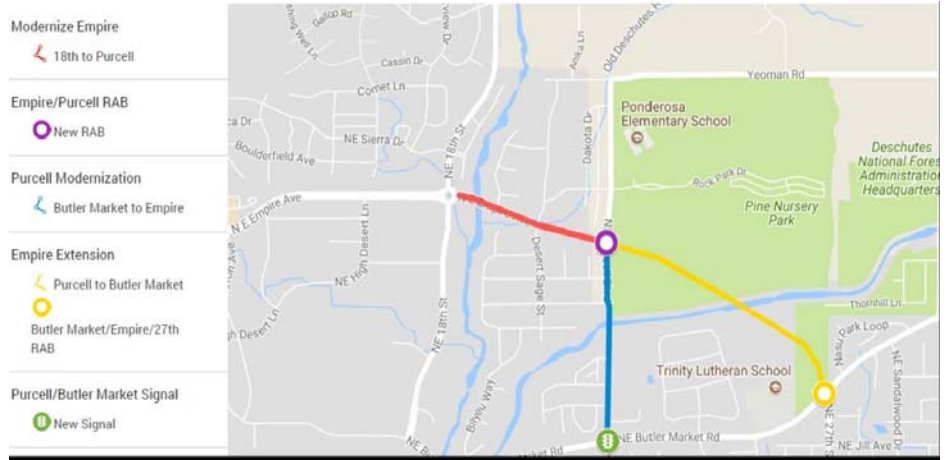
Cost Estimate Classification: **3**



# Empire Corridor Improvements

Primary Contact: Sinclair Burr | sburr@bendoregon.gov

Planning and preliminary design for Empire Avenue began in 2005. In 2017 Council designated it as a high priority for improving the safety, efficiency, and reliability of transportation in northeast Bend. Council identified the design and construction of a roundabout at the Empire/Purcell intersection as the highest priority component of the project.



## Scope

Six distinct but interrelated sub-projects are included: Empire/Purcell Roundabout, Empire Avenue Modernization, Purcell Boulevard Modernization, Empire Avenue Extension, Purcell/Butler Market Signal Modernization and 27th Street Roundabout. Due to the complexity of implementing all the related components of the project, a Progressive Design-Build project delivery method will be used.

## Schedule

Start Date: 08/1/2017  
 Substantial Completion: **8/31/19**  
 Final Closeout: **8/31/20\***

\* Current schedule for Empire Ave. Modernization and Empire-Purcell RAB only. Other projects will be added to the timeline at a future date.

## Cost

Total Estimated:	\$23,400,000
Spent to Date:	\$3,285,968
% Spent to Estimated:	14%
<b>Sub-Projects:</b>	
	<u>Est.</u> <u>Spent</u>
Purcell RAB	\$2,000,000      \$1,790,767
Empire Mod	\$1,900,000      \$1,172,594
Purcell Mod	\$2,700,000      \$93,449
Emp Extension	\$10,800,000    \$182,221
Butler Mkt Sig	\$2,500,000      \$24,196
Emp/27 RAB	\$3,500,000      \$22,741

**Status: Baseline Scope Modification**

**Status: Baseline Schedule Adjustment**

**Status: On Budget**

Adjustments: Scope transferred between sub-projects.

Adjustments: Project shut down in February/March due to snow conditions and scope modification

Adjustments: No impact to budget for scope or schedule modifications.

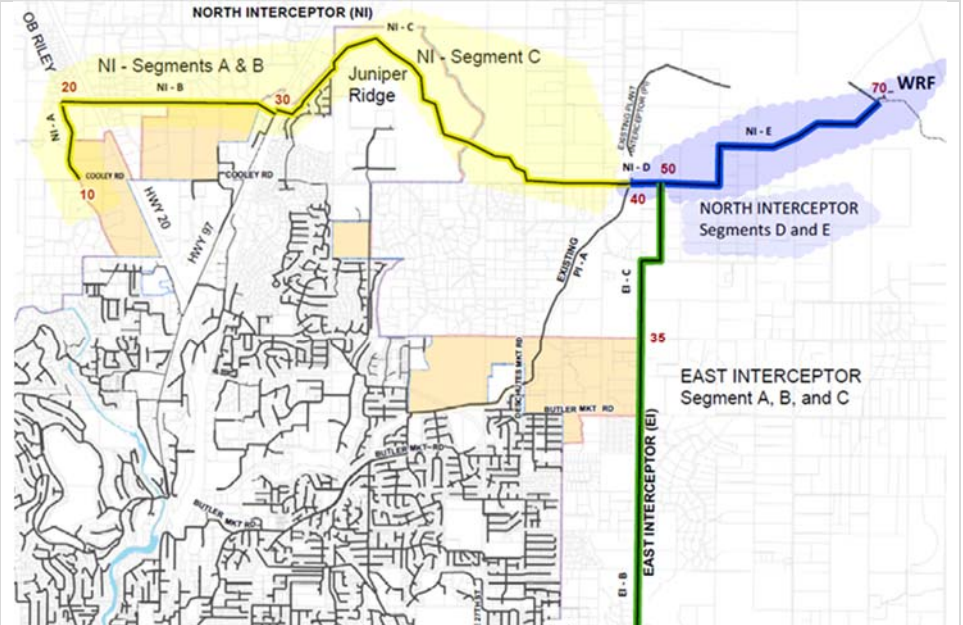
**Status Update:** Work on Purcell RAB restarted March 18 after winter weather event. Scope from Empire Extension transferred to Purcell RAB to time road closure for after school year ends. Alternatives analysis on Empire & 27 determined a roundabout (RAB) is the preferred and lowest cost solution for the intersection.

Cost Estimate Classification: **2**



# North Interceptor Project Phase I

Sewer Interceptor running east to west on the Northern Edge of Bend's UGB, beginning at Cooley Road and OB Riley Road and running east past the Juniper Ridge development, connecting with existing Plant Interceptor, connecting with the East Interceptor, and continuing further east to deliver untreated waste water to the WRF. Segments NI-D and NI-E are designated as Priority 1 (10,300 feet). Segments NI-A, NI-B, and NI-C are designated a Priority 2 (26,300 feet).



