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

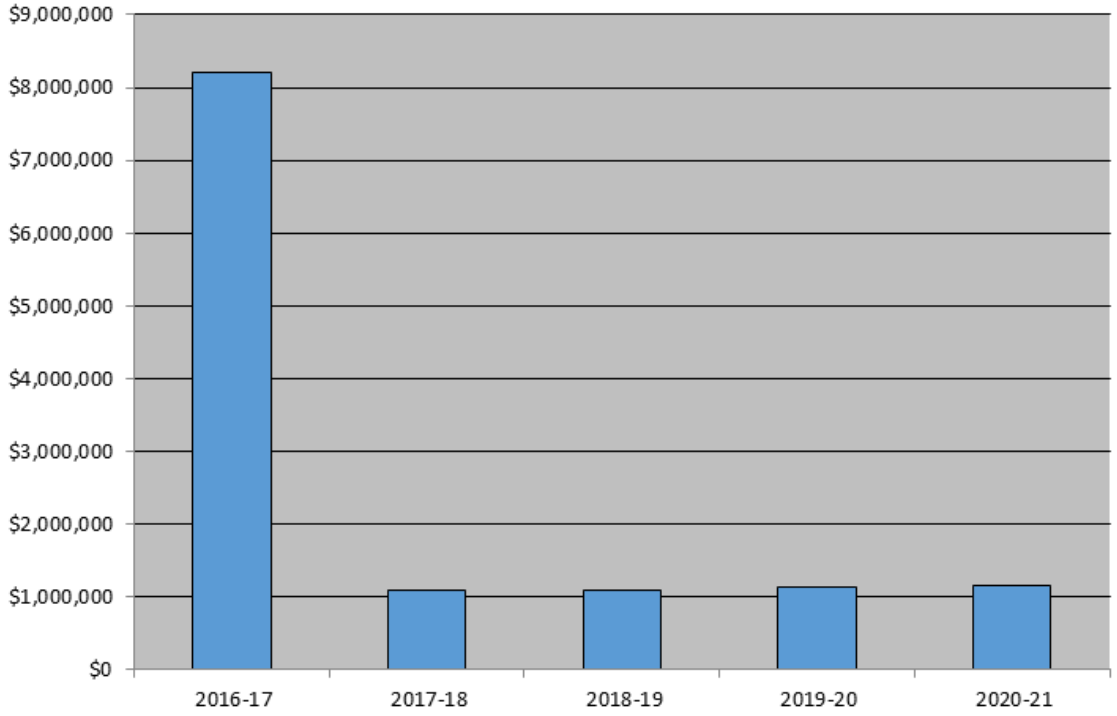
Highlights

Significant projects during the coming fiscal years include:

1. Repair of aging and deficient pipes throughout the City #908800
2. Fairview Creek Wetland Mitigation Bank #919600
3. Alleviate overbank flooding along Burlingame Creek #920700
4. Stormwater Infrastructure Master Plan #921000
5. Kane Drive Culvert Repair Improvements #921200

Project funding comes from a combination of stormwater utility rates, system development charges, grants, low/zero interest loans and private-public partnerships.

Stormwater (Watershed Management) Expenditure Graph by Fiscal Year



Stormwater Funded Summary								
Project	Project Name	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
902400	Minor Drainage Problems	130,142	85,500	88,065	90,707	93,428	96,231	584,073
902800	Low Impact Dev Practices Retrofit Program	993,010	331,401	341,343	351,583	362,131	372,995	2,752,463
905200	Burnside to Civic Drive Storm Drain	199,336	0	0	0	0	0	199,336
906101	Stream Stabilization	179,108	74,100	76,323	78,613	80,971	83,400	572,515
908800	Rehab & Repair of Pipe System	899,035	239,400	275,310	283,569	292,076	300,839	2,290,229
908900	UIC Implementation	684,827	110,000	0	0	0	0	794,827
910200	Kelly Creek Water Quality Facility	50,000	0	0	0	0	0	50,000
910300	Columbia Slough Regional Water Quality Facility	76,990	0	0	0	0	0	76,990
913000	Flood Plain Re-Mapping	9,671	0	0	0	0	0	9,671
914100	Stormwater Facility Improvements	49,659	25,000	25,750	26,523	27,318	28,138	182,388
914600	Development Coordination	103,641	35,000	35,000	35,000	35,000	35,000	278,641
915100	Riparian & Wetland Improvement Projects	172,093	92,000	107,000	82,000	82,000	77,000	612,093
919600	Fairview Creek Wetland Mitigation Bank	3,083,665	2,000,000	0	0	0	0	5,083,665
919900	Water Quality Manual & Design Standards	160,957	0	0	0	0	0	160,957
920700	Burlingame Creek System Improvements	132,403	0	0	0	0	0	132,403
920800	NE Cleveland (18th - 22nd) Stormwater System	64,700	0	0	0	0	0	64,700
920900	Infrastructure Capacity Improvements	0	141,667	145,917	150,295	154,803	159,447	752,129
921000	Stormwater Infrastructure Master Plan	0	526,400	0	0	0	0	526,400
921100	Asset Management Software	0	50,000	0	0	0	0	50,000
921200	Kane Drive Culvert Repair Improvements	0	4,491,600	0	0	0	0	4,491,600
Grand Total		**6,989,237**	**8,202,068**	**1,094,708**	**1,098,290**	**1,127,727**	**1,153,050**	**19,665,080**

Stormwater Funded Summary by Resource							
Description	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**Total**
Debt-Operating	3,483,780	2,461,287	0	0	0	0	5,945,067
IGA	0	4,030,313	0	0	0	0	4,030,313
Operating	2,344,031	1,116,201	726,031	719,603	738,730	753,432	6,398,028
Repair/Replacement Reserves	899,035	239,400	275,310	283,569	292,076	300,839	2,290,229
SDC	262,391	354,867	93,367	95,118	96,921	98,779	1,001,443
Grand Total	**6,989,237**	**8,202,068**	**1,094,708**	**1,098,290**	**1,127,727**	**1,153,050**	**19,665,080**

Stormwater Funded Resource Detail									
Project	Project Name	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
902400	Minor Drainage Problems	Operating	130,142	85,500	88,065	90,707	93,428	96,231	584,073
902400 Total			130,142	85,500	88,065	90,707	93,428	96,231	584,073
902800	Low Impact Dev Practices Retrofit Program	Operating	993,010	331,401	341,343	351,583	362,131	372,995	2,752,463
902800 Total			993,010	331,401	341,343	351,583	362,131	372,995	2,752,463
905200	Burnside to Civic Drive Storm Drain	Operating	149,500	0	0	0	0	0	149,500
		SDC	49,836	0	0	0	0	0	49,836
905200 Total			199,336	0	0	0	0	0	199,336
906101	Stream Stabilization	Operating	111,760	74,100	76,323	78,613	80,971	83,400	505,167
		SDC	67,348	0	0	0	0	0	67,348
906101 Total			179,108	74,100	76,323	78,613	80,971	83,400	572,515
908800	Rehab & Repair of Pipe System	Repair/Replace	899,035	239,400	275,310	283,569	292,076	300,839	2,290,229
908800 Total			899,035	239,400	275,310	283,569	292,076	300,839	2,290,229
908900	UIC Implementation	Debt-Operating	400,115	0	0	0	0	0	400,115
		Operating	284,712	110,000	0	0	0	0	394,712
908900 Total			684,827	110,000	0	0	0	0	794,827
910200	Kelly Creek Water Quality Facility	Operating	28,938	0	0	0	0	0	28,938
		SDC	21,062	0	0	0	0	0	21,062
910200 Total			50,000	0	0	0	0	0	50,000
910300	Columbia Slough Regional Water Quality Facility	Operating	57,743	0	0	0	0	0	57,743
		SDC	19,247	0	0	0	0	0	19,247
910300 Total			76,990	0	0	0	0	0	76,990
913000	Flood Plain Re-Mapping	Operating	8,414	0	0	0	0	0	8,414
		SDC	1,257	0	0	0	0	0	1,257
913000 Total			9,671	0	0	0	0	0	9,671
914100	Stormwater Facility Improvements	Operating	49,659	25,000	25,750	26,523	27,318	28,138	182,388
914100 Total			49,659	25,000	25,750	26,523	27,318	28,138	182,388
914600	Development Coordination	SDC	103,641	35,000	35,000	35,000	35,000	35,000	278,641
914600 Total			103,641	35,000	35,000	35,000	35,000	35,000	278,641
915100	Riparian & Wetland Improvement Projects	Operating	172,093	92,000	107,000	82,000	82,000	77,000	612,093
915100 Total			172,093	92,000	107,000	82,000	82,000	77,000	612,093
919600	Fairview Creek Wetland Mitigation Bank	Debt-Operating	3,083,665	2,000,000	0	0	0	0	5,083,665
919600 Total			3,083,665	2,000,000	0	0	0	0	5,083,665
919900	Water Quality Manual & Design Standards	Operating	160,957	0	0	0	0	0	160,957
919900 Total			160,957	0	0	0	0	0	160,957
920700	Burlingame Creek System Improvements	Operating	132,403	0	0	0	0	0	132,403
920700 Total			132,403	0	0	0	0	0	132,403
920800	NE Cleveland (18th - 22nd) Stormwater System	Operating	64,700	0	0	0	0	0	64,700
920800 Total			64,700	0	0	0	0	0	64,700
920900	Infrastructure Capacity Improvements	Operating	0	85,000	87,550	90,177	92,882	95,668	451,277
		SDC	0	56,667	58,367	60,118	61,921	63,779	300,852
920900 Total			0	141,667	145,917	150,295	154,803	159,447	752,129

Stormwater Funded Resource Detail									
Project	Project Name	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
921000	Stormwater Infrastructure Master Plan	Operating	0	263,200	0	0	0	0	263,200
		SDC	0	263,200	0	0	0	0	263,200
921000 Total			0	526,400	0	0	0	0	526,400
921100	Asset Management Software	Operating	0	50,000	0	0	0	0	50,000
921100 Total			0	50,000	0	0	0	0	50,000
921200	Kane Drive Culvert Repair Improvements	Debt-Operating	0	461,287	0	0	0	0	461,287
		IGA	0	4,030,313	0	0	0	0	4,030,313
921200 Total			0	4,491,600	0	0	0	0	4,491,600
Grand Total			6,989,237	8,202,068	1,094,708	1,098,290	1,127,727	1,153,050	19,665,080

902400: Minor Drainage Problems

Description: This project repairs the storm drainage system to correct drainage problems identified by staff and the public. These repairs are located in various neighborhood districts. The top three projects listed by priority include: NW Birdsdale & Powell, SE El Camino Drive at Kelly Creek and SE 22nd & Eagle Ave. 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 connect deficiencies.

Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	130,142	85,500	88,065	90,707	93,428	96,231	584,073
Resources Total		**130,142**	**85,500**	**88,065**	**90,707**	**93,428**	**96,231**	**584,073**
Expenses	Design/Const Admin	14,890	15,000	10,076	10,378	10,690	11,010	72,044
	Construction	99,269	60,000	67,174	69,189	71,265	73,403	440,300
	Admin (14%)	15,983	10,500	10,815	11,140	11,473	11,818	71,729
Expenses Total		**130,142**	**85,500**	**88,065**	**90,707**	**93,428**	**96,231**	**584,073**

FUNDED PROJECT
Stormwater

902800: 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, porous pavement & pavers. The project is located in various neighborhood districts. Projects for FY15/16 includes rain garden and stormwater planter retrofits and project prioritization analysis. (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.

Estimated Dollars:

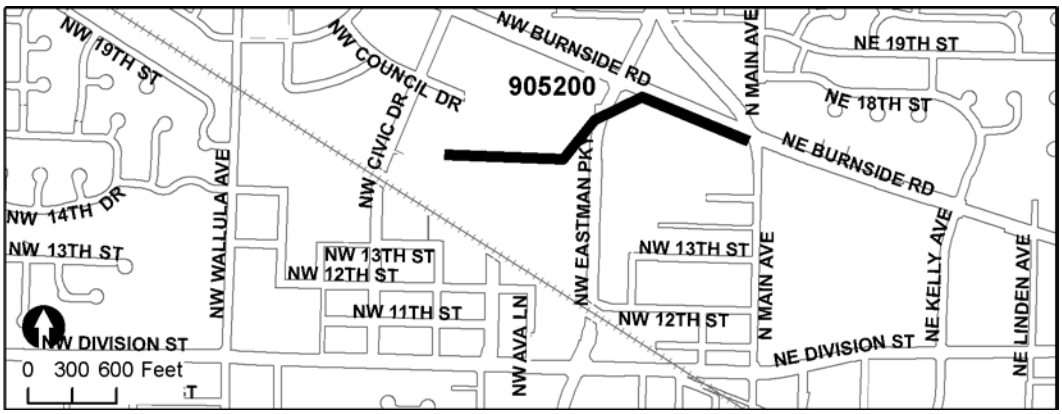
Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	993,010	331,401	341,343	351,583	362,131	372,995	2,752,463
Resources Total		**993,010**	**331,401**	**341,343**	**351,583**	**362,131**	**372,995**	**2,752,463**
Expenses	Design/Const Admin	143,510	46,784	47,404	48,901	49,610	51,198	387,407
	Construction	717,551	233,919	237,020	244,505	248,049	255,990	1,937,034
	Property Acq	10,000	10,000	15,000	15,000	20,000	20,000	90,000
	Admin (14%)	121,949	40,698	41,919	43,177	44,472	45,807	338,022
Expenses Total		**993,010**	**331,401**	**341,343**	**351,583**	**362,131**	**372,995**	**2,752,463**

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. (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	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	149,500	0	0	0	0	0	149,500
	SDC	49,836	0	0	0	0	0	49,836
Resources Total		**199,336**	**0**	**0**	**0**	**0**	**0**	**199,336**
Expenses	Design/Const Admin	144,856	0	0	0	0	0	144,856
	Property Acq	30,000	0	0	0	0	0	30,000
	Admin (14%)	24,480	0	0	0	0	0	24,480
Expenses Total		**199,336**	**0**	**0**	**0**	**0**	**0**	**199,336**

906101: Stream Stabilization

Description: This project improves stream function and bank stability for the purposes of water quality, sensitive species habitat, and critical riparian functions. Stabilization of bank problem areas will be done based on prioritization of known problems (as identified and ranked in the Natural Resources Master Plan) and also will assess newly discovered areas of instability. Major goals in addressing bank stabilization issues include minimizing potential for larger slope failures and associated property loss, infrastructure damage, and clean up needs. The project addresses needs in various neighborhoods, and significantly contributes to City compliance with state and federal water quality and aquatic habitat regulations such as in-water pollutant standards and critical habitat protection. (Estimation of benefits: Growth related 40%; Existing System related 60%)

Justification: Johnson Creek, Kelly Creek, and Fairview Creek, and their tributaries, serve as a major component of the public stormwater conveyance system for the City of Gresham. Historic and ongoing stream erosion related to stormwater discharges and high stream velocities results in changes to stream beds and streambanks, increasing risk of bank failures that can affect adjacent structures and infrastructure and harm aquatic life. The project focuses on prioritized installation of bed and bank improvement to improve stream function while also protecting stream-adjacent assets.

Type of project: Stream/Bank stabilization.

Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	111,760	74,100	76,323	78,613	80,971	83,400	505,167
	SDC	67,348	0	0	0	0	0	67,348
Resources Total		**179,108**	**74,100**	**76,323**	**78,613**	**80,971**	**83,400**	**572,515**
Expenses	Design/Const Admin	31,422	15,000	13,390	13,792	14,205	14,632	102,441
	Construction	125,690	50,000	53,560	55,167	56,822	58,526	399,765
	Admin (14%)	21,996	9,100	9,373	9,654	9,944	10,242	70,309
Expenses Total		**179,108**	**74,100**	**76,323**	**78,613**	**80,971**	**83,400**	**572,515**

908800: 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. The specific projects will be identified in the Stormwater Asset Management Plan, which will include analyzing system condition data using a Computerized Maintenance Management System. Located in various neighborhood districts. (Estimation of Benefits: Growth related 0%; Existing System related 100%)

Justification: This project will ensure that our existing stormwater infrastructure, estimated to have a fixed asset value in excess of $27M, remains useful and effective.

Type of project: Repair and rehabilitation of facilities.

Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Repair/Replacement Reserves	899,035	239,400	275,310	283,569	292,076	300,839	2,290,229
Resources Total		**899,035**	**239,400**	**275,310**	**283,569**	**292,076**	**300,839**	**2,290,229**
Expenses	Design/Const Admin	102,864	35,000	31,500	32,445	33,418	34,421	269,648
	Construction	685,763	175,000	210,000	216,300	222,789	229,473	1,739,325
	Admin (14%)	110,408	29,400	33,810	34,824	35,869	36,945	281,256
Expenses Total		**899,035**	**239,400**	**275,310**	**283,569**	**292,076**	**300,839**	**2,290,229**

FUNDED PROJECT
Stormwater

908900: UIC Implementation

Description: A Stormwater Management Plan was designed and implemented to respond to newly promulgated Underground Injection Control (UIC) rules designed to afford strict water quality protection measures for groundwater supplies impacted by injected stormwater runoff. The City secured a zero-interest loan from the DEQ that provides for $5M in resources.

Justification: Gresham currently has over 1090 drywell facilities that discharge stormwater into the ground. Conforming to the recently issued (2013) UIC permit, stormwater entering many of these drywell facilities is now being treated using Best Management Practices (BMP's) prior to being injected. This construction work will be completed in summer of 2016.

Type of Project: Performance of engineering services; construction of facilities and utilities to correct deficiencies.

Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Debt-Operating	400,115	0	0	0	0	0	400,115
	Operating	284,712	110,000	0	0	0	0	394,712
Resources Total		**684,827**	**110,000**	**0**	**0**	**0**	**0**	**794,827**
Expenses	Design/Const Admin	120,145	28,947	0	0	0	0	149,092
	Construction	480,580	67,544	0	0	0	0	548,124
	Admin (14%)	84,102	13,509	0	0	0	0	97,611
Expenses Total		**684,827**	**110,000**	**0**	**0**	**0**	**0**	**794,827**

910200: Kelly Creek Water Quality Facility

Description: This project provides for the design and construction of a stormwater quality treatment facility at the existing Kelly Creek detention facility. The facility will treat the stormwater runoff from the upstream area of the Kelly Creek Drainage basin. The project includes a retrofit to existing ponds to incorporate a sedimentation basin and constructed wetland. This project also includes a 2-year contract plant survival maintenance & monitoring period as required by permit. The project is located in the Kelly Creek Neighborhood District. (Estimation of benefits: Growth related 30%; Existing system related 70%)

Justification: This project improves the water quality of Kelly Creek.

Type of project: Construction of utilities and facilities for growth and to improve existing water quality.

Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	28,938	0	0	0	0	0	28,938
	SDC	21,062	0	0	0	0	0	21,062
Resources Total		**50,000**	**0**	**0**	**0**	**0**	**0**	**50,000**
Expenses	Design/Const Admin	3,987	0	0	0	0	0	3,987
	Construction	39,873	0	0	0	0	0	39,873
	Admin (14%)	6,140	0	0	0	0	0	6,140
Expenses Total		**50,000**	**0**	**0**	**0**	**0**	**0**	**50,000**

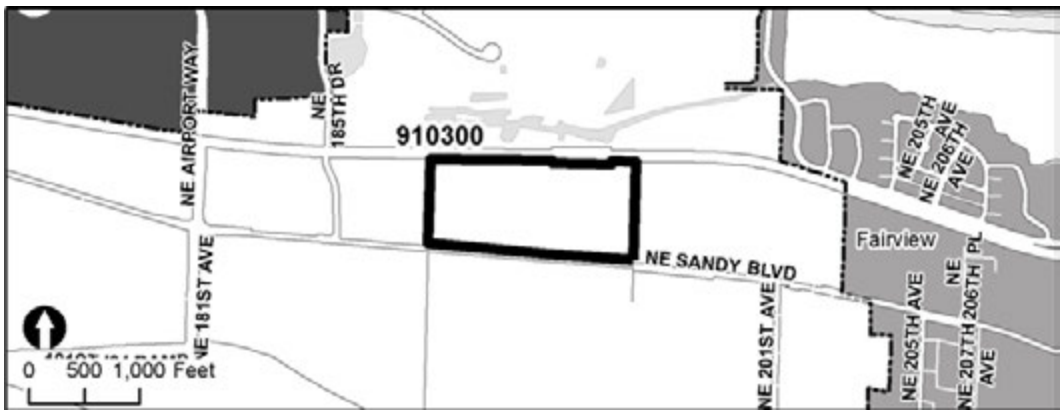
FUNDED PROJECT
Stormwater

910300: Columbia Slough Regional Water Quality Facility

Description: This project funds continuing management of the facility including; general pre & post storm repairs, minor system and grounds improvements, telemetry system maintenance & upgrades & vegetation management. Based on impervious percentages for existing and future conditions, 25% of the project benefits flows associated with future development. This project is in the North Gresham Neighborhood District.

Justification: Facilities provides storm water quality treatment for a drainage area over 950 acres.

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



Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	57,743	0	0	0	0	0	57,743
	SDC	19,247	0	0	0	0	0	19,247
Resources Total		**76,990**	**0**	**0**	**0**	**0**	**0**	**76,990**
Expenses	Design/Const Admin	15,585	0	0	0	0	0	15,585
	Construction	51,950	0	0	0	0	0	51,950
	Admin (14%)	9,455	0	0	0	0	0	9,455
Expenses Total		**76,990**	**0**	**0**	**0**	**0**	**0**	**76,990**

913000: Flood Plain Re-Mapping

Description: This project provides for Engineering services to identify current areas inundated by flood events. The re-mapping effort identifies the remaining flood storage available for detention throughout the Johnson Creek, Fairview Creek and Kelly Creek Basins. The complete study has been submitted to FEMA for their concurrence, and preliminary maps presented to the public for review and comments. Once FEMA reviews and approves public comments, the final Flood Insurance Rate Map process commences. (Estimation of Benefits: Growth related 30%; Existing System related 70%) Project will be complete in 2016.

