

Stormwater (Watershed)

Funded Projects

Overview

The Stormwater (Watershed) Capital Program is designed to promote and maintain the health and safety of the environment for all Gresham citizens through effective stormwater and natural resource management including: planning, designing, constructing, and maintaining all elements of the public stormwater system. The 5-year CIP program is a vital component to meeting these stated goals, along with meeting the requirements of our regulators and expectations of our residents. Through careful planning and capital project implementation, most historical challenges associated with flood management are now being addressed. While additional flood control projects are still needed, the CIP efforts show an increase in improvements in the areas of surface and ground water quality, stream health, natural resources, and maintenance of existing infrastructure. Properly functioning stormwater infrastructure and healthy streams and wetlands are an important part of the economic engine for sustaining and improving the livability and quality of life in Gresham.

One of the business strategies being employed by Watershed is the application of a comprehensive asset management system beginning with the Operations program, and ultimately applied to the Capital Improvement Program.

Drivers to the CIP program include:

1. Projects directly related to meeting State and Federal storm water discharge permit requirements to protect surface and groundwater resources
2. Projects needed to reduce flooding (future build out) and 'prevent' property damage
3. Projects needed to improve the quality of our waterways

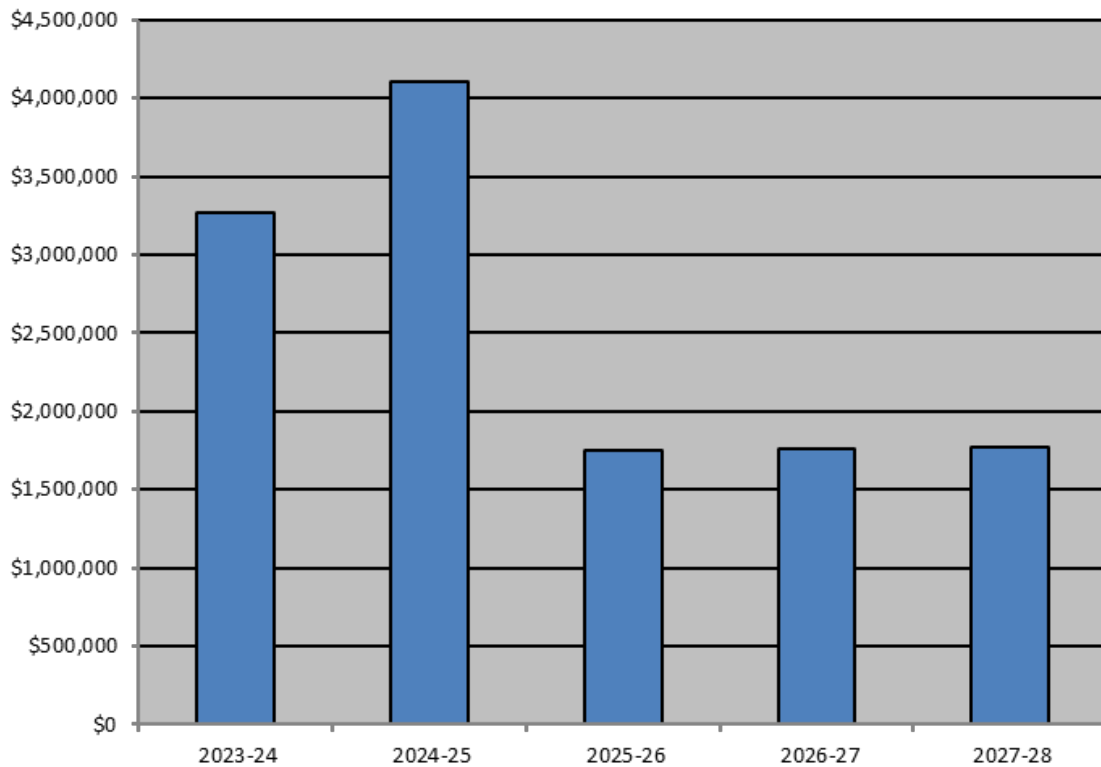
Highlights

Significant projects during the coming fiscal years include:

1. Repair of aging and deficient pipes throughout the City #CIPSW00004
2. Segments 3B & 3C, Fairview Creek Basin Central Core Trunk Improvement #CIPSW00016

Project funding comes from a combination of stormwater utility rates, system development charges, grants, debt and private-public partnerships.

Stormwater (Watershed Management) Expenditure Graph by Fiscal Year



Stormwater Funded Summary										
Project	Project Name	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total		
CIPSW00001	Localized Drainage Improvements	250,737	355,154	108,309	111,559	114,905	118,354	1,059,018		
CIPSW00002	Low Impact Dev Practices Retrofit Program	1,148,550	235,000	200,000	200,000	200,000	200,000	2,183,550		
CIPSW00003	Stream and Slope Improvements	694,967	651,133	93,867	96,683	99,583	102,570	1,738,803		
CIPSW00004	Rehab & Repair of Pipe System	2,314,639	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	7,314,639		
CIPSW00005	Stormwater Facility Improvements	389,384	440,000	50,000	50,000	50,000	50,000	1,029,384		
CIPSW00006	Riparian & Wetland Improvement Projects	575,702	84,140	86,664	89,264	91,942	94,700	1,022,412		
CIPSW00007	Fujitsu Ponds Restoration	0	248,000	0	0	0	0	248,000		
CIPSW00008	Segment 2, Fairview Creek Basin Central Core Trunk Impr	406,904	0	0	0	0	0	406,904		
CIPSW00009	Infrastructure Capacity Improvements	222,439	50,000	0	0	0	0	272,439		
CIPSW00015	West Gresham Water Quality and Infiltration Facilities	583,022	0	0	0	0	0	583,022		
CIPSW00016	Segments 3B & 3C, Fairview Creek Basin Central Core Tru	2,329,979	0	0	0	0	0	2,329,979		
CIPSW00021	Environmental Risk Prevention	0	200,000	200,000	200,000	200,000	200,000	1,000,000		
CIPSW00023	Water Quality Tree Wells	0	0	2,362,593	0	0	0	2,362,593		
Grand Total		8,916,323	3,263,427	4,101,433	1,747,506	1,756,430	1,765,624	21,550,743		

Stormwater Funded Summary by Resource							
Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Other	0	150,000	0	0	0	0	150,000
Debt-Operating	0	0	2,362,593	0	0	0	2,362,593
Dev/SDC Credit	406,904	0	0	0	0	0	406,904
Grant	0	35,000	0	0	0	0	35,000
Operating	3,870,937	1,042,647	522,487	525,412	528,424	531,527	7,021,434
Repair/Replacement Reserves	3,617,516	2,015,780	1,216,353	1,222,094	1,228,006	1,234,097	10,533,846
SDC	1,020,966	20,000	0	0	0	0	1,040,966
Grand Total	8,916,323	3,263,427	4,101,433	1,747,506	1,756,430	1,765,624	21,550,743

Stormwater Funded Resource Detail										
Project	Project Name	Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total	
CIPSW00001	Localized Drainage Improvements	Operating	125,369	177,577	54,155	55,780	57,453	59,177	529,511	
		Repair/Replace	125,368	177,577	54,154	55,779	57,452	59,177	529,507	
CIPSW00001 Total			250,737	355,154	108,309	111,559	114,905	118,354	1,059,018	
CIPSW00002	Low Impact Dev Practices Retrofit Program	Grant	0	35,000	0	0	0	0	35,000	
		Operating	1,148,550	200,000	200,000	200,000	200,000	200,000	2,148,550	
CIPSW00002 Total			1,148,550	235,000	200,000	200,000	200,000	200,000	2,183,550	
CIPSW00003	Stream and Slope Improvements	Repair/Replace	694,967	651,133	93,867	96,683	99,583	102,570	1,738,803	
CIPSW00003 Total			694,967	651,133	93,867	96,683	99,583	102,570	1,738,803	
CIPSW00004	Rehab & Repair of Pipe System	Repair/Replace	2,314,639	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	7,314,639	
CIPSW00004 Total			2,314,639	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	7,314,639	
CIPSW00005	Stormwater Facility Improvements	Operating	194,693	145,000	25,000	25,000	25,000	25,000	439,693	
		Other	0	150,000	0	0	0	0	150,000	
		Repair/Replace	194,691	145,000	25,000	25,000	25,000	25,000	439,691	
CIPSW00005 Total			389,384	440,000	50,000	50,000	50,000	50,000	1,029,384	
CIPSW00006	Riparian & Wetland Improvement Projects	Operating	287,851	42,070	43,332	44,632	45,971	47,350	511,206	
		Repair/Replace	287,851	42,070	43,332	44,632	45,971	47,350	511,206	
CIPSW00006 Total			575,702	84,140	86,664	89,264	91,942	94,700	1,022,412	
CIPSW00007	Fujitsu Ponds Restoration	Operating	0	248,000	0	0	0	0	248,000	
CIPSW00007 Total			0	248,000	0	0	0	0	248,000	
CIPSW00008	Segment 2, Fairview Creek Basin Central Core Trunk Im Dev/SDC Credit		406,904	0	0	0	0	0	406,904	
CIPSW00008 Total			406,904	0	0	0	0	0	406,904	
CIPSW00009	Infrastructure Capacity Improvements	Operating	133,464	30,000	0	0	0	0	163,464	
		SDC	88,975	20,000	0	0	0	0	108,975	
CIPSW00009 Total			222,439	50,000	0	0	0	0	272,439	
CIPSW00015	West Gresham Water Quality and Infiltration Facilities	Operating	583,022	0	0	0	0	0	583,022	
CIPSW00015 Total			583,022	0	0	0	0	0	583,022	
CIPSW00016	Segments 3B & 3C, Fairview Creek Basin Central Core Tl Operating		1,397,988	0	0	0	0	0	1,397,988	
		SDC	931,991	0	0	0	0	0	931,991	
CIPSW00016 Total			2,329,979	0	0	0	0	0	2,329,979	
CIPSW00021	Environmental Risk Prevention	Operating	0	200,000	200,000	200,000	200,000	200,000	1,000,000	
CIPSW00021 Total			0	200,000	200,000	200,000	200,000	200,000	1,000,000	
CIPSW00023	Water Quality Tree Wells	Debt-Operating	0	0	2,362,593	0	0	0	2,362,593	
CIPSW00023 Total			0	0	2,362,593	0	0	0	2,362,593	
Grand Total			8,916,323	3,263,427	4,101,433	1,747,506	1,756,430	1,765,624	21,550,743	

CITY OF
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FUNDED PROJECT
Stormwater

CIPSW00001: Localized Drainage Improvements

Description: This project repairs the storm drainage system to correct surface drainage problems identified by staff and the public. These repairs are located in various neighborhood districts. The top three projects listed by priority include: UIC Replacement Various Locations, SE 1st Street Stormwater Inlet, and Halsey Street Improvements). The priority of the projects are subject to change. (Estimation of benefits: Growth related 0%; Existing System related 100%).

Justification: The project corrects drainage problems that result in damage to private properties or that cause localized flooding.

Type of project: Repair and rehabilitation of facilities and utilities, and to correct deficiencies.



Estimated Dollars:

Funds	Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Resources	Operating	125,369	177,577	54,155	55,780	57,453	59,177	529,511
	Repair/Replacement Reserves	125,368	177,577	54,154	55,779	57,452	59,177	529,507
Resources Total		250,737	355,154	108,309	111,559	114,905	118,354	1,059,018
Expenses	Design/Const Admin	34,600	39,100	12,400	12,800	13,200	13,000	125,100
	Construction	185,337	272,454	82,609	85,059	87,605	90,854	803,918
	Admin (14%)	30,800	43,600	13,300	13,700	14,100	14,500	130,000
Expenses Total		250,737	355,154	108,309	111,559	114,905	118,354	1,059,018

FUNDED PROJECT
Stormwater

CIPSW00002: Low Impact Development Practices Retrofit Program

Description: This project replaces conventional systems by integrating Low Impact Development practices such as rain gardens, stormwater planters, swales, drywells, porous pavement & pavers. The project is located in various neighborhood districts and may also be used to leverage stormwater revenue by partnering with private developers, public entities and other programs to apply LID retrofits more cost effectively. In 2023-24, the Stormwater division has partnered with the Transportation division (CIPTRNEW01) to pave up to two streets. The City has applied for a Partners in Conservation grant from the East Multnomah Soil & Water Conservation District to partially fund this pilot project. (Estimation of benefits: Growth related 0%; Existing System related 100%)

Justification: This project addresses water quality and water quantity issues relating to the City’s Water Quality Permit that requires a reduction in pollutants over time. Efforts are achieved through implementing sustainable best management practices that mimic natural hydrologic functions throughout each major creek basin.

Type of project: Construction of facilities and utilities to correct deficiencies and improve water quality and quantity.



Estimated Dollars:

Funds	Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Resources	Grant	0	35,000	0	0	0	0	35,000
	Operating	1,148,550	200,000	200,000	200,000	200,000	200,000	2,148,550
Resources Total		1,148,550	235,000	200,000	200,000	200,000	200,000	2,183,550
Expenses	Design/Const Admin	158,500	27,600	27,600	27,600	27,600	27,600	296,500
	Construction	843,950	78,500	142,900	142,900	142,900	142,900	1,494,050
	Property Acq	5,000	100,000	5,000	5,000	5,000	5,000	125,000
	Admin (14%)	141,100	28,900	24,500	24,500	24,500	24,500	268,000
Expenses Total		1,148,550	235,000	200,000	200,000	200,000	200,000	2,183,550

FUNDED PROJECT
Stormwater

CIPSW00003: Stream and Slope Improvements

Description: This project improves stream function and bank stability for the purposes of water quality, sensitive species habitat, critical riparian functions, and natural hazard mitigation. Stabilization of slope and bank problem areas will be done based on prioritization of known problems (as identified and ranked in the Natural Resources Master Plan) and will also assess newly discovered areas of instability. Major goals in addressing slope stabilization issues include minimizing potential for larger slope failures and associated property loss, infrastructure damage, and clean up needs. Efforts include field surveys, environmental site assessments, encumbrance research, data analysis, mapping, modeling, and hydrologic investigations, design, acquisition of easement rights or full ownership of undeveloped lands, permitting, construction, and meeting related mitigation requirements. The project addresses needs in various neighborhoods, and significantly contributes to City compliance with state and federal water quality, aquatic habitat, and critical habitat protection, and mitigates risks to public safety and infrastructure investments. (Estimation of benefits: Growth related 0%; Existing System related 100%).

Justification: Gresham’s creeks serve as major components of the public stormwater conveyance system for the City. Risk of streambank and slope failures has increased due to ongoing stream bed, streambank, and upslope erosion caused by stormwater discharges, flashy stream flows, and climate change impacts to waterways and adjacent forests. Slope and bank failures adversely impact adjacent structures and infrastructure, and harm aquatic life. Projects are prioritized for implementation based on likelihood of and consequences of significant slope movement.

Type of project: Streambank/Slope stabilization.



Estimated Dollars:

Funds	Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Resources	Repair/Replacement Reserves	694,967	651,133	93,867	96,683	99,583	102,570	1,738,803
Resources Total		694,967	651,133	93,867	96,683	99,583	102,570	1,738,803
Expenses	Design/Const Admin	95,900	114,300	16,480	17,000	17,500	11,300	272,480
	Construction	508,767	451,833	60,851	62,783	64,883	73,670	1,222,787
	Property Acq	5,000	5,000	5,000	5,000	5,000	5,000	30,000
	Admin (14%)	85,300	80,000	11,536	11,900	12,200	12,600	213,536
Expenses Total		694,967	651,133	93,867	96,683	99,583	102,570	1,738,803

FUNDED PROJECT
Stormwater

CIPSW00004: Rehab & Repair of Pipe System

Description: This project provides for analysis, design and re-construction of stormwater facilities that are in poor physical condition and in need of rehabilitation. The projects involve repairs and new construction to replace deficient stormwater systems and trench settlement. The specific projects will be identified using industry standard asset management practices, which will include analyzing system condition data using a Computerized Maintenance Management System. Located in various neighborhood districts. A significant criteria of project prioritization is based on coordination with the Transportation Division’s local streets reconstruction program (CIP #CIPTR00012). (Estimation of Benefits: Growth related 0%; Existing System related 100%).

Justification: This project will ensure that our existing stormwater infrastructure remains useful and effective.

Type of project: Repair and rehabilitation of facilities.



Estimated Dollars:

Funds	Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Resources	Repair/Replacement Reserves	2,314,639	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	7,314,639
Resources Total		2,314,639	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	7,314,639
Expenses	Design/Const Admin	319,400	72,200	72,200	72,200	72,200	72,200	680,400
	Construction	1,710,939	805,000	805,000	805,000	805,000	805,000	5,735,939
	Admin (14%)	284,300	122,800	122,800	122,800	122,800	122,800	898,300
Expenses Total		2,314,639	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	7,314,639

FUNDED PROJECT
Stormwater

CIPSW00005: Stormwater Facility Improvements

Description: This project corrects deficient or damaged stormwater facilities and associated discharge receiving areas and evaluates existing local ineffective stormwater systems for improvements in design, slope protection, maintenance access, increase of flood storage, added water quality benefits & riparian planting. Fees collected in-lieu of improvements will contribute to funding construction.

Justification: This project will bring facilities up to current standards, improve immediately adjacent lands significantly impacted by past high velocity discharges, and assists the City in meeting state and federal permit requirements for water quality improvement, pollutant removal, and annual reporting.

Type of project: Design and construction of facilities to correct existing system deficiencies and improve water quantity and quality.



Estimated Dollars:

Funds	Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Resources	Other	0	150,000	0	0	0	0	150,000
	Operating	194,693	145,000	25,000	25,000	25,000	25,000	439,693
	Repair/Replacement Reserves	194,691	145,000	25,000	25,000	25,000	25,000	439,691
Resources Total		389,384	440,000	50,000	50,000	50,000	50,000	1,029,384
Expenses	Design/Const Admin	53,700	50,000	7,300	7,300	7,300	7,300	132,900
	Construction	287,884	336,000	36,600	36,600	36,600	36,600	770,284
	Admin (14%)	47,800	54,000	6,100	6,100	6,100	6,100	126,200
Expenses Total		389,384	440,000	50,000	50,000	50,000	50,000	1,029,384

FUNDED PROJECT
Stormwater

CIPSW00006: Riparian and Wetland Improvement Projects

Description: This project addresses riparian, floodplain, and wetland improvements needed to support local water quality, riparian tree cover and forest health, habitat, and watershed hydrology. Project also supports City response to regulatory requirements for protected areas, including identification of wetland and habitat mitigation opportunities for City infrastructure improvement and repair projects. Identified opportunities are scoped and prioritized through the City’s Natural Resources Master Plan. Efforts include field surveys, environmental site assessments, encumbrance research, data collection and analysis, mapping, modeling, and hydrologic investigations, design, acquisition of easement rights or full ownership of undeveloped lands, permitting, construction, and meeting related mitigation requirements.

Justification: Assists the City in meeting state and federal water quality, stream shade, habitat, flood control, and mitigation requirements through projects that improve the condition and function of the City’s natural resources. This includes increasing riparian tree canopy to meet state-required stream temperature standards, increasing the climate resiliency of city forest resources, and improving habitat conditions for protected species. To the extent possible, City investment in these projects is leveraged by grants and extensive engagement of non-profits, residents, school groups, and businesses in volunteer stewardship at project sites.

Type of project: Riparian/Wetland Improvements.



Estimated Dollars:

Funds	Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Resources	Operating	287,851	42,070	43,332	44,632	45,971	47,350	511,206
	Repair/Replacement Reserves	287,851	42,070	43,332	44,632	45,971	47,350	511,206
Resources Total		575,702	84,140	86,664	89,264	91,942	94,700	1,022,412
Expenses	Property Acq	5,000	5,000	5,000	5,000	5,000	5,000	30,000
	Other	500,002	68,840	71,055	73,264	75,642	78,100	866,903
	Admin (14%)	70,700	10,300	10,609	11,000	11,300	11,600	125,509
Expenses Total		575,702	84,140	86,664	89,264	91,942	94,700	1,022,412

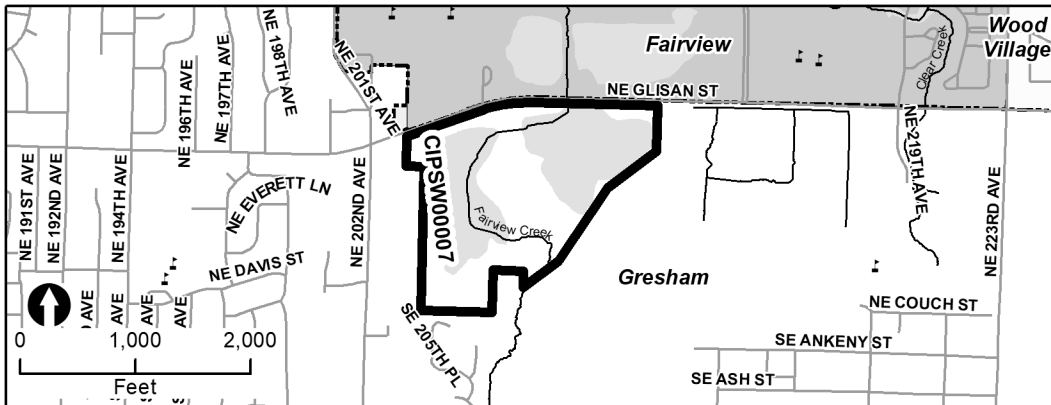
FUNDED PROJECT
Stormwater

CIPSW00007: Fujitsu Ponds Restoration

Description: Improve and restore natural resource conditions for the Fairview Creek & Columbia Slough Watershed within a 64-acre public parcel commonly referred to as Fujitsu Ponds. Two large quarry ponds will be partially filled to create a diverse wetland complex, and create a discrete Fairview Creek channel to alleviate high water temperatures, as required by to address the City’s State-administered Temperature TMDL plan. The City’s Natural Resources Master Plan reflects the full scope of the improvements needed at this site, and the project will be implemented in phases. This cost estimate reflects initial phase improvements to alleviate flooding on NE Glisan Road. The overall project cost for design, permitting, acquiring ownership or construction easement rights on abutting parcels needed to accommodate construction, and construction of the project will be brought forward in future years.

Justification: The larger project will provide multiple benefits, including economic development, increased flood storage, water quality and temperature improvements, habitat diversity, and reduction in ongoing vandalism and fire hazards (by altering lands now used for camping, dumping, etc.). The initial phase reflected here will remedy and reduce localized street flooding and include data collection and design studies needed to inform the larger project.

Type of project: Design and construction of facilities to correct existing system deficiencies and improve water quantity and quality.



Estimated Dollars:

Funds	Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Resources	Operating	0	248,000	0	0	0	0	248,000
Resources Total		0	248,000	0	0	0	0	248,000
Expenses	Design/Const Admin	0	30,800	0	0	0	0	30,800
	Construction	0	161,700	0	0	0	0	161,700
	Property Acq	0	25,000	0	0	0	0	25,000
	Admin (14%)	0	30,500	0	0	0	0	30,500
Expenses Total		0	248,000	0	0	0	0	248,000

FUNDED PROJECT
Stormwater

CIPSW00008: Segment 2, Fairview Creek Basin Central Core Trunk Improvement

Description: Installation of the second segment of new pipe parallel to existing 66-inch pipe on south side. New pipe will extend from the upstream end of an existing, currently unused, parallel 48-inch pipe to manhole 3252-F-003 on the 66-inch pipe. Connection to unused pipe increases conveyance and storage for the future growth. Amended Fairview Creek Drainage Master Plan recommends new parallel 48-inch pipe. Alternatively, a single 84-inch trunk may be installed to accommodate the combined hydraulic capacities of the existing 48-inch and proposed parallel 66-inch trunk. SDC project #FC-10.

Justification: Eliminates localized street and property flooding and limits surcharging to acceptable levels.

Type of project: Design and construction of facilities to meet growth and to correct deficiencies.



Estimated Dollars:

Funds	Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Resources	Dev/SDC Credit	406,904	0	0	0	0	0	406,904
Resources Total		406,904	0	0	0	0	0	406,904
Expenses	Construct/Reimburse	406,904	0	0	0	0	0	406,904
Expenses Total		406,904	0	0	0	0	0	406,904

FUNDED PROJECT
Stormwater

CIPSW00009: Infrastructure Capacity Improvements

Description: This program systematically addresses capacity deficiencies in existing pipes and culverts. Projects are identified through multiple channels including existing and future master plans, local drainage improvement reports, SDC Methodology project list, and field data. This project may also leverage stormwater revenue by partnering with private developers, public entities and other programs resulting in the construction of stormwater improvements in a more cost-effective manner. This project may provide systems development charge credits to developers for certain identified improvements. Projects are prioritized based on criticality.

Justification: This project increases conveyance capacity to alleviate potential flooding issues.

Type of Project: Design and construction of facilities to meet growth and to correct deficiencies.



