

**2016-2021  
Capital Improvement Program  
For Water, Sewer, Surface Water**



July 13, 2015

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**2016-2021 Water, Sewer and Surface Water Capital Improvement Program (CIP)  
Letter from the Public Works Director**

As shown in this 2016-2021 Water, Sewer and Surface Water Capital Improvement Plan (CIP), the City of Vancouver continues to mark ongoing progress toward ensuring sound, financially sustainable Utilities that will serve the needs of many future generations.

The 2016-2021 CIP looks closely at each Utility's capital infrastructure needs. These include:

**Key Water Projects:**

- Multiple projects at Water Station 1. The Electrical Upgrade, Standby Power, and Booster Pump Project (WTR-37) is currently under design.
- SCADA System Upgrade (WTR-A1-5) Fiber optic installation contract portion is out to bid now
- Ongoing Transmission Main installation projects – Water Station 14 to Water Station 9 Phase 2 (WTR-77) is the current project
- Completion of Water System Master Plan Update (complete in 2015)

**Key Sewer Projects:**

- Westside treatment plant Ultraviolet (UV) Replacement (SS-66)
- Interceptor evaluation project (SS-A1-114)
- SCADA System Upgrade
- Westside Influent Process Reliability Improvement

**Key Sewer Connection Incentive Program (SCIP) Projects:**

- Granada South (SCIP-235) 277 Lots
- Southridge (SCIP-56) 25 Lots
- Fircrest (SCIP-64) 39 Lots

**Key Surface Water Management Projects:**

- Grant funded projects including 98<sup>th</sup> Ave phase 2, 109<sup>th</sup> Ave at Petersen Channel, 18<sup>th</sup> St at Burnt Bridge Creek.
- Retrofits focusing on increased water quality at some of our existing drywells
- Regulatory Compliance – National Pollutant Discharge Elimination System (NPDES) Stormwater - Low Impact Development (LID) regulations coming in 2016 will mean a significant shift in how stormwater is addressed on new construction projects. Council will see a workshop scheduled this Fall for a more detailed discussion on this topic.

While this plan focuses on improvements in each Utility's infrastructure, equally important is how we operate and maintain these assets in which our customers have invested. Recent key accomplishments in maintenance and operations include:

- Successful implementation in January 2015 of a technology upgrade that provides enhanced tracking of maintenance and operations work on water, sewer and stormwater assets. The resulting data also improves decision-making practices for when to repair, rehabilitate or replace Utility assets. Upgrade of the previous Hansen system to the new Infor Public Sector (IPS) software began in 2014.
- Continuing achievement of quality water, sewer and stormwater services while offering the lowest rates among comparable cities in our region. The recent technology upgrade, asset management initiatives and work of dedicated Utility employees have provided the advantage needed to continue this strong record.
- Extensive review and selection process has been completed for a new sewer treatment plant operations contract. The Utility's staff has evaluated requested proposals from qualified sewer treatment plant operators to replace the Utility's current contract, and selected a contractor with which to negotiate a new proposed contract. Contract negotiations have been successfully completed. A new proposal for a long-term operating contract will be offered to Council for approval in July. The sewer/wastewater treatment contract is the greatest portion of the annual sewer operations and maintenance budget. The Utility's goal is to maintain excellent service and environmental record while significantly reducing yearly costs.

In accordance with City Council policy, Vancouver Public Works strives to take care of our full infrastructure needs with the resources we have, except where it makes significant sense to take on additional debt. This funding approach helps reduce each Utility's long-term exposure to debt financing and the restrictions it imposes on managing and allocating future resources. With continued support of small incremental rate adjustments, our Water and Sewer utilities will achieve this key goal in the coming years. Our Surface Water utility continues to adapt to changing regulatory requirements, and future rate adjustments will be needed.

In closing, Vancouver's economic health and livability depends upon safe, sound, effective and efficient community infrastructure. As we navigate the challenges ahead, we will continue to seek out innovations and opportunities that will support our thriving community now and for generations to come.

Brian K. Carlson, P.E.  
Director of Vancouver Public Works

## **WATER, SEWER, AND SURFACE WATER COMPREHENSIVE PLAN POLICIES (Adopted 11-7-2011)**

- PFS-1. SERVICE AVAILABILITY (ALL UTILITIES): Consider water, sewer, police, transportation, fire, schools, storm water management and parks as necessary public facilities and services. Ensure that facilities are sufficient to support planned development.
- PFS-2. SERVICE STANDARDS (ALL UTILITIES): Establish service standards or planning assumptions for estimating needed public facilities, based on service capabilities, local land use designations and nationally recognized standards.
- PFS-21. WASTEWATER RECLAMATION: Eliminate health hazards from domestic and industrial wastewater and return clean water to the environment.
- PFS-22. SEWER SERVICE: Provide sewers and sewer service to every Vancouver home, business, and industry at an affordable and equitable cost. Discourage development that includes on-site sewage treatment systems. Encourage existing development using septic systems to connect to public sewer as soon as available. Ensure that the infrastructure to support sewer service is in place prior to or at the time of development.
- PFS-23. WATER SERVICE: Provide safe, clean, quality drinking water to every Vancouver home, business, and industry. Discourage development that includes private drinking water wells. Provide water pressures and volumes necessary to support fire suppression hydrants and sprinkler systems. Ensure that the infrastructure to support water service is in place prior to or at the time of development.
- PFS-24. SEWER AND WATER SERVICE EXTENSION: Public sewer and water service should not be extended outside the Vancouver urban growth area except to (a) Remedy a threat to public health or safety. (b) Remedy a threat to water resources, (c) Provide service to uses within the urban reserve district otherwise required to be served (d) Support development envisioned in a jurisdiction's comprehensive plan (e) Water service may be extended if it is consistent with the Clark County Coordinated Water System Plan and does not increase density beyond the adopted Comprehensive Plan. The existence or extension of sewer or water service should not be used to justify changes to the Comprehensive Plan.
- PFS-25. SURFACE WATER MANAGEMENT: Manage storm water to safely pass floodwaters, maintain and improve water quality of receiving streams, lakes, and wetlands, protect and enhance fish and wildlife habitat, promote recreational opportunities, and enhance community aesthetics.

## **ASSET MANAGEMENT COMPREHENSIVE PLAN POLICY (Adopted 12-16-2013)**

- PFS-35 City public facility assets shall be systematically managed to balance full life cycle costs, performance, risk, and service levels, using best management practices and data.

## **CAPITAL PLANNING AND ASSET MANAGEMENT FINANCIAL POLICIES (Adopted 5-7-2012)**

31. Asset management best practice involves managing the performance, risk and expenditures on infrastructure assets in an optimal and sustainable manner throughout their lifecycle covering planning, design, construction, operation, maintenance, and disposal. The City shall integrate the principles and best practices of Asset Management such as those embodied in the International Infrastructure Management Manual in the management of its assets.
32. **Asset Inventory** will be maintained with maintenance, repair and deferred maintenance costs identified and updated on an annual basis.
33. **Maintenance** of city assets shall be addressed on a current need, rather than deferred into the future.
35. A six-year City-Wide Capital Improvement Program shall be developed annually and shall provide a prioritized list of reasonably funded projects and those in process of securing funding. Capital Improvement Plans for utility assets shall be updated no less frequently than every two years. The comprehensive plan will identify longer-term capital needs by program area.
36. **Funding** for capital projects, including major facilities maintenance projects, will be allocated in a manner that balances community needs with City priorities, the potential for attracting matching funds, and the ability to reduce or limit expenses in future years.
37. The City's objective is to incorporate a "**Pay-As-You-Go**" approach (using available cash and current resources) in the Capital Improvement program.
38. The **Capital Budget** will be adopted at the same time the City Operating Budget is adopted. The Capital budget will only include fully funded projects. The Capital Budget will only contain projects identified in the Capital Improvement Program.

39. A **capital repair appropriation** will be maintained for unanticipated major repairs of general operating facilities and for emergency replacement of general fund equipment. Additions to the capital repair contingency reserve will be made based on Council directions.
40. Impacts on net **annual operating and maintenance costs** will be identified as part of the funding considerations for new capital projects such as buildings, parks and street enhancements. This includes identifying potential reductions in maintenance costs if improvements are funded. The necessary funds to operate the capital facility will be identified at the time the capital budget is adopted.
41. The City will fund 100% depreciation of the current Utility assets on an annual basis. Goals by a specific utility are outlined below:  
Water – effective 2011  
Sewer – effective 2023  
Surface Water – effective 2017
42. A **System Development Reserve** will be maintained to fund growth related capital costs. All systems development charge revenue will be contributed to the fund.



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## UTILITY FUNDING NARRATIVE

Each of the utilities has five components to their funding structure: Revenue, Expenses, Reserves, Debt, and Assets. In broad terms, Revenue is the money brought into the utility, Expenses are the moneys going out of the utility, Reserves are the moneys set aside for emergencies or capital work, Debt is the money owed on loans, and Assets are the value of the infrastructure/facilities and money held by the utility. Below is a general description of each component for the respective utilities.

### **Water**

- Revenues consist of: Ratepayer revenue, System Development Charges (SDC), Grants, and miscellaneous revenue.
- Expenses consist of: Operations and maintenance activities, Taxes and fees, Loans made to other utilities, Debt service, and Capital improvements.
- Reserves consist of: Debt service reserve, Capital emergency reserve, Water construction reserve, Sewer Connection Incentive Program (SCIP) reserve.
- Debt consists of: Revenue bonds for capital improvements
- Assets consist of: Pipes and appurtenances, Water stations, Wells, Water rights, Real property/Easements, Distribution pumps, Operations and maintenance equipment, and cash.

### **Sewer**

- Revenues consist of: Ratepayer revenue, System Development Charges (SDC), Loans, and miscellaneous revenue.
- Expenses consist of: Operations and maintenance activities, Taxes and fees, Debt service, and Capital improvements.
- Reserves consist of: Debt service reserve, Capital emergency reserve, Sewer construction reserve.
- Debt consists of: Revenue bonds for capital improvements, long-term Interfund loan from water.
- Assets consist of: Pipes and appurtenances, Pump stations, Wastewater treatment facilities, Real property/Easements, Operations and maintenance equipment, and cash.

### **Surface Water**

- Revenues consist of: Ratepayer revenue, Loans, Grants, and miscellaneous revenue.
- Expenses consist of: Operations and maintenance activities, Taxes and fees, and Capital improvements.
- Reserves consist of: Surface water construction reserve.
- Debt consists of: State Revolving Loan (SRL) for capital improvements.
- Assets consist of: Treatment facilities, Conveyance facilities, Flow control facilities, Real property/Easements, Operations and maintenance equipment, and cash.



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## CAPITAL PROJECT JUSTIFICATIONS

Each utility works on capital projects that can be lumped into five broad categories: Regulatory compliance, improved safety, new systems, replace/preserve/rehabilitate systems, or lower operating costs. Regulatory compliance projects include capital work done in order to comply with new State or Federal requirements. Improved safety projects are capital projects undertaken in order to improve the public safety and welfare. New systems capital projects are undertaken in order to increase capacity or facilitate growth. Replace/preserve/rehabilitate system capital projects are undertaken in order to replace old infrastructure or prolong existing infrastructure's effective life. Lower operating costs projects include capital work done in order to increase efficiencies or to otherwise reduce operating costs. Many projects will overlap categories, but these five categories provide the justification for why most public works capital projects are undertaken. Below are examples of the types of projects that can be found in each category for the respective utilities.

### Water

- (1)-Regulatory compliance: State (DOH) and Federal (EPA) projects.
- (2)-Improved safety: Fire flow improvements, seismic upgrades, and chemical system upgrades.
- (3)-New systems: Wells, pumps, treatment systems, controls, storage, and mains.
- (4)-Replace/preserve/rehabilitate systems: Wells, pumps, treatment systems, controls, storage, substandard and leaking mains.
- (5)-Lower operating costs: Water station upgrades and pump replacement.

### Sewer

- (1)-Regulatory compliance: Improve discharge to water bodies and sludge burning (air quality).
- (2)-Improved safety: Groundwater protection improvements and Sewer Connection Incentive Program (SCIP).
- (3)-New systems: New trunk/interceptor/service mains and new pump stations.
- (4)-Replace/preserve/rehabilitate systems: Slip lining projects and pump station replacements.
- (5)-Lower operating costs: Treatment plant upgrades and pump replacement.

### Surface Water

- (1)-Regulatory compliance: NPDES compliance projects and Underground Injection Control (UIC) retrofit.
- (2)-Improved safety: Flooding mitigation and groundwater protection improvements.
- (3)-New systems: New treatment, conveyance, or flow control improvements.
- (4)-Replace/preserve/rehabilitate systems: Swale retrofits and drywell relocation projects.
- (5)-Lower operating costs: Swale retrofits and flow control retrofits.



# Water Utility



Capital Improvement Program  
For Water, Sewer, and Surface Water

# Water Utility Recent Financial History



Capital Improvement Program  
For Water, Sewer, and Surface Water



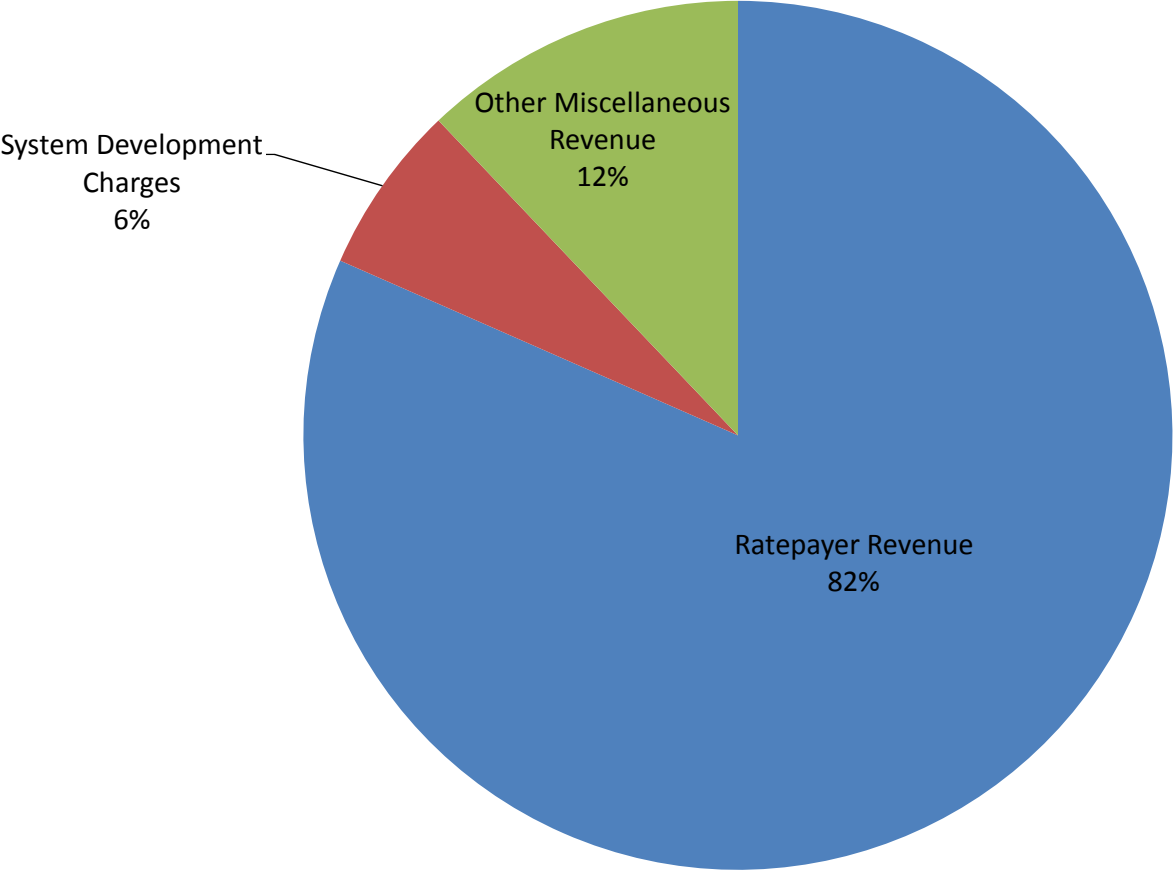
## WATER FUND ACTIVITY (2004-2014)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Revenue</b>											
Ratepayer Revenue	21,185,527	20,887,185	22,607,560	22,056,022	21,869,406	23,613,734	21,999,301	22,116,629	23,859,970	25,071,155	26,598,003
System Development Charges	3,020,555	3,589,880	2,962,831	2,471,504	1,933,949	1,412,010	1,137,266	967,860	1,373,668	2,589,774	2,060,907
Grants	22,598	49,936	13,454	37,389	-	66,117	85,683	237,151	23,475	74,357	41,385
Other Miscellaneous Revenue*	2,962,592	2,164,562	5,206,516	6,131,701	5,530,813	5,412,160	4,270,805	3,912,580	3,710,699	3,737,647	3,903,125
<b>Total Revenue</b>	<b>27,191,272</b>	<b>26,691,563</b>	<b>30,790,361</b>	<b>30,696,616</b>	<b>29,334,168</b>	<b>30,504,021</b>	<b>27,493,055</b>	<b>27,234,220</b>	<b>28,967,812</b>	<b>31,472,933</b>	<b>32,603,420</b>
<b>Expenses</b>											
Salaries & Benefits	6,332,585	6,757,444	7,023,487	7,572,147	8,083,613	8,956,352	8,491,672	9,196,451	9,163,087	9,576,113	9,761,371
Supplies and Services	1,949,103	2,519,444	2,457,438	2,305,795	2,286,252	2,053,981	2,273,911	2,703,054	2,841,969	3,132,304	3,864,162
Professional Services	1,196,912	992,878	1,240,734	1,382,526	1,331,454	1,050,130	751,575	665,877	921,786	913,658	643,348
Electrical	1,646,854	1,458,379	1,704,566	1,713,602	1,719,915	1,873,298	1,651,280	1,583,987	1,705,248	1,624,496	1,570,177
Indirects and ER&R	1,809,792	2,017,674	2,083,048	3,993,239	2,843,941	2,326,343	2,354,859	820,766	1,416,381	1,406,584	1,115,950
<b>Operations &amp; Maintenance Expenses</b>	<b>12,935,246</b>	<b>13,745,819</b>	<b>14,509,273</b>	<b>16,967,309</b>	<b>16,265,175</b>	<b>16,260,104</b>	<b>15,523,297</b>	<b>14,970,135</b>	<b>16,048,470</b>	<b>16,653,155</b>	<b>16,955,008</b>
Taxes and Fees	4,243,496	4,080,375	4,457,475	4,721,215	4,641,464	5,986,709	5,546,360	5,586,373	6,018,686	6,275,322	6,681,153
Debt Service	1,270,114	1,293,129	1,258,191	1,254,509	1,248,196	1,259,296	1,249,973	1,251,637	1,195,069	1,198,701	645,471
Loans to the Sewer Fund						3,600,000	2,705,000				
Capital Construction Expenses	3,913,704	7,851,152	8,082,071	9,728,585	9,040,428	6,307,356	5,001,619	7,529,635	5,466,778	5,700,078	7,653,864
<b>Expenses Subtotal</b>	<b>22,362,560</b>	<b>26,970,474</b>	<b>28,307,010</b>	<b>32,671,618</b>	<b>31,195,262</b>	<b>33,413,466</b>	<b>30,026,250</b>	<b>29,337,780</b>	<b>28,729,003</b>	<b>29,827,256</b>	<b>31,935,496</b>
Depreciation	3,789,312	3,779,389	3,922,732	4,188,798	4,735,182	5,009,562	5,079,245	5,051,790	4,751,066	4,407,994	4,441,149
<b>Total Expenses</b>	<b>26,151,872</b>	<b>30,749,863</b>	<b>32,229,742</b>	<b>36,860,416</b>	<b>35,930,444</b>	<b>38,423,028</b>	<b>35,105,495</b>	<b>34,389,570</b>	<b>33,480,069</b>	<b>34,235,250</b>	<b>36,376,645</b>

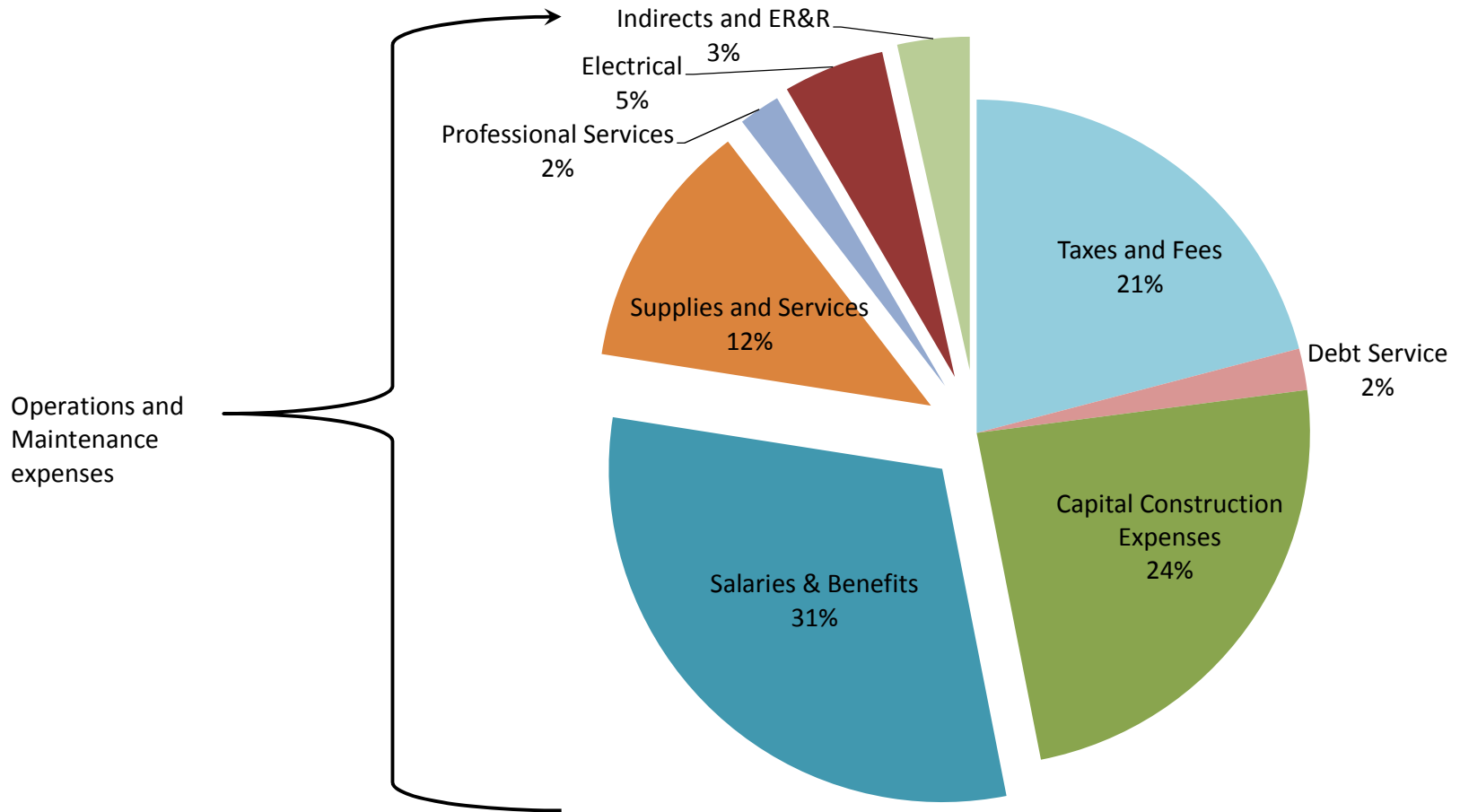
**\*Other Miscellaneous Revenues include items such as:**

- Misc Fines & Penalties
- Interest Earnings
- Interfund Rents
- Service Installations
- Latecomer Fees
- Interfund Transfers
- Proceeds from Refunded Debt