Justification: Identification and documentation is needed of the areas that are or will be within the 100-year flood plain with future development. The project will reflect the city's flood control improvements in the Fairview Creek Basin, as well as provide for base flood elevations in the Johnson Creek Basin.

Type of Project: Identify deficiencies and make recommendations for future facilities & growth.

Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	8,414	0	0	0	0	0	8,414
	SDC	1,257	0	0	0	0	0	1,257
Resources Total		**9,671**	**0**	**0**	**0**	**0**	**0**	**9,671**
Expenses	Design/Const Admin	8,483	0	0	0	0	0	8,483
	Admin (14%)	1,188	0	0	0	0	0	1,188
Expenses Total		**9,671**	**0**	**0**	**0**	**0**	**0**	**9,671**

914100: Stormwater Facility Improvements

Description: This project evaluates existing local ineffective stormwater systems for improvements in design, maintenance access, increase of flood storage, added water quality benefits & riparian planting.

Justification: This project will bring facilities up to current standards. 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	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	49,659	25,000	25,750	26,523	27,318	28,138	182,388
Resources Total		**49,659**	**25,000**	**25,750**	**26,523**	**27,318**	**28,138**	**182,388**
Expenses	Design/Const Admin	7,260	3,655	3,765	3,878	3,994	4,114	26,666
	Construction	36,300	18,275	18,823	19,388	19,969	20,569	133,324
	Admin (14%)	6,099	3,070	3,162	3,257	3,355	3,455	22,398
Expenses Total		**49,659**	**25,000**	**25,750**	**26,523**	**27,318**	**28,138**	**182,388**

914600: Development Coordination

Description: This project funding will be used to leverage stormwater revenue with new development projects, resulting in stormwater improvements beyond what either could have accomplished alone.

Justification: Development projects often trigger a need for certain improvements that are not within the scope of the project, but need to be done to accommodate potential stormwater impacts. This project creates a funding base to complement the developer's contribution and to accomplish needed off-site improvements.

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

Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	SDC	103,641	35,000	35,000	35,000	35,000	35,000	278,641
Resources Total		**103,641**	**35,000**	**35,000**	**35,000**	**35,000**	**35,000**	**278,641**
Expenses	Construction	90,913	30,702	30,702	30,702	30,702	30,702	244,423
	Admin (14%)	12,728	4,298	4,298	4,298	4,298	4,298	34,218
Expenses Total		**103,641**	**35,000**	**35,000**	**35,000**	**35,000**	**35,000**	**278,641**

915100: Riparian and Wetland Improvement Projects

Description: This project addresses riparian, floodplain, and wetland improvements needed to support local water quality, riparian tree cover, 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. Efforts include field surveys, data analysis, mapping, modeling, and hydrologic investigations, design, prioritizing and implementation of cost-efficient restoration projects. Identified restoration opportunities are scoped and prioritized through updates to the City's Natural Resources Master Plan.

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, and improve habitat conditions for protected species. To the extent possible, City investment in restoration is leveraged by extensive engagement of non-profits, residents, school groups, and businesses in volunteer stewardship at project sites.

Type of project: Riparian/Wetland Improvements.

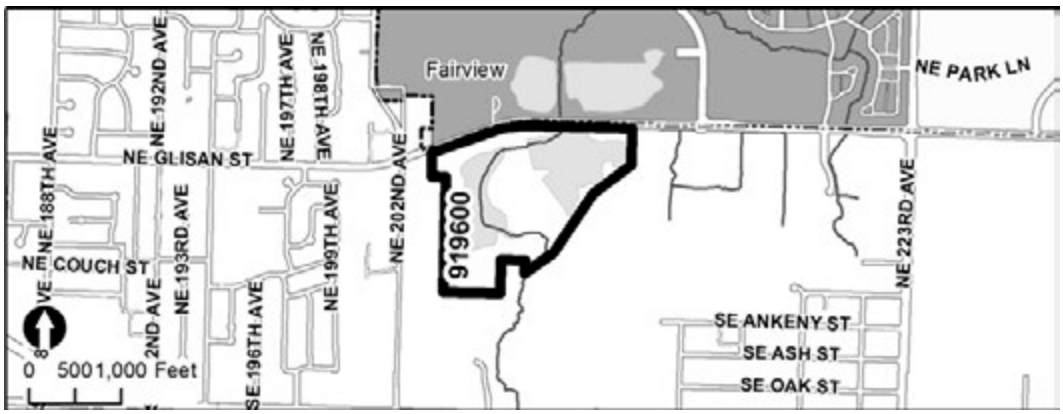
Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	172,093	92,000	107,000	82,000	82,000	77,000	612,093
Resources Total		**172,093**	**92,000**	**107,000**	**82,000**	**82,000**	**77,000**	**612,093**
Expenses	Other	150,959	80,702	93,860	71,930	71,930	67,544	536,925
	Admin (14%)	21,134	11,298	13,140	10,070	10,070	9,456	75,168
Expenses Total		**172,093**	**92,000**	**107,000**	**82,000**	**82,000**	**77,000**	**612,093**

919600: Fairview Creek Wetland Mitigation Bank

Description: Improve and restore natural resource conditions for the Fairview Creek & Columbia Slough Watershed within a 59-acre public parcel currently known 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. This cost estimate is for design, permitting, acquiring ownership or construction easement rights on abutting parcels needed to accommodate construction, and construction of the project. The project will be funded through the sale of 30 wetland mitigation credits to the Port of Portland. The City will retain ownership of up to 10 credits for future sale or use to mitigate the impacts of City projects.

Justification: The 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.). Wetland mitigation credits resulting from the project will offer wetland mitigation options for development over the long term. The project will remedy and reduce localized street flooding on Glisan routinely seen during significant rain events. Resulting conditions from this project will serve as part of the City's response to Clean Water Act requirements for temperature, nutrients, toxics, bacteria and sediment.



Estimated Dollars:

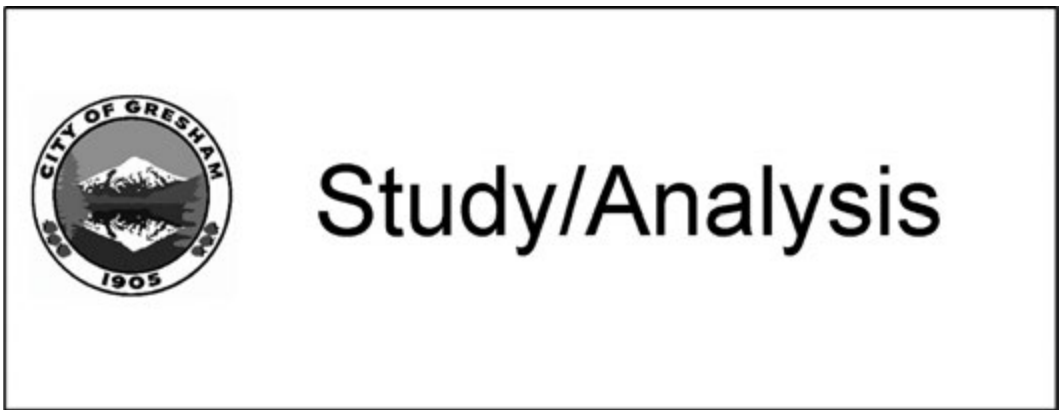
Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Debt-Operating	3,083,665	2,000,000	0	0	0	0	5,083,665
Resources Total		**3,083,665**	**2,000,000**	**0**	**0**	**0**	**0**	**5,083,665**
Expenses	Design/Const Admin	448,301	290,758	0	0	0	0	739,059
	Construction	2,241,504	1,453,792	0	0	0	0	3,695,296
	Property Acq	15,165	9,835	0	0	0	0	25,000
	Admin (14%)	378,695	245,615	0	0	0	0	624,310
Expenses Total		**3,083,665**	**2,000,000**	**0**	**0**	**0**	**0**	**5,083,665**

919900: Water Quality Manual & Design Standards

Description: Update the City's Water Quality Design Standards and Water Quality Manual, which were last updated in 2003. Develop a user-friendly water quality and detention facility Sizing Tool for developers to use to implement the updated standards and manual. Provide updated standard details to facilitate improved maintenance and functionality of facilities constructed. Provide improved coordination between Public Works Standards, Code, and the Water Quality Manual. Integrate green development practices where applicable and respond to regulations for water quality treatment and hydromodification management. Stormwater Manual to be completed by FY 2015-16. (Estimation of Benefits; Growth related 100%; Existing System related 0%).

Justification: Enhancing tools available to developers to facilitate growth, addressing City responsibilities for meeting water quality permit requirements, reducing long-term City maintenance costs associated with new public stormwater infrastructure

Type of Project: Performance of engineering services; update to City manuals and standards.



Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	160,957	0	0	0	0	0	160,957
Resources Total		**160,957**	**0**	**0**	**0**	**0**	**0**	**160,957**
Expenses	Study	141,190	0	0	0	0	0	141,190
	Admin (14%)	19,767	0	0	0	0	0	19,767
Expenses Total		**160,957**	**0**	**0**	**0**	**0**	**0**	**160,957**

920700: Burlingame Creek System Improvements

Description: Project includes modeling and analysis on the Burlingame Creek Drainage Basin where frequent overbank flooding occurs. (Estimation of benefits: Existing System related 100%)

Justification: Opportunities to improve the conveyance of storm water flows will be evaluated. One or more projects will be identified that solve existing and future problems. The highest ranked project from this analysis will be considered for design and construction as part of these efforts.

Type of Project: Channel and slope stabilization, outfall improvements and flood reduction.

Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	132,403	0	0	0	0	0	132,403
Resources Total		**132,403**	**0**	**0**	**0**	**0**	**0**	**132,403**
Expenses	Design/Const Admin	23,500	0	0	0	0	0	23,500
	Construction	47,643	0	0	0	0	0	47,643
	Property Acq	10,000	0	0	0	0	0	10,000
	Other	35,000	0	0	0	0	0	35,000
	Admin (14%)	16,260	0	0	0	0	0	16,260
Expenses Total		**132,403**	**0**	**0**	**0**	**0**	**0**	**132,403**

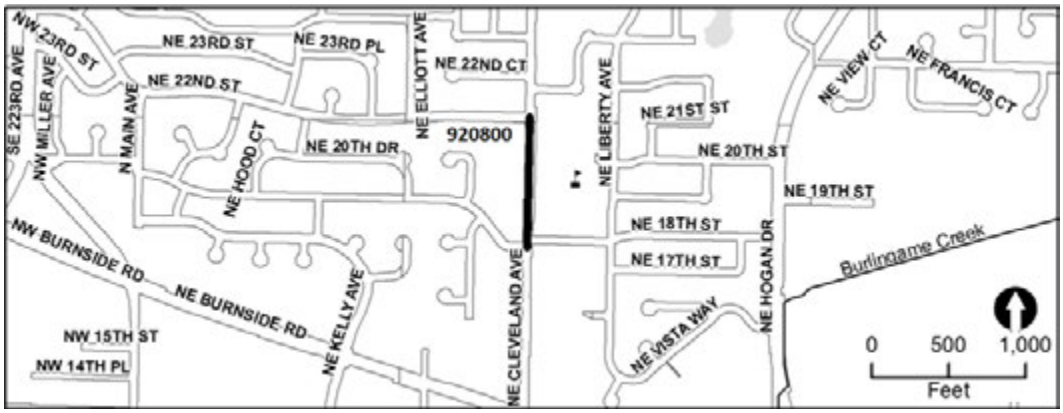
FUNDED PROJECT
Stormwater

920800: NE Cleveland (18th – 22nd) Stormwater System

Description: Remove culverts and construct new stormwater main line system.

Justification: This project will replace the existing stormwater culvert and ditch system, and construct a new 12" pipe and manhole system in NE Cleveland from approximately NE 18th to NE 22nd. This project coordinates with the Transportation Division's CIP # 511700, NE Cleveland (Powell – Stark) project. Green stormwater management elements, such as rain gardens, are utilized with the Transportation portion of this project.

Type of Project: Design and construction of facilities to correct deficiencies and bring infrastructure up to current Public Works Stormwater Conveyance Standards. Inter-departmental coordination project.



Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	64,700	0	0	0	0	0	64,700
Resources Total		**64,700**	**0**	**0**	**0**	**0**	**0**	**64,700**
Expenses	Construction	56,754	0	0	0	0	0	56,754
	Admin (14%)	7,946	0	0	0	0	0	7,946
Expenses Total		**64,700**	**0**	**0**	**0**	**0**	**0**	**64,700**

920900: Infrastructure Capacity Improvements

Description: This project establishes an ongoing program to systematically address capacity deficiencies in existing pipes and culverts. Projects will be identified through multiple channels including existing and future master plans, minor drainage reports, and field data. Projects will be 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:

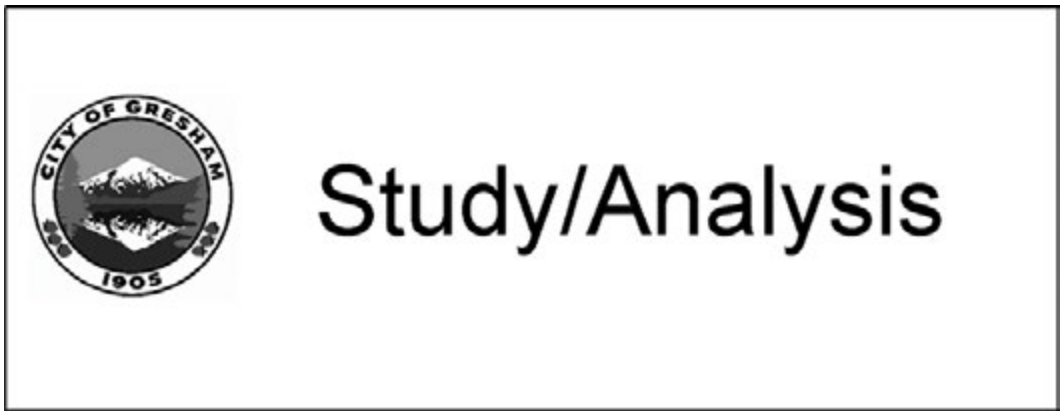
Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	0	85,000	87,550	90,177	92,882	95,668	451,277
	SDC	0	56,667	58,367	60,118	61,921	63,779	300,852
Resources Total		**0**	**141,667**	**145,917**	**150,295**	**154,803**	**159,447**	**752,129**
Expenses	Design/Const Admin	0	16,209	16,695	17,196	17,712	18,243	86,055
	Construction	0	108,060	111,302	114,641	118,080	121,623	573,706
	Admin (14%)	0	17,398	17,920	18,458	19,011	19,581	92,368
Expenses Total		**0**	**141,667**	**145,917**	**150,295**	**154,803**	**159,447**	**752,129**

921000: Stormwater Infrastructure Master Plan

Description: The master plan provides a planning level evaluation of the stormwater collection, conveyance and detention system and identifies network deficiencies based on existing and projected flows. This master plan will identify corrective alternatives, plan for future development, and address water quantity management requirements. Furthermore, this master plan will integrate current and ongoing infrastructure assessments with an analysis and update to the existing CIP project list.

Justification: Several of the existing basin-specific master plans are outdated and require stormwater system analysis to reflect current watershed conditions. Projects will be identified to solve existing and future deficiencies.

Type of Project: The Master Plan will benefit the City by identifying necessary system improvements, water quantity criteria to service existing customers and future development.



Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	0	263,200	0	0	0	0	263,200
	SDC	0	263,200	0	0	0	0	263,200
Resources Total		**0**	**526,400**	**0**	**0**	**0**	**0**	**526,400**
Expenses	Design/Const Admin	0	461,754	0	0	0	0	461,754
	Admin (14%)	0	64,646	0	0	0	0	64,646
Expenses Total		**0**	**526,400**	**0**	**0**	**0**	**0**	**526,400**

921100: Asset Management Software

Description: This project funds the purchase and implementation of a computerized maintenance management system (CMMS) for asset management of our public works-type assets. This will be a commercial-off-the-shelf software purchase that will integrate existing and legacy City data and systems. The software will provide a single platform to allow City staff to record and monitor the condition and cost of its assets, initiate and track work orders, develop capital projects, and project future budgetary requirements.

Justification: Asset management software is essential to help ensure millions of dollars of assets are being planned, designed, installed, maintained and retired in the most cost-efficient way. Implementation of asset management software is consistent with the City's 2014 Technology Strategic Plan.

Type of Project: Asset management tracking software.

Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Operating	0	50,000	0	0	0	0	50,000
Resources Total		**0**	**50,000**	**0**	**0**	**0**	**0**	**50,000**
Expenses	Design/Const Admin	0	43,850	0	0	0	0	43,850
	Admin (14%)	0	6,150	0	0	0	0	6,150
Expenses Total		**0**	**50,000**	**0**	**0**	**0**	**0**	**50,000**

921200: Kane Drive Culvert Repair Improvements

Description: Removal and replacement of the temporary 72" twin culverts at Kelly Creek & Kane Drive following the December 2015 washout. The new culvert will meet all regulatory and engineering standards expected of a long-term asset along a stream alignment. This work will assess the need for restoration adjacent to and downstream of the construction and washout site and perform mitigation as necessary.

Justification: Replaces temporary infrastructure that was installed on an emergency basis to restore essential City services and performs mitigation that was not a priority during the initial emergency response.

Type of Project: Design and construction of facilities to correct deficiencies. Project will be coordinated with Federal Highway Administration for partial reimbursement.

Estimated Dollars:

Funds	Description	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
Resources	Debt-Operating	0	461,287	0	0	0	0	461,287
	IGA	0	4,030,313	0	0	0	0	4,030,313
Resources Total		**0**	**4,491,600**	**0**	**0**	**0**	**0**	**4,491,600**
Expenses	Design/Const Admin	0	1,440,000	0	0	0	0	1,440,000
	Construction	0	2,500,000	0	0	0	0	2,500,000
	Admin (14%)	0	551,600	0	0	0	0	551,600
Expenses Total		**0**	**4,491,600**	**0**	**0**	**0**	**0**	**4,491,600**

Stormwater Unfunded and Future Summary								
Project	Project Name	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	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
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
910400	Stark Street Culvert	0	0	0	0	0	0	243,048
910700	Division to Kelly Stormdrain	0	0	0	0	0	0	272,688
910800	Division Street Diversion	0	0	0	0	0	0	71,136
911000	Stark Street (East) Swale	0	0	0	0	0	0	176,586
911100	Stark Street (West) PRF	0	0	0	0	0	0	66,690
911200	Burnside (West) PRF	0	0	0	0	0	0	53,352
911300	Burnside (East) PRF	0	0	0	0	0	0	53,352
911400	Water Qual Facility @ 194th Ave.	0	0	0	0	0	0	511,020
911600	Water Qual Facility @ 181st & Halsey	0	0	0	0	0	0	686,679
911700	Water Qual Facility @ 162nd & Thompson	0	0	0	0	0	0	718,700
911800	Water Qual Facility @ 162nd & I-84	0	0	0	0	0	0	2,666,619
911900	Water Qual Facility @ N 162nd Ave.	0	0	0	0	0	0	4,039,880
912100	Pipe Replacements - East of 194th Ave.	0	0	0	0	0	0	56,400
912200	Pipe Replacements - Barr Rd & Halsey St	0	0	0	0	0	0	1,281,200
912300	Pipe Replacements - N. 181st	0	0	0	0	0	0	1,072,500
912500	Pipe Replacements - S. 181st (50 year fix)	0	0	0	0	0	0	1,068,200
912600	Pipe Replacements - North 162nd Ave.	0	0	0	0	0	0	445,600
912700	Pipe Replacements - South 162nd Ave.	0	0	0	0	0	0	82,300
913200	SW 7th St: Johnson Creek Riparian Corridor Improvement	0	0	0	0	0	0	399,000
913300	East Gresham Grade School	0	0	0	0	0	0	134,238
913400	SE Dowsett St. Riparian Corridor Restoration	0	0	0	0	0	0	185,148
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 Cor	0	0	0	0	0	0	102,600
913800	SW14th Stabilization: Johnson Creek Riparian Corridor Im	0	0	0	0	0	0	507,300

Stormwater Unfunded and Future Summary								
Project	Project Name	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
913900	SE Regner to Hogan: Johnson Creek Riparian Corridor Imp	0	0	0	0	0	0	70,000
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	32,968
915300	Ava Ave. Group 1 Pipe Improvement	0	0	0	0	0	0	868,780
915400	Butler Creek- Groups 1A,B & C Pipe Improvement	0	0	0	0	0	0	309,100
915500	Butler Creek- Groups 2A & B Pipe Improvement	0	0	0	0	0	0	143,082
915600	Brick Creek Culvert Improvement	0	0	0	0	0	0	68,153
915800	Butler West- Group 3- Pipe Improvement	0	0	0	0	0	0	207,774
915900	Cedar Creek- Group 1 - Pipe Improvement	0	0	0	0	0	0	433,798
916000	Cedar Creek- Group 2- Culvert Improvement	0	0	0	0	0	0	93,071
916100	Mawcrest Dr. - Pipe Improvement	0	0	0	0	0	0	60,756
916200	Miller Ct. - Pipe Improvement	0	0	0	0	0	0	133,094
916300	Morlan Ave. - Pipe Improvement	0	0	0	0	0	0	76,174
916400	Powell Blvd East - Group 2 Pipe Improvement	0	0	0	0	0	0	115,986
916500	Powell Loop - Group 1 - Pipe Improvement	0	0	0	0	0	0	287,073
916600	Powell Loop - Group 2 - Pipe Improvement	0	0	0	0	0	0	208,490
916700	Powell Loop - Group 2 - Pipe Improvement	0	0	0	0	0	0	204,588
916900	Powell Loop - Group 2 - Pipe Improvement	0	0	0	0	0	0	91,345
917000	Powell Loop - Group 2 - Pipe Improvement	0	0	0	0	0	0	277,658
917100	Powell Loop - Group 2 - Pipe Improvement	0	0	0	0	0	0	118,342
917200	Powell Loop - Group 2 - Pipe Improvement	0	0	0	0	0	0	45,333
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	41,725
917600	NE Hale Place Bank Stabilization	0	0	0	0	0	0	158,219
917700	NE 17th St. Concrete Flume Removal	0	0	0	0	0	0	311,888
917800	NE 7th Ct. Channel Modification	0	0	0	0	0	0	129,717
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	125,139
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	317,623
918600	Major Outfall Rehabilitation (NE Scott, SW Condor, SE Lau	0	0	0	0	0	0	107,894
918700	NE Division Street	0	0	0	0	0	0	50,002
918900	Dogwood Lane (SE Acacia Pl.)	0	0	0	0	0	0	44,119
919000	SE Powell Valley Road	0	0	0	0	0	0	45,949