Estimated Dollars:

Funds	Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Resources	Operating	133,464	30,000	0	0	0	0	163,464
	SDC	88,975	20,000	0	0	0	0	108,975
Resources Total		222,439	50,000	0	0	0	0	272,439
Expenses	Design/Const Admin	50,000	0	0	0	0	0	50,000
	Construction	145,139	43,900	0	0	0	0	189,039
	Admin (14%)	27,300	6,100	0	0	0	0	33,400
Expenses Total		222,439	50,000	0	0	0	0	272,439

FUNDED PROJECT
Stormwater

CIPSW00015: West Gresham Water Quality and Infiltration Facilities

Description: This project addresses capacity-related flooding in arterial roadways in the West Gresham watershed as identified by the 2020 Stormwater Master Plan by identifying, designing, and constructing upstream water quality and infiltration facilities. Specific sites will be identified in part by acquisition potential and infiltration rates. Sub-silt injection mechanisms may also be considered.

Justification: This project represents one element of a multi-faceted approach to reduce arterial flooding by introducing treatment and infiltrating runoff, thereby minimizing necessary downstream infrastructure improvements.

Type of Project: Design and construction of facilities to improve water quantity and quality, and to correct deficiencies. Easement/property acquisition may be required.



Estimated Dollars:

Funds	Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Resources	Operating	583,022	0	0	0	0	0	583,022
Resources Total		583,022	0	0	0	0	0	583,022
Expenses	Design/Const Admin	75,000	0	0	0	0	0	75,000
	Construction	426,422	0	0	0	0	0	426,422
	Property Acq	10,000	0	0	0	0	0	10,000
	Admin (14%)	71,600	0	0	0	0	0	71,600
Expenses Total		583,022	0	0	0	0	0	583,022

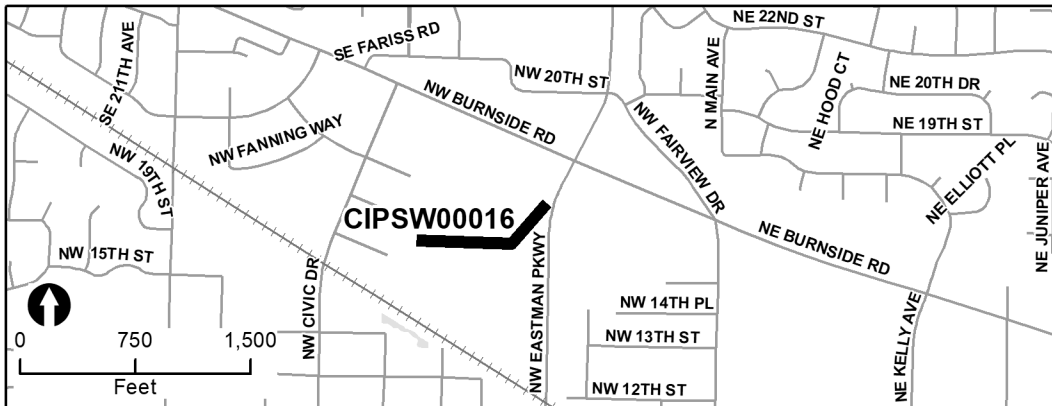
FUNDED PROJECT
Stormwater

CIPSW00016: Segments 3B & 3C, Fairview Creek Basin Central Core Trunk Improvement

Description: Installation of the fourth and fifth new pipe parallel to existing 54-inch pipe on the southeast side from manhole 3252-F-029 to manhole 3252-F-026. Amended Fairview Creek Drainage Master Plan recommends new parallel 42-inch pipe. The updated Gresham Comprehensive Stormwater Master Plan recommends a single 84" replacement to eliminate surcharge. This project is a significant portion of project FC-3g-C, SDC projects #FC-12 and #FC-13.

Justification: Eliminates localized street and property flooding and limits surcharging to acceptable levels.

Type of Project: Construction of facilities to correct deficiencies and for future growth.



Estimated Dollars:

Funds	Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Resources	Operating	1,397,988	0	0	0	0	0	1,397,988
	SDC	931,991	0	0	0	0	0	931,991
Resources Total		2,329,979	0	0	0	0	0	2,329,979
Expenses	Design/Const Admin	214,200	0	0	0	0	0	214,200
	Construction	1,799,679	0	0	0	0	0	1,799,679
	Property Acq	30,000	0	0	0	0	0	30,000
	Admin (14%)	286,100	0	0	0	0	0	286,100
Expenses Total		2,329,979	0	0	0	0	0	2,329,979

FUNDED PROJECT
Stormwater

CIPSW00021: Environmental Risk Prevention

Description: This effort will reduce risks to both natural resources and public infrastructure and is focused on areas where naturally steep topography and drainageways have been significantly altered from a combination of past development impacts from housing, roads, culverts, impoundments, and buried linear pipes. Especially in high slope situations, signs of potential stream failures were assessed where such failures would undermine critical public infrastructure and related public services. Projects implemented under this CIP are selected both in response to significant site changes reported after high rain events, and by analyzing stream bed elevation changes using multiple years of LiDAR data to locate problem areas and estimating risk of potential failure. These projects are necessary to prevent exponential increase in future damage and related repair costs and will be pursued continuously in cooperation with the other departments whose infrastructure is contributing to the stream damage or is at risk of exposure or undermining. Example projects include provision of flow detention and stream restoration related to relic high velocity stormwater outfalls, and sewer crossings on steep drainage channels where the impact of the sewer pipe becoming exposed is potentially very high and would result in raw sewage entering downstream creek systems.

Justification: Projects are implemented to respond to or prevent system failures where infrastructure and waterway conflicts pose potential for regulatory violations, public health risks, or new or exacerbated infrastructure damage.

Type of Project: Construction of facilities and restoration of natural high gradient waterways to correct historic deficiencies.



Estimated Dollars:

Funds	Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Resources	Operating	0	200,000	200,000	200,000	200,000	200,000	1,000,000
Resources Total		0	200,000	200,000	200,000	200,000	200,000	1,000,000
Expenses	Design/Const Admin	0	50,000	50,000	50,000	50,000	50,000	250,000
	Construction	0	125,400	125,400	125,400	125,400	125,400	627,000
	Admin (14%)	0	24,600	24,600	24,600	24,600	24,600	123,000
Expenses Total		0	200,000	200,000	200,000	200,000	200,000	1,000,000

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Stormwater Unfunded and Future Summary									
Project	Project Name	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total	
900300	Linden Avenue Storm Drain	0	0	0	0	0	0	405,069	
901500	NE 5th Street Storm Drain	0	0	0	0	0	0	145,201	
901700	SE Elliott-Regner Outfall	0	0	0	0	0	0	39,900	
903700	Willow Parkway Storm Drain	0	0	0	0	0	0	99,818	
904300	NW 1st St./NW Ava Storm Drain	0	0	0	0	0	0	892,724	
905200	Burnside to Civic Drive Storm Drain	0	0	0	0	0	0	249,700	
907400	194th Avenue Pipe Enlargement at I-84	0	0	0	0	0	0	307,800	
909200	Hogan Place Storm Drain	0	0	0	0	0	0	741,456	
909300	E. Burnside Parallel Pipe	0	0	0	0	0	0	901,056	
909400	Salquist/Barnes Pipe Enlargement	0	0	0	0	0	0	185,452	
909600	Burlingame Cr. South of Powell Valley Road	0	0	0	0	0	0	298,575	
909800	Kelly Creek, South of SE Salquist Road	0	0	0	0	0	0	348,033	
909900	Burnside Diversion to Kelly Creek	0	0	0	0	0	0	1,379,683	
910700	Division to Kelly Stormdrain	0	0	0	0	0	0	341,584	
910800	Division Street Diversion	0	0	0	0	0	0	89,109	
911000	Stark Street (East) Swale	0	0	0	0	0	0	176,586	
911100	Stark Street (West) PRF	0	0	0	0	0	0	83,539	
911200	Burnside (West) PRF	0	0	0	0	0	0	53,352	
911300	Burnside (East) PRF	0	0	0	0	0	0	66,832	
911400	Water Qual Facility @ 194th Ave.	0	0	0	0	0	0	511,020	
912100	Pipe Replacements - East of 194th Ave.	0	0	0	0	0	0	70,650	
912200	Pipe Replacements - Barr Rd & Halsey St	0	0	0	0	0	0	1,604,899	
912300	Pipe Replacements - N. 181st	0	0	0	0	0	0	1,343,471	
912500	Pipe Replacements - S. 181st (50 year fix)	0	0	0	0	0	0	1,338,085	
912700	Pipe Replacements - South 162nd Ave.	0	0	0	0	0	0	103,094	
913200	SW 7th St: Johnson Creek Riparian Corridor Improvement	0	0	0	0	0	0	2,065,326	
913300	East Gresham Grade School	0	0	0	0	0	0	410,165	
913400	SE Dowsett St. Riparian Corridor Restoration	0	0	0	0	0	0	134,477	
913500	Grace Community Church	0	0	0	0	0	0	130,062	
913600	Bus Creek Restoration	0	0	0	0	0	0	66,201	
913700	West Gresham Grade School: Johnson Creek Riparian Corridor	0	0	0	0	0	0	102,600	
913800	SW14th Stabilization: Johnson Creek Riparian Corridor Imp	0	0	0	0	0	0	83,334	
913900	SE Regner to Hogan: Johnson Creek Riparian Corridor Imp	0	0	0	0	0	0	753,951	
914000	Willowbrook Pond	0	0	0	0	0	0	25,711	
914300	Water Quality Monitoring-Fairview Creek PRF	0	0	0	0	0	0	22,800	
915200	Atherton Ave. Culvert Improvement	0	0	0	0	0	0	41,298	
915300	Ava Ave. Group 1 Pipe Improvement	0	0	0	0	0	0	1,088,280	

Stormwater Unfunded and Future Summary									
Project	Project Name	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total	
915400	Butler Creek- Groups 1A, B & C Pipe Improvement	0	0	0	0	0	0	387,196	
915500	Butler Creek- Groups 2A & B Pipe Improvement	0	0	0	0	0	0	179,233	
915600	Brick Creek Culvert Improvement	0	0	0	0	0	0	85,373	
915800	Butler West- Group 3- Pipe Improvement	0	0	0	0	0	0	260,269	
915900	Cedar Creek- Group 1 - Pipe Improvement	0	0	0	0	0	0	227,685	
916000	Cedar Creek- Group 2- Culvert Improvement	0	0	0	0	0	0	116,587	
916100	Mawcrest Dr. - Pipe Improvement	0	0	0	0	0	0	76,106	
916200	Miller Ct. - Pipe Improvement	0	0	0	0	0	0	166,722	
916300	Morian Ave. - Pipe Improvement	0	0	0	0	0	0	95,420	
916400	Powell Blvd East - Group 2 Pipe Improvement	0	0	0	0	0	0	145,291	
916500	Powell Loop - Group 1 - Pipe Improvement	0	0	0	0	0	0	359,603	
916600	Powell Loop - Group 2 - Pipe Improvement	0	0	0	0	0	0	261,167	
916700	Roberts Drive - Pipe Improvement	0	0	0	0	0	0	256,279	
916900	Towle Ave East - Group 1 - Pipe Improvement	0	0	0	0	0	0	114,425	
917000	Towle Ave East - Group 2 - Pipe Improvement	0	0	0	0	0	0	347,810	
917100	Towle Ave South - Pipe Improvement	0	0	0	0	0	0	148,242	
917200	Walters Drive - Culvert Improvement	0	0	0	0	0	0	56,787	
917300	Hogan Place Regional PRF	0	0	0	0	0	0	783,938	
917500	Ironwood Access Road Culvert Removal	0	0	0	0	0	0	133,703	
917600	NE Hale Place Bank Stabilization	0	0	0	0	0	0	140,599	
917800	NE 7th Ct. Channel Modification	0	0	0	0	0	0	133,559	
917900	Riparian Enhancements near Gr. Golf Course	0	0	0	0	0	0	154,851	
918100	Highway 26 Ecology Embankment	0	0	0	0	0	0	664,633	
918200	Vista Way PRF	0	0	0	0	0	0	156,756	
918300	23rd Ave and Hale Street PRF	0	0	0	0	0	0	151,597	
918400	Division Road Pipe Upsize	0	0	0	0	0	0	750,387	
918500	Burlingame Piping	0	0	0	0	0	0	397,872	
918600	Major Outfall Rehabilitation (NE Scott, SW Condor, SE Lat	0	0	0	0	0	0	135,154	
919000	SE Powell Valley Road	0	0	0	0	0	0	201,417	
919100	Bell Acres Trailer Park	0	0	0	0	0	0	1,143,223	
919300	Gresham Golf Course Creek Meandering	0	0	0	0	0	0	557,374	
919400	SE 24th Street to SE Salquist Road	0	0	0	0	0	0	328,359	
919500	Johnson Creek Restoration at Main City Park	0	0	0	0	0	0	179,556	
920000	Segment 1, Fairview Creek Basin Central Core Trunk Impr	0	0	0	0	0	0	944,831	
920200	Segment 3A, Fairview Creek Basin Central Core Trunk Impr	0	0	0	0	0	0	706,744	
920500	Segment 3D, Fairview Creek Basin Central Core Trunk Impr	0	0	0	0	0	0	1,280,598	
CIPSW00014	Johnson Creek Stormwater LID Retrofit	0	0	0	0	0	0	702,000	

Stormwater Unfunded and Future Summary									
Project	Project Name	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	Total	
CIPSW00017	Chastain Creek Improvements and Fill Remediation	0	0	0	0	0	0	7,500,000	
CIPSW00018	SW 7th Street: Johnson Creek Corridor Improvements	0	0	0	0	0	0	2,495,117	
CIPSW00019	SE Hogan to Regner: Johnson Creek Corridor Improvements	0	0	0	0	0	0	1,212,400	
CIPSW00020	SE 252nd Avenue: Johnson Creek Corridor Improvements	0	0	0	0	0	0	692,962	
CIPSW00022	Hogan Drive Outfall Extension	0	0	0	0	0	0	3,393,358	
Grand Total		0	0	0	0	0	0	44,926,076	

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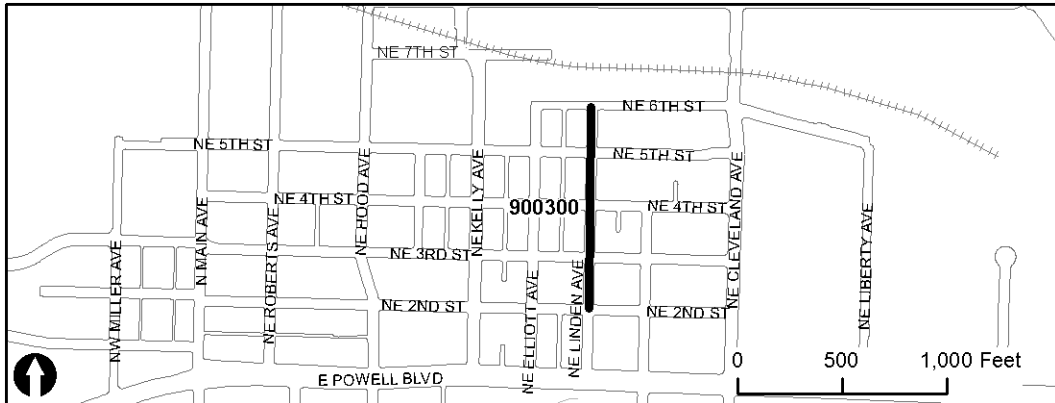
**UNFUNDED and FUTURE PROJECT
Stormwater**

900300: Linden Avenue Storm Drain

Description: This project constructs 1,200 L.F. of 30" storm drain in NE Linden Avenue from NE 6th Ave. to NE 2nd Ave. The project is located in the downtown area and is in the Johnson Creek Basin.

Justification: It appears that there may be a high potential for flooding near N.E. 6th and N.E. Linden Ave. This project would eliminate the need to install replacement pipe in N.E. Elliot Ave. The project enhances business opportunities in the downtown area and responds to customer complaints. A precondition of this project is problem definition and the Johnson Creek Master Plan update.

Type of Project: Repair and rehabilitation of facilities and construction of facilities for future growth.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	405,069
Resources Total		405,069
Expenses	Design/Const Admin	81,998
	Construction	273,326
	Admin (14%)	49,745
Expenses Total		405,069

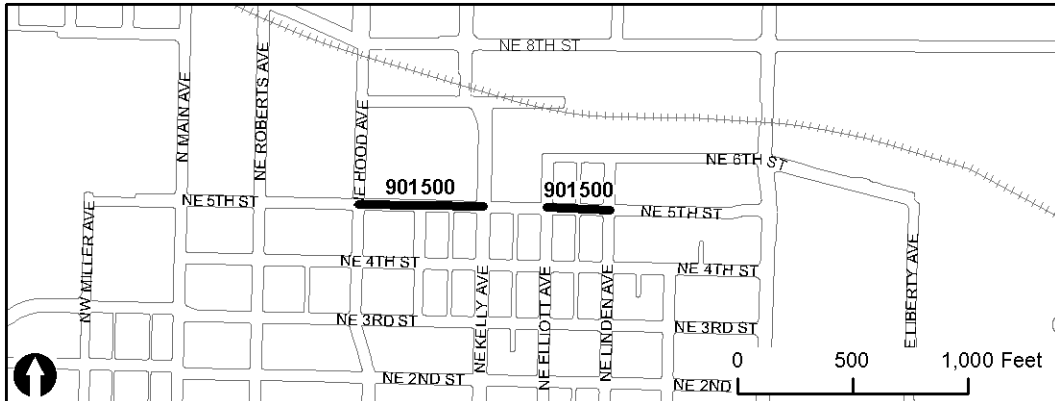
**UNFUNDED and FUTURE PROJECT
Stormwater**

901500: NE 5th Street Storm Drain

Description: This project consists of 900 L.F. of 15" and 18" storm drain in NE 5th Street from Roberts Street to NE Elliott. The project is located in the Central City Neighborhood District.

Justification: The existing storm system is under capacity for the existing level of development in the basin.

Type of Project: Construction of facilities and utilities for growth and to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Bond	145,201
Resources Total		145,201
Expenses	Design/Const Admin	29,393
	Construction	97,976
	Admin (14%)	17,832
Expenses Total		145,201

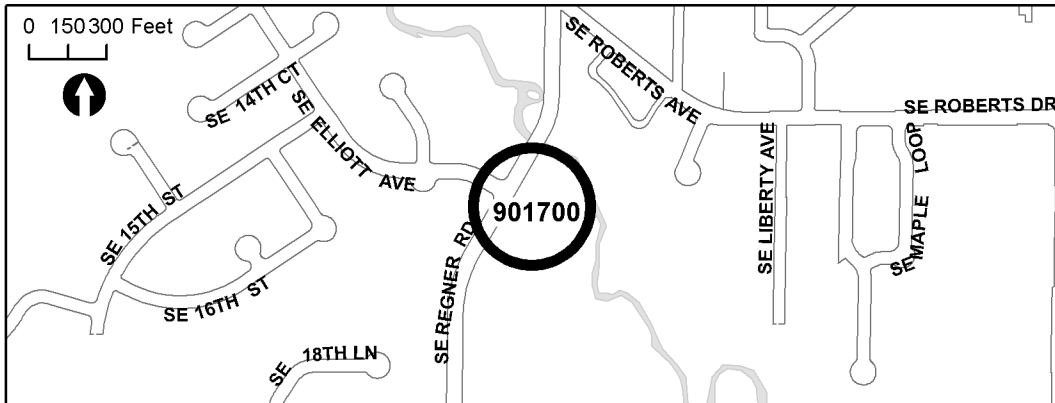
**UNFUNDED and FUTURE PROJECT
Stormwater**

901700: SE Elliott-Regner Outfall

Description: This project constructs a project related to the regional Johnson Creek Resource Management Plan (JCRMP), the 2003 Draft Johnson Creek Master Plan. The project extends a collapsed outfall pipe east of Regner Road. The outfall improvements will address the failed pipe sections and the resulting poor water quality. The existing hand formed channel from the outfall pipe requires regrading and bio-engineering techniques to create a more natural outlet to Johnson Creek.

Justification: The outfall improvement will address an existing drainage problem that impacts private property, erosion, water quality and system deficiencies.

Type of project: Construction of facilities and utilities to correct deficiencies.



Estimated Dollars:	Funds	Description	Total
	Resources	Operating	39,900
	Resources Total		39,900
	Expenses	Design/Const Admin	5,000
		Construction	30,000
		Admin (14%)	4,900
	Expenses Total		39,900

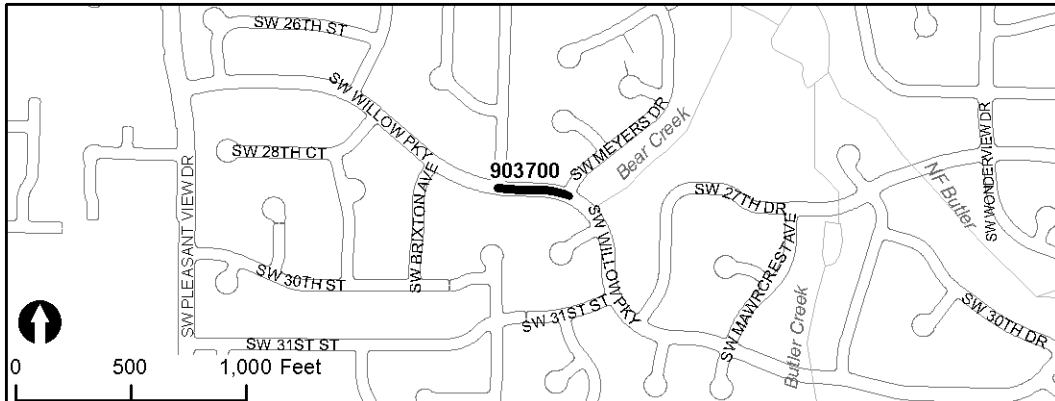
**UNFUNDED and FUTURE PROJECT
Stormwater**

903700: Willow Parkway Storm Drain

Description: This project constructs approximately 400 L.F. of 18" storm drain to replace an existing 12" pipe between SW Eastwood Avenue and SW Meyers Place. The project is located in the Southwest Neighborhood District and is in the Johnson Creek Basin.

Justification: The existing undersized pipe is unable to convey the 10-year storm flows. The project will provide the increased capacity required to convey 10-year flows from existing development to prevent local flooding.

Type of Project: Construction of facilities and utilities to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	99,818
Resources Total		99,818
Expenses	Design/Const Admin	20,206
	Construction	67,354
	Admin (14%)	12,258
Expenses Total		99,818

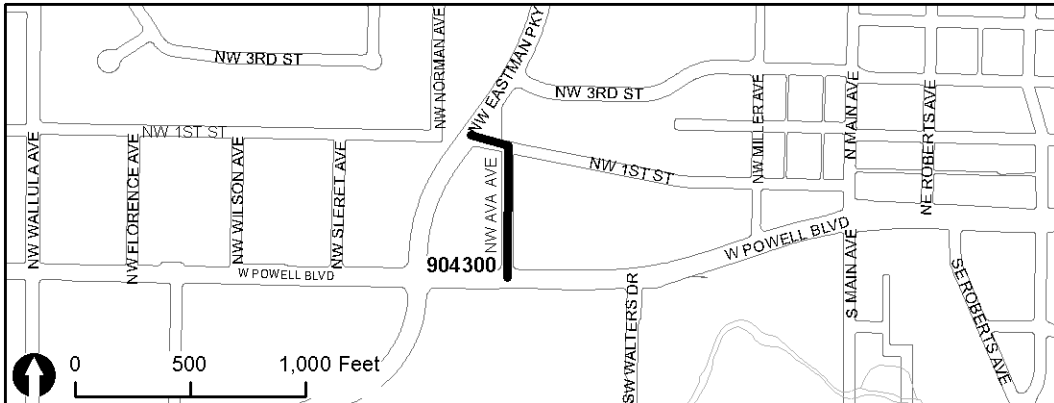
**UNFUNDED and FUTURE PROJECT
Stormwater**

904300: NW 1st St./ NW Ava Storm Drain

Description: This project constructs approximately 600 L.F. of 24" diameter storm pipe parallel to the existing system. The project is located in the Central City Neighborhood District.

Justification: The project will help protect homes and businesses along NW Ava and Powell Blvd. from potential flooding damage. The existing pipe is undersized. This project will provide capacity and prevent flooding along Powell Blvd.

Type of Project: Construction of facilities and utilities to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	892,724
Resources Total		892,724
Expenses	Design/Const Admin	180,713
	Construction	602,378
	Admin (14%)	109,633
Expenses Total		892,724

**UNFUNDED and FUTURE PROJECT
Stormwater**

905200: Burnside to Civic Drive Storm Drain

Description: This project funds the easement acquisition and preliminary design analysis of an additional parallel storm drain pipe to provide an increase in system capacity. The project is located in the Northwest Neighborhood District. SDC project #FC-2. (Estimation of Benefits; Growth related 30%; Existing System related 70%).

Justification: Eliminates surcharging in local storm drain system and localized street flooding/manhole surcharging upstream.