Primary Contact: Eric Forster | eforster@bendoregon.gov

## Scope

Design, bid, contract, and build approximately 10,500 feet of gravity sewer, various diameters running along the Northern edge of Bend's UGB. Connects to the WRF.

## Schedule

Start Date: 3/1/17  
 Substantial Completion: 12/31/2020  
 Final Closeout: 12/31/2021

## Cost

Total Estimated: \$40,000,000  
 Spent to Date: \$3,608,244  
 % Spent to Estimated: 9%

### Status: Scope Increase

Adjustments: Original project did not include canal work. Results of the alternatives analysis indicate the need for a pump station.

### Status: On Schedule

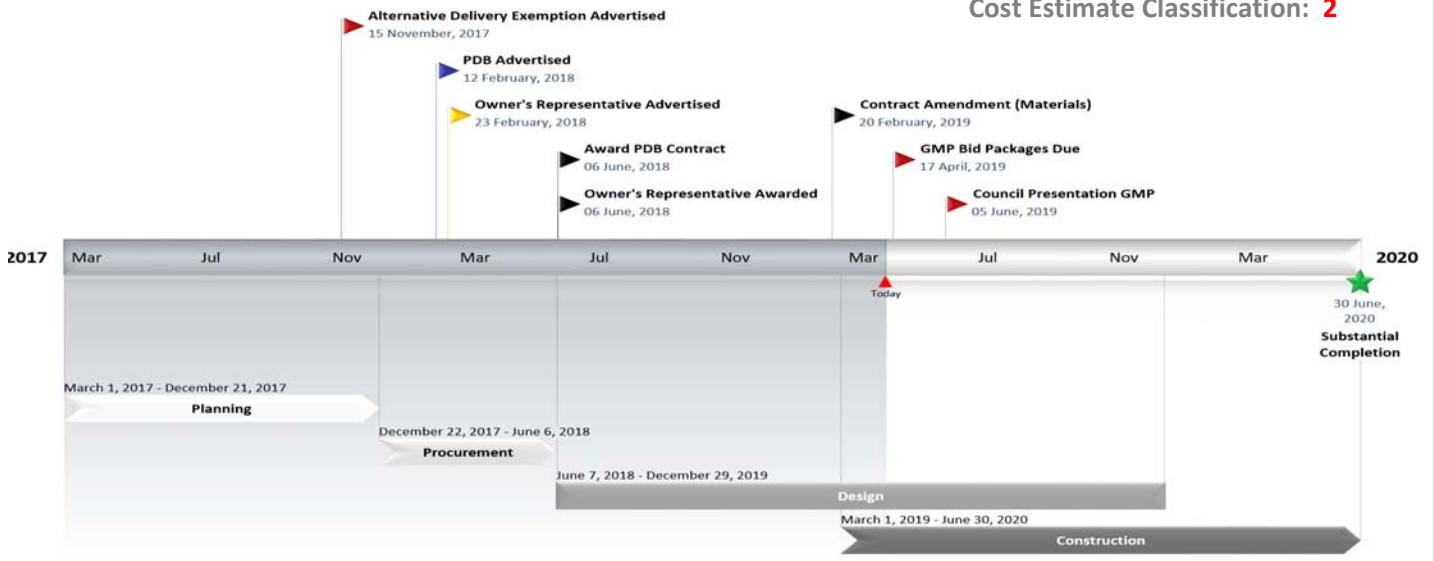
Adjustments: No impact to schedule due to scope increase.

### Status: Budget Increase

Adjustments: Additional budget will be requested during 2019-2021 budget development to cover scope increase.

**Status Update:** Project Plans and Specs are complete. The Progressive Design Builder has advertised all bid packages. Bids are due to be received on April 17th. Final GMP costs will be generated from these bids. Final GMP presentation to council is scheduled for June 5th.

Cost Estimate Classification: 2



## Newport Pipe Replacement

The South Awbrey Butte Drainage Study completed in 2017 determined that the existing stormwater and conveyance system on Newport Avenue is in need of replacement. This study identified the replacement of the Newport Avenue trunk line as the highest priority project in the drainage basin and also prioritized fifteen associated projects that would directly benefit the trunk line project or mitigate flooding and/or improve water quality in the basin.



**Partially collapsed storm pipe under Newport Ave.**

Primary Contact: Drew Wells | awells@bendoregon.gov

### Scope

Reconstruct existing drainage collection and conveyance system along Newport and Nashville Avenues. Synergy projects include water, sewer, accessibility and transportation elements.

### Schedule

Start Date: 3/6/2019  
 Substantial Completion: 10/31/2023  
 Final Closeout: 10/31/2024

### Cost

Total Estimated: \$13,779,000  
 Spent to Date: \$0  
 % Spent to Estimated: 0%

### Status: On Scope

Adjustments: No change from prior month

### Status: On Schedule

Adjustments: No change from prior month

### Status: On Budget

Adjustments: No change from prior month

**Status Update:** Completion of the Project Charter expected early May. Anticipated advertisement of the RFP for Design expected mid-May.

### Cost Estimate Classification: 5



## Drake Lift Station Upgrade

Primary Contact: Jason Suhr | jsuhr@bendoregon.gov



The existing lift station is at the end of its useful life. Replacement is necessary to address existing condition issues, long-term capacity constraints, and present-day site limitations. In order to accommodate increased flows to the station from the build-out of the drainage basin, the project will replace the existing station, upsizing gravity mains, and installing a new discharge force main from the station to the Colorado Lift Station Force Mains.

### Scope

Project includes pumps, piping, electrical and control equipment, standby generator for back-up power, odor control equipment, wet or dry wells, liquid level monitoring, pressure monitoring, flow monitoring, bypass pumping port, and telemetry equipment within a new station, as well as gravity and force main construction.