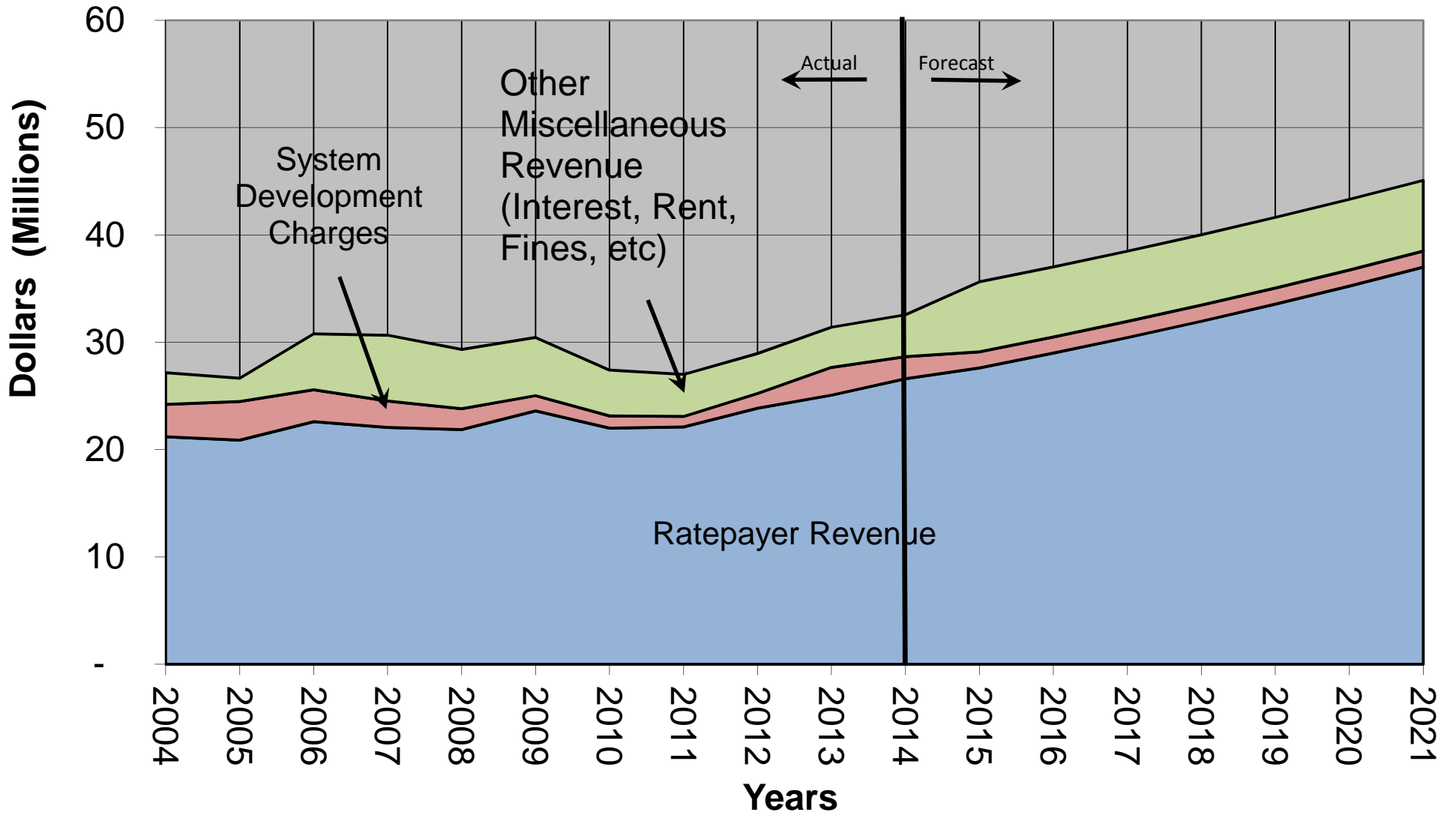
**2014 Water Utility Revenues = \$32,603,420**



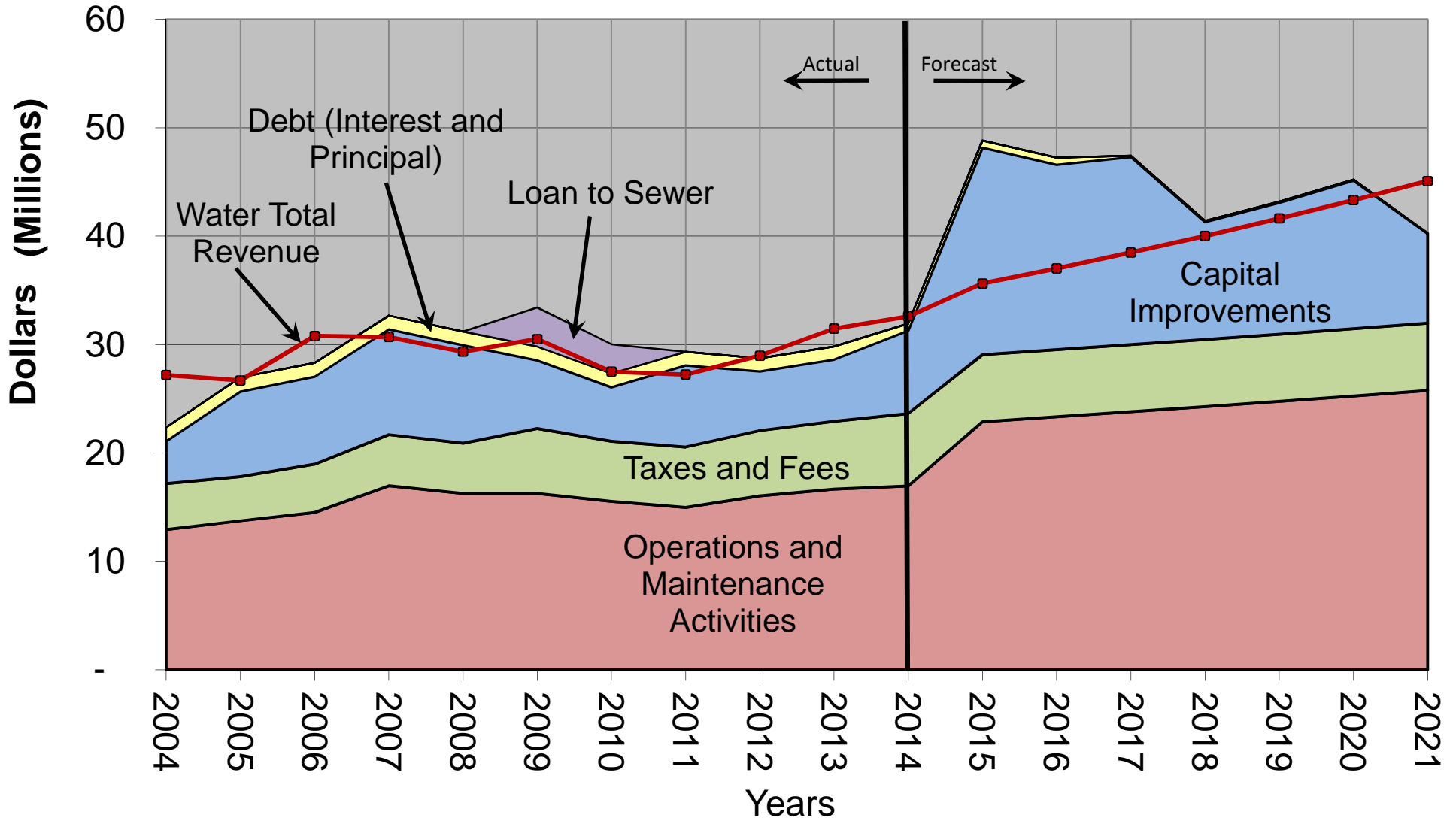
**2014 Water Utility Expenses = \$31,935,496**



# Water Revenues (2004-2021)



# Water Expenses (2004-2021)



# Water Utility Project List



Capital Improvement Program  
For Water, Sewer, and Surface Water



## Water Utility CIP Changes

This page provides an overview of the changes from the previous 6 year project list (2015-2020) to this year's 6 year project list (2016-2021). The changes are segmented by: projects added; projects removed; and other.

Projects Added	Project Number	Comments
SCADA System Upgrade (2015-2018)	WTR-A1-5	New projects identified by the 2014 project - SCADA System Upgrade SC-01
Pump House Roofing Replacement	None - new	Project and budget added for 2015 & 2016
WS 9 Lead & Copper Pilot Study	None -new	Project budgeted in 2017 for regulatory compliance
Water Tower 5,6 & 7 Seismic Improvements	WTR-A1-6	New projects for 6 yr CIP
WS 5 Reservoir Seismic Improvements	WTR-A1-6	New project identified in 2014 study – added to 6 yr CIP
Water Station 5 Booster Pumps	WTR-101	New project added to 6 yr CIP
WS 4 water Rights Utilization Study	WTR-102	New project added to 6 yr CIP
WS 7 Hypo Gen System	WTR-103	New project added to 6 yr CIP
WS 8 Hypo Gen System	WTR-104	New project added to 6 yr CIP
NE 141 <sup>st</sup> ave and 28 <sup>th</sup> St (north) SCIP	WTR-A1-10	New \$200,000 project identified for 2015
Wainwright Property	None	New \$1,400,000 project identified for 2015
CRWWD Wooded Acres	None	\$10k CRWWD coordination, City to be reimbursed.
County UIC Project	None	\$10k County coordination project.
Columbia View Apartments	None	\$34k to oversize main for development
59 <sup>th</sup> Street Oversize	None	\$10k to oversize main for development

Projects Removed	Project Number	Comments
<b>Water Production:</b>		
SCADA System Upgrades (SC-01)	WTR-A1-5	Project redefined as SCADA System Upgrade (2015 to 2018)
Land Acquisition for Standpipe in SE	WTR-A1-13	Changed name to “Reservoir install SE “ and moved outside of 6-year plan (2026)
45 <sup>th</sup> St east of NE 72 <sup>nd</sup> – repl. water main	WTR-80	Project Completed in 2014
NE 53 <sup>rd</sup> Ave & NE 49 <sup>th</sup> St – Repl. water main		Project Completed in 2014
Main St. – Repl. 12 <sup>th</sup> to 15 <sup>th</sup> St	WTR-3	Project Completed in 2014
Columbia Terrace (SCIP)	WTR-A1-10	Project Completed in 2014
Holly Acres (SCIP)	none	Project Completed in 2014
NW 52 <sup>nd</sup> Cul de Sac	WTR-A1-3	Project Completed in 2014
32 <sup>nd</sup> St – Q St to Fairmont	WTR-25	Project Completed in 2014
E. 28 <sup>th</sup> St. – Broadway to F St.	WTR-82	Project Completed in 2014
NE 59 <sup>th</sup> St Cul de Sac	WTR-84	Project Completed in 2014
NE 62 <sup>nd</sup> St & NE 72 <sup>nd</sup> Ave – FH Relocate		Project Completed in 2014
Chelsea Ave. and SE Evergreen	none	Project Completed in 2014
49 <sup>th</sup> St – St. John’s to 40 <sup>th</sup> Ave.	none	Project Completed in 2014
<b>Other:</b>		
PRV Flush Valves	WTR-A1-11	Project Completed in 2014
NE 18 <sup>th</sup> St. Interchange	none	Coordination project in anticipation of WSDOT interchange project at 18 <sup>th</sup> St & I-205 project. Completed in 2014
Water Main Evergreen 164 <sup>th</sup> to 192 <sup>nd</sup> Ave	WTR-2	Project not needed
NE 18 <sup>th</sup> St and Mission Hills Spill	none	New project to monitor groundwater along 18 <sup>th</sup> St. in vicinity of Mission Hills apartment complex. Completed in 2014.

<b>Other Changes</b>	<b>Project Number</b>	<b>Comments</b>
Water Works Park: Standby Power, Booster Station	WTR-37	Moved part of 2015 budget to 2016
Booster Station Flowmeters	WTR-9	Carry forward partial budget
NE 60 <sup>th</sup> Ave. – NE 70 <sup>th</sup> St	WTR-85	Carry forward partial budget
Seismic Evaluation Towers & Reservoirs	WTR-A1-6	Carry forward partial budget
Well Level Probes	WTR-A1-15	Carry forward partial budget
E. 13 <sup>th</sup> St. – V St. to W St..	WTR-81	Carry forward partial budget
Sodium Hypo Gen System/Building WS 1	WTR-78	Carry forward \$450,000 to 2015
Water System Comp Plan	None	Carried forward partial budget from 2014
Ellsworth Well Rehabilitation	WTR-16	Moved project forward from 2017 to 2015/16
Treatment Regulations Compliance	WTR-A1-23	2017 budget increased \$100,000
Port Water System Upgrade	WTR-66	Carried forward from 2014
NE 47 <sup>th</sup> Ave – NE 68 <sup>th</sup> St	WTR-76	Carried forward from 2014
Vancouver Mall Dr. Transportation Coordination	WTR-79	Carried forward from 2014
PRV Flowmeters/SCADA System Connection	WTR-A1-12	Carried forward from 2014
Evergreen Lining Sleret	None	Emergency leak abatement project in 2014. Carry forward partial budget into 2015
18 <sup>th</sup> Street Oil Spill at Mission Hills	None	Emergency oil spill project in 2014. Carry forward partial budget into 2015
28 <sup>th</sup> St – Grant to Daniels water main	WTR-87	Add'l budget of \$50,000 for Leak Abatement project
W. McLoughlin –Lincoln to Kaufman water main	WTR-88	Add'l budget of \$25,000 for Leak Abatement project
Transmission Main-WS 14 to WS9 Ph 2 (DST-03)	WTR-77	Partial budget carried forward from 2014

\* These projects were identified after last year's presentation to Council and will be completed prior to the end of 2015. Therefore, they did not show up in last year's CIP or this year's CIP.

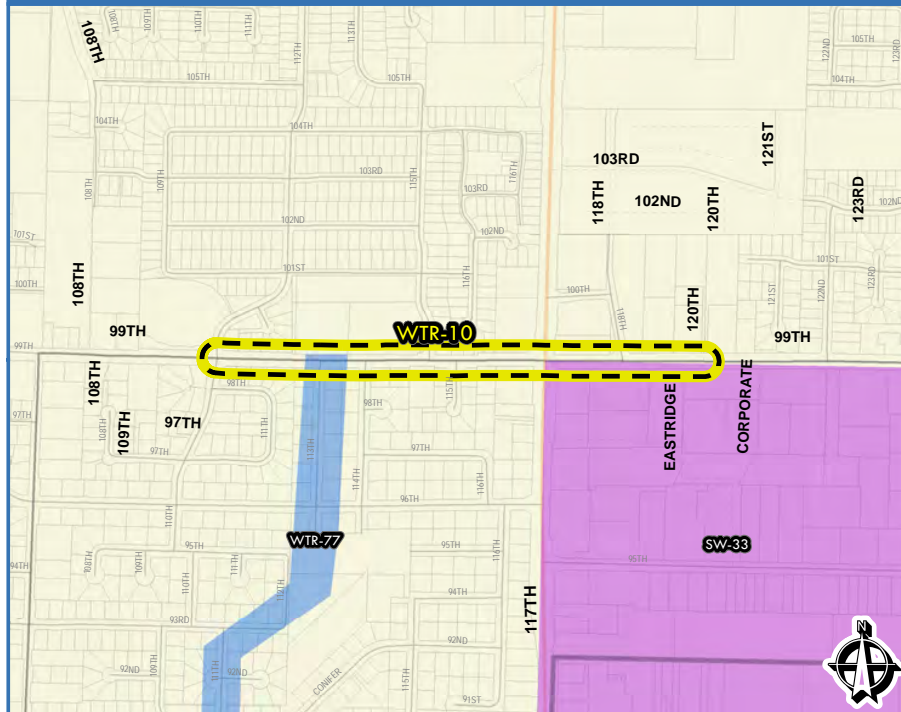
Description	CIP #	2015	2016	2017	2018	2019	2020	2021	6-yr Total
<b>448 Water Construction Fund</b>									
<b>Water Production Projects</b>									
Ellsworth Greensand Replacement	WTR-32	970,579							-
Well Level Probes	WTR-A1-15	35,669							-
Water Comp Plan	WTR-A1-17	136,000							-
Sodium Hypo Gen System WS 14	WTR-62	200,000							-
Water Rights Utilization Study WS 6,8,15	WTR-A1-28	200,000							-
Water Station 1 Standby Power Booster Station	WTR-37	2,178,006	8,060,000	6,400,000					14,460,000
Sodium Hypo Gen System at WS 1	WTR-78	344,280	450,000						450,000
Ellsworth Well Rehabilitation	WTR-16	20,000	250,000						250,000
Scada System Upgrade(2015-2018)	WTR-A1-29	3200000	2,200,000	1,400,000	400,000				4,000,000
Pump House Roofing Replacement	WTR-99	100,000	100,000						100,000
Water Works Park 3.0 MG Reservoir and Seismic Upgrade	WTR-39	-	800,000	2,700,000	6,400,000				9,900,000
Water Works Park New Standpipe	WTR-42	-	-	500,000	2,000,000				2,500,000
Exploration for New Water Source	WTR-A1-7	-	-	50,000					50,000
WS 9 Lead & Copper Pilot Study	WTR-100	-	-	100,000					100,000
Treatment Regulations Compliance	WTR-A1-23	-	-	900,000					900,000
Water Station 6 Internal Coating	WTR-47	-	-	400,000					400,000
Sodium Hypo Gen System Ellsworth	WTR-64	-	-			300,000			300,000
Sodium Hpo Gen System WS 9	WTR-61	-	-			350,000			350,000
Water Station 6 Well/Treatment Install	WTR-69	-	-			2,000,000	1,000,000		3,000,000
Seismic Evaluation Towers and Reservoirs	WTR-A1-6	120,000							
Water Tower 5,6,7 Seismic Improvements	WTR-A1-6	-	-			2,700,000			2,700,000
Standpipe in NE	WTR-A1-18	-	-			200,000	2,300,000		2,500,000
Lincoln High Booster Pump Replacment	WTR-40	-	-			800,000			800,000
Water Station 8 Replace Wells 2 & 3	WTR-68	-	-			1,000,000	1,000,000		2,000,000
WS 5 Reservoir Seismic Improvements	WTR-A1-6	-	-			3,000,000			3,000,000
Water Station 3 Master Plan	WTR-38	-	-			130,000			130,000
Sodium Hypo Gen System WS 15	WTR-63	-	-			200,000			200,000
Water Station 5 Booster Pumps	WTR-101	-	-				1,000,000		1,000,000
Water Station 4 Water Rights Utilization Study	WTR-102	-	-				100,000		100,000
WS 7 Hypo Gen System	WTR-103	-	-				200,000		200,000
WS 8 Hypo Gen System	WTR-104	-	-				200,000		200,000
<b>Water Distribuion Projects</b>									
Transmission Main - WS14 to WS9 Ph 2 (DST-03)	WTR-77	2,499,860							-
Port Water System Upgrade	WTR-66	200,000							-
NE 47th Ave - 68th to North County	WTR-76	132,000							-
Vancouver Mall Drive Transportation Coordination	WTR-79	150,000							-
PRV Flowmeters/Scada System Connections	WTR-A1-12	124,862							-
E. 13th St. - V St. to W St.	WTR-81	555,917							-
NE 60th Ave. - NE 70th St	WTR-85	14,500							-
K & L St - E 29th to 32nd St Water Main	WTR-86	260,000							-
NE 54th St - 40th Ave to 45th Ave Water Main	WTR-89	200,000							-
Booster Station Flowmeters	WTR-9	21,530							-
Claire St Water Main	WTR-90	75,000							-
Alleys E & W of G St - 19th St to 20th St	WTR-91	60,000							-
Linde 2" Water Service	WTR-97	20,000							-
NE 94th Ave - 88th St Trans Main County Coord	WTR-94	161,000							-
141st Ave - 28th St North SCIP(Water)	WTR-A1-10	200,000							-
Wainwright Property		1,400,000							-
18th Street Oil Spill - Mission Hills		17,126							-
Evergreen Lining at Sleret		34,709							-
Water Demand Response	WTR-A1-27	206,000	300,000	300,000	300,000	300,000	300,000	300,000	1,800,000
CRWWD Wooded Acres		10,000							
County UIC Project		10,000							
Columbia View Apartment Oversize		34,000							
59th St Oversize		10,000							
28th St - Grant to Daniels Water Main	WTR-87	-	450,000						450,000
W McGloughlin - Lincoln to Kaufman Water Main	WTR-88	-	125,000						125,000
Bunch Plastic - 4th Plain & 103rd Ave	WTR-92	-	35,000						35,000
SE Morgan Rd - S of Middle Way	WTR-93	-	50,000						50,000
Evergreen Transmission Main Blandford to Sleret	WTR-95	-	500,000	2,500,000					3,000,000
Bernie PRV Replacement	WTR-55	-	-	250,000					250,000
Leak Abatement	WTR-A1-3	-	-	700,000	700,000	600,000	600,000	1,000,000	3,600,000
Water SCIP Coordination Projects	WTR-A1-10	-	-	100,000	100,000	100,000	100,000	100,000	500,000
Water Main NE 49th St - NE 15th Ave to NE 40th Ave	WTR-36	-	-		100,000	805,000			905,000
System Surge Evaluation	WTR-A1-16	-	-			50,000			50,000
99th St Transmission Main - 140th Ct to Ward Rd	WTR-96	-	-			2,500,000			2,500,000
WS 5 to WS 9 Transmission Main	WTR-51	-	-			200,000	2,500,000		2,700,000
99th St Transmission Main - 110th to 120th Ave	WTR-10	-	-			875,000			875,000
Transmission Main - Burton Rd (DST-13)	WTR-6	-	-				200,000	2,300,000	2,500,000
<b>Total Water expenditures</b>		<b>13,901,038</b>	<b>13,320,000</b>	<b>16,300,000</b>	<b>10,000,000</b>	<b>10,980,000</b>	<b>12,130,000</b>	<b>6,200,000</b>	<b>68,930,000</b>



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: 99TH ST TRANS MAIN - 110TH AVE TO 120TH AVE

## PROJECT AREA MAP



## PROJECT SUMMARY

Utility Type: Water  
 Project Type: Distribution  
 Project Status: Future

## PROJECT DESCRIPTION

### Project Justification / Priority

Move water from sources to areas with increasing demand.

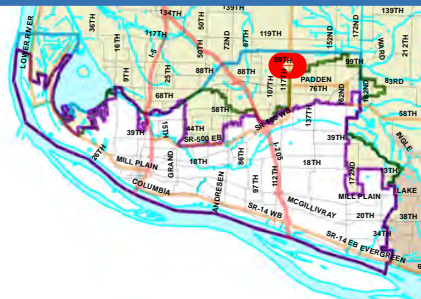
### Project Description / Comments

Install 20 and 16 inch transmission mains in 99th St from 140th Ave east to 152nd and south to Ward Rd. Transmission mains are needed to move the water from the west to the east. This project improves transmission capabilities from WS 14 to WS 9 and to the east.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

Total Proj. Cost: \$2,500,000.00

## FUNDING STRATEGY

Budget / Proj. #: 083256

Budget / Proj. Task #:

\*Start of Construction (Year): 2019

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **WS 9 LEAD & COPPER PILOT STUDY**

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <table border="0"> <tr> <td><b>Utility Type:</b></td> <td>Water</td> </tr> <tr> <td><b>Project Type:</b></td> <td>Production</td> </tr> <tr> <td><b>Project Status:</b></td> <td>Future</td> </tr> </table>		<b>Utility Type:</b>	Water	<b>Project Type:</b>	Production	<b>Project Status:</b>	Future										
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Project Boundary	Vancouver City Limits																		
Transportation	Sewer Service Area																		
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Water	Battle Ground																		
SCIP	Camas																		
Taxlots	Washougal																		
<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b> 1-Requirement to meet pH standards for the site related to lead and copper.</p> <p><b>Project Description / Comments</b> Conduct a pilot study for treatment alternatives to increase the pH of the water to meet DOH standards.</p>		<table border="1"> <thead> <tr> <th colspan="2" data-bbox="1039 1104 1501 1169">ESTIMATED PROJECT COSTS</th> <th colspan="2" data-bbox="1501 1104 1967 1169">FUNDING STRATEGY</th> </tr> </thead> <tbody> <tr> <td><b>Total Proj. Cost:</b></td> <td>\$100,000.00</td> <td><b>Budget / Proj. #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td><b>Budget / Proj. Task #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td><b>*Start of Construction (Year):</b></td> <td>2017</td> </tr> </tbody> </table>		ESTIMATED PROJECT COSTS		FUNDING STRATEGY		<b>Total Proj. Cost:</b>	\$100,000.00	<b>Budget / Proj. #:</b>				<b>Budget / Proj. Task #:</b>				<b>*Start of Construction (Year):</b>	2017
ESTIMATED PROJECT COSTS		FUNDING STRATEGY																	
<b>Total Proj. Cost:</b>	\$100,000.00	<b>Budget / Proj. #:</b>																	
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		<b>*Start of Construction (Year):</b>	2017																

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WATER STATION 5 BOOSTER PUMPS

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <table border="0"> <tr> <td><b>Utility Type:</b></td> <td>Water</td> </tr> <tr> <td><b>Project Type:</b></td> <td>Production</td> </tr> <tr> <td><b>Project Status:</b></td> <td>Future</td> </tr> </table>		<b>Utility Type:</b>	Water	<b>Project Type:</b>	Production	<b>Project Status:</b>	Future								
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Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
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Water	Battle Ground																
SCIP	Camas																
Taxlots	Washougal																
<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b> 3-Provide additional capacity for future growth and improved reliability.</p> <p><b>Project Description / Comments</b> Install additional pumping capacity at Water Station 5 to meet the growing demand and distribute more water to Heights High.</p>		<table border="0"> <tr> <th style="text-align: left;">ESTIMATED PROJECT COSTS</th> <th style="text-align: left;">FUNDING STRATEGY</th> </tr> <tr> <td><b>Total Proj. Cost:</b> \$1,000,000.00</td> <td><b>Budget / Proj. #:</b></td> </tr> <tr> <td></td> <td><b>Budget / Proj. Task #:</b></td> </tr> <tr> <td></td> <td><b>*Start of Construction (Year):</b> 2021</td> </tr> </table>		ESTIMATED PROJECT COSTS	FUNDING STRATEGY	<b>Total Proj. Cost:</b> \$1,000,000.00	<b>Budget / Proj. #:</b>		<b>Budget / Proj. Task #:</b>		<b>*Start of Construction (Year):</b> 2021						
ESTIMATED PROJECT COSTS	FUNDING STRATEGY																
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	<b>*Start of Construction (Year):</b> 2021																

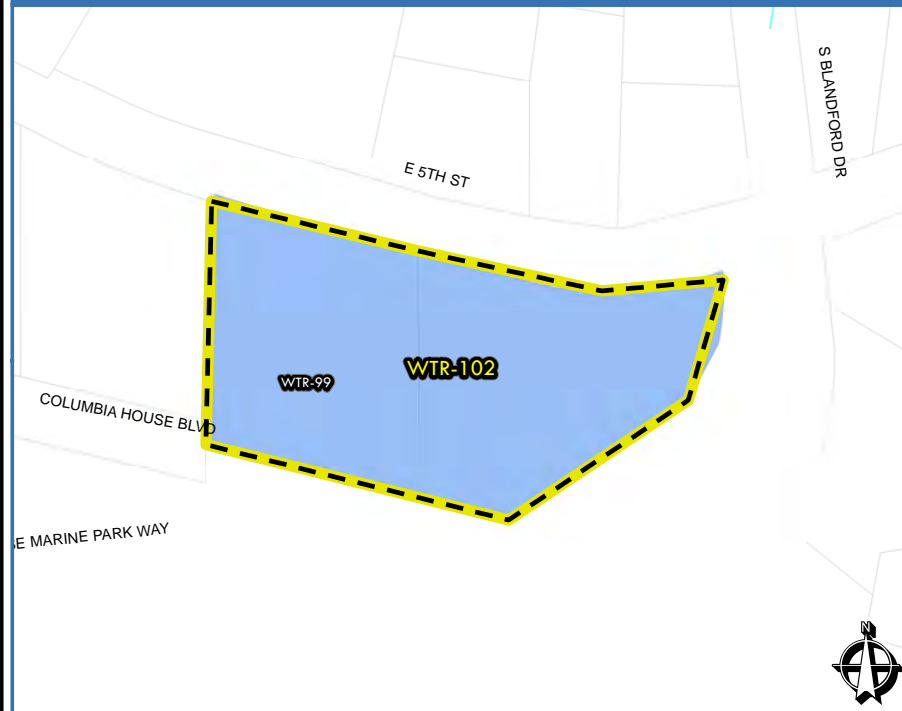
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 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WATER STATION 4 WATER RIGHTS UTILIZATION STUDY

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Production  
**Project Status:** Future

### PROJECT DESCRIPTION

**Project Justification / Priority**

1 - Ensure sufficient water rights at Water Station 4. All water rights are not currently being utilized at water station 4.