Stormwater Unfunded and Future Summary								
Project	Project Name	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	Total
919100	Bell Acres Trailer Park	0	0	0	0	0	0	503,644
919200	Powell Valley Pools	0	0	0	0	0	0	149,259
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	282,136
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	754,264
920100	Segment 2, Fairview Creek Basin Central Core Trunk Impr	0	0	0	0	0	0	364,127
920200	Segment 3A, Fairview Creek Basin Central Core Trunk Imp	0	0	0	0	0	0	564,197
920300	Segment 3B, Fairview Creek Basin Central Core Trunk Imp	0	0	0	0	0	0	622,218
920400	Segment 3C, Fairview Creek Basin Central Core Trunk Imp	0	0	0	0	0	0	338,307
920500	Segment 3D, Fairview Creek Basin Central Core Trunk Imp	0	0	0	0	0	0	1,022,308
Grand Total		**0**	**0**	**0**	**0**	**0**	**0**	**33,904,413**

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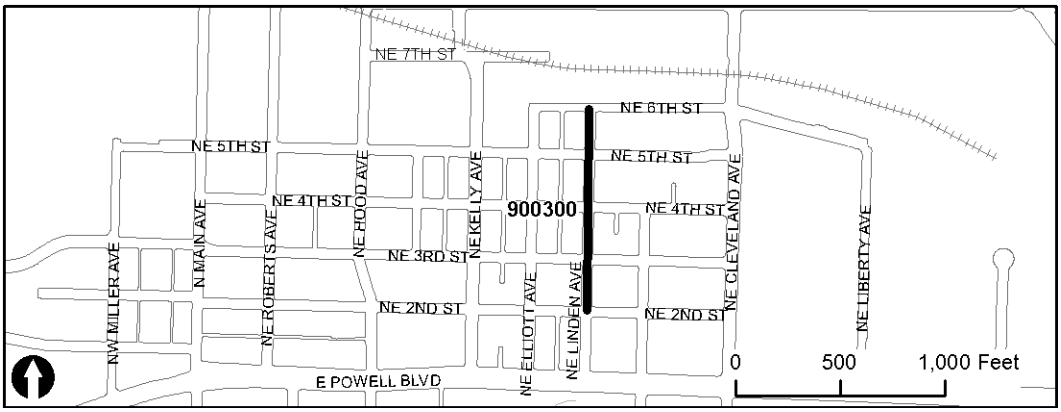
900300: Linden Avenue Storm Drain

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:

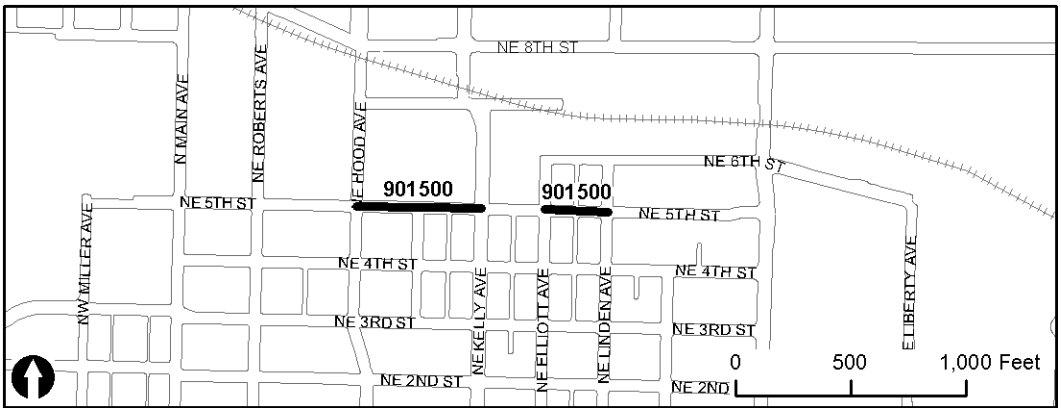
Funds	Description	Total
Resources	Operating	405,069
Resources Total		**405,069**
Expenses	Design/Const Admin	81,998
	Construction	273,326
	Admin (14%)	49,745
Expenses Total		**405,069**

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:

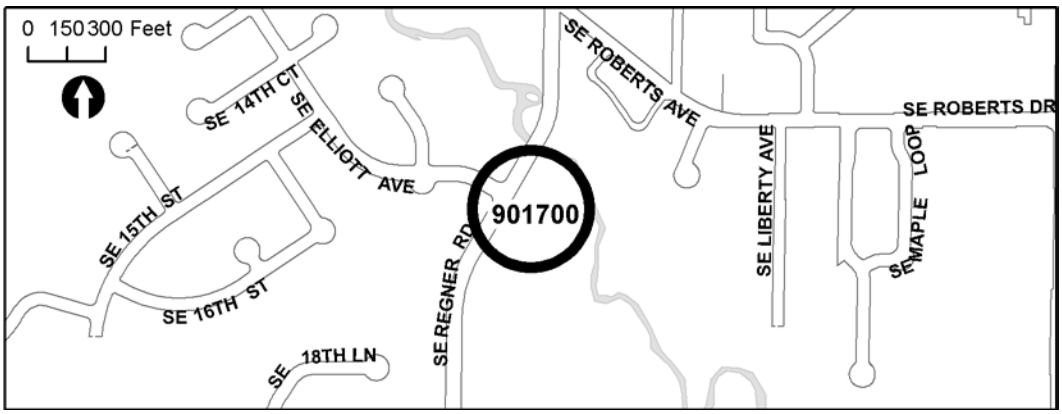
Funds	Description	Total
Resources	Bond	145,201
Resources Total		**145,201**
Expenses	Design/Const Admin	29,393
	Construction	97,976
	Admin (14%)	17,832
Expenses Total		**145,201**

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:

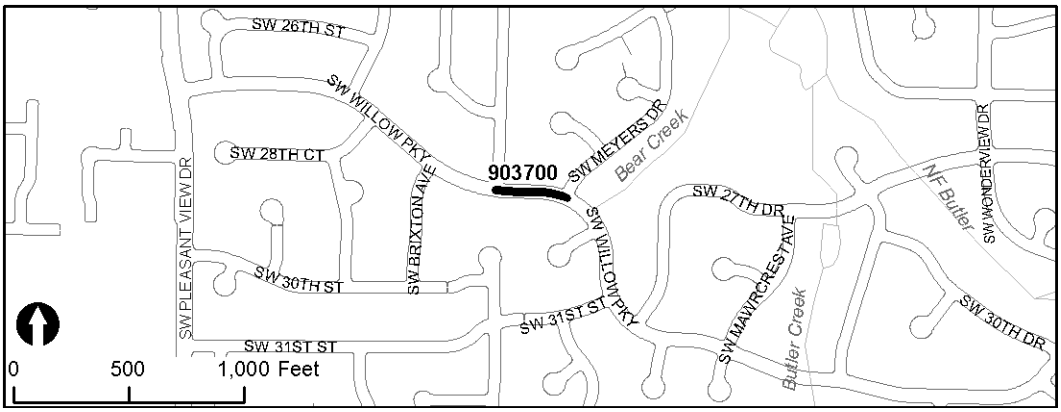
Funds	Description	Total
Resources	Operating	39,900
Resources Total		**39,900**
Expenses	Design/Const Admin	5,000
	Construction	30,000
	Admin (14%)	4,900
Expenses Total		**39,900**

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:

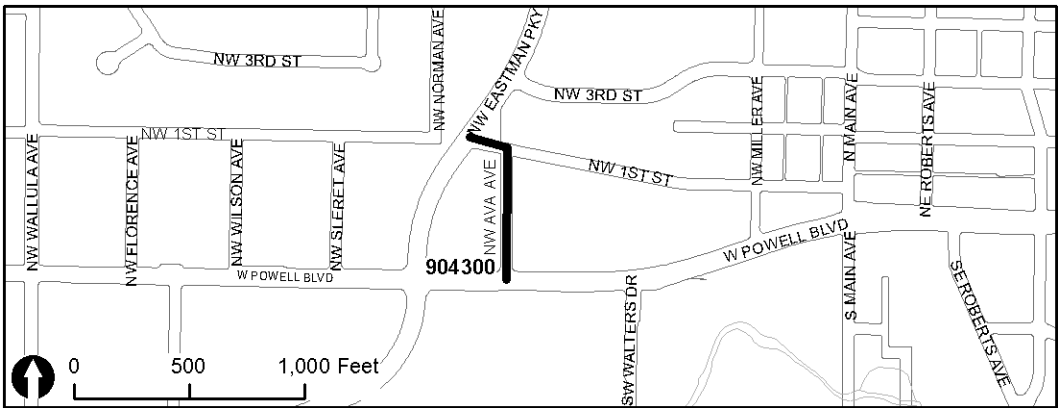
Funds	Description	Total
Resources	Operating	99,818
Resources Total		**99,818**
Expenses	Design/Const Admin	20,206
	Construction	67,354
	Admin (14%)	12,258
Expenses Total		**99,818**

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:

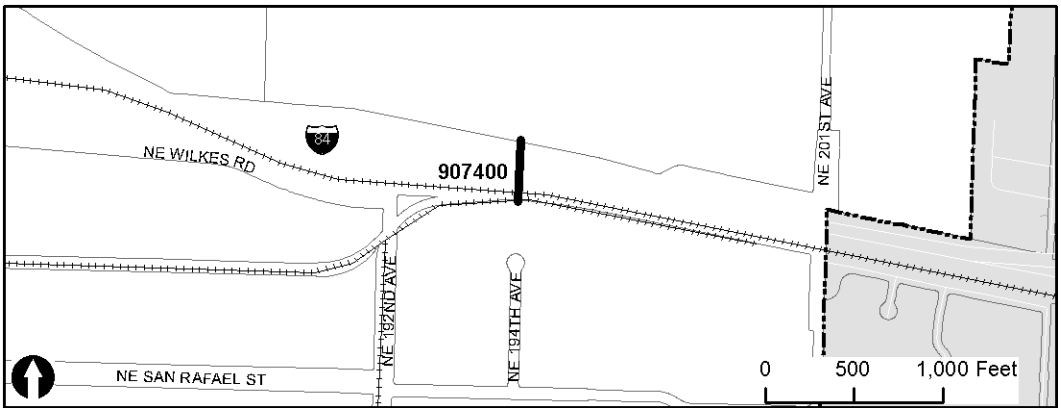
Funds	Description	Total
Resources	Operating	892,724
Resources Total		**892,724**
Expenses	Design/Const Admin	180,713
	Construction	602,378
	Admin (14%)	109,633
Expenses Total		**892,724**

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:

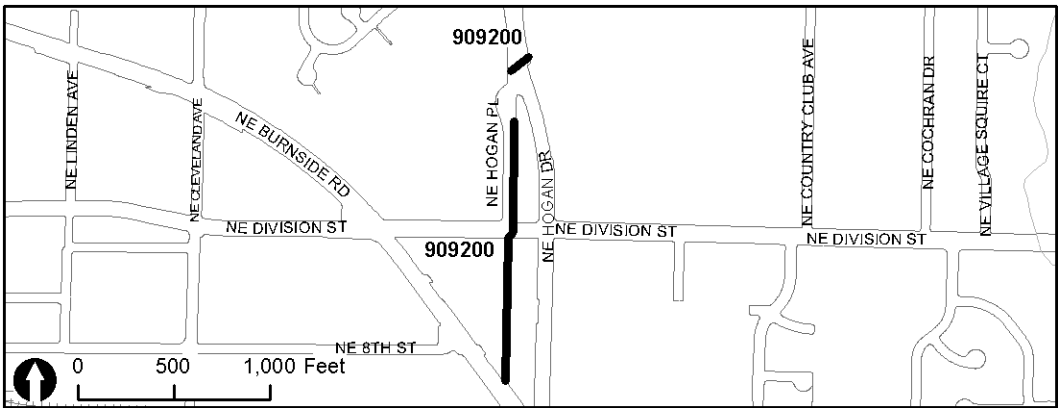
Funds	Description	Total
Resources	SDC	307,800
Resources Total		**307,800**
Expenses	Design/Const Admin	60,000
	Property Acq	10,000
	Construction	200,000
	Admin (14%)	37,800
Expenses Total		**307,800**

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:

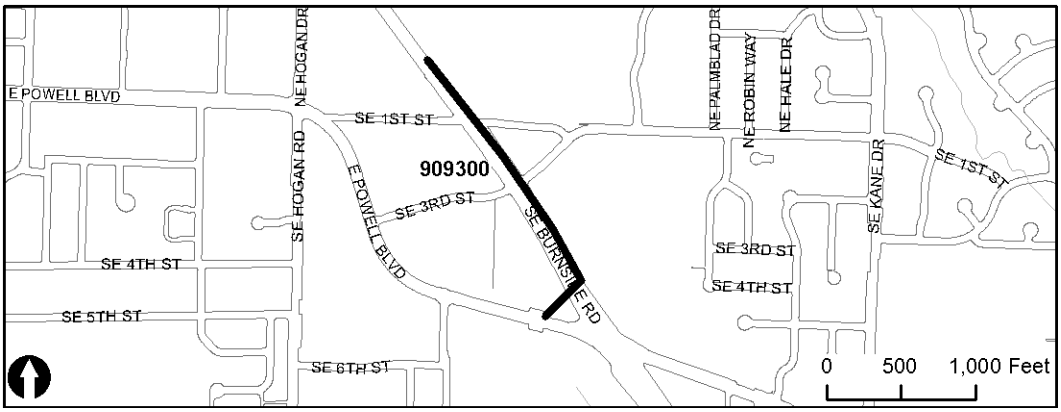
Funds	Description	Total
Resources	Operating	370,728
	SDC	370,728
Resources Total		**741,456**
Expenses	Design/Const Admin	150,100
	Construction	500,300
	Admin (14%)	91,056
Expenses Total		**741,456**

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:

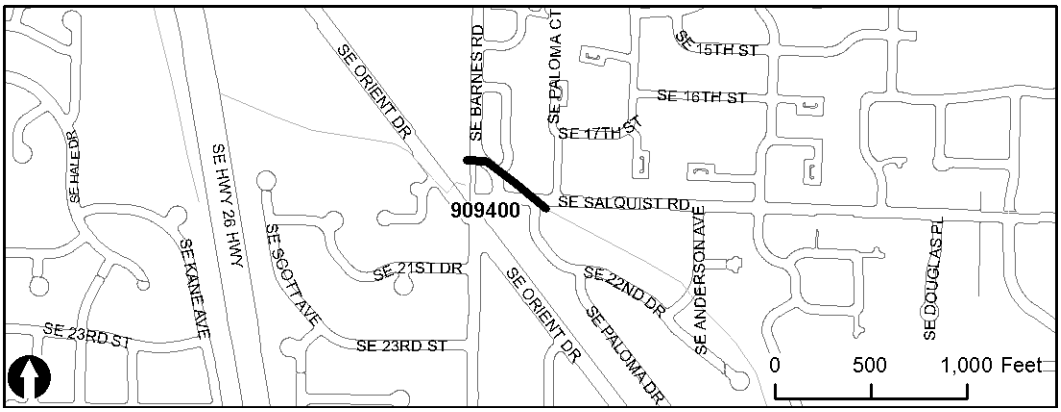
Funds	Description	Total
Resources	Operating	901,056
Resources Total		**901,056**
Expenses	Design/Const Admin	182,400
	Construction	608,000
	Admin (14%)	110,656
Expenses Total		**901,056**

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:

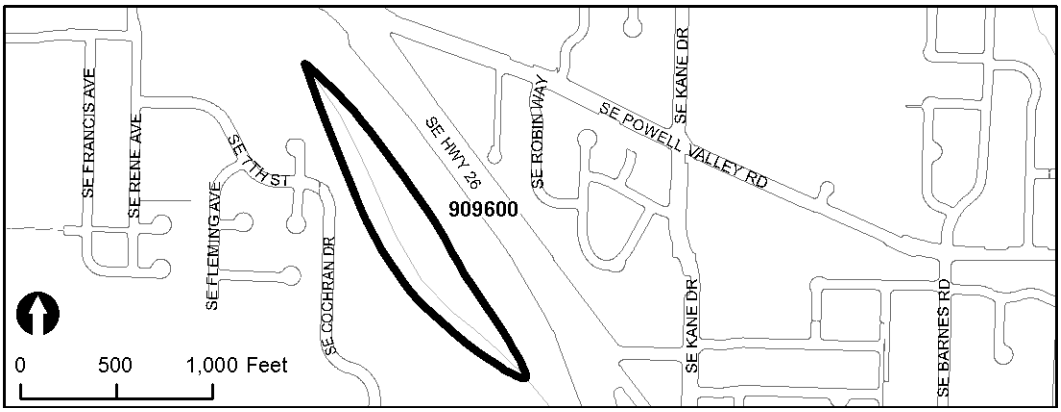
Funds	Description	Total
Resources	Operating	185,452
Resources Total		**185,452**
Expenses	Design/Const Admin	37,541
	Construction	125,136
	Admin (14%)	22,775
Expenses Total		**185,452**

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:

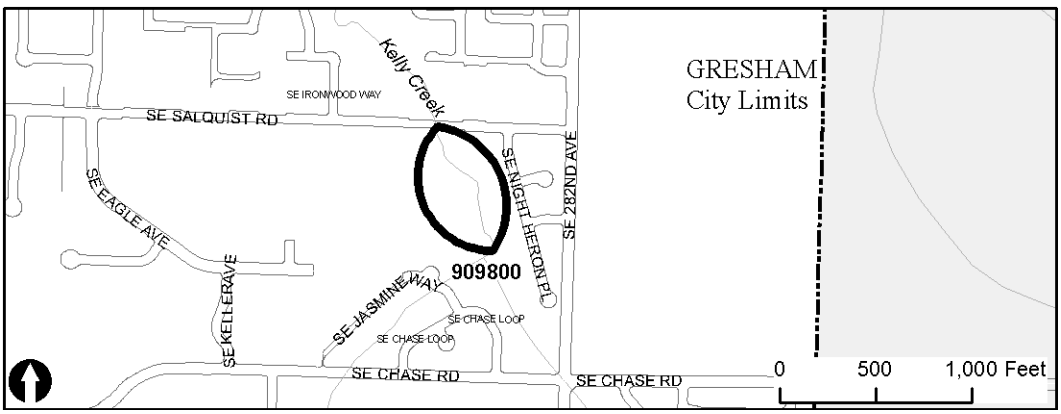
Funds	Description	Total
Resources	Operating	298,575
Resources Total		**298,575**
Expenses	Design/Const Admin	60,440
	Construction	201,468
	Admin (14%)	36,667
Expenses Total		**298,575**

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:

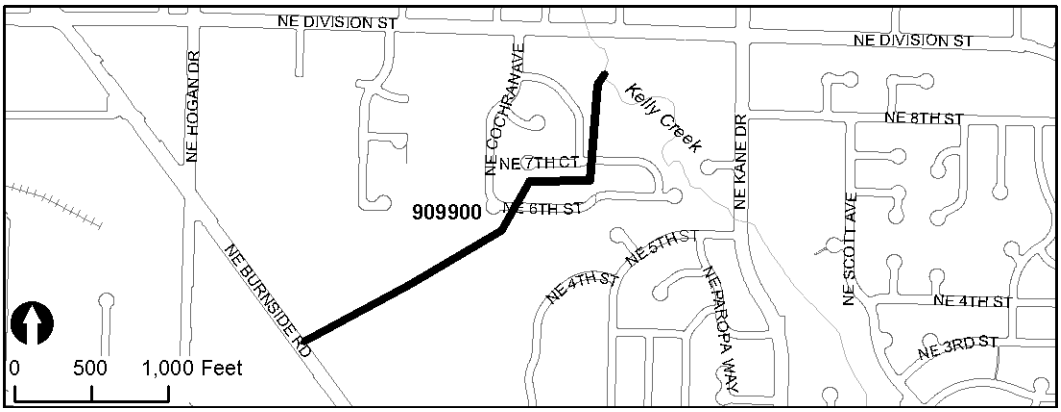
Funds	Description	Total
Resources	Operating	348,033
Resources Total		**348,033**
Expenses	Design/Const Admin	70,452
	Construction	234,840
	Admin (14%)	42,741
Expenses Total		**348,033**

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:

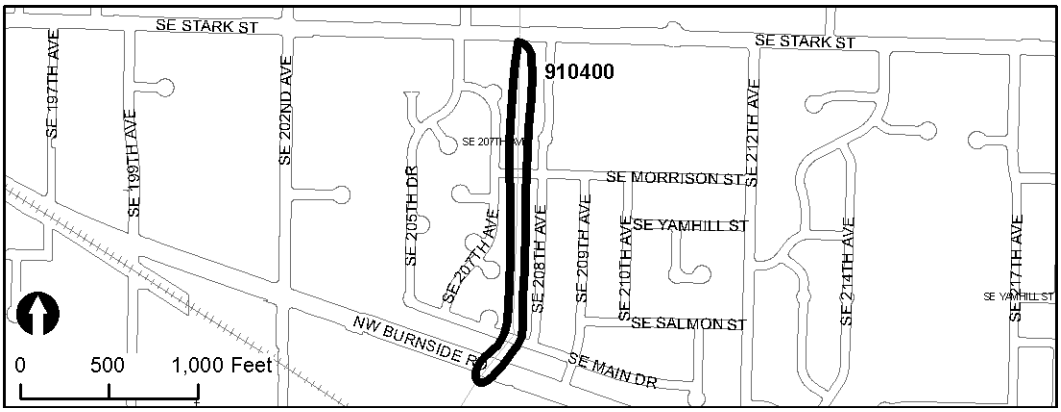
Funds	Description	Total
Resources	Operating	1,379,683
Resources Total		**1,379,683**
Expenses	Design/Const Admin	279,288
	Construction	930,960
	Admin (14%)	169,435
Expenses Total		**1,379,683**

910400: Stark Street Culvert

Description: This CIP would eliminate the fish barrier the currently exists downstream from the culvert under Stark. This is accomplished by placing a fish ladder downstream from Stark. Invasive plant species are to be removed and replaced with native plant species to provide shade. This project is in the North Central Neighborhood and in the Fairview Creek Drainage Basin. (Estimation of benefits: Growth related 30%; Existing System related 70%).

