Funded Projects

Overview

The Wastewater Services Capital Improvement Program (CIP) provides for the planning, design and construction of improvements to the City's wastewater collection, conveyance and treatment (WWTP) systems. The CIP is essential to help provide Gresham customers sustainable, reliable and affordable wastewater collection, conveyance and treatment services that are protective of the environment and public health. In addition, while preserving the existing infrastructure investment, the CIP provides capacity for future growth, as a catalyst for the economic viability of the community.

Highlights

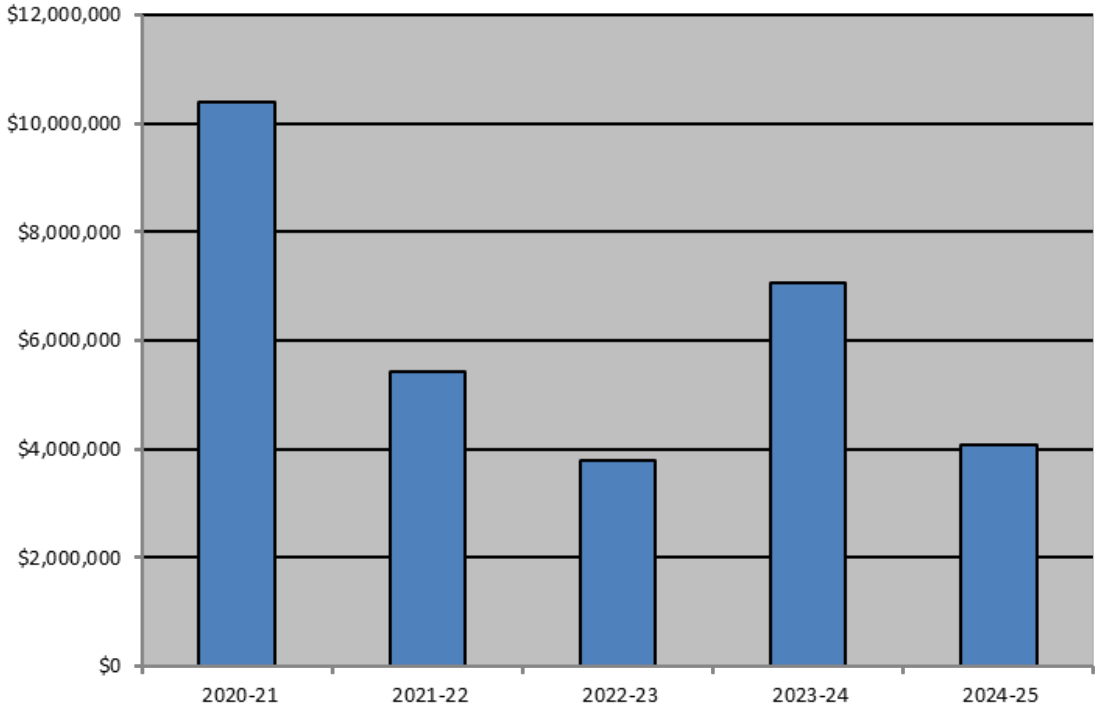
Key projects within the current CIP include:

1. Unanticipated (#CIPWW00006) and planned (#CIPWW00007) repair and replacement projects for the collection system;
2. Unanticipated (#CIPWW00002) and planned (#CIPWW00005) repair and replacement projects for the treatment plant;
3. Collection system projects #CIPWW00008 – East Basin Trunk Upgrade Phase III and #CIPWW00026 – Lower Kelly Creek Trunk Upgrade will provide for additional capacity and growth in the Springwater area;
4. Treatment plant projects for the refurbishment and replacement of aging equipment (#CIPWW00021 - WWTP Upper Barscreens Replacement, #CIPWW00028 – WWTP Gravity Belt Thickener Refurbishment), as well as, for system and processing improvements (#CIPWW00020 - WWTP FOG Screening Improvements, #CIPWW00021 – WWTP Control System Improvements, #CIPWW00031 – WWTP Secondary Digester Improvements);

5. Pending successful award of a FEMA grant, seismic upgrades to a sewer line crossing over Johnson Creek (#CIPWW00023 – Overhead Johnson Creek Crossing Seismic).

These projects will help address many ongoing and future operational and maintenance concerns as well as provide system capacity for growth.

Wastewater Expenditure Graph by Fiscal Year



Wastewater Funded Summary

Project	Project Name	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
CIPWW00001	I & I Control Program	729,568	375,111	386,364	397,955	411,088	424,651	2,724,737
CIPWW00002	WWTP Maintenance Project	737,287	442,302	455,571	469,200	483,276	502,607	3,090,243
CIPWW00004	WWTP Solids Process Improvements	973,194	0	0	0	0	0	973,194
CIPWW00005	WWTP Asset Replacement and Refurbishment (R&R) Pro	1,613,422	895,585	922,453	950,126	978,630	1,017,775	6,377,991
CIPWW00006	Collection System Asset Refurbishment and Replacemen	867,953	657,982	677,721	698,059	721,095	744,891	4,367,701
CIPWW00007	1950's Failing Pipe Rehabilitation/Maint. Program	3,195,392	1,092,727	1,125,509	1,159,274	1,197,530	1,237,048	9,007,480
CIPWW00008	East Basin Trunk Upgrade Phase III	1,838,401	94,850	0	0	0	0	1,933,251
CIPWW00010	Kelley Creek Trunk Easements	71,717	74,084	0	0	0	0	145,801
CIPWW00011	Biological Biogas Treatment System	546,417	250,000	0	0	0	0	796,417
CIPWW00013	Wastewater Mainline Extension	502,094	518,663	0	0	0	0	1,020,757
CIPWW00014	Wastewater Collections System Master Plan	227,185	0	0	0	0	0	227,185
CIPWW00016	WWTP Primary Clarifier 1 and 2 Refurbishment	849,492	0	0	0	0	0	849,492
CIPWW00018	WWTP Upper Plant Nitrification Improvements	0	355,680	0	0	0	0	355,680
CIPWW00020	WWTP FOG Screening Improvements	928,175	500,800	0	0	0	0	1,428,975
CIPWW00021	WWTP Upper Barscreens Replacement	920,000	214,000	0	0	0	0	1,134,000
CIPWW00022	WWTP Control System Improvements	360,000	342,000	0	0	0	0	702,000
CIPWW00023	Overhead Johnson Creek Crossing Seismic	0	848,816	0	0	0	0	848,816
CIPWW00024	WWTP Organics Digestion Capacity Evaluation	240,000	0	0	0	0	0	240,000
CIPWW00025	WWTP Outfall Diffuser Improvements	0	391,248	0	0	0	0	391,248
CIPWW00026	Lower Kelly Creek Trunk Upgrade	0	2,185,239	0	0	0	0	2,185,239
CIPWW00027	Linneman Pump Station Parallel Force Main, Phase 2	0	0	0	0	3,131,198	0	3,131,198
CIPWW00028	WWTP Gravity Belt Thickener Refurbishment	0	820,800	342,000	0	0	0	1,162,800
CIPWW00029	WWTP Upper Plant Blower Addition	0	0	706,800	0	0	0	706,800
CIPWW00030	WWTP Earthquake Resiliency Projects	0	120,000	124,800	129,792	134,984	140,383	649,959
CIPWW00031	WWTP Secondary Digester Improvements	0	228,000	684,000	0	0	0	912,000
Grand Total		**14,600,297**	**10,407,887**	**5,425,218**	**3,804,406**	**7,057,801**	**4,067,355**	**45,362,964**

Wastewater Funded Summary by Resource							
Description	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**Total**
Other	0	250,000	0	0	0	0	250,000
Debt-SDC	578,006	100,206	0	0	0	0	678,212
Grant	0	636,612	0	0	0	0	636,612
Operating	4,505,551	4,234,543	1,901,964	527,747	546,072	565,034	12,280,911
Repair/Replacement Reserves	9,516,740	4,465,396	3,523,254	3,276,659	3,380,531	3,502,321	27,664,901
SDC	0	721,130	0	0	3,131,198	0	3,852,328
Grand Total	**14,600,297**	**10,407,887**	**5,425,218**	**3,804,406**	**7,057,801**	**4,067,355**	**45,362,964**

WASTEWATER FUNDED SUMMARY - BY RESOURCE

Wastewater Funded Resource Detail									
Project	Project Name	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
CIPWW00001	I & I Control Program	Operating	729,568	375,111	386,364	397,955	411,088	424,651	2,724,737
CIPWW00001 Total			729,568	375,111	386,364	397,955	411,088	424,651	2,724,737
CIPWW00002	WWTP Maintenance Project	Repair/Replace	737,287	442,302	455,571	469,200	483,276	502,607	3,090,243
CIPWW00002 Total			737,287	442,302	455,571	469,200	483,276	502,607	3,090,243
CIPWW00004	WWTP Solids Process Improvements	Repair/Replace	973,194	0	0	0	0	0	973,194
CIPWW00004 Total			973,194	0	0	0	0	0	973,194
CIPWW00005	WWTP Asset Replacement and Refurbishment (R&R) P	Repair/Replace	1,613,422	895,585	922,453	950,126	978,630	1,017,775	6,377,991
CIPWW00005 Total			1,613,422	895,585	922,453	950,126	978,630	1,017,775	6,377,991
CIPWW00006	Collection System Asset Refurbishment and Replaceme	Repair/Replace	867,953	657,982	677,721	698,059	721,095	744,891	4,367,701
CIPWW00006 Total			867,953	657,982	677,721	698,059	721,095	744,891	4,367,701
CIPWW00007	1950's Failing Pipe Rehabilitation/Maint. Program	Repair/Replace	3,195,392	1,092,727	1,125,509	1,159,274	1,197,530	1,237,048	9,007,480
CIPWW00007 Total			3,195,392	1,092,727	1,125,509	1,159,274	1,197,530	1,237,048	9,007,480
CIPWW00008	East Basin Trunk Upgrade Phase III	Debt-SDC	506,289	26,122	0	0	0	0	532,411
		Operating	1,332,112	68,728	0	0	0	0	1,400,840
CIPWW00008 Total			1,838,401	94,850	0	0	0	0	1,933,251
CIPWW00010	Kelley Creek Trunk Easements	Debt-SDC	71,717	74,084	0	0	0	0	145,801
CIPWW00010 Total			71,717	74,084	0	0	0	0	145,801
CIPWW00011	Biological Biogas Treatment System	Operating	546,417	250,000	0	0	0	0	796,417
CIPWW00011 Total			546,417	250,000	0	0	0	0	796,417
CIPWW00013	Wastewater Mainline Extension	Operating	502,094	518,663	0	0	0	0	1,020,757
CIPWW00013 Total			502,094	518,663	0	0	0	0	1,020,757
CIPWW00014	Wastewater Collections System Master Plan	Operating	227,185	0	0	0	0	0	227,185
CIPWW00014 Total			227,185	0	0	0	0	0	227,185
CIPWW00016	WWTP Primary Clarifier 1 and 2 Refurbishment	Repair/Replace	849,492	0	0	0	0	0	849,492
CIPWW00016 Total			849,492	0	0	0	0	0	849,492
CIPWW00018	WWTP Upper Plant Nitrification Improvements	Operating	0	355,680	0	0	0	0	355,680
CIPWW00018 Total			0	355,680	0	0	0	0	355,680
CIPWW00020	WWTP FOG Screening Improvements	Operating	928,175	250,800	0	0	0	0	1,178,975
		Other	0	250,000	0	0	0	0	250,000
CIPWW00020 Total			928,175	500,800	0	0	0	0	1,428,975
CIPWW00021	WWTP Upper Barscreens Replacement	Repair/Replace	920,000	214,000	0	0	0	0	1,134,000
CIPWW00021 Total			920,000	214,000	0	0	0	0	1,134,000
CIPWW00022	WWTP Control System Improvements	Repair/Replace	360,000	342,000	0	0	0	0	702,000
CIPWW00022 Total			360,000	342,000	0	0	0	0	702,000
CIPWW00023	Overhead Johnson Creek Crossing Seismic	Grant	0	636,612	0	0	0	0	636,612
		Operating	0	212,204	0	0	0	0	212,204
CIPWW00023 Total			0	848,816	0	0	0	0	848,816
CIPWW00024	WWTP Organics Digestion Capacity Evaluation	Operating	240,000	0	0	0	0	0	240,000
CIPWW00024 Total			240,000	0	0	0	0	0	240,000
CIPWW00025	WWTP Outfall Diffuser Improvements	Operating	0	391,248	0	0	0	0	391,248
CIPWW00025 Total			0	391,248	0	0	0	0	391,248

Wastewater Funded Resource Detail									
Project	Project Name	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
CIPWW00026	Lower Kelly Creek Trunk Upgrade	Operating	0	1,464,109	0	0	0	0	1,464,109
		SDC	0	721,130	0	0	0	0	721,130
CIPWW00026 Total			**0**	**2,185,239**	**0**	**0**	**0**	**0**	**2,185,239**
CIPWW00027	Linneman Pump Station Parallel Force Main, Phase 2	SDC	0	0	0	0	3,131,198	0	3,131,198
CIPWW00027 Total			**0**	**0**	**0**	**0**	**3,131,198**	**0**	**3,131,198**
CIPWW00028	WWTP Gravity Belt Thickener Refurbishment	Repair/Replace	0	820,800	342,000	0	0	0	1,162,800
CIPWW00028 Total			**0**	**820,800**	**342,000**	**0**	**0**	**0**	**1,162,800**
CIPWW00029	WWTP Upper Plant Blower Addition	Operating	0	0	706,800	0	0	0	706,800
CIPWW00029 Total			**0**	**0**	**706,800**	**0**	**0**	**0**	**706,800**
CIPWW00030	WWTP Earthquake Resiliency Projects	Operating	0	120,000	124,800	129,792	134,984	140,383	649,959
CIPWW00030 Total			**0**	**120,000**	**124,800**	**129,792**	**134,984**	**140,383**	**649,959**
CIPWW00031	WWTP Secondary Digester Improvements	Operating	0	228,000	684,000	0	0	0	912,000
CIPWW00031 Total			**0**	**228,000**	**684,000**	**0**	**0**	**0**	**912,000**
Grand Total			**14,600,297**	**10,407,887**	**5,425,218**	**3,804,406**	**7,057,801**	**4,067,355**	**45,362,964**

CIPWW00001: I & I Control Program

Description: This on-going analysis is to reduce the excessive stormwater inflow and infiltration (I&I) into the sanitary sewer system. The project includes flow monitoring, smoke and dye testing to identify illicit connections and high I&I areas, pipe repair, pressure grouting, and other methods to reduce I&I. I&I Control includes sustainability/energy conservation projects within the collection system.