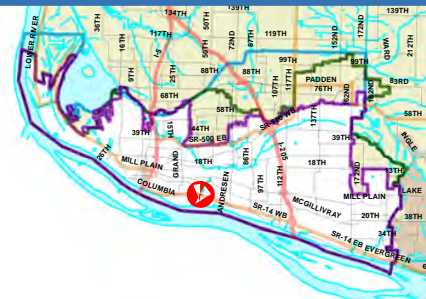
**Project Description / Comments**

Study will analyze what needs to be done to utilize all available water rights at water station 4.

### LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$100,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2021

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **WS 7 HYPO GEN SYSTEM**

PROJECT AREA MAP		PROJECT SUMMARY	
		<p><b>Utility Type:</b> Water</p> <p><b>Project Type:</b> Production</p> <p><b>Project Status:</b> Future</p>	
		PROJECT DESCRIPTION	
		<p><b>Project Justification / Priority</b> Current Sodium Hypochlorite generation system is maintenance intensive. This project will help reduce maintenance costs.</p> <p><b>Project Description / Comments</b> Replace the existing Sodium Hypochlorite generation system at WS 7 with a new sodium hypochlorite generation system.</p>	
LEGEND		ESTIMATED PROJECT COSTS	
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Transportation</li> <li> Sanitary Sewer</li> <li> Surface Water</li> <li> Water</li> <li> SCIP</li> <li> Taxlots</li> </ul>	<ul style="list-style-type: none"> <li> Vancouver City Limits</li> <li> Sewer Service Area</li> <li> Water Service Area</li> <li> Clark County</li> <li> Battle Ground</li> <li> Camas</li> <li> Washougal</li> </ul>	<p><b>Total Proj. Cost:</b> \$200,000.00</p>	<p><b>FUNDING STRATEGY</b></p> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2021</p>
VICINITY MAP			

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.





# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WS 8 HYPO GEN SYSTEM

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Water  <b>Project Type:</b> Production  <b>Project Status:</b> Future</p>															
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table> <h3 style="text-align: center;">VICINITY MAP</h3>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3 style="text-align: center;">ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$200,000.00</p> <h3 style="text-align: center;">FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b>   <b>Budget / Proj. Task #:</b>   <b>*Start of Construction (Year):</b> 2021</p>	
Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
SCIP	Camas																
Taxlots	Washougal																

**Project Justification / Priority**  
 Current Sodium Hypochlorite generation system is maintenance intensive. This project will help reduce maintenance costs.

**Project Description / Comments**  
 Replace the existing Sodium Hypochlorite generation system at WS 8 with a new sodium hypochlorite generation system.

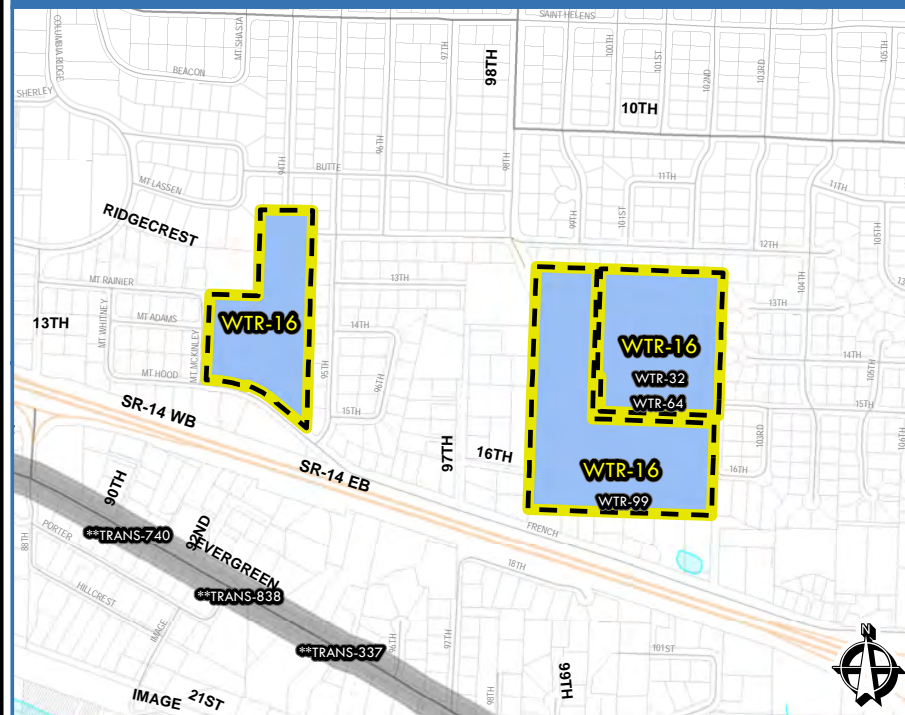
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: ELLSWORTH WELL REHABILITATION

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Production  
**Project Status:** Future

### PROJECT DESCRIPTION

#### Project Justification / Priority

Project identified by Operations. Site conditions require this well to be rehabilitated every 6-8 years. Rehabilitation will improve production, prolong life, and allow us to continue meeting minimum levels of service.

#### Project Description / Comments

Rehabilitation of all three production wells at Ellsworth

### LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$500,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2017

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: ELLSWORTH GREENSAND REPLACEMENT

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Water  <b>Project Type:</b> Production  <b>Project Status:</b> Active</p>															
<h3>LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table> <h3>VICINITY MAP</h3>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          1,2,4 -Greensand requires periodic replacement to maintain operational efficiency.</p> <p><b>Project Description / Comments</b>          Replace the existing greensand in all the filters at the Ellsworth Water Treatment Facility</p>	
Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
SCIP	Camas																
Taxlots	Washougal																
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$970,579.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b> 083343  <b>Budget / Proj. Task #:</b>  <b>*Start of Construction (Year):</b> 2015</p>														

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
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# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: WATER MAIN NE 49TH ST: NE 15TH AVE TO ST. JOHNS

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3>			
		<p><b>Utility Type:</b> Water  <b>Project Type:</b> Distribution  <b>Project Status:</b> Future</p>			
<h3>LEGEND</h3> <ul style="list-style-type: none"> <li> Project Boundary</li> <li> Transportation</li> <li> Sanitary Sewer</li> <li> Surface Water</li> <li> Water</li> <li> SCIP</li> <li> Taxlots</li> <li> Vancouver City Limits</li> <li> Sewer Service Area</li> <li> Water Service Area</li> <li> Clark County</li> <li> Battle Ground</li> <li> Camas</li> <li> Washougal</li> </ul>		<h3>PROJECT DESCRIPTION</h3>			
<h3>VICINITY MAP</h3>		<p><b>Project Justification / Priority</b>                  4 - Replace substandard piping and reduce risk.</p> <p><b>Project Description / Comments</b>                  Install 2500 LF of 10 inch and 4300 LF of 8 inch water main to replace substandard and high risk asbestos cement water main. Funded for design in 2019 for \$100,000, and \$770,000 for construction in 2020</p> <table border="1"> <tr> <td data-bbox="1039 1177 1501 1242"> <h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$905,000.00</p> </td> <td data-bbox="1501 1177 1967 1242"> <h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b> 083440</p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2019</p> </td> </tr> </table>		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$905,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b> 083440</p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2019</p>
<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$905,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b> 083440</p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2019</p>				

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# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WATER STATION 1: STANDBY POWER, BOOSTER STATION

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Water  <b>Project Type:</b> Production  <b>Project Status:</b> Active</p>																													
<h3>LEGEND</h3> <table border="0"> <tr> <td></td> <td>Project Boundary</td> <td></td> <td>Vancouver City Limits</td> </tr> <tr> <td></td> <td>Transportation</td> <td></td> <td>Sewer Service Area</td> </tr> <tr> <td></td> <td>Sanitary Sewer</td> <td></td> <td>Water Service Area</td> </tr> <tr> <td></td> <td>Surface Water</td> <td></td> <td>Clark County</td> </tr> <tr> <td></td> <td>Water</td> <td></td> <td>Battle Ground</td> </tr> <tr> <td></td> <td>SCIP</td> <td></td> <td>Camas</td> </tr> <tr> <td></td> <td>Taxlots</td> <td></td> <td>Washougal</td> </tr> </table> <h3>VICINITY MAP</h3>			Project Boundary		Vancouver City Limits		Transportation		Sewer Service Area		Sanitary Sewer		Water Service Area		Surface Water		Clark County		Water		Battle Ground		SCIP		Camas		Taxlots		Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          Multiple improvements identified in 2005 master plan. Water station 1 is the most critical water station in the City. Replaces/rehabilitates aging infrastructure for system reliability, efficiency, emergency preparedness, and additional capacity.</p> <p><b>Project Description / Comments</b>          Multi year project to provide an entire site electrical and telemetry upgrade including emergency power. Project will also replace two existing old booster pump stations with one booster pump station.</p>	
	Project Boundary		Vancouver City Limits																												
	Transportation		Sewer Service Area																												
	Sanitary Sewer		Water Service Area																												
	Surface Water		Clark County																												
	Water		Battle Ground																												
	SCIP		Camas																												
	Taxlots		Washougal																												
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$14,460,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b> 083402  <b>Budget / Proj. Task #:</b>  <b>*Start of Construction (Year):</b> 2015</p>																												

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WATER STATION 3 MASTER PLAN

PROJECT AREA MAP		PROJECT SUMMARY	
		<p><b>Utility Type:</b> Water</p> <p><b>Project Type:</b> Production</p> <p><b>Project Status:</b> Future</p>	
LEGEND		PROJECT DESCRIPTION	
<ul style="list-style-type: none"> <li>Project Boundary</li> <li>Transportation</li> <li>Sanitary Sewer</li> <li>Surface Water</li> <li>Water</li> <li>SCIP</li> <li>Taxlots</li> <li>Vancouver City Limits</li> <li>Sewer Service Area</li> <li>Water Service Area</li> <li>Clark County</li> <li>Battle Ground</li> <li>Camas</li> <li>Washougal</li> </ul>		<p><b>Project Justification / Priority</b> Expand and upgrade aging water station #3.</p> <p><b>Project Description / Comments</b> Project will produce a site master plan for water station 3</p>	
VICINITY MAP		ESTIMATED PROJECT COSTS	FUNDING STRATEGY
		<p><b>Total Proj. Cost:</b> \$130,000.00</p>	<p><b>Budget / Proj. #:</b> 083W-13-06</p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2020</p>

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WATER WORKS PARK: 3.0 MG RESERVOIR AND SEISMIC UPGRADE

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Water  <b>Project Type:</b> Production  <b>Project Status:</b> Future</p>															
<h3>LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table> <h3>VICINITY MAP</h3>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          Multiple improvements identified in 2005 master plan. Water station 1 is the most critical water station in the City. Replaces/rehabilitates aging infrastructure for system reliability, efficiency, emergency preparedness, and additional capacity.</p> <p><b>Project Description / Comments</b>          One reservoir constructed in 1909 will be removed. One reservoir constructed in the 1930's will get seismic upgrades. This project will also construct one new 3 million gallon reservoir. Design projected for 2016-2017, with construction in 2018.</p>	
Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
SCIP	Camas																
Taxlots	Washougal																
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$9,900,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b> 083W-15-01</p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2016</p>														

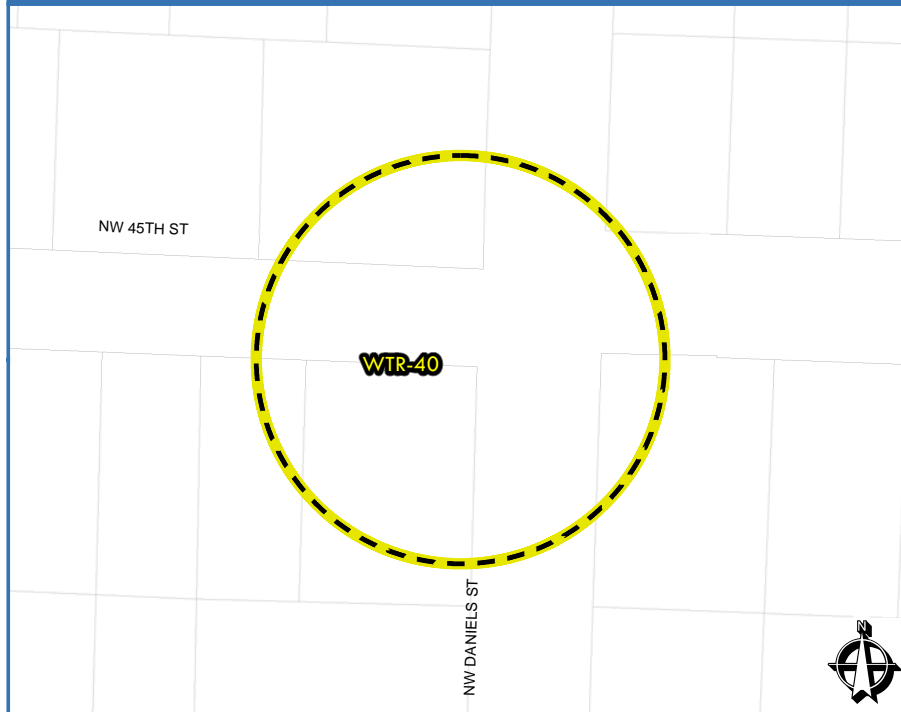
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: LINCOLN HIGH: BOOSTER REPLACEMENT

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Distribution  
**Project Status:** Future

## PROJECT DESCRIPTION

### Project Justification / Priority

Improve pump efficiency and increase capacity for improved fire flow to the Lincoln High Pressure Zone.

### Project Description / Comments

The Lincoln high pressure zone currently only has one old booster pump located in a vault under the sidewalk. The booster station needs to be upgraded to include multiple correctly sized pumps and a fire flow pump for added redundancy and improved fire flow. The booster station will likely be relocated to water station 3.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$800,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**  
083W-15-02

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2020

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.





# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WATER WORKS PARK: NEW STANDPIPE

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Water  <b>Project Type:</b> Production  <b>Project Status:</b> Future</p>															
<h3>LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table> <h3>VICINITY MAP</h3>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          Provide secure elevated water storage to serve the Vancouver High Pressure Zone.</p> <p><b>Project Description / Comments</b>          The existing elevated 250,000 gallon tower will be replaced with a ground supported standpipe. This will add security to the system with this replacement to provide the facilities with a secure elevated structure for the Vancouver High pressure</p>	
Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
SCIP	Camas																
Taxlots	Washougal																
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$2,500,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2018</p>														

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WATER STATION 6 INTERNAL COATING

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <table border="0"> <tr> <td><b>Utility Type:</b></td> <td>Water</td> </tr> <tr> <td><b>Project Type:</b></td> <td>Production</td> </tr> <tr> <td><b>Project Status:</b></td> <td>Future</td> </tr> </table>		<b>Utility Type:</b>	Water	<b>Project Type:</b>	Production	<b>Project Status:</b>	Future																								
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Transportation	Sewer Service Area																																
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		<b>Budget / Proj. Task #:</b>																															
		<b>*Start of Construction (Year):</b>	2017																														

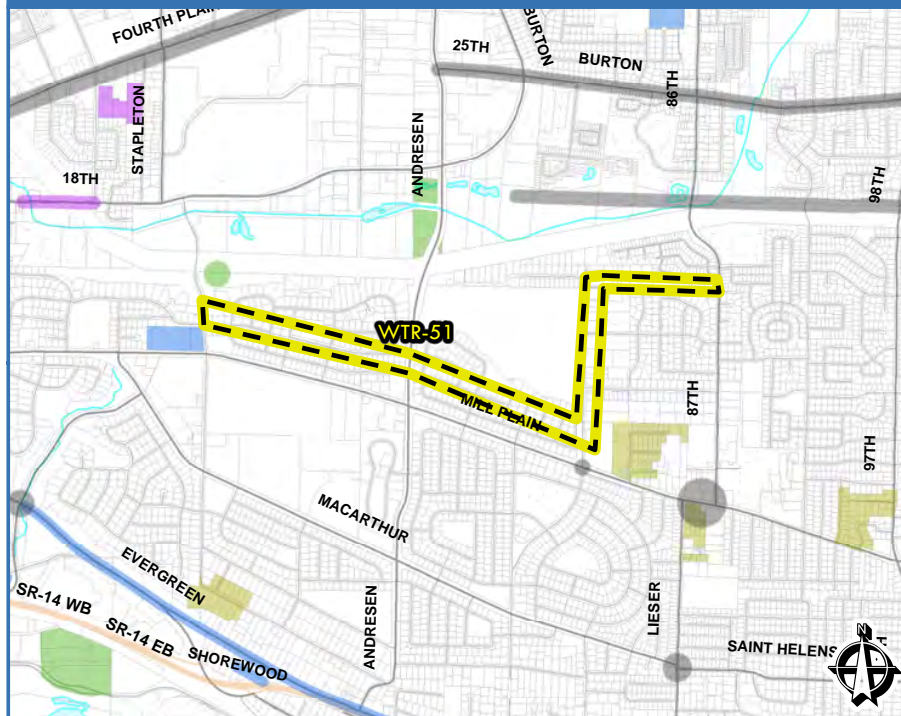
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: WS 5 TO WS 9 TRANSMISSION MAIN

## PROJECT AREA MAP



## PROJECT SUMMARY

Utility Type: Water  
 Project Type: Production  
 Project Status: Future

## PROJECT DESCRIPTION

### Project Justification / Priority

Move water from supply sources to areas with increasing demand.

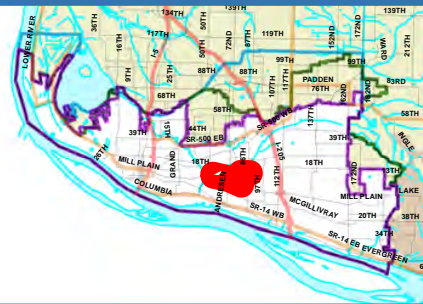
### Project Description / Comments

Install additional water transmission piping to move water from west to east.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

Total Proj. Cost: \$2,700,000.00

## FUNDING STRATEGY

Budget / Proj. #: 11

Budget / Proj. Task #:

\*Start of Construction (Year):

2020

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.

\*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **BERNIE PRV REPLACEMENT**

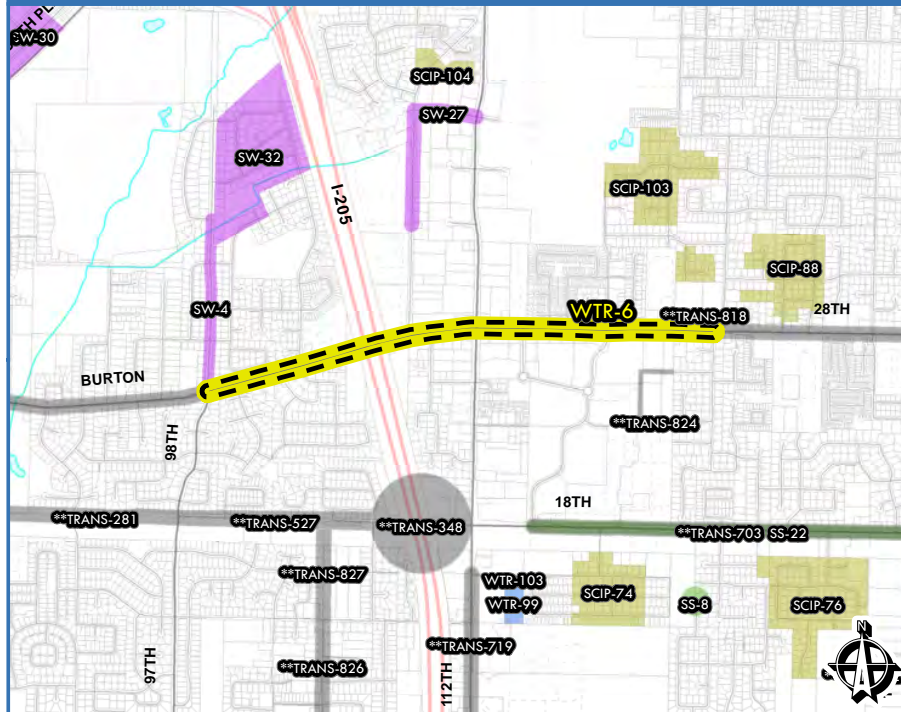
<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3>	
		<p><b>Utility Type:</b> Water  <b>Project Type:</b> Distribution  <b>Project Status:</b> Future</p>	
<h3>LEGEND</h3>		<h3>PROJECT DESCRIPTION</h3>	
<p><b>VICINITY MAP</b></p>		<p><b>Project Justification / Priority</b>          4 - Rehab existing PRV to improve access for maintenance and monitoring by operators.</p> <p><b>Project Description / Comments</b>          Relocate and upgrade the existing PRV (Pressure Reducing Valve) which is in a remote location on railway property. Connect to SCADA if network availability can be found.</p>	
<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li>Project Boundary</li> <li>Transportation</li> <li>Sanitary Sewer</li> <li>Surface Water</li> <li>Water</li> <li>SCIP</li> <li>Taxlots</li> <li>Vancouver City Limits</li> <li>Sewer Service Area</li> <li>Water Service Area</li> <li>Clark County</li> <li>Battle Ground</li> <li>Camas</li> <li>Washougal</li> </ul>		<h3>ESTIMATED PROJECT COSTS</h3>	
<p>*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.          **Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.</p>		<p><b>Total Proj. Cost:</b> \$250,000.00</p> <p><b>Budget / Proj. #:</b> 15</p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2017</p>	



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: TRANSMISSION MAIN-NE BURTON RD (DST-13)

## PROJECT AREA MAP



## PROJECT SUMMARY

Utility Type: Water  
 Project Type: Distribution  
 Project Status: Future

## PROJECT DESCRIPTION

### Project Justification / Priority

4 - Move water from supply sources to areas with increasing demand.