Justification: Provides passage for fish (Meets ODF&W requirements for fish passage) and in conjunction with FC01a, increases flood protection along this section of the creek.

Type of Project: Culvert and channel improvements.



Estimated Dollars:

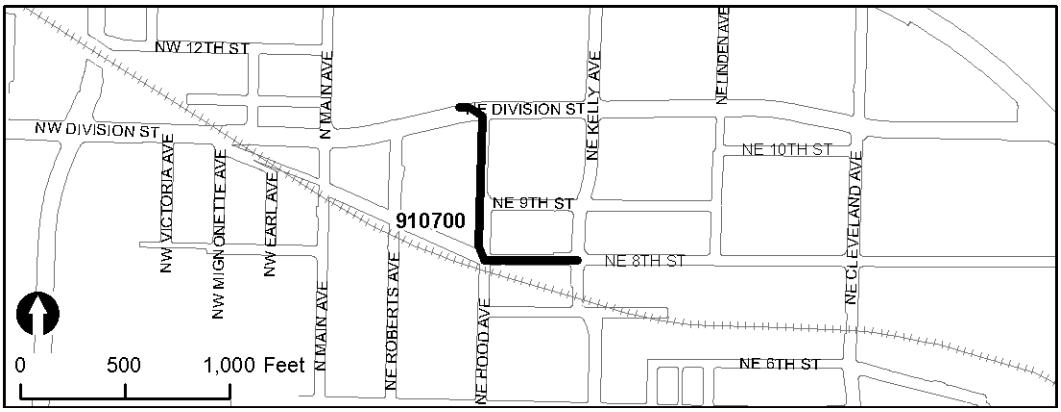
Funds	Description	Total
Resources	Operating	170,134
	SDC	72,914
Resources Total		**243,048**
Expenses	Design/Const Admin	49,200
	Construction	164,000
	Admin (14%)	29,848
Expenses Total		**243,048**

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. (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:

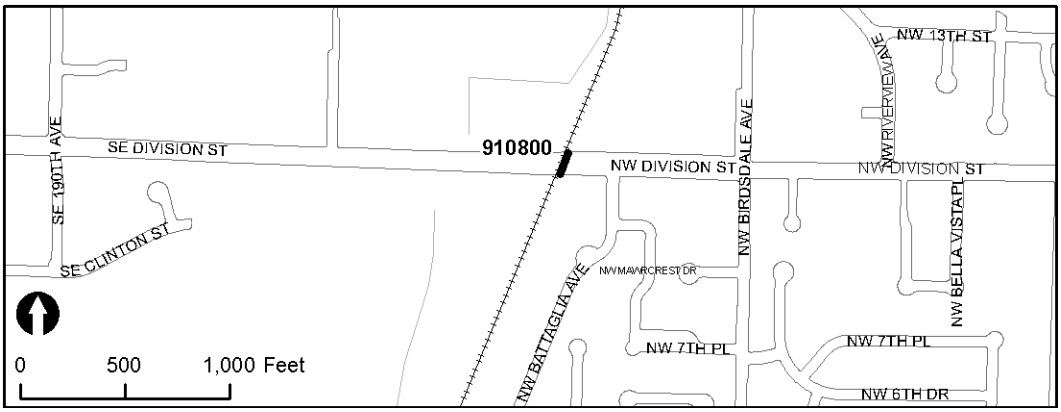
Funds	Description	Total
Resources	Operating	185,428
	SDC	87,260
Resources Total		**272,688**
Expenses	Design/Const Admin	55,200
	Construction	184,000
	Admin (14%)	33,488
Expenses Total		**272,688**

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 Birdsdale 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. (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 Birdsdale Facility.

Type of Project: Water quality treatment .



Estimated Dollars:

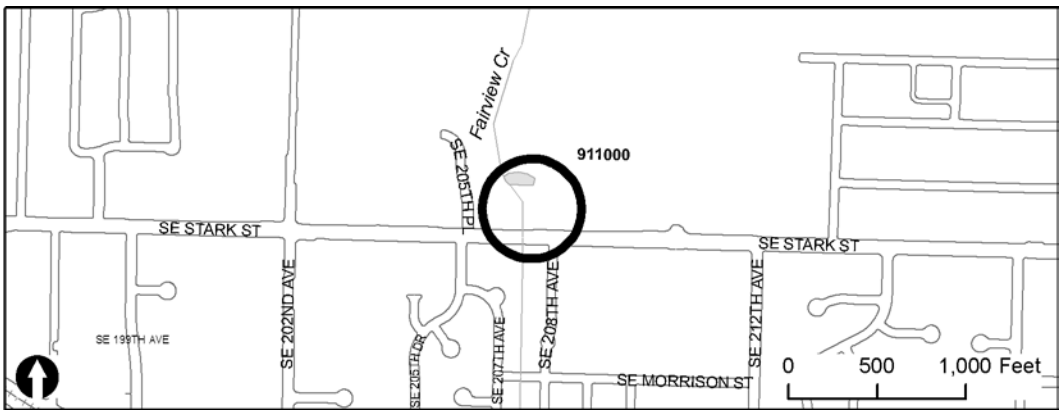
Funds	Description	Total
Resources	Operating	66,156
	SDC	4,980
Resources Total		**71,136**
Expenses	Design/Const Admin	14,400
	Construction	48,000
	Admin (14%)	8,736
Expenses Total		**71,136**

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:

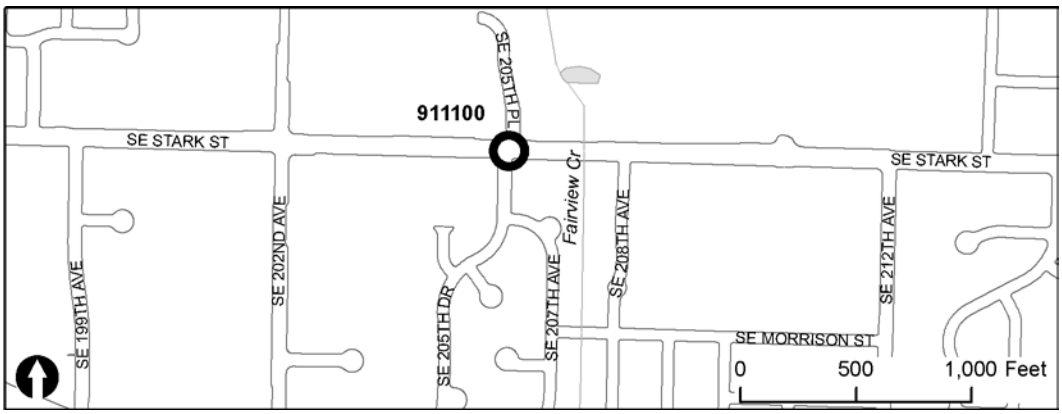
Funds	Description	Total
Resources	Operating	176,586
Resources Total		**176,586**
Expenses	Design/Const Admin	21,900
	Property Acq	60,000
	Construction	73,000
	Admin (14%)	21,686
Expenses Total		**176,586**

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%).

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:

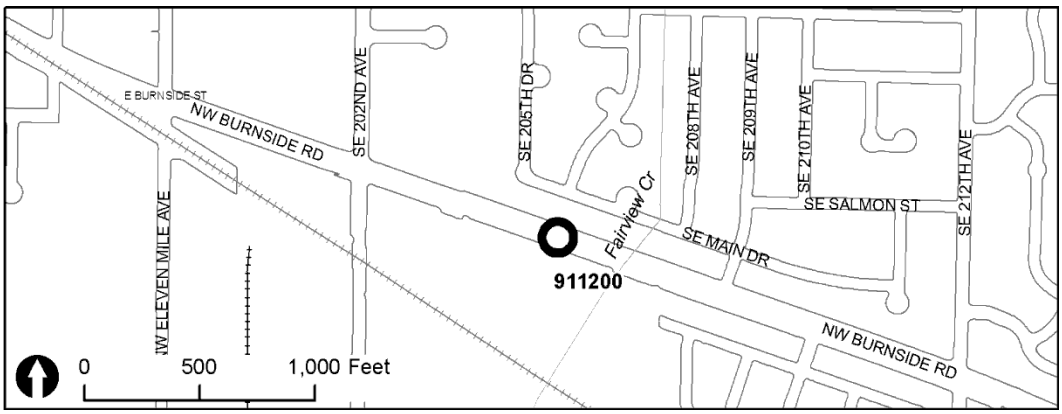
Funds	Description	Total
Resources	Operating	20,007
	SDC	46,683
Resources Total		**66,690**
Expenses	Design/Const Admin	13,500
	Construction	45,000
	Admin (14%)	8,190
Expenses Total		**66,690**

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:

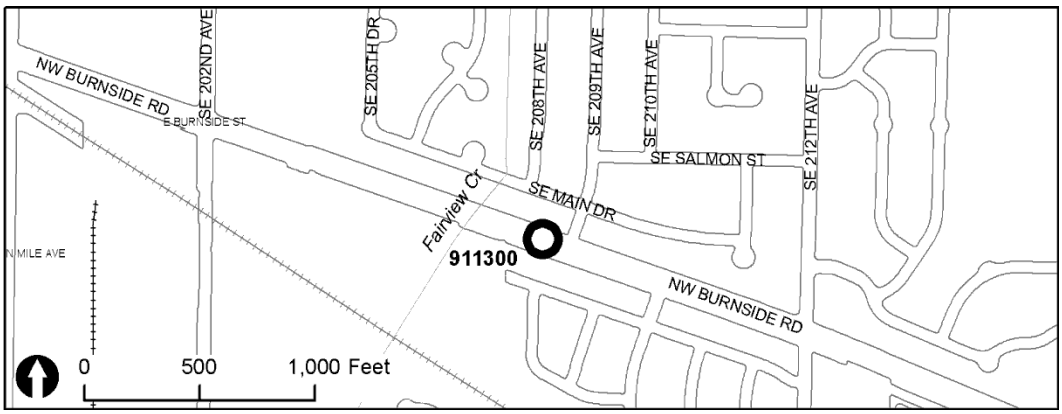
Funds	Description	Total
Resources	Operating	53,352
Resources Total		**53,352**
Expenses	Design/Const Admin	10,800
	Construction	36,000
	Admin (14%)	6,552
Expenses Total		**53,352**

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. (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:

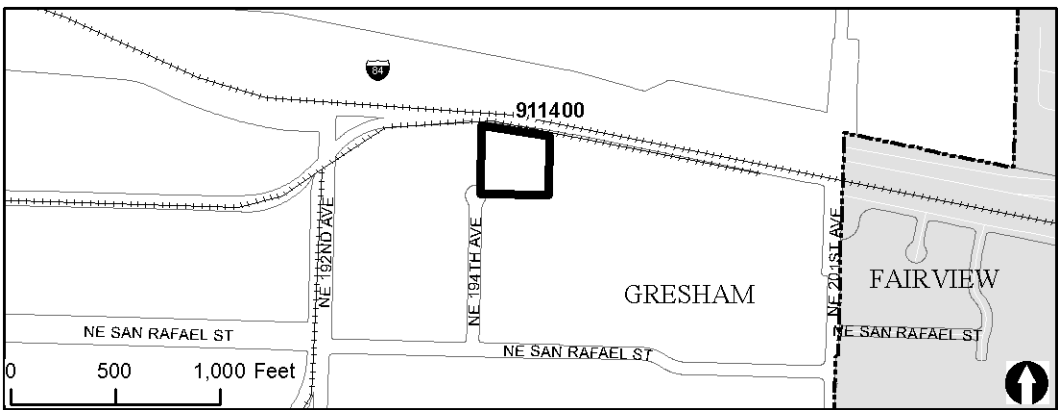
Funds	Description	Total
Resources	Operating	48,017
	SDC	5,335
Resources Total		**53,352**
Expenses	Design/Const Admin	10,800
	Construction	36,000
	Admin (14%)	6,552
Expenses Total		**53,352**

911400: Water Quality Facility @ 194th Ave

Description: Create a 2.1 - acre-feet 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. (WGWQ-4C)

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:

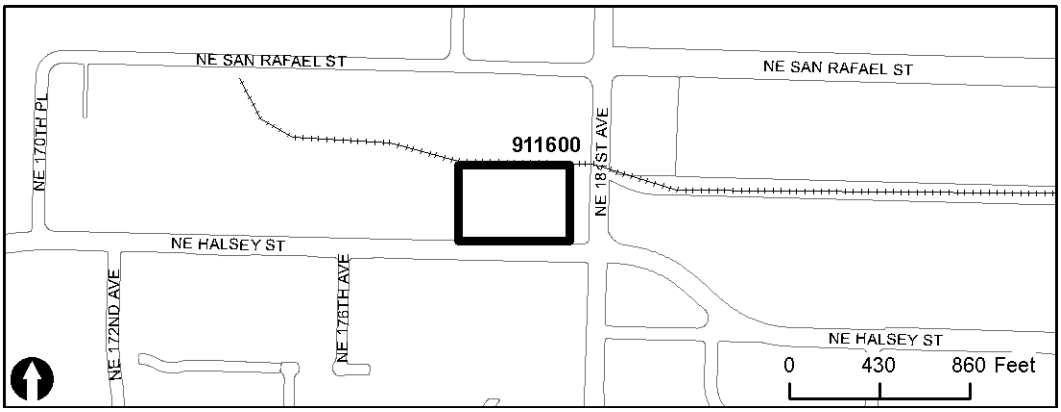
Funds	Description	Total
Resources	Operating	194,188
	SDC	316,832
Resources Total		**511,020**
Expenses	Design/Const Admin	49,800
	Property Acq	232,320
	Construction	166,143
	Admin (14%)	62,757
Expenses Total		**511,020**

911600: Water Quality Facility @ 181st & Halsey

Description: Create a 3.3 - acre-feet water quality facility at the north-western corner of the intersection of 181st Avenue and Halsey Street. Based on impervious percentages for existing and future conditions, 22% of the project would benefit flows associated with future development. This project is located in the Wilkes East neighborhood district and the West Gresham Drainage Basin. (WGWQ-3A)

Justification: This facility would provide water quality treatment for a drainage area of approximately 84 acres.

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



Estimated Dollars:

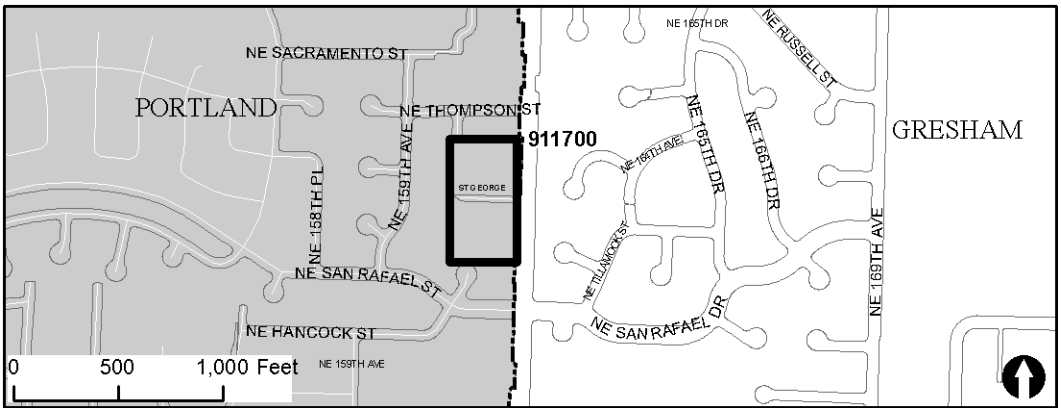
Funds	Description	Total
Resources	Operating	535,610
	SDC	151,069
Resources Total		**686,679**
Expenses	Design/Const Admin	67,000
	Property Acq	312,180
	Construction	223,170
	Admin (14%)	84,329
Expenses Total		**686,679**

911700: Water Quality Facility @ 162nd & Thompson

Description: Create a 3.2 - acre-feet water quality facility at the south-eastern corner of the intersection of 162nd Avenue and NE Thompson Street. Based on impervious percentages for existing and future conditions, 33% of the project would benefit flows associated with future development. This project is located in the Wilkes East neighborhood district and the West Gresham Drainage Basin. (WGWQ-1C)

Justification: This facility would provide water quality treatment for a drainage area of approximately 127 acres.

Type of Project: Construction of facilities related to growth and to correct deficiencies. 19% of the drainage area lies in Gresham and 81% lies in Portland.



Estimated Dollars:

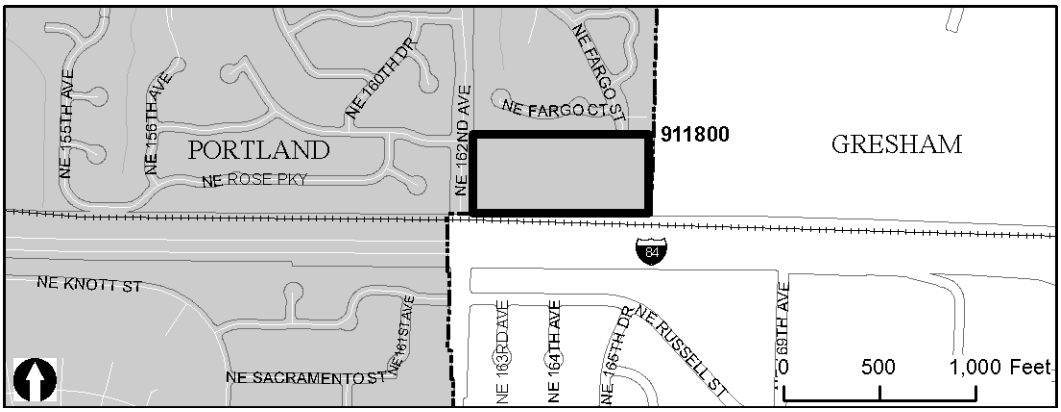
Funds	Description	Total
Resources	Operating	481,528
	SDC	237,172
Resources Total		**718,700**
Expenses	Design/Const Admin	70,100
	Property Acq	326,700
	Construction	233,639
	Admin (14%)	88,261
Expenses Total		**718,700**

911800: Water Quality Facility @ 162nd & I-84

Description: Create a 12.6 - acre-feet water quality facility at the north-eastern corner of the intersection of 162nd Avenue and I-84. Based on impervious percentages for existing and future conditions, 27% of the project would benefit flows associated with future development. This project is located in the Wilkes East neighborhood district and the West Gresham Drainage Basin. (WGWQ-1B)

Justification: This facility would provide water quality treatment for a drainage area of approximately 309 acres.

Type of Project: Construction of facilities related to growth and to correct deficiencies. 63% of the drainage area lies in Gresham and 37% lies in Portland.



Estimated Dollars:

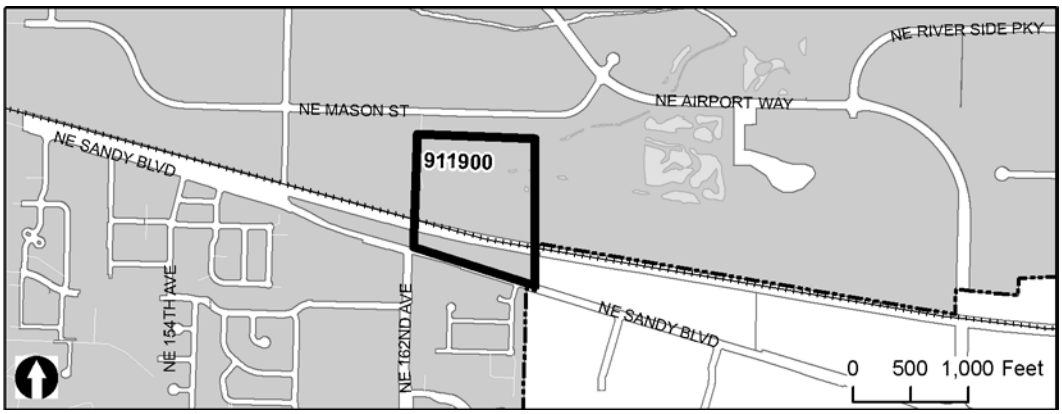
Funds	Description	Total
Resources	Operating	1,946,632
	SDC	719,987
Resources Total		**2,666,619**
Expenses	Design/Const Admin	260,000
	Property Acq	1,212,420
	Construction	866,720
	Admin (14%)	327,479
Expenses Total		**2,666,619**

911900: Water Quality Facility @ N 162nd Ave

Description: Create a 15.4 - acre-feet water quality facility at the outfall of the 162nd Avenue pipe system north of Sandy Boulevard. Based on impervious percentages for existing and future conditions, 37% of the project would benefit flows associated with future development. This project is located in the Wilkes East neighborhood district and the West Gresham Drainage Basin. (WGWQ-1A)

Justification: This facility would provide water quality treatment for a drainage area of approximately 528 acres. Just over half of the drainage area lies in Gresham, the remainder lies in Portland.