### Schedule

Start Date: 2/15/2019  
 Substantial Completion: 11/30/2020  
 Final Closeout: 11/30/2021

### Cost

Total Estimated: \$7,500,000  
 Spent to Date: \$43,864  
 % Spent to Estimated: 1%

Sewer Project \$7,500,000  
 Accessibility \$150,000  
 Water Project \$120,000

### Status: On Scope

Adjustments: No change from prior month

### Status: On Schedule

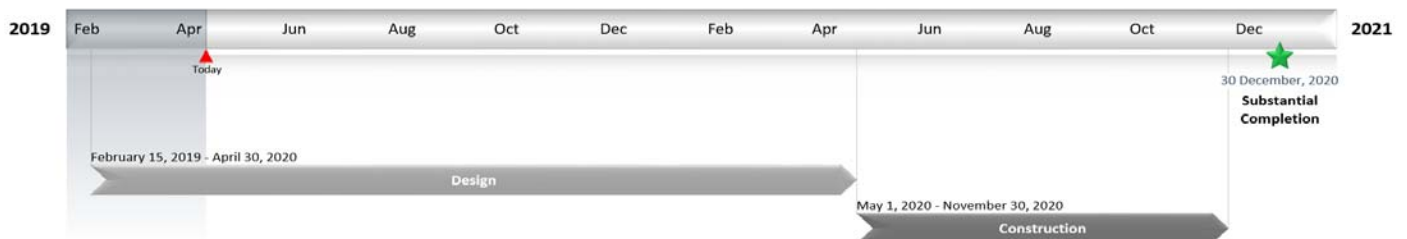
Adjustments: No change from prior month

### Status: On Budget

Adjustments: No change from prior month

**Status Update:** Held Project Definition workshop to finalize alternatives analysis and select proposed pump station site and pipeline alignments. Proceeding with 30% design development with selected options.

### Cost Estimate Classification: 5



# Solids Handling Improvements

Primary Contact: Brittany Park | [bpark@bendoregon.gov](mailto:bpark@bendoregon.gov)

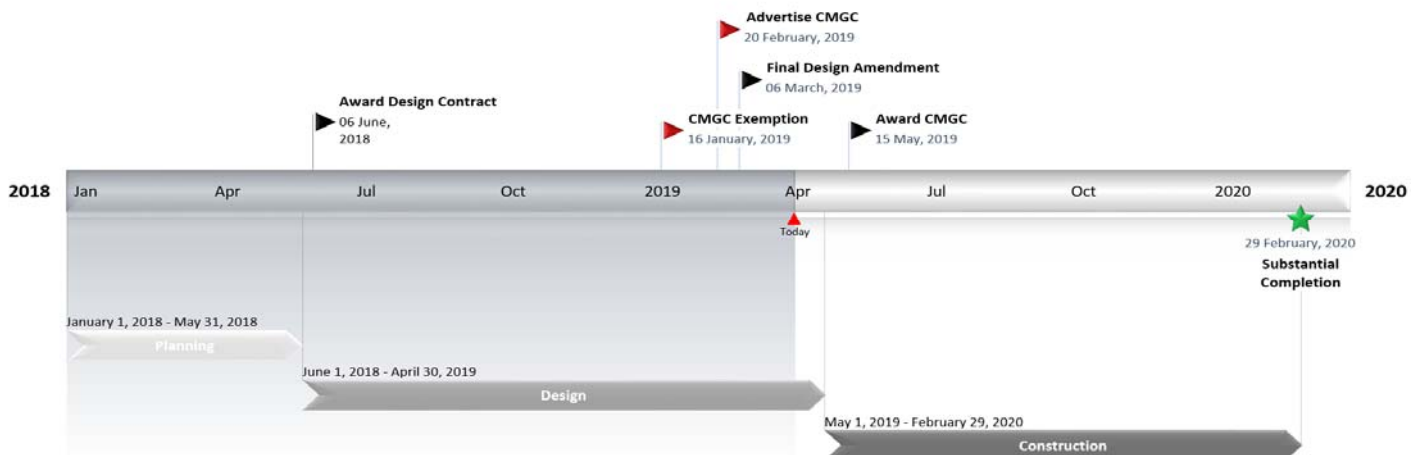
The City of Bend’s Water Reclamation Facility (WRF) solids handling dewatering process has maintenance, redundancy, and operational challenges. The system is nearing capacity and there is heavy corrosion in both the building and on equipment resulting in deterioration of assets.



Scope	Schedule	Cost
The objective of the project is to upgrade the solids dewatering process to ensure (1) increase in dewatering performance while continuing to produce Class A biosolids, (2) increase capacity, (3) increase asset lifespan, and (4) provide safe work environment for staff.	Start Date: 6/1/2018 Substantial Completion: 2/29/2020 Final Closeout: 3/1/2021	Total Estimated: \$5,500,000 Spent to Date: \$199,430 % Spent to Estimated: 4%
<b>Status: On Scope</b>	<b>Status: On Schedule</b>	<b>Status: Potential Budget Adjustment</b>
Adjustments: No impact to scope for potential budget adjustment	Adjustments: No impact to schedule for potential budget adjustment	Adjustments: Preliminary estimates coming in higher than original

**Status Update:** Final design contract approved and CMGC proposals due April 11.

## Cost Estimate Classification: 5



## Capacity Improvements Project

Provides additional treatment capacity at the Water Reclamation Facility (WRF) in order to ensure the City continues to meet the needs of the community and Department of Environmental Quality (DEQ) permit requirements. Treatment capacity increases from 6.5 MGD to 8.5 MGD when complete with greater flexibility in the future to increase capacity at a much lower cost.



Primary Contact: Josh Robertson | [jrobertson@bendoregon.gov](mailto:jrobertson@bendoregon.gov)

### Scope

This project would add plant capacity by retrofitting existing aeration basins to Integrated Fixed-Film Activated Sludge (IFAS) operation, making hydraulic improvements to plant piping and starting up Ultra Violet disinfection systems to replace the current chlorine contact system.