Justification: The project will reduce costs to service users by reducing I&I rather than processing it thorough the treatment plant or increasing the collection system capacity. The project ensures compliance with the National Pollutant Discharge Elimination System Permit.

Type of project: Repair and rehabilitation of facilities and utilities.

City Wide Project

Estimated Dollars:

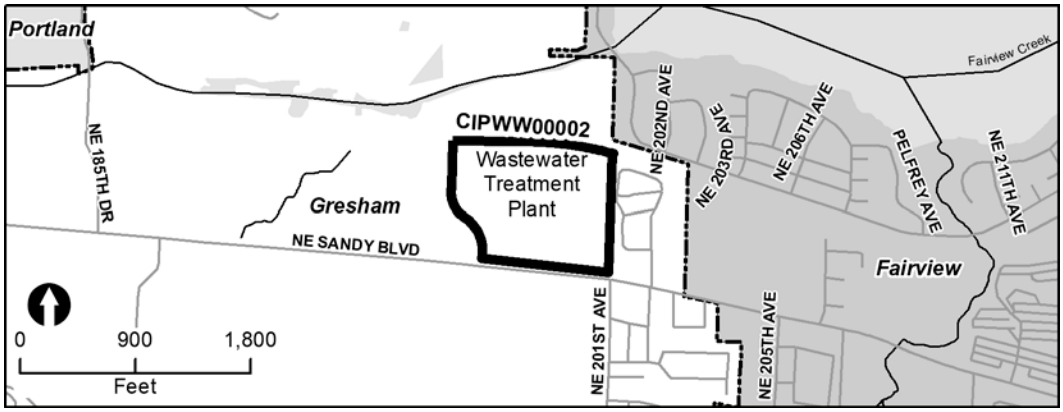
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Operating	729,568	375,111	386,364	397,955	411,088	424,651	2,724,737
Resources Total		**729,568**	**375,111**	**386,364**	**397,955**	**411,088**	**424,651**	**2,724,737**
Expenses	Design/Const Admin	124,000	63,769	65,682	67,700	69,900	72,200	463,251
	Construction	515,968	265,276	273,234	281,355	290,688	300,251	1,926,772
	Admin (14%)	89,600	46,066	47,448	48,900	50,500	52,200	334,714
Expenses Total		**729,568**	**375,111**	**386,364**	**397,955**	**411,088**	**424,651**	**2,724,737**

CIPWW00002: WWTP Maintenance Project

Description: This project funds unanticipated repair and replacement of Wastewater Treatment Plant and pump station equipment and processes that are not scheduled for replacement under the WWTP Asset R&R CIP #CIPWW00005. It includes contractual reimbursement to the WWTP contract operator for repair and replacement items over $5,000. This project also includes contractual reimbursables, such as construction related expenses and other items as required by the contract. The project is located in the North Gresham Neighborhood District.

Justification: Timely repair and replacement of the failed machinery and equipment at the WWTP and/or pump stations are critical to the overall performance of the WWTP. Asset failures can lead to loss of service and non-compliance of permits.

Type of project: Repair and rehabilitation of facilities and utilities.



Estimated Dollars:

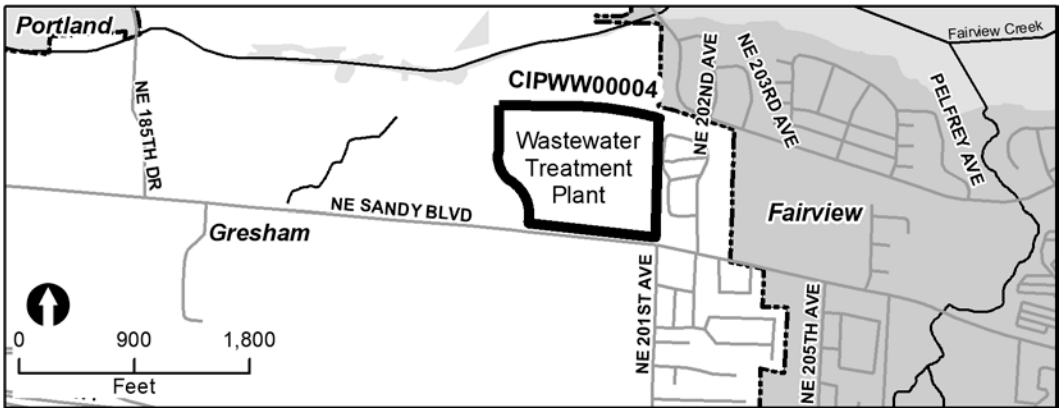
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Repair/Replacement Reserves	737,287	442,302	455,571	469,200	483,276	502,607	3,090,243
Resources Total		**737,287**	**442,302**	**455,571**	**469,200**	**483,276**	**502,607**	**3,090,243**
Expenses	Design/Const Admin	125,300	75,191	77,447	79,800	82,200	85,500	525,438
	Construction	521,487	312,793	322,177	331,800	341,776	355,407	2,185,440
	Admin (14%)	90,500	54,318	55,947	57,600	59,300	61,700	379,365
Expenses Total		**737,287**	**442,302**	**455,571**	**469,200**	**483,276**	**502,607**	**3,090,243**

CIPWW00004: WWTP Solids Process Improvements

Description: This project funds the design and construction of solids processing improvements at the Gresham WWTP. The 2011 WWTP Master Plan identified that the improvements are needed in order to ensure long term biosolids treatment options. This project will design and construct new solids dewatering equipment and associated solids process improvements. Portions of this project may be funded by CIP #CIPWW00005 funds as appropriate.

Justification: As needed to increase the solids dewatering capabilities of the WWTP for land application and reuse. This project will also decrease the amount of biosolids that need to be hauled to an application site and defer future biosolids storage improvements. The management (treatment, storage, transportation and land application) of biosolids which does not follow the requirements of the City's NPDES permit can result in a fine from the DEQ.

Type of Project: Design and construction of WWTP facilities.



Estimated Dollars:

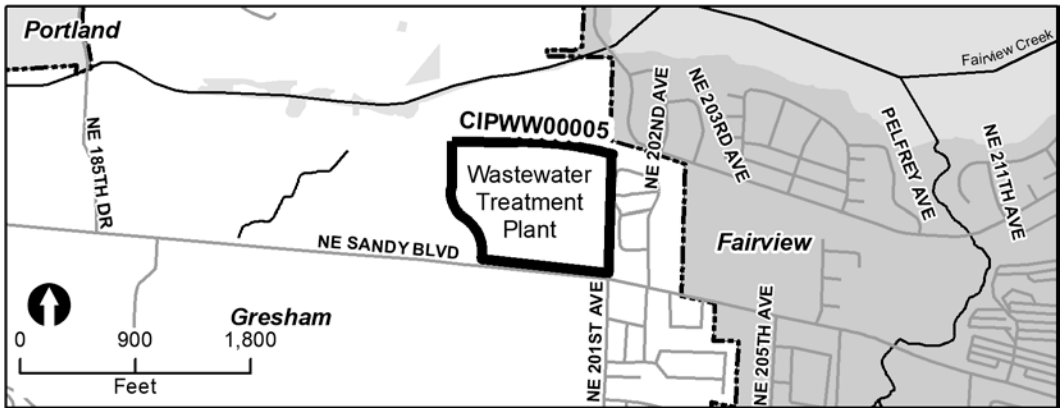
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Repair/Replacement Reserves	973,194	0	0	0	0	0	973,194
Resources Total		**973,194**	**0**	**0**	**0**	**0**	**0**	**973,194**
Expenses	Design/Const Admin	165,400	0	0	0	0	0	165,400
	Construction	688,294	0	0	0	0	0	688,294
	Admin (14%)	119,500	0	0	0	0	0	119,500
Expenses Total		**973,194**	**0**	**0**	**0**	**0**	**0**	**973,194**

CIPWW00005: WWTP Asset Replacement and Refurbishment (R&R) Project

Description: This is an ongoing project that designs and constructs the R&R of assets at the WWTP and wastewater pumping stations that are scheduled per the WWTP asset management plan. Wastewater's Asset Management Program has developed a comprehensive asset inventory, asset condition and long range asset replacement planning methodology. This methodology will ensure that the City is appropriately planning, evaluating and replacing assets to ensure the lowest life cycle cost at an appropriate level of service with adequate long-range funding for the projects. This project may contribute eligible R&R funding to other CIP's as needed. (CIP# CIPWW00002 is in response to unanticipated asset failures, such as repairing air line leaks, replacing flow meters, repairing digester mixers, repairing rolling stock and other unanticipated items as needed.)

Justification: On-going repair and replacement of aging assets are critical to the overall performance of the WWTP. Asset failures can lead to loss of service and non-compliance with permit requirements.

Type of project: Repair and rehabilitation of facilities and utilities.



Estimated Dollars:

Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Repair/Replacement Reserves	1,613,422	895,585	922,453	950,126	978,630	1,017,775	6,377,991
Resources Total		**1,613,422**	**895,585**	**922,453**	**950,126**	**978,630**	**1,017,775**	**6,377,991**
Expenses	Design/Const Admin	258,100	141,400	145,700	150,000	154,500	160,700	1,010,400
	Construction	1,157,222	644,185	663,453	683,426	703,930	732,075	4,584,291
	Admin (14%)	198,100	110,000	113,300	116,700	120,200	125,000	783,300
Expenses Total		**1,613,422**	**895,585**	**922,453**	**950,126**	**978,630**	**1,017,775**	**6,377,991**

CIPWW00006: Collection System Asset Refurbishment and Replacement Project

Description: This project replaces operationally deficient and localized sections of the collection and conveyance system as needed in response to breakdowns. This localized repair or replacement strategy extends the useful life of pipeline assets that typically wouldn't be replaced until the expected (i.e.75 year) useful life of the asset has been reached. This project contributes eligible R&R funds to CIP CIPWW00007.

Justification: This CIP is used to repair areas where the system is on the verge of failure and the high condition score represents this situation. Repairs may be required if the location is included in the "Hitting the Streets" local street reconstruction program. If the projects repaired by this CIP are left, failures can lead to loss of service, backups and possibly spills. SSO's or sanitary sewer overflows, are prohibited by the DEQ and may result in a fine or penalty.

Type of project: Construction.

City Wide Project

Estimated Dollars:

Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Repair/Replacement Reserves	867,953	657,982	677,721	698,059	721,095	744,891	4,367,701
Resources Total		**867,953**	**657,982**	**677,721**	**698,059**	**721,095**	**744,891**	**4,367,701**
Expenses	Design/Const Admin	147,600	73,562	115,213	120,100	124,000	128,100	708,575
	Construction	613,753	492,303	479,279	492,259	508,495	525,291	3,111,380
	Admin (14%)	106,600	92,117	83,229	85,700	88,600	91,500	547,746
Expenses Total		**867,953**	**657,982**	**677,721**	**698,059**	**721,095**	**744,891**	**4,367,701**

CIPWW00007: 1950's Pipe Rehabilitation/Maint. Program

Description: This ongoing project completes systematic pipeline rehabilitation and maintenance projects as identified from the Sanitary Sewer Evaluation Study project, or subsequently as determined from ongoing collection system condition assessment. It addresses operational ongoing and anticipated operational concerns, primarily with the oldest sanitary sewer lines (circa 1950s) around downtown Gresham, reducing long term operational and maintenance costs. The majority of this work will likely implement a combination of open trench, pipe bursting, and "cure-in-place" pipe lining methods. (CIP CIPWW00006 is in response to already deficient and localized sections of conveyance system).

Justification: These assets have all passed their industry standard lifespan. The assets also have developed visually confirmed physical failures. The failure of these assets can lead to loss of service, backups and possibly spills. Repairs may be required if the location is in the path of the "Hitting the Streets" local street repair program.

Type of Project: Repair and rehabilitation of pipeline facilities.

City Wide Project

Estimated Dollars:

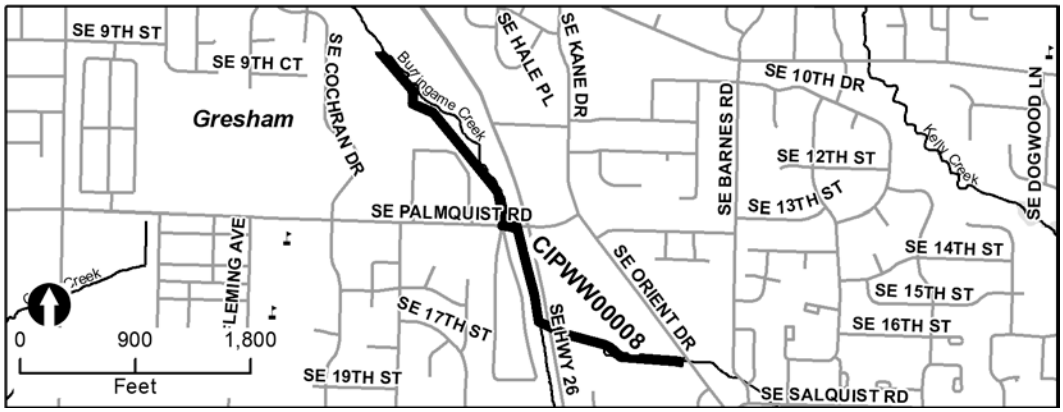
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Repair/Replacement Reserves	3,195,392	1,092,727	1,125,509	1,159,274	1,197,530	1,237,048	9,007,480
Resources Total		**3,195,392**	**1,092,727**	**1,125,509**	**1,159,274**	**1,197,530**	**1,237,048**	**9,007,480**
Expenses	Design/Const Admin	543,200	185,764	191,337	197,100	203,600	210,300	1,531,301
	Construction	2,259,792	772,768	795,952	819,774	846,830	874,848	6,369,964
	Admin (14%)	392,400	134,195	138,220	142,400	147,100	151,900	1,106,215
Expenses Total		**3,195,392**	**1,092,727**	**1,125,509**	**1,159,274**	**1,197,530**	**1,237,048**	**9,007,480**

CIPWW00008: East Basin Trunk Upgrade Phase 3

Description: This project will install approximately 2,784-feet of 12, 14, and 20 inch sewer main using pipe bursting. This project will correct surcharged areas of the sanitary sewer system. This phase will complete the East Basin Trunk Upgrade Program. SDC project #6.