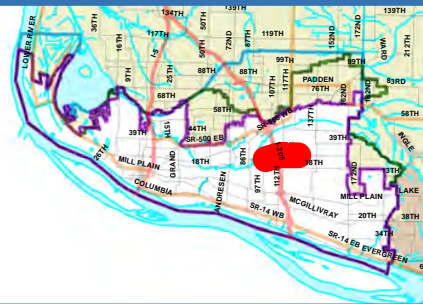
### Project Description / Comments

Install a 24 inch transmission main to the east from NE 97th Ave to NE 124th Ave in Burton Rd. Transmission mains are needed to move the water from the southwest to the east. This project improves transmission capabilities from WS 1 and Ellsworth to the east.

## LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Taxlots
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

Total Proj. Cost: \$2,500,000.00

## FUNDING STRATEGY

Budget / Proj. #:

Budget / Proj. Task #:

\*Start of Construction (Year):  
2021

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.





# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: SODIUM HYPO GEN SYSTEM WS 14

## PROJECT AREA MAP



## PROJECT SUMMARY

Utility Type: Water  
 Project Type: Production  
 Project Status: Future

## PROJECT DESCRIPTION

### Project Justification / Priority

2 - Chlorine gas is becoming more expensive. Sodium hypochlorite costs less and is much safer for the community and operators.

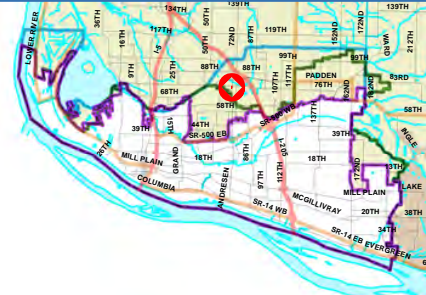
### Project Description / Comments

Replace the existing chlorine gas system at WS 14 with a sodium hypochlorite generation system.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

Total Proj. Cost: \$200,000.00

## FUNDING STRATEGY

Budget / Proj. #: 22

Budget / Proj. Task #:

\*Start of Construction (Year): 2015

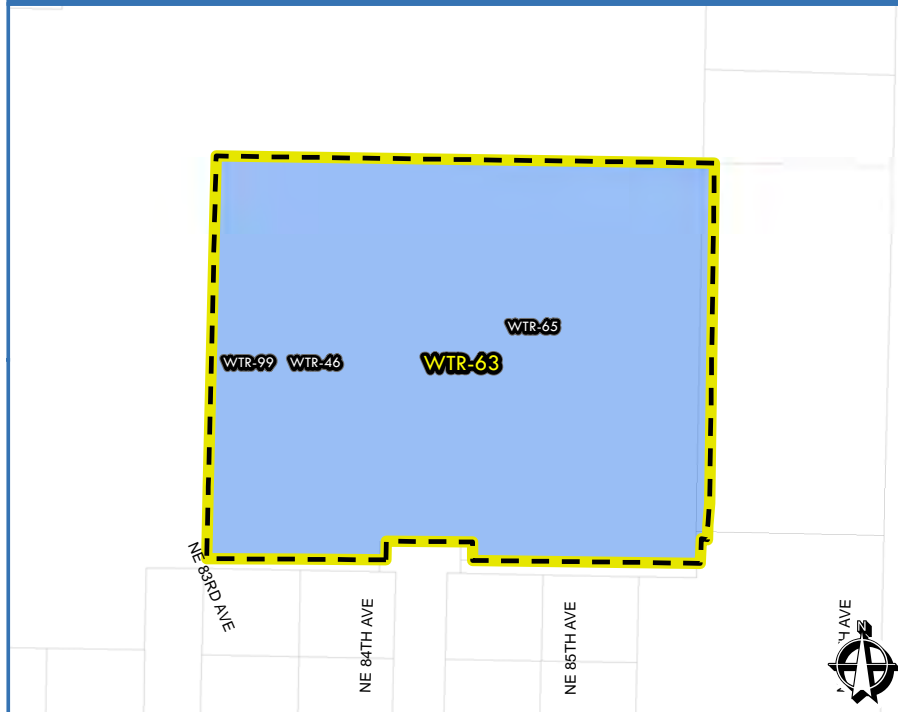
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: SODIUM HYPO GEN SYSTEM WS 15

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Production  
**Project Status:** Future

## PROJECT DESCRIPTION

### Project Justification / Priority

Gas is becoming more expensive. Sodium hypochlorite costs less and is much safer for the community and operators.

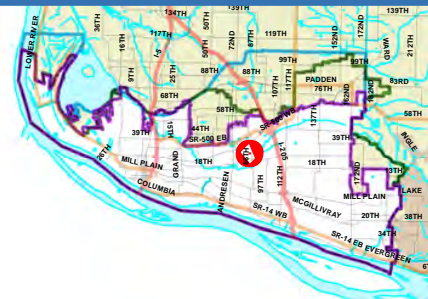
### Project Description / Comments

Replace the existing chlorine gas system at WS 15 with a sodium hypochlorite generation system.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$200,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**  
23

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2020

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.





# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: SODIUM HYPO GEN SYSTEM ELLSWORTH

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <table border="0"> <tr> <td><b>Utility Type:</b></td> <td>Water</td> </tr> <tr> <td><b>Project Type:</b></td> <td>Production</td> </tr> <tr> <td><b>Project Status:</b></td> <td>Future</td> </tr> </table>		<b>Utility Type:</b>	Water	<b>Project Type:</b>	Production	<b>Project Status:</b>	Future								
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Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
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<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b> Gas is becoming more expensive. Sodium hypochlorite costs less and is much safer for the community and operators.</p> <p><b>Project Description / Comments</b> Replace the existing chlorine gas system at Ellsworth with a sodium hypochlorite generation system.</p>		<table border="0"> <tr> <th style="text-align: left;">ESTIMATED PROJECT COSTS</th> <th style="text-align: left;">FUNDING STRATEGY</th> </tr> <tr> <td><b>Total Proj. Cost:</b> \$300,000.00</td> <td><b>Budget / Proj. #:</b> 24</td> </tr> <tr> <td></td> <td><b>Budget / Proj. Task #:</b></td> </tr> <tr> <td></td> <td><b>*Start of Construction (Year):</b> 2019</td> </tr> </table>		ESTIMATED PROJECT COSTS	FUNDING STRATEGY	<b>Total Proj. Cost:</b> \$300,000.00	<b>Budget / Proj. #:</b> 24		<b>Budget / Proj. Task #:</b>		<b>*Start of Construction (Year):</b> 2019						
ESTIMATED PROJECT COSTS	FUNDING STRATEGY																
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	<b>*Start of Construction (Year):</b> 2019																

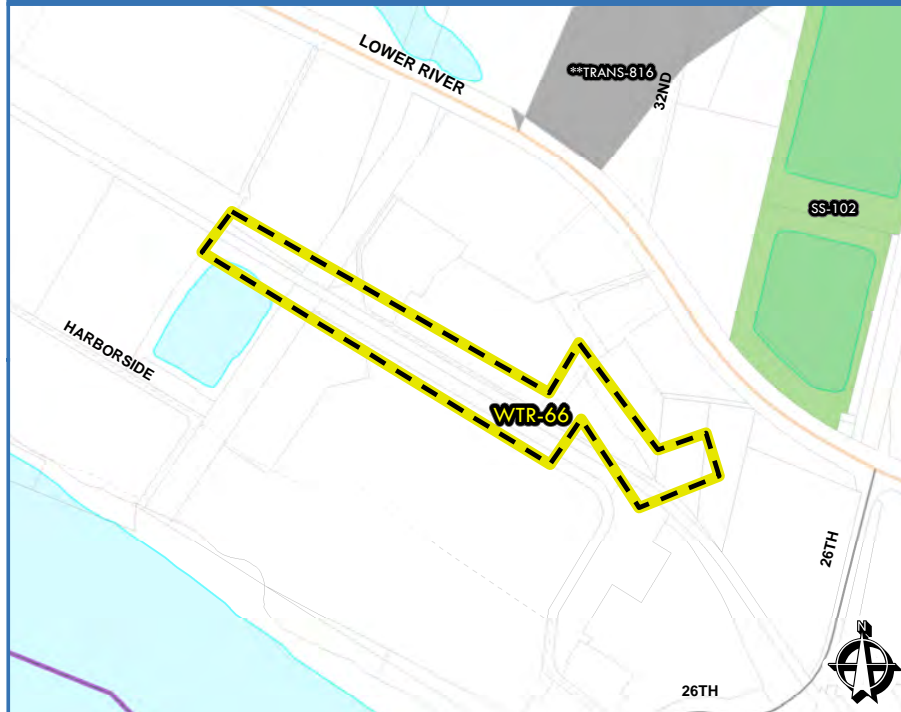
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 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: PORT WATER SYSTEM UPGRADE

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Distribution  
**Project Status:** Active

### PROJECT DESCRIPTION

**Project Justification / Priority**

3 - New system to provide redundancy to the current one 1 feed line to west end of the Port. Added redundancy needed.

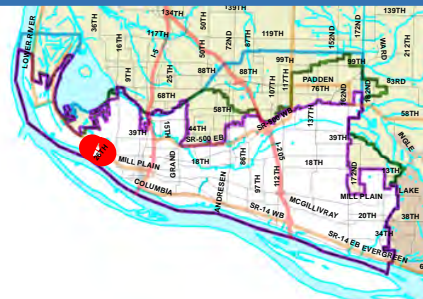
**Project Description / Comments**

Install water mains on Port property in order to provide a second feed line to the west parts of the Port.

### LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Taxlots
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$200,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**  
26

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2015

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **WATER STATION 8: REPLACE WELLS 2 & 3**

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3>	
		<p><b>Utility Type:</b> Water  <b>Project Type:</b> Production  <b>Project Status:</b> Future</p>	
<h3>LEGEND</h3>		<h3>PROJECT DESCRIPTION</h3>	
<p><b>VICINITY MAP</b></p>		<p><b>Project Justification / Priority</b>                  Maintain the existing well field and pumping capacity.</p> <p><b>Project Description / Comments</b>                  Replacement of aging wells based on performance and condition.</p>	
<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li> Project Boundary</li> <li> Vancouver City Limits</li> <li> Transportation</li> <li> Sewer Service Area</li> <li> Sanitary Sewer</li> <li> Water Service Area</li> <li> Surface Water</li> <li> Clark County</li> <li> Battle Ground</li> <li> Water</li> <li> Camas</li> <li> SCIP</li> <li> Washougal</li> <li> Taxlots</li> </ul>		<h3>ESTIMATED PROJECT COSTS</h3>	
<p>*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.                  **Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.</p>		<p><b>Total Proj. Cost:</b> \$2,000,000.00</p> <p><b>Budget / Proj. #:</b> 29</p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2020-2021</p>	



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WATER STATION 6 WELL/TREATMENT INSTALL

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <table border="0"> <tr> <td><b>Utility Type:</b></td> <td>Water</td> </tr> <tr> <td><b>Project Type:</b></td> <td>Production</td> </tr> <tr> <td><b>Project Status:</b></td> <td>Future</td> </tr> </table>		<b>Utility Type:</b>	Water	<b>Project Type:</b>	Production	<b>Project Status:</b>	Future																
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<b>Project Status:</b>	Future																								
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table> <h3 style="text-align: center;">VICINITY MAP</h3>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<table border="0"> <tr> <th style="text-align: left;">ESTIMATED PROJECT COSTS</th> <th style="text-align: left;">FUNDING STRATEGY</th> </tr> <tr> <td><b>Total Proj. Cost:</b> \$3,000,000.00</td> <td><b>Budget / Proj. #:</b> 30</td> </tr> <tr> <td></td> <td><b>Budget / Proj. Task #:</b></td> </tr> <tr> <td></td> <td><b>*Start of Construction (Year):</b> 2019-2020</td> </tr> </table>		ESTIMATED PROJECT COSTS	FUNDING STRATEGY	<b>Total Proj. Cost:</b> \$3,000,000.00	<b>Budget / Proj. #:</b> 30		<b>Budget / Proj. Task #:</b>		<b>*Start of Construction (Year):</b> 2019-2020
Project Boundary	Vancouver City Limits																								
Transportation	Sewer Service Area																								
Sanitary Sewer	Water Service Area																								
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Water	Battle Ground																								
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ESTIMATED PROJECT COSTS	FUNDING STRATEGY																								
<b>Total Proj. Cost:</b> \$3,000,000.00	<b>Budget / Proj. #:</b> 30																								
	<b>Budget / Proj. Task #:</b>																								
	<b>*Start of Construction (Year):</b> 2019-2020																								

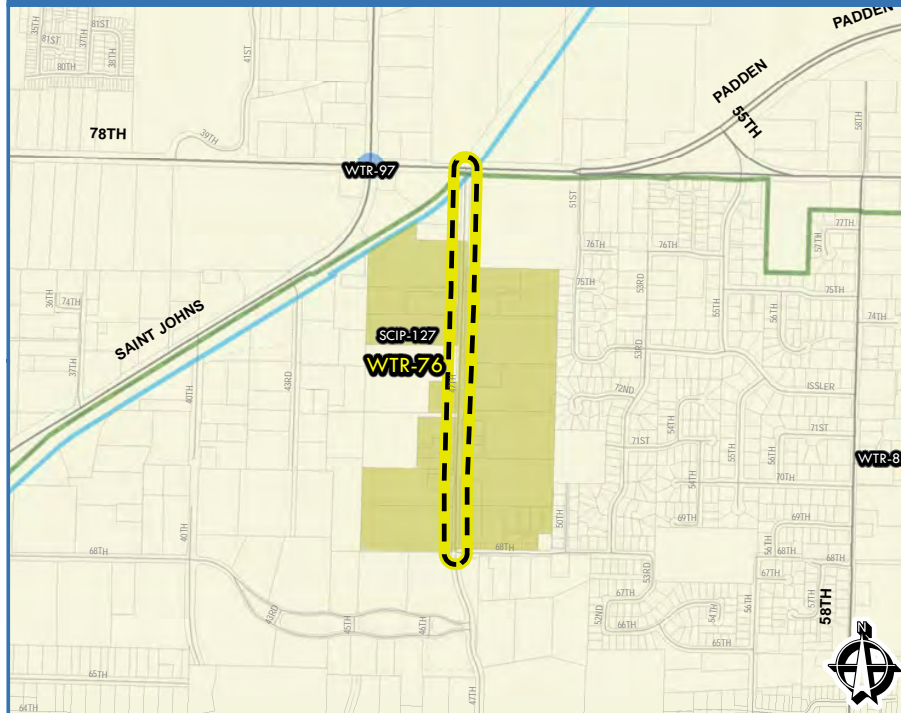
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: NE 47TH AVE - 68TH NORTH COUNTY

## PROJECT AREA MAP



## PROJECT SUMMARY

Utility Type: Water  
 Project Type: Distribution  
 Project Status: Active

## PROJECT DESCRIPTION

### Project Justification / Priority

4 - Replace existing waterline as part of a Roadway coordination project with Clark County's 47th Avenue improvement project.

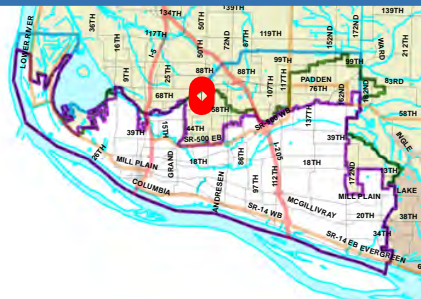
### Project Description / Comments

Install new water main and replace existing main impacted by roadway construction.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

Total Proj. Cost: \$140,000.00

## FUNDING STRATEGY

Budget / Proj. #: 083415

Budget / Proj. Task #:

\*Start of Construction (Year): 2015

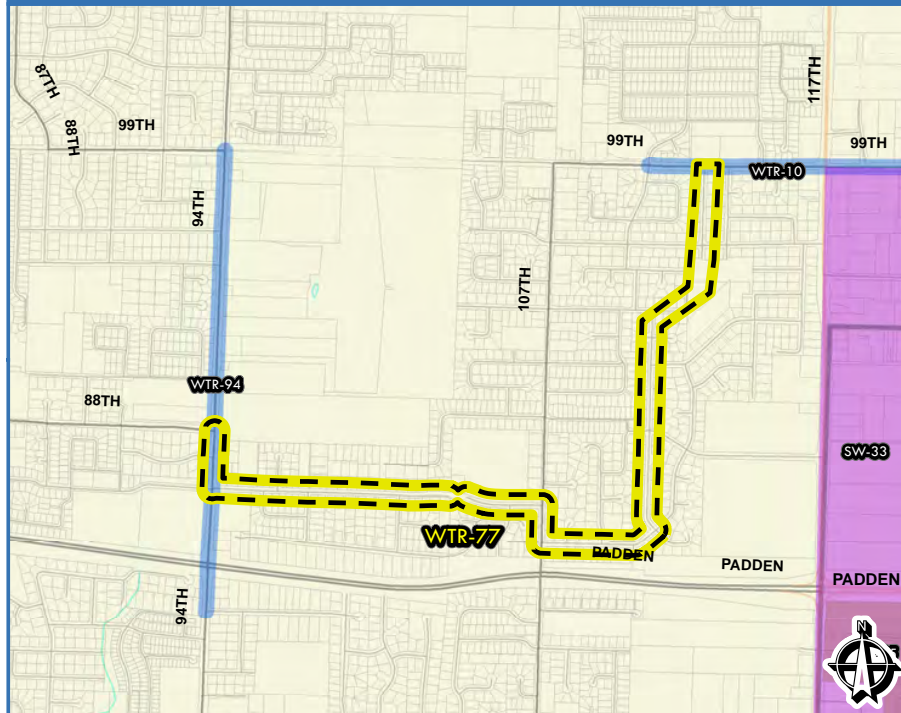
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: TRANSMISSION MAIN-WS 14 TO WS9 PH 2 (DST-03)

## PROJECT AREA MAP



## PROJECT SUMMARY

Utility Type: Water  
 Project Type: Distribution  
 Project Status: Active

## PROJECT DESCRIPTION

### Project Justification / Priority

3 - Move water from supply sources to areas with increasing demand.

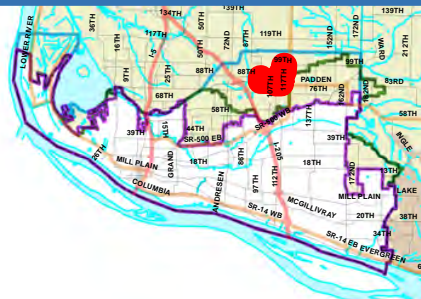
### Project Description / Comments

This phase will install 9,400 lineal feet of 24 inch water main from NE 94th Avenue and NE 88th Street in an east then north direction ending at NE 114th Avenue and NE 99th street.

## LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Taxlots
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

Total Proj. Cost: \$2,549,860.00

## FUNDING STRATEGY

Budget / Proj. #: 083223

Budget / Proj. Task #:

\*Start of Construction (Year): 2015

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **SODIUM HYPO GEN SYSTEM/BUILDING WS 1**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Production  
**Project Status:** Active

## PROJECT DESCRIPTION

### Project Justification / Priority

Chlorine gas is becoming more expensive. Sodium hypochlorite costs less and is much safer for the community and operators. Associated with multiple other projects at water station 1 (see WTR-37;WTR-39)

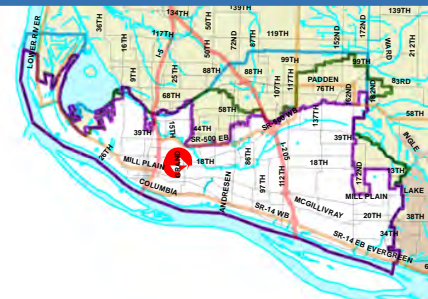
### Project Description / Comments

Replace the existing chlorine gas system at Water Station #1 with a sodium hypochlorite generation system.

## LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Taxlots
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$902,133.00

## FUNDING STRATEGY

**Budget / Proj. #:**  
083408

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2016

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: VANCOUVER MALL DRIVE TRANSPORTATION COORDINATION

PROJECT AREA MAP		PROJECT SUMMARY	
		<p><b>Utility Type:</b> Water</p> <p><b>Project Type:</b> Distribution</p> <p><b>Project Status:</b> Future</p>	
		PROJECT DESCRIPTION	
		<p><b>Project Justification / Priority</b> 3 - Water system project as part of a Roadway Coordination project.</p> <p><b>Project Description / Comments</b> Install a new water main along Vancouver Mall Drive between 66th Avenue and Andresen in association with new roadway being installed the Streets Department.</p>	
		LEGEND	ESTIMATED PROJECT COSTS
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Transportation</li> <li> Sanitary Sewer</li> <li> Surface Water</li> <li> Water</li> <li> SCIP</li> <li> Taxlots</li> <li> Vancouver City Limits</li> <li> Sewer Service Area</li> <li> Water Service Area</li> <li> Clark County</li> <li> Battle Ground</li> <li> Camas</li> <li> Washougal</li> </ul>	<p><b>Total Proj. Cost:</b> \$150,000.00</p>	<p><b>Budget / Proj. #:</b> 083416</p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2015</p>	

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.

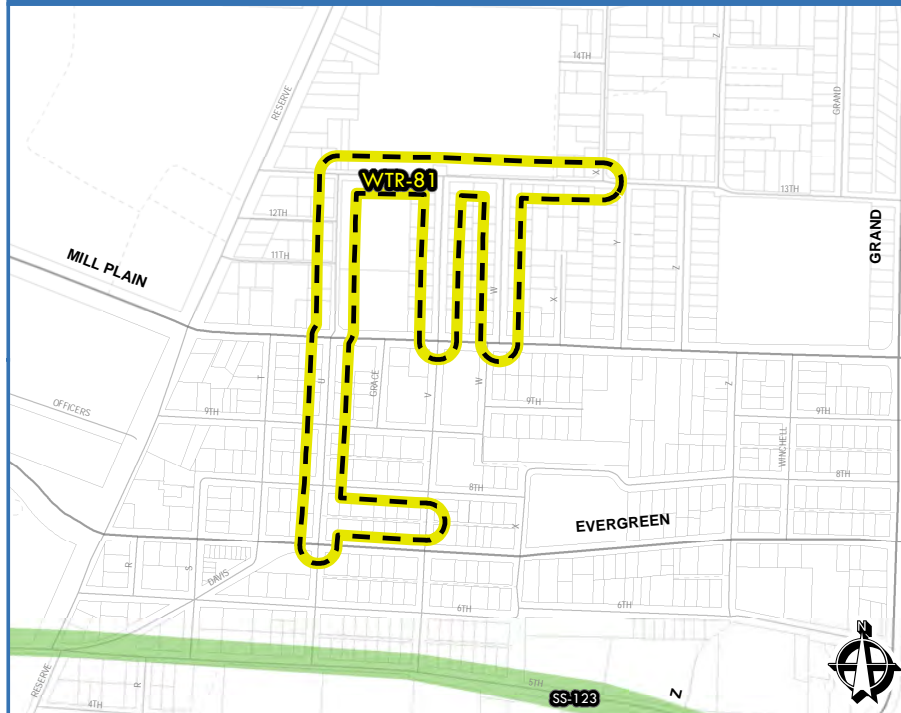




# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: E. 13TH ST -" V" AND "W"

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Distribution  
**Project Status:** Active

## PROJECT DESCRIPTION

### Project Justification / Priority

4 - Replace aging waterlines which have exceeded their life expectancy and have a history of breakage.