### Schedule

Start Date: 4/1/2017  
 Substantial Completion: 5/27/19  
 Final Closeout: 5/27/2020

### Cost

Total Estimated: \$8,000,000  
 Spent to Date: \$5,716,780  
 % Spent to Estimated: 71%

Status: On Scope

Status: On Schedule

Status: On Budget

Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

Status Update: Started working on plant effluent ultraviolet (UV) system and performance testing will begin in May.

### Cost Estimate Classification: 1



## Pump Station Decommissions Program

The cost analysis in the Collection System Master Plan determined the following lift station decommissions: Nottingham Pump Station Connections to SEI, Ridgewater #1, Bridges at Shadow Glen, Tri-Peaks, Crown Villa #1 & #2, Murphy, Quail Ridge #1 & #2, South Village, and Sun Meadow.



Primary Contact: Brittany Park | [bpark@bendoregon.gov](mailto:bpark@bendoregon.gov)

### Scope

The project consists of decommissioning multiple sewer pump stations throughout the City where gravity sewer diversions have been determined to be viable.

### Schedule

Start Date: 3/1/2017  
 Substantial Completion: **08/31/2020**  
 Final Closeout: 12/31/2020

### Cost

Total Estimated: \$4,500,000  
 Spent to Date: \$417,040  
 % Spent to Estimated: 9%

**Status: Potential Scope Increase**

**Status: Baseline Schedule Change**

**Status: Potential Budget Increase**

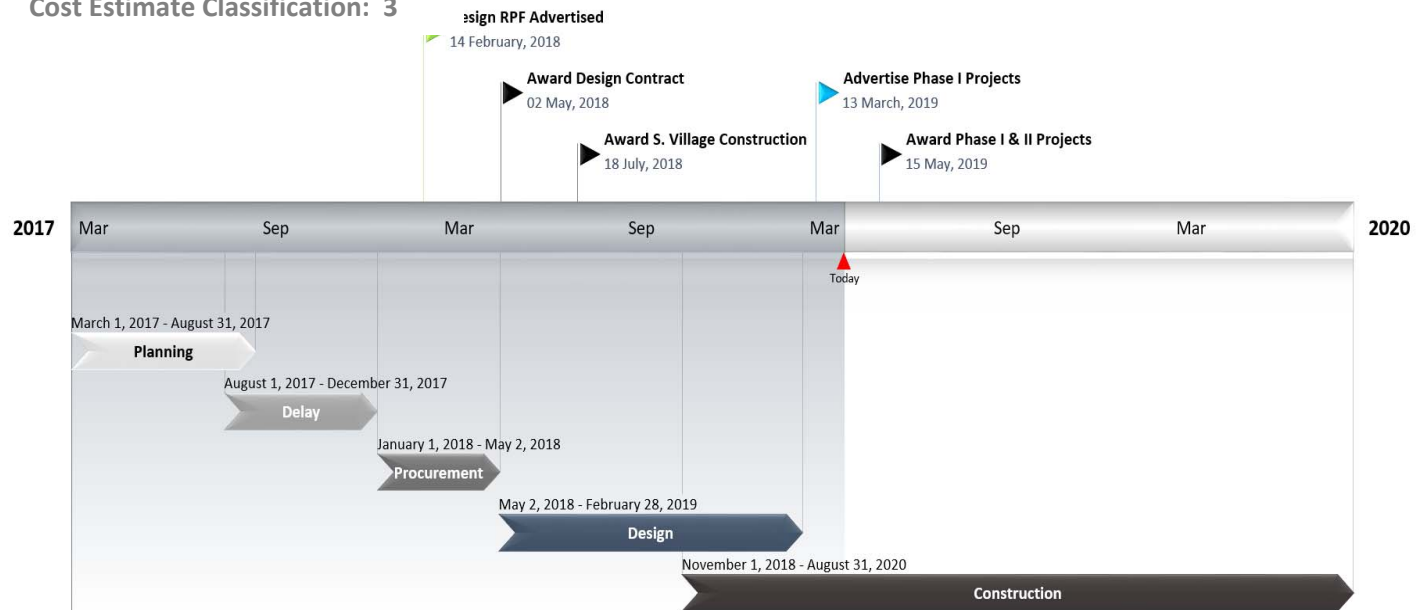
Adjustments: Phase III work being evaluated as part of a private development project.

Adjustments: **Phase I and Phase II work combined. Phase III work being evaluated.**

Adjustments: If Phase III work is added, a budget increase is necessary.

**Status Update:** Phase I plans were repackaged with Phase II and have been advertised for construction bids. Bids are due April 23rd with a council presentation date of May 15th. Schedule was adjusted to accommodate additional work from Phase II.

### Cost Estimate Classification: 3





## Neff & Purcell Intersection

This intersection and corridor has been highly prioritized by members of the community serving on the City of Bend Accessibility Advisory Committee and a previous safety study. The project will include the following tasks: public engagement, survey, design, and construction of missing sidewalks and a safer intersection for all users serving the surrounding medical, residential, and school properties.

Primary Contact: Sinclair Burr | sburr@bendoregon.gov



### Scope

Improvements to the existing intersection of Neff Road and Purcell Boulevard for all modes of transportation. Improvements to the pedestrian infrastructure to the west of the signal. An alternatives analysis will determine the exact improvements implemented here.