Justification: Wastewater collection system upsize required for future development of area.

Type of Project: Design and construction of wastewater facilities for growth.



Estimated Dollars:

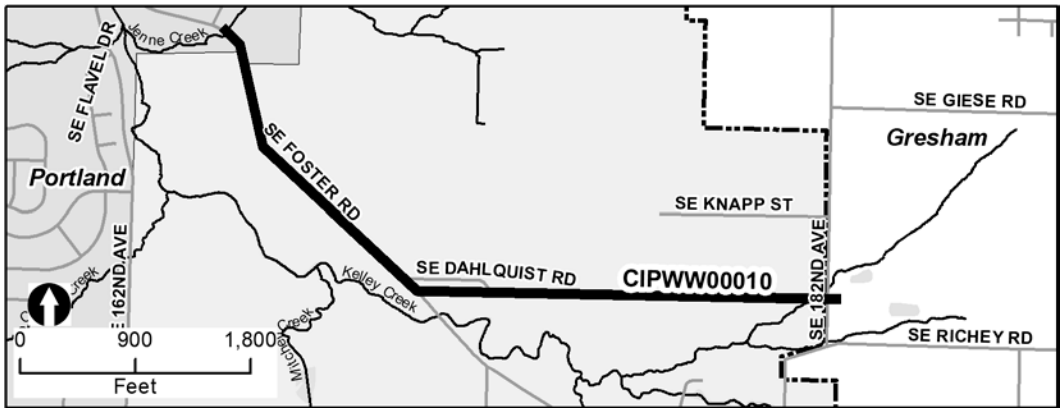
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Debt-SDC	506,289	26,122	0	0	0	0	532,411
	Operating	1,332,112	68,728	0	0	0	0	1,400,840
Resources Total		**1,838,401**	**94,850**	**0**	**0**	**0**	**0**	**1,933,251**
Expenses	Design/Const Admin	310,200	15,967	0	0	0	0	326,167
	Construction	1,302,401	67,184	0	0	0	0	1,369,585
	Admin (14%)	225,800	11,699	0	0	0	0	237,499
Expenses Total		**1,838,401**	**94,850**	**0**	**0**	**0**	**0**	**1,933,251**

CIPWW00010: Kelley Creek Trunk Easements

Description: This project will acquire easements for the Kelley Creek Trunk Sewer from Jenne & Foster Road to the Pleasant Valley Grade School. This location will serve as the point of discharge for the identified "Phase 1" development area within the Pleasant Valley urban growth area. SDC project #WWSDC9.

Justification: This project is needed to provide the new Pleasant Valley urban area with wastewater conveyance infrastructure to allow for growth. The Kelley Creek Trunk Sewer will provide sewer service for an estimated 520 dwelling units to be constructed using the Pleasant Valley Plan District zoning requirements.

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



Estimated Dollars:

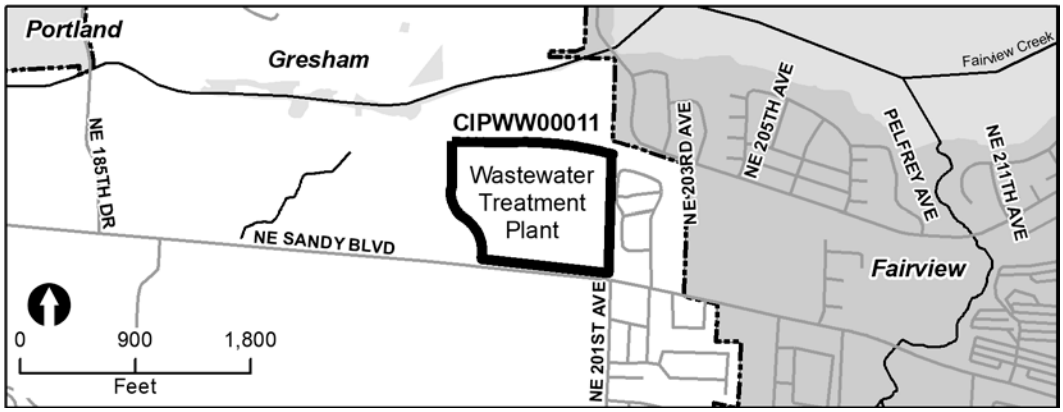
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Debt-SDC	71,717	74,084	0	0	0	0	145,801
Resources Total		**71,717**	**74,084**	**0**	**0**	**0**	**0**	**145,801**
Expenses	Design/Const Admin	3,600	3,700	0	0	0	0	7,300
	Property Acq	59,317	61,284	0	0	0	0	120,601
	Admin (14%)	8,800	9,100	0	0	0	0	17,900
Expenses Total		**71,717**	**74,084**	**0**	**0**	**0**	**0**	**145,801**

CIPWW00011: Biological Biogas Treatment System

Description: This project replaces the existing iron sponge media biogas treatment system at the wastewater treatment plant with a biological biogas treatment system. The treated biogas is used to operate two cogeneration engines that provide all the power for the wastewater treatment plant. The new treatment system will significantly reduce operating costs for biogas treatment. Portions of this project may be funded by CIP #CIPWW00005 funds as appropriate.

Justification: The existing biogas treatment system was installed in 2005 and has reached the end of its useful life. In addition, new biogas treatment technology has made it possible to significantly reduce operating costs associated with the system. It is anticipated that the new system will save approximately $60,000 per year in operating costs.

Type of project: Repair and rehabilitation of facilities and utilities.



Estimated Dollars:

Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Operating	546,417	250,000	0	0	0	0	796,417
Resources Total		**546,417**	**250,000**	**0**	**0**	**0**	**0**	**796,417**
Expenses	Design/Const Admin	29,317	13,400	0	0	0	0	42,717
	Construction	450,000	205,900	0	0	0	0	655,900
	Admin (14%)	67,100	30,700	0	0	0	0	97,800
Expenses Total		**546,417**	**250,000**	**0**	**0**	**0**	**0**	**796,417**

CIPWW00013: Wastewater Mainline Extension

Description: This project constructs wastewater mainlines with associated laterals on an as needed basis for in-fill situations. Two potential projects are, 1) at 155, 175, 215, and 275 SW Towle Avenue and 2) on SE Lusted, east of SE 282nd, in coordination with the Barlow High School wastewater line construction. These projects rely on the formation of reimbursement districts. Locations may change based on need.

Justification: This project is to meet the immediate needs of citizens with failed or failing septic systems. The properties involved are within the urban growth boundary.

Type of project: Construction of facilities and utilities.

City Wide Project

Estimated Dollars:

Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Operating	502,094	518,663	0	0	0	0	1,020,757
Resources Total		**502,094**	**518,663**	**0**	**0**	**0**	**0**	**1,020,757**
Expenses	Design/Const Admin	84,894	87,700	0	0	0	0	172,594
	Construction	355,500	367,263	0	0	0	0	722,763
	Admin (14%)	61,700	63,700	0	0	0	0	125,400
Expenses Total		**502,094**	**518,663**	**0**	**0**	**0**	**0**	**1,020,757**

CIPWW00014: Wastewater Collections System Master Plan

Description: This program will provide a new Collections/Conveyance System Master Plan. The Master Plan will examine and revise information from the 2012 Collections System Master Plan as well as examine current and future growth of the City in order to provide a plan to address the collections and conveyance of new sewage flows. In addition this Master Plan will address the issue of existing deteriorating assets in order to form a plan to maintain an operational collection system.

Justification: This project is needed to ensure the wastewater system will meet conditions and growth as regulated by local and federal agencies (DEQ and EPA).

Type of project: Engineering studies related to city services.

Study/Analysis

Estimated Dollars:

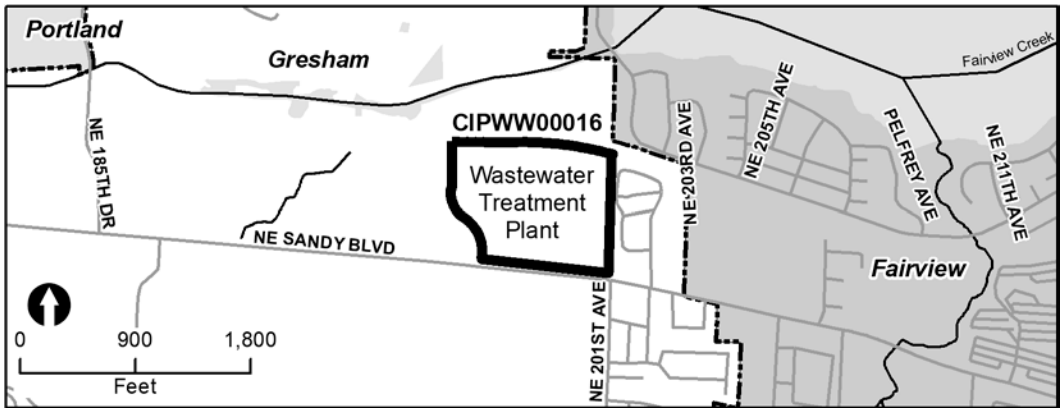
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Operating	227,185	0	0	0	0	0	227,185
Resources Total		**227,185**	**0**	**0**	**0**	**0**	**0**	**227,185**
Expenses	Design/Const Admin	199,285	0	0	0	0	0	199,285
	Admin (14%)	27,900	0	0	0	0	0	27,900
Expenses Total		**227,185**	**0**	**0**	**0**	**0**	**0**	**227,185**

CIPWW00016: WWTP Primary Clarifier 1 and 2 Refurbishment

Description: This project designs and constructs the replacement of the Wastewater Treatment Plant Primary Clarifiers 1 and 2.

Justification: This project is needed to replace and modernize antiquated primary clarifiers 1 and 2 that were constructed in 1954.

Type of project: Upgrade of existing facilities and utilities.



Estimated Dollars:

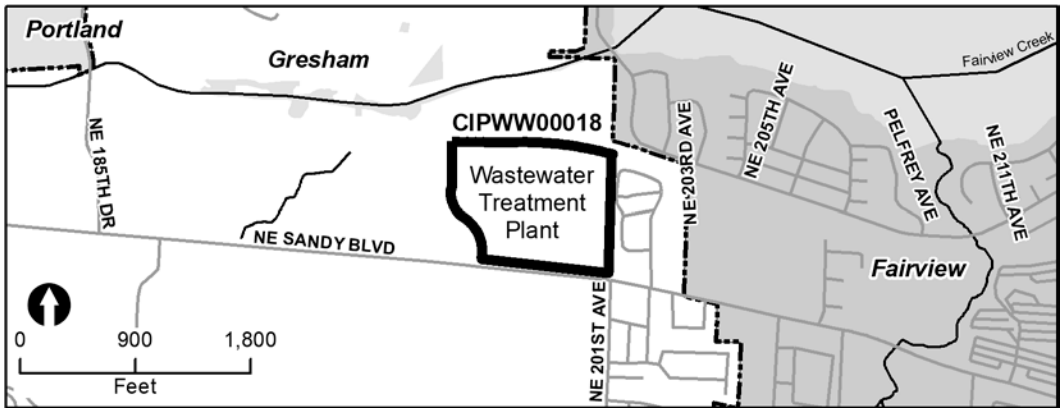
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Repair/Replacement Reserves	849,492	0	0	0	0	0	849,492
Resources Total		**849,492**	**0**	**0**	**0**	**0**	**0**	**849,492**
Expenses	Design/Const Admin	50,000	0	0	0	0	0	50,000
	Construction	695,192	0	0	0	0	0	695,192
	Admin (14%)	104,300	0	0	0	0	0	104,300
Expenses Total		**849,492**	**0**	**0**	**0**	**0**	**0**	**849,492**

CIPWW00018: WWTP Upper Plant Nitrification Improvements

Description: This project will make improvements to the upper plant aeration basins that will allow nitrification during the summer months. This will include diffuser improvements, dissolved oxygen control improvements and automation improvements. Funds from CIP #CIPWW00005 may be used as needed for portions of the project that will repair or replace existing assets.

Justification: This project is needed to increase the nitrification capabilities of the upper plant in order to comply with NPDES permit requirements. This project will also decrease the amount of biosolids that need to be hauled to an application site and defer future biosolids storage improvements. This project was identified in the 2017 WWTP Master Plan.

Type of project: Upgrade of existing facilities and utilities.



Estimated Dollars:

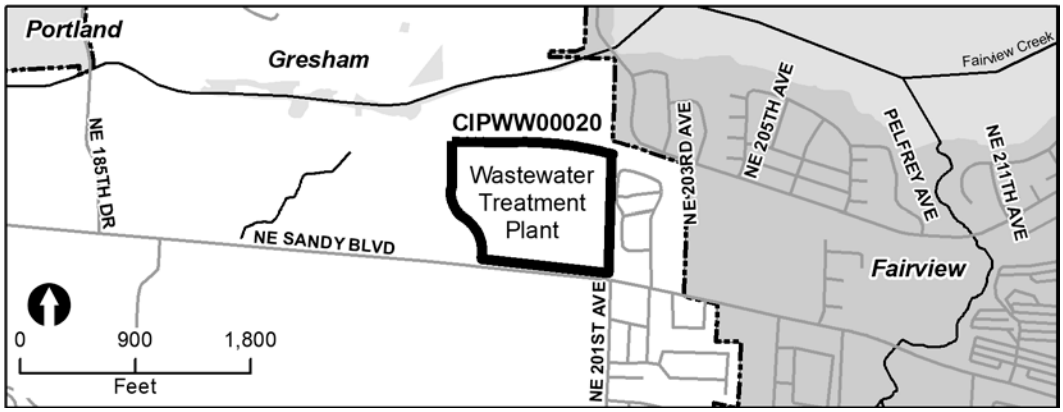
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Operating	0	355,680	0	0	0	0	355,680
Resources Total		**0**	**355,680**	**0**	**0**	**0**	**0**	**355,680**
Expenses	Design/Const Admin	0	60,500	0	0	0	0	60,500
	Construction	0	251,480	0	0	0	0	251,480
	Admin (14%)	0	43,700	0	0	0	0	43,700
Expenses Total		**0**	**355,680**	**0**	**0**	**0**	**0**	**355,680**

CIPWW00020: WWTP FOG Screening Improvements

Description: This project designs and constructs improvements to the fats, oils and grease (FOG) receiving station at the WWTP. The project will improve the screening ability of the system to remove trash and debris prior to entering the anaerobic digesters. Funds from CIP #CIPWW00005 may be used as needed for portions of the project that will repair or replace existing assets. The WWTP operator will contribute $250,000 to the project.