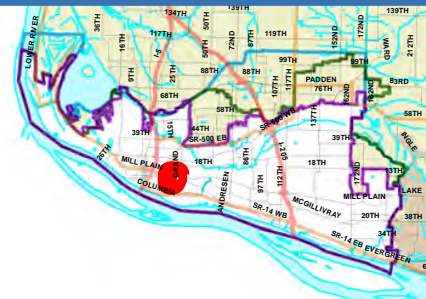
### Project Description / Comments

Install 3,600 l.f. of new 8" water main to replace old water mains with a history of emergency repair due to leaks.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$578,008.00

## FUNDING STRATEGY

**Budget / Proj. #:**  
083406

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2015

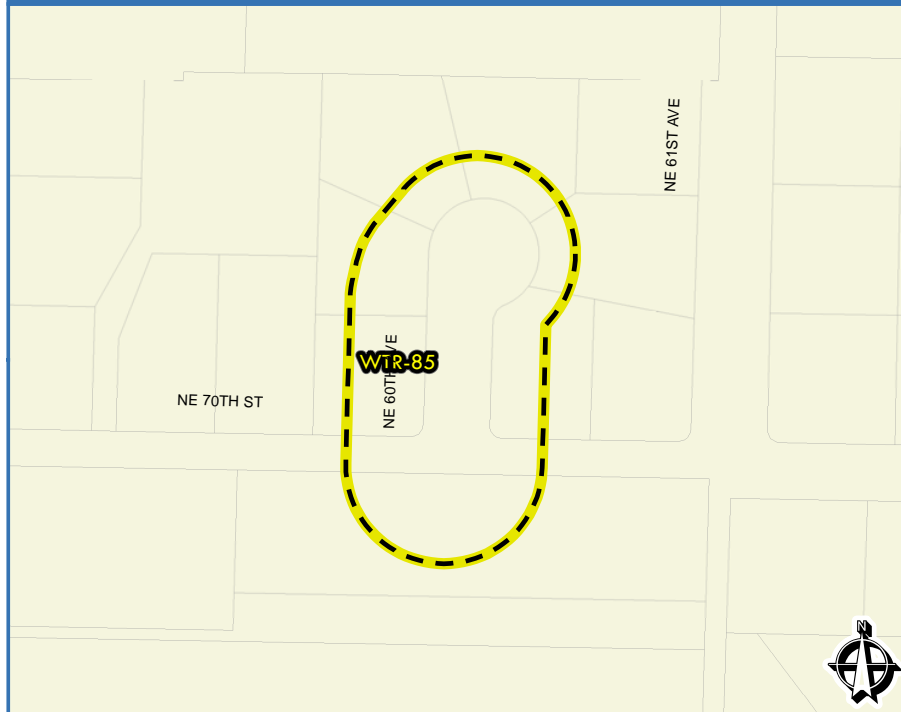
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: NE 60TH AVE AT NE 70TH ST

## PROJECT AREA MAP



## PROJECT SUMMARY

Utility Type: Water  
 Project Type: Distribution  
 Project Status: Active

## PROJECT DESCRIPTION

### Project Justification / Priority

4 - Replace aging waterlines which have exceeded their life expectancy and have a history of breakage.

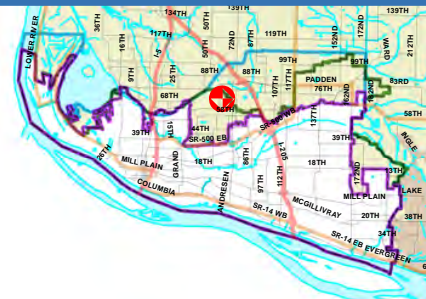
### Project Description / Comments

Install 200 LF of new pipe to replace an existing 2" galvanized water main with a history of emergency repairs due to leaks.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

Total Proj. Cost: \$27,000.00

## FUNDING STRATEGY

Budget / Proj. #: 083412

Budget / Proj. Task #:

\*Start of Construction (Year): 2014

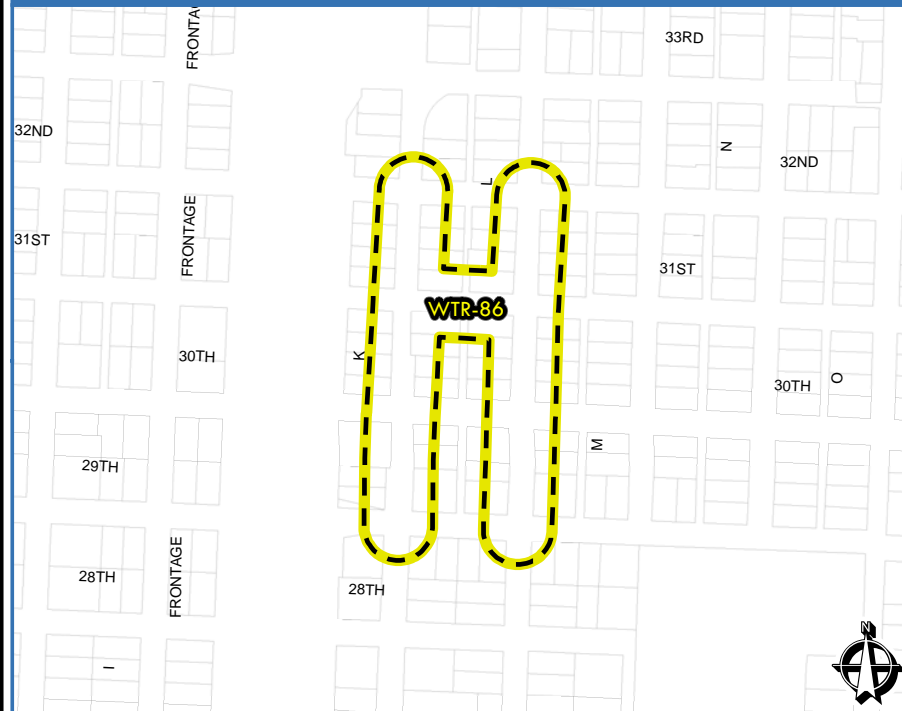
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: K & L ST. - E 29TH TO 32ND ST. WATER MAIN

## PROJECT AREA MAP



## PROJECT SUMMARY

Utility Type: Water  
 Project Type: Distribution  
 Project Status: Future

## PROJECT DESCRIPTION

### Project Justification / Priority

4 - Replace aging waterlines which have exceeded their life expectancy and have a history of breakage.

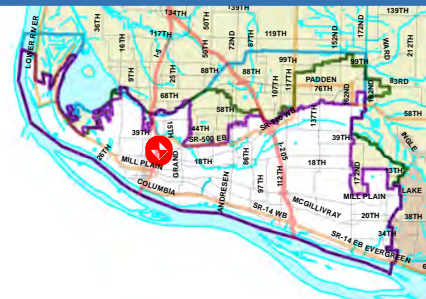
### Project Description / Comments

Install 1600 LF of new pipe to replace existing 2 inch Galvanized, 4 inch Matheson Steel water mains with a history of emergency repairs due to leaks.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

Total Proj. Cost: \$260,000.00

## FUNDING STRATEGY

Budget / Proj. #: 083411

Budget / Proj. Task #:

\*Start of Construction (Year): 2015

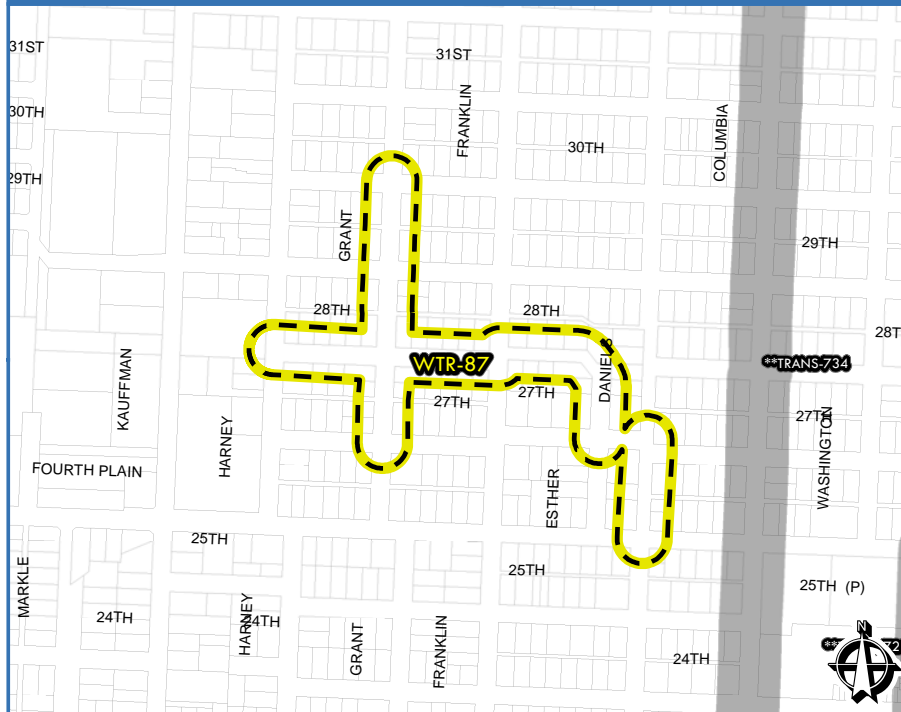
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: W 28TH ST GRANT & DANIELS WATER MAIN

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Distribution  
**Project Status:** Future

## PROJECT DESCRIPTION

### Project Justification / Priority

Staff utilized a criticality matrix to prioritize pipes with a history of leaks. This is one of the higher priority projects. Replace aging waterlines which have exceeded their life expectancy and have a history of breakage.

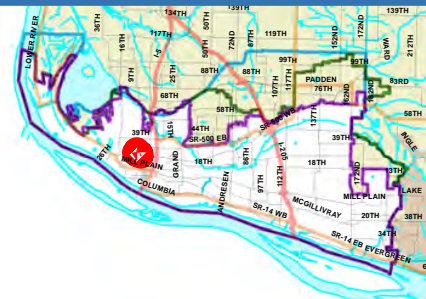
### Project Description / Comments

Install 2400 LF of new pipe to replace existing 2 inch Galvanized and CI, 4 inchOD Steel and 6 inch CI water mains with a history of emergency repairs due to leaks.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$450,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2016

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: W MCLOUGHLIN - LINCOLN TO KAUFFMAN WATER MAIN

PROJECT AREA MAP		PROJECT SUMMARY	
		<p><b>Utility Type:</b> Water</p> <p><b>Project Type:</b> Distribution</p> <p><b>Project Status:</b> Future</p>	
PROJECT DESCRIPTION			
<p><b>Project Justification / Priority</b> Staff utilized a criticality matrix to prioritize pipes with a history of leaks. This is one of the higher priority projects. Replace aging waterlines which have exceeded their life expectancy and have a history of breakage.</p> <p><b>Project Description / Comments</b> Install 600 LF of new pipe to replace existing 6 inch CI water mains with a history of emergency repairs due to leaks.</p>			
LEGEND	VICINITY MAP	ESTIMATED PROJECT COSTS	FUNDING STRATEGY
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Transportation</li> <li> Sanitary Sewer</li> <li> Surface Water</li> <li> Water</li> <li> SCIP</li> <li> Taxlots</li> <li> Vancouver City Limits</li> <li> Sewer Service Area</li> <li> Water Service Area</li> <li> Clark County</li> <li> Battle Ground</li> <li> Camas</li> <li> Washougal</li> </ul>		<p><b>Total Proj. Cost:</b> \$125,000.00</p>	<p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2016</p>

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: NE 54TH ST - 40TH AVE TO 45TH AVE WATER MAIN

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Water  <b>Project Type:</b> Distribution  <b>Project Status:</b> Future</p>															
<h3>LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          4 - Replace aging waterlines which have exceeded their life expectancy and have a history of breakage.</p> <p><b>Project Description / Comments</b>          Install 1200 LF of new pipe to replace existing 6 inch OD water mains with a history of emergency repairs due to leaks.</p>	
Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
SCIP	Camas																
Taxlots	Washougal																
<h3>VICINITY MAP</h3>		<table border="1"> <thead> <tr> <th>ESTIMATED PROJECT COSTS</th> <th>FUNDING STRATEGY</th> </tr> </thead> <tbody> <tr> <td><b>Total Proj. Cost:</b> \$200,000.00</td> <td><b>Budget / Proj. #:</b></td> </tr> <tr> <td></td> <td><b>Budget / Proj. Task #:</b></td> </tr> <tr> <td></td> <td><b>*Start of Construction (Year):</b> 2015</td> </tr> </tbody> </table>		ESTIMATED PROJECT COSTS	FUNDING STRATEGY	<b>Total Proj. Cost:</b> \$200,000.00	<b>Budget / Proj. #:</b>		<b>Budget / Proj. Task #:</b>		<b>*Start of Construction (Year):</b> 2015						
ESTIMATED PROJECT COSTS	FUNDING STRATEGY																
<b>Total Proj. Cost:</b> \$200,000.00	<b>Budget / Proj. #:</b>																
	<b>Budget / Proj. Task #:</b>																
	<b>*Start of Construction (Year):</b> 2015																

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: BOOSTER STATION FLOWMETERS

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Water  <b>Project Type:</b> Distribution  <b>Project Status:</b> Active</p>																													
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td></td> <td>Project Boundary</td> <td></td> <td>Vancouver City Limits</td> </tr> <tr> <td></td> <td>Transportation</td> <td></td> <td>Sewer Service Area</td> </tr> <tr> <td></td> <td>Sanitary Sewer</td> <td></td> <td>Water Service Area</td> </tr> <tr> <td></td> <td>Surface Water</td> <td></td> <td>Clark County</td> </tr> <tr> <td></td> <td>Water</td> <td></td> <td>Battle Ground</td> </tr> <tr> <td></td> <td>SCIP</td> <td></td> <td>Camas</td> </tr> <tr> <td></td> <td>Taxlots</td> <td></td> <td>Washougal</td> </tr> </table>			Project Boundary		Vancouver City Limits		Transportation		Sewer Service Area		Sanitary Sewer		Water Service Area		Surface Water		Clark County		Water		Battle Ground		SCIP		Camas		Taxlots		Washougal	<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          Added flow meters will improve modeling capabilities and provide operators additional system monitoring.</p> <p><b>Project Description / Comments</b>          Install flow meters at 49th Street and St. Johns Booster Pump Houses.</p>	
	Project Boundary		Vancouver City Limits																												
	Transportation		Sewer Service Area																												
	Sanitary Sewer		Water Service Area																												
	Surface Water		Clark County																												
	Water		Battle Ground																												
	SCIP		Camas																												
	Taxlots		Washougal																												
<h3 style="text-align: center;">VICINITY MAP</h3>		<table border="1"> <thead> <tr> <th colspan="2" data-bbox="1039 1104 1501 1169">ESTIMATED PROJECT COSTS</th> <th colspan="2" data-bbox="1501 1104 1967 1169">FUNDING STRATEGY</th> </tr> </thead> <tbody> <tr> <td data-bbox="1039 1169 1323 1234"><b>Total Proj. Cost:</b></td> <td data-bbox="1323 1169 1501 1234">\$28,923.00</td> <td data-bbox="1501 1169 1711 1234"><b>Budget / Proj. #:</b></td> <td data-bbox="1711 1169 1967 1234">083232</td> </tr> <tr> <td colspan="2" data-bbox="1039 1234 1501 1315"></td> <td data-bbox="1501 1234 1711 1315"><b>Budget / Proj. Task #:</b></td> <td data-bbox="1711 1234 1967 1315"></td> </tr> <tr> <td colspan="2" data-bbox="1039 1315 1501 1477"></td> <td data-bbox="1501 1315 1711 1477"><b>*Start of Construction (Year):</b></td> <td data-bbox="1711 1315 1967 1477">2014</td> </tr> </tbody> </table>		ESTIMATED PROJECT COSTS		FUNDING STRATEGY		<b>Total Proj. Cost:</b>	\$28,923.00	<b>Budget / Proj. #:</b>	083232			<b>Budget / Proj. Task #:</b>				<b>*Start of Construction (Year):</b>	2014												
ESTIMATED PROJECT COSTS		FUNDING STRATEGY																													
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		<b>Budget / Proj. Task #:</b>																													
		<b>*Start of Construction (Year):</b>	2014																												

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **CLAIRE ST WATER MAIN**

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Water  <b>Project Type:</b> Distribution  <b>Project Status:</b> Future</p>																	
<h3>LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>  4 - Replace aging waterlines which have exceeded their life expectancy and have a history of breakage.</p> <p><b>Project Description / Comments</b>  Install 500 LF of new pipe to replace existing 2 inch Galvanized water mains with a history of emergency repairs due to leaks.</p>			
Project Boundary	Vancouver City Limits																		
Transportation	Sewer Service Area																		
Sanitary Sewer	Water Service Area																		
Surface Water	Clark County																		
Water	Battle Ground																		
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ESTIMATED PROJECT COSTS		FUNDING STRATEGY																	
<b>Total Proj. Cost:</b>	\$75,000.00	<b>Budget / Proj. #:</b>																	
		<b>Budget / Proj. Task #:</b>																	
		<b>*Start of Construction (Year):</b>	2015																

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
\*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.





# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: ALLEYS E & W OF G ST - 19TH ST TO 20TH ST

## PROJECT AREA MAP



## PROJECT SUMMARY

Utility Type: Water  
 Project Type: Distribution  
 Project Status: Future

## PROJECT DESCRIPTION

### Project Justification / Priority

4 - Replace aging waterlines which have exceeded their life expectancy and have a history of breakage.

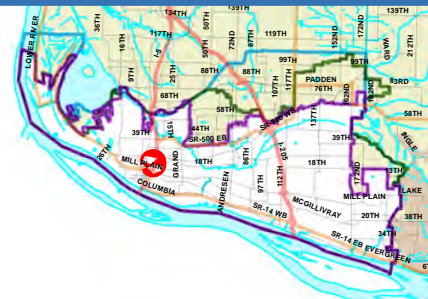
### Project Description / Comments

Abandon 840 LF of 1 inch Galvanized water mains and install 420 LF of new pipe. Replacement of existing water mains with a history of emergency repairs due to leaks.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

Total Proj. Cost: \$60,000.00

## FUNDING STRATEGY

Budget / Proj. #:

Budget / Proj. Task #:

\*Start of Construction (Year):  
2015

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **BUNCH PLASTIC - 4TH PLAIN & 103RD AVE**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Distribution  
**Project Status:** Future

## PROJECT DESCRIPTION

### Project Justification / Priority

Staff utilized a criticality matrix to prioritize pipes with a history of leaks. This is one of the higher priority projects. Replace aging waterlines which have exceeded their life expectancy and have a history of breakage.

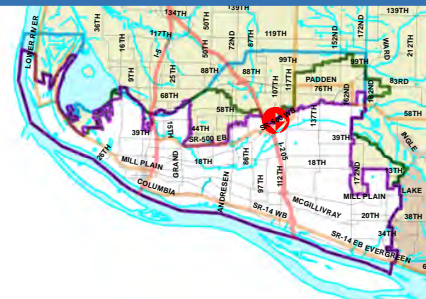
### Project Description / Comments

Abandon 220 LF of 2 inch PVC water mains and install 220 LF of new pipe.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$35,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2016

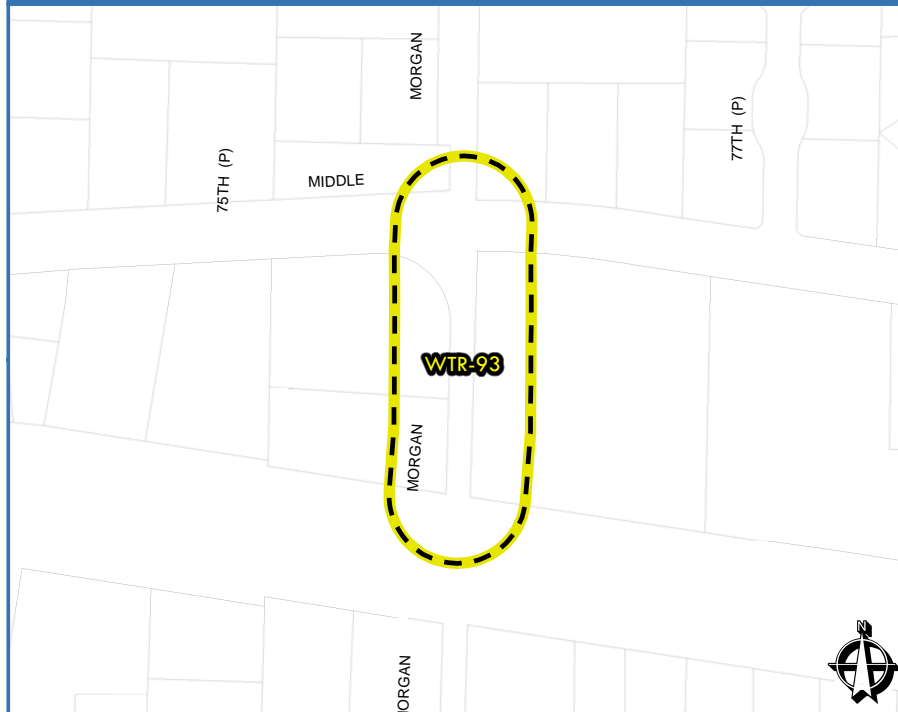
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: SE MORGAN RD - S OF MIDDLE WAY

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Distribution  
**Project Status:** Future

## PROJECT DESCRIPTION

### Project Justification / Priority

Staff utilized a criticality matrix to prioritize pipes with a history of leaks. This is one of the higher priority projects. Replace aging waterlines which have exceeded their life expectancy and have a history of breakage.

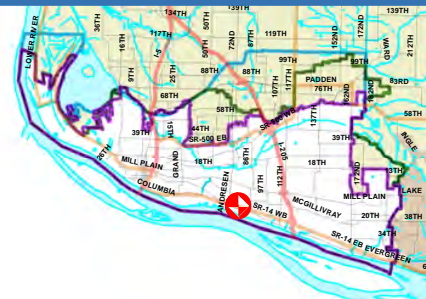
### Project Description / Comments

Install 600 LF of new pipe to replace existing 6 inch OD water mains with a history of emergency repairs due to leaks.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$50,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2016

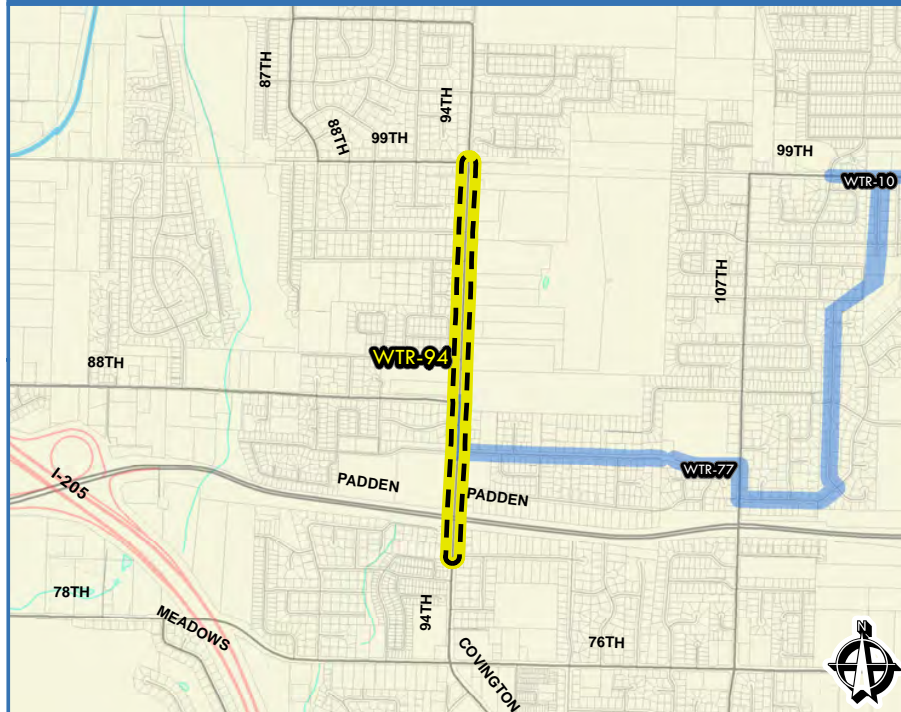
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: NE 94TH AVE - 81ST ST NORTH TO 99TH ST COUNTY COORDINATION PROJECT

## PROJECT AREA MAP



## PROJECT SUMMARY

Utility Type: Water  
 Project Type: Distribution  
 Project Status: Future

## PROJECT DESCRIPTION

### Project Justification / Priority

4 - Relocate water facilities in coordination with a Clark County transportation project.