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



Estimated Dollars:

Funds	Description	Total
Resources	Operating	2,545,124
	SDC	1,494,756
Resources Total		**4,039,880**
Expenses	Design/Const Admin	393,900
	Property Acq	1,836,780
	Construction	1,313,074
	Admin (14%)	496,126
Expenses Total		**4,039,880**

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. (Estimation of benefits: Growth related 49%; Existing System related 51%). (WGFC-6)

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:

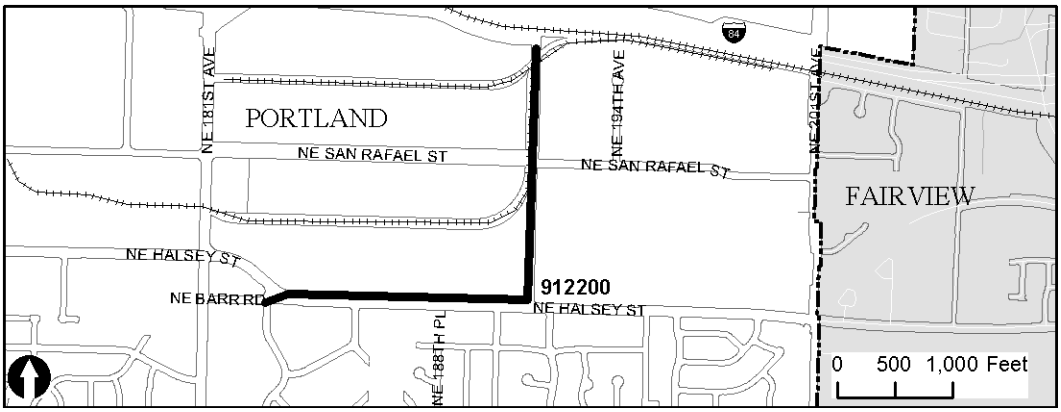
Funds	Description	Total
Resources	Operating	27,636
	SDC	28,764
Resources Total		**56,400**
Expenses	Design/Const Admin	11,400
	Construction	38,074
	Admin (14%)	6,926
Expenses Total		**56,400**

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. (WGFC-5)

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:

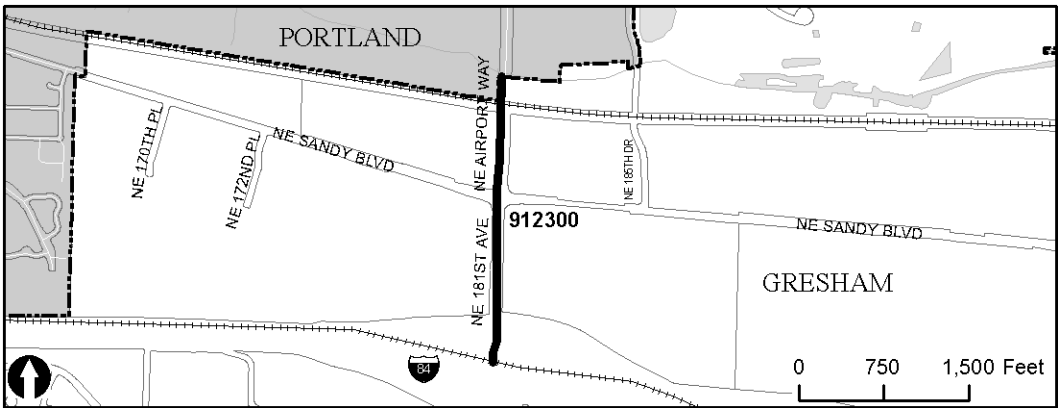
Funds	Description	Total
Resources	Operating	884,028
	SDC	397,172
Resources Total		**1,281,200**
Expenses	Design/Const Admin	259,400
	Construction	864,460
	Admin (14%)	157,340
Expenses Total		**1,281,200**

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. (WGFC-4)

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:

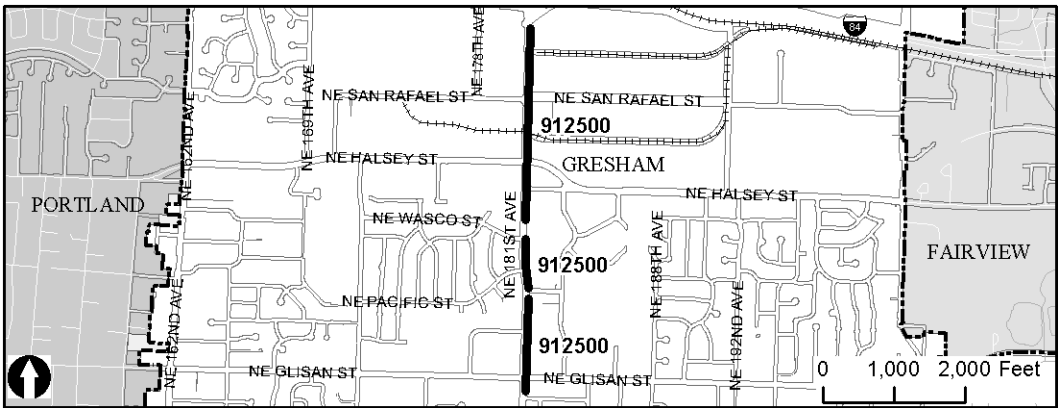
Funds	Description	Total
Resources	Operating	825,825
	SDC	246,675
Resources Total		**1,072,500**
Expenses	Design/Const Admin	217,100
	Construction	723,690
	Admin (14%)	131,710
Expenses Total		**1,072,500**

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. (WGFC-3A)

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:

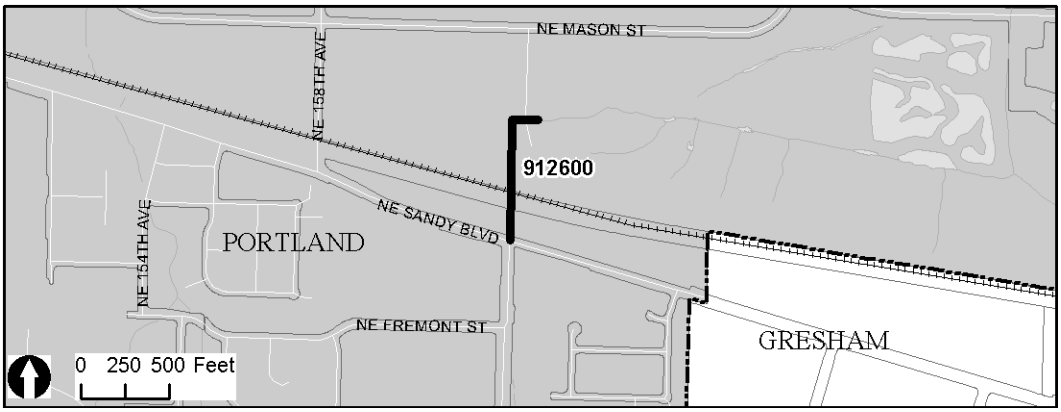
Funds	Description	Total
Resources	Operating	961,380
	SDC	106,820
Resources Total		**1,068,200**
Expenses	Design/Const Admin	216,200
	Construction	720,818
	Admin (14%)	131,182
Expenses Total		**1,068,200**

912600: Pipe Replacements – North 162nd Ave.

Description: Replace pipe segments along 162nd Avenue starting just north of Sandy Boulevard and extending to the outfall of the 162nd Avenue pipe system. Project elements are as follows: 1) Replace 54" Dia pipe with 72" Dia pipe, 191' Long. 2) Replace 48" Dia pipe with 72" Dia pipe, 291' Long. 3) Replace 72" Dia pipe with 78" Dia pipe, 302' Long. Based on impervious percentages for existing and future conditions 40% of the project would be funded by SDCs. This project is located in the Wilkes East Neighborhood and the West Gresham Drainage Basin. (WGFC-2)

Justification: This capital project will provide increased capacity to alleviate expected flooding problems as a result of future development on 162nd Ave. north of Sandy Blvd.

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



Estimated Dollars:

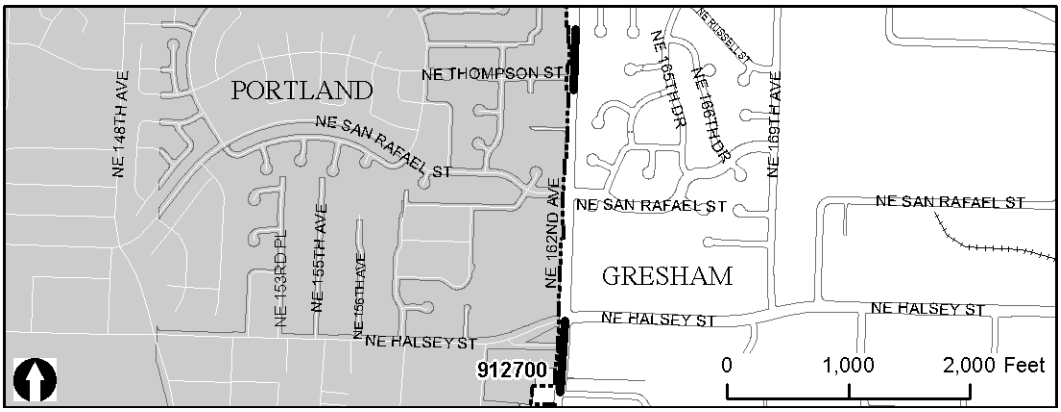
Funds	Description	Total
Resources	Operating	267,360
	SDC	178,240
Resources Total		**445,600**
Expenses	Design/Const Admin	90,200
	Construction	300,677
	Admin (14%)	54,723
Expenses Total		**445,600**

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. (WGFC-1)

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:

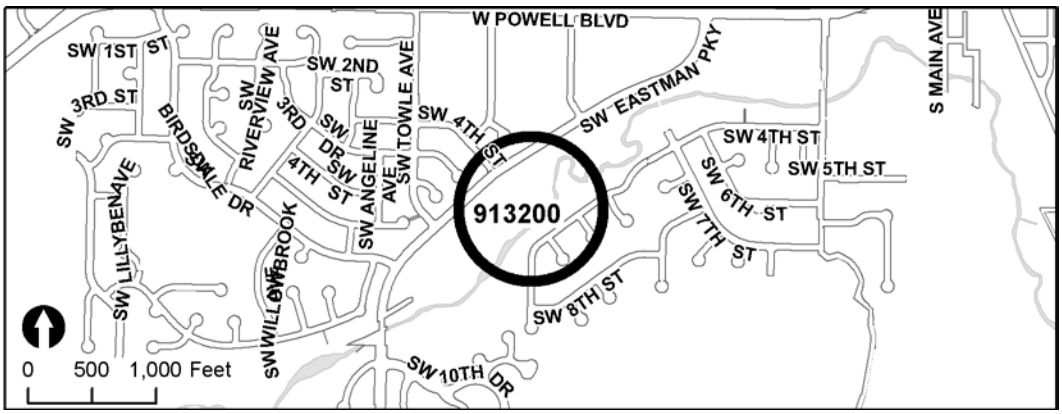
Funds	Description	Total
Resources	Operating	55,141
	SDC	27,159
Resources Total		**82,300**
Expenses	Design/Const Admin	16,700
	Construction	55,493
	Admin (14%)	10,107
Expenses Total		**82,300**

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. (JC-NR01)

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:

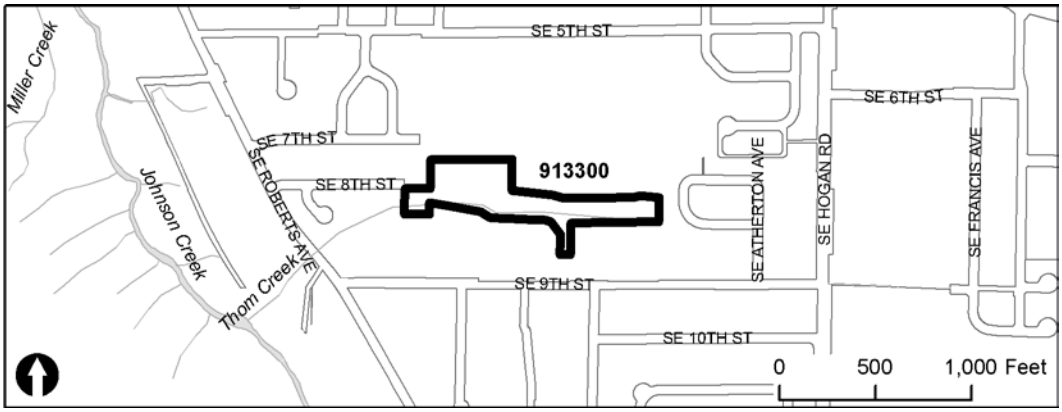
Funds	Description	Total
Resources	Operating	399,000
Resources Total		**399,000**
Expenses	Design/Const Admin	15,000
	Construction	335,000
	Admin (14%)	49,000
Expenses Total		**399,000**

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. (JC-NR02)

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:

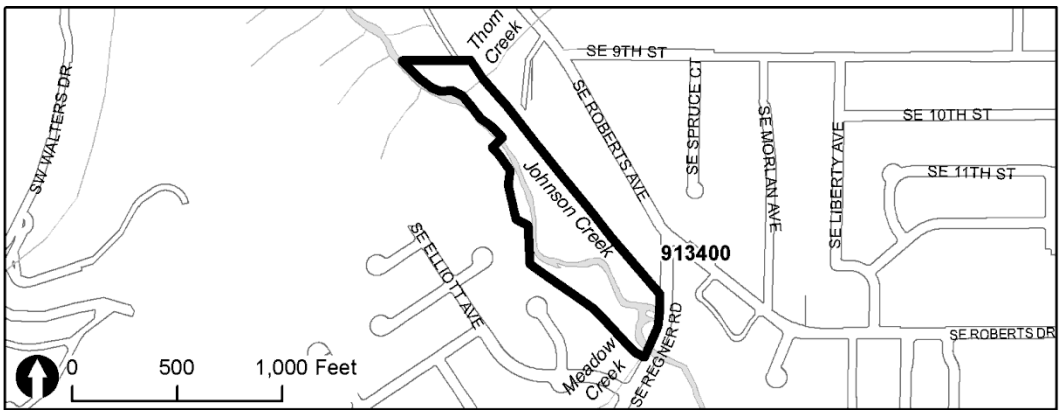
Funds	Description	Total
Resources	Operating	134,238
Resources Total		**134,238**
Expenses	Design/Const Admin	27,174
	Construction	90,579
	Admin (14%)	16,485
Expenses Total		**134,238**

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. (JC-NR03)

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:

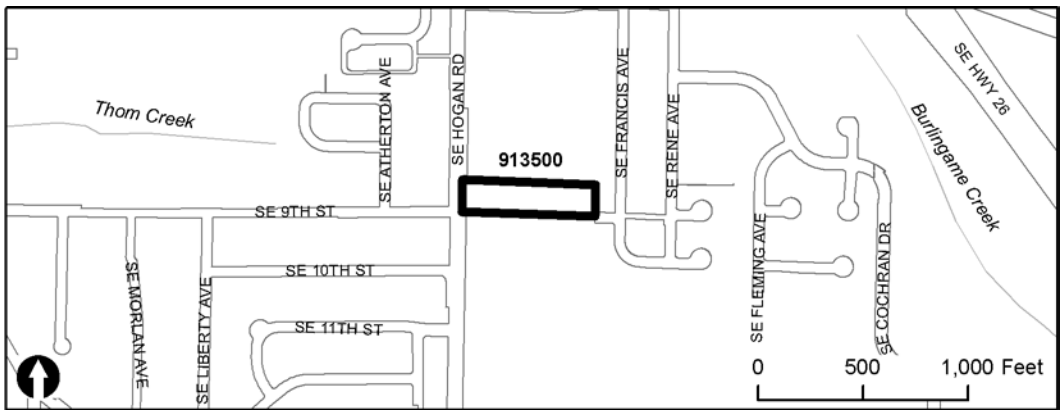
Funds	Description	Total
Resources	Operating	185,148
Resources Total		**185,148**
Expenses	Design/Const Admin	37,479
	Construction	124,931
	Admin (14%)	22,738
Expenses Total		**185,148**

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:

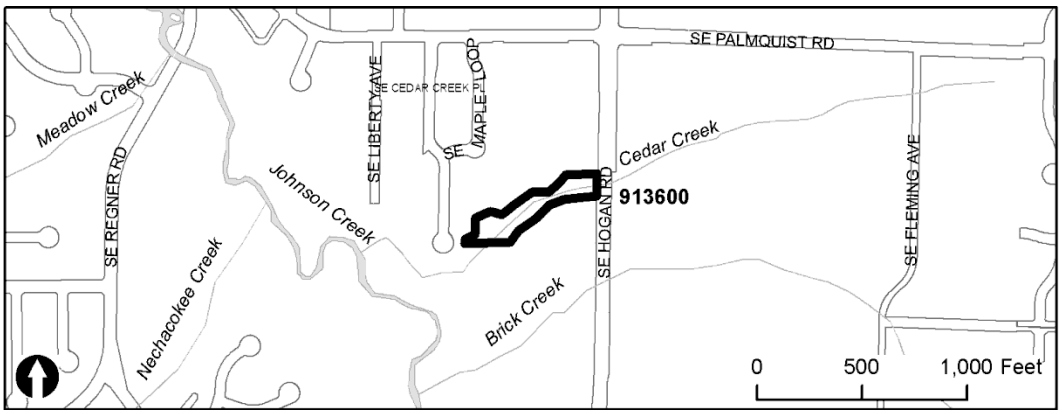
Funds	Description	Total
Resources	Operating	130,062
Resources Total		**130,062**
Expenses	Design/Const Admin	26,328
	Construction	87,761
	Admin (14%)	15,973
Expenses Total		**130,062**

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:

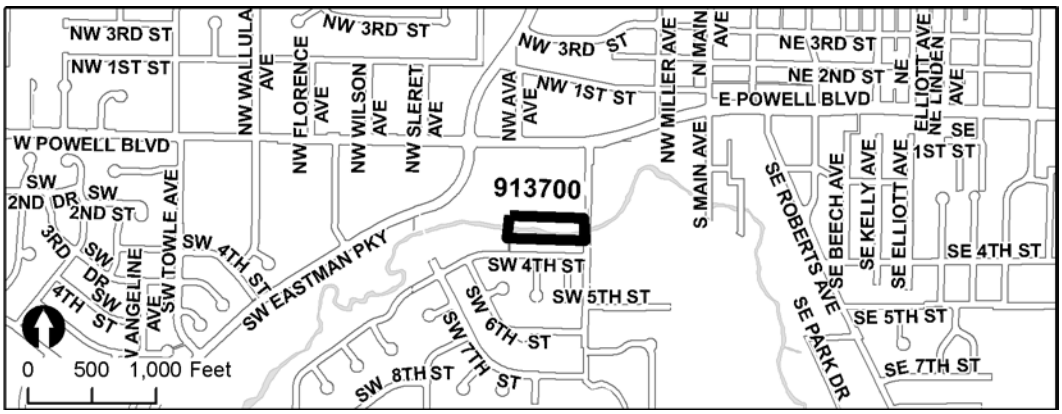
Funds	Description	Total
Resources	Operating	66,201
Resources Total		**66,201**
Expenses	Design/Const Admin	13,401
	Construction	44,670
	Admin (14%)	8,130
Expenses Total		**66,201**

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:

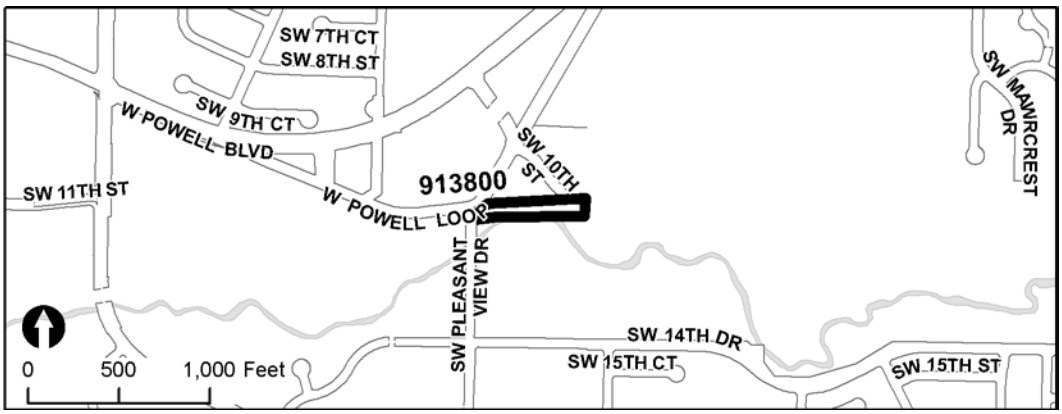
Funds	Description	Total
Resources	Operating	102,600
Resources Total		**102,600**
Expenses	Design/Const Admin	6,500
	Construction	83,500
	Admin (14%)	12,600
Expenses Total		**102,600**

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. (JC-NR07)

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:

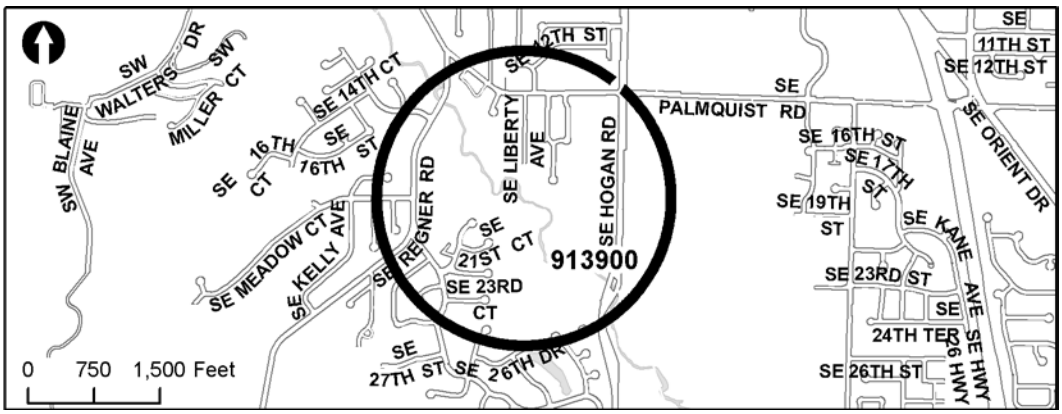
Funds	Description	Total
Resources	Operating	507,300
Resources Total		**507,300**
Expenses	Design/Const Admin	65,000
	Construction	350,000
	Other	30,000
	Admin (14%)	62,300
Expenses Total		**507,300**

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. (JC-NR08)

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:

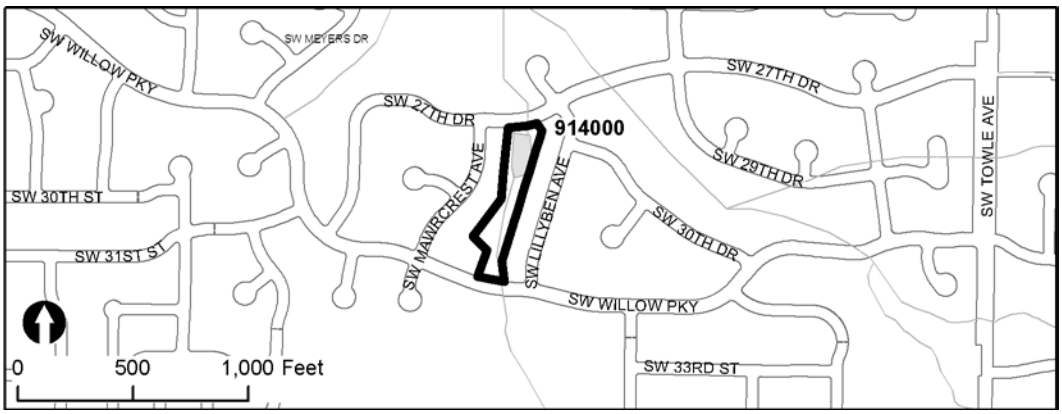
Funds	Description	Total
Resources	Operating	70,000
Resources Total		**70,000**
Expenses	Design/Const Admin	12,281
	Construction	49,123
	Admin (14%)	8,596
Expenses Total		**70,000**

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:

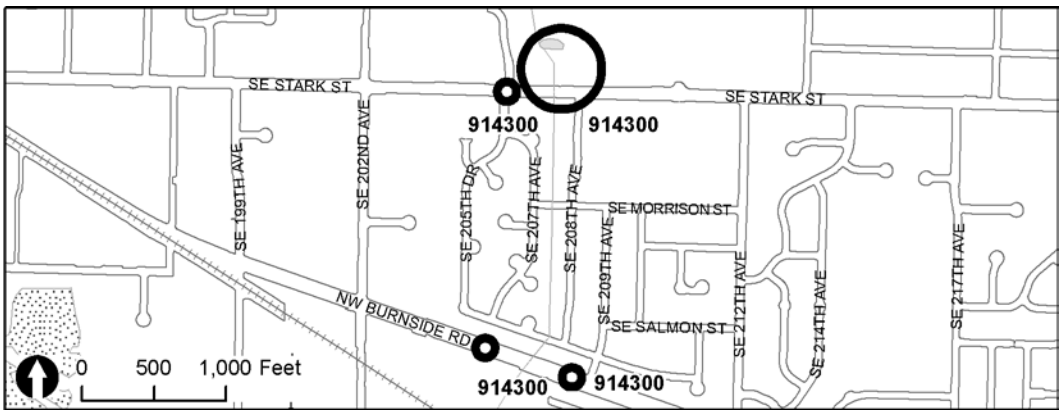
Funds	Description	Total
Resources	Operating	25,711
Resources Total		**25,711**
Expenses	Design/Const Admin	5,205
	Construction	17,349
	Admin (14%)	3,157
Expenses Total		**25,711**

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:

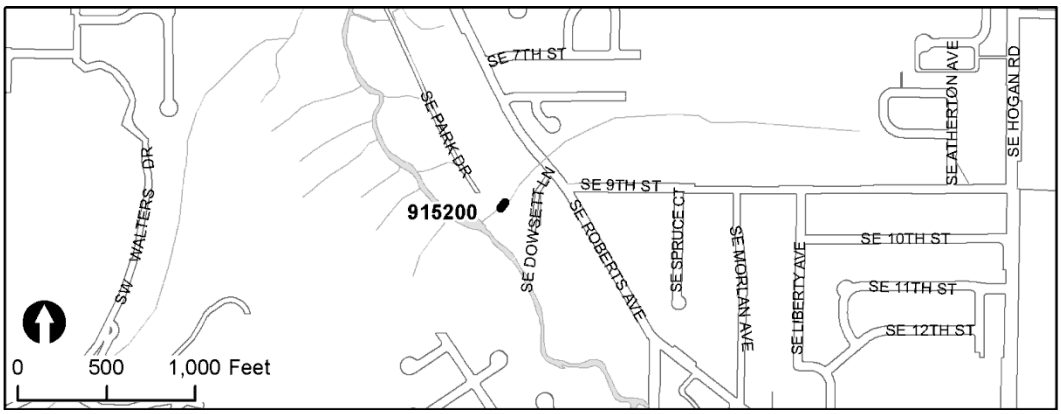
Funds	Description	Total
Resources	Operating	22,800
Resources Total		**22,800**
Expenses	Other	20,000
	Admin (14%)	2,800
Expenses Total		**22,800**

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 (JC ATC-1)

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

Type of Project: Culvert improvement.



Estimated Dollars:

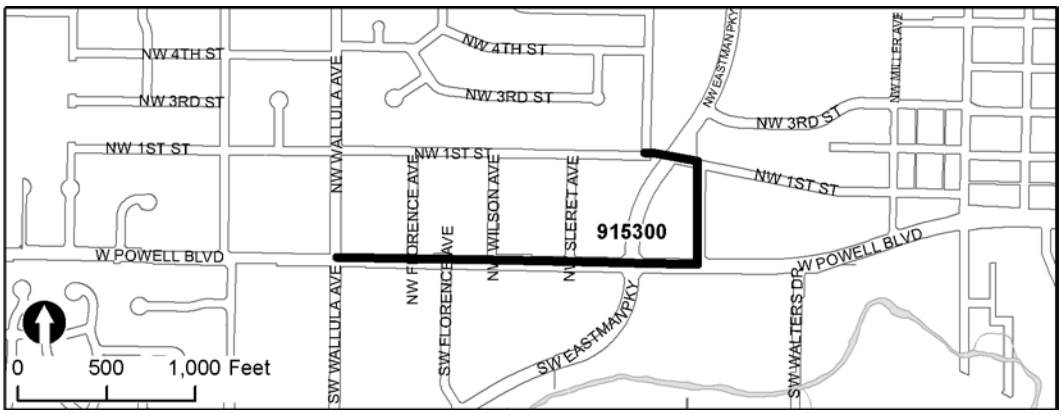
Funds	Description	Total
Resources	Operating	17,473
	SDC	15,495
Resources Total		**32,968**
Expenses	Design/Const Admin	6,674
	Construction	22,246
	Admin (14%)	4,048
Expenses Total		**32,968**

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 (JC AVG-1)

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

Type of Project: Storm drain improvement.



Estimated Dollars:

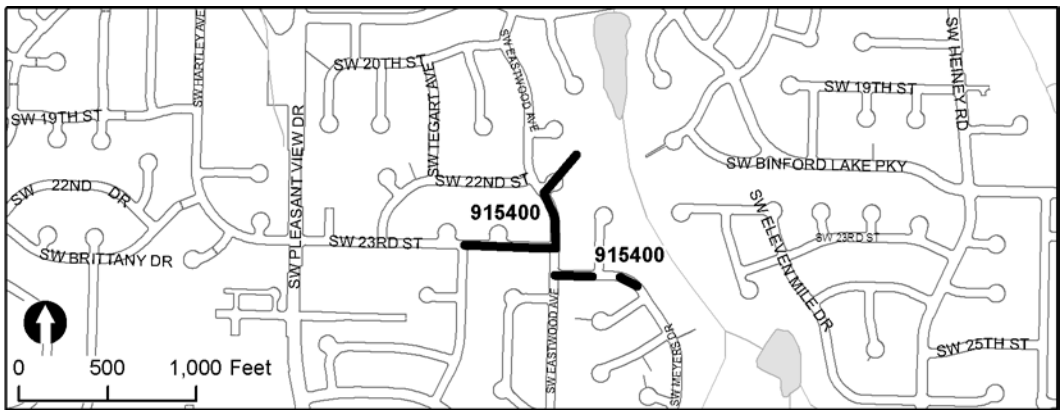
Funds	Description	Total
Resources	Operating	434,390
	SDC	434,390
Resources Total		**868,780**
Expenses	Design/Const Admin	175,867
	Construction	586,221
	Admin (14%)	106,692
Expenses Total		**868,780**

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. (JC BCG_1)

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

Type of Project: Storm drain improvement.



Estimated Dollars:

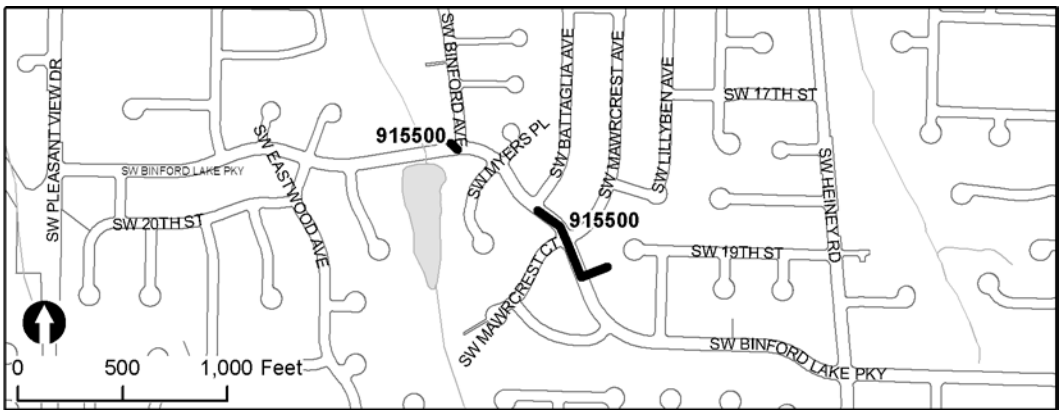
Funds	Description	Total
Resources	Operating	154,550
	SDC	154,550
Resources Total		**309,100**
Expenses	Design/Const Admin	62,571
	Construction	208,569
	Admin (14%)	37,960
Expenses Total		**309,100**

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. (JC-BCG-2)

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

Type of Project: Storm drain improvement.



Estimated Dollars:

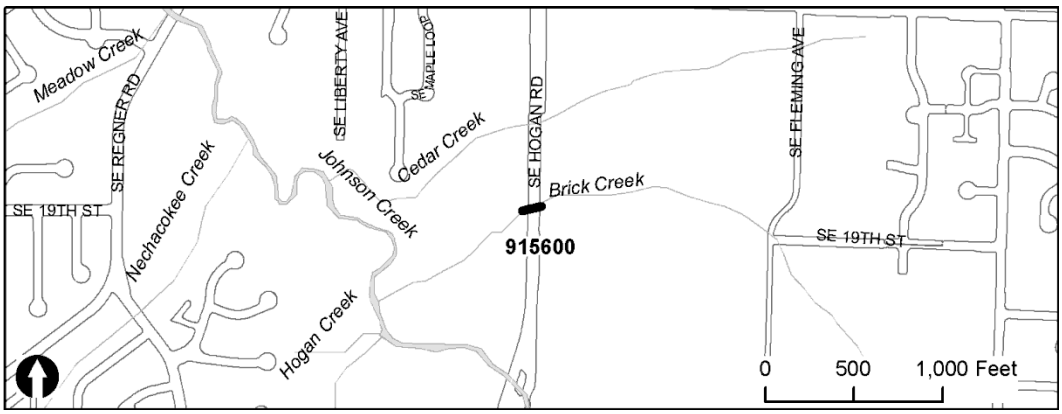
Funds	Description	Total
Resources	Operating	70,110
	SDC	72,972
Resources Total		**143,082**
Expenses	Design/Const Admin	28,964
	Construction	96,547
	Admin (14%)	17,571
Expenses Total		**143,082**

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. (JC BRG-1)

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

Type of Project: Culvert improvement.



Estimated Dollars:

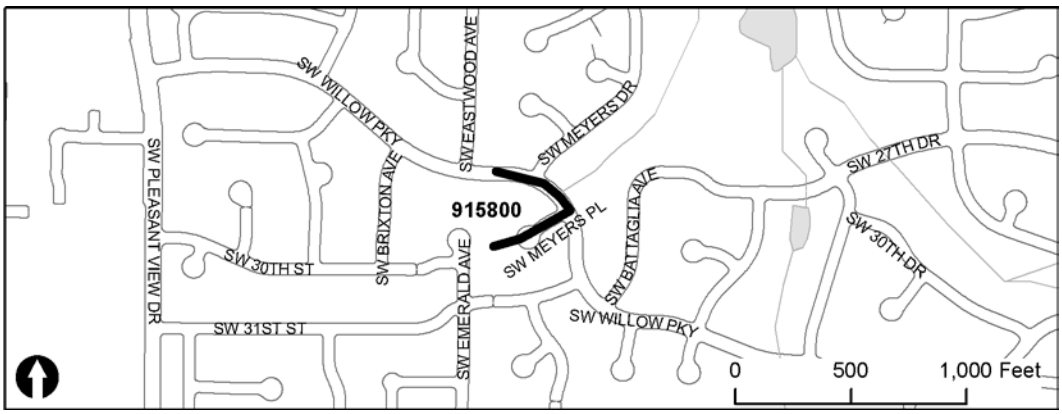
Funds	Description	Total
Resources	Operating	17,720
	SDC	50,433
Resources Total		**68,153**
Expenses	Design/Const Admin	13,796
	Construction	45,987
	Admin (14%)	8,370
Expenses Total		**68,153**

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. (JC BWG-3)

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

Type of Project: Storm drain improvement.



Estimated Dollars:

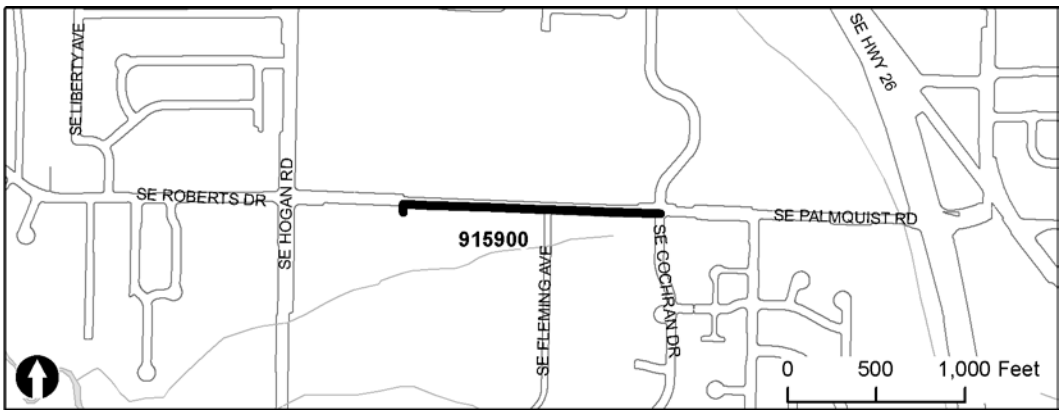
Funds	Description	Total
Resources	Operating	103,887
	SDC	103,887
Resources Total		**207,774**
Expenses	Design/Const Admin	42,060
	Construction	140,198
	Admin (14%)	25,516
Expenses Total		**207,774**

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. (JC CCG-1)

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

Type of Project: Storm drain improvement.



Estimated Dollars:

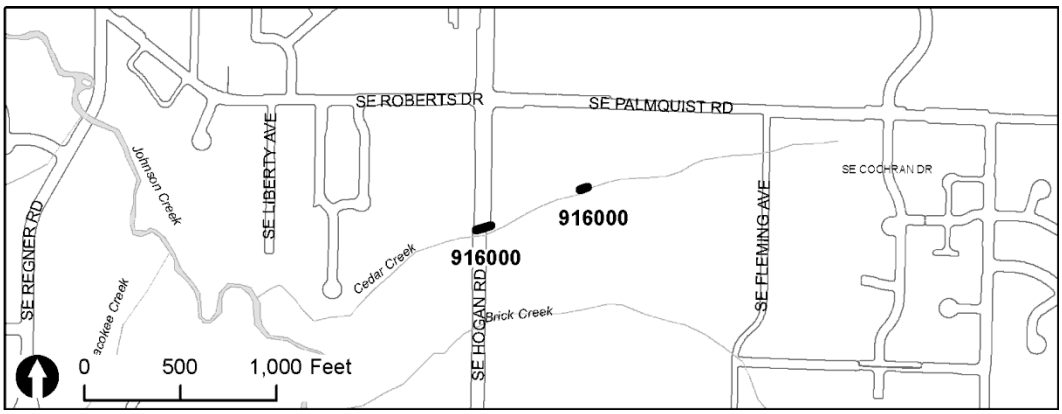
Funds	Description	Total
Resources	Operating	190,871
	SDC	242,927
Resources Total		**433,798**
Expenses	Design/Const Admin	87,813
	Construction	292,711
	Admin (14%)	53,274
Expenses Total		**433,798**

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. (JC CCG-2)

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

Type of Project: Culvert improvement.



Estimated Dollars:

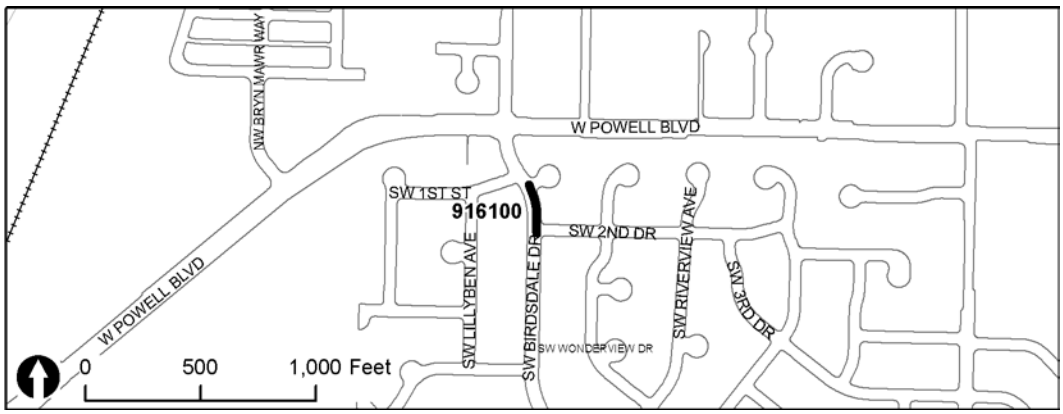
Funds	Description	Total
Resources	Operating	29,783
	SDC	63,288
Resources Total		**93,071**
Expenses	Design/Const Admin	18,840
	Construction	62,801
	Admin (14%)	11,430
Expenses Total		**93,071**

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. (JC MAG-1)

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

Type of Project: Storm drain improvement.



Estimated Dollars:

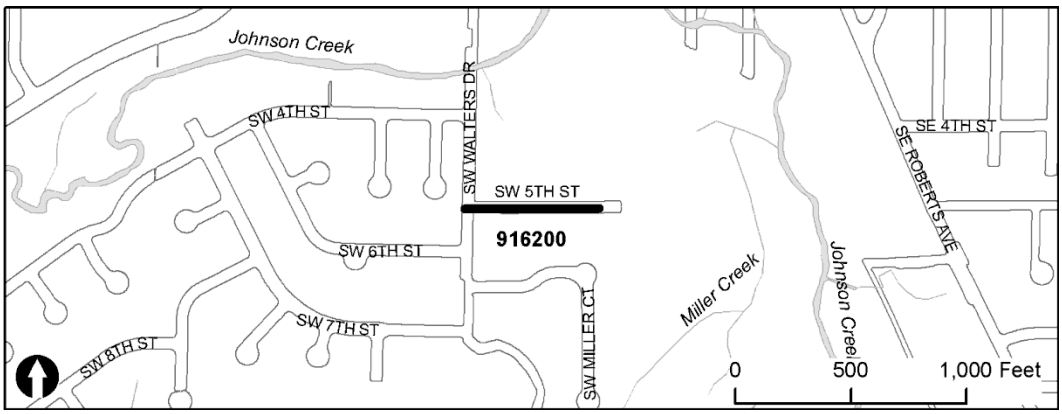
Funds	Description	Total
Resources	Operating	29,770
	SDC	30,986
Resources Total		**60,756**
Expenses	Design/Const Admin	12,299
	Construction	40,996
	Admin (14%)	7,461
Expenses Total		**60,756**

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. (JC MEG-1)

Justification: Eliminates surcharging in the storm drain system.

Type of Project: Storm drain improvement.



Estimated Dollars:

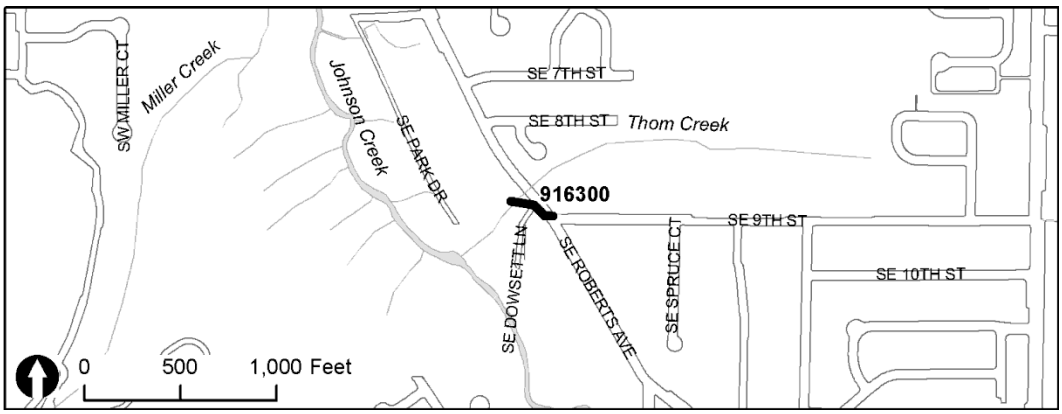
Funds	Description	Total
Resources	Operating	85,180
	SDC	47,914
Resources Total		**133,094**
Expenses	Design/Const Admin	26,942
	Construction	89,807
	Admin (14%)	16,345
Expenses Total		**133,094**

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 (JC-MOG-1)

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

Type of Project: Storm drain improvement.