Type of Project: Design of facilities to correct deficiencies and for future growth.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	187,272
	SDC	62,428
Resources Total		249,700
Expenses	Design/Const Admi	182,641
	Property Acq	36,379
	Admin (14%)	30,680
Expenses Total		249,700

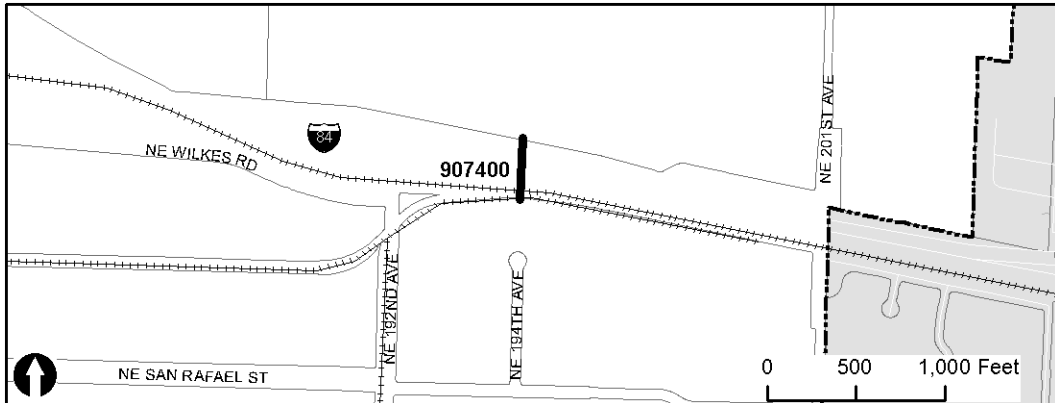
**UNFUNDED and FUTURE PROJECT
Stormwater**

907400: 194th Avenue Pipe Enlargement at I-84

Description: This project installs a 36" stormwater pipe through the existing transportation corridor occupied by I-84 and a railroad. This project is located in the North Gresham Neighborhood District and the West Gresham Basin.

Justification: The existing storm pipe crossing I-84 and adjacent to the railroad is 24". Enlargement of this storm pipe to 36" is required to convey runoff from future development. A pre-requisite to this project is the West Gresham Master Plan, currently underway.

Type of Project: Construction of facilities and utilities for growth.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	307,800
Resources Total		307,800
Expenses	Design/Const Admin	60,000
	Property Acq	10,000
	Construction	200,000
	Admin (14%)	37,800
Expenses Total		307,800

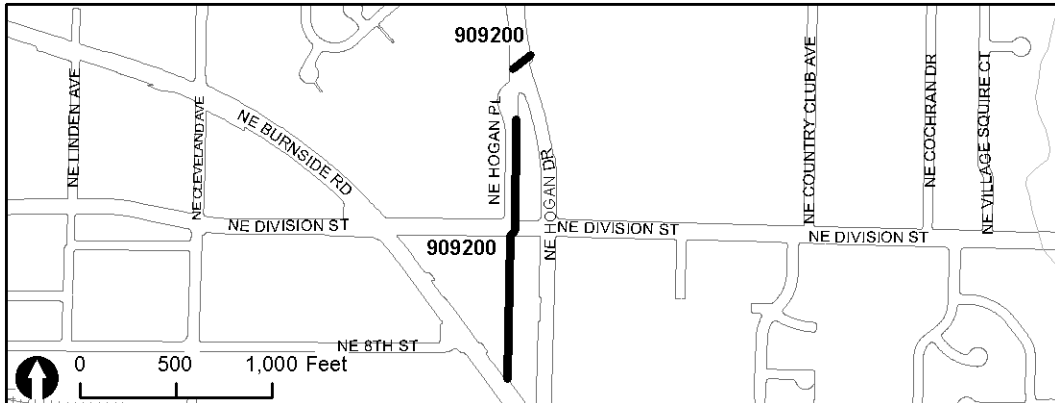
**UNFUNDED and FUTURE PROJECT
Stormwater**

909200: Hogan Place Storm Drain

Description: This project replaces 2,750 ft. of storm drain pipe of various diameters. This project is located in the North Central and Powell Valley Neighborhood Districts.

Justification: This section of storm pipe is not adequate to accommodate stormwater runoff from the area upstream. If improvements are not made, flooding in the project area may occur. Increasing capacity will permit continued growth in SE Gresham. This project is identified as element B4, B6 and B8-B10 in the 1988 Kelly Creek Basin Master Plan.

Type of Project: Design and construction of facilities to meet growth and to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	741,456
Resources Total		741,456
Expenses	Design/Const Admin	150,100
	Construction	500,300
	Admin (14%)	91,056
Expenses Total		741,456

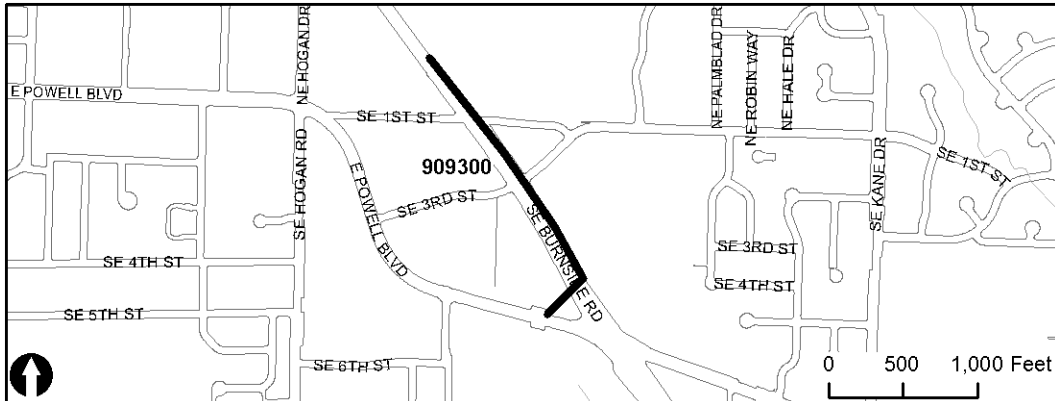
**UNFUNDED and FUTURE PROJECT
Stormwater**

909300: E. Burnside Parallel Pipe

Description: This project adds stormwater conveyance capacity consisting of 2350 linear feet of up to 60" parallel storm drain pipe in E. Burnside, SE 1st St to Powell Blvd. This project is located in the Powell Valley Neighborhood.

Justification: Increase pipe size to handle peak flows and reduce potential flood damage. This project is identified as element B15-B19 in the 1988 Kelly Creek Basin Master Plan.

Type of Project: Design and construction of facilities to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	901,056
Resources Total		901,056
Expenses	Design/Const Admin	182,400
	Construction	608,000
	Admin (14%)	110,656
Expenses Total		901,056

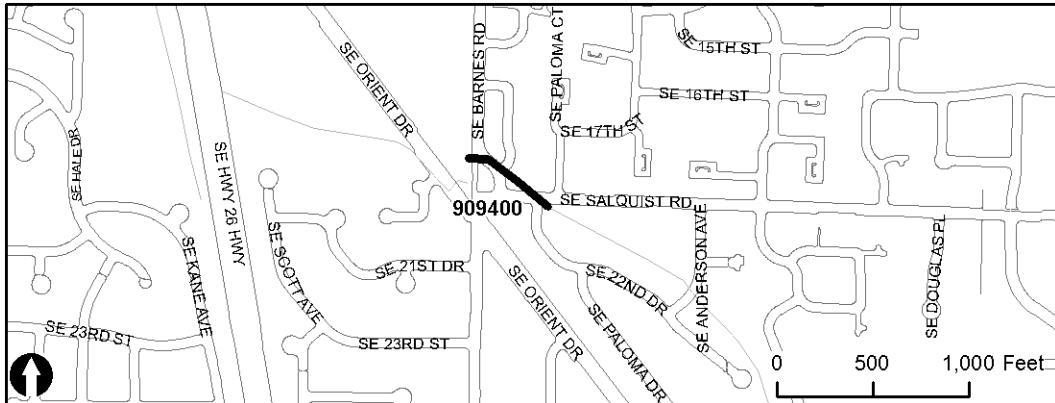
**UNFUNDED and FUTURE PROJECT
Stormwater**

909400: Salquist/Barnes Pipe Enlargement

Description: This project adds stormwater conveyance capacity consisting of 500 linear feet of 42" storm drain pipe, from SE 22nd and Salquist to Orient Dr. This project is located in the Southeast Neighborhood.

Justification: This project is required to handle existing flows and to reduce the potential of flood damage. This project is identified as element B30 in the 1988 Kelly Creek Basin Master Plan.

Type of Project: Design and construction of facilities to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	185,452
Resources Total		185,452
Expenses	Design/Const Admin	37,541
	Construction	125,136
	Admin (14%)	22,775
Expenses Total		185,452

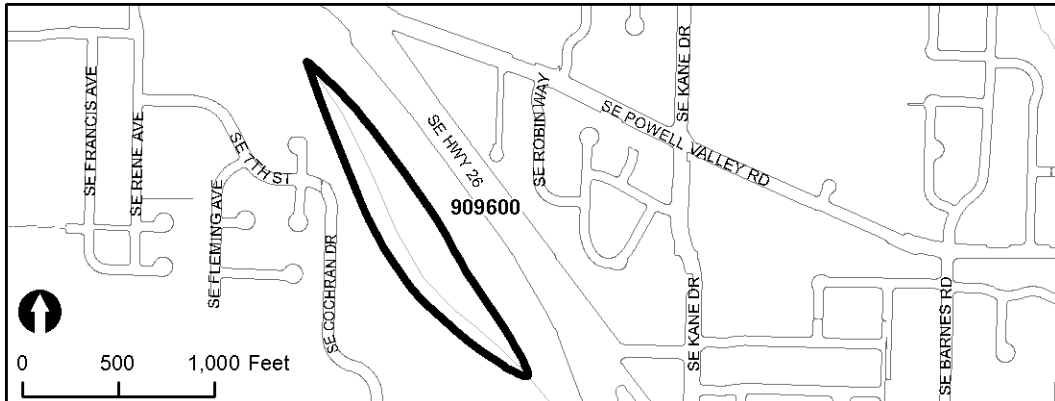
**UNFUNDED and FUTURE PROJECT
Stormwater**

909600: Burlingame Cr. South of Powell Valley Road

Description: This project adds stormwater conveyance capacity consisting of 2300 linear feet of improvements. This project is located in the Mt Hood Neighborhood.

Justification: Increase channel size to handle peak flows and reduce potential flood damage. This project is identified as element B21 in the 1988 Kelly Creek Basin Master Plan.

Type of Project: Design and construction of facilities to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	298,575
Resources Total		298,575
Expenses	Design/Const Admin	60,440
	Construction	201,468
	Admin (14%)	36,667
Expenses Total		298,575

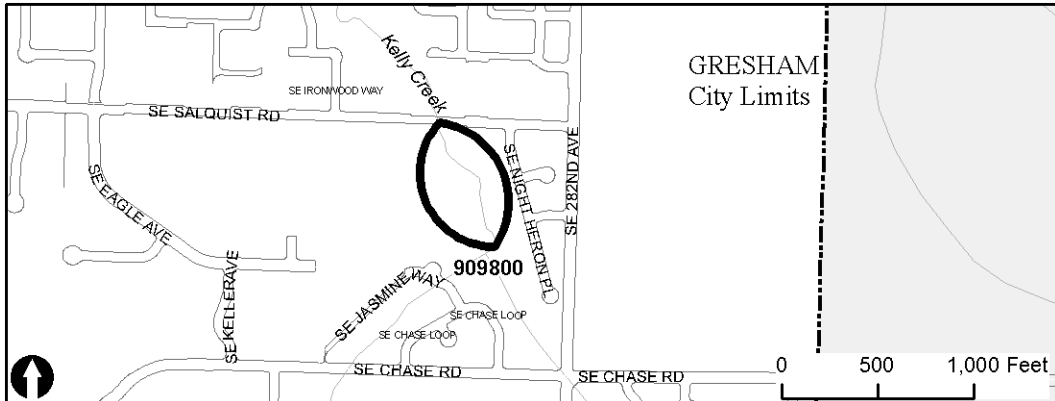
**UNFUNDED and FUTURE PROJECT
Stormwater**

909800: Kelly Creek, South of SE Salquist Road

Description: This project adds stormwater conveyance capacity consisting of channel improvements in Kelly Creek, south of SE Salquist. This project is located in the Kelly Creek Neighborhood.

Justification: An increased channel size is required to handle peak flows and reduce potential flood damage. This project is identified as element A19 in the 1988 Kelly Creek Basin Master Plan.

Type of Project: Design and construction of facilities to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	348,033
Resources Total		348,033
Expenses	Design/Const Admin	70,452
	Construction	234,840
	Admin (14%)	42,741
Expenses Total		348,033

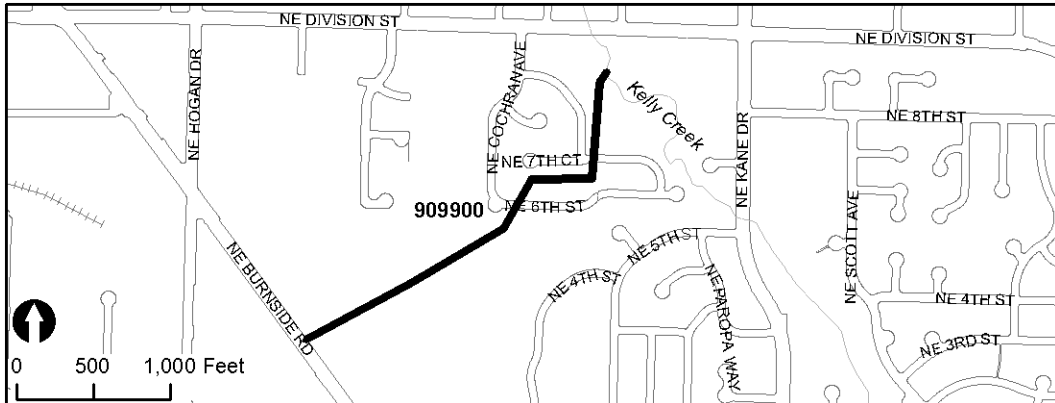
**UNFUNDED and FUTURE PROJECT
Stormwater**

909900: Burnside Diversion to Kelly Creek

Description: This project adds stormwater conveyance capacity consisting of 2920 linear feet of up to 72" parallel storm drain pipe from E Burnside to Kelly Creek. This project is located in the Northeast Neighborhood.

Justification: Increase pipe size to handle peak flows and reduce potential flood damage. This project is identified as element A12.1-A12.5 in the 1988 Kelly Creek Basin Master Plan.

Type of Project: Design and construction of facilities to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	1,379,683
Resources Total		1,379,683
Expenses	Design/Const Admin	279,288
	Construction	930,960
	Admin (14%)	169,435
Expenses Total		1,379,683

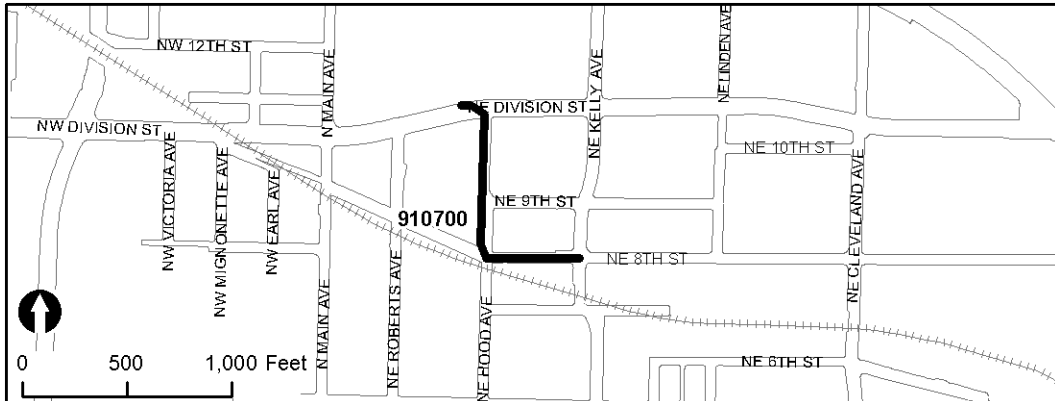
**UNFUNDED and FUTURE PROJECT
Stormwater**

910700: Division to Kelly Stormdrain

Description: Upsize the main trunk line on Division. Existing pipe size is 12-inch in diameter. Suggested replacement pipe size is 24-inch. This project is located in the Central City Neighborhood and in the Fairview Creek Drainage Basin. SDC project #FC-5. (Estimation of benefits: Growth related 32%; Existing System related 68%).

Justification: Eliminates local storm drain system flooding.

Type of Project: Storm drain improvements.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	232,277
	SDC	109,307
Resources Total		341,584
Expenses	Design/Const Admi	69,120
	Construction	230,507
	Admin (14%)	41,957
Expenses Total		341,584

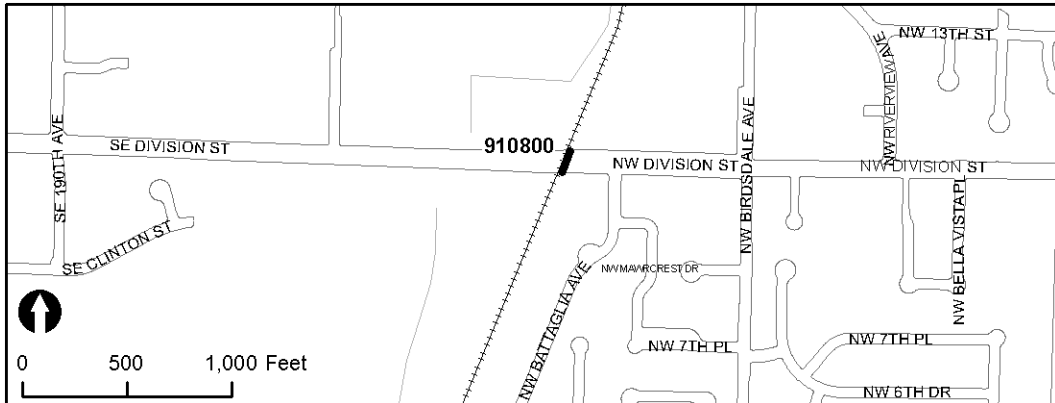
**UNFUNDED and FUTURE PROJECT
Stormwater**

910800: Division Street Diversion

Description: This project will construct a diversion structure to divert the flows from the area south of Division Street into the proposed Birdsedale water quality facility. This 18 acre area drains a developed residential area constructed from the 1950-1970s, as well as a portion of Division Street. This project is in the Northwest Neighborhood and in the Fairview Creek Drainage Basin. SDC project #FC-1. (Estimation of benefits: Growth related 7%; Existing System related 93%).

Justification: There is no existing water quality treatment in this area and flows can be accommodated in the Birdsedale Facility.

Type of Project: Water quality treatment .



Estimated Dollars:

Funds	Description	Total
Resources	Operating	82,870
	SDC	6,239
Resources Total		89,109
Expenses	Design/Const Admi	18,068
	Construction	60,127
	Admin (14%)	10,914
Expenses Total		89,109

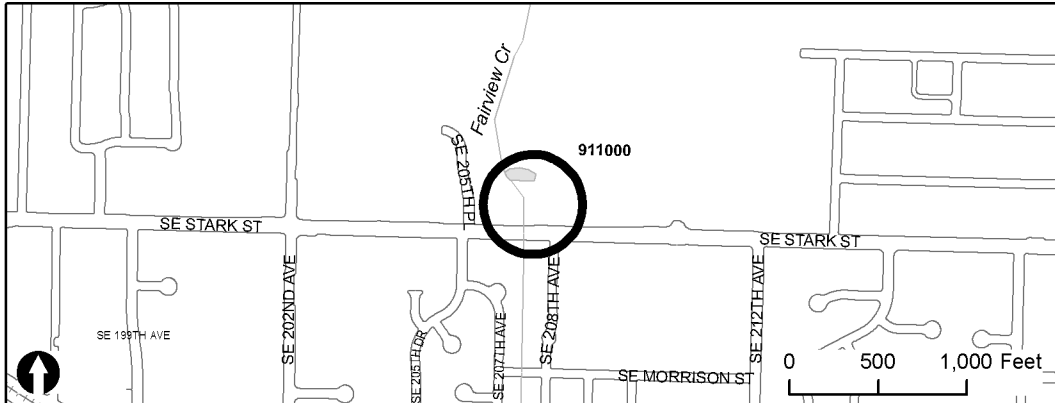
**UNFUNDED and FUTURE PROJECT
Stormwater**

911000: Stark Street (East) Swale

Description: This project would install a diversion manhole to divert storm flows to a pollution reduction facility (PRF) or sediment manhole and then to a vegetated swale located along the north side of SE Stark St. The PRF would remove pollutants while the vegetated facility would remove fine sediments and soluble nutrients and metals. The swale will be located in a piece of land to be purchased. This project is in the North Central Neighborhood and in the Fairview Creek Drainage Basin. (Estimation of benefits: Growth related 0%; Existing System related 100%).

Justification: There is no existing water quality treatment in this area and this facility would improve stormwater quality flowing to Fairview Creek.

Type of Project: Stormwater quality improvements.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	176,586
Resources Total		176,586
Expenses	Design/Const Admin	21,900
	Property Acq	60,000
	Construction	73,000
	Admin (14%)	21,686
Expenses Total		176,586

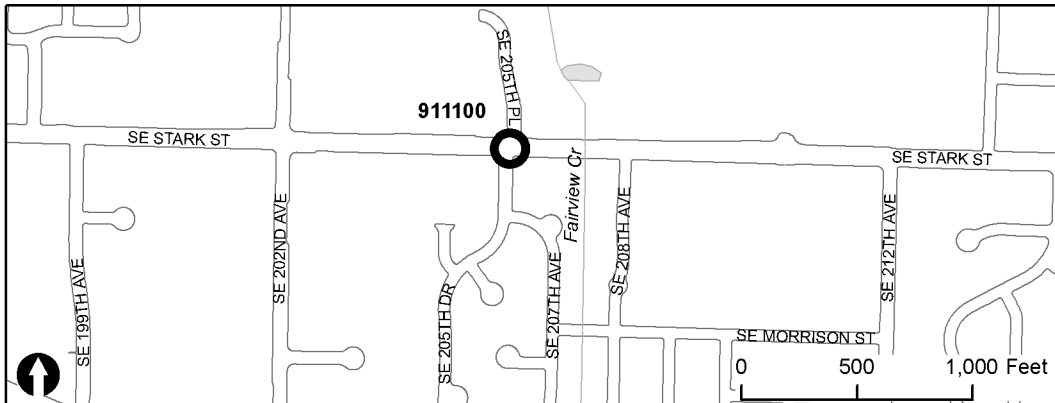
**UNFUNDED and FUTURE PROJECT
Stormwater**

911100: Stark Street (West) PRF

Description: Install a pollution reduction facility at the intersection of SE Stark St. and SE 205th. This project is in the North Central Neighborhood and in the Fairview Creek Drainage Basin. (Estimation of benefits: Growth related 70%; Existing System related 30%). SDC project #FC-3.

Justification: There is no existing water quality treatment in this area. This facility would improve stormwater quality flowing to Fairview Creek.

Type of Project: Stormwater quality treatment.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	25,061
	SDC	58,478
Resources Total		83,539
Expenses	Design/Const Admi	11,670
	Construction	61,613
	Admin (14%)	10,256
Expenses Total		83,539

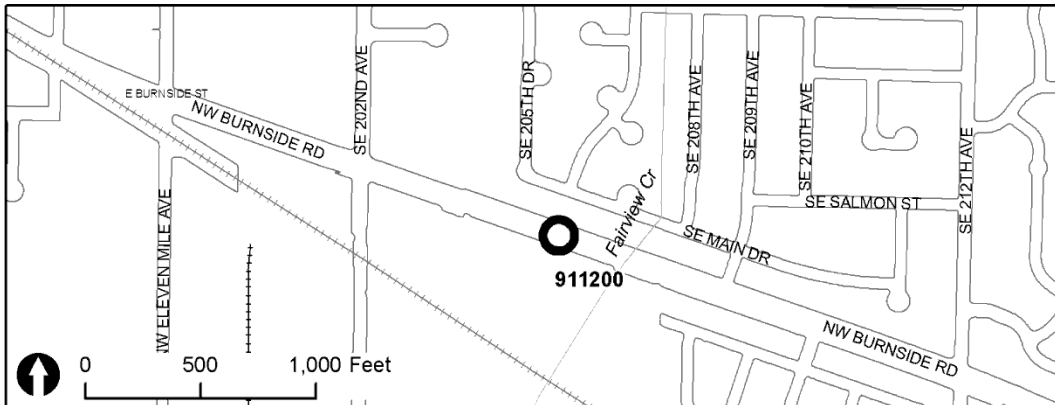
**UNFUNDED and FUTURE PROJECT
Stormwater**

911200: Burnside (West) PRF

Description: This project would install a pollution reduction facility at Burnside Street prior to discharging to Fairview Creek. The 9 acre area drains a fully developed area dominated by commercial and residential properties. A portion of Burnside Street is also located within the drainage area served by this project. This project is in the North Central Neighborhood and in the Fairview Creek Drainage Basin. (Estimation of benefits: Growth related 0%; Existing System related 100%).

Justification: There is no water quality treatment in this area and this facility would improve the quality of stormwater flowing to Fairview Creek.