Justification: This project will increase the ability of the FOG receiving station to screen and remove unwanted material from FOG deliveries at the WWTP. This improved removal rate will decrease the amount of maintenance and repair needed to keep the system functioning properly.

Type of project: Upgrade of existing facilities and utilities.



Estimated Dollars:

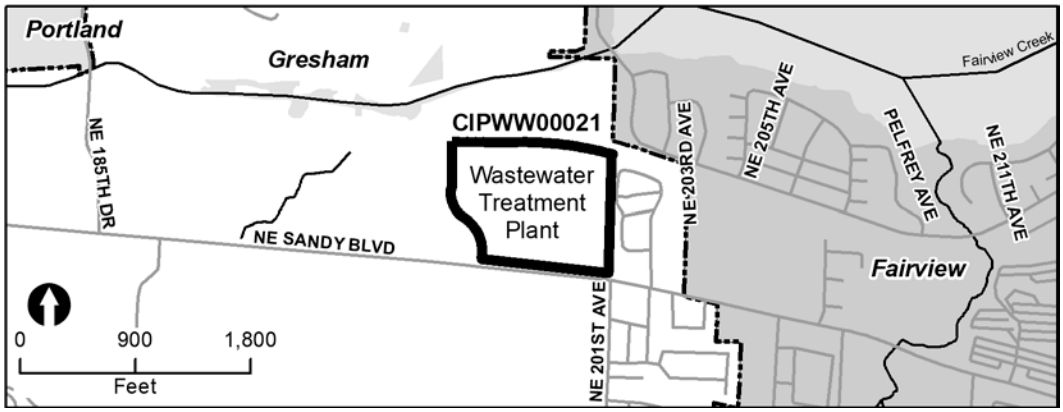
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Other	0	250,000	0	0	0	0	250,000
	Operating	928,175	250,800	0	0	0	0	1,178,975
Resources Total		**928,175**	**500,800**	**0**	**0**	**0**	**0**	**1,428,975**
Expenses	Design/Const Admin	130,475	70,400	0	0	0	0	200,875
	Construction	683,700	368,900	0	0	0	0	1,052,600
	Admin (14%)	114,000	61,500	0	0	0	0	175,500
Expenses Total		**928,175**	**500,800**	**0**	**0**	**0**	**0**	**1,428,975**

CIPWW00021: WWTP Upper Barscreens Replacement

Description: This project replaces the two barscreens in the Upper Plant Headworks Building at the WWTP. Barscreens remove trash and debris from the wastewater stream to protect and improve the performance of primary and secondary treatment processes. Portions of this project may be funded by CIP #CIPWW00005 funds as appropriate.

Justification: The existing Upper Plant Barscreens were installed in 1999 and have reached the end of their useful life. As part of our Asset Management Program, a condition assessment of major assets is performed every year. The Upper Plant Barscreens have been determined to be in poor condition and at high risk of failure without intervention. If one or both of these assets failed, the capacity of the WWTP would be severely reduced.

Type of project: Repair and rehabilitation of facilities and utilities.



Estimated Dollars:

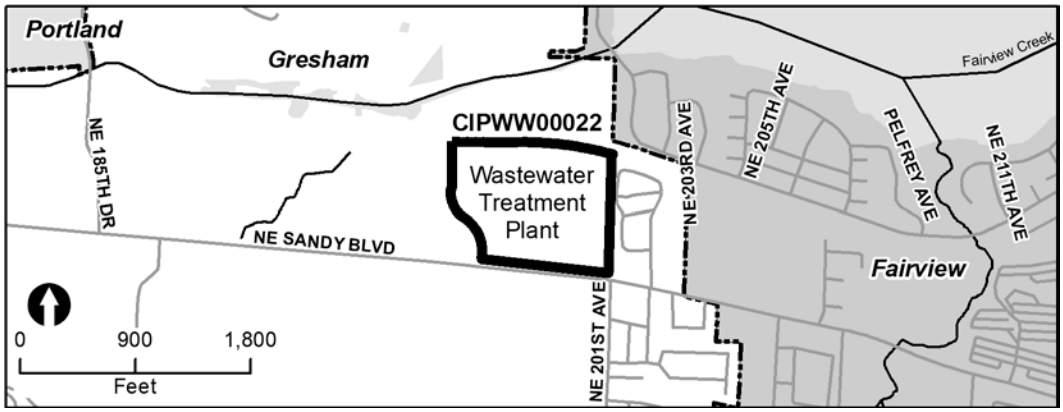
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Repair/Replacement Reserves	920,000	214,000	0	0	0	0	1,134,000
Resources Total		**920,000**	**214,000**	**0**	**0**	**0**	**0**	**1,134,000**
Expenses	Design/Const Admin	156,400	36,400	0	0	0	0	192,800
	Construction	650,600	151,300	0	0	0	0	801,900
	Admin (14%)	113,000	26,300	0	0	0	0	139,300
Expenses Total		**920,000**	**214,000**	**0**	**0**	**0**	**0**	**1,134,000**

CIPWW00022: WWTP Control System Improvements

Description: This project will design, upgrade and modernize the control system at the WWTP. The current control system, comprising of hardware, software, programming, reporting and other functions will be evaluated and updated as necessary to increase reliability and security while modernizing and improving the system. The current control system was originally installed in 2000 and partially upgraded in 2010. Funds from CIP #CIPWW00005 may be used as needed for portions of the project that will repair or replace existing assets.

Justification: This project is needed to ensure that the control systems that operate, report and alarm complex processes throughout the WWTP are evaluated and upgraded as needed. This project is required of the City of Gresham/OMI operations and maintenance contract.

Type of project: Repair and rehabilitation of facilities and utilities.



Estimated Dollars:

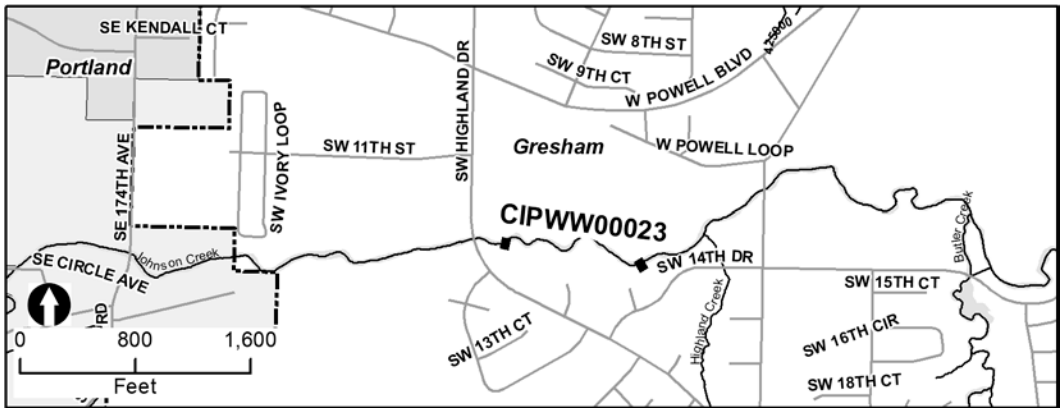
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Repair/Replacement Reserves	360,000	342,000	0	0	0	0	702,000
Resources Total		**360,000**	**342,000**	**0**	**0**	**0**	**0**	**702,000**
Expenses	Design/Const Admin	61,200	58,100	0	0	0	0	119,300
	Construction	254,600	241,900	0	0	0	0	496,500
	Admin (14%)	44,200	42,000	0	0	0	0	86,200
Expenses Total		**360,000**	**342,000**	**0**	**0**	**0**	**0**	**702,000**

CIPWW00023: Overhead Johnson Creek Crossing Seismic

Description: This project consists of a concrete bridge over the creek and the bridge abutments and manholes that transport and support the ductile iron pipe conveying the flow over the creek. The seismic upgrade will replace the concrete bridge with a steel pipe that will include the sewer pipe in its interior. Micro-piles will be used to support the bridge abutments and manholes hardening the structure to new seismic standards. A grant application to the Federal Emergency Management Agency Pre-Disaster Mitigation Program will be submitted.

Justification: This project is needed to meet seismic standards so the structure can withstand a seismic event without collapsing allowing raw sewage to flow into the creek.

Type of project: Design and construction of wastewater facilities.



Estimated Dollars:

Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Grant	0	636,612	0	0	0	0	636,612
	Operating	0	212,204	0	0	0	0	212,204
Resources Total		**0**	**848,816**	**0**	**0**	**0**	**0**	**848,816**
Expenses	Design/Const Admin	0	143,500	0	0	0	0	143,500
	Construction	0	601,116	0	0	0	0	601,116
	Admin (14%)	0	104,200	0	0	0	0	104,200
Expenses Total		**0**	**848,816**	**0**	**0**	**0**	**0**	**848,816**

CIPWW00024: WWTP Organics Digestion Capacity Evaluation

Description: This project will evaluate options for the Gresham WWTP to accept and process additional organic loads at the WWTP. Currently, the WWTP processes approximately 13,000 gallons per day of liquid organic waste or Fats, Oils and Grease (FOG) resulting in tipping fee revenues to the City of approximately $350,000 per year. Due to the capacity of the digestion system at the WWTP, 13,000 gallons per day is the maximum that the City can accept. This study will evaluate liquid organic markets, including food waste markets, and determine the feasibility of constructing additional processing facilities at the WWTP to accept more organic waste at the WWTP.

Justification: This project will determine the feasibility, cost effectiveness and potential revenue streams of constructing and operating additional digestion capacity at the WWTP.

Type of project: Study.

Study/Analysis

Estimated Dollars:

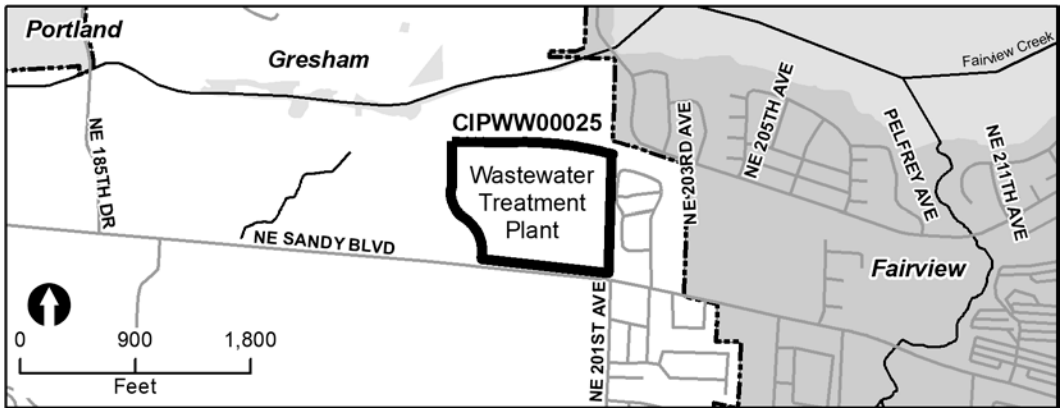
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Operating	240,000	0	0	0	0	0	240,000
Resources Total		**240,000**	**0**	**0**	**0**	**0**	**0**	**240,000**
Expenses	Design/Const Admin	210,500	0	0	0	0	0	210,500
	Admin (14%)	29,500	0	0	0	0	0	29,500
Expenses Total		**240,000**	**0**	**0**	**0**	**0**	**0**	**240,000**

CIPWW00025: WWTP Outfall Diffuser Improvements

Description: This project will design and construct outfall diffuser improvements. The WWTP discharges approximately 13 million gallons per day of treated wastewater to the Columbia River by way of three outfall pipes and a 100 foot long diffuser buried in the bottom of the Columbia River near Interlachen Way and Marine Drive. Oregon DEQ regulations are requiring capital improvements which will increase the mixing velocities in the river and ensure compliance with water quality criteria.

Justification: This project will ensure that the WWTP is in compliance with its NPDES Waste Discharge Permit requirements.

Type of project: Design and construction of wastewater facilities.



Estimated Dollars:

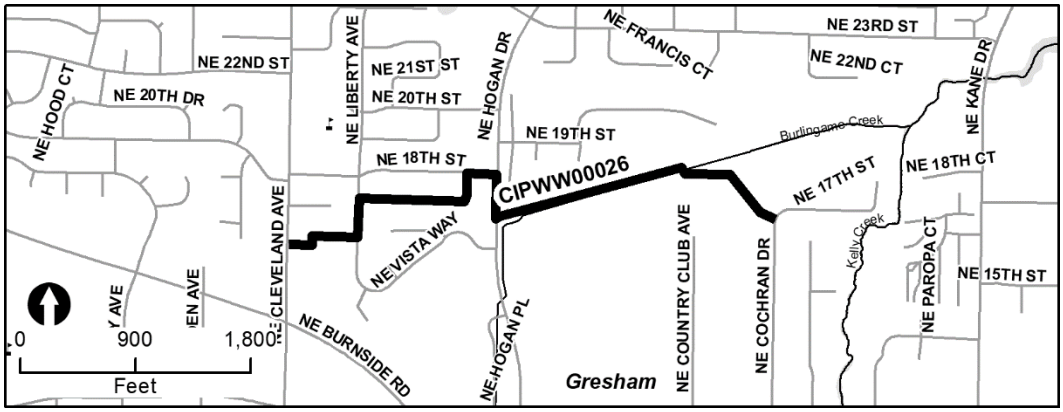
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Operating	0	391,248	0	0	0	0	391,248
Resources Total		**0**	**391,248**	**0**	**0**	**0**	**0**	**391,248**
Expenses	Design/Const Admin	0	36,400	0	0	0	0	36,400
	Construction	0	328,548	0	0	0	0	328,548
	Admin (14%)	0	26,300	0	0	0	0	26,300
Expenses Total		**0**	**391,248**	**0**	**0**	**0**	**0**	**391,248**

CIPWW00026: Lower Kelly Creek Trunk Upgrade

Description: This project would increase the capacity of the system in the problem area and reduce the amount of inflow entering the system. This sewer line is located in a low lying area within the Gresham Golf Course. The construction of the project is time sensitive because of the impact on the golf course and the creek in the area. SDC project #WWSDC2.