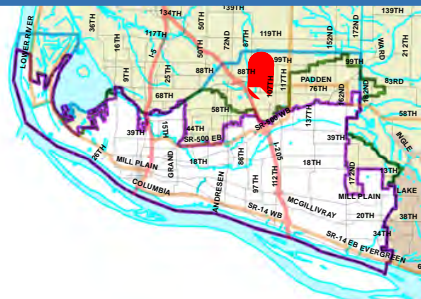
### Project Description / Comments

Replace 6", 8", and 12" mains in NE 94th Avenue to new locations so they do not conflict with the County's road improvement project or other utility crossings. Project will also adjust, relocate, and transfer existing fire hydrants, valves, and water services to coordinate with the County's road improvement project.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

Total Proj. Cost: \$161,000.00

## FUNDING STRATEGY

Budget / Proj. #: 083407

Budget / Proj. Task #:

\*Start of Construction (Year): 2015

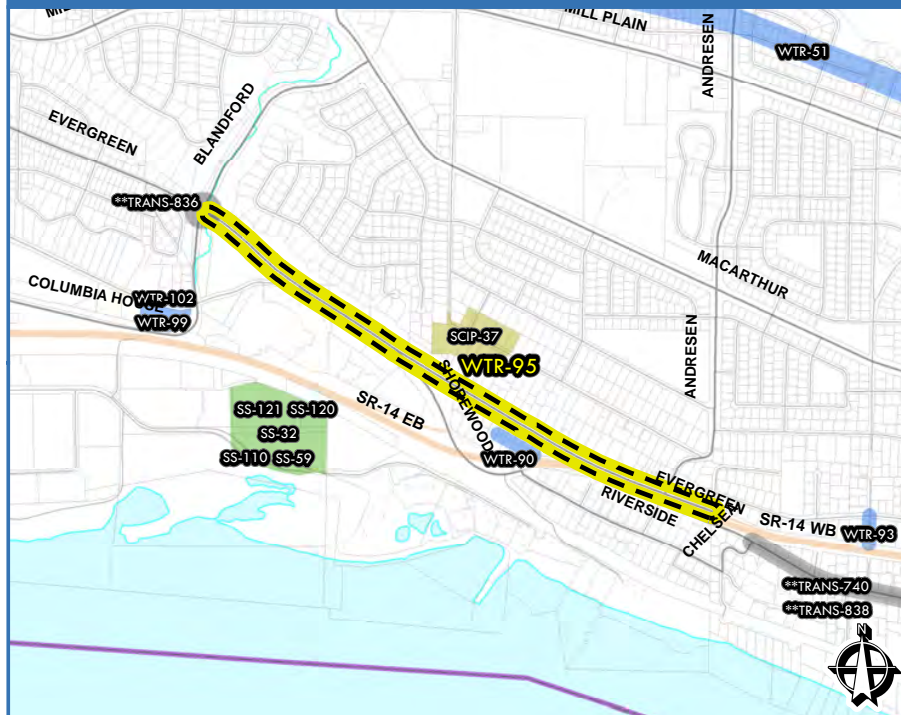
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: EVERGREEN TRANSMISSION MAIN

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Distribution  
**Project Status:** Future

### PROJECT DESCRIPTION

#### Project Justification / Priority

Identified in water system master plan. Project needed to move water from supply sources to areas with increasing demand. Helps maintain minimum levels of service, system redundancy, and improves emergency preparedness.

#### Project Description / Comments

Install a new transmission main in Evergreen Hwy from Blandford to Sleret Ave.

### LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$3,000,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2016

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: NE 99TH ST TRANS MAIN - 140TH AVE TO WARD RD

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Water  <b>Project Type:</b> Distribution  <b>Project Status:</b> Future</p>															
<h3>LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table> <h3>VICINITY MAP</h3>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>  4 - Move water from supply sources to areas with increasing demand</p> <p><b>Project Description / Comments</b>  Continuing construction of new transmission main intended to move water from WS 9 to WS 14</p>	
Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
SCIP	Camas																
Taxlots	Washougal																
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$875,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b>  2019</p>														

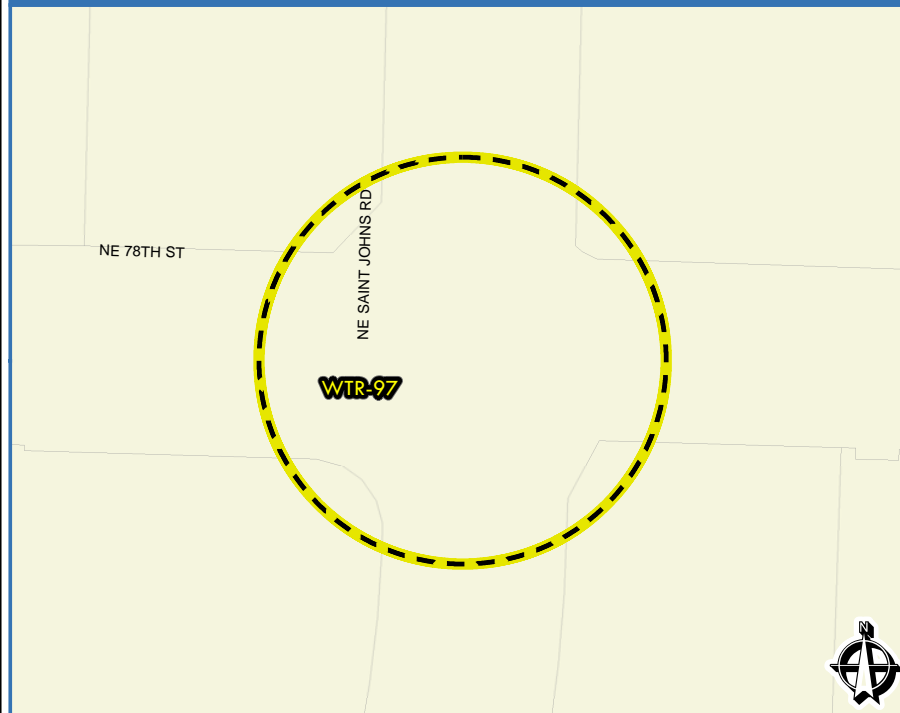
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
\*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: LINDE 2" WATER SERVICE

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Distribution  
**Project Status:** Future

### PROJECT DESCRIPTION

**Project Justification / Priority**

Improve safety and water quality

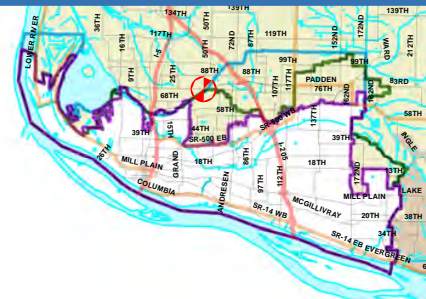
**Project Description / Comments**

Separate 2 inch water service from fire protection to Linde/Airco. Possible upsize of meter may be needed.

### LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$20,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2015

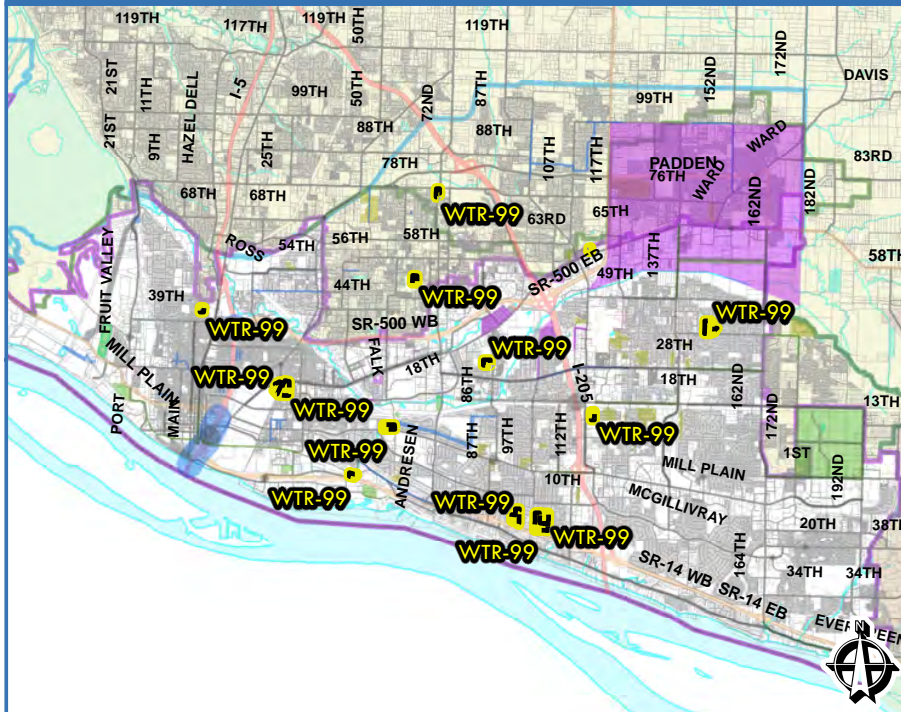
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: PUMP HOUSE ROOFING REPLACEMENT

### PROJECT AREA MAP



### PROJECT SUMMARY

Utility Type: Water  
 Project Type: Production  
 Project Status: Future

### PROJECT DESCRIPTION

#### Project Justification / Priority

Project requested by Operations. Replace aging shingle roofs with metal roofs at several pump stations around the City. Will help prolong asset life and reduce ongoing maintenance costs.

#### Project Description / Comments

Replace several aging roofs at multiple water stations throughout the City

### LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

Total Proj. Cost: \$200,000.00

### FUNDING STRATEGY

Budget / Proj. #:

Budget / Proj. Task #:

\*Start of Construction (Year):  
2015

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.





# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: SCIP COORDINATION PROJECTS

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Distribution  
**Project Status:** Active

### PROJECT DESCRIPTION

**Project Justification / Priority**

4 - Replace aging main or substandard pipe materials in the distribution system.

**Project Description / Comments**

Holds money for future scip projects to replace substandard water main, currently funded for \$100,000 annually.

### LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$1,280,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**  
083330

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.





# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **WELL LEVEL PROBES**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Production  
**Project Status:** Active

## PROJECT DESCRIPTION

**Project Justification / Priority**  
 Provides long term trending of well performance.

**Project Description / Comments**  
 Install level probes on wells to provide continuous monitoring

## LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$47,059.00

## FUNDING STRATEGY

**Budget / Proj. #:**  
083346

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2014

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



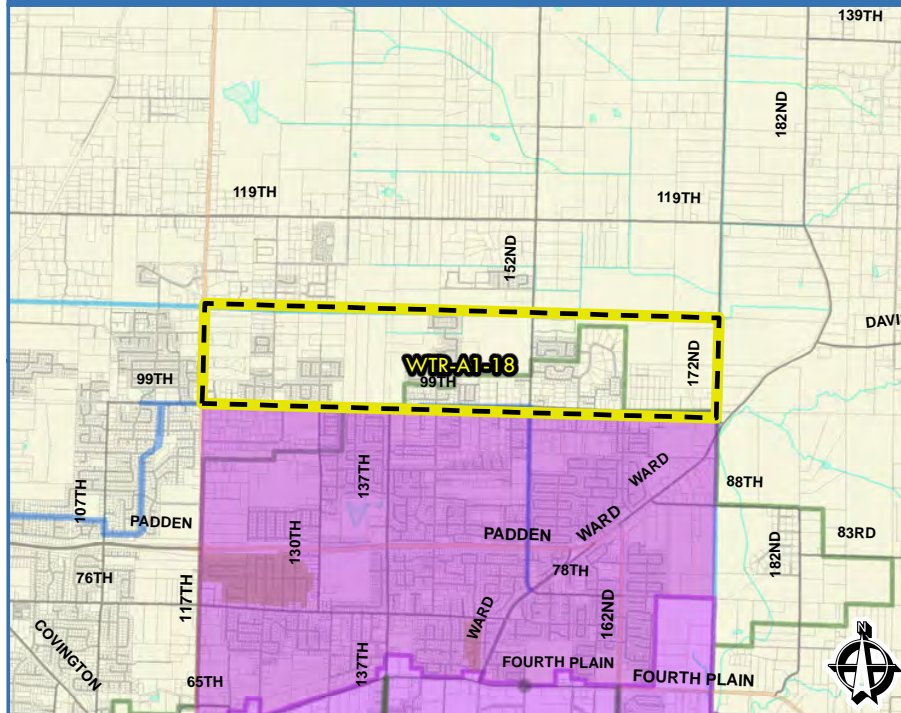




# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **STANDPIPE IN NE**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Production  
**Project Status:** Future

## PROJECT DESCRIPTION

**Project Justification / Priority**

3 - New standpipe to meet future system demand and provide consistent pressure in the east portion of the service area.

**Project Description / Comments**

Install a standpipe in the northeast to meet development needs in the east.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$2,500,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**  
083W-16-03

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2020

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: TREATMENT REGULATIONS COMPLIANCE

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Production  
**Project Status:** Future

### PROJECT DESCRIPTION

**Project Justification / Priority**

1 - Meet regulatory compliance.

**Project Description / Comments**

Unforeseen projects as needed to meet additional treatment requirements when regulations increase in the future.

### LEGEND

- Project Boundary
- Sewer Service Area
- Transportation
- Water Service Area
- Sanitary Sewer
- Clark County
- Surface Water
- Battle Ground
- Water
- Camas
- SCIP
- Washougal
- Vancouver City Limits

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$2,000,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**

33

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**

2017

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



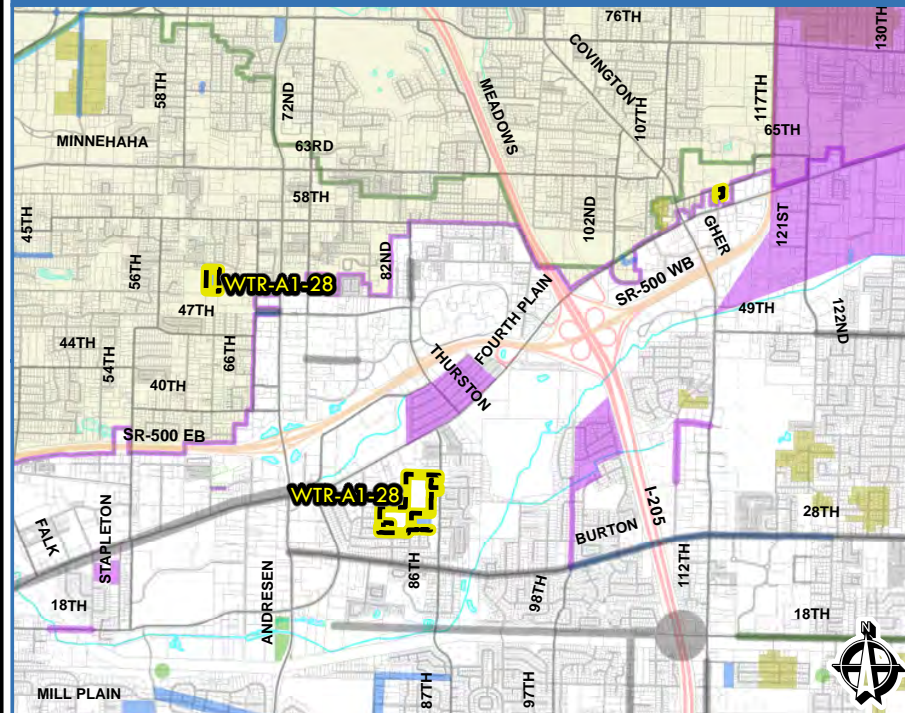




# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **WATER RIGHTS UTILIZATION STUDY WS 6, 8, 15**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Production  
**Project Status:** Future

## PROJECT DESCRIPTION

### Project Justification / Priority

Water rights at these facilities are not being utilized up to the full amount of the water right

### Project Description / Comments

Hire a hydrologist to conduct wellfield studies to determine if wells can be replaced to increase production.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$200,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2015

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **SCADA SYSTEM UPGRADE (2015-2018)**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Production  
**Project Status:** Future

## PROJECT DESCRIPTION

### Project Justification / Priority

Existing SCADA system is older technology and is becoming obsolete. Upgrade of the existing SCADA system will improve reliability, increase operational capabilities, and improve system redundancy.

### Project Description / Comments

Update the SCADA system software to Wonderware and include all associated hardware at all Water Stations.

## LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$7,200,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2015-2018

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.





# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: SEISMIC EVALUATION TOWERS AND RESERVOIRS

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Water  
**Project Type:** Production  
**Project Status:** Active

### PROJECT DESCRIPTION

**Project Justification / Priority**

2 - Seismic evaluation needed due to age and lack of seismic requirements at the time the structures were constructed. The evaluation will help determine if upgrades or replacement are necessary.

**Project Description / Comments**

Several reservoirs and towers within the water system are in need of a seismic evaluation due to age and lack of proper design. Project will evaluate specific towers and propose necessary modifications for upgrade or replacement.

### LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$250,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**  
083237

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2014

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



## 20 YEAR CAPITAL IMPROVEMENT PROGRAM FOR WATER

Note: All costs are in 2015 dollars

Description	CIP #	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
<b>448 Water Construction Fund</b>																					
<b>Water Production Projects</b>																					
Ellsworth Greensand Replacement	WTR-32	970,579																			970,579
Well Level Probes	WTR-A1-15	35,669																			35,669
Water Comp Plan	WTR-A1-19	26,000																			26,000
Sodium Hypo Gen System WS 14	WTR-62	200,000																			200,000
Water Rights Utilization Study WS 6,8,15	WTR-A1-28	200,000																			200,000
Water Station 1 Standby Power Booster Station	WTR-37	2,178,006	8,060,000	6,400,000																	16,638,006
Sodium Hypo Gen System at WS 1	WTR-78	344,280	450,000																		794,280
Ellsworth Well Rehabilitation	WTR-16	20,000	250,000																		270,000
Scada System Upgrade(2015-2018)	WTR-A1-29	3200000	2,200,000	1,400,000	400,000																7,200,000
Pump House Roofing Replacement	WTR-99	100,000	100,000																		200,000
Water Works Park 3.0 MG Reservoir and Seismic Upgrade	WTR-39		800,000	2,700,000	6,400,000																9,900,000
Water Works Park New Standpipe	WTR-42			500,000	2,000,000																2,500,000
Exploration for New Water Source	WTR-A1-7			50,000																	50,000
WS 9 Lead & Copper Pilot Study	WTR-100			100,000																	100,000
Treatment Regulations Compliance	WTR-A1-23			900,000																	900,000
Water Station 6 Internal Coating	WTR-47			400,000																	400,000
Sodium Hypo Gen System Ellsworth	WTR-64					300,000															300,000
Sodium Hpo Gen System WS 9	WTR-61					350,000															350,000
Water Station 6 Well/Treatment Install	WTR-69					2,000,000	1,000,000														3,000,000
Seismic Evaluation Towers and Reservoirs	WTR-A1-6	120,000																			
Water Tower 5,6,7 Seismic Improvements	WTR-A1-6					2,700,000															2,700,000
Standpipe in NE	WTR-A1-18					200,000	2,300,000														2,500,000
Lincoln High Booster Pump Replacment	WTR-40						800,000														800,000
Water Station 8 Replace Wells 2 & 3	WTR-68						1,000,000	1,000,000													2,000,000
WS 5 Reservoir Seismic Improvements	WTR-A1-6						3,000,000														3,000,000
Water Station 3 Master Plan	WTR-38						130,000														130,000
Sodium Hypo Gen System WS 15	WTR-63						200,000														200,000
Water Station 5 Booster Pumps	WTR-101							1,000,000													1,000,000
Water Station 4 Water Rights Utilization Study	WTR-102							100,000													100,000
WS 7 Hypo Gen System	WTR-103							200,000													200,000
WS 8 Hypo Gen System	WTR-104							200,000													200,000
Water Works Park: Replace Wells 3, 4, and 5									3,000,000												3,000,000
Water Station 5 Booster Pumps									4,000,000	1,000,000											5,000,000
Water Station 3 Reservoir/Tower Replacement										1,000,000	4,000,000	1,000,000									6,000,000
Sodium Hypo Gen System WS 3										300,000											300,000
Sodium Hypo Gen System WS 4										400,000											400,000
Ellsworth Well Rehabilitation											250,000										250,000
Treatment Regulations Compliance											1,000,000										1,000,000
St. Johns Booster Pump Station - Installation											350,000										350,000
Water Station 4 Replace Well 1											1,000,000										1,000,000
Water Station 3 Replace Wells 1 & 2 with one well												1,000,000									1,000,000
Water Station 15 Wells 1-4 Replacement												4,000,000									4,000,000
Water Station 7 Greensand													200,000								200,000
SCADA Improvements													500,000	500,000							1,000,000
Reservoir Install Southeast													1,000,000	3,000,000	1,500,000						5,500,000
Water Station 4 Well 4 Building Replacement																			600,000		600,000
<b>Water Distribution Projects</b>																					
Transmission Main - WS14 to WS9 Ph 2 (DST-03)	WTR-77	2,499,860																			2,499,860
Port Water System Upgrade	WTR-66	200,000																			200,000
NE 47th Ave - 68th to North County	WTR-76	132,000																			132,000
Vancouver Mall Drive Transportation Coordination	WTR-79	150,000																			150,000
PRV Flowmeters/Scada System Connections	WTR-A1-12	124,862																			124,862
E. 13th St. - V St. to W St.	WTR-81	555,917																			555,917
NE 60th Ave. - NE 70th St	WTR-85	14,500																			14,500
K & L St - E 29th to 32nd St Water Main	WTR-86	260,000																			260,000
NE 54th St - 40th Ave to 45th Ave Water Main	WTR-89	200,000																			200,000
Booster Station Flowmeters	WTR-9	21,530																			21,530
Claire St Water Main	WTR-90	75,000																			75,000
Alleys E & W of G St - 19th St to 20th St	WTR-91	60,000																			60,000
Linde 2" Water Service	WTR-97	20,000																			20,000
NE 94th Ave - 88th St Trans Main County Coord	WTR-94	161,000																			161,000
141st Ave - 28th St North SCIP(Water)	WTR-A1-10	200,000																			200,000
Wainwright Property		1,400,000																			1,400,000

Description	CIP #	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total
18th Street Oil Spill - Mission Hills		17,162																			17,162
Evergreen Lining Sleret		34,709																			
Water Demand Response	WTR-A1-27	206,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	400,000	400,000	400,000	5,906,000
CRWWD Wooded Acres		10,000																			10,000
County UIC Project		10,000																			10,000
Columbia View Apartment Oversize		34,000																			34,000
59th St Oversize		10,000																			10,000
28th St - Grant to Daniels Water Main	WTR-87		450,000																		450,000
W McLaughlin - Lincoln to Kaufman Water Main	WTR-88		125,000																		125,000
Bunch Plastic - 4th Plain & 103rd Ave	WTR-92		35,000																		35,000
SE Morgan Rd - S of Middle Way	WTR-93		50,000																		50,000
Evergreen Transmission Main Blandford to Sleret	WTR-95		500,000	2,500,000																	3,000,000
Bernie PRV Replacement	WTR-55			250,000																	250,000
Leak Abatement	WTR-A1-3			700,000	700,000	600,000	600,000	1,000,000	500,000	1,000,000	600,000	600,000	1,700,000	1,700,000	1,600,000	1,600,000	1,000,000	1,000,000	1,000,000	1,000,000	16,900,000
Water SCIP Coordination Projects	WTR-A1-10			100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000								1,000,000
Water Main NE 49th St - NE 15th Ave to NE 40th Ave	WTR-36				100,000	805,000															905,000
System Surge Evaluation	WTR-A1-16					50,000															50,000
99th St Transmission Main - 140th Ct to Ward Rd	WTR-96					2,500,000															2,500,000
WS 5 to WS 9 Transmission Main	WTR-51					200,000	2,500,000														2,700,000
99th St Transmission Main - 110th to 120th Ave	WTR-10					875,000															875,000
Transmission Main - Burton Rd (DST-13)	WTR-6						200,000	2,300,000													2,500,000
SR 500/I-5 Interchange (move 24)*									550,000												550,000
WS 5 to Ellsworth Transmission Main									400,000	2,500,000											2,900,000
Transmission Improvements (DST 14-18)																	3,000,000	3,000,000	3,000,000	3,000,000	12,000,000
<b>Other Water Projects</b>																					
Water System Comp Plan		136,000									300,000	300,000									736,000
Central Operations Center Remodel															7,000,000	8,000,000					15,000,000
For SCIP projects see SCIP section of CIP																					-
<b>Total Water Project</b>		<b>13,927,074</b>	<b>13,320,000</b>	<b>16,300,000</b>	<b>10,000,000</b>	<b>10,980,000</b>	<b>12,130,000</b>	<b>6,200,000</b>	<b>8,850,000</b>	<b>6,600,000</b>	<b>7,900,000</b>	<b>7,300,000</b>	<b>3,800,000</b>	<b>5,500,000</b>	<b>10,400,000</b>	<b>9,900,000</b>	<b>4,300,000</b>	<b>5,000,000</b>	<b>4,400,000</b>	<b>4,400,000</b>	<b>161,207,074</b>

\*Project timing is dependent upon the timing of the overriding project.