Type of Project: Structural pollutant reduction facility.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	53,352
Resources Total		53,352
Expenses	Design/Const Admin	10,800
	Construction	36,000
	Admin (14%)	6,552
Expenses Total		53,352

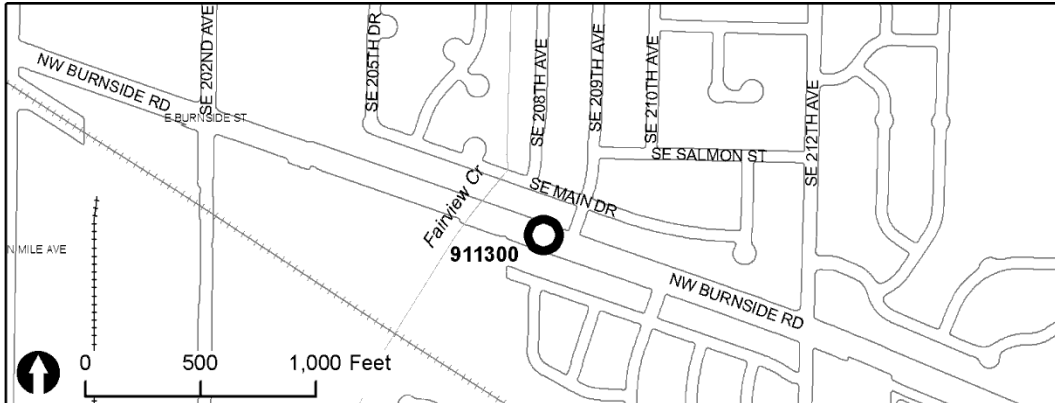
**UNFUNDED and FUTURE PROJECT
Stormwater**

911300: Burnside (East) PRF

Description: Install a pollution reduction facility (PRF) at Burnside Street, just east of Fairview Creek. This water quality area drains a 19 acre residential area constructed from 1960-1970. This project is in the North Central Neighborhood and in the Fairview Creek Drainage Basin. SDC project #FC-4. (Estimation of benefits: Growth related 10%; Existing System related 90%).

Justification: There is no existing water quality treatment in this area and this facility would improve the quality of stormwater flowing into Fairview Creek.

Type of Project: Stormwater quality treatment.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	60,148
	SDC	6,684
Resources Total		66,832
Expenses	Design/Const Admi	12,490
	Construction	46,096
	Admin (14%)	8,246
Expenses Total		66,832

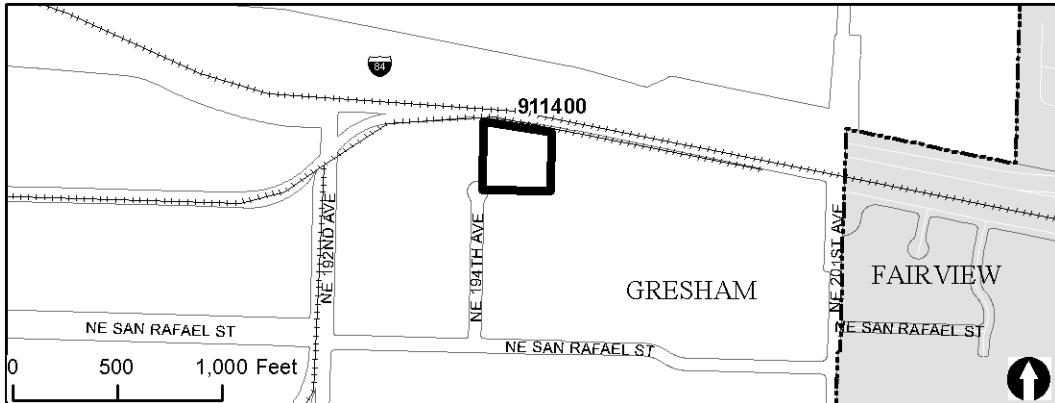
**UNFUNDED and FUTURE PROJECT
Stormwater**

911400: Water Quality Facility @ 194th Ave

Description: Create a 2.1 - acre-foot water quality facility at the north-eastern corner of the cul-de-sac at the north end of 194th Avenue south of I-84. Based on impervious percentages for existing and future conditions, 62% of the project would benefit flows associated with future development. This project is located in the North Gresham neighborhood district and the West Gresham Drainage Basin.

Justification: This facility would provide water quality treatment for a drainage area of approximately 102 acres.

Type of Project: Construction of facilities related to growth and to correct deficiencies.



Estimated Dollars:	Funds	Description	Total
	Resources		Operating
Resources Total			511,020
Expenses		Design/Const Admin	49,800
		Property Acq	232,320
		Construction	166,143
		Admin (14%)	62,757
Expenses Total			511,020

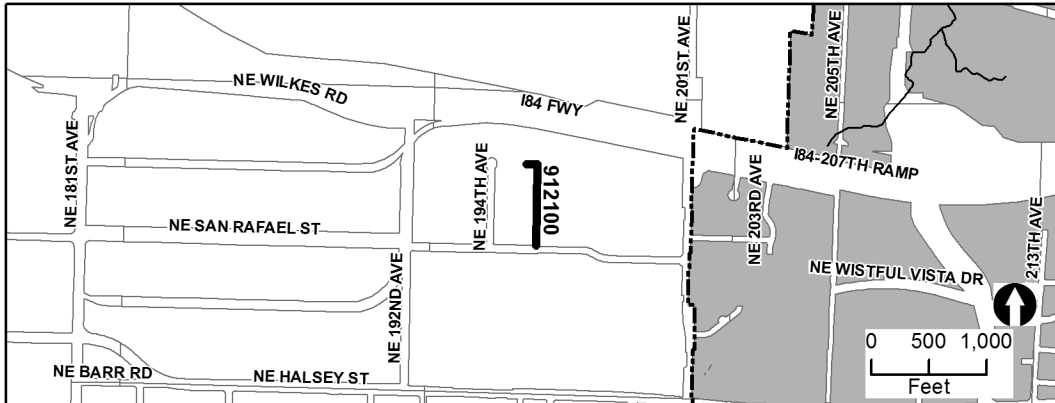
**UNFUNDED and FUTURE PROJECT
Stormwater**

912100: Pipe Replacements – East of 194th Ave

Description: Replace pipe segments to the east of the 194th Avenue cul-de-sac. Project elements are as follows: 1) Replace 21" Dia pipe with 30" Dia pipe, 493' Long. 2) Replace 21" Dia pipe with 27" Dia pipe, 228' Long. 3) Replace 24" Dia pipe with 27" Dia pipe, 107' Long. This CIP is addressing 10-year design storm problems. This project is in the North Gresham Neighborhood and the West Gresham Drainage Basin. SDC project #WG-4. (Estimation of benefits: Growth related 49%; Existing System related 51%).

Justification: This capital project will provide increased capacity to alleviate expected flooding problems at the intersection of Halsey St. and Barr St.

Type of Project: Construction of facilities and utilities to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	34,618
	SDC	36,032
Resources Total		70,650
Expenses	Design/Const Admi	14,309
	Construction	47,610
	Admin (14%)	8,731
Expenses Total		70,650

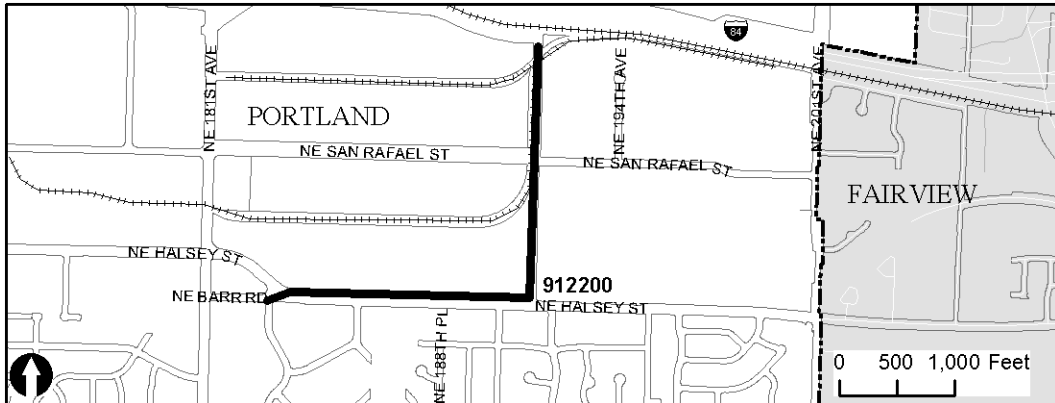
**UNFUNDED and FUTURE PROJECT
Stormwater**

912200: Pipe Replacements – Barr Rd & Halsey St.

Description: Replace pipe segments starting at the intersection of Halsey Street and Barr Road and extending to the outfall. Project elements are as follows: 1) Replace 24" Dia pipe with 27" Dia pipe, 196' Long. 2) Replace 27" Dia pipe with 48" Dia pipe, 1043' Long. 3) Replace 33" Dia pipe with 48" Dia pipe, 379' Long. 4) Replace 42" Dia pipe with 54" Dia pipe, 695' Long. 5) Replace 27" Dia pipe with 42" Dia pipe, 1256' Long. 6) Replace 48" Dia pipe with 54" Dia pipe, 1085' Long. 7) Replace 54" Dia pipe with 66" Dia pipe, 267' Long. 8) Replace 78" Dia pipe with 96" Dia pipe, 234' Long. Based on impervious percentages for existing and future conditions, 31% of the project would be funded by SDCs. This project is located in the North Gresham Neighborhood and the West Gresham Drainage Basin. SDC project #WG-2.

Justification: This capital project will provide increased capacity to alleviate expected flooding problems on the 192nd Avenue system.

Type of Project: Construction of facilities related to growth and to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	1,107,380
	SDC	497,519
Resources Total		1,604,899
Expenses	Design/Const Admi	324,986
	Construction	1,082,860
	Admin (14%)	197,053
Expenses Total		1,604,899

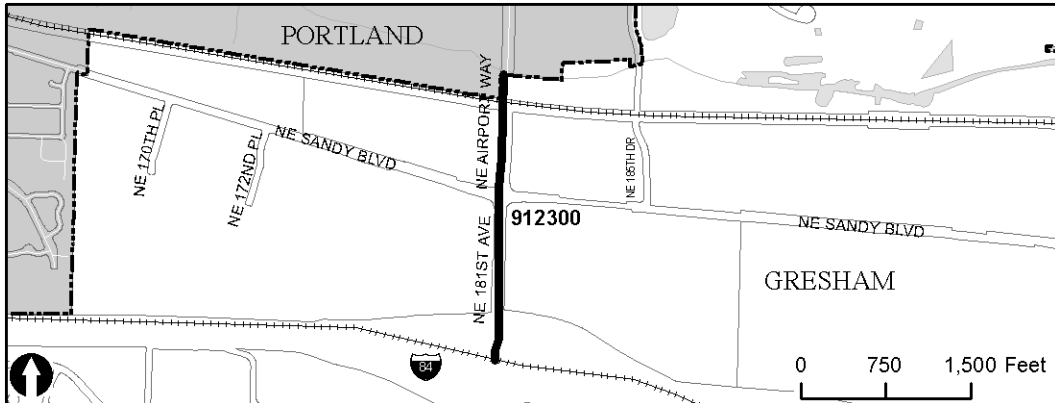
**UNFUNDED and FUTURE PROJECT
Stormwater**

912300: Pipe Replacements – N. 181st

Description: Replace pipe segments along 181st Avenue starting north of I-84 and extending to the outfall of the 181st Avenue pipe system. Project elements are as follows: 1) Replace 42" Dia pipe with 48" Dia pipe, 375' Long. 2) Replace 48" Dia pipe with 54" Dia pipe, 1276' Long. 3) Replace 42" Dia pipe with 48" Dia pipe, 368' Long. 4) Replace 42" Dia pipe with 60" Dia pipe, 314' Long. Based on impervious percentages for existing and future conditions, 23% of the project would be funded by SDCs. This project is located in the North Gresham and Wilkes East Neighborhoods and the West Gresham Drainage Basin. SDC project #WG-3.

Justification: This capital project will provide increased capacity to alleviate expected flooding problems on 181st Ave north of I-84.

Type of Project: Construction of facilities related to growth and to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	1,034,472
	SDC	308,999
Resources Total		1,343,471
Expenses	Design/Const Admi	271,994
	Construction	906,437
	Admin (14%)	165,040
Expenses Total		1,343,471

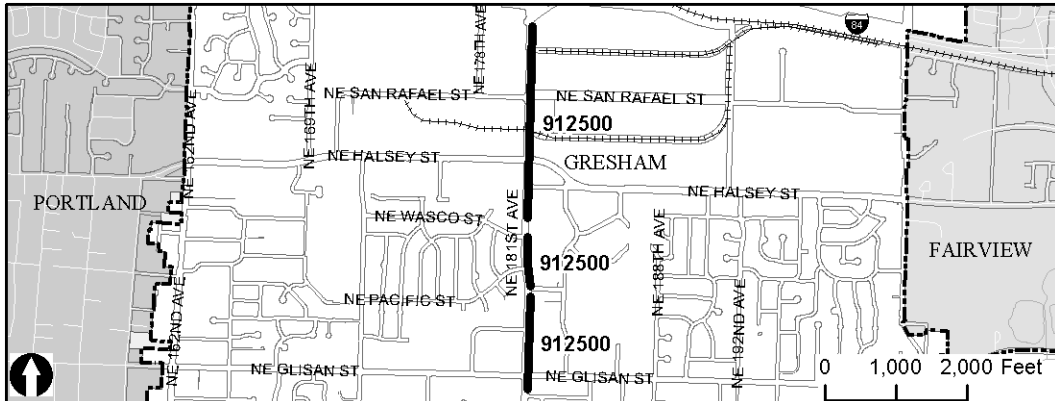
**UNFUNDED and FUTURE PROJECT
Stormwater**

912500: Pipe Replacements – 181st (50 year fix)

Description: Replace pipe segments along 181st Avenue starting just south Glisan Street and extending to I-84. Project elements are as follows: 1) Replace 21" Dia pipe with 24" Dia pipe, 250' Long. 2) Replace 27" Dia pipe with 36" Dia pipe, 1661' Long. 3) Replace 30" Dia pipe with 48" Dia pipe, 725' Long. 4) Replace 30" Dia pipe with 42" Dia pipe, 600' Long. 5) Replace 36" Dia pipe with 54" Dia pipe, 675' Long. 6) Replace 36" Dia pipe with 42" Dia pipe, 600' Long. Based on impervious percentages for existing and future conditions, 10% of the project would be funded by SDCs. This project is located in the North Gresham and Wilkes East Neighborhoods and the West Gresham Drainage Basin. SDC project #WG-1.

Justification: This capital project will provide increased capacity to alleviate expected flooding problems on 181st Ave. south of I-84.

Type of Project: Construction of facilities related to growth and to correct deficiencies.



Estimated Dollars:	Funds	Description	Total
	Resources	Operating	1,204,275
		SDC	133,810
	Resources Total		1,338,085
	Expenses	Design/Const Admi	270,782
		Construction	902,991
		Admin (14%)	164,312
	Expenses Total		1,338,085

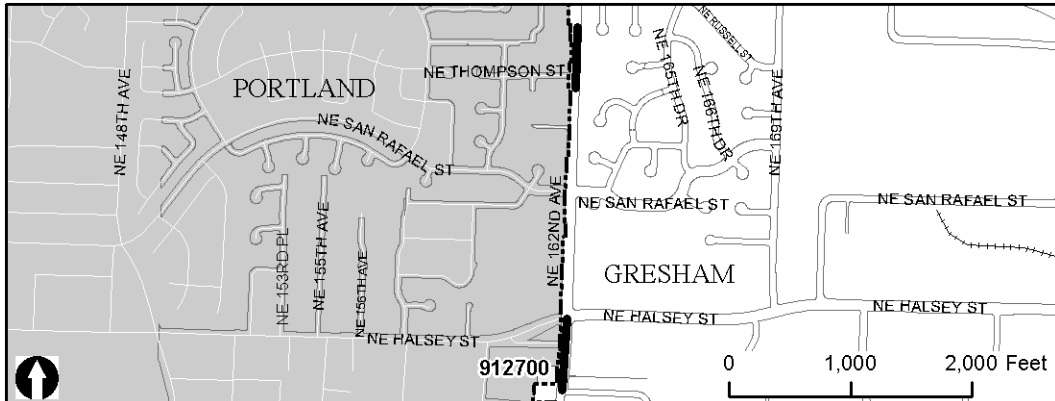
**UNFUNDED and FUTURE PROJECT
Stormwater**

912700: Pipe Replacements – South 162nd Ave.

Description: Replace pipe segment along 162nd Avenue starting just south of Thompson Street and continuing for half a block to the north of Thompson Street. Also replace segments of pipe along 162nd Avenue to the south of Halsey Street. Project elements are as follows: Replace 12" Dia pipe with 15" Dia pipe, 399' Long. Replace 15" Dia pipe with 18" Dia pipe, 241' Long. Replace 36" Dia pipe with 42" Dia pipe, 350' Long. Based on impervious percentages for existing and future conditions, 33% of the project would be funded by SDCs. SDC project #WG-5.

Justification: This capital project will provide increased capacity to alleviate expected flooding problems on 162nd Ave. just south of Halsey St. at node number 2946-W-002.

Type of Project: Construction of facilities and utilities to correct deficiencies and for future growth.



Estimated Dollars:	Funds	Description	Total
	Resources	Operating	69,072
		SDC	34,022
	Resources Total		103,094
	Expenses	Design/Const Admi	20,979
		Construction	69,504
		Admin (14%)	12,611
	Expenses Total		103,094

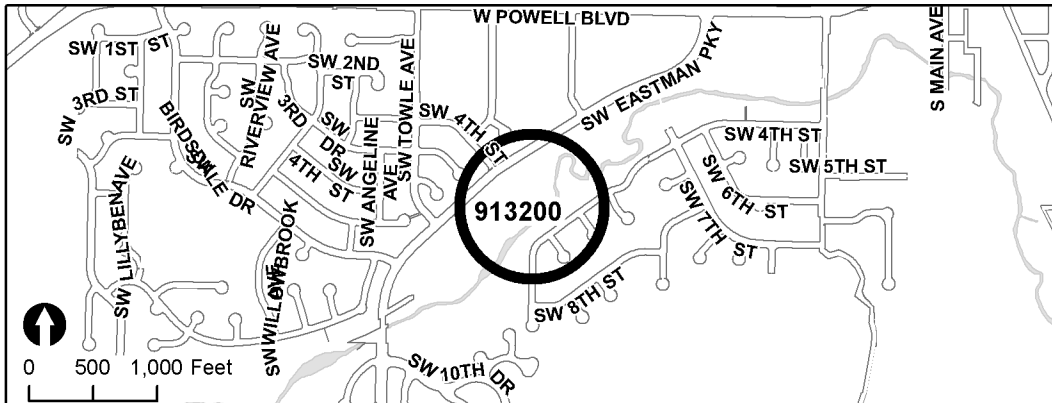
**UNFUNDED and FUTURE PROJECT
Stormwater**

913200: SW 7th St: Johnson Creek Riparian Corridor Improvements

Description: Improve natural resource functions along 16.8 riparian acres of public property located between SW Eastman Parkway and SW Overlook Ct. by: stabilizing stream banks, improving the stream bed conditions through installation of bio-engineered bendway weirs, reconnecting Johnson Creek mainstem with its floodplain, and replacing aggressive invasive plant species with native tree and shrub species. SDC project #JC-20.

Justification: Assists City in: (1) addressing habitat needs for ESA-listed salmon, and (2) responding to water quality (NPDES and Temperature TMDL) requirements by decreasing amount of bank soil eroding into creek, improving floodplain storage, reducing stream temperature through tree shade, and providing a vegetated buffer to capture nutrient and pesticide runoff.

Type of project: Stream restoration/enhancement.



Estimated Dollars:	Funds	Description	Total
	Resources		Operating
		SDC	413,066
Resources Total			2,065,326
Expenses		Design/Const Admi	77,609
		Construction	1,734,034
		Admin (14%)	253,683
Expenses Total			2,065,326

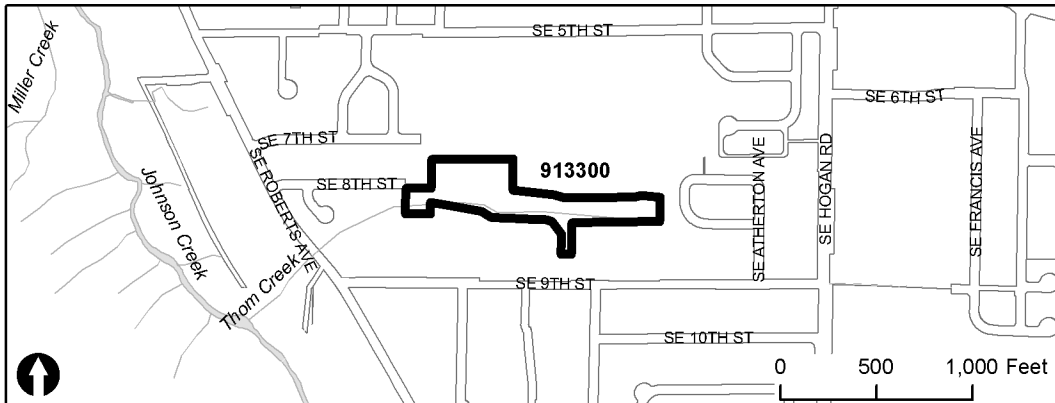
**UNFUNDED and FUTURE PROJECT
Stormwater**

913300: East Gresham Grade School

Description: Improve natural resource functions within a 5.6 acre riparian tract behind East Gresham Grade School and McCarty Middle School by using stormwater runoff from school properties to support riparian area plantings and by stabilizing slopes. SDC project #JC-24.

Justification: Assists City in complying with water quality and ESA requirements by decreasing amount of bank soil eroding into creek, reducing stream temperature, and improving aquatic habitat.

Type of Project: Stream restoration/enhancement.



Estimated Dollars:	Funds	Description	Total
	Resources	Operating	328,131
		SDC	82,034
	Resources Total		410,165
	Expenses	Design/Const Admi	83,066
		Construction	276,775
		Admin (14%)	50,324
	Expenses Total		410,165

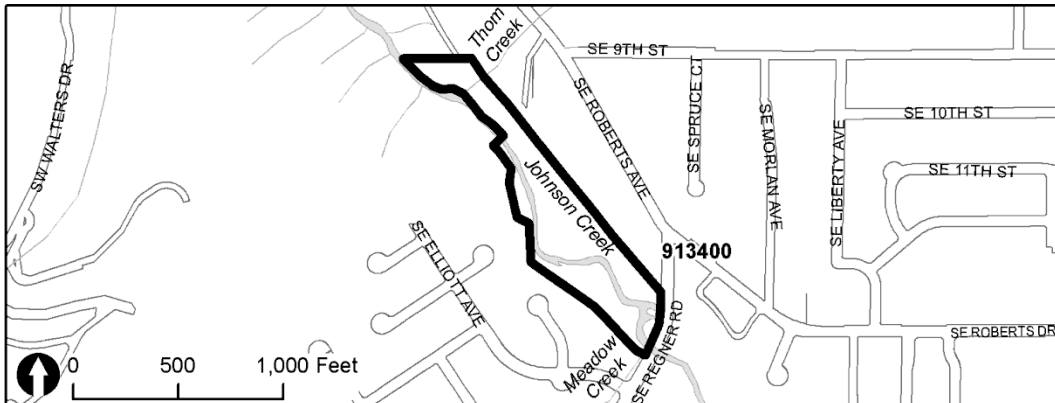
**UNFUNDED and FUTURE PROJECT
Stormwater**

913400: SE Dowsett St. Riparian Corridor Restoration

Description: Improve natural resource functions within a 9.35-acre riparian tract along Johnson Creek between SE Dowsett Ln. and SE Regner Rd. by replacing aggressive invasive plant species with native tree and shrub species and stabilizing slopes. SDC project #JC-25.

Justification: Assists City in complying with water quality and ESA requirements by decreasing amount of bank soil eroding into creek, reducing stream temperature, and improving aquatic habitat.

Type of Project: Stream restoration/enhancement.



Estimated Dollars:	Funds	Description	Total
	Resources		Operating
		SDC	26,896
	Resources Total		134,477
Expenses		Design/Const Admi	27,163
		Construction	90,822
		Admin (14%)	16,492
	Expenses Total		134,477

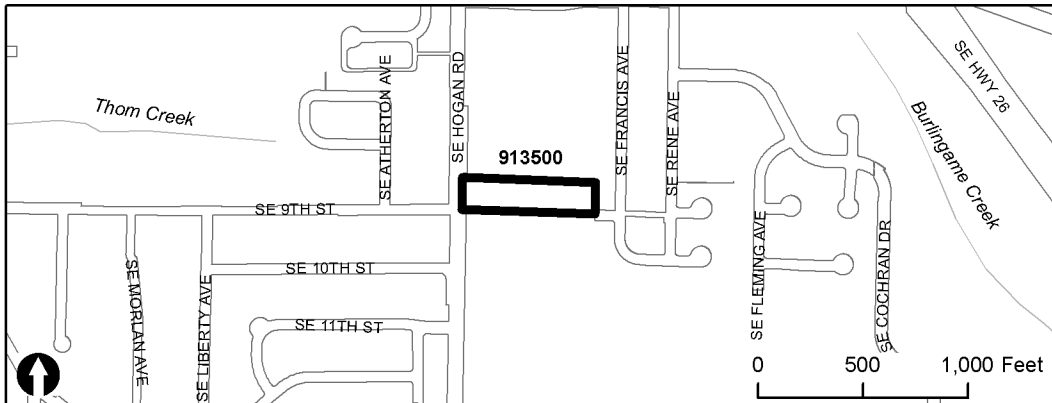
**UNFUNDED and FUTURE PROJECT
Stormwater**

913500: Grace Community Church

Description: Improve natural resource functions within a 2.22-acre site containing the headwaters of Thom Creek, on the Grace Community Church property off Hogan Rd. The project involves daylighting a stream section currently piped under a parking lot, installing bioswales to treat property's runoff, and installing native tree and shrub species. (JC-NR04)

Justification: Assists City in complying with water quality and ESA requirements by decreasing amount of bank soil eroding into creek, reducing stream temperature, and improving aquatic habitat.