Justification: This project provides sewerage system capabilities for transmitting current and projected sewerage flows. The potential addition of the flows from Barlow High School into this basin add to the justification for construction of this project.

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



Estimated Dollars:

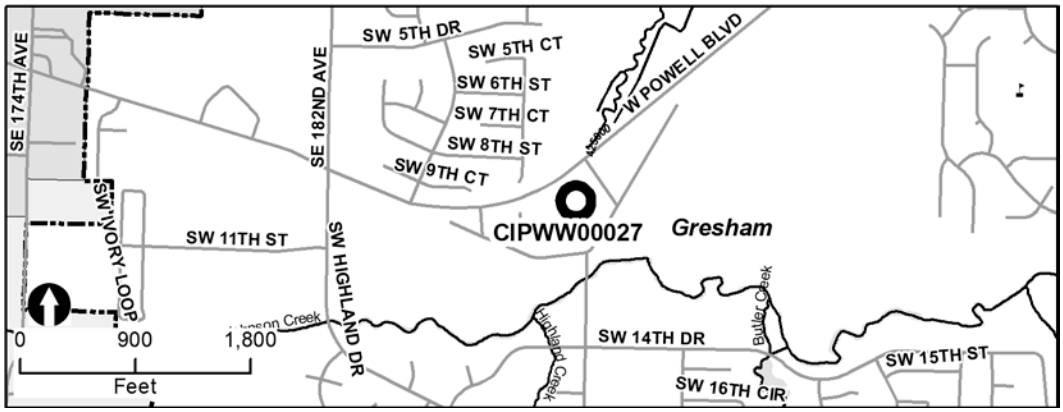
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Operating	0	1,464,109	0	0	0	0	1,464,109
	SDC	0	721,130	0	0	0	0	721,130
Resources Total		**0**	**2,185,239**	**0**	**0**	**0**	**0**	**2,185,239**
Expenses	Design/Const Admin	0	287,600	0	0	0	0	287,600
	Construction	0	1,629,239	0	0	0	0	1,629,239
	Admin (14%)	0	268,400	0	0	0	0	268,400
Expenses Total		**0**	**2,185,239**	**0**	**0**	**0**	**0**	**2,185,239**

CIPWW00027: Linneman Pump Station Parallel Force Main, Phase 2

Description: This project constructs additional capacity at the Linneman Pump Station as identified in the 2005 Linneman Pump Station Master Plan to provide capacity for growth in the South Gresham area. The project consists of finishing the second phase of a new parallel force main to the pump station. SDC project #WWSDC22.

Justification: This project will provide the needed capacity for additional growth in the Johnson Creek Basin, including the Pleasant Valley and Springwater areas.

Type of Project: Construction of new facilities.



Estimated Dollars:

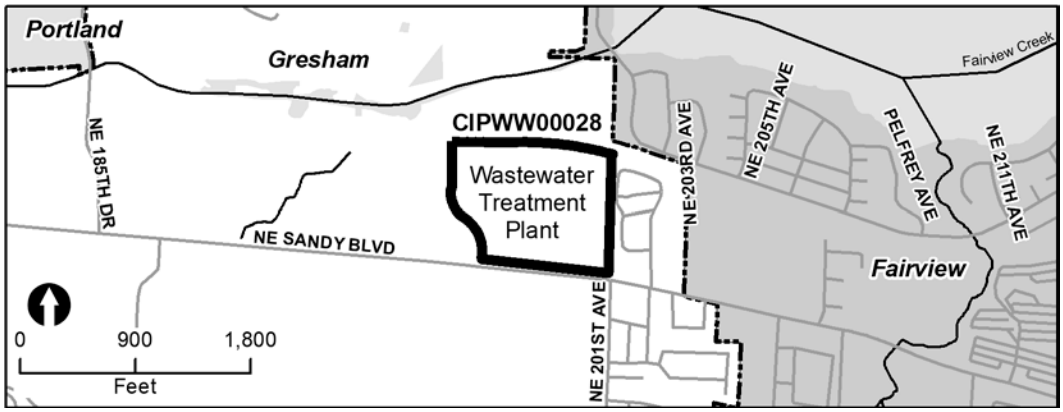
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	SDC	0	0	0	0	3,131,198	0	3,131,198
Resources Total		**0**	**0**	**0**	**0**	**3,131,198**	**0**	**3,131,198**
Expenses	Design/Const Admin	0	0	0	0	538,583	0	538,583
	Construction	0	0	0	0	2,208,077	0	2,208,077
	Admin (14%)	0	0	0	0	384,538	0	384,538
Expenses Total		**0**	**0**	**0**	**0**	**3,131,198**	**0**	**3,131,198**

CIPWW00028: WWTP Gravity Belt Thickener Refurbishment

Description: This project designs and constructs the replacement of the Wastewater Treatment Plant Gravity Belt Thickeners 1, 2 and 3. Funds from CIP #CIPWW00005 may be used as needed for portions of the project that will repair or replace existing assets.

Justification: The gravity belts were originally installed in 1987 and have exceeded their useful life. This project will replace and modernize the equipment.

Type of project: Repair and rehabilitation of facilities and utilities.



Estimated Dollars:

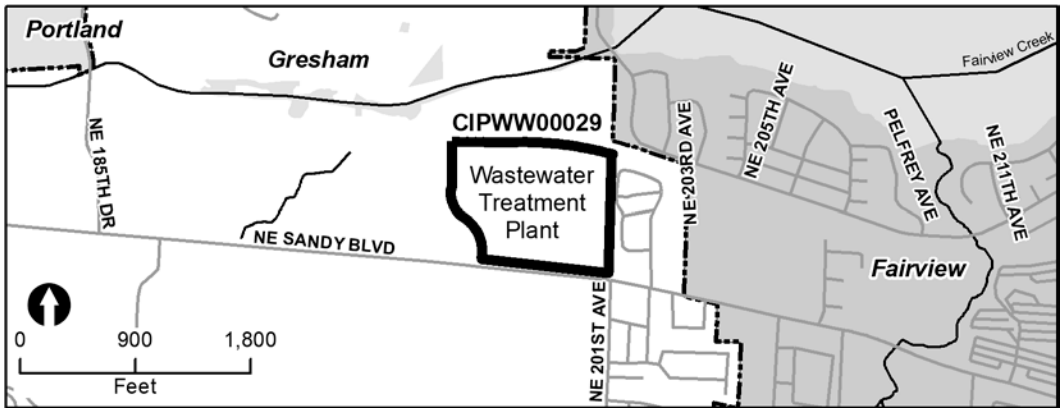
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Repair/Replacement Reserves	0	820,800	342,000	0	0	0	1,162,800
Resources Total		**0**	**820,800**	**342,000**	**0**	**0**	**0**	**1,162,800**
Expenses	Design/Const Admin	0	139,500	58,100	0	0	0	197,600
	Construction	0	580,500	241,900	0	0	0	822,400
	Admin (14%)	0	100,800	42,000	0	0	0	142,800
Expenses Total		**0**	**820,800**	**342,000**	**0**	**0**	**0**	**1,162,800**

CIPWW00029: WWTP Upper Plant Blower Addition

Description: This project designs and constructs a fourth blower in the upper plant blower building. The project will include electrical, controls and automation needed to operate the blower. Funds from CIP #CIPWW00005 may be used as needed for portions of the project that will repair or replace existing assets.

Justification: This project is needed to ensure redundant blower operation during nitrification of the upper plant. This project was identified in the 2017 WWTP Master Plan.

Type of project: Design and construction of wastewater facilities.



Estimated Dollars:

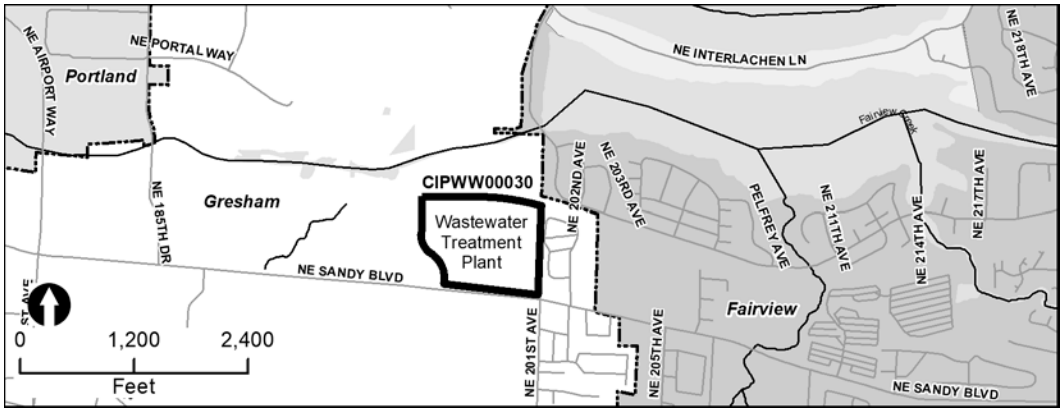
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Operating	0	0	706,800	0	0	0	706,800
Resources Total		**0**	**0**	**706,800**	**0**	**0**	**0**	**706,800**
Expenses	Design/Const Admin	0	0	120,200	0	0	0	120,200
	Construction	0	0	499,800	0	0	0	499,800
	Admin (14%)	0	0	86,800	0	0	0	86,800
Expenses Total		**0**	**0**	**706,800**	**0**	**0**	**0**	**706,800**

CIPWW00030: WWTP Earthquake Resiliency Projects

Description: This project will design and construct earthquake resiliency improvements at the WWTP and wastewater pumping stations. These projects were identified in the 2019 Wastewater Seismic Resilience Plan.

Justification: This project will upgrade specific assets at the WWTP and wastewater pumping stations to better withstand a catastrophic seismic event. This project will strengthen elements and allow facilities to more rapidly return to normal operations after an event.

Type of project: Design and construction of wastewater facilities.



Estimated Dollars:

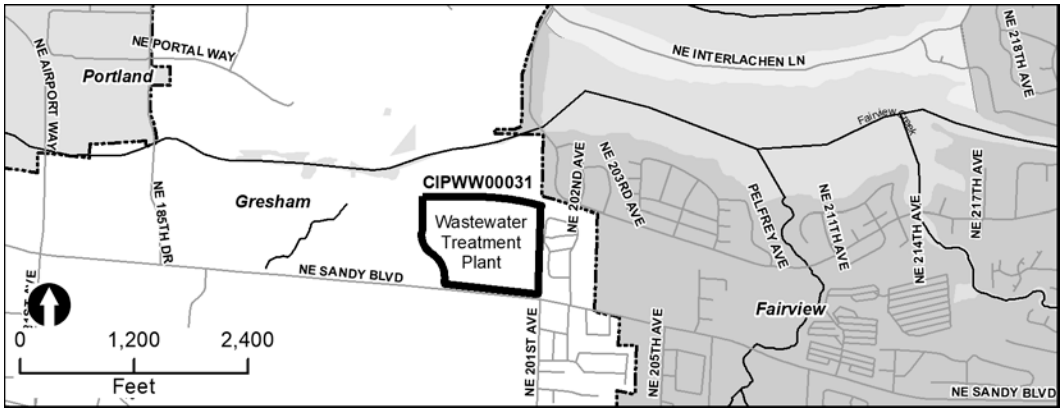
Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Operating	0	120,000	124,800	129,792	134,984	140,383	649,959
Resources Total		**0**	**120,000**	**124,800**	**129,792**	**134,984**	**140,383**	**649,959**
Expenses	Design/Const Admin	0	16,800	17,500	18,200	18,900	19,700	91,100
	Construction	0	88,500	92,000	95,692	99,484	103,483	479,159
	Admin (14%)	0	14,700	15,300	15,900	16,600	17,200	79,700
Expenses Total		**0**	**120,000**	**124,800**	**129,792**	**134,984**	**140,383**	**649,959**

CIPWW00031: WWTP Secondary Digester Improvements

Description: This project will design and construct WWTP Secondary Digester Improvements. These improvements will include refurbishing the steel and concrete structures, cleaning and inspecting the digester interior and installing modern digester controls. The digester was originally installed in 1989. Funds from CIP #CIPWW00005 may be used as needed for portions of the project that will repair or replace existing assets.

Justification: This project is needed to improve the condition of the digester and ensure its long-term functionality.

Type of project: Design and construction of wastewater facilities.