# Sewer Utility



Capital Improvement Program  
For Water, Sewer, and Surface Water



# Sewer Utility Recent Financial History



Capital Improvement Program  
For Water, Sewer, and Surface Water

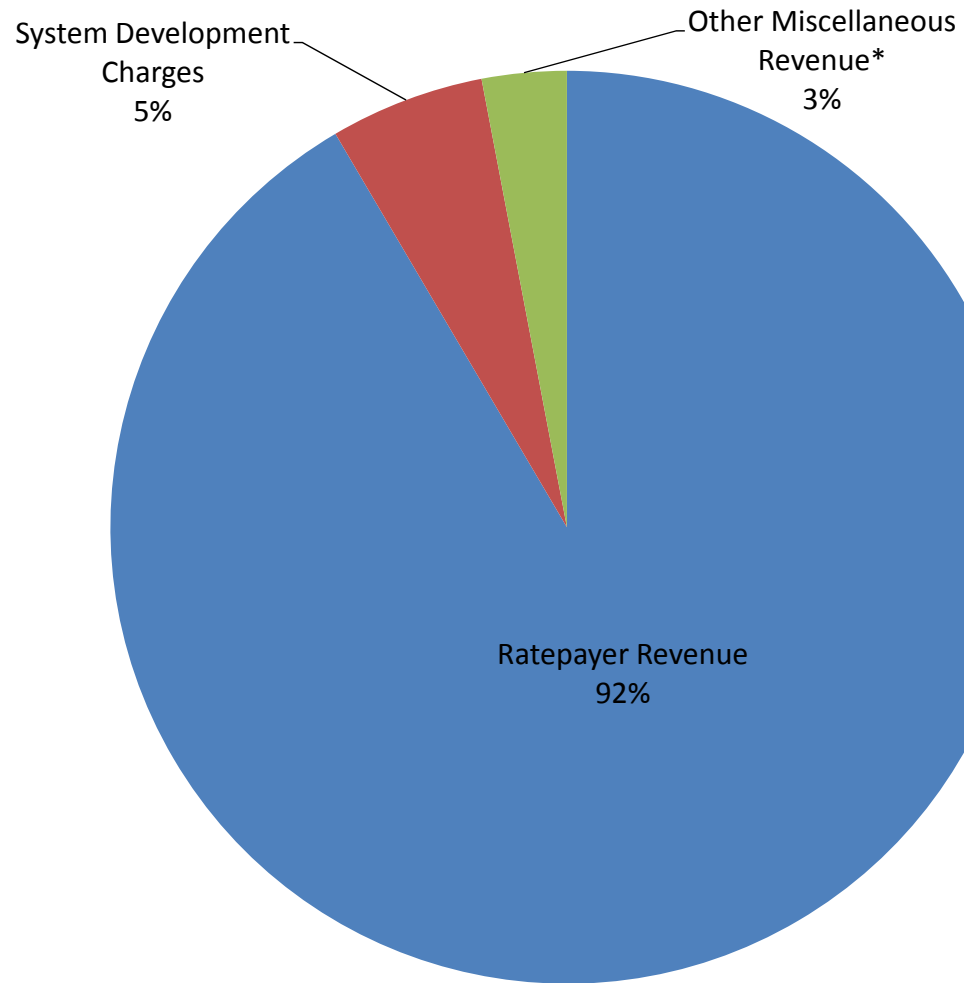


## SEWER FUND ACTIVITY (2004-2014)

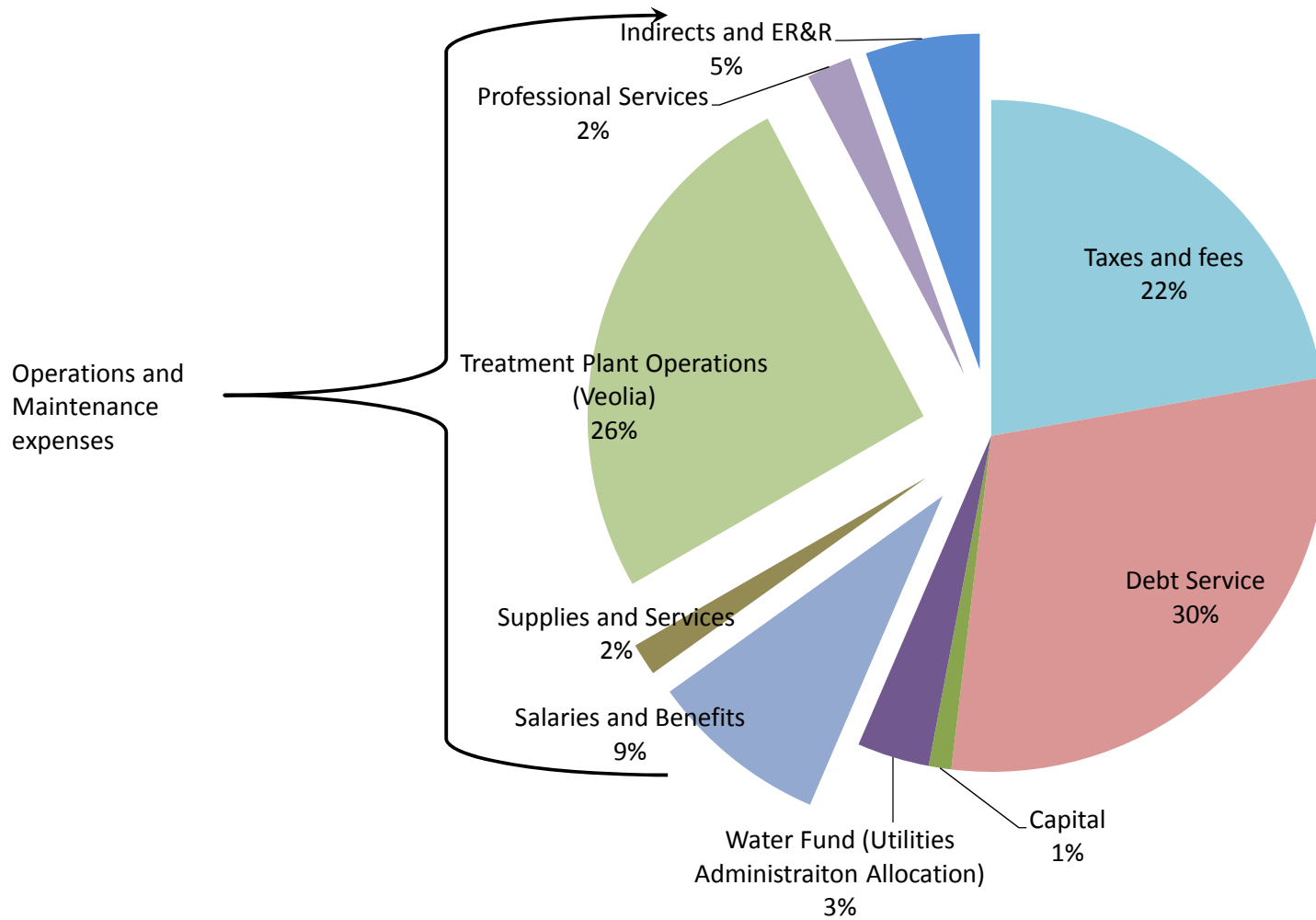
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Revenue</b>											
Ratepayer Revenue	23,239,761	24,421,378	26,086,118	29,283,140	30,543,545	32,022,225	32,145,884	34,318,896	35,997,525	36,965,444	38,560,932
System Development Charges	3,433,489	3,251,761	3,166,074	3,024,671	2,851,403	2,039,355	1,551,339	1,243,614	1,644,626	3,316,544	2,305,002
Loan from 448						3,600,000	2,705,000				
Transfer from 449					156,280	2,000,000					
Transfer from 445											
Grants				2,565			150,398	159,400	13,080		-
Other Miscellaneous Revenue*	2,363,872	1,922,398	1,599,914	2,573,975	1,492,777	1,158,756	1,407,160	980,444	1,183,142	1,368,801	1,262,608
<b>Total Revenue</b>	<b>29,037,122</b>	<b>29,595,537</b>	<b>30,852,106</b>	<b>34,884,351</b>	<b>35,044,005</b>	<b>40,820,336</b>	<b>37,959,781</b>	<b>36,702,354</b>	<b>38,838,373</b>	<b>41,650,789</b>	<b>42,128,542</b>
<b>Expenses</b>											
Salaries and Benefits	2,332,750	2,616,224	3,002,699	3,153,210	3,548,954	3,086,392	3,029,147	3,089,838	3,057,180	3,163,259	3,282,642
Supplies and Services	973,933	927,329	967,674	747,209	767,781	716,545	535,156	723,016	763,959	778,502	597,701
Treatment Plant Operations (Veolia)	7,215,797	7,795,740	8,340,678	8,412,297	9,040,669	9,049,841	8,940,872	9,501,069	9,818,967	10,162,439	9,737,910
Professional Services	975,413	243,201	269,773	331,411	472,346	426,644	383,673	405,523	312,163	389,635	829,260
Indirects and ER&R	2,606,801	2,507,272	2,438,155	1,961,828	2,921,800	2,274,018	2,414,490	2,127,287	2,197,154	2,353,370	2,091,019
<b>Operations &amp; Maintenance Expenses</b>	<b>14,104,694</b>	<b>14,089,766</b>	<b>15,018,980</b>	<b>14,605,955</b>	<b>16,751,550</b>	<b>15,553,439</b>	<b>15,303,338</b>	<b>15,846,733</b>	<b>16,149,422</b>	<b>16,847,205</b>	<b>16,538,532</b>
Taxes and fees	3,810,840	3,986,051	4,316,593	5,061,373	5,383,236	6,897,891	6,991,165	7,522,685	7,922,169	8,122,488	8,438,083
Debt Service	11,982,656	13,137,011	12,764,194	12,721,743	12,679,696	12,773,944	12,806,282	12,811,400	13,270,531	13,271,026	11,281,751
Capital	869,250	747,739	3,744,147	1,104,854	1,865,733	2,000,383	1,825,547	1,015,346	348,328	570,323	412,178
Water Fund (Utilities Administration Allocation)	0	0	0	0	0	1,124,470	1,057,455	1,172,252	1,214,512	1,333,913	1,325,340
<b>Expenses Subtotal</b>	<b>30,767,441</b>	<b>31,960,567</b>	<b>35,843,914</b>	<b>33,493,926</b>	<b>36,680,214</b>	<b>38,350,127</b>	<b>37,983,787</b>	<b>38,368,416</b>	<b>38,904,963</b>	<b>40,144,955</b>	<b>37,995,884</b>
Depreciation	7,895,357	7,707,581	7,814,799	7,785,638	7,952,543	8,030,699	7,768,413	7,725,731	7,599,485	7,580,918	7,587,492
<b>Total Expense</b>	<b>38,662,798</b>	<b>39,668,148</b>	<b>43,658,713</b>	<b>41,279,564</b>	<b>44,632,757</b>	<b>46,380,826</b>	<b>45,752,200</b>	<b>46,094,147</b>	<b>46,504,448</b>	<b>47,725,873</b>	<b>45,583,376</b>

\*Other Miscellaneous Revenues include items such as:  
 Septic Tank Receiving  
 Interest Earnings  
 Latecomer Fees

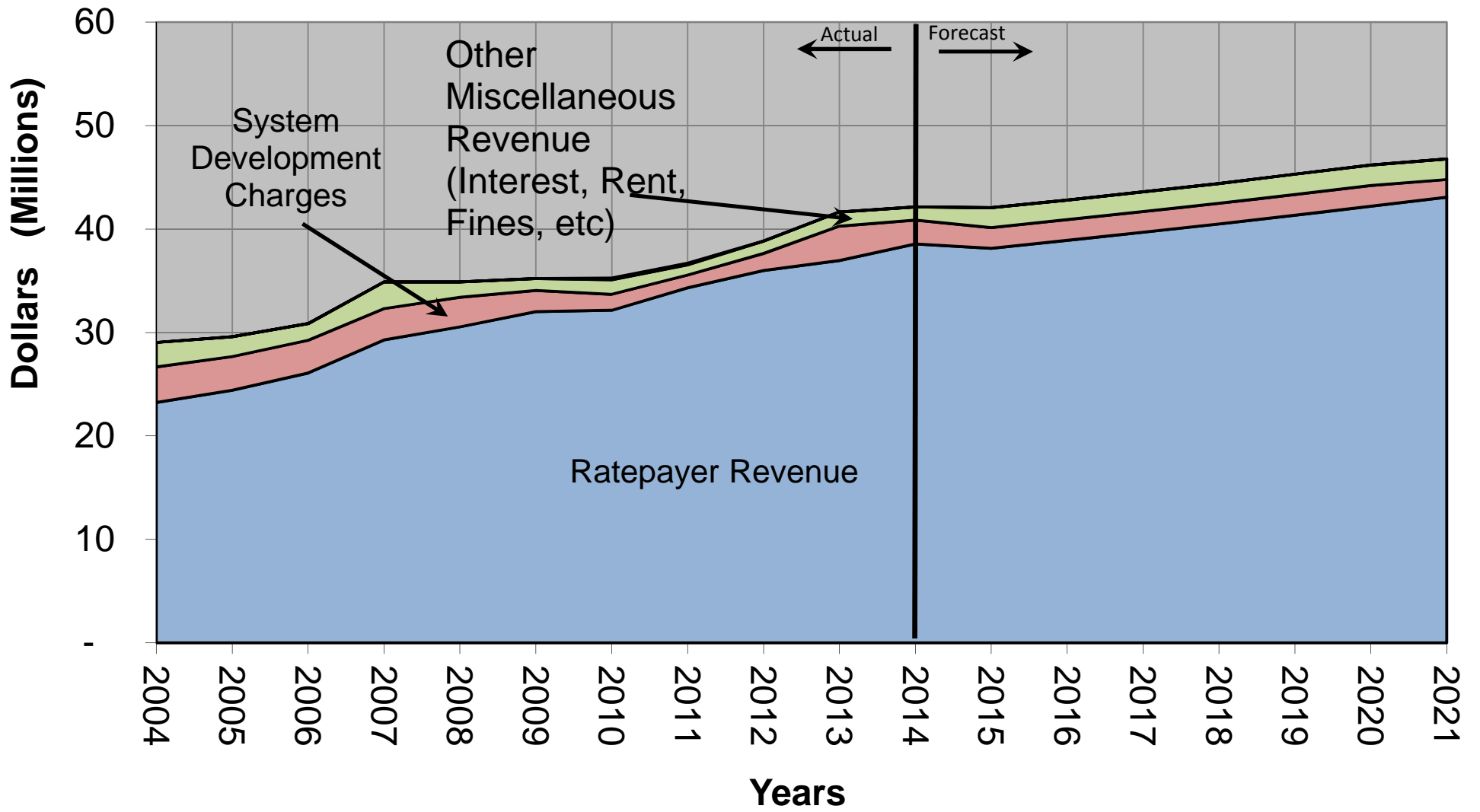
**2014 Sewer Utility Revenues = \$42,128,542**



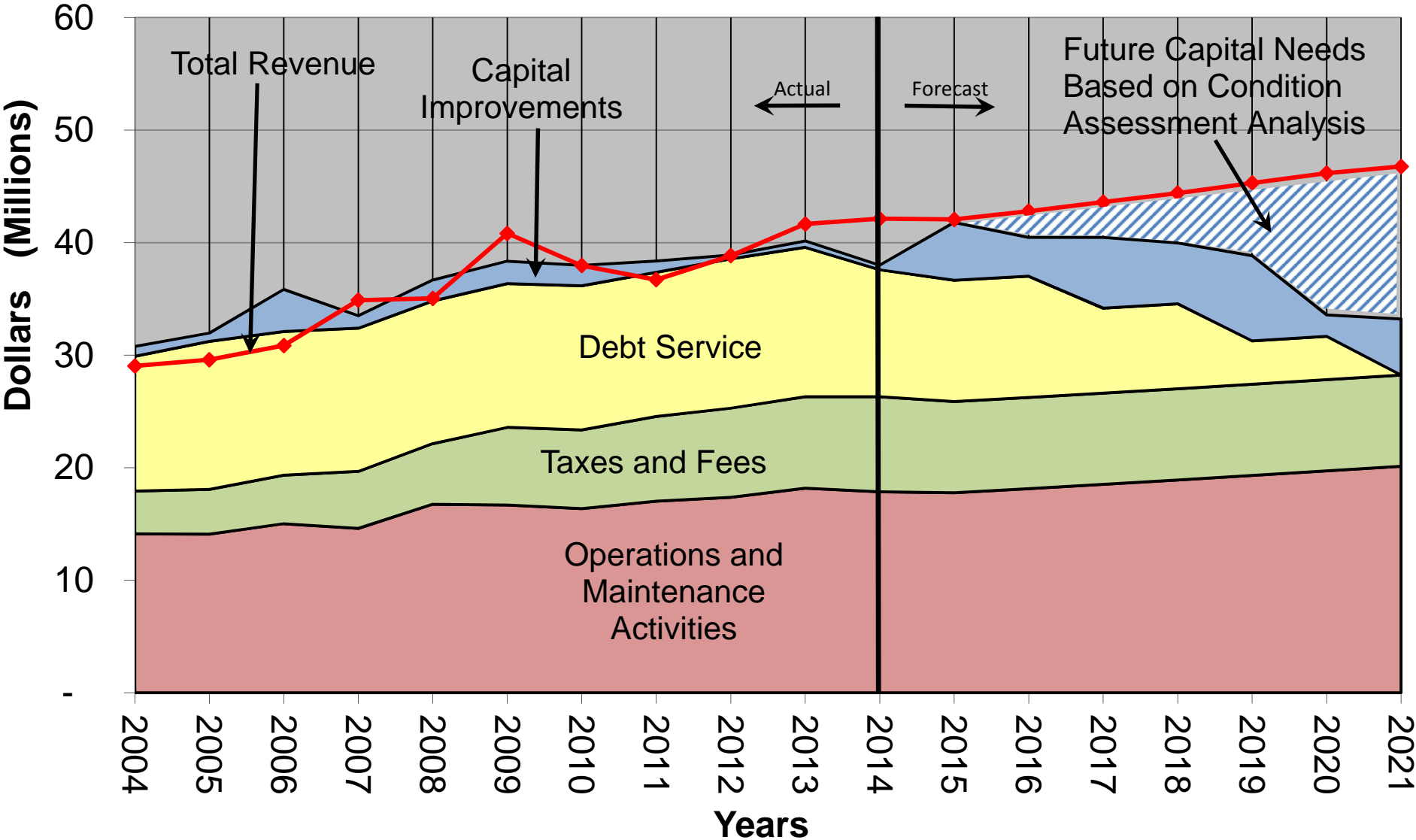
**2014 Sewer Utility Expenses = \$37,995,884**



# Sewer Revenues (2004-2021)



# Sewer Expenses (2004-2021)



# Sewer Utility Project List



Capital Improvement Program  
For Water, Sewer, and Surface Water

## Sewer Utility CIP Changes

This page provides an overview of the changes from the previous 6 year project list (2015-2020) to this year's 6 year project list (2016-2021). The changes are segmented by: projects added; projects removed; and other.

<b>Projects Added</b>	<b>Project Number</b>	<b>Comments</b>
GMA pump station Improvements	SS-122	Project now within the 6-year horizon.
Sludge Force Main Extension	SS-123	Project now within the 6-year horizon.
Evergreen Hwy Force Main	SS-124	Project now within the 6-year horizon.
Section 30 Arterial Expansion	SS-23	Project now within the 6-year horizon.
Mill Plain 102 <sup>nd</sup> to Chaklov	SS-126	Project needed due to Transportation coordination
FBF Mercury Abatement System	SS-125	Project needed to meet new environmental emissions limits
Energy Sustainability for Multiple Projects	SS-120	Project added to improve energy efficiency at both treatment plants

<b>Projects Removed</b>	<b>Project Number</b>	<b>Comments</b>
Marine Park Outfall Upgrade	SS-108	Project not needed.
Marine Park Outfall Pilings Removal	SS-109	Project not needed.
West Side Refractory Replacement	SS-101	Completed by contract operator in 2015.
Roof Replacements	SS-104	Will be completed as part of CP&C (SS-32).
Westside enclosed grit system	SS-105	Project not needed.
Major VFD Replacements	SS-111	Will be done as part of CP&C (SS-32).
Gravity Thickener Rehabilitation	SS-119	See SS-121
SCADA System Upgrades	SS-96	Will be done as part of CP&C (SS-32).
H2S Control	SS-A1-113	Completed.
West Side Gravity Thickener Rehabilitation	SS-121	Completed.
Solids Centrifuge #1 Replacement	SS-94	Completed.

<b>Other Changes</b>	<b>Project Number</b>	<b>Comments</b>
Solids Centrifuge #2 Replacement	SS-100	Changed cost to \$345,000
Lagoon Aeration Upgrade	SS-102	Changed cost to \$1,750,000
UV System Replacement	SS-66	Changed cost to \$2,700,000
Fire Control system Upgrade	SS-99	Changed cost to \$100,000
Main St. 5 <sup>th</sup> to 15 <sup>th</sup> St	SS-5	Moved from 2016 to 2021



Description	#	2015	2016	2017	2018	2019	2020	2021	6-yr Total
<b>Sewer Treatment Projects - Westside</b>									
Fire Control System Upgrade	SS-99				100,000				100,000
Secondary Clarifier Tank Coating	SS-92					300,000			300,000
Secondary Clarifier Center Well Upgrade 3, 4, 5	SS-116					125,000			125,000
Solids Centrifuge #2 Replacement	SS-100	345,000							-
FBF - Heat Ex Elbow Replacement	SS-95		100,000		100,000				200,000
FBF Refractory Replacement	SS-101		300,000						300,000
Lagoon Aeration Upgrade	SS-102					1,500,000		250,000	1,750,000
WS-Ash Clarifier Corrosion Prevention & Weir Replacement	SS-118	45,000							-
WS Wet Process Improvements	SS-71						420,000		420,000
Septage Receiving Station Upgrade	SS-74						200,000		200,000
Maintenance Building HVAC System Replacement	SS-52		40,000						40,000
West 16th Pump Station (Pump Replacement)	SS-58			200,000					200,000
Westside Heat Recovery/Bio Solids Dryer	SS-97				1,100,000				1,100,000
CEMS Equipment Upgrade and Replacement	SS-65	150,000							-
Westside UV System Replacement	SS-66	2,700,000							-
FBF Mercury Abatement System	SS-125	750,000							-
<b>Sub-Total</b>		<b>3,990,000</b>	<b>440,000</b>	<b>200,000</b>	<b>1,300,000</b>	<b>1,925,000</b>	<b>620,000</b>	<b>250,000</b>	<b>4,735,000</b>
<b>Sewer Treatment Projects -Marine Park</b>									
BBC PS Influent Line Repair	SS-28			400,000					400,000
Andresen Diversion Gate Valve	SS-93			100,000					100,000
MP Wet Process Improvements	SS-110					60,000			60,000
Secondary Aeration Basin Effluent Channel Split	SS-59		60,000						60,000
<b>Sub-Total</b>		<b>-</b>	<b>60,000</b>	<b>500,000</b>	<b>-</b>	<b>60,000</b>	<b>-</b>	<b>-</b>	<b>620,000</b>
<b>Sewer Treatment Projects - Both MP &amp; WS</b>									
Aeration Membrane Upgrade	SS-31			40,000			35,000	35,000	110,000
Capital Preservation and Compliance (2)	SS-32	115,000	145,000	500,000	400,000	400,000	400,000	400,000	2,245,000
CP&C Ash Xfer Conveyor	SS-117	60,000							-
CP&C WS Influent Pump Motor	SS-106	75,000							-
CP&C 4 Multi Coating Projects	SS-34		35,000		35,000		35,000		105,000
CP&C WS Gravity Thickener #1 Rehabilitation	SS-121		120,000						-
Process Controls Electronics	SS-70						500,000		500,000
Energy Sustainability for Multiple Projects	SS-120		150,000	250,000					400,000
<b>Sub-Total</b>		<b>250,000</b>	<b>450,000</b>	<b>790,000</b>	<b>435,000</b>	<b>400,000</b>	<b>970,000</b>	<b>435,000</b>	<b>3,480,000</b>
<b>Sewer Collection Projects</b>									
Basin A-20-1 & Force Main Relocation (59th Street)	SS-1			160,000					160,000
Mill Plain 102nd to Chaklov*	SS-126	60,000							-
Fred Meyer Pump Station Grand Central	SS-98	150,000							-
Flow Monitoring Program - Permanent Meters	SS-A1-70			250,000					250,000
Standby Power	SS-A1-3		35,000						35,000
Main Street, 5th to 15th*	SS-5							520,000	520,000
Substandard Main Repair/Replace	SS-A1-6	713,359	500,000	500,000	750,000	750,000	750,000	750,000	4,000,000
Basin B-4 Pump Station Removal	SS-8			195,000					195,000
SE 1st St, 164th to 192nd Ave Design*	SS-15	54,000							-
2nd and Columbia Pump Station Removal	SS-17	70,000							-
Basin E5-4 Relief Sewers	SS-18			122,000					122,000
NE 28th Street, 142nd to 162nd*	SS-19		170,000						170,000
NE 137th Avenue, 49th to Fourth Plain*	SS-20	430,000							-
NE 18th Street, Four Seasons to 138th*	SS-22		395,000						395,000
Interceptor Integrity Evaluation	SS-A1-114	120,000	150,000						150,000
Section 30 Arterial Expansion*	SS-23						2,000,000		2,000,000
Pinebrook Force Main Reroute	SS-112							265,000	265,000
GMA Pump Station Improvements	SS-122							1,600,000	1,600,000
Sludge Force Main Extensions	SS-123							2,060,000	2,060,000
Evergreen Hwy Force Main*	SS-124							1,750,000	1,750,000
<b>Sub-Total</b>		<b>1,597,359</b>	<b>1,250,000</b>	<b>1,227,000</b>	<b>750,000</b>	<b>750,000</b>	<b>2,750,000</b>	<b>6,945,000</b>	<b>13,672,000</b>
<b>Total Sewer Fund Projects</b>		<b>5,837,359</b>	<b>2,200,000</b>	<b>2,717,000</b>	<b>2,485,000</b>	<b>3,135,000</b>	<b>4,340,000</b>	<b>7,630,000</b>	<b>22,507,000</b>

\*Project timing is dependent upon the timing of the overriding project.