Type of Project: Stream restoration/enhancement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	130,062
Resources Total		130,062
Expenses	Design/Const Admin	26,328
	Construction	87,761
	Admin (14%)	15,973
Expenses Total		130,062

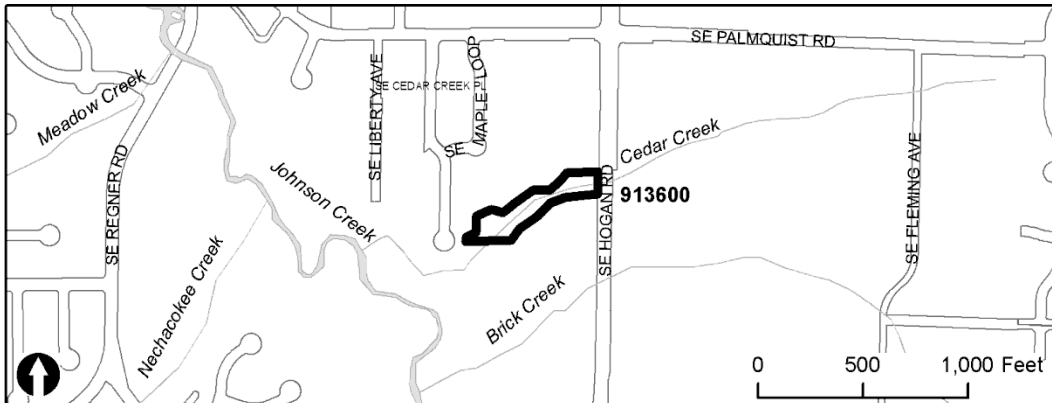
**UNFUNDED and FUTURE PROJECT
Stormwater**

913600: Bus Creek Restoration

Description: Improve natural resource functions along a 1.63-acre stretch of Cedar Creek, adjacent to the First Student bus yard off Hogan Rd. by installing native tree and plant species and constructing vegetated buffers to treat parking lot runoff. (JC-NR05)

Justification: Assists City in complying with water quality and ESA requirements by decreasing amount of bank soil eroding into creek, reducing stream temperature, and improving aquatic habitat.

Type of Project: Stream restoration/enhancement.



Estimated Dollars:	Funds	Description	Total
	Resources	Operating	66,201
	Resources Total		66,201
	Expenses	Design/Const Admin	13,401
		Construction	44,670
		Admin (14%)	8,130
	Expenses Total		66,201

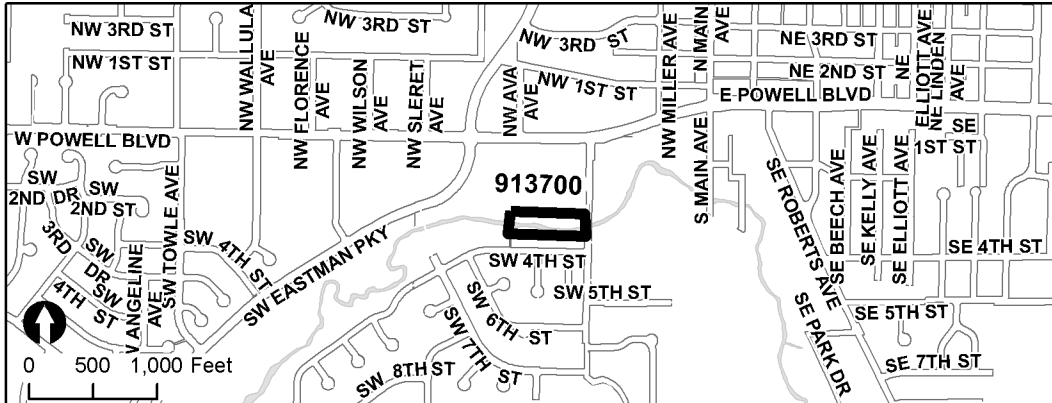
**UNFUNDED and FUTURE PROJECT
Stormwater**

913700: West Gresham Grade School: Johnson Creek Riparian Corridor Improvements

Description: Improve natural resource functions along 2.5 riparian acres along Johnson Creek, south and east of West Gresham Grade School, by: improving side channel conditions, installing a bendway weir to reduce bank erosion caused by the Walters Rd. bridge, stabilizing areas of slope instability, and replacing aggressive invasive plant species with native tree and shrub species. (JC-NR06)

Justification: Assists City in complying with water quality (NPDES and Temperature TMDL) and ESA requirements by decreasing amount of bank eroding into creek, reducing stream temperature (through tree shade), and improving wetland function, base flow support, and aquatic habitat. This will also reduce bank slumping at the upstream edge of the south bridge abutment.

Type of project: Stream restoration/enhancement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	102,600
Resources Total		102,600
Expenses	Design/Const Admin	6,500
	Construction	83,500
	Admin (14%)	12,600
Expenses Total		102,600

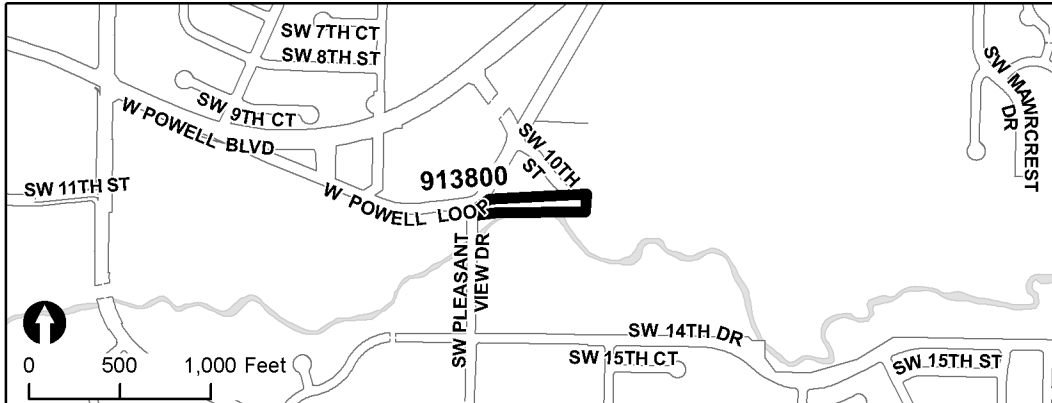
**UNFUNDED and FUTURE PROJECT
Stormwater**

913800: SW 14th Stabilization: Johnson Creek Riparian Corridor Improvements

Description: Address massive slumping and adjacent areas of bank erosion along 1.55 riparian acres between Johnson Creek and SW 14th Dr., east of SW Pleasant View. Geotechnical analysis, landowner involvement, and significant agency input will be needed, in addition to placement of in-stream structures, and dense re-vegetation of banks and surrounding floodplain areas with native plants. SDC project #JC-21.

Justification: Needed to prevent further additional bank slumping which is a significant source of sediment in the Johnson Creek system. Also assists City in complying with ESA and water quality (NPDES and Temperature TMDL) requirements by, reducing stream temperatures and pollutant levels in the creek, and improving aquatic habitat.

Type of project: Stream restoration/enhancement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	66,666
	SDC	16,668
Resources Total		83,334
Expenses	Design/Const Admi	10,671
	Construction	62,477
	Admin (14%)	10,186
Expenses Total		83,334

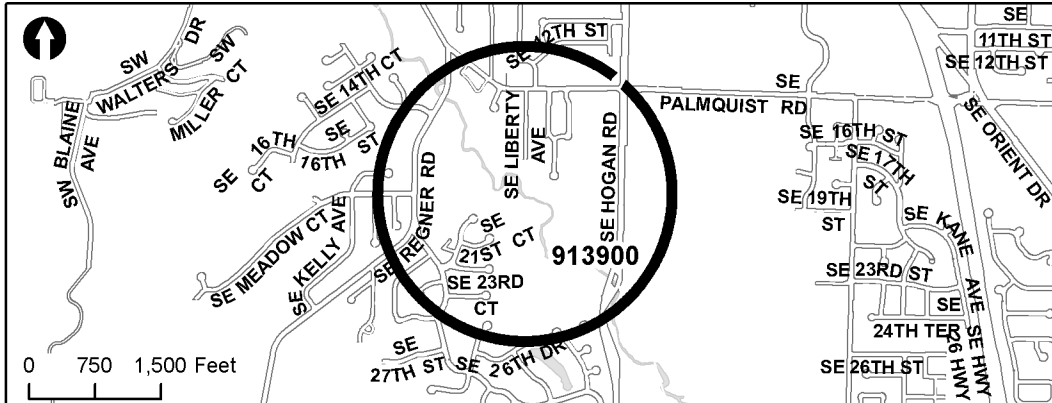
**UNFUNDED and FUTURE PROJECT
Stormwater**

913900: SE Regner to Hogan: Johnson Creek Riparian Corridor Improvements

Description: Improve natural resource functions along 42.61 riparian acres on both the north and south banks of Johnson Creek between Regner and Hogan Roads by: stabilizing stream banks, enhancing wetland and floodplain function, shading numerous intermittent tributaries to Johnson Creek, and replacing aggressive invasive plant species with native tree and shrub species. SDC project #JC-22.

Justification: Assists City in complying with ESA and water quality (NPDES and Temperature TMDL) requirements by decreasing amount of bank soil eroding into creek, improving floodplain storage and wetland function, reducing stream temperatures (through tree shading), and improving aquatic habitat.

Type of project: Stream restoration/enhancement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	603,160
	SDC	150,791
Resources Total		753,951
Expenses	Design/Const Admi	132,299
	Construction	529,007
	Admin (14%)	92,645
Expenses Total		753,951

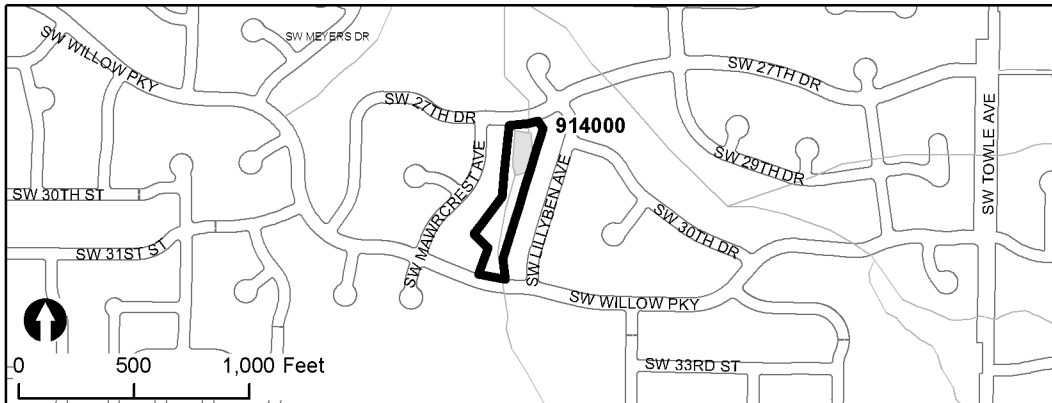
**UNFUNDED and FUTURE PROJECT
Stormwater**

914000: Willowbrook Pond

Description: Improve natural resource functions within a 1.81-acre parcel of public property located along Butler Creek between SW 27th and SW Willow Parkway by: replacing aggressive invasive plant species with native tree and shrub species and stabilizing the creek banks. (JC-NR09)

Justification: Assists City in complying with water quality and ESA requirements by decreasing amount of bank soil eroding into creek, reducing stream temperature, and improving aquatic habitat.

Type of Project: Stream restoration/enhancement.



Estimated Dollars:	Funds	Description	Total
	Resources	Operating	25,711
	Resources Total		25,711
	Expenses	Design/Const Admin	5,205
		Construction	17,349
		Admin (14%)	3,157
	Expenses Total		25,711

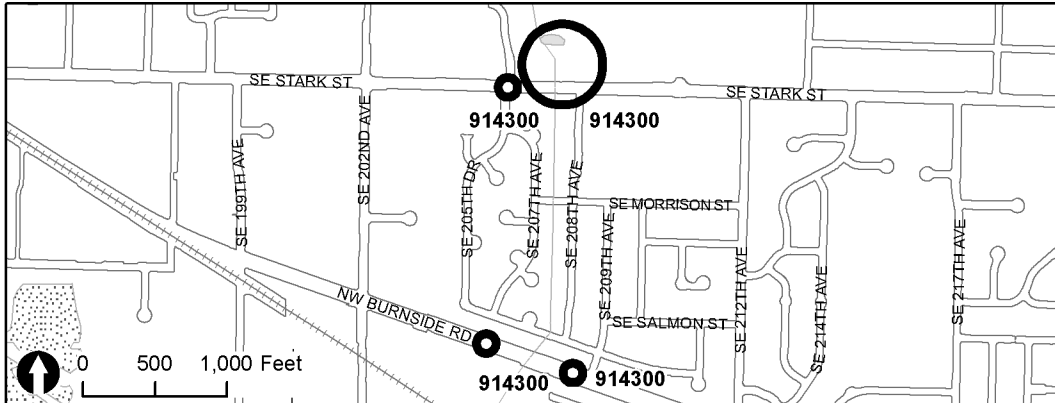
**UNFUNDED and FUTURE PROJECT
Stormwater**

914300: Water Quality Monitoring – Fairview Creek PRF

Description: Monitor two stormwater runoff events at or just upstream of potential structural Pollution Reduction Facilities (PRF). Water quality sites to be monitored are Burnside East (CIP 911300), Burnside West (CIP 911200), Stark East (CIP 911000), and Stark West (CIP 911100).

Justification: Verification of modeling data to determine that water quality facilities are warranted to treat basin runoff and to customize design of Pollution Reduction Facility or modify city BMPs.

Type of Project: Stormwater quality monitoring.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	22,800
Resources Total		22,800
Expenses	Other	20,000
	Admin (14%)	2,800
Expenses Total		22,800

**UNFUNDED and FUTURE PROJECT
Stormwater**

915200: Atherton Ave. Culvert Improvement

Description: Upsize the culvert. Existing pipe is 2 ft diameter. Suggested replacement pipe size is 4 ft. This project is located in the Atherton Ave. basin. SDC project #JC-1.

Justification: Eliminates overtopping of the roadway and localized street flooding.

Type of Project: Culvert improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	21,887
	SDC	19,411
Resources Total		41,298
Expenses	Design/Const Admi	8,367
	Construction	27,838
	Admin (14%)	5,093
Expenses Total		41,298

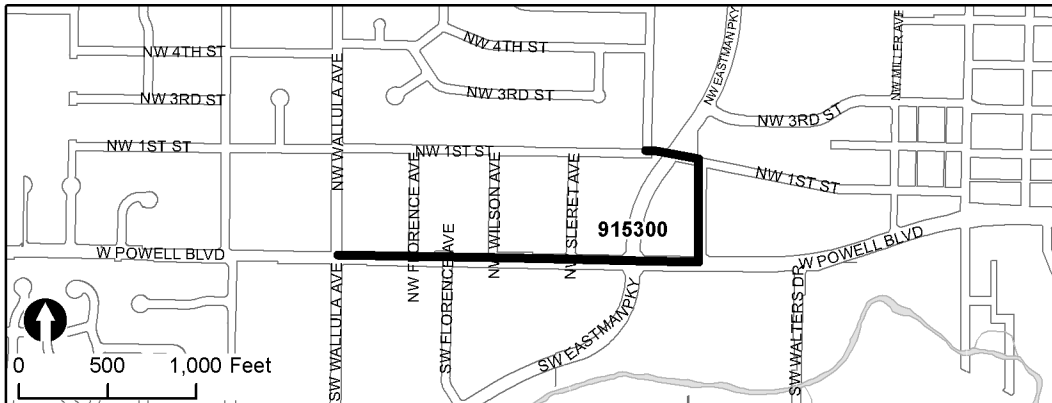
**UNFUNDED and FUTURE PROJECT
Stormwater**

915300: Ava Ave. Group 1 Pipe Improvement

Description: Upsize the 9 storm drain pipes. Existing pipe size varies from 1 ft to 1.5 ft (see Table 6.2). Suggested replacement pipe size varies from 2 ft to 3.5 ft (see Table 6.2). This project is located in the Ava Ave. basin. SDC project #JC-2.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	1,056,987
	SDC	31,293
Resources Total		1,088,280
Expenses	Design/Const Admi	220,336
	Construction	734,312
	Admin (14%)	133,632
Expenses Total		1,088,280

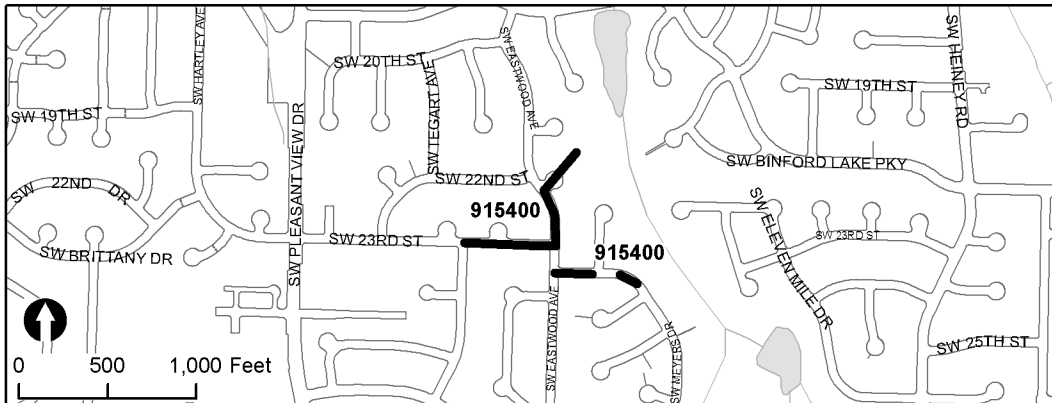
**UNFUNDED and FUTURE PROJECT
Stormwater**

915400: Butler Creek – Groups 1A, B & C Pipe Improvement

Description: Upsize the 7 storm drain pipes. Existing pipe size varies from 1 ft to 1.25 ft (see Table 6.2). Suggested replacement pipe varies from 1.5 ft to 2 ft (see Table 6.2). This project is located in the Butler Creek basin. SDC project #JC-3.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	193,597
	SDC	193,599
Resources Total		387,196
Expenses	Design/Const Admi	78,336
	Construction	261,325
	Admin (14%)	47,535
Expenses Total		387,196

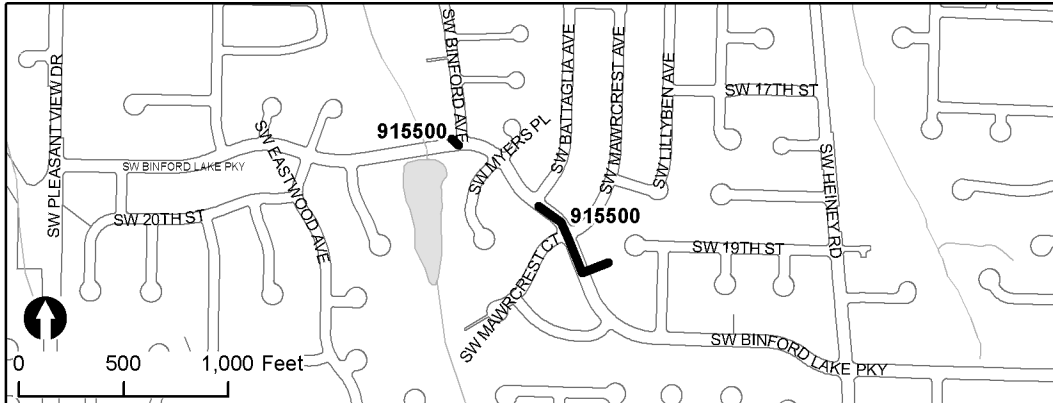
**UNFUNDED and FUTURE PROJECT
Stormwater**

915500: Butler Creek – Groups 2A & B Pipe Improvement

Description: Upsize the 5 storm drain pipes. Existing pipe varies from 1 ft to 1.25 ft (see Table 6.2). Suggested replacement pipe size varies from 1.25 ft to 1.75 ft (see Table 6.2). This project is located in the Butler Creek basin. SDC project #JC-4.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	87,823
	SDC	91,410
Resources Total		179,233
Expenses	Design/Const Admi	36,258
	Construction	120,905
	Admin (14%)	22,070
Expenses Total		179,233

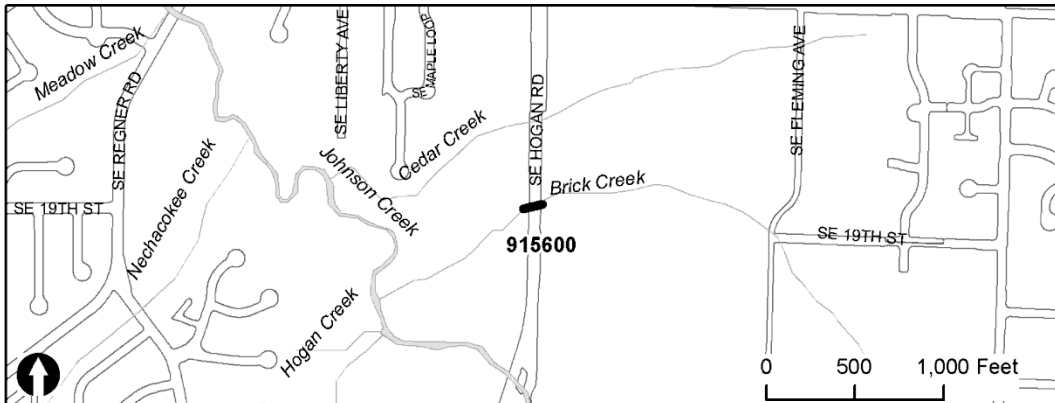
**UNFUNDED and FUTURE PROJECT
Stormwater**

915600: Brick Creek Culvert Improvement

Description: Upsize the culvert. Existing pipe size is 2 ft diameter. Suggested replacement pipe size is 3.5 ft diameter. This project is located in the Brick Creek basin. SDC project #JC-5.

Justification: Eliminates overtopping of the roadway and localized street flooding.