Estimated Dollars:

Funds	Description	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
Resources	Operating	0	228,000	684,000	0	0	0	912,000
Resources Total		**0**	**228,000**	**684,000**	**0**	**0**	**0**	**912,000**
Expenses	Design/Const Admin	0	200,000	95,800	0	0	0	295,800
	Construction	0	0	504,200	0	0	0	504,200
	Admin (14%)	0	28,000	84,000	0	0	0	112,000
Expenses Total		**0**	**228,000**	**684,000**	**0**	**0**	**0**	**912,000**

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Wastewater Unfunded and Future Summary

Project	Project Name	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
312000	WWTP UV Disinfection	0	0	0	0	0	0	3,254,693
313500	Upper Kelly Creek Trunk Upgrade	0	0	0	0	0	0	1,977,404
314100	Johnson Creek - Springwater Trunk	0	0	0	0	0	0	1,073,758
314200	Johnson Creek - Heiney Trunk A	0	0	0	0	0	0	1,448,813
314300	Johnson Creek - Heiney Trunk B	0	0	0	0	0	0	115,534
314700	Upsize Johnson Creek Interceptor	0	0	0	0	0	0	210,221
315400	Upper Plant Secondary Clarifier No. 5	0	0	0	0	0	0	14,508,595
316000	Upper Plant Aeration Basin No. 5	0	0	0	0	0	0	9,831,990
316100	Digestion Capacity Improvements	0	0	0	0	0	0	14,027,915
320200	Linneman Pump Station Capacity Upgrade	0	0	0	0	0	0	1,081,775
320300	WWTP Asset Replacement and Refurbishment (R&R) Pro	0	0	0	0	0	0	14,879,131
320400	1960's Pipe Rehabilitation/Maint. Program	0	0	0	0	0	0	42,428,554
320500	Collection System Trunk Assessment	0	0	0	0	0	0	2,066,000
321700	WWTP Preliminary Treatment Upgrades	0	0	0	0	0	0	973,597
322300	Backbone Sewer Upgrade Seismic	0	0	0	0	0	0	4,000,000
322400	Glisan St Bank Stabilization Seismic	0	0	0	0	0	0	675,000
322500	Jenne Rd. Major Bank Stabilization Seismic	0	0	0	0	0	0	3,500,000
322600	Upper & Lower Johnson Creek Stabilization Seismic	0	0	0	0	0	0	1,220,000
CIPWW00032	WWTP Influent Diversion and Disinfection Automation	0	0	0	0	0	0	600,000
CIPWW00033	WWTP Biogas Utilization Improvements	0	0	0	0	0	0	1,423,000
CIPWW00034	WWTP Columbia Slough Bridge Replacement	0	0	0	0	0	0	969,000
Grand Total		**0**	**0**	**0**	**0**	**0**	**0**	**120,264,980**

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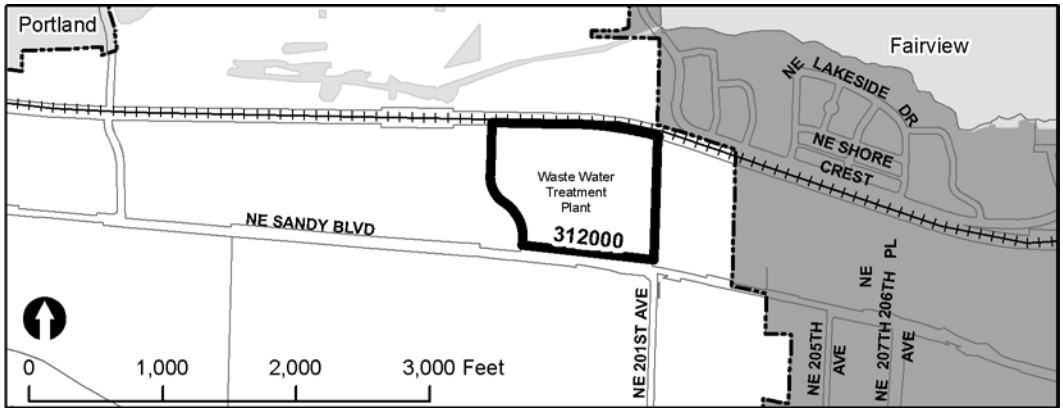
312000: WWTP UV Disinfection

Description: This project constructs additional wastewater disinfection capacity at the Wastewater Treatment Plant (WWTP). The project is located in the North Gresham Neighborhood District. SDC project #WWSDC25.

Justification: The project will expand the current WWTP disinfection process to accommodate increased wastewater flows. The 2011 Wastewater Master Plan Update identified the need for additional disinfection capacity and it proposed installation of a UV disinfection process. Timing for this project is contingent upon several factors including State and Federal environmental regulations and is anticipated to begin in 2027.

Type of Project: Construction of facilities and utilities for growth and new NPDES permit requirements.



Estimated Dollars:

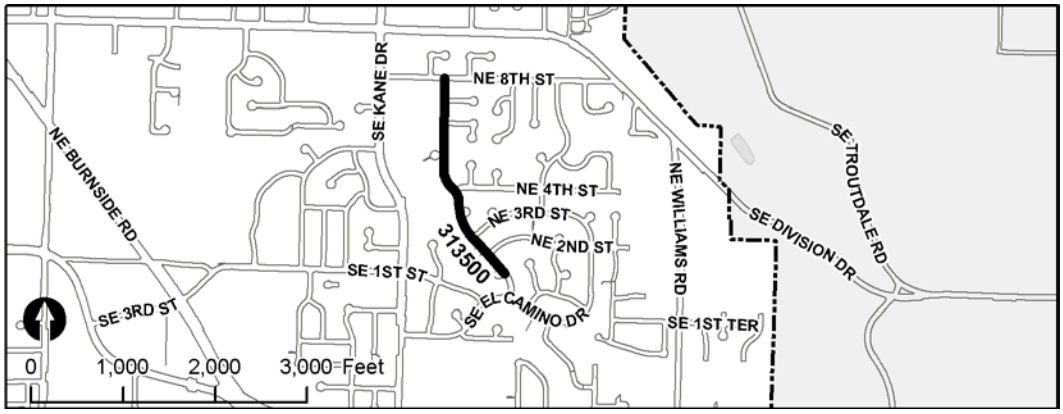
Funds	Description	Total
Resources	Operating	2,603,754
	SDC	650,939
Resources Total		**3,254,693**
Expenses	Design/Const Admin	428,300
	Construction	2,426,693
	Admin (14%)	399,700
Expenses Total		**3,254,693**

313500: Upper Kelly Creek Trunk Upgrade

Description: This project would increase the capacity of the system in the problem area and reduce the amount of inflow entering the system. SDC project #WWSDC1.

Justification: This project provides sewerage system capabilities for transmitting current and projected sewerage flows.

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



Estimated Dollars:

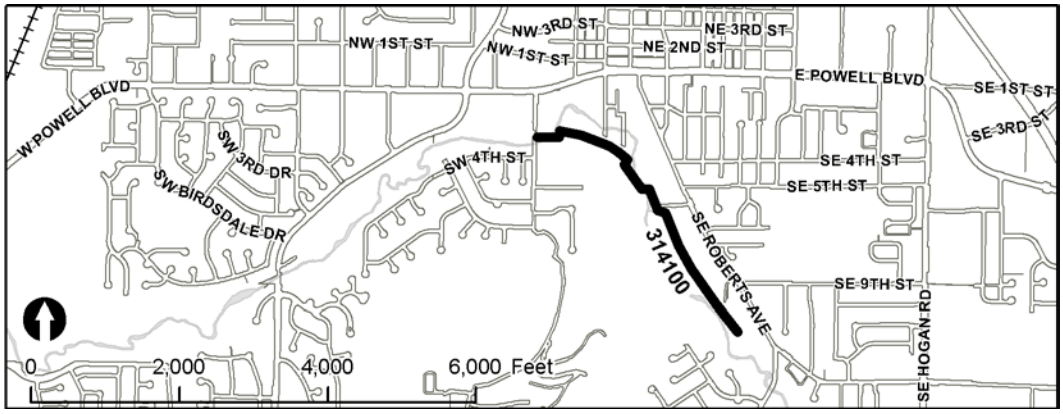
Funds	Description	Total
Resources	Operating	972,653
	SDC	1,004,751
Resources Total		**1,977,404**
Expenses	Design/Const Admin	260,200
	Construction	1,474,404
	Admin (14%)	242,800
Expenses Total		**1,977,404**

314100: Johnson Creek - Springwater Trunk

Description: This project will upsize an existing 12" sanitary sewer line to a 24" diameter line to meet increased flow demands as identified in the Wastewater Masterplan. SDC project #WWSDC3.

Justification: This project is needed to provide adequate wastewater conveyance capacity for growth.

Type of Project: Design and construction of facilities and utilities for growth.



Estimated Dollars:

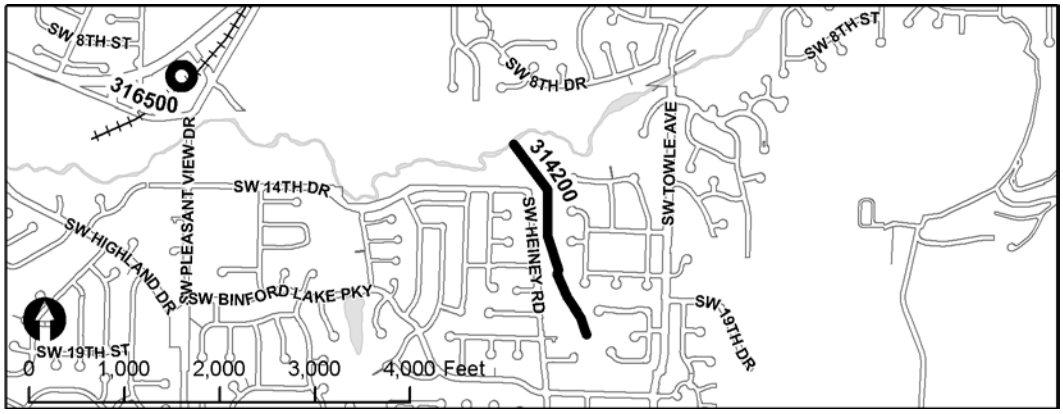
Funds	Description	Total
Resources	SDC	1,073,758
Resources Total		**1,073,758**
Expenses	Design/Const Admin	141,300
	Construction	800,558
	Admin (14%)	131,900
Expenses Total		**1,073,758**

314200: Johnson Creek – Heiney Trunk A

Description: This project will upsize an existing 10" sanitary sewer line to a 12" line and upsize an existing 12" sanitary sewer to a 15" diameter line to meet increased flow demands as identified in the wastewater masterplan. SDC project #WWSDC4.

Justification: This project is needed to provide adequate wastewater conveyance capacity for growth.

Type of Project: Design and construction of facilities and utilities for growth.



Estimated Dollars:

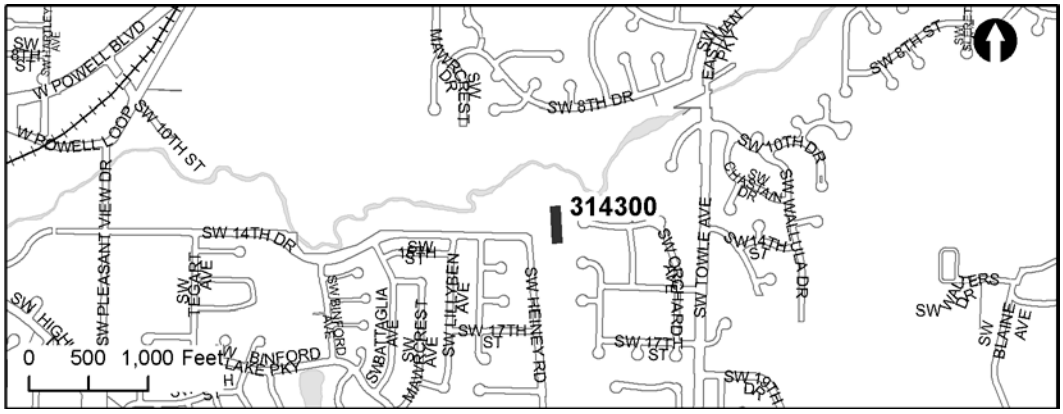
Funds	Description	Total
Resources	SDC	1,448,813
Resources Total		**1,448,813**
Expenses	Design/Const Admin	190,700
	Construction	1,080,213
	Admin (14%)	177,900
Expenses Total		**1,448,813**

314300: Johnson Creek – Heiney Trunk B

Description: This project will upsize an existing 10" sanitary sewer line to a 15" diameter line to meet increased flow demands as identified in the Wastewater Masterplan. SDC project #WWSDC5.

Justification: This project is needed to provide adequate wastewater conveyance capacity for growth.

Type of Project: Design and construction of facilities and utilities.



Estimated Dollars:

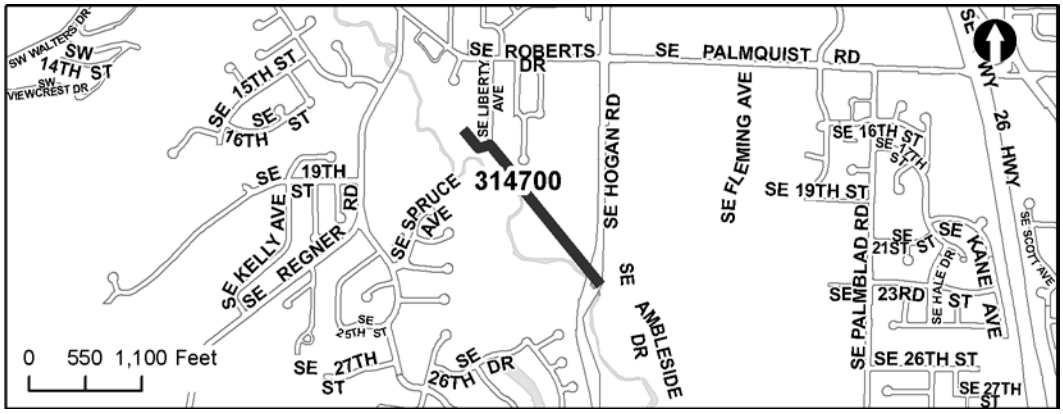
Funds	Description	Total
Resources	SDC	115,534
Resources Total		**115,534**
Expenses	Design/Const Admin	15,200
	Construction	86,134
	Admin (14%)	14,200
Expenses Total		**115,534**

314700: Upsize Johnson Creek Interceptor

Description: This project will upsize approximately 2100 feet of the existing Johnson Creek interceptor from 15" to 21" diameter pipe. The pipe segment is located between Regner Rd. and Hogan Rd. This will provide necessary wastewater conveyance capacity to serve the proposed SE Gresham Urban Growth Boundary expansion.

Justification: This project is needed to ensure adequate wastewater conveyance capacity will be available to serve the proposed SE Gresham Urban Growth Boundary expansion.

Type of Project: Design and construction of facilities and utilities for growth.