### Schedule

Start Date: 8/6/2018  
 Substantial Completion: 06/30/2021  
 Final Closeout: 06/30/22

### Cost

Total Estimated: \$4,000,000  
 Spent to Date: \$2,428  
 % Spent to Estimated: 0.06%

Status: On Scope

Status: On Schedule

Status: On Budget

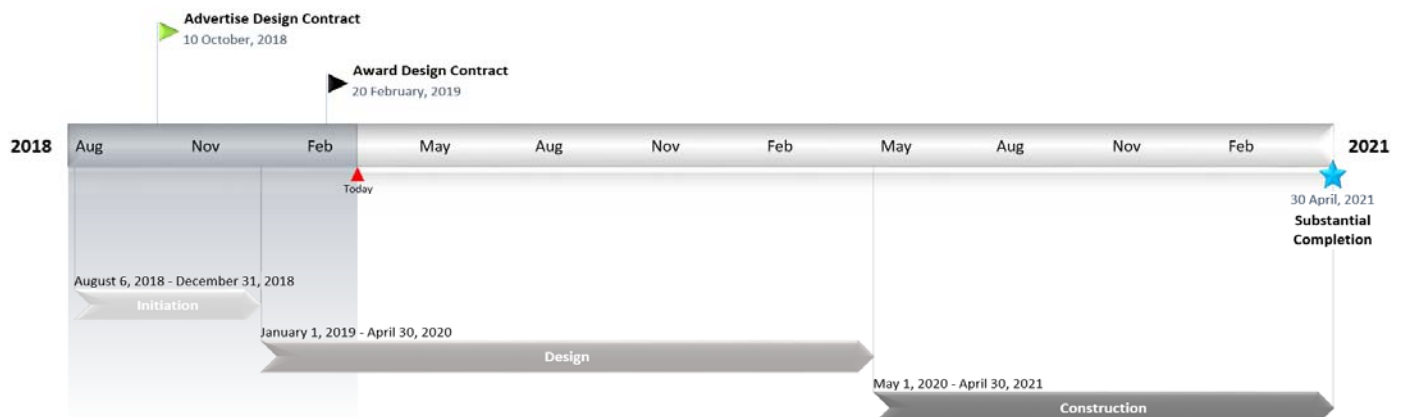
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

Status Update: Design kickoff meeting held and alternatives analysis underway.

Cost Estimate Classification: 5



## Desert Woods Sewer Main Project

This project was broadly identified by the Sewer Infrastructure Advisory Group (SIAG) in 2012 as part of a plan to assist properties in SE Bend to transition from septic systems to City sewer. The need for this conversion program is discussed in the City's 2014 Public Facility Plan and Collection System Master Plan documents. In December 2018, Council approved the Septic to Sewer Program as recommended by the Septic to Sewer Conversion Committee.



Primary Contact: Katherina Barguil | kbarguil@bendoregon.gov

### Scope

Construct new sewer main along Desert Woods Drive and 15<sup>th</sup> Street to provide stub-outs to property owners in the public right of way for connecting to the SEI.

### Schedule

Start Date: 7/1/2019  
 Substantial Completion: 10/31/2020  
 Final Closeout: 10/31/2021

### Cost

Total Estimated: \$6,000,000  
 Spent to Date: \$0  
 % Spent to Estimated: 0%

### Status: On Scope

Adjustments: No change from prior month

### Status: On Schedule

Adjustments: No change from prior month

### Status: On Budget

Adjustments: No change from prior month

**Status Update:** Construction Management & Inspection Services RFP closes on May 15, 2019. Construction Services Best Value RFP set to post on May 16, 2019.

### Cost Estimate Classification: 2



## Bend Sewer Extension 1 Project

This project was broadly identified by the Sewer Infrastructure Advisory Group (SIAG) in 2012 as part of a plan to assist properties in SE Bend to transition from septic systems to City sewer. The need for this conversion is discussed in the City's 2014 Public Facility Plan and Collection System Master Plan. In December 2018, Council approved the Septic to Sewer Program as recommended by the Septic to Sewer Conversion Committee. This project is under the Neighborhood Extension Program.



**Primary Contact: Katherina Barguil | kbarguil@bendoregon.gov**

### Scope

Construct new sewer main along Desert Woods Drive and 15<sup>th</sup> Street to provide stub-outs to property owners in the public right of way for connecting to the SEI.

### Schedule

Start Date: 7/1/2019  
 Substantial Completion: 6/30/2021  
 Final Closeout: 6/30/2022

### Cost

Total Estimated: \$5,000,000  
 Spent to Date: \$0  
 % Spent to Estimated: 0%

### Status: On Scope

Adjustments: No change from prior month

### Status: On Schedule

Adjustments: No change from prior month

### Status: On Budget

Adjustments: No change from prior month

**Status Update:** Construction Management & Inspection Services RFP closes on May 15, 2019. Construction Services Best Value RFP set to post on May 16, 2019.

### Cost Estimate Classification: 2



## Amethyst Mahogany Diversion

This project is a sewer diversion structure and pipeline, approximately 1,200 lineal feet in length that will serve the Amethyst-Mahogany sewer collection basin and reroute flows into the recently completed Southeast Interceptor. This action will mitigate capacity constrained segments of the Central Interceptor.

Primary Contact: Jake Sherman | [jsherman@bendoregon.gov](mailto:jsherman@bendoregon.gov)



### Scope

Design and construction of a diversion box and pipeline routing sewer flows to the Southeast Interceptor.

### Schedule

Start Date: 7/1/2018  
 Substantial Completion: 11/30/2019  
 Final Closeout: 11/30/2020

### Cost

Total Estimated: \$3,900,000  
 Spent to Date: \$187,569  
 % Spent to Estimated: 5%

**Status: On Scope**

**Status: Potential Schedule Change**

**Status: On Budget**

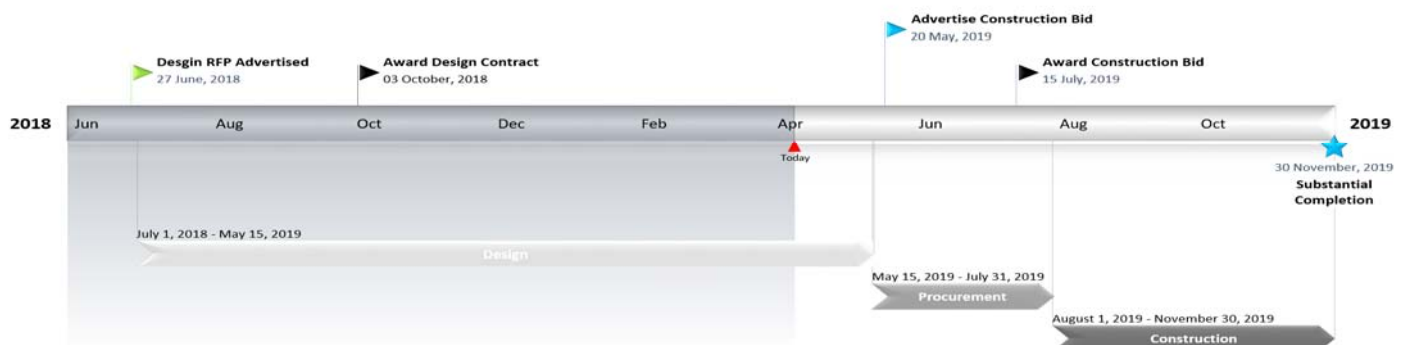
Adjustments: No change from prior month

Adjustments: Coordination with private development in the project area may require a schedule adjustment.