Type of Project: Culvert improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	22,197
	SDC	63,176
Resources Total		85,373
Expenses	Design/Const Admi	17,341
	Construction	57,603
	Admin (14%)	10,429
Expenses Total		85,373

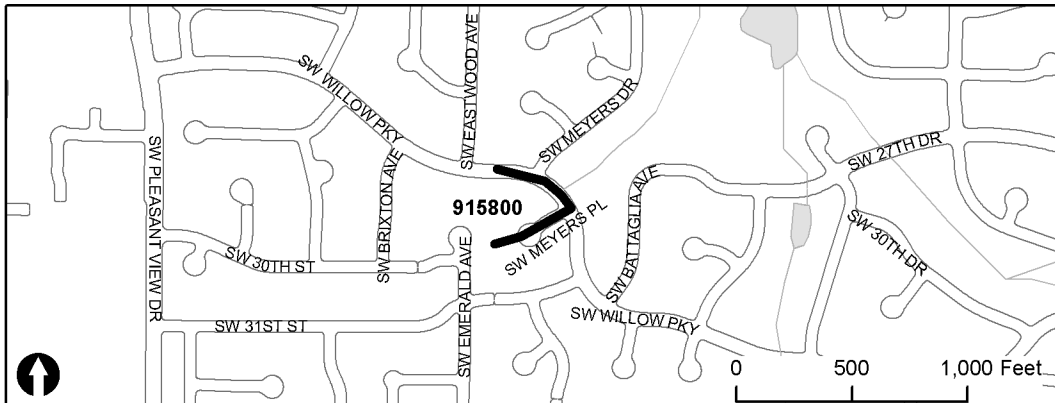
**UNFUNDED and FUTURE PROJECT
Stormwater**

915800: Butler West – Group 3 – Pipe Improvement

Description: Upsize the 5 storm drain pipes. Existing pipe size varies from 1 ft to 1.75 ft (see Table 6.2). Suggested replacement pipe size varies from 1.5 ft to 3.5 ft (see Table 6.2). This project is located in the Butler West (Bear Creek) basin. SDC project #JC-6.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	130,134
	SDC	130,135
Resources Total		260,269
Expenses	Design/Const Admi	52,628
	Construction	175,627
	Admin (14%)	32,014
Expenses Total		260,269

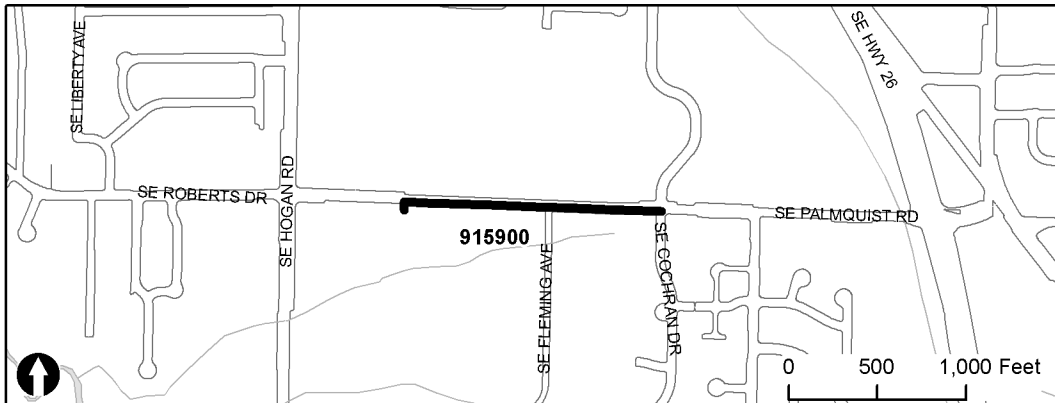
**UNFUNDED and FUTURE PROJECT
Stormwater**

915900: Cedar Creek – Group 1 – Pipe Improvement

Description: Upsize the 4 storm drain pipes. Existing pipe is 1.5 ft. Suggested replacement pipe size varies from 2.5 ft to 3 ft (see Table 6.2). This project is in the Cedar Creek basin. SDC project #JC-7.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:	Funds	Description	Total
	Resources		Operating
		SDC	127,504
Resources Total			227,685
Expenses		Design/Const Admi	46,080
		Construction	153,593
		Admin (14%)	28,012
Expenses Total			227,685

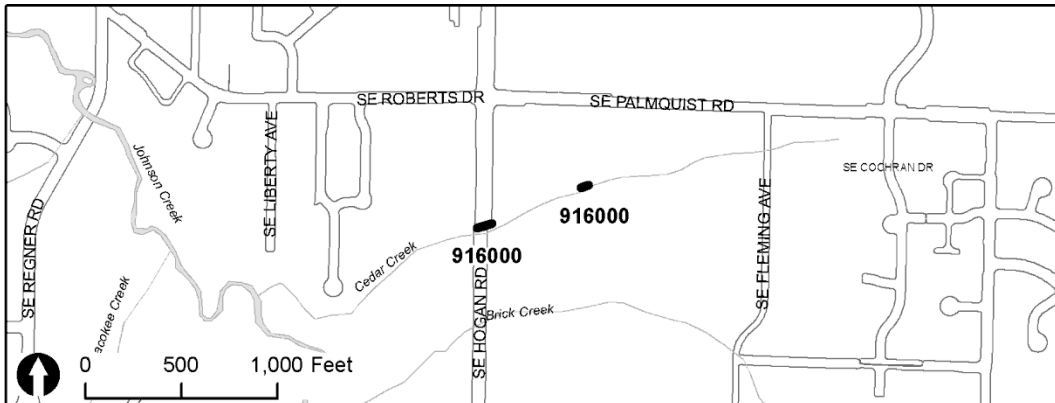
**UNFUNDED and FUTURE PROJECT
Stormwater**

916000: Cedar Creek – Group 2 Culvert Improvement

Description: Upsize the 2 culverts. Existing pipe size varies from 1.75 ft to 2 ft (see Table 6.2). Suggested replacement pipe size varies from 4.5 ft to 5 ft (see Table 6.2). This project is located in the Cedar Creek basin. SDC project #JC-8.

Justification: Eliminates overtopping of the roadway and localized street flooding.

Type of Project: Culvert improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	37,308
	SDC	79,279
Resources Total		116,587
Expenses	Design/Const Admi	23,646
	Construction	78,632
	Admin (14%)	14,309
Expenses Total		116,587

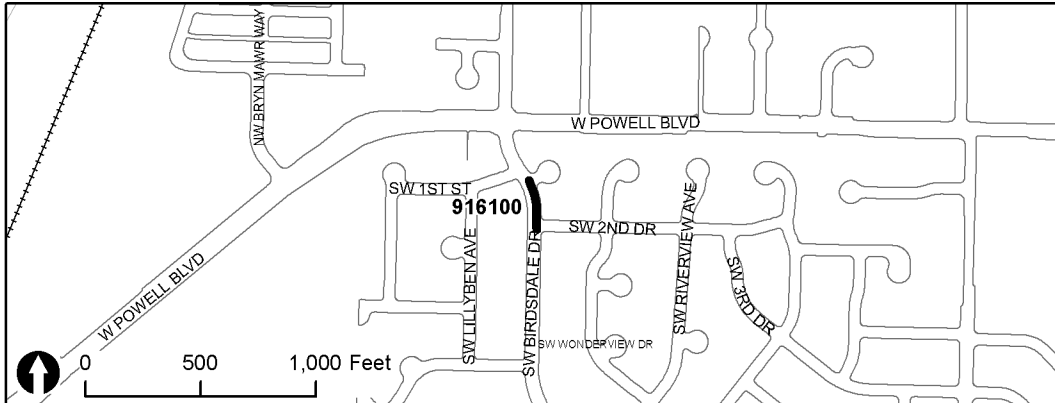
**UNFUNDED and FUTURE PROJECT
Stormwater**

916100: Mawcrest Dr. – Pipe Improvement

Description: Upsize the storm drain pipe. Existing pipe is 1.5 ft diameter. Suggested replacement pipe is 2 ft diameter. This project is located in the Mawcrest Dr. basin. SDC project #JC-9.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	37,291
	SDC	38,815
Resources Total		76,106
Expenses	Design/Const Admi	15,400
	Construction	51,369
	Admin (14%)	9,337
Expenses Total		76,106

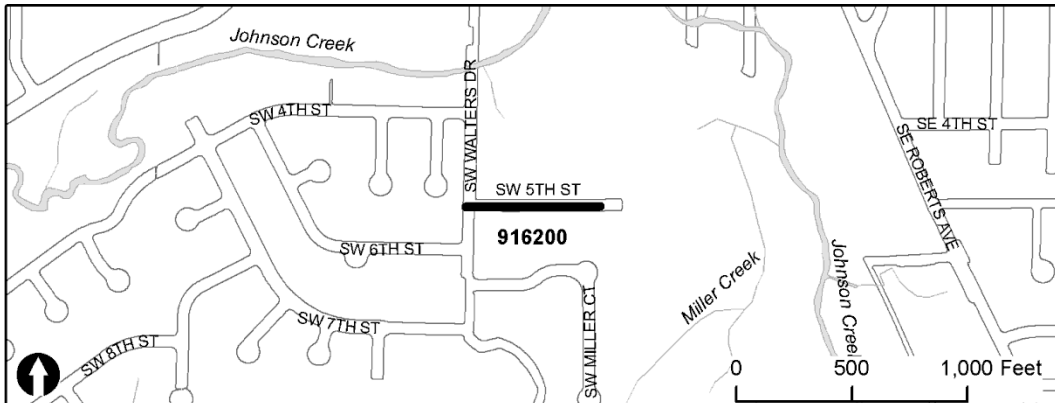
**UNFUNDED and FUTURE PROJECT
Stormwater**

916200: Miller Ct. – Pipe Improvement

Description: Upsize the storm drain pipe. Existing pipe is 1.5 ft diameter. Suggested replacement pipe is 1.75 ft diameter. This project is located in the Miller Ct. basin. SDC project #JC-10.

Justification: Eliminates surcharging in the storm drain system.

Type of Project: Storm drain improvement.



Estimated Dollars:	Funds	Description	Total
	Resources		Operating
		SDC	60,021
	Resources Total		166,722
Expenses		Design/Const Admi	33,711
		Construction	112,517
		Admin (14%)	20,494
	Expenses Total		166,722

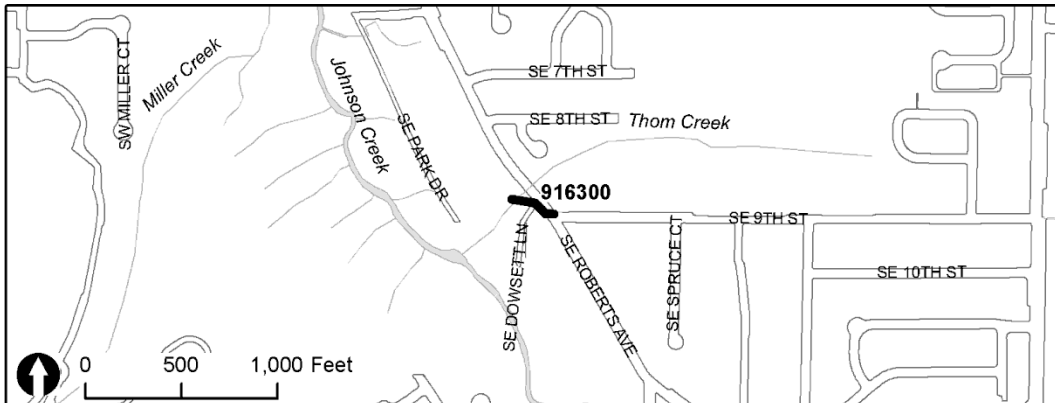
**UNFUNDED and FUTURE PROJECT
Stormwater**

916300: Morlan Ave – Pipe Improvement

Description: Upsize the 3 storm drain pipes. Existing pipe is 1 ft. Suggested replacement pipe is 2 ft. This project is located in the Morlan Ave. basin. SDC project #JC-11.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:	Funds	Description	Total
	Resources	Operating	47,710
		SDC	47,710
	Resources Total		95,420
	Expenses	Design/Const Admi	19,281
		Construction	64,376
		Admin (14%)	11,763
	Expenses Total		95,420

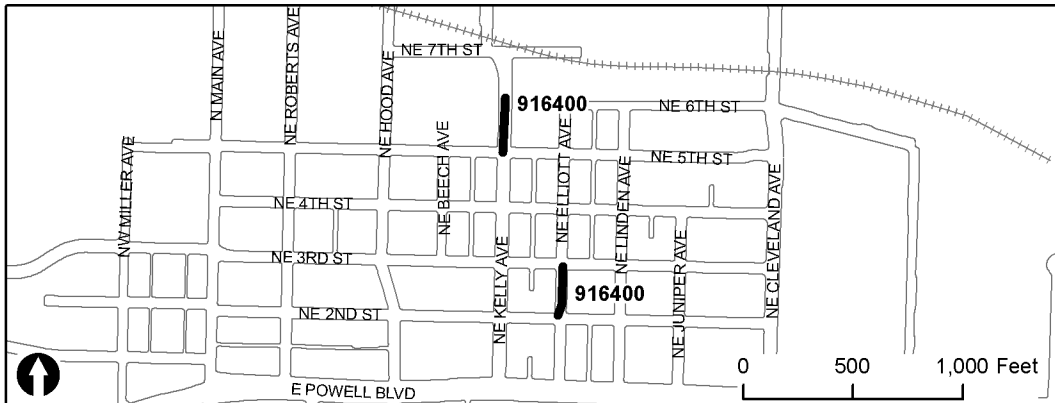
**UNFUNDED and FUTURE PROJECT
Stormwater**

916400: Powell Blvd East – Group 2 – Pipe Improvement

Description: Upsize the 2 storm drain pipes. Existing pipe size varies from 1 ft to 1.25 ft. (see Table 6.2). Suggested replacement pipe size varies from 1.5 ft to 1.75 ft (see Table 6.2). This project is located in the Powell East Blvd. basin. SDC project #JC-12.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	23,246
	SDC	122,045
Resources Total		145,291
Expenses	Design/Const Admi	29,467
	Construction	97,998
	Admin (14%)	17,826
Expenses Total		145,291

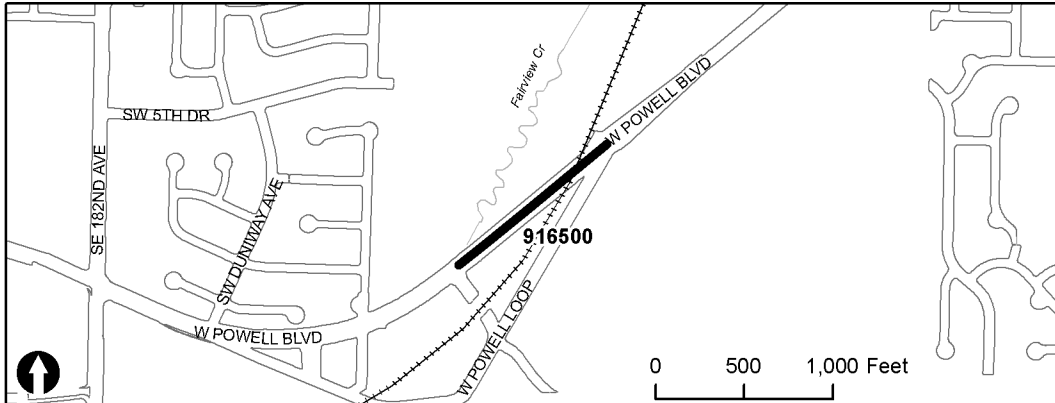
**UNFUNDED and FUTURE PROJECT
Stormwater**

916500: Powell Loop – Group 1 – Pipe Improvement

Description: Upsize the 4 storm drain pipes. Existing pipe sizes varies from 1.75 ft to 2 ft (see Table 6.2). Suggested replacement pipe varies from 2 ft to 2.5 ft (see Table 6.2). This project is located in the Powell Loop basin. SDC project #JC-13.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	129,457
	SDC	230,146
Resources Total		359,603
Expenses	Design/Const Admi	72,758
	Construction	242,705
	Admin (14%)	44,140
Expenses Total		359,603

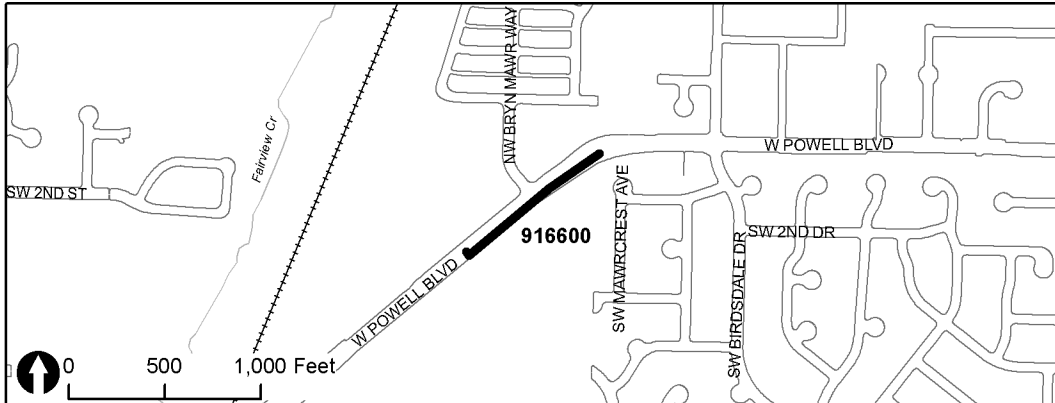
**UNFUNDED and FUTURE PROJECT
Stormwater**

916600: Powell Loop – Group 2 – Pipe Improvement

Description: Up size the 4 storm drain pipes. Existing pipe size varies from 1 ft to 1.25 ft (see Table 6.2). Suggested replacement pipe size varies from 1.5 ft to 2.5 ft (see Table 6.2). This project is located in the Powell Loop basin. SDC project #JC-14.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	127,972
	SDC	133,195
Resources Total		261,167
Expenses	Design/Const Admi	52,871
	Construction	176,282
	Admin (14%)	32,014
Expenses Total		261,167

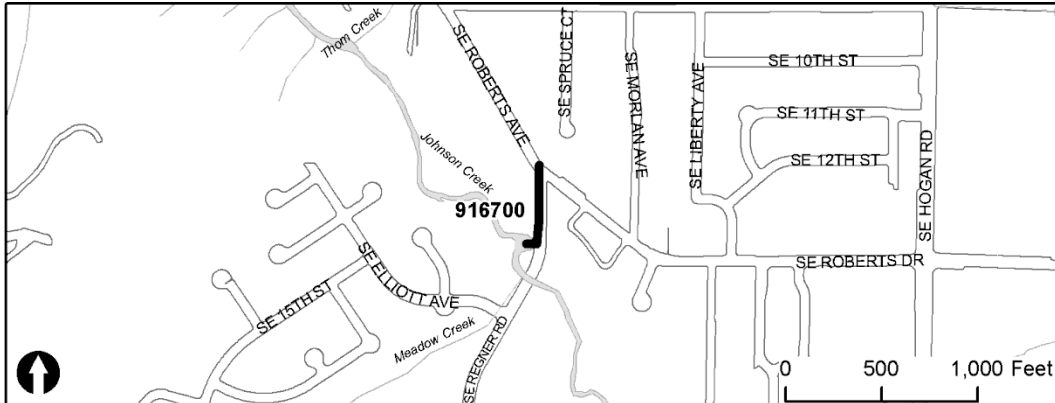
**UNFUNDED and FUTURE PROJECT
Stormwater**

916700: Roberts Drive - Pipe Improvement

Description: Upsize the 2 storm drain pipes. Existing pipe size is 1.25 ft. Suggested replacement pipe size varies from 1.75 ft to 6 ft. (see Table 6.2). This project is located in the Roberts Dr. basin. SDC project #JC-15.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	249,386
	SDC	6,893
Resources Total		256,279
Expenses	Design/Const Admi	51,901
	Construction	172,849
	Admin (14%)	31,529
Expenses Total		256,279

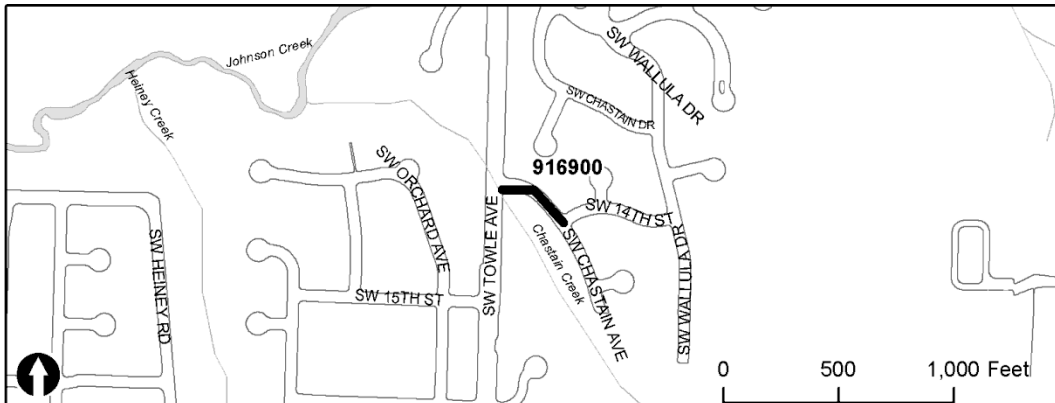
**UNFUNDED and FUTURE PROJECT
Stormwater**

916900: Towle Ave East - Group 1 - Pipe Improvement

Description: Upsize the 2 storm drain pipes. Existing pipe size is 1.25 ft. Suggested replacement pipe size is 2 ft. This project is located in the Towle Av. basin. SDC project #JC-16.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	68,655
	SDC	45,770
Resources Total		114,425
Expenses	Design/Const Admi	23,161
	Construction	77,197
	Admin (14%)	14,067
Expenses Total		114,425

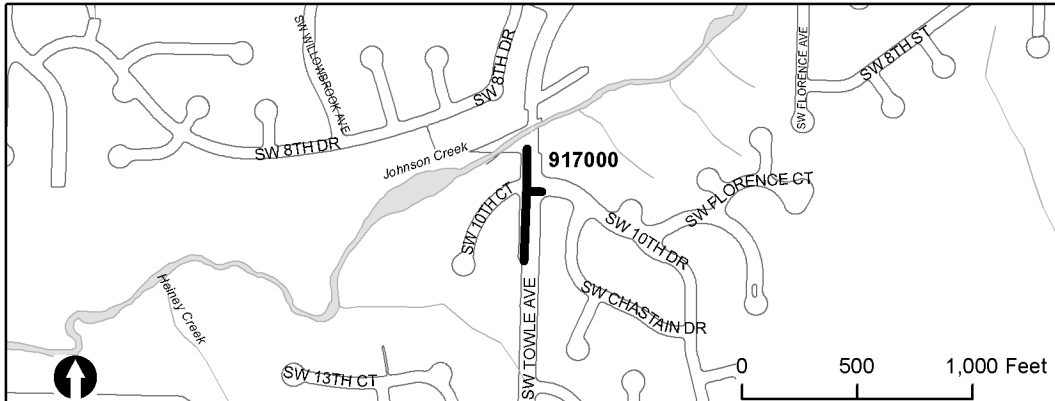
**UNFUNDED and FUTURE PROJECT
Stormwater**

917000: Towle Ave East - Group 2 - Pipe Improvement

Description: Upsize the 4 storm drain pipes. Existing pipe size varies from 1.25 ft to 1.75 ft (see Table 6.2). Suggested replacement pipe size varies from 3.5 ft to 5 ft (see Table 6.2). This project is located in the Towle Ave. east basin. SDC project #JC-17.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	250,423
	SDC	97,387
Resources Total		347,810
Expenses	Design/Const Admi	70,454
	Construction	234,671
	Admin (14%)	42,685
Expenses Total		347,810

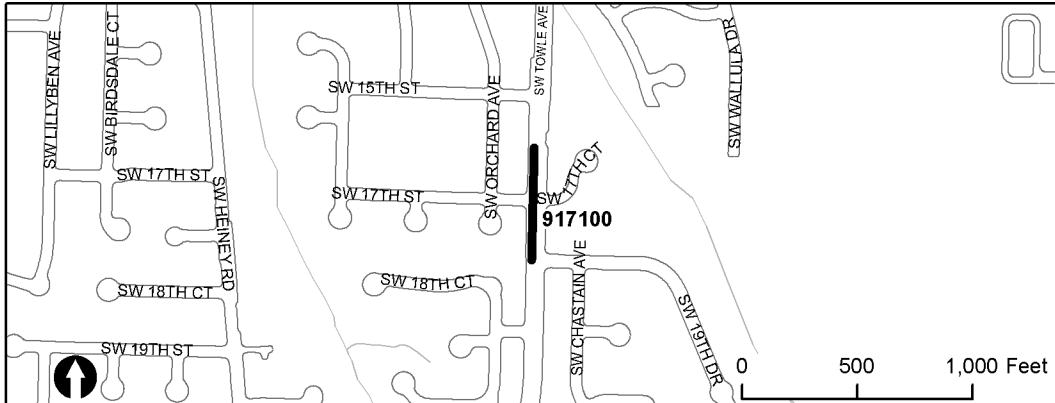
**UNFUNDED and FUTURE PROJECT
Stormwater**

917100: Towle Ave South - Pipe Improvement

Description: Upsize the 3 storm drain pipes. Existing pipe size is 1.5 ft. Suggested replacement pipe size varies from 1.75 ft to 3 ft. (see Table 6.2). This project is in the Towle Ave. south basin. SDC project #JC-18.

Justification: Eliminates surcharging in the storm drain system and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	69,674
	SDC	78,568
Resources Total		148,242
Expenses	Design/Const Admi	29,952
	Construction	100,100
	Admin (14%)	18,190
Expenses Total		148,242

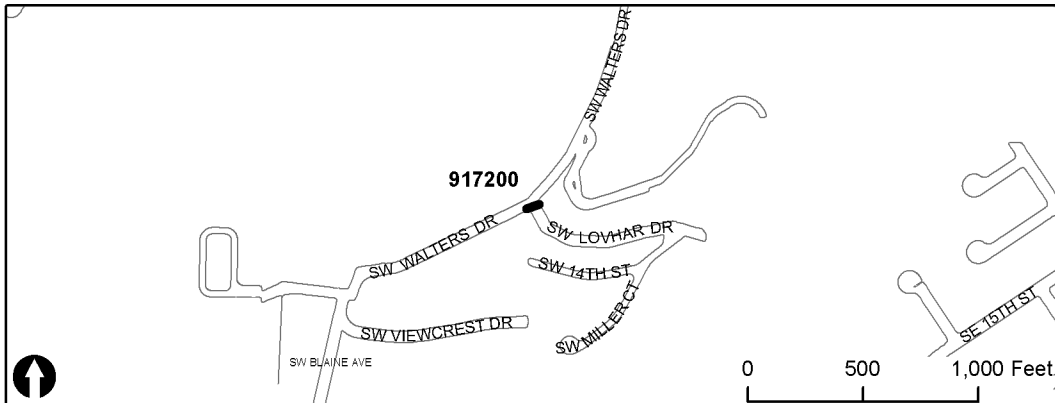
**UNFUNDED and FUTURE PROJECT
Stormwater**

917200: Walters Drive - Culvert Improvement

Description: Upsize the culvert. Existing pipe size is 1.5 ft diameter. Suggested replacement pipe size is 2.5 ft diameter. This project is located in the Walters Dr. basin. SDC project #JC-19.