Estimated Dollars:

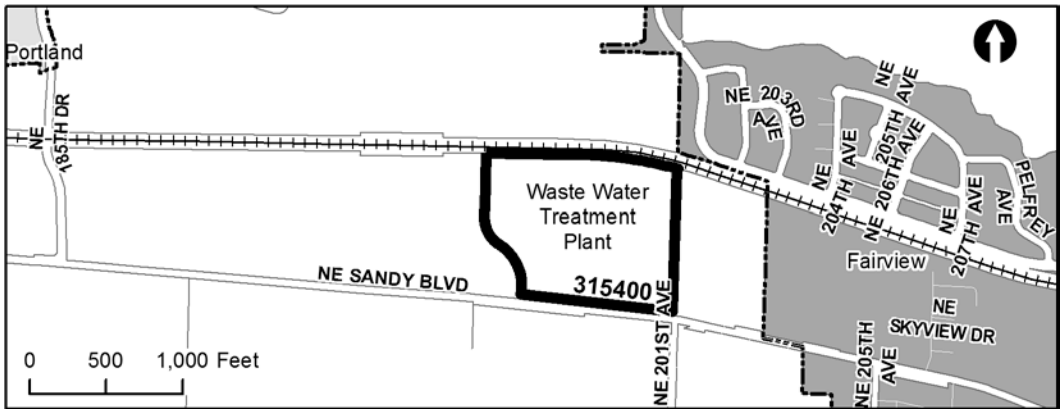
Funds	Description	Total
Resources	Operating	210,221
Resources Total		**210,221**
Expenses	Design/Const Admin	27,700
	Construction	156,721
	Admin (14%)	25,800
Expenses Total		**210,221**

315400: Upper Plant Secondary Clarifier No. 5

Description: This project will design & construct a new secondary clarifier No. 5 at the WWTP. As identified in the October 2017 WWTP Master Plan Update following construction, this project would provide increased WWTP capacity and redundancy as needed for projected growth and increased flows to the WWTP. SDC project #WWSDC21.

Justification: This project would provide increased WWTP capacity to provide treatment for projected growth and increased flows to the WWTP. In addition, the project is needed to provide a redundant secondary clarifier to the existing clarifier No. 4. Currently, failure of secondary No. 4 would result in not meeting NPDES permit requirements.

Type of Project: Design and construction of facilities for growth.



Estimated Dollars:

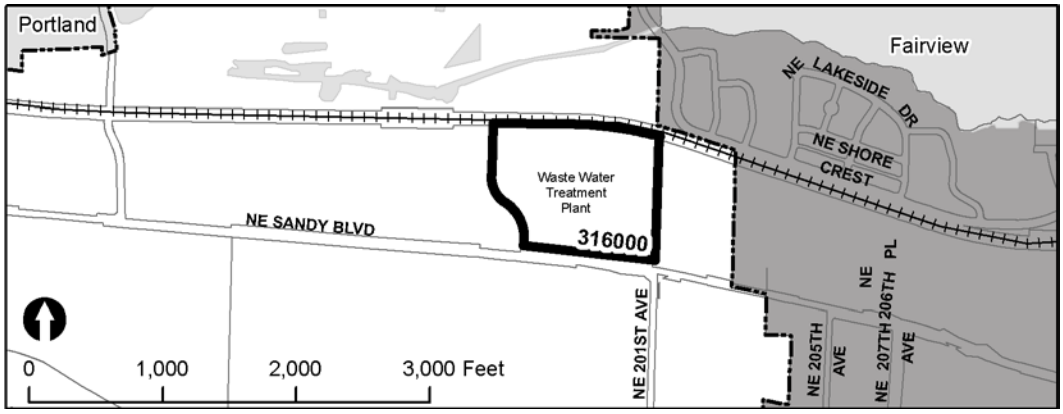
Funds	Description	Total
Resources	SDC	14,508,595
Resources Total		**14,508,595**
Expenses	Design/Const Admin	337,937
	Construction	12,388,924
	Admin (14%)	1,781,734
Expenses Total		**14,508,595**

316000: Upper Plant Aeration Basin No. 5

Description: This project will construct Upper Plant Aeration Basin No. 5 as identified in the March 2011 Master Plan Update. The new basin will be similar in size to the existing basin 4. New blowers will be added in the existing upper plant blower building.

Justification: The project will be required in anticipation of future ammonia nitrogen limits in the WWTP NPDES Permit. The new limit would require an approximate 7.3 day SRT in the aeration basins at projected future flows.

Type of Project: Construction of new WWTP Processes.



Estimated Dollars:

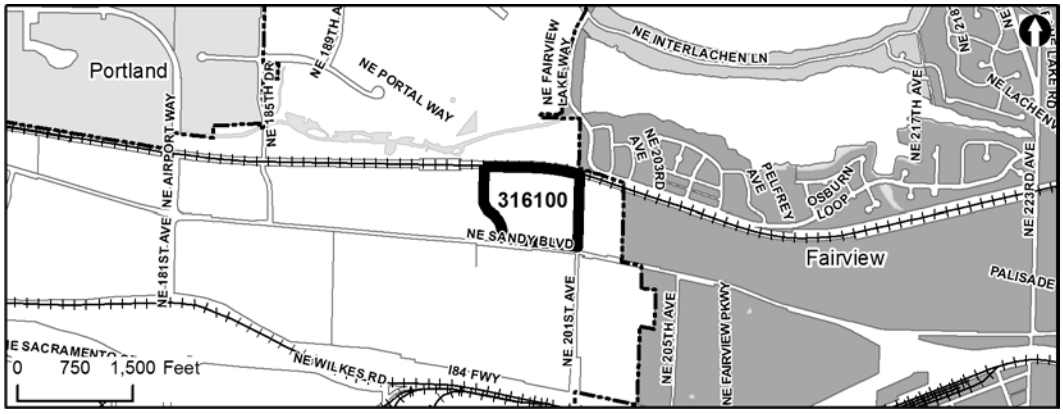
Funds	Description	Total
Resources	Operating	9,831,990
Resources Total		**9,831,990**
Expenses	Design/Const Admin	1,724,910
	Construction	6,899,642
	Admin (14%)	1,207,438
Expenses Total		**9,831,990**

316100: Digestion Capacity Improvements

Description: This project constructs additional digestion capacity and solids processing improvements as identified in the October, 2017 WWTP Master Plan Update currently estimated to begin in 2025. SDC project #WWSDC26.

Justification: The project is needed to increase the digestion capacity at the WWTP to allow for growth . In addition, the increased digestion capacity will allow the ability to receive additional organic wastes and increase the amount of biogas being produced at the WWTP.

Type of Project: Construction of new WWTP Processes.



Estimated Dollars:

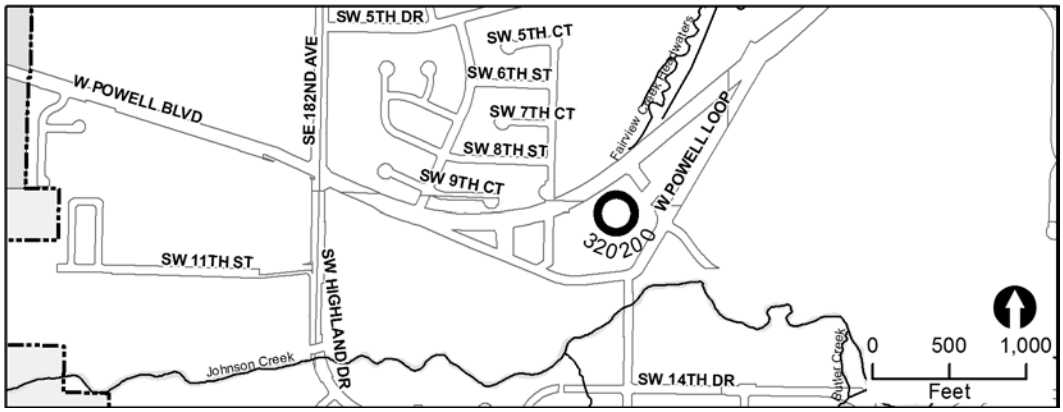
Funds	Description	Total
Resources	SDC	14,027,915
Resources Total		**14,027,915**
Expenses	Design/Const Admin	2,461,064
	Construction	9,844,075
	Admin (14%)	1,722,776
Expenses Total		**14,027,915**

320200: Linneman Pump Station Capacity Upgrade

Description: This project constructs additional capacity at the Linneman Pump Station as identified in the 2005 Linneman Pump Station Master Plan. The project consists of adding additional pumps at the pump station. SDC project #WWSDC23.

Justification: This project will provide the needed capacity for additional growth in the Johnson Creek Basin, including the Pleasant Valley and Springwater areas.

Type of Project: Construction of new facilities.



Estimated Dollars:

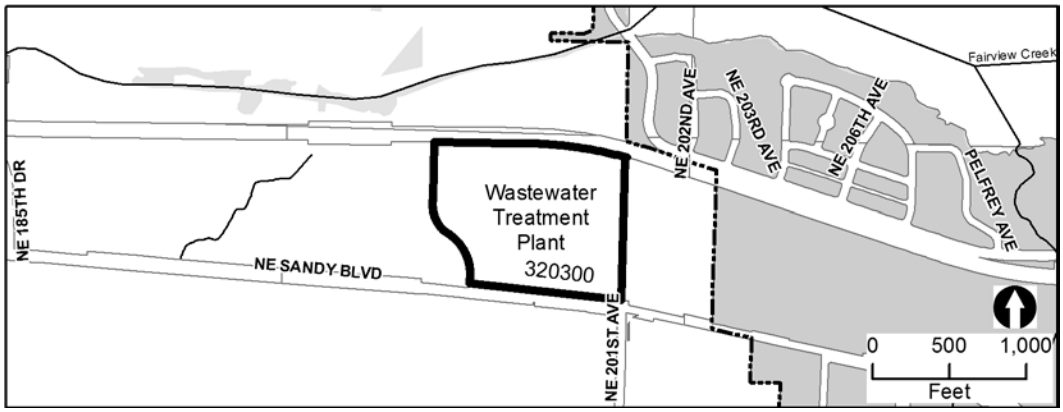
Funds	Description	Total
Resources	SDC	1,081,775
Resources Total		**1,081,775**
Expenses	Design/Const Admin	186,090
	Construction	762,793
	Admin (14%)	132,892
Expenses Total		**1,081,775**

320300: WWTP Asset Replacement and Refurbishment (R&R) Project (Yrs 6-20)

Description: This is an ongoing project that designs and constructs the R&R of assets at the WWTP and WW pumping stations that are scheduled per the asset management plan. Wastewater's newly completed Asset Management Program has developed a comprehensive asset inventory, asset condition and long range asset replacement planning methodology. This methodology will ensure that the City is appropriately planning, evaluating and replacing Assets to ensure the lowest life cycle cost at an appropriate level of service with adequate long range funding for the projects. This project is funded at $800,000 in year 6 escalated 3% per year thru year 20.

Justification: This project provides the needed funding for anticipated asset replacement and refurbishment as identified in the long range WWTP Asset Replacement Plan.

Type of Project: Repair and rehabilitation of facilities and utilities.



Estimated Dollars:

Funds	Description	Total
Resources	Repair/Replacement	14,879,131
Resources Total		**14,879,131**
Expenses	Design/Const Admin	2,559,210
	Construction	10,236,843
	Admin (14%)	2,083,078
Expenses Total		**14,879,131**

320400: 1960's Pipe Rehabilitation/Maint. Program

Description: This ongoing project completes systematic pipeline rehabilitation and maintenance projects as identified from the Sanitary Sewer Evaluation Study project, or subsequently as determined from ongoing collection system condition assessment. It addresses operational ongoing and anticipated operational concerns, primarily with the oldest sanitary sewer lines (circa 1960s) around downtown Gresham, reducing long term operational and maintenance costs. The majority of this work will likely implement a combination of open trench, pipe bursting, and "cure-in-place" pipe lining methods. (CIP 317700 is in response to already deficient and localized sections of conveyance system).

Justification: These assets have all passed their industry standard lifespan. The assets also have developed visually confirmed physical failures. The failure of these assets can lead to loss of service, backups and possibly spills.

Type of Project: Repair and rehabilitation of pipeline facilities.

City Wide Project

Estimated Dollars:

Funds	Description	Total
Resources	Operating	42,428,554
Resources Total		**42,428,554**
Expenses	Design/Const Admin	5,582,700
	Construction	31,635,354
	Admin (14%)	5,210,500
Expenses Total		**42,428,554**

320500: Collection System Trunk Assessment

Description: This program will provide assessment of the large trunk lines of the sanitary sewer collection system. These lines (generally larger than 30 inch diameters) cannot be inspected with the City's standard CCTV inspection program. The program will provide laser and sonar as well as CCTV inspection to provide a thorough condition assessment of the City's large trunk lines.

Justification: This program will provide the City the condition of the uninspected large trunk lines. The data from this inspection will be used by asset management software to prioritize the replacement/repair of the sanitary trunk sewer system.

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

Study/Analysis

Estimated Dollars:

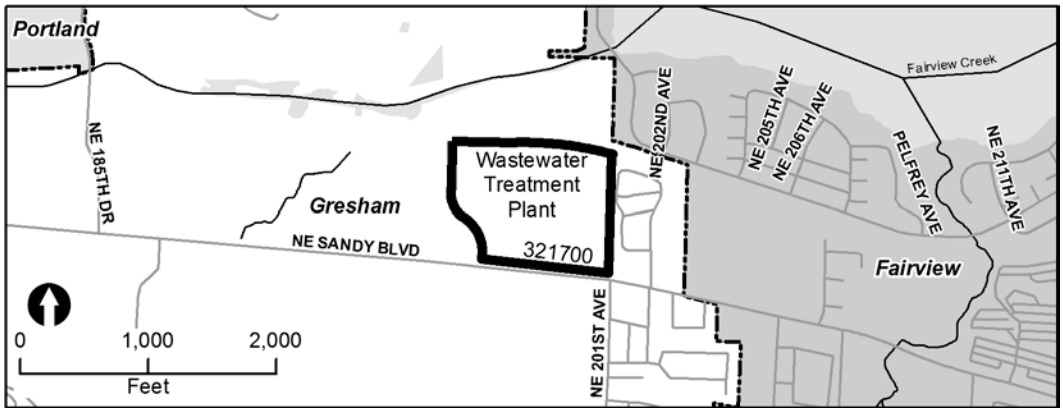
Funds	Description	Total
Resources	Operating	2,066,000
Resources Total		**2,066,000**
Expenses	Design/Const Admin	1,812,300
	Admin (14%)	253,700
Expenses Total		**2,066,000**

321700: WWTP Preliminary Treatment Upgrades

Description: This project constructs the design and construction of preliminary treatment upgrades at the Gresham Wastewater Treatment Plant (WWTP). The 2011 WWTP Master Plan identified that the improvements are needed in order to ensure that peak flows through the WWTP can be diverted around the barscreens as needed in the upper and lower WWTP headworks buildings. SDC project #WWSDC24

Justification: As stated in the 2011 Gresham WWTP Master Plan, this project ensures hydraulic flow through the headworks at peak capacity flows in case of malfunction of one or two of the existing barscreens. This ensures compliance with the City's NPDES wastewater discharge permit at flow conditions.