Adjustments: Project costs are not impacted due to private development coronation.

**Status Update:** Final design is scheduled for April with advertisement for bidding expected in May. Evaluating impacts to project from the schedule change to determine best option for the project.

Cost Estimate Classification: 5



## Southeast Bend Septic to Sewer Solutions

When constructed, existing residences, currently on septic systems, will eventually and systematically connect to the recently constructed South East Interceptor (SEI). This project will require phases to meet constructability limitations and to better meet community involvement requirements.

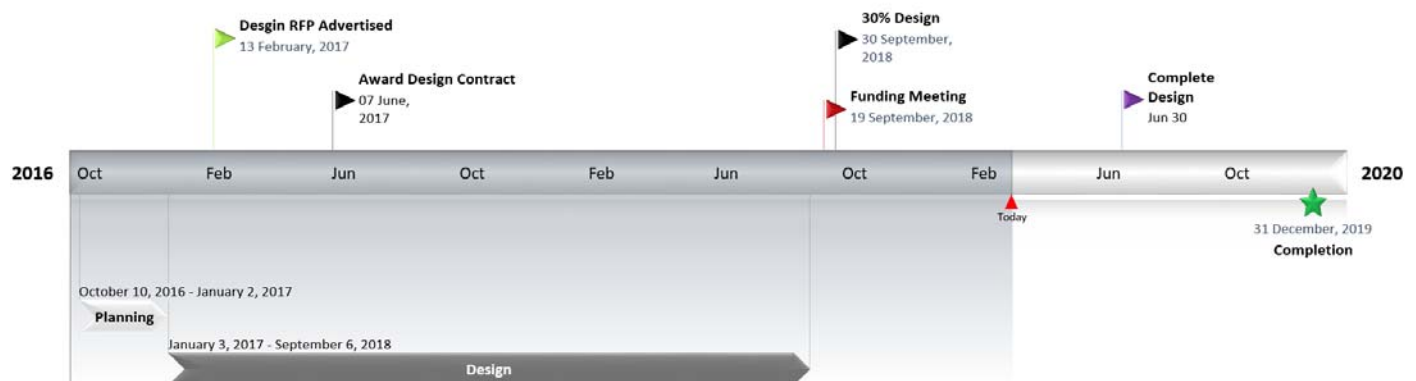


Primary Contact: Skip Martin | [smartin@bendoregon.gov](mailto:smartin@bendoregon.gov)

Scope	Schedule	Cost
Design 35,000 feet of gravity sewer through a portion of Southeast Bend area near King's Forest neighborhood.	Start Date: 10/10/2016 Substantial Completion: 12/31/2019 Final Closeout: 12/31/2019*	Total Estimated: \$2,800,000* Spent to Date: \$2,094,261 % Spent to Estimated: 75%
<b>Status: On Schedule</b>	<b>Status: On Schedule</b>	<b>Status: On Budget</b>
Adjustments: No change from prior month	Adjustments: No change from prior month	Adjustments: No change from prior month

**Status Update:** Final Review for "Desert Woods and N01" bid-ready documents continue. "Best Value" Contract mechanism approved by City Council. RFP for Construction Management Services - Advertised on 12 April 2019, Closes on 15 May 2019. Draft RFP for Construction underway with "Best Value" guidelines. Target Mid-May 2019 to advertise. Open House in preparation for construction for the "Desert Woods and N01" scheduled for area homeowners on May 2, 2019. Monitor the NEP requests and assist homeowners as needed. Next date for receiving NEP applications is February 2020.

### Cost Estimate Classification: 2



## Citywide Safety Improvements

With the help of the community and a prior safety study, the city has identified multiple locations across the city where there have been a high number of crashes. Several treatments are proposed to make these locations safer for people walking, riding bicycles, and driving. This project will further develop the design of these treatments and construct them with additional community input.



Primary Contact: Rory Rowan | [rrowan@bendoregon.gov](mailto:rrowan@bendoregon.gov)

### Scope

Survey, design, traffic analysis, public involvement, and construction of safety improvements at the following locations: 3rd & Hawthorne, 3rd & Franklin, 3rd & COID Canal, 3rd & Pinebrook, 3rd & Roosevelt, Colorado Interchange, Neff & Williamson, 27th & Conners, and Brosterhus Road railroad underpass.

### Schedule

Start Date: 10/1/2014  
 Substantial Completion: 6/30/2021  
 Final Closeout: 6/30/2022

Completed Projects:

- 3rd & Roosevelt
- Neff & Williamson Blvd
- 27th & Conners Ave

### Cost

Total Estimated: \$2,940,600  
 Spent to Date: \$967,726  
 % Spent to Estimated: 33%