Justification: Eliminates overtopping of the roadway and localized street flooding.

Type of Project: Storm drain improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	34,639
	SDC	22,148
Resources Total		56,787
Expenses	Design/Const Admi	11,520
	Construction	38,234
	Admin (14%)	7,033
Expenses Total		56,787

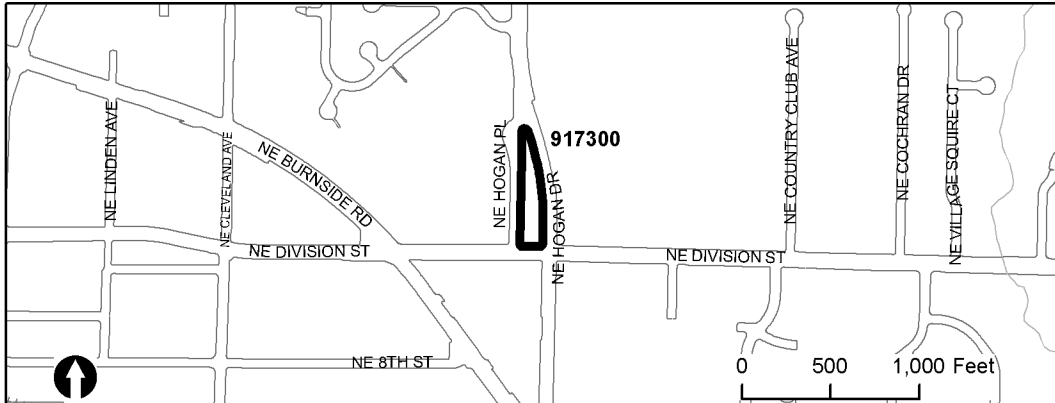
**UNFUNDED and FUTURE PROJECT
Stormwater**

917300: Hogan Place Regional PRF

Description: Construct a regional water quality treatment system (structural pollution reduction facility) in the vacant land between Hogan Drive and Hogan Place. This facility will treat both the dual 36" pipes draining north from Burnside Ave as well as the 30" pipe draining Division St. via a new diversion manhole and pipe. This facility will treat nearly the entire upper Burlingame basin, approximately 1000 acres of mainly residential and commercial lands. (KC-2)

Justification: There is very little water quality treatment being provided in the Burlingame Creek watershed and this facility would remove TSS and associated pollutants from the water quality flow event.

Type of Project: Structural pollutant reduction facility.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	783,938
Resources Total		783,938
Expenses	Design/Const Admin	138,370
	Property Acq	65,000
	Construction	461,233
	Other	23,062
	Admin (14%)	96,273
Expenses Total		783,938

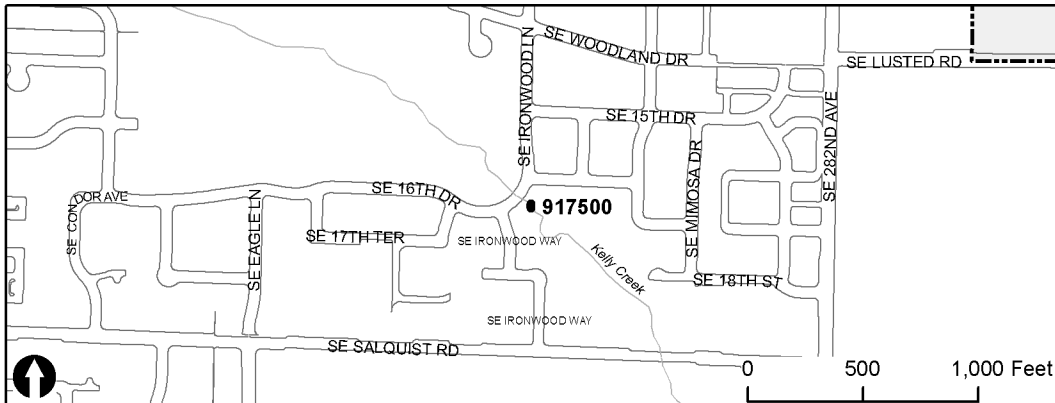
**UNFUNDED and FUTURE PROJECT
Stormwater**

917500: Ironwood Access Road Culvert Removal

Description: Remove the existing CMP culvert beneath the cities access road and restore the channel. The stream improvements consist of reshaping the channel, laying back the slope to 3:1 and adding woody debris. Removal of invasive species and replanting with natives is suggested. SDC project #KC-8.

Justification: Eliminates a failing and unnecessary culvert and reduces upstream flood levels.

Type of Project: Culvert / channel improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	128,354
	SDC	5,349
Resources Total		133,703
Expenses	Design/Const Admi	26,072
	Construction	91,260
	Admin (14%)	16,371
Expenses Total		133,703

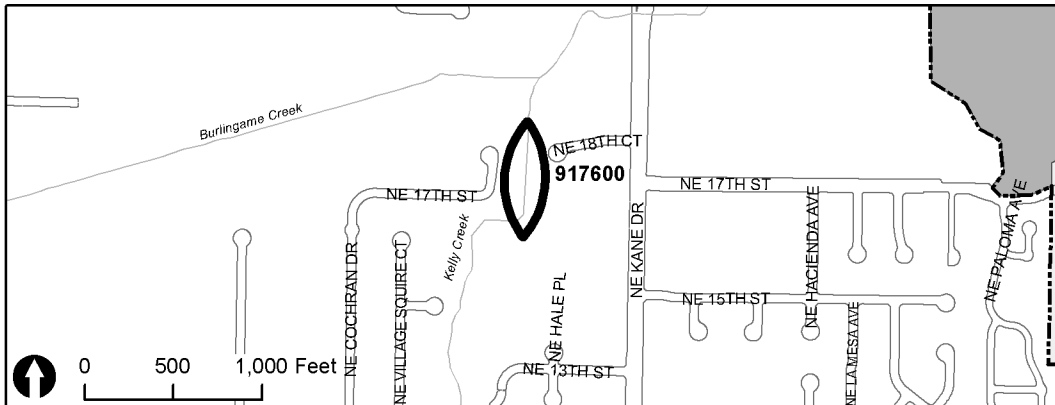
**UNFUNDED and FUTURE PROJECT
Stormwater**

917600: NE Hale Place Bank Stabilization

Description: Remove ineffective bank stabilization project. Re-establish channel geometry (bank, in particular) and multi-story vegetated riparian community. Relocate stormwater outfall below outside meander bank. Obtain necessary authorization(s) for in-stream work from regulatory agencies (i.e., US Army Corp of Engineers, Oregon Department of State Lands). SDC project #KC-4.

Justification: A private party installed a stormwater outfall and rip-rip apron on an outside meander bank. The outfall was installed higher than accepted engineering standards. Adverse bank erosion processes are affecting down stream properties. This project is just downstream of the proposed SE 17th Street project, which includes similar implementation elements. As such, if the City pursues this and the NE 17th Street projects, early coordination is recommended to maximize cost efficiencies such as mobilization, equipment operation, material hauling,

Type of Project: Creek bank, channel geometry and riparian vegetation corridor improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	134,975
	SDC	5,624
Resources Total		140,599
Expenses	Design/Const Admi	6,063
	Construction	117,317
	Admin (14%)	17,219
Expenses Total		140,599

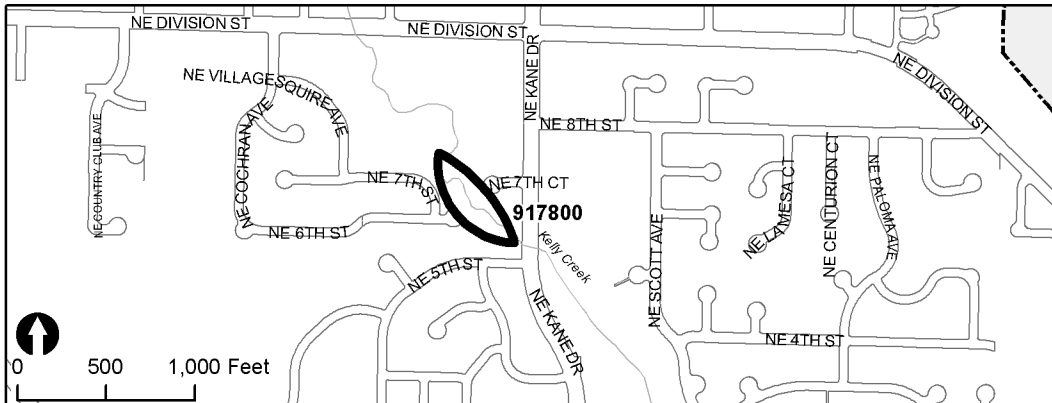
**UNFUNDED and FUTURE PROJECT
Stormwater**

917800: NE 7th Ct. Channel Modification

Description: Relocate Kelly Creek’s channel to alleviate the persistent bank instability point to upstream basin-wide land use changes. Establish multi-story vegetated riparian community. Obtain necessary authorization(s) for in-stream work from regulatory agencies (i.e., USACE, DSL). SDC project #KC-9.

Justification: Private party constructed an inadequate retaining wall on city-and privately owned property to address localized bank instability associated with a multi-unit residence constructed neat an outside meander bank. Said wall partially failed during Spring 2005. Current channel location, in conjunction with seasonal and storm event flows, will continue to compromise the wall’s stability and residence’s long-term structural integrity. The retaining wall was repaired in fall 2005; however, said efforts are temporary. The city-owned parcel adjacent to the west provides sufficient acreage to re-route the channel towards and undeveloped, blackberry dominated reach and alleviate current and future channel instability points.

Type of Project: Channel geometry and riparian vegetation corridor improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	128,216
	SDC	5,343
Resources Total		133,559
Expenses	Design/Const Admi	25,102
	Construction	92,086
	Admin (14%)	16,371
Expenses Total		133,559

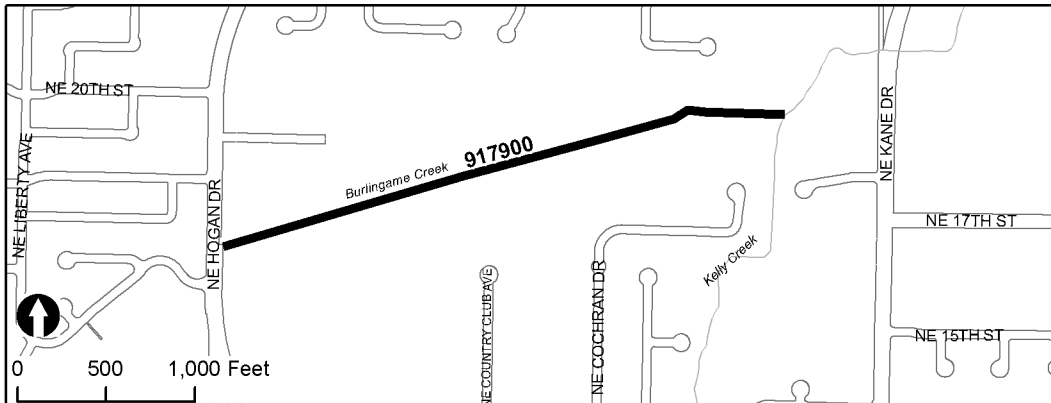
**UNFUNDED and FUTURE PROJECT
Stormwater**

917900: Riparian Enhancements near Gr. Golf Course

Description: Improve riparian corridor’s structural diversity to increase stream bank shading and reduce Burlingame Creek temperatures. (KCN-7)

Justification: Burlingame Creek is water quality limited for temperature and E. coli per the Department of Environmental Quality’s (DEQ) 303(d) list. This portion of Burlingame Creek supports limited woody riparian vegetation and typically slow-moving flows. Although base flow data is not currently available, velocities observed during late summer indicate that established riparian plantings (particularly along the south bank) would significantly reduce water temperatures before its confluence with Kelly Creek. Additionally, per conversations with City staff, course owners are supportive of a riparian enhancement project, as long as the course’s playable areas are not affected. As such Burlingame Creek’s location within the course layout should provide sufficient acreage for project implementation. The plantings would also contribute to long-term bank stability. Additionally, this project directly addresses the DEQ temperature mandate.

Type of Project: Riparian vegetation corridor and water quality improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	154,851
Resources Total		154,851
Expenses	Design/Const Admin	1,778
	Property Acq	120,000
	Construction	5,928
	Other	8,128
	Admin (14%)	19,017
Expenses Total		154,851

**UNFUNDED and FUTURE PROJECT
Stormwater**

918100: Highway 26 Ecology Embankment

Description: Construct an ecology embankment on the east and west sides of Highway 26. This facility will treat runoff from the highway and water a surrounding right-of-way. (KC-1)

Justification: There is very little water quality treatment being provided in this area of the basin and this facility would remove TSS and other pollutants associated with heavy traffic.

Type of Project: Water quality improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	664,633
Resources Total		664,633
Expenses	Design/Const Admin	129,558
	Construction	431,860
	Other	21,593
	Admin (14%)	81,622
Expenses Total		664,633

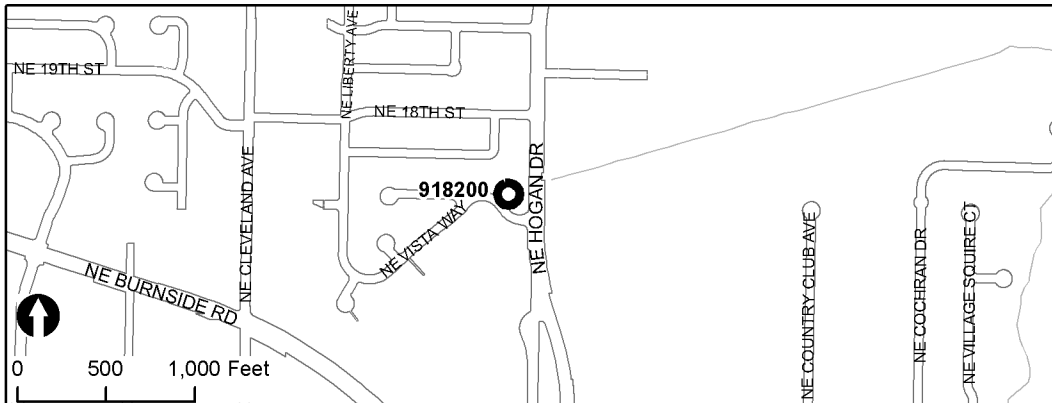
**UNFUNDED and FUTURE PROJECT
Stormwater**

918200: Vista Way PRF

Description: Construct a regional water quality treatment system (structural pollution reduction facility) at Vista Way and Hogan Dr. This facility will treat mainly residential lands that drain into Burlingame Creek. SDC project #KC-1.

Justification: There is very little water quality treatment being provided in the Kelly Creek watershed and this facility would remove TSS and associated pollutants from the water quality flow event

Type of Project: Water quality improvement.



Estimated Dollars:	Funds	Description	Total
	Resources	Operating	150,484
		SDC	6,272
	Resources Total		156,756
	Expenses	Design/Const Admi	30,558
		Construction	101,945
		Other	4,972
		Admin (14%)	19,281
	Expenses Total		156,756

**UNFUNDED and FUTURE PROJECT
Stormwater**

918300: 23rd Ave and Hale Street PRF

Description: Install a PRF at 23rd Street and Hale to prevent untreated stormwater runoff from entering Kelly Creek. (KC-4)

Justification: There is very little water quality treatment being provided in the this and this facility would remove TSS and associated pollutants from the water quality flow event from entering the creek.

Type of Project: Water quality improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	151,597
Resources Total		151,597
Expenses	Design/Const Admin	29,551
	Construction	98,504
	Other	4,925
	Admin (14%)	18,617
Expenses Total		151,597

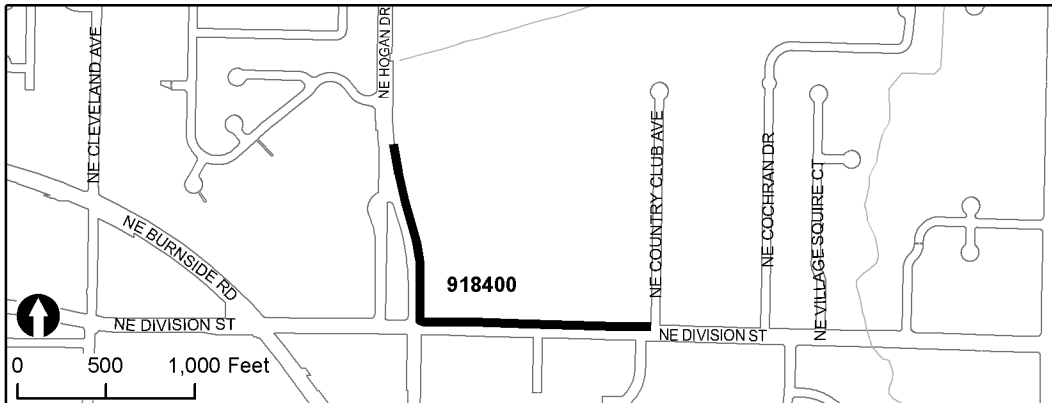
**UNFUNDED and FUTURE PROJECT
Stormwater**

918400: Division Road Pipe Upsize

Description: Upsize the storm drain pipe from manhole 3255-k-005 to manhole 3254-k-675 (outfall) . Existing pipe size is 24 inch, suggested replacement pipe size is 36-inch. (KC-5)

Justification: The intersection of Division and Hogan has experienced localized flooding and the hydraulic analysis indicates excessive surcharging during the 10-year event.

Type of Project: Storm drain and outfall improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	750,387
Resources Total		750,387
Expenses	Design/Const Admin	146,274
	Construction	487,581
	Other	24,379
	Admin (14%)	92,153
Expenses Total		750,387

**UNFUNDED and FUTURE PROJECT
Stormwater**

918500: Burlingame Piping

Description: Replace the existing open channel ditch section of Burlingame Creek between NE Cleveland Ave. and NE Burnside Road with a 48" storm drain. SDC project #KC-2.

Justification: This area is one of the largest sources of point-source pollution in the Burlingame Creek basin. Debris and garbage from adjacent properties have contributed to system flooding by clogging the downstream pipe system.

Type of Project: Water quality improvement, open channel and culvert improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	377,977
	SDC	19,895
Resources Total		397,872
Expenses	Design/Const Admi	77,609
	Construction	258,783
	Other	12,611
	Admin (14%)	48,869
Expenses Total		397,872

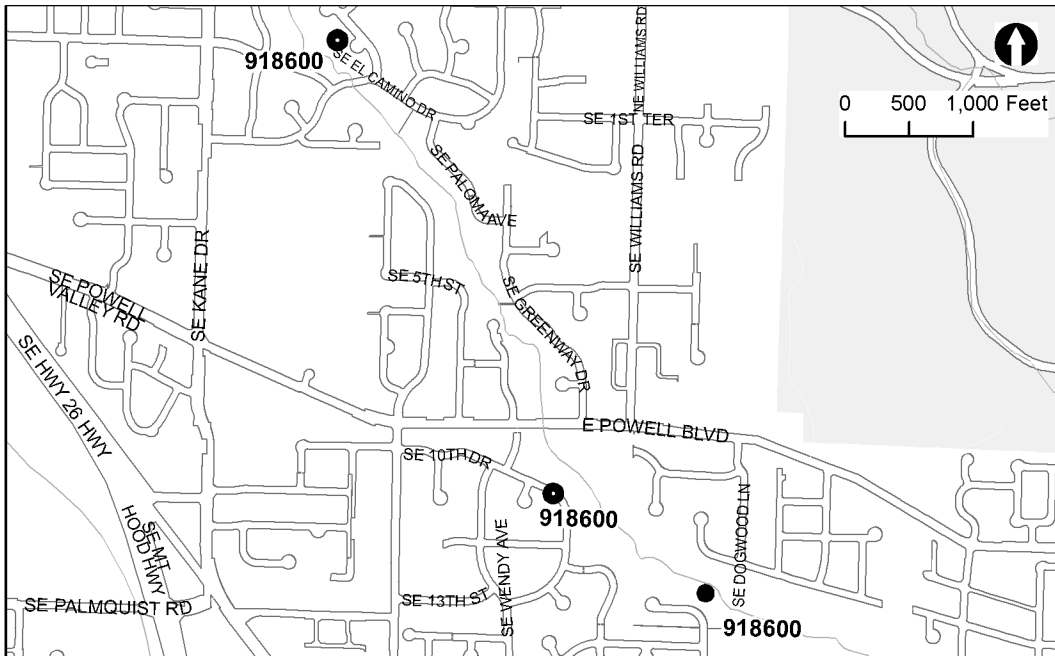
**UNFUNDED and FUTURE PROJECT
Stormwater**

918600: Major Outfall Rehabilitation (NE Scott, SW Condor, SE Laura)

Description: SE Condor - Remove riprap in channel also cut back pipe and replace outfall: 3557-k-603. At SE Laura Ln. - Cut back pipe and install riprap apron: 3557-k-108. At NE Scott - Cut back pipe and install riprap apron and install 200' swale. SDC project #KC-3.

Justification: Eliminates surcharging in the storm drain system and localized street and property flooding.

Type of Project: Storm drain and outfall improvement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	132,450
	SDC	2,704
Resources Total		135,154
Expenses	Design/Const Admi	26,314
	Construction	87,862
	Other	4,365
	Admin (14%)	16,613
Expenses Total		135,154

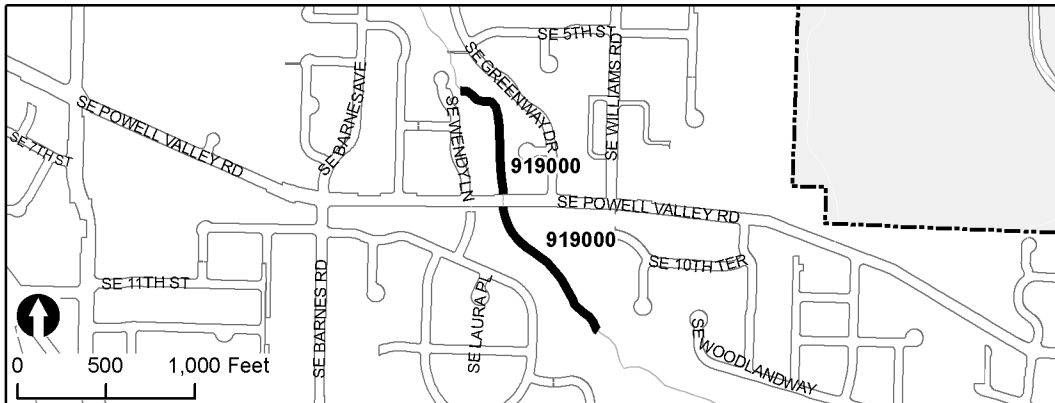
**UNFUNDED and FUTURE PROJECT
Stormwater**

919000: SE Powell Valley Road

Description: Remove invasive species and replace with native riparian vegetation. SDC project #KC-6.

Justification: Improve habitat quality, bank stability, and enhance aesthetics.

Type of Project: Invasive species removal.



Estimated Dollars:	Funds	Description	Total
	Resources		Operating
		SDC	8,057
	Resources Total		201,417
Expenses		Design/Const Admi	40,745
		Construction	135,934
		Admin (14%)	24,738
	Expenses Total		201,417

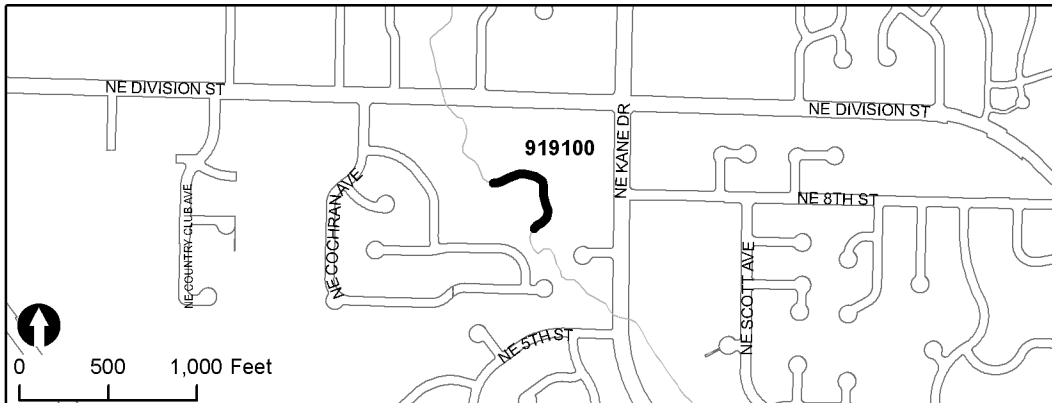
**UNFUNDED and FUTURE PROJECT
Stormwater**

919100: Bell Acres Trailer Park

Description: Reestablish a natural, stable stream condition through this reach of Kelly Creek. Existing channel is highly down-cut with near vertical unstable stream banks. Actively plant with native riparian vegetation. SDC project #KC-7.

Justification: Improve bank stability, habitat quality, and aesthetics.