Type of Project: Design and construction of WWTP facilities.



Estimated Dollars:

Funds	Description	Total
Resources	SDC	973,597
Resources Total		**973,597**
Expenses	Design/Const Admin	165,460
	Construction	688,545
	Admin (14%)	119,592
Expenses Total		**973,597**

322300: Backbone Sewer Upgrade Seismic

Description: This project hardens the existing large diameter pipe to resist seismic events. The use of cured in place pipe using woven fiberglass that uses the host pipe will meet seismic standards. This project will replace CIP 320600 Collection system trunk replacement.

Justification: These backbone systems are vital to the continued service of our major piping network to insure the safe functioning of our city in the event of a seismic event.

Type of Project: Design and construction of WW facilities.

City Wide Project

Estimated Dollars:

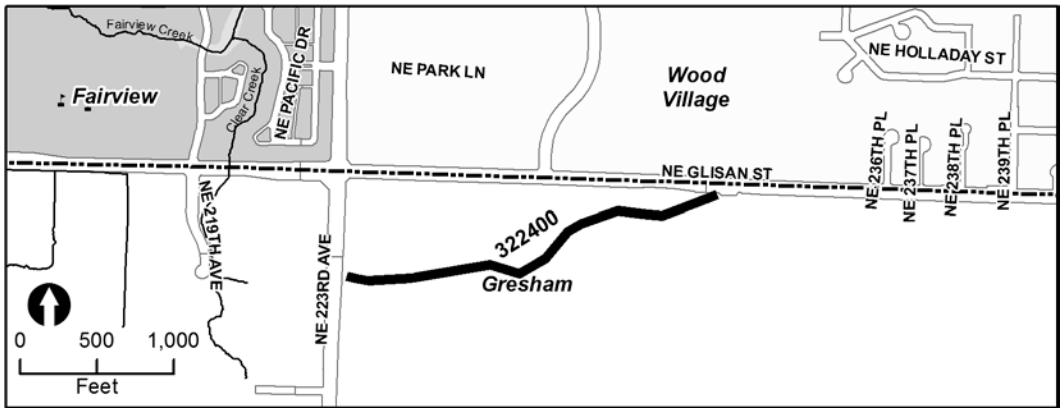
Funds	Description	Total
Resources	Grant	3,000,000
	Operating	1,000,000
Resources Total		**4,000,000**
Expenses	Design/Const Admin	526,300
	Construction	2,982,500
	Admin (14%)	491,200
Expenses Total		**4,000,000**

322400: Glisan St Bank Stabilization Seismic

Description: This project designs and constructs the stabilization of the sewerline in Glisan St. This section of the roadway is listed as a landslide hazard area.

Justification: Securing this section of the system is necessary to insure the continued service to the large commercial area.

Type of Project: Design and construction of WW facilities.



Estimated Dollars:

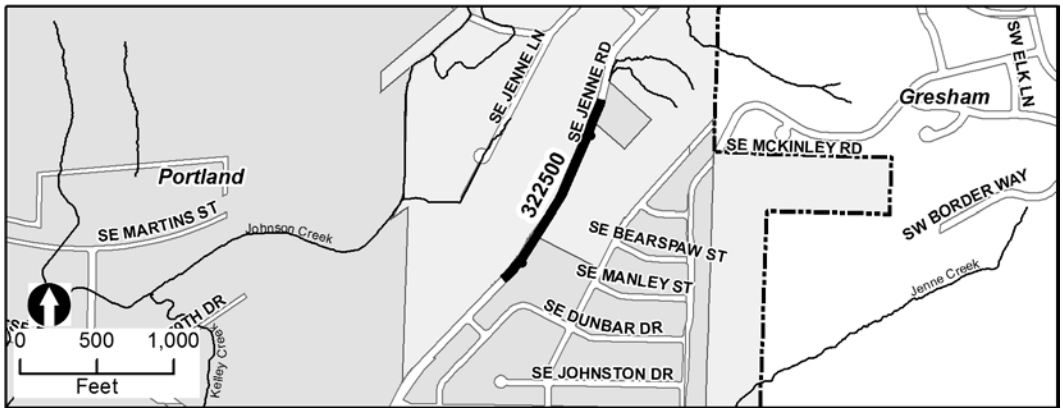
Funds	Description	Total
Resources	Grant	506,250
	Operating	168,750
Resources Total		**675,000**
Expenses	Design/Const Admin	88,800
	Construction	503,300
	Admin (14%)	82,900
Expenses Total		**675,000**

322500: Jenne Rd. Major Bank Stabilization Seismic

Description: This project designs and constructs a roadway stabilization project for over 1,500 feet of Jenne Road to protect a 24 inch wastewater line. The roadway is benched into the steep hillside with a narrow roadway and steep slopes on the downhill side of the road.

Justification: This area has been identified as a severe landslide area with potential damage to numerous utilities, the roadway and nearby structures.

Type of Project: Design and construction of WW facilities.



Estimated Dollars:

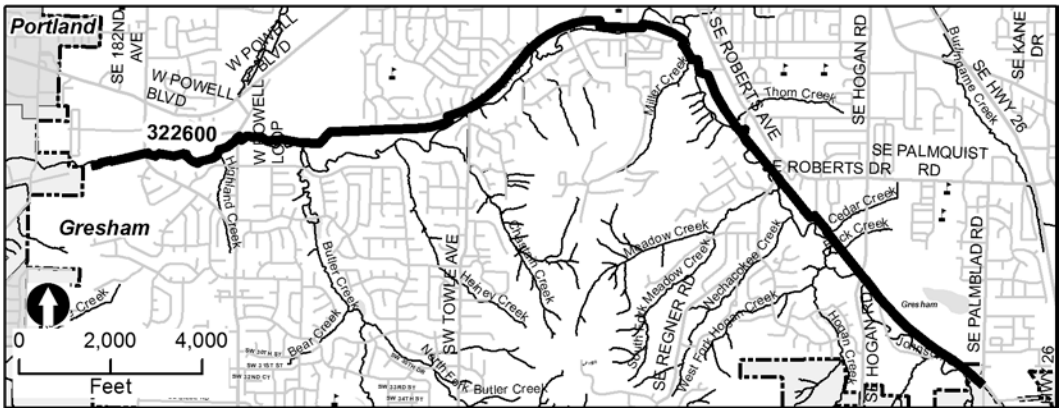
Funds	Description	Total
Resources	Grant	2,625,000
	Operating	875,000
Resources Total		**3,500,000**
Expenses	Design/Const Admin	460,500
	Construction	2,609,700
	Admin (14%)	429,800
Expenses Total		**3,500,000**

322600: Upper & Lower Johnson Creek Stabilization Seismic

Description: This project designs and constructs an effort to stabilize banks along Johnson Creek that hold a sewer line and have a moderate threat of landslide that would threaten the alignment of the sewer line. Destruction of the sewer line would result in sewage flowing directly into the creek.

Justification: Stabilizing the creek bank will insure that the existing utilities in the vicinity will function properly and not spill into the creek.

Type of Project: Design and construction of WW facilities.



Estimated Dollars:

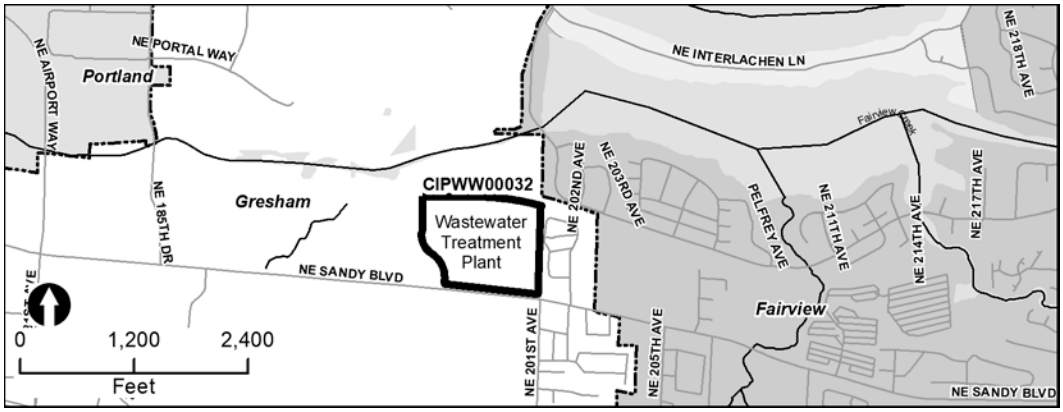
Funds	Description	Total
Resources	Grant	915,000
	Operating	305,000
Resources Total		**1,220,000**
Expenses	Design/Const Admin	160,500
	Construction	909,700
	Admin (14%)	149,800
Expenses Total		**1,220,000**

CIPWW00032: WWTP Influent Diversion and Disinfection Automation

Description: This project constructs Influent Diversion gate automation and Disinfection automation improvements as identified in the October, 2017 WWTP Master Plan Update currently estimated to begin in 2025.

Justification: The project is needed to more efficiently control the wastewater flow split to the WWTP while also better controlling disinfection during peak wet weather events.

Type of Project: Construction of new WWTP Processes.



Estimated Dollars:

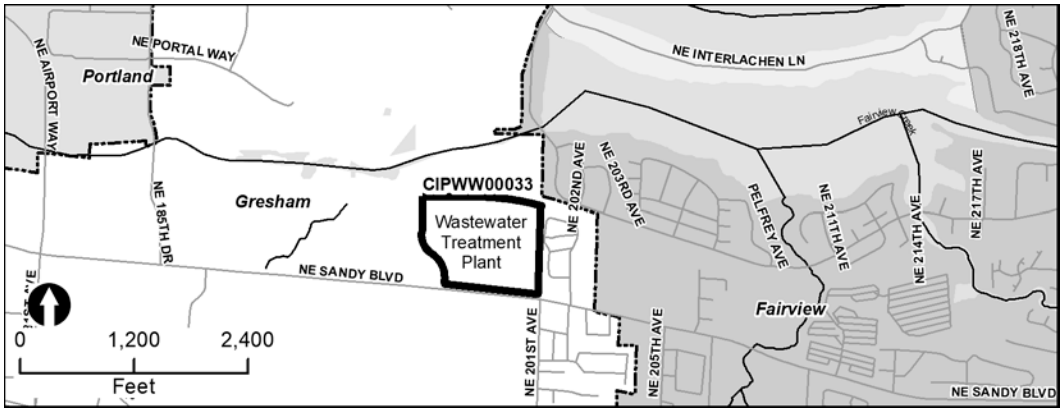
Funds	Description	Total
Resources	Operating	600,000
Resources Total		**600,000**
Expenses	Design/Const Admin	65,000
	Construction	461,300
	Admin (14%)	73,700
Expenses Total		**600,000**

CIPWW00033: WWTP Biogas Utilization Improvements

Description: This project constructs alternative biogas handling and utilization systems at the WWTP as identified in the October, 2017 WWTP Master Plan Update currently estimated to begin in 2026.

Justification: The project is needed to more efficiently produce and reuse the biogas produced at the WWTP.

Type of Project: Construction of new WWTP Processes.



Estimated Dollars:

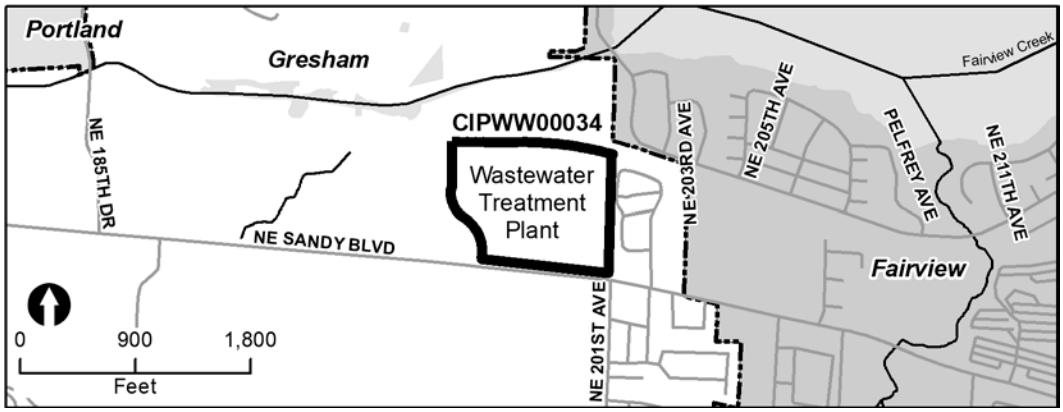
Funds	Description	Total
Resources	Operating	1,423,000
Resources Total		**1,423,000**
Expenses	Design/Const Admin	160,000
	Construction	1,088,200
	Admin (14%)	174,800
Expenses Total		**1,423,000**

CIPWW00034: WWTP Columbia Slough Bridge Replacement

Description: This project constructs a replacement Columbia Slough Access Bridge to the WWTP property as identified in the October, 2017 WWTP Master Plan Update currently estimated to begin in 2030.

Justification: The project is needed to replace an antiquated bridge that was install for temporary use by the drainage district.

Type of Project: Construction of new WWTP facilities.



Estimated Dollars:

Funds	Description	Total
Resources	Repair/Replacement	969,000
Resources Total		**969,000**
Expenses	Design/Const Admin	101,000
	Construction	749,000
	Admin (14%)	119,000
Expenses Total		**969,000**