**Status: On Scope**

**Status: Behind Schedule**

**Status: On Budget**

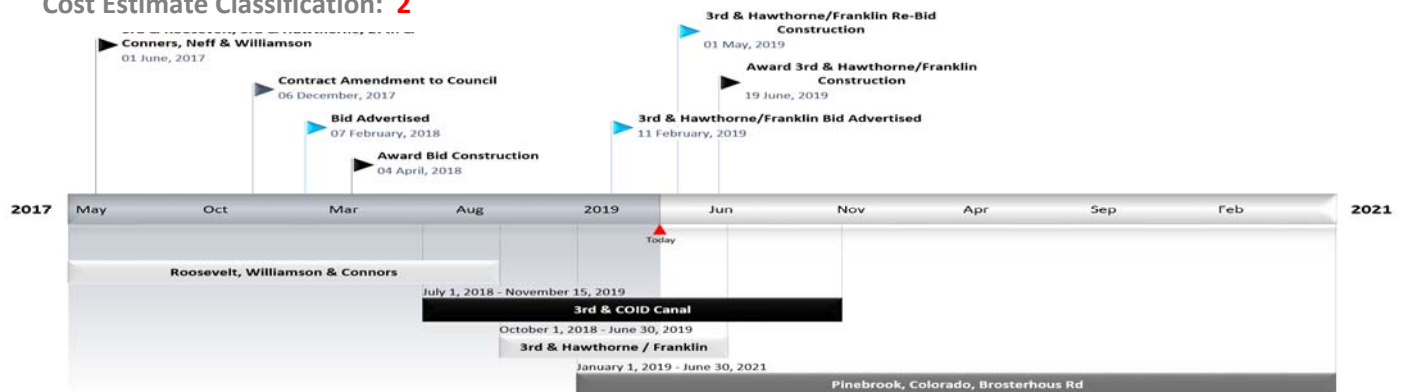
Adjustments: No change from prior month

Adjustments: **Project behind schedule due to no bids being received. Will adjust schedule after bid closes.**

Adjustments: No change from prior month

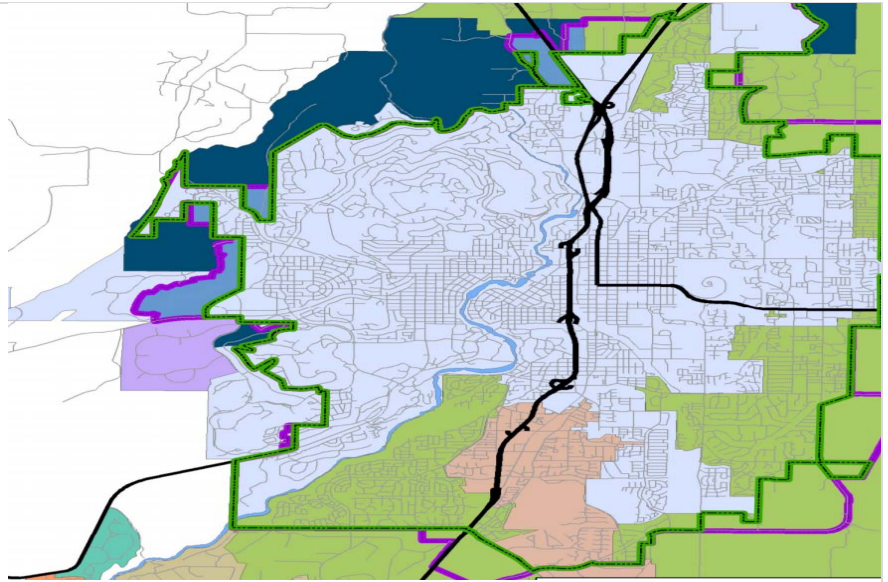
**Status Update:** No bids received for the 3rd Street at Hawthorne and at Franklin segments. Project will go out for re-bid on May 1. Updated bid package will afford greater flexibility in project schedule to increase contractor interest in project. Right of Way acquisition is currently in process for the crossing on 3rd at the Canal.

### Cost Estimate Classification: 2



## Integrated Water System Master Plan Project

The purpose of this Integrated Water System Master Plan is to provide the City with information and guidance for the utility water system's operation, maintenance, and development, as well as incorporate integrated conservation, energy reduction, and water management practices into long-term planning. The plan will emphasize the optimization of Utility Water operations in an effort to decrease operational and energy costs, with the potential to reduce capital improvement replacements, while continuing to provide a safe and reliable water supply to the growing Bend community.



Primary Contact: Katherina Barguil | kbarguil@bendoregon.gov

### Scope

The Integrated Water System Master Plan will aim to identify system deficiencies and improvements over a regulatory compliance period of 20 years and will be guided by the requirements set forth by the State of Oregon Administrative Rules (OAR). Key deliverables include a phased Capital Improvement Program (CIP), an updated System Development Charge (SDC) strategy, a Water Management and Conservation Plan (WMCP), and a Water Public Facility Plan (PFP). Existing system condition assessments will also be produced for tanks, reservoirs, wells, and booster pumps to better inform the system model and capital improvement recommendations.

### Schedule

Start Date: 5/1/2019  
 Substantial Completion: N/A  
 Final Closeout: 1/31/2021

### Cost

Total Estimated: \$1,500,000  
 Spent to Date: \$0  
 % Spent to Estimated: 0%

**Status: On Scope**

**Status: On Schedule**

**Status: On Budget**

Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

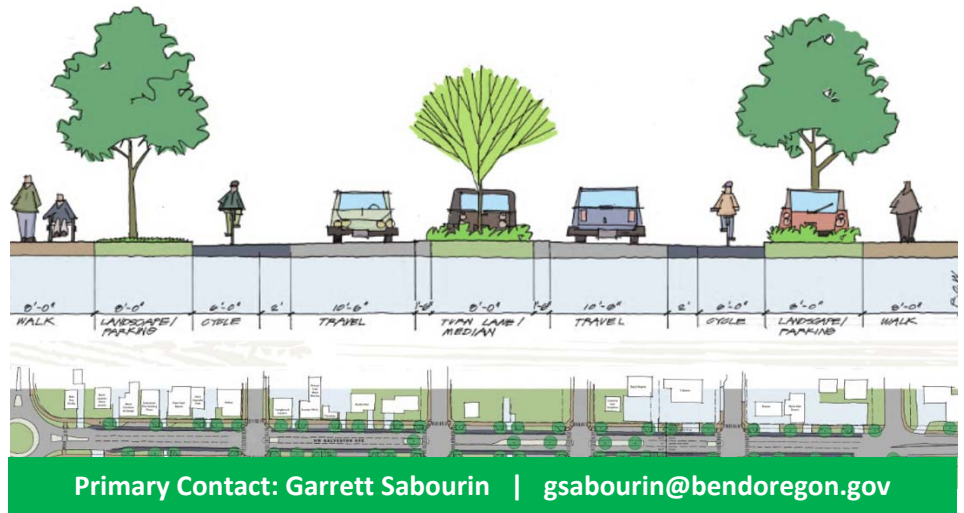
**Status Update:** Authorization to be requested at the May 15, 2019 Council Meeting.