Estimated Dollars:

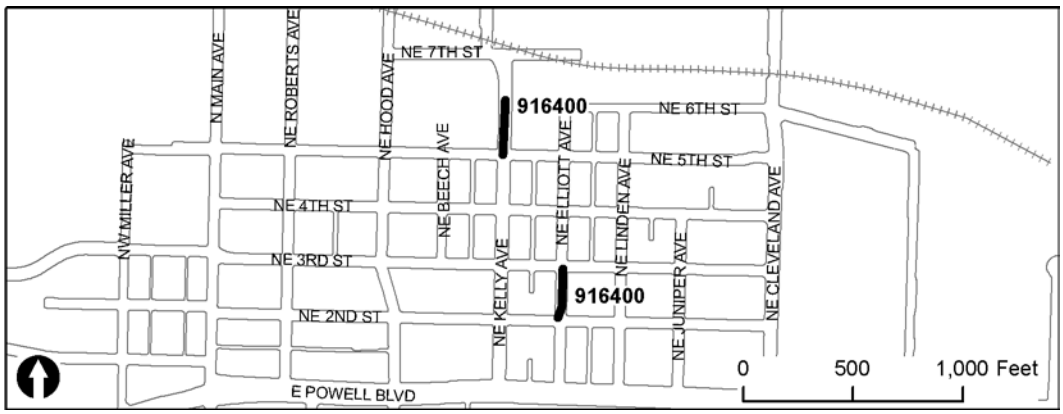
Funds	Description	Total
Resources	Operating	38,087
	SDC	38,087
Resources Total		**76,174**
Expenses	Design/Const Admin	15,420
	Construction	51,399
	Admin (14%)	9,355
Expenses Total		**76,174**

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 (JC PEG-2)

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

Type of Project: Storm drain improvement.



Estimated Dollars:

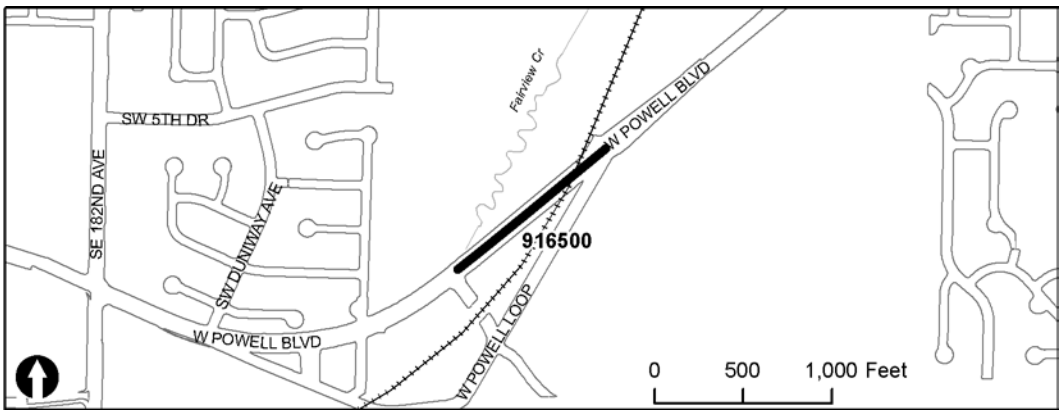
Funds	Description	Total
Resources	Operating	18,558
	SDC	97,428
Resources Total		**115,986**
Expenses	Design/Const Admin	23,479
	Construction	78,263
	Admin (14%)	14,244
Expenses Total		**115,986**

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. (JC PLG-1)

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

Type of Project: Storm drain improvement.



Estimated Dollars:

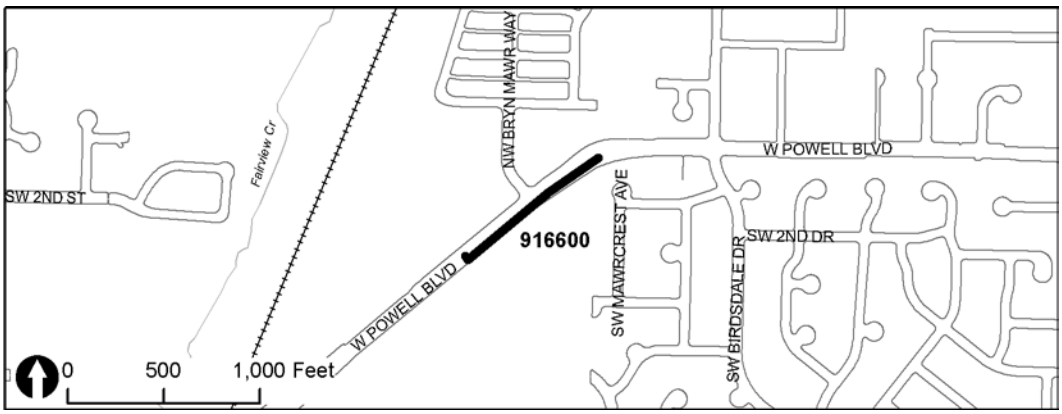
Funds	Description	Total
Resources	Operating	103,346
	SDC	183,727
Resources Total		**287,073**
Expenses	Design/Const Admin	58,112
	Construction	193,707
	Admin (14%)	35,254
Expenses Total		**287,073**

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. (JC PLG-2)

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

Type of Project: Storm drain improvement.



Estimated Dollars:

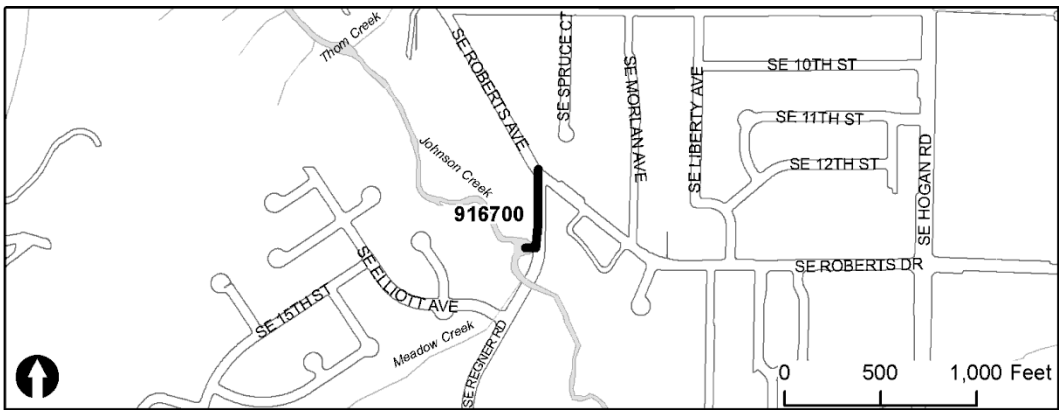
Funds	Description	Total
Resources	Operating	102,160
	SDC	106,330
Resources Total		**208,490**
Expenses	Design/Const Admin	42,204
	Construction	140,682
	Admin (14%)	25,604
Expenses Total		**208,490**

916700: Powell Loop – Group 2 – 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 (JC RBG-1)

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

Type of Project: Storm drain improvement.



Estimated Dollars:

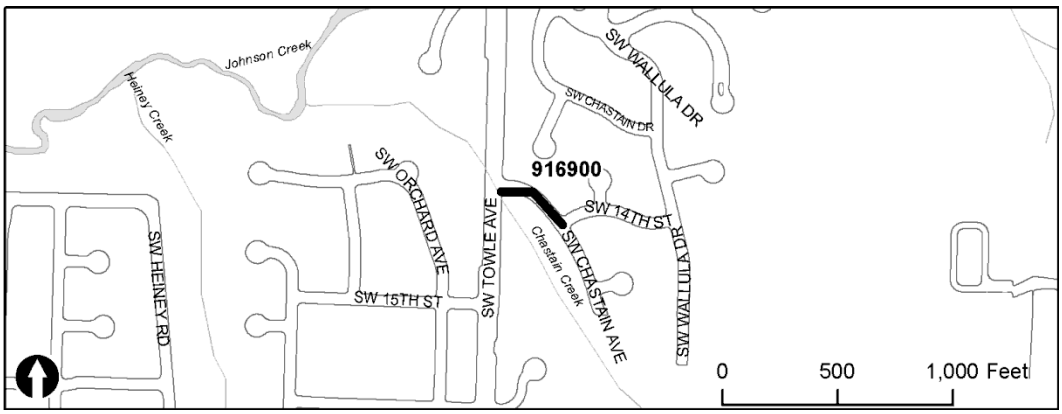
Funds	Description	Total
Resources	Operating	102,294
	SDC	102,294
Resources Total		**204,588**
Expenses	Design/Const Admin	41,415
	Construction	138,049
	Admin (14%)	25,124
Expenses Total		**204,588**

916900: Powell Loop – Group 2 – 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. (JC TEG-1)

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

Type of Project: Storm drain improvement.



Estimated Dollars:

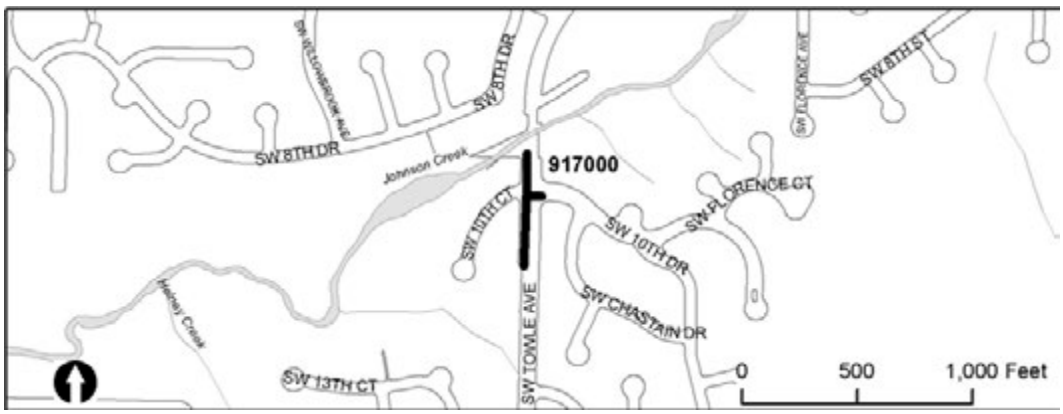
Funds	Description	Total
Resources	Operating	54,807
	SDC	36,538
Resources Total		**91,345**
Expenses	Design/Const Admin	18,491
	Construction	61,636
	Admin (14%)	11,218
Expenses Total		**91,345**

917000: Powell Loop – 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. (JC TEG-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	199,914
	SDC	77,744
Resources Total		**277,658**
Expenses	Design/Const Admin	56,206
	Construction	187,354
	Admin (14%)	34,098
Expenses Total		**277,658**

917100: Powell Loop – Group 2 – 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. (JC TSG-1)

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

Type of Project: Storm drain improvement.

Estimated Dollars:

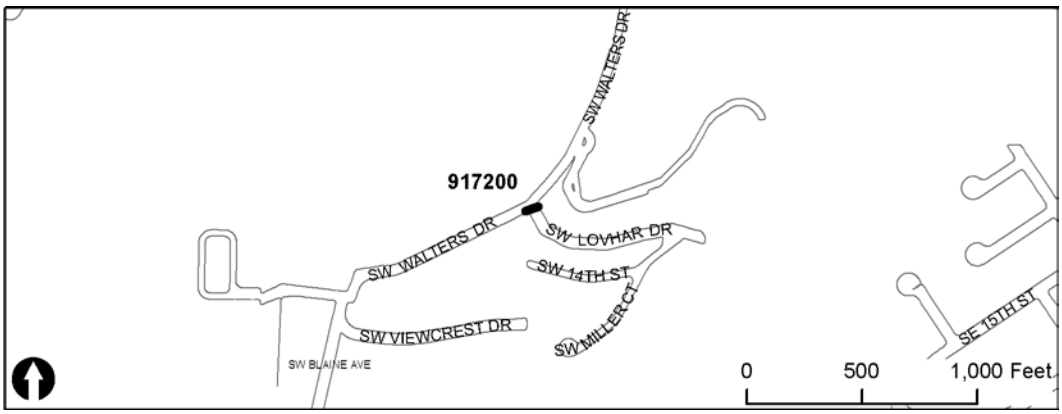
Funds	Description	Total
Resources	Operating	55,621
	SDC	62,721
Resources Total		**118,342**
Expenses	Design/Const Admin	23,956
	Construction	79,852
	Admin (14%)	14,534
Expenses Total		**118,342**

917200: Powell Loop – Group 2 – Pipe 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. (WAG-1)

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

Type of Project: Storm drain improvement.



Estimated Dollars:

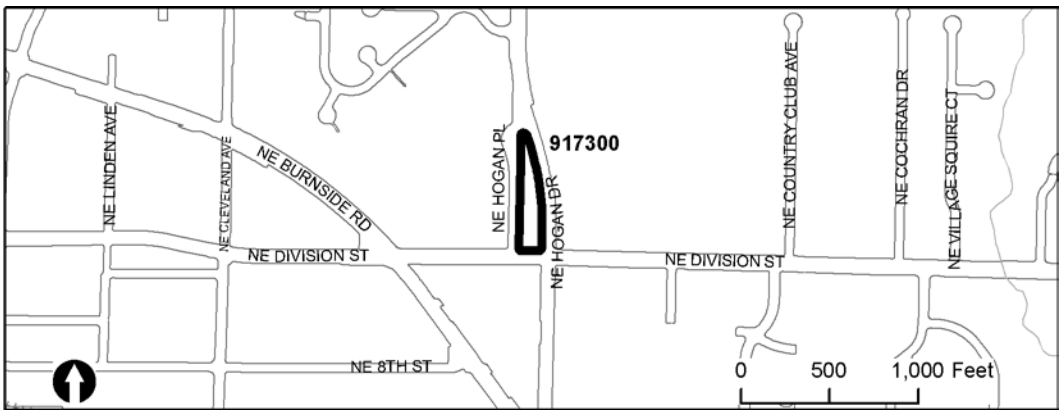
Funds	Description	Total
Resources	Operating	27,653
	SDC	17,680
Resources Total		**45,333**
Expenses	Design/Const Admin	9,177
	Construction	30,589
	Admin (14%)	5,567
Expenses Total		**45,333**

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:

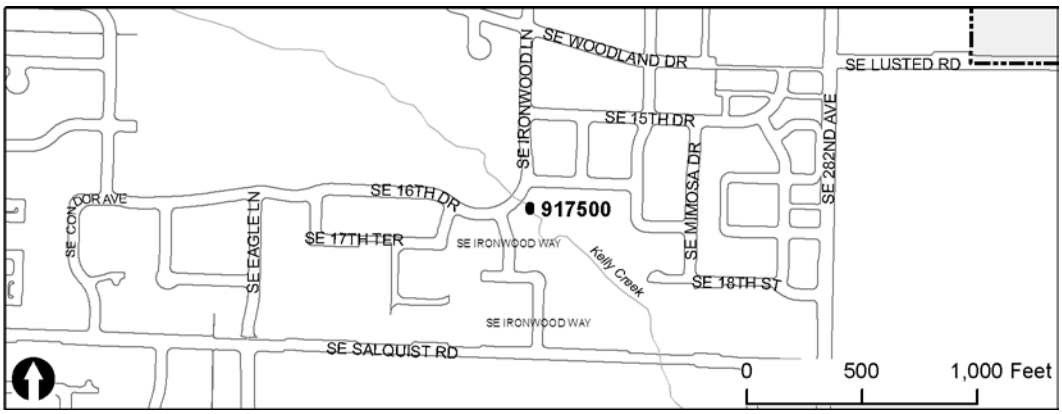
Funds	Description	Total
Resources	Operating	783,938
Resources Total		**783,938**
Expenses	Design/Const Admin	138,370
	Property Acq	65,000
	Construction	461,233
	Other	23,062
	Admin (14%)	96,273
Expenses Total		**783,938**

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. (KC-7)

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

Type of Project: Culvert / channel improvement.



Estimated Dollars:

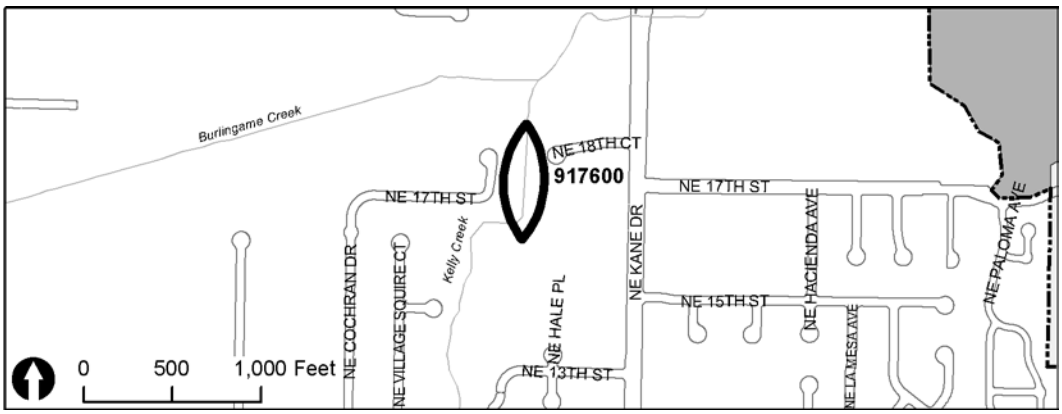
Funds	Description	Total
Resources	Operating	24,201
	SDC	17,525
Resources Total		**41,725**
Expenses	Design/Const Admin	8,133
	Construction	27,112
	Other	1,356
	Admin (14%)	5,124
Expenses Total		**41,725**

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). (KCN-1)

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:

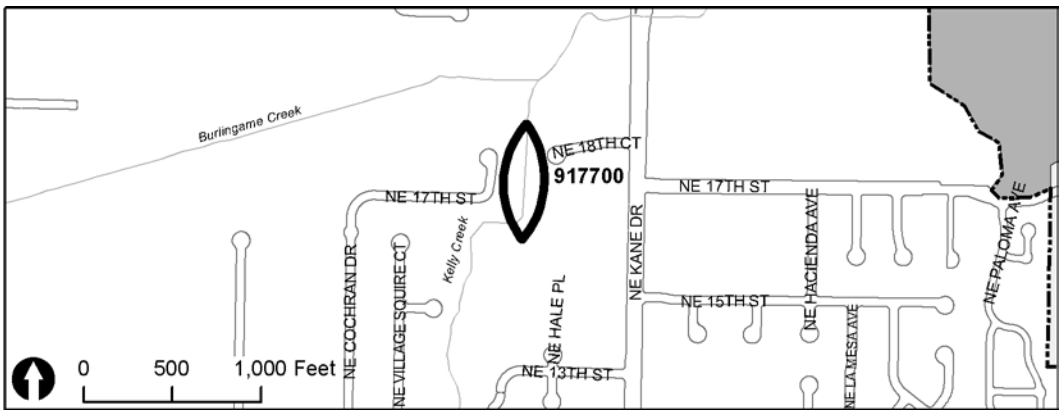
Funds	Description	Total
Resources	Operating	132,904
	SDC	25,315
Resources Total		**158,219**
Expenses	Design/Const Admin	6,812
	Property Acq	107,000
	Construction	22,706
	Other	2,271
	Admin (14%)	19,430
Expenses Total		**158,219**

917700: NE 17th St. Concrete Flume Removal

Description: Remove instream concrete fume-like structure: Re-establish channel geometry and multi-story vegetated riparian community. Obtain necessary authorization(s) for in-stream work from regulatory agencies (i.e., US Army Corp of Engineers, Oregon Department of State Lands). (KCN-2)

Justification: The concrete flume-like structure eliminated approximately 100 linear feet of natural channel and has adversely affected upstream and downstream channel integrity for undetermined distances. It appears the structure was constructed for flow control and/or flood attenuation. Currently, base and seasonally low flows fall beneath the horizontal concrete floor and reemerge at the structure's downstream terminus, while winter and storm event flows are adversely increased by the flume's geometry. This project could be implemented in conjunction with the proposed NE Hale Place project directly downstream to maximize cost efficiencies.

Type of Project: Channel geometry and riparian vegetation corridor re-establishment.