Type of Project: Stream corridor enhancement.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	1,097,493
	SDC	45,730
Resources Total		1,143,223
Expenses	Design/Const Admi	78,215
	Property Acq	242,527
	Construction	682,058
	Admin (14%)	140,423
Expenses Total		1,143,223

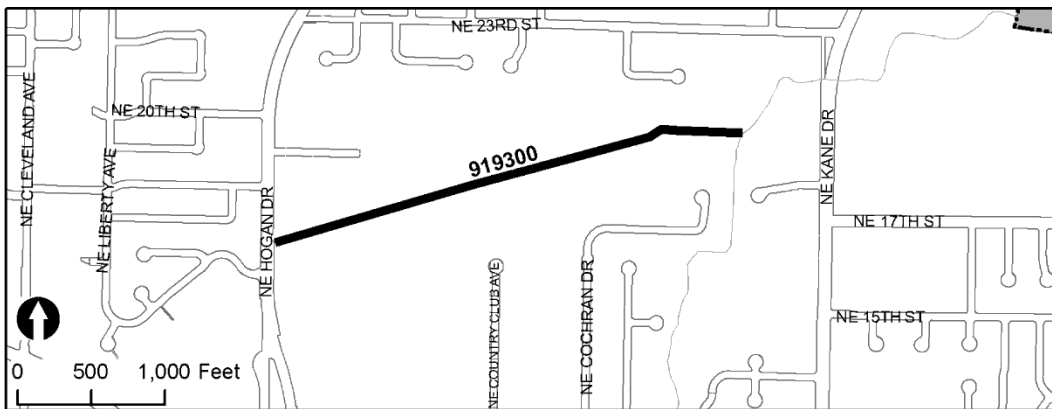
**UNFUNDED and FUTURE PROJECT
Stormwater**

919300: Gresham Golf Course Creek Meandering

Description: Reestablish representative natural channel morphology by constructing/grading a new channel alignment and cross-section. Enhance riparian vegetation with diverse plantings. Channel complexity will also be improved upon through the placement of woody debris. (KCN-8)

Justification: Burlingame Creek is water quality limited for temperature and E. coli per the Department of Environmental Quality's (DEQ) 303(d) list. This portion of Burlingame Creek supports limited woody riparian vegetation and typically slow-moving flows. Although base flow data is not currently available, velocities observed during late summer indicate that established riparian plantings (particularly along the south bank) would significantly reduce water temperatures before its confluence with Kelly Creek. Additionally, per conversations with City staff, course owners are supportive of a riparian enhancement project, as long as the course's playable areas are not affected. As such, Burlingame Creek's location within the course layout should provide sufficient acreage for project implementation. The plantings would also contribute to long-term bank stability. Additionally, this project directly addresses the DEQ temperature mandate.

Type of Project: Stream corridor enhancement, water quality improvement.



Estimated Dollars:	Funds	Description	Total
	Resources	Operating	557,374
	Resources Total		557,374
	Expenses	Design/Const Admin	40,484
		Property Acq	300,000
		Construction	134,946
		Other	13,495
		Admin (14%)	68,449
	Expenses Total		557,374

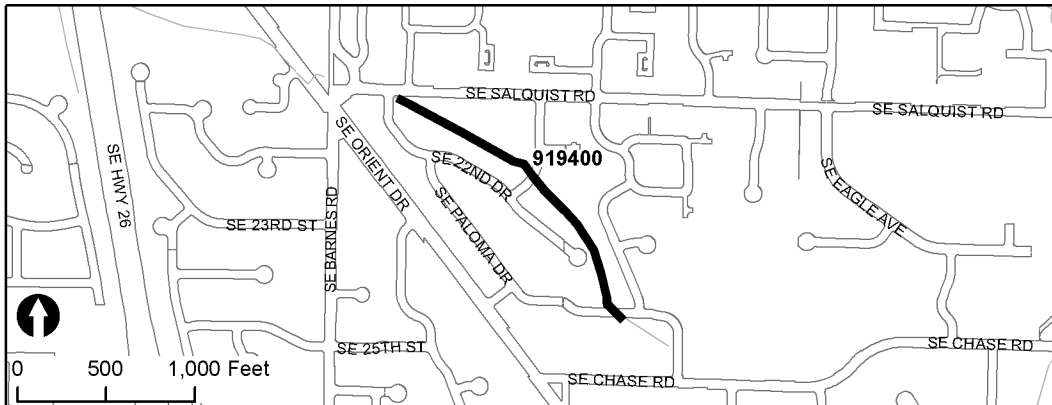
**UNFUNDED and FUTURE PROJECT
Stormwater**

919400: SE 24th Street to SE Salquist Road

Description: Regrade the existing channel to emphasize flood protection and bank stability. SDC project #KC-5.

Justification: Overbank flooding is occurring and the channel morphology is compromised. There is little riparian vegetation and structural diversity.

Type of Project: Stream corridor enhancement, water quality improvement.



Estimated Dollars:

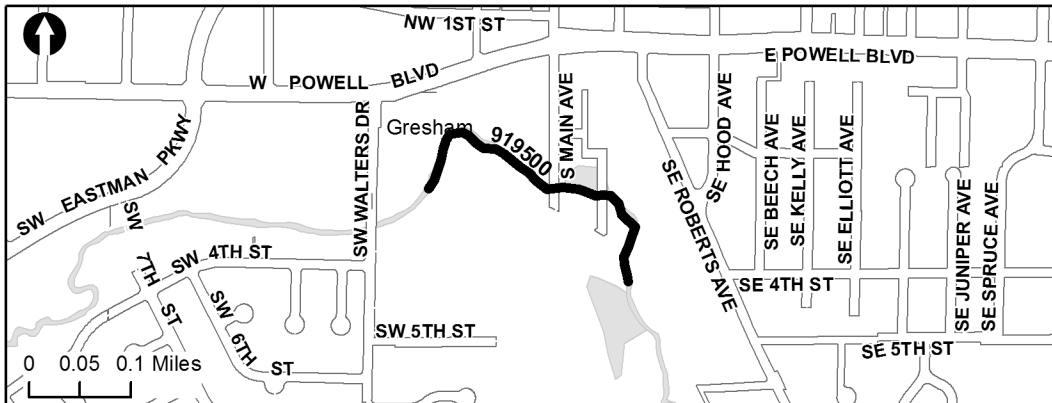
Funds	Description	Total
Resources	Operating	315,224
	SDC	13,135
Resources Total		328,359
Expenses	Design/Const Admi	52,616
	Property Acq	54,569
	Construction	180,793
	Admin (14%)	40,381
Expenses Total		328,359

**UNFUNDED and FUTURE PROJECT
Stormwater**

919500: Johnson Creek Restoration at Main City Park

Description: This project addresses degraded stream bank and channel conditions along the stretch of Johnson Creek that meanders through Main City Park. Channel dredging in the side channel, removal of a grade control structure, and installation of bendway weirs/large wood will provide fish habitat and reduce velocities in the main channel during storm events. Bank erosion will be addressed by installation of bio-engineered structures, removal of invasive weeds, and installation of native vegetation throughout the entire stretch.

Justification: Johnson Creek provides stormwater conveyance for the City of Gresham, and is designated critical habitat for ESA-listed salmon. Stream bank erosion and sediment accumulation have changed the nature of this reach, leading to continuing loss of: bank, riparian trees, and fish habitat. This project is also part of the City's response to the Clean Water Act requirements to improve water quality parameters (such as temperature, nutrients, and sediment). It will be conducted in conjunction with implementation of Phase II of the Main City Park master plan.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	179,556
Resources Total		179,556
Expenses	Design/Const Admin	47,618
	Construction	109,887
	Admin (14%)	22,051
Expenses Total		179,556

**UNFUNDED and FUTURE PROJECT
Stormwater**

920000: Segment 1, Fairview Creek Basin Central Core Trunk Improvement (1 of 6)

Description: Installation of the first segment of new pipe parallel to existing 66-inch pipe on south side. Project increases conveyance and storage for the future growth. Amended Fairview Creek Drainage Master Plan recommends new parallel 48-inch pipe. SDC project #FC-9.

Justification: Eliminates localized street and property flooding and limits surcharging to acceptable levels.

Type of Project: Construction of facilities to correct deficiencies and for future growth.



Estimated Dollars:	Funds	Description	Total
	Resources	Operating	797,200
		SDC	147,631
	Resources Total		944,831
	Expenses	Design/Const Admi	184,199
		Construction	644,583
		Admin (14%)	116,049
	Expenses Total		944,831

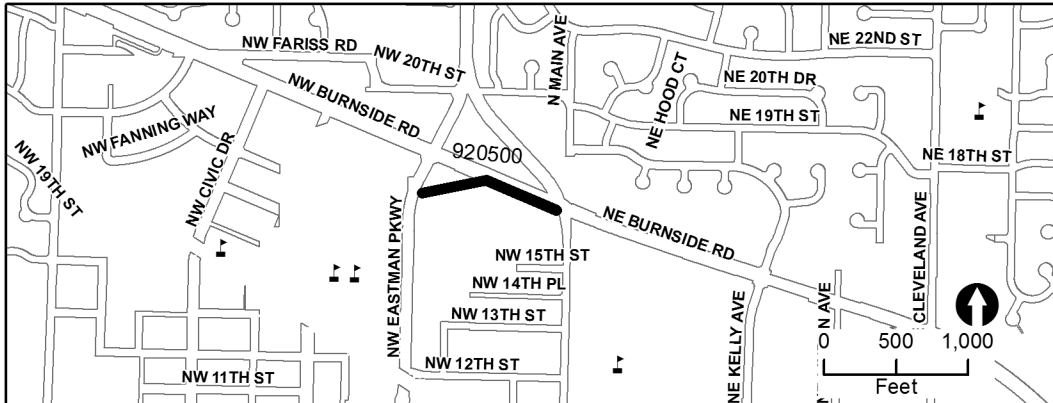
**UNFUNDED and FUTURE PROJECT
Stormwater**

920500: Segment 3D, Fairview Creek Basin Central Core Trunk Improvement

Description: Installation of the sixth new pipe parallel to existing 48-inch pipe from manhole 3252-F-026 to manhole 3252-F-034. New pipe will be on north side of existing in NW Burnside Road and on the south side across Gresham Square Mall Parking lot. Amended Fairview Creek Drainage Master Plan recommends new parallel 48-inch pipe. SDC project #FC-14.

Justification: Eliminates localized street and property flooding and limits surcharging to acceptable levels.

Type of Project: Construction of facilities to correct deficiencies and for future growth.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	768,359
	SDC	512,239
Resources Total		1,280,598
Expenses	Design/Const Admi	243,740
	Property Acq	30,316
	Construction	849,263
	Admin (14%)	157,279
Expenses Total		1,280,598

**UNFUNDED and FUTURE PROJECT
Stormwater**

CIPSW00014: Johnson Creek Stormwater LID Retrofit

Description: This project modifies an existing conveyance system with a functional LID retrofit. Project includes design, permitting, and construction of a site-specific treatment facility intended to introduce treatment in a catchment area where minimal water quality mechanisms currently exist.

Justification: The Johnson Creek watershed is a high value target for strategic LID retrofits both for its relative lack of treatment facilities and the criticality of the downstream habitat conditions. This project leverages potential SRF opportunities and City-owned property.

Type of Project: Design and construction of facilities to improve water quality and quantity, and to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Debt-Operating	702,000
Resources Total		702,000
Expenses	Design/Const Admi	50,000
	Construction	565,800
	Admin (14%)	86,200
Expenses Total		702,000

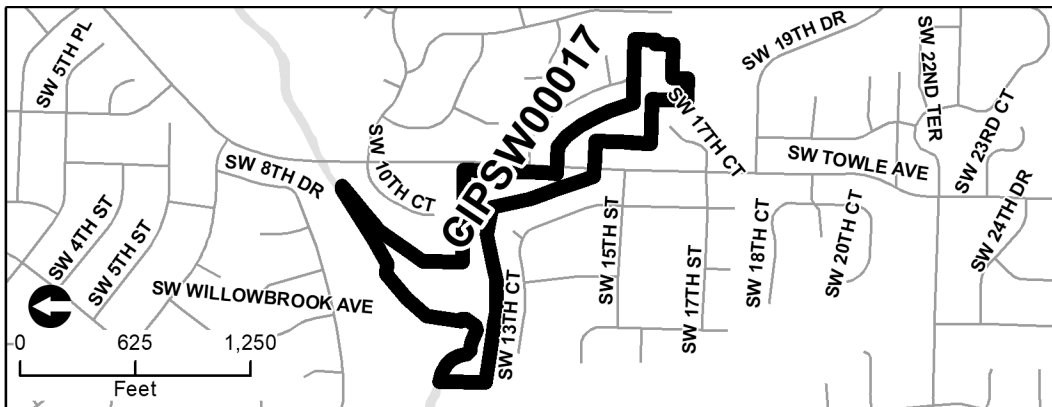
**UNFUNDED and FUTURE PROJECT
Stormwater**

CIPSW00017: Chastain Creek Improvements and Fill Remediation

Description: This effort will remove the relic landfill overburden placed in the 1950s-60s over a failing stormwater pipe that conveys butte-generated spring flow and introduced stormwater to a stormwater collection point in Towle. The project also improves water quality treatment while aggregating stormwater flows into the piped infrastructure and aggregates natural butte drainage into the historic Chastain Creek tributary to its confluence with Johnson Creek. Effort includes fate and transport of landfill materials, improvement of critical fish habitat, resolution of a past fill violation, bank stabilization, and improved riparian conditions. Project will require water, soil, and air quality testing, title research, and purchase of easement rights.

Justification: The City is currently without any feasible mechanism to respond to inevitable pipe failure in the project area given the landfill materials currently above the stormwater infrastructure. The site generates frequent nuisance flooding and an associated high water traffic hazard on a major arterial. Landfill leachate and untreated stormwater currently discharge to Johnson Creek while clean butte discharge is directed into the stormwater system.

Type of Project: Solid waste (landfill and associate pollutants) removal, stormwater infrastructure improvements, nuisance flood resolution, illegal fill resolution, stream stabilization, and critical habitat improvement.



Estimated Dollars:	Funds	Description	Total
	Resources		Debt-Operating
		Operating	2,000,000
	Resources Total		7,500,000
	Expenses	Design/Const Admi	1,050,000
		Construction	5,529,000
		Admin (14%)	921,000
	Expenses Total		7,500,000

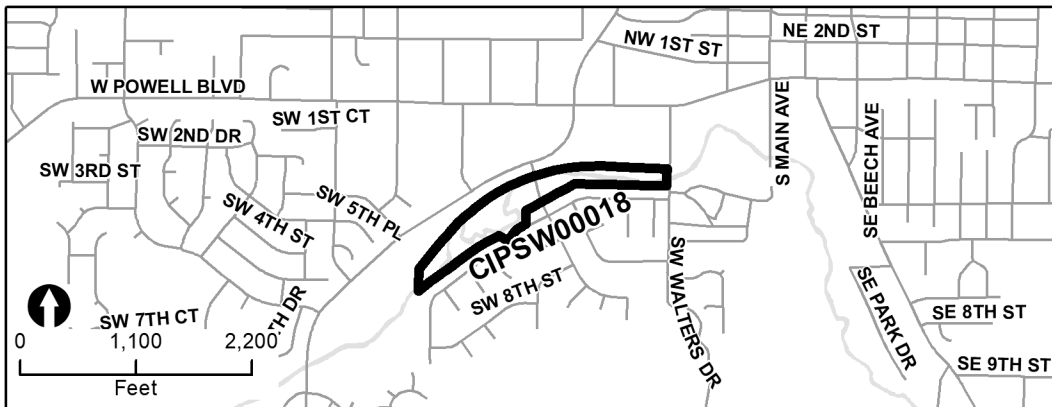
**UNFUNDED and FUTURE PROJECT
Stormwater**

CIPSW00018: SW 7th Street: Johnson Creek Corridor Improvements

Description: An incised Johnson Creek, constrained by SW 4th Avenue, the Springwater Trail and the SW 7th Street bridge, flows through a 16-acre public parcel in this project area. Ongoing bank erosion near SW 4th and the Springwater Trail will be alleviated by constructing stream structure improvements and reconnecting the floodplain. Footing scour under the 7th Street will be addressed in cooperation with the Transportation Division, included consolidated permitting to cover both projects, and with stream, habitat, and floodplain improvements provided by this project serving as the mitigation for impacts related to rebuilding the pile caps on the bridge footings. Bridge related construction costs to be reflected in the funded Transportation CIP on a parallel schedule with this effort. Water quality improvements for the adjacent arterials and neighborhood will also be included.

Justification: The Road and trail infrastructure constraints have reduced stream complexity in this reach resulting in higher velocities, erosive flows, and loss of flood storage and other floodplain functions along a critical habitat stream. This poses an ongoing risk to road bed and trail bed support. The project provides an opportunity to collaborate with Transportation on the bridge element, reducing costs for the City compared to addressing the stream and floodplain improvements separately from the transportation infrastructure components.

Type of Project: Infrastructure protection coupled with stream, critical fish habitat, floodplain, and water quality improvements.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	1,928,045
	SDC	567,072
Resources Total		2,495,117
Expenses	Design/Const Admi	349,316
	Construction	1,839,469
	Admin (14%)	306,332
Expenses Total		2,495,117

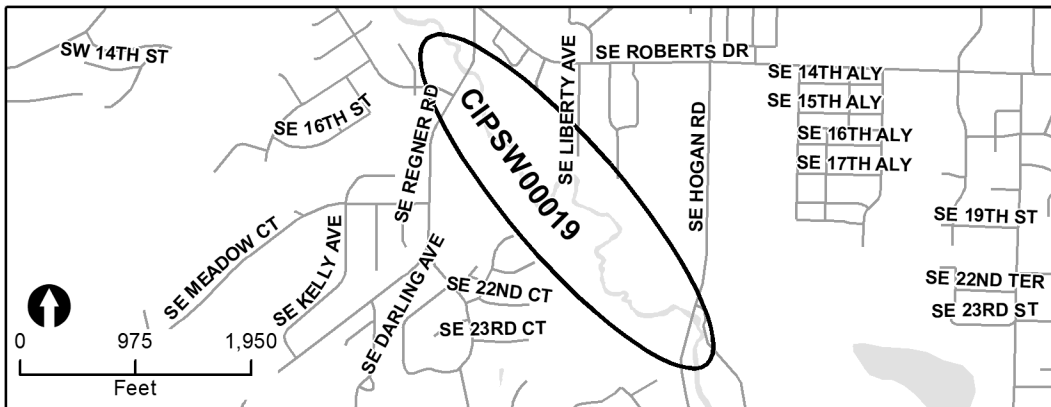
UNFUNDED and FUTURE PROJECT
Stormwater

CIPSW00019: SE Hogan to Regner: Johnson Creek Corridor Improvements

Description: An incised Johnson Creek, constrained by the Springwater Trail, tiled stream banks and a small once-private drive bridge, flows through a 41 acres of public lands in this project area. The project will reconnect the floodplain, alleviating erosive pressure that is undermining the support for the Springwater Trail, and will remove a small wooden bridge and gravel road, resulting in an improved stream, floodplain, and riparian conditions, and will stabilize the Springwater Trail and associated infrastructure. The project addresses imminent bank failure at the end of SE Liberty Avenue where a convergence of stormwater outfalls has resulted in major bank movement. The project also improves the Cedar Creek/Johnson Creek confluence area.

Justification: Urban development and the old railroad bed below the Springwater Trail have constrained Johnson Creek and reduced stream complexity in this reach resulting in higher velocities, erosive flows, and loss of flood storage and other floodplain functions along a critical habitat stream. This poses an ongoing risk to the Springwater Trail and associated infrastructure. The project will help fulfill the City’s Temperature TMDL obligations. Potential for addressing other water quality improvement obligations will be assessed during the design stage of the project.

Type of Project: Infrastructure protection coupled with stream, critical fish habitat, floodplain, and water quality improvements.



Estimated Dollars:	Funds	Description	Total
	Resources	Operating	970,827
		SDC	241,573
	Resources Total		1,212,400
	Expenses	Design/Const Admi	169,668
		Construction	893,819
		Admin (14%)	148,913
	Expenses Total		1,212,400

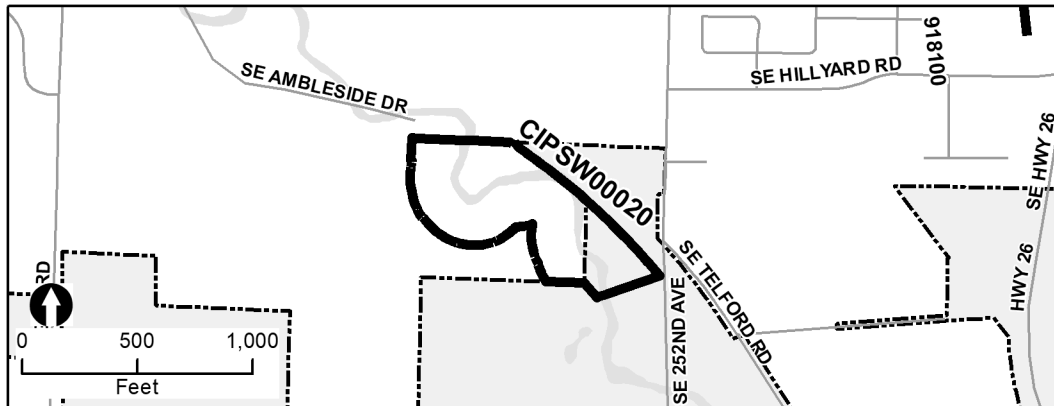
**UNFUNDED and FUTURE PROJECT
Stormwater**

CIPSW00020: SE 252nd Avenue: Johnson Creek Corridor Improvements

Description: Johnson Creek has incised significantly in this privately owned reach where the critical habitat creek has significantly impinged on a large section of the Springwater Trail where City of Gresham installed temporary stabilization measures in 2007. Ongoing active bank failure adjacent to the temporary fix is further jeopardizing the Springwater Trail and associated infrastructure. This project will reconnect the stream to the floodplain on the south bank to alleviate the high velocity and erosive forces on the north bank. This will greatly improve critical habitat for salmonids, improve flood storage and floodplain function, and assist the city in meeting state/federal Temperature TMDL obligations for Johnson Creek.

Justification: Trail infrastructure constraints have reduced stream complexity in this reach resulting in higher velocities, erosive flows, and loss of flood storage and other floodplain functions along a critical habitat stream. This poses an ongoing risk to the Springwater Trail and associated infrastructure, including key wastewater infrastructure within the Springwater Trail alignment.

Type of Project: Infrastructure protection coupled with stream, critical fish habitat, floodplain, and water quality improvements.



Estimated Dollars:	Funds	Description	Total
	Resources		Operating
		SDC	483,145
	Resources Total		692,962
Expenses		Design/Const Admi	96,969
		Construction	510,932
		Admin (14%)	85,061
	Expenses Total		692,962

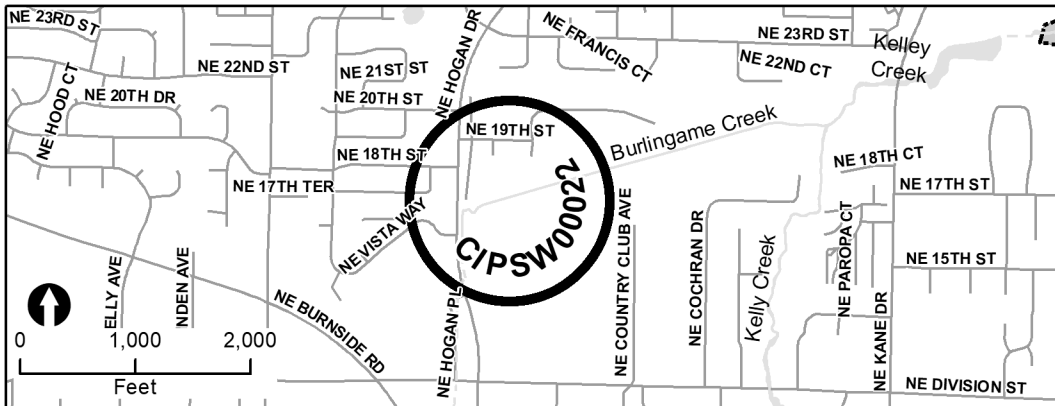
**UNFUNDED and FUTURE PROJECT
Stormwater**

CIPSW00022: Hogan Drive Outfall Extension

Description: Pipe the existing open channel on the east side of NE Hogan Dr with 450 LF of 72-inch pipe. Install vault structure at intersection of NE Hogan Drive and Burlingame Creek (at Country Club Estate Condominiums). Install 390 LF of 75-inch x 115-inch arch pipe to outfall east into Gresham Golf Course. (Estimation of benefits: Growth related 3%; Existing System related 97%).

Justification: The project addresses existing deficiencies and erosion concerns and reduces flooding.

Type of Project: Design and construction of facilities to correct deficiencies.



Estimated Dollars:

Funds	Description	Total
Resources	Operating	3,303,761
	SDC	89,597
Resources Total		3,393,358
Expenses	Design/Const Admi	475,093
	Construction	2,501,467
	Admin (14%)	416,798
Expenses Total		3,393,358

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