**Cost Estimate Classification: N/A**

No timeline provided for planning documents.

# Galveston Corridor Improvements

The Galveston Corridor planning dates back to 2007 when the Traffic Safety Advisory Committee identified the project as the City of Bends 4th highest safety priority project, for existing arterials and collectors. Following initial identification of the project there was significant public interest and involvement from the adjacent community, resulting in the development of a local task force and subsequent council acceptance of a 'hybrid' streetscape concept. Design initiated in 2016.



## Scope

Scope includes the design of the three-lane hybrid option, Deschutes River Bridge to 14<sup>th</sup> Street, from 30% to final design. The three-lane hybrid option is seen in the above exhibit and includes drainage improvements, pedestrian crossings, raised medians, buffered bike lanes, on-street parking and ADA compliant pedestrian facilities.

## Schedule

Start Date: 06/01/2011  
 Substantial Completion: TBD  
 Final Closeout: 01/31/2019\*\*  
 \*\* Construction not funded. Final closeout indicates 100% design.

## Cost

Total Estimated: \$950,000<sup>†</sup>  
 Spent to Date: \$614,233\*  
 % Spent to Estimated: 65%  
<sup>†</sup> Total cost estimate for design  
 \* Includes planning prior to CIP

## Status: On Scope

Adjustments: No change from prior month

## Status: Behind Schedule

Adjustments: Project behind schedule due to workload constraints

## Status: On Budget

Adjustments: No change from prior month

**Status Update:** Additional traffic analysis regarding traffic calming in the adjacent neighborhood has been submitted and is under review. Results of the analysis are planned to be communicated to Council in April.

## Cost Estimate Classification: 3





## Bicycle Greenways Project

An initial network of neighborhood greenways across Bend will be created to make walking and biking a more comfortable and safe travel option. It will be implemented in phases and by corridor over multiple years. The proposed improvements will provide safer connections, reduce cut through traffic and speeds, help people cross busier streets, and link together housing, parks, schools, and businesses.



Project Engineer: Rory Rowan | [rrowan@bendoregon.gov](mailto:rrowan@bendoregon.gov)

### Scope

Design, public outreach, and construction of signs, pavement markings, and traffic calming improvements across a 9-mile network of local streets. The initial phase currently underway includes:

- NE 6<sup>th</sup> St (Greenwood to Butler Market)
- NW/SW 15<sup>th</sup> St (Simpson to Galveston)

### Schedule

Start Date: 2/1/2018  
 Substantial Completion: 06/30/2021  
 Final Closeout: 06/30/2022

### Cost

Total Estimated: \$900,000  
 Spent to Date: \$17,281  
 % Spent to Estimated: 2%

Status: On Scope

Status: Potential Schedule Change

Status: On Budget

Adjustments: No change from prior month

Adjustments: Paving in Street Operations Division may impact schedule

Adjustments: No change from prior month

**Status Update:** Phase 1 (NE 6th & NW 15th Streets) contract has been awarded and construction is scheduled to begin May 1. Utilizing on-call contract to scope Phase II work.

### Cost Estimate Classification: 1



## Simplicity Main & Pump Station Decommission

This project was broadly identified by the Sewer Infrastructure Advisory Group (SIAG) in 2012 as part of a plan to assist properties in SE Bend to transition from septic systems to City sewer. The need for this conversion program is discussed in the City's 2014 Public Facility Plan and Collection System Master Plan documents. In December 2018, Council approved the Septic to Sewer Program as recommended by the Septic to Sewer Conversion Committee.



**Primary Contact: Katherina Barguil | kbarguil@bendoregon.gov**

### Scope

Decommission the Simplicity Pump Station and construct a sewer main along SE Hollis Lane to 15<sup>th</sup> Street; provides gravity connection to the SEI.

### Schedule

Start Date:  
Substantial Completion:  
Final Closeout:

### Cost

Total Estimated: \$500,000  
Spent to Date: \$0  
% Spent to Estimated: 0%

**Status: On Scope**

**Status: On Schedule**

**Status: On Budget**

Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

**Status Update:** Construction Management & Inspection Services RFP closes on May 15, 2019. Construction Services Best Value RFP set to post on May 16, 2019.

### Cost Estimate Classification: 2





<p><b>Riverhouse Lift Station Improvements Project</b></p>	<p>As identified in the 2014 CSMP and recommended by the Infrastructure Advisory Committee (IAC), the Riverhouse Lift Station Improvements project includes projects 1, 5 and 6 identified in the North Area Sewer Upgrades project and concludes the work prepared under that project. The improvements will balance flows in this area and provide additional capacity to the north end of the collection system.</p> <p style="text-align: right;">Primary Contact: George Franklet   <a href="mailto:gfranklet@bendoregon.gov">gfranklet@bendoregon.gov</a></p>	
<p><b>Scope</b></p>	<p><b>Schedule</b></p>	<p><b>Cost</b></p>
	<p>Start Date: Substantial Completion: Final Closeout:</p>	<p>Total Estimated: \$500,000 Spent to Date: \$0 % Spent to Estimated: 0%</p>
<p><b>Status: On Scope</b></p>	<p><b>Status: On Schedule</b></p>	<p><b>Status: On Budget</b></p>
<p>Adjustments: No change from prior month</p>	<p>Adjustments: No change from prior month</p>	<p>Adjustments: No change from prior month</p>
<p><b>Status Update:</b></p>		
<p><b>Cost Estimate Classification: 2</b></p>		