Estimated Dollars:

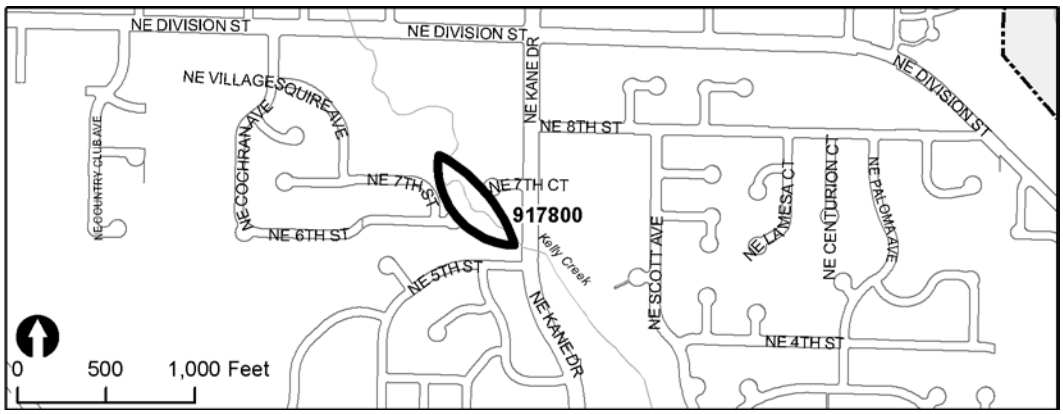
Funds	Description	Total
Resources	Operating	261,986
	SDC	49,902
Resources Total		**311,888**
Expenses	Design/Const Admin	15,768
	Property Acq	200,000
	Construction	52,562
	Other	5,256
	Admin (14%)	38,302
Expenses Total		**311,888**

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). (KCN-5)

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:

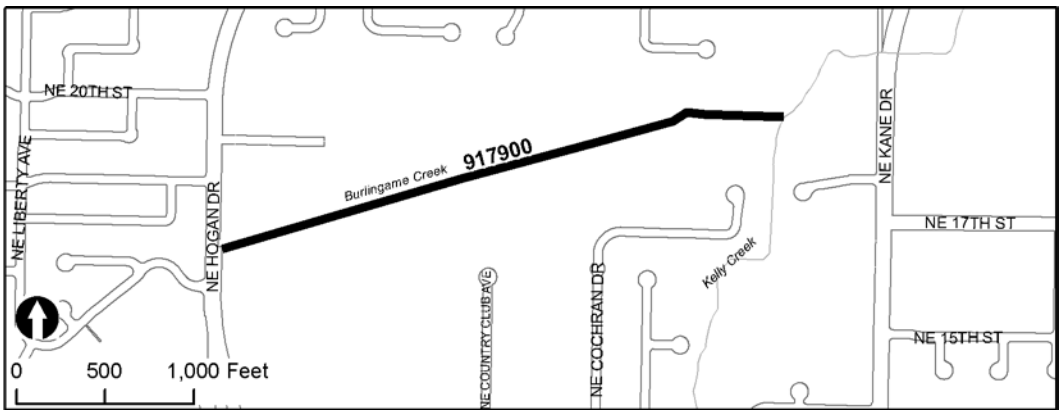
Funds	Description	Total
Resources	Operating	107,665
	SDC	22,052
Resources Total		**129,717**
Expenses	Design/Const Admin	24,383
	Construction	81,276
	Other	8,128
	Admin (14%)	15,930
Expenses Total		**129,717**

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. Additional, 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**

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**

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. (KC-3)

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	120,133
	SDC	5,006
Resources Total		**125,139**
Expenses	Design/Const Admin	24,393
	Construction	81,312
	Other	4,066
	Admin (14%)	15,368
Expenses Total		**125,139**

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:

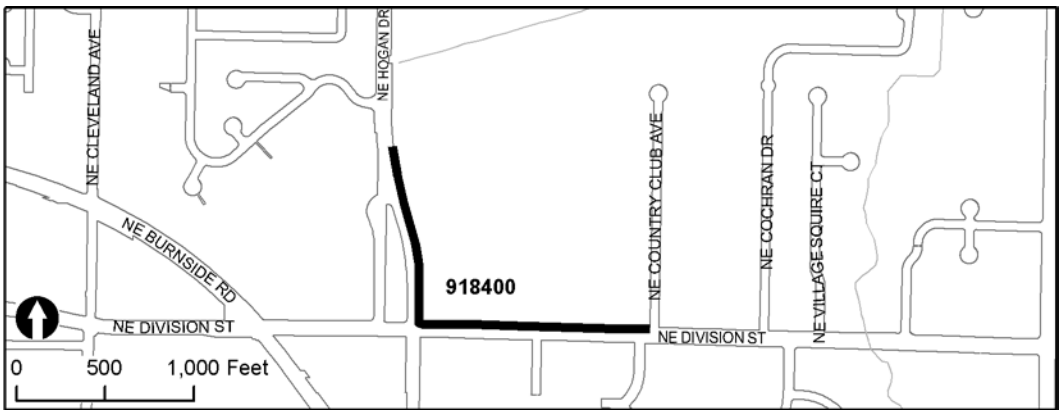
Funds	Description	Total
Resources	Operating	151,597
Resources Total		**151,597**
Expenses	Design/Const Admin	29,551
	Construction	98,504
	Other	4,925
	Admin (14%)	18,617
Expenses Total		**151,597**

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:

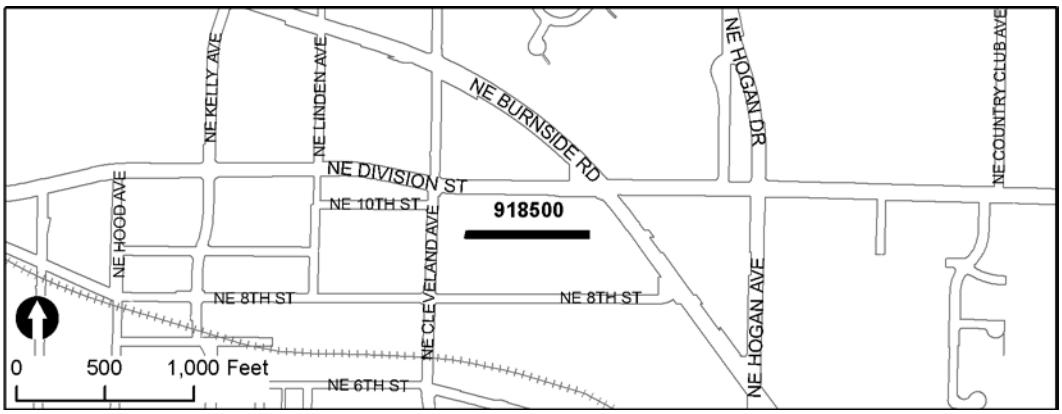
Funds	Description	Total
Resources	Operating	750,387
Resources Total		**750,387**
Expenses	Design/Const Admin	146,274
	Construction	487,581
	Other	24,379
	Admin (14%)	92,153
Expenses Total		**750,387**

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. (KC-8)

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:

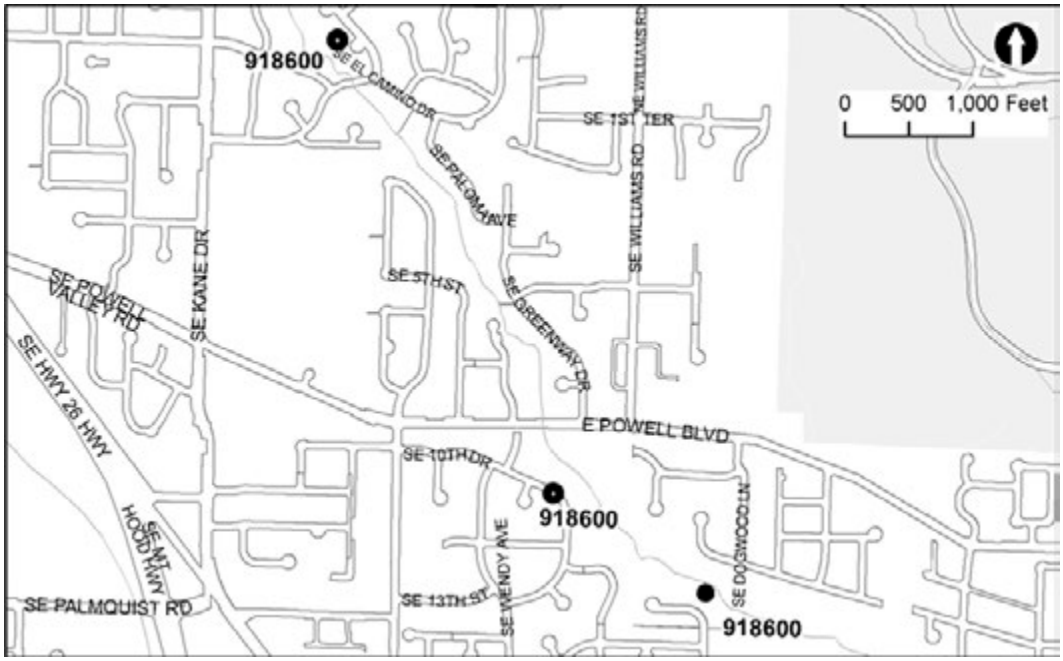
Funds	Description	Total
Resources	Operating	301,742
	SDC	15,881
Resources Total		**317,623**
Expenses	Design/Const Admin	61,915
	Construction	206,383
	Other	10,319
	Admin (14%)	39,006
Expenses Total		**317,623**

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 (KC-9)

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	105,736
	SDC	2,158
Resources Total		**107,894**
Expenses	Design/Const Admin	21,032
	Construction	70,107
	Other	3,505
	Admin (14%)	13,250
Expenses Total		**107,894**

918700: NE Division Street

Description: Remove invasive species and replace with native riparian vegetation, reestablish bank and channel. (KCN-3A & KCN-3B)

Justification: Improve habitat quality, bank stability, aesthetics, increase channel capacity.

Type of Project: Invasive species removal.

Estimated Dollars:

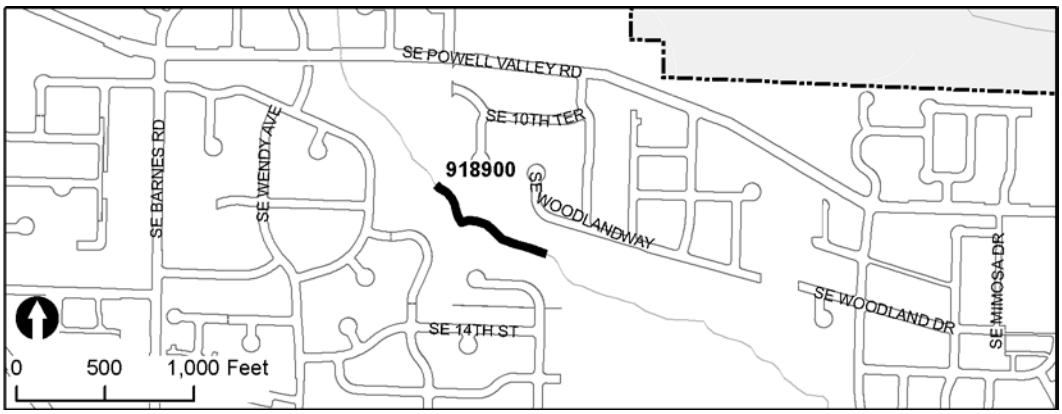
Funds	Description	Total
Resources	Operating	42,002
	SDC	8,000
Resources Total		**50,002**
Expenses	Design/Const Admin	8,276
	Property Acq	8,000
	Construction	27,585
	Admin (14%)	6,141
Expenses Total		**50,002**

918900: Dogwood Lane (SE Acacia Pl.)

Description: Remove invasive species and replace with native riparian vegetation. (KCN-3C)

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

Type of Project: Invasive species removal.



Estimated Dollars:

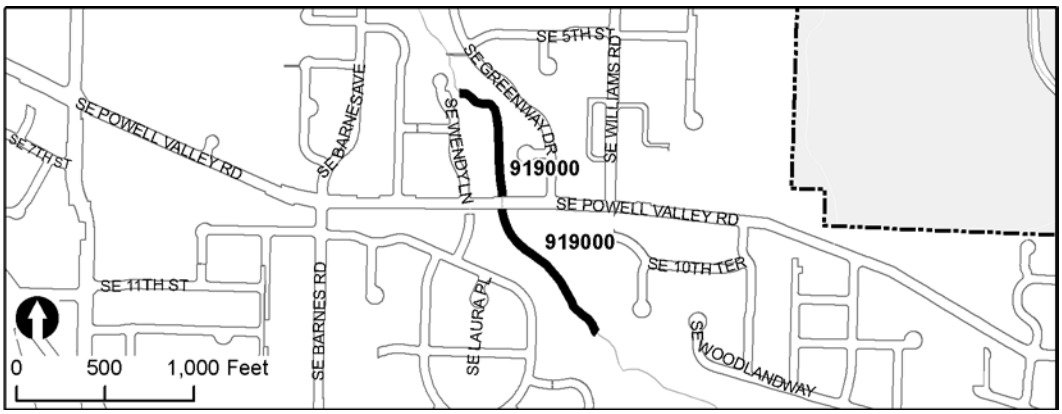
Funds	Description	Total
Resources	Operating	34,413
	SDC	9,706
Resources Total		**44,119**
Expenses	Design/Const Admin	8,931
	Construction	29,770
	Admin (14%)	5,418
Expenses Total		**44,119**

919000: SE Powell Valley Road

Description: Remove invasive species and replace with native riparian vegetation. (KCN-3D)

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

Type of Project: Invasive species removal.



Estimated Dollars:

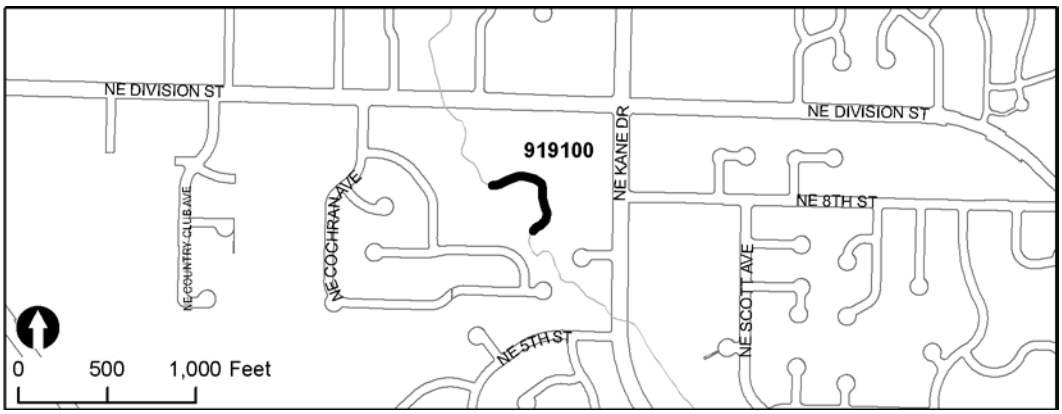
Funds	Description	Total
Resources	Operating	33,543
	SDC	12,406
Resources Total		**45,949**
Expenses	Design/Const Admin	9,302
	Construction	31,004
	Admin (14%)	5,643
Expenses Total		**45,949**

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.

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

Type of Project: Stream corridor enhancement.



Estimated Dollars:

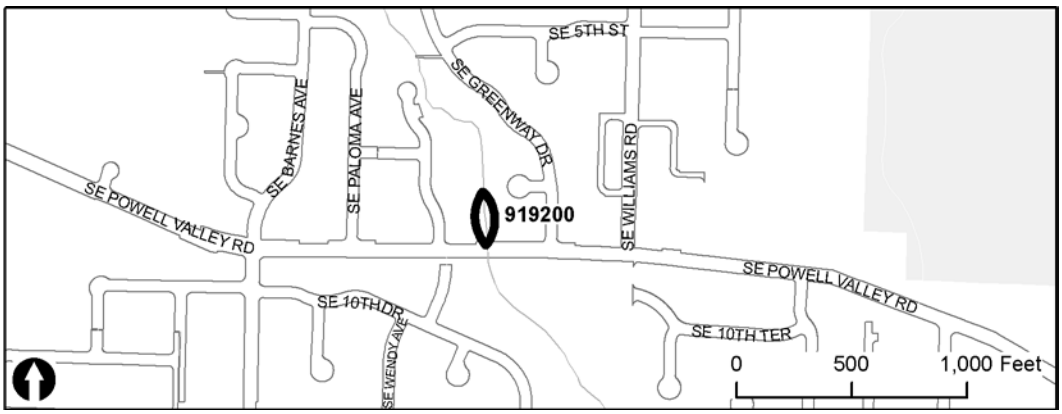
Funds	Description	Total
Resources	Operating	503,644
Resources Total		**503,644**
Expenses	Design/Const Admin	51,813
	Property Acq	200,000
	Construction	172,709
	Other	17,271
	Admin (14%)	61,851
Expenses Total		**503,644**

919200: Powell Valley Pools

Description: Reconstruct natural channel morphology. (KCN-6)

Justification: Uncharacteristic scour pools have formed immediately downstream of Powell Valley Road.

Type of Project: Stream corridor enhancement.



Estimated Dollars:

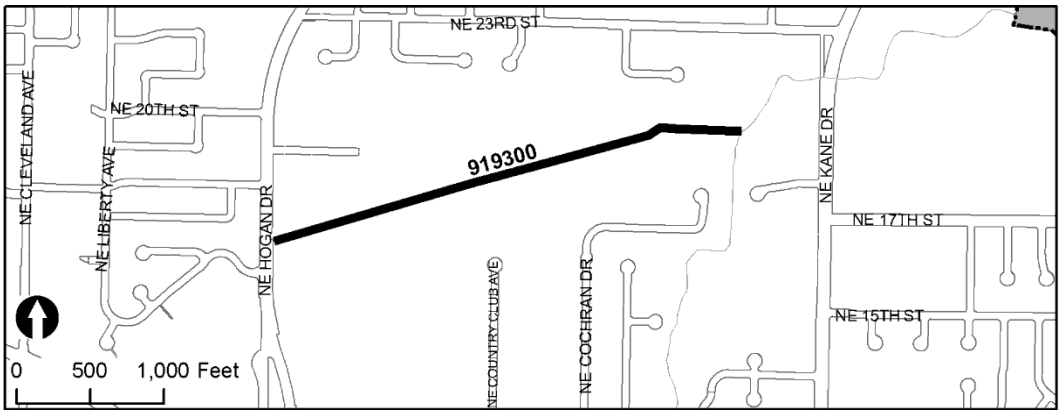
Funds	Description	Total
Resources	Operating	108,959
	SDC	40,300
Resources Total		**149,259**
Expenses	Design/Const Admin	23,771
	Property Acq	20,000
	Construction	79,234
	Other	7,924
	Admin (14%)	18,330
Expenses Total		**149,259**

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:

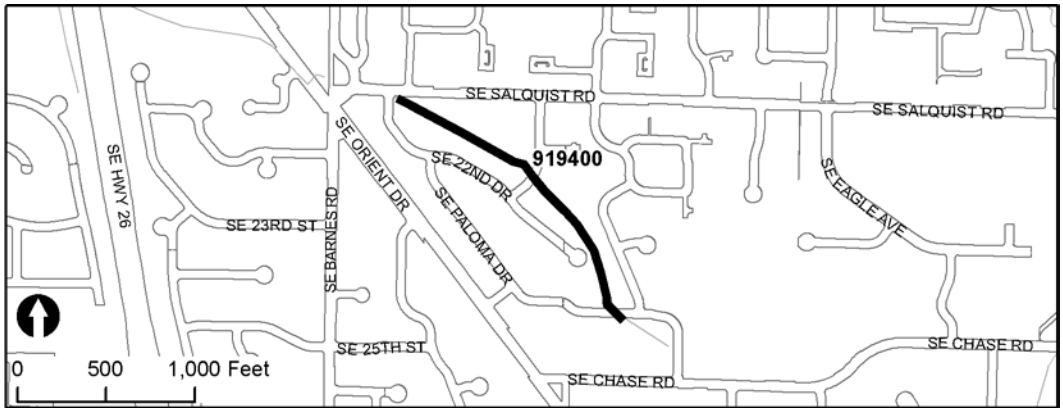
Funds	Description	Total
Resources	Operating	557,374
Resources Total		**557,374**
Expenses	Design/Const Admin	40,484
	Property Acq	300,000
	Construction	134,946
	Other	13,495
	Admin (14%)	68,449
Expenses Total		**557,374**

919400: SE 24th Street to SE Salquist Road

Description: Regrade the existing channel to emphasize flood protection and bank stability. (KCN-9).

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	282,136
Resources Total		**282,136**
Expenses	Design/Const Admin	43,390
	Property Acq	45,000
	Construction	144,635
	Other	14,463
	Admin (14%)	34,648
Expenses Total		**282,136**

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:

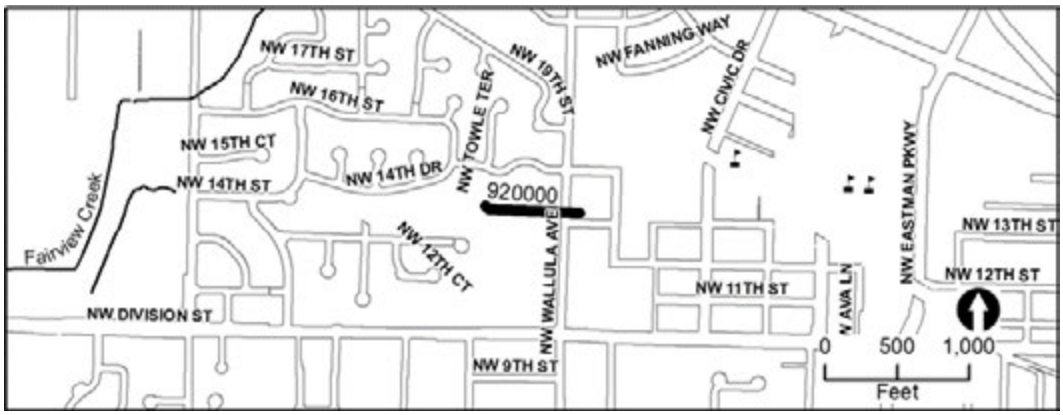
Funds	Description	Total
Resources	Operating	179,556
Resources Total		**179,556**
Expenses	Design/Const Admin	47,618
	Construction	109,887
	Admin (14%)	22,051
Expenses Total		**179,556**

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.

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	636,410
	SDC	117,854
Resources Total		**754,264**
Expenses	Design/Const Admin	147,030
	Construction	514,605
	Admin (14%)	92,629
Expenses Total		**754,264**

920100: 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.

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	218,476
	SDC	145,651
Resources Total		**364,127**
Expenses	Design/Const Admin	70,980
	Construction	248,430
	Admin (14%)	44,717
Expenses Total		**364,127**

920200: Segment 3A, Fairview Creek Basin Central Core Trunk Improvement

Description: Installation of the third new pipe parallel to existing 54-inch pipe on the north side of NW 15th Street and the west side of future Sleret Drive, from manhole 3252-F-020 to manhole 3252-F-029. Amended Fairview Creek Drainage Master Plan recommends new parallel 42-inch pipe.

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	338,518
	SDC	225,679
Resources Total		**564,197**
Expenses	Design/Const Admin	109,980
	Construction	384,930
	Admin (14%)	69,287
Expenses Total		**564,197**

920300: Segment 3B Fairview Creek Basin Central Core Trunk Improvement

Description: Installation of the 4th new pipe parallel to existing 54-inch pipe on the south side from manhole 3252-F-029 to manhole 3252-F-025. Amended Fairview Creek Drainage Master Plan recommends new parallel 42-inch pipe.

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	373,331
	SDC	248,887
Resources Total		**622,218**
Expenses	Design/Const Admin	121,290
	Construction	424,515
	Admin (14%)	76,413
Expenses Total		**622,218**

920400: Segment 3C, Fairview Creek Basin Central Core Trunk Improvement

Description: Installation of the fifth new pipe parallel to existing 54-inch pipe on the southeast side from manhole 3252-F-025 to manhole 3252-F-026. Amended Fairview Creek Drainage Master Plan recommends new parallel 42-inch pipe.

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	202,984
	SDC	135,323
Resources Total		**338,307**
Expenses	Design/Const Admin	59,280
	Property Acq	30,000
	Construction	207,480
	Admin (14%)	41,547
Expenses Total		**338,307**

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.

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	613,385
	SDC	408,923
Resources Total		**1,022,308**
Expenses	Design/Const Admin	194,610
	Property Acq	25,000
	Construction	681,135
	Admin (14%)	121,563
Expenses Total		**1,022,308**