Shading indicates not included in 6 year plan, but money expected to be spent in 2015.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **BASIN A-20-1 & FORCE MAIN RELOCATION (59TH STREET)**

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Collection  <b>Project Status:</b></p>																													
<h3>LEGEND</h3> <table border="0"> <tr> <td></td> <td>Project Boundary</td> <td></td> <td>Vancouver City Limits</td> </tr> <tr> <td></td> <td>Transportation</td> <td></td> <td>Sewer Service Area</td> </tr> <tr> <td></td> <td>Sanitary Sewer</td> <td></td> <td>Water Service Area</td> </tr> <tr> <td></td> <td>Surface Water</td> <td></td> <td>Clark County</td> </tr> <tr> <td></td> <td>Water</td> <td></td> <td>Battle Ground</td> </tr> <tr> <td></td> <td>SCIP</td> <td></td> <td>Camas</td> </tr> <tr> <td></td> <td>Taxlots</td> <td></td> <td>Washougal</td> </tr> </table> <h3>VICINITY MAP</h3>			Project Boundary		Vancouver City Limits		Transportation		Sewer Service Area		Sanitary Sewer		Water Service Area		Surface Water		Clark County		Water		Battle Ground		SCIP		Camas		Taxlots		Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          (4) = Replace/preserve/rehabilitate systems</p> <p><b>Project Description / Comments</b>          Funds budgeted are for oversize participation in the form of supplying pipe to the developer driven project. This project will only move forward if NE 59th Street is constructed. Timing is uncertain and the date is estimated.</p>	
	Project Boundary		Vancouver City Limits																												
	Transportation		Sewer Service Area																												
	Sanitary Sewer		Water Service Area																												
	Surface Water		Clark County																												
	Water		Battle Ground																												
	SCIP		Camas																												
	Taxlots		Washougal																												
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$160,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2017</p>																												

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: SOLIDS CENTRIFUGE #2 REPLACEMENT

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Treatment  <b>Project Status:</b> Future</p>															
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table> <h3 style="text-align: center;">VICINITY MAP</h3>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>  (4) = Replace/preserve/rehabilitate systems</p> <p><b>Project Description / Comments</b>  Replaced aged and obsolete solids dewatering centrifuge with one that matches our existing one, which is energy efficient and more technologically advanced.</p>	
Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
SCIP	Camas																
Taxlots	Washougal																
		<h3 style="text-align: center;">ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$345,000.00</p>	<h3 style="text-align: center;">FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2016</p>														

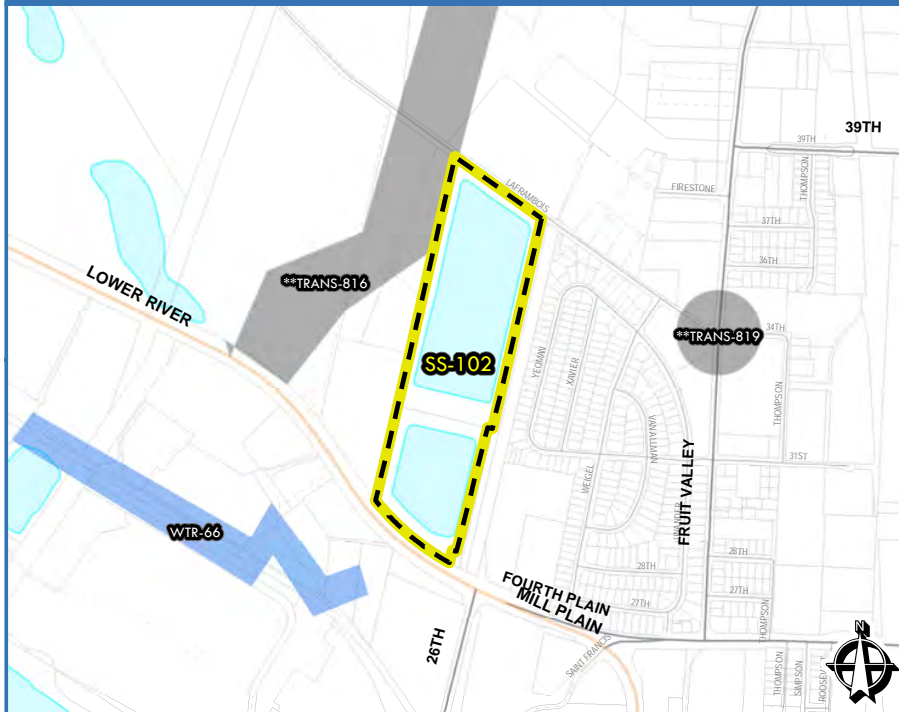
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
\*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: LAGOON AERATION UPGRADE

### PROJECT AREA MAP



### PROJECT SUMMARY

Utility Type: Sanitary Sewer  
 Project Type: Treatment  
 Project Status: Future

### PROJECT DESCRIPTION

#### Project Justification / Priority

(5) = Lower operating costs

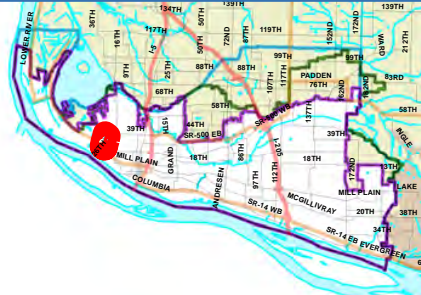
#### Project Description / Comments

Replace aging blowers and related mechanical equipment with more energy efficient systems that also allow for treatment capacity expansion.

### LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Taxlots
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

Total Proj. Cost: \$1,750,000.00

### FUNDING STRATEGY

Budget / Proj. #:

Budget / Proj. Task #:

\*Start of Construction (Year):  
2019

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **INFLUENT PUMP MOTOR & VFD REPLACEMENT (RSR#1)**

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Treatment  <b>Project Status:</b> Future</p>																	
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3 style="text-align: center;">VICINITY MAP</h3>			
Project Boundary	Vancouver City Limits																		
Transportation	Sewer Service Area																		
Sanitary Sewer	Water Service Area																		
Surface Water	Clark County																		
Water	Battle Ground																		
SCIP	Camas																		
Taxlots	Washougal																		
<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>                  (5) = Lower operating costs</p> <p><b>Project Description / Comments</b>                  Replace aged influent pumps at the Westside headworks, with those that are more energy efficient, provide better flow control into the plant, and require less maintenance.</p>		<table border="1"> <thead> <tr> <th colspan="2" style="text-align: center;">ESTIMATED PROJECT COSTS</th> <th colspan="2" style="text-align: center;">FUNDING STRATEGY</th> </tr> </thead> <tbody> <tr> <td><b>Total Proj. Cost:</b></td> <td style="text-align: right;">\$75,000.00</td> <td><b>Budget / Proj. #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td><b>Budget / Proj. Task #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td><b>*Start of Construction (Year):</b></td> <td style="text-align: center;">2015</td> </tr> </tbody> </table>		ESTIMATED PROJECT COSTS		FUNDING STRATEGY		<b>Total Proj. Cost:</b>	\$75,000.00	<b>Budget / Proj. #:</b>				<b>Budget / Proj. Task #:</b>				<b>*Start of Construction (Year):</b>	2015
ESTIMATED PROJECT COSTS		FUNDING STRATEGY																	
<b>Total Proj. Cost:</b>	\$75,000.00	<b>Budget / Proj. #:</b>																	
		<b>Budget / Proj. Task #:</b>																	
		<b>*Start of Construction (Year):</b>	2015																

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: MP WET PROCESS IMPROVEMENTS

PROJECT AREA MAP		PROJECT SUMMARY	
		<b>Utility Type:</b> Sanitary Sewer <b>Project Type:</b> Treatment <b>Project Status:</b> Future	
		PROJECT DESCRIPTION	
		<b>Project Justification / Priority</b> (1) = Compliance with regulations  <b>Project Description / Comments</b> Provides for equipment or updating of existing process changes, that may be needed to meet more restrictive conventional or other pollutant discharge permit requirements	
LEGEND	VICINITY MAP	ESTIMATED PROJECT COSTS	FUNDING STRATEGY
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Vancouver City Limits</li> <li> Sewer Service Area</li> <li> Water Service Area</li> <li> Surface Water</li> <li> Clark County</li> <li> Battle Ground</li> <li> Water</li> <li> Camas</li> <li> SCIP</li> <li> Washougal</li> <li> Taxlots</li> </ul>		<b>Total Proj. Cost:</b> \$60,000.00	<b>Budget / Proj. #:</b>  <b>Budget / Proj. Task #:</b>  <b>*Start of Construction (Year):</b> 2019

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: PINEBROOK FORCE MAIN REROUTE

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Collection  <b>Project Status:</b> Future</p>															
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table> <h3 style="text-align: center;">VICINITY MAP</h3>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>  (4) = Replace/preserve/rehabilitate systems</p> <p><b>Project Description / Comments</b>  Construct 700 feet of new forcemain north in NE 125th Avenue to redirect pump station discharges and shorten the overall forcemain length by 3550 feet.</p>	
Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
SCIP	Camas																
Taxlots	Washougal																
		<h3 style="text-align: center;">ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$265,000.00</p>	<h3 style="text-align: center;">FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2019</p>														

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
\*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **SECONDARY CLARIFIER CENTER WELL UPGRADE 3, 4, 5**

PROJECT AREA MAP		PROJECT SUMMARY	
		<p><b>Utility Type:</b> Sanitary Sewer</p> <p><b>Project Type:</b> Treatment</p> <p><b>Project Status:</b> Future</p>	
LEGEND		PROJECT DESCRIPTION	
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Vancouver City Limits</li> <li> Transportation</li> <li> Sewer Service Area</li> <li> Sanitary Sewer</li> <li> Water Service Area</li> <li> Surface Water</li> <li> Clark County</li> <li> Water</li> <li> Battle Ground</li> <li> SCIP</li> <li> Camas</li> <li> Taxlots</li> <li> Washougal</li> </ul>		<p><b>Project Justification / Priority</b> (4) - Replace/Preserve/Rehabilitate systems</p> <p><b>Project Description / Comments</b> ?????</p>	
VICINITY MAP		ESTIMATED PROJECT COSTS	
		<p><b>Total Proj. Cost:</b> \$125,000.00</p>	
		FUNDING STRATEGY	
		<p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2019</p>	

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.





# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: ASH XFER CONVEYER REDESIGN

PROJECT AREA MAP		PROJECT SUMMARY	
		<p><b>Utility Type:</b> Sanitary Sewer</p> <p><b>Project Type:</b> Treatment</p> <p><b>Project Status:</b> Future</p>	
LEGEND		PROJECT DESCRIPTION	
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Transportation</li> <li> Sanitary Sewer</li> <li> Surface Water</li> <li> Water</li> <li> SCIP</li> <li> Taxlots</li> <li> Vancouver City Limits</li> <li> Sewer Service Area</li> <li> Water Service Area</li> <li> Clark County</li> <li> Battle Ground</li> <li> Camas</li> <li> Washougal</li> </ul>		<p><b>Project Justification / Priority</b> (4) - Replace/Preserve/Rehabilitate systems</p> <p><b>Project Description / Comments</b> ?????</p>	
VICINITY MAP		ESTIMATED PROJECT COSTS	
		<p><b>Total Proj. Cost:</b> \$60,000.00</p>	
		FUNDING STRATEGY	
		<p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2015</p>	

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: ASH CLARIFIER CORROSION PREVENTION & WEIR REPLACEMENT

PROJECT AREA MAP		PROJECT SUMMARY	
		<p><b>Utility Type:</b> Sanitary Sewer</p> <p><b>Project Type:</b> Treatment</p> <p><b>Project Status:</b> Future</p>	
LEGEND		PROJECT DESCRIPTION	
<ul style="list-style-type: none"> <li>Project Boundary</li> <li>Transportation</li> <li>Sanitary Sewer</li> <li>Surface Water</li> <li>Water</li> <li>SCIP</li> <li>Taxlots</li> <li>Vancouver City Limits</li> <li>Sewer Service Area</li> <li>Water Service Area</li> <li>Clark County</li> <li>Battle Ground</li> <li>Camas</li> <li>Washougal</li> </ul>		<p><b>Project Justification / Priority</b> (4) - Replace/Preserve/Rehabilitate systems</p> <p><b>Project Description / Comments</b> ?????</p>	
VICINITY MAP		ESTIMATED PROJECT COSTS	
		<p><b>Total Proj. Cost:</b> \$45,000.00</p>	
		FUNDING STRATEGY	
		<p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2015</p>	

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: ENERGY SUSTAINABILITY FOR MULTIPLE PROJECTS

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Sanitary Sewer  
**Project Type:** Treatment  
**Project Status:** Future

## PROJECT DESCRIPTION

### Project Justification / Priority

Yearly allocation of money for projects know to improve energy efficiency at treatment plants. Projects may include pump replacements, light replacements, and blower replacements.

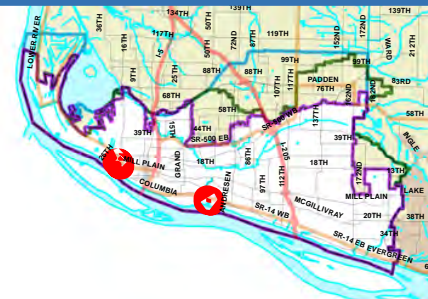
### Project Description / Comments

Improve energy efficiency of several assets at both Westside and Marine Park Treatment Plants

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$400,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2016-2017

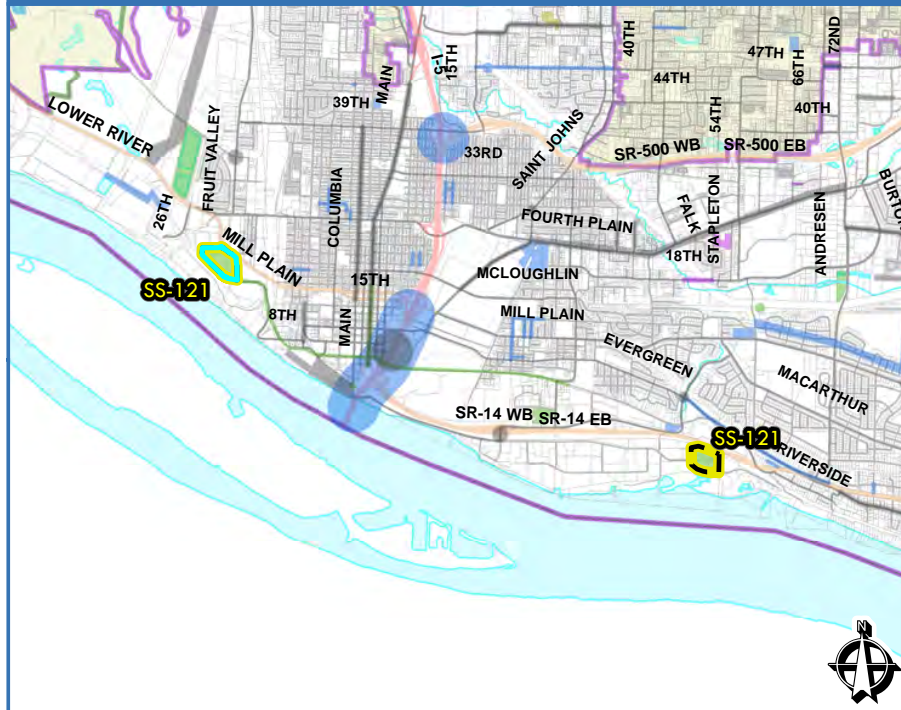
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: CP&C WESTSIDE GRAVITY THICKENER #1 REHABILITATION

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Sanitary Sewer  
**Project Type:** Treatment  
**Project Status:** Future

## PROJECT DESCRIPTION

### Project Justification / Priority

Funding from CP&C; a yearly allocation of money used to fund extraordinary maintenance of new capital and small equipment outside the limits of the O&M Contract and/or unexpected treatment plant repairs outside the scope of the O&M contract.

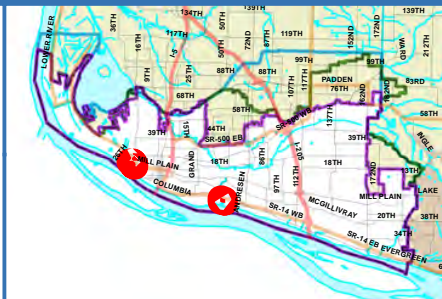
### Project Description / Comments

Gravity thickener #1 rehabilitation at Westside treatment plant.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$120,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2016

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: GMA PUMP STATION IMPROVEMENTS (BASIN A21)

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p> <b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Collection  <b>Project Status:</b> Future         </p>																													
<h3>LEGEND</h3> <table border="0"> <tr> <td></td> <td>Project Boundary</td> <td></td> <td>Vancouver City Limits</td> </tr> <tr> <td></td> <td>Transportation</td> <td></td> <td>Sewer Service Area</td> </tr> <tr> <td></td> <td>Sanitary Sewer</td> <td></td> <td>Water Service Area</td> </tr> <tr> <td></td> <td>Surface Water</td> <td></td> <td>Clark County</td> </tr> <tr> <td></td> <td>Water</td> <td></td> <td>Battle Ground</td> </tr> <tr> <td></td> <td>SCIP</td> <td></td> <td>Camas</td> </tr> <tr> <td></td> <td>Taxlots</td> <td></td> <td>Washougal</td> </tr> </table> <h3>VICINITY MAP</h3>			Project Boundary		Vancouver City Limits		Transportation		Sewer Service Area		Sanitary Sewer		Water Service Area		Surface Water		Clark County		Water		Battle Ground		SCIP		Camas		Taxlots		Washougal	<h3>PROJECT DESCRIPTION</h3> <p> <b>Project Justification / Priority</b>              (4) = Replace/preserve/rehabilitate systems         </p> <p> <b>Project Description / Comments</b>              Construct 3,870 lf of 8-inch forcemain from Maplecrest pump station to 162nd/39th. Also redirect Stein Estates Pump station to Maplecrest Pump station.         </p>	
	Project Boundary		Vancouver City Limits																												
	Transportation		Sewer Service Area																												
	Sanitary Sewer		Water Service Area																												
	Surface Water		Clark County																												
	Water		Battle Ground																												
	SCIP		Camas																												
	Taxlots		Washougal																												
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$1,600,000.00</p>	<h3>FUNDING STRATEGY</h3> <p> <b>Budget / Proj. #:</b>   <b>Budget / Proj. Task #:</b>   <b>*Start of Construction (Year):</b>              2021         </p>																												

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: SLUDGE FORCE MAIN EXTENSIONS

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Collection  <b>Project Status:</b> Future</p>															
<h3>LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table> <h3>VICINITY MAP</h3>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          (3) = New Systems</p> <p><b>Project Description / Comments</b>          Construct force main from Marine Park to along 5th Street to the West Side plant to transfer sludge as needed.</p>	
Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
SCIP	Camas																
Taxlots	Washougal																
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$2,060,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2021</p>														

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **EVERGREEN HWY FORCE MAIN**

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3>			
		<p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Collection  <b>Project Status:</b> Future</p>			
<h3>LEGEND</h3>		<h3>PROJECT DESCRIPTION</h3>			
<p><b>VICINITY MAP</b></p>		<p><b>Project Justification / Priority</b>          (3) = New Systems</p> <p><b>Project Description / Comments</b>          Construct force main along Evergreen Highway from 162nd to 192nd to facilitate future growth in east city</p>			
<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li> Project Boundary</li> <li> Vancouver City Limits</li> <li> Transportation</li> <li> Sewer Service Area</li> <li> Sanitary Sewer</li> <li> Water Service Area</li> <li> Surface Water</li> <li> Clark County</li> <li> Water</li> <li> Battle Ground</li> <li> SCIP</li> <li> Camas</li> <li> Taxlots</li> <li> Washougal</li> </ul>		<table border="1"> <tr> <td data-bbox="1039 1474 1501 1521"> <h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$1,750,000.00</p> </td> <td data-bbox="1501 1474 1967 1521"> <h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2021</p> </td> </tr> </table>		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$1,750,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2021</p>
<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$1,750,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2021</p>				

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WS FBF MERCURY ABATEMENT SYSTEM

PROJECT AREA MAP		PROJECT SUMMARY	
		<p><b>Utility Type:</b> Sanitary Sewer</p> <p><b>Project Type:</b> Treatment</p> <p><b>Project Status:</b> Construction</p>	
LEGEND		PROJECT DESCRIPTION	
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Vancouver City Limits</li> <li> Transportation</li> <li> Sewer Service Area</li> <li> Sanitary Sewer</li> <li> Water Service Area</li> <li> Surface Water</li> <li> Clark County</li> <li> Water</li> <li> Battle Ground</li> <li> SCIP</li> <li> Camas</li> <li> Taxlots</li> <li> Washougal</li> </ul>		<p><b>Project Justification / Priority</b> (1) = Compliance with regulations</p> <p><b>Project Description / Comments</b> Install Mercury abatement equipment at the Westside treatment plant</p>	
VICINITY MAP		ESTIMATED PROJECT COSTS	
		<p><b>Total Proj. Cost:</b> \$750,000.00</p>	
		FUNDING STRATEGY	
		<p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2015</p>	

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.





# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: MILL PLAIN 102ND TO CHAKLOV

PROJECT AREA MAP		PROJECT SUMMARY	
		<b>Utility Type:</b> Sanitary Sewer <b>Project Type:</b> Collection <b>Project Status:</b> In Design	
		PROJECT DESCRIPTION	
		<b>Project Justification / Priority</b> (3) = New Systems	
		<b>Project Description / Comments</b> Upgrade sewer mains in Mill Plain Boulevard between 102nd and Chaklov in association with Transportation improvement project	
LEGEND	VICINITY MAP	ESTIMATED PROJECT COSTS	FUNDING STRATEGY
<ul style="list-style-type: none"> <li>Project Boundary</li> <li>Transportation</li> <li>Sanitary Sewer</li> <li>Surface Water</li> <li>Water</li> <li>SCIP</li> <li>Taxlots</li> </ul>		<b>Total Proj. Cost:</b> \$60,000.00	<b>Budget / Proj. #:</b>  <b>Budget / Proj. Task #:</b>  <b>*Start of Construction (Year):</b> 2015
<ul style="list-style-type: none"> <li>Vancouver City Limits</li> <li>Sewer Service Area</li> <li>Water Service Area</li> <li>Clark County</li> <li>Battle Ground</li> <li>Camas</li> <li>Washougal</li> </ul>			

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: SE 1ST ST, 164TH TO 192ND AVE DESIGN\*

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Collection  <b>Project Status:</b></p>																													
<h3>LEGEND</h3> <table border="0"> <tr> <td></td> <td>Project Boundary</td> <td></td> <td>Vancouver City Limits</td> </tr> <tr> <td></td> <td>Transportation</td> <td></td> <td>Sewer Service Area</td> </tr> <tr> <td></td> <td>Sanitary Sewer</td> <td></td> <td>Water Service Area</td> </tr> <tr> <td></td> <td>Surface Water</td> <td></td> <td>Clark County</td> </tr> <tr> <td></td> <td>Water</td> <td></td> <td>Battle Ground</td> </tr> <tr> <td></td> <td>SCIP</td> <td></td> <td>Camas</td> </tr> <tr> <td></td> <td>Taxlots</td> <td></td> <td>Washougal</td> </tr> </table> <h3>VICINITY MAP</h3>			Project Boundary		Vancouver City Limits		Transportation		Sewer Service Area		Sanitary Sewer		Water Service Area		Surface Water		Clark County		Water		Battle Ground		SCIP		Camas		Taxlots		Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>  (4) = Replace/preserve/rehabilitate systems</p> <p><b>Project Description / Comments</b>  This roadway coordination project will install needed stubs and/or laterals to provide sewer to parcels. Timing is dependant on the Transportation project. The project has funds for design which is scheduled for 2015. Transportation construction is unfunded.</p>	
	Project Boundary		Vancouver City Limits																												
	Transportation		Sewer Service Area																												
	Sanitary Sewer		Water Service Area																												
	Surface Water		Clark County																												
	Water		Battle Ground																												
	SCIP		Camas																												
	Taxlots		Washougal																												
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$54,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2014</p>																												

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
\*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: 2ND AND COLUMBIA PUMP STATION REMOVAL

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Collection  <b>Project Status:</b></p>																	
<h3>LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>  (4) = Replace/preserve/rehabilitate systems</p> <p><b>Project Description / Comments</b>  This pump station program project is to construct the main necessary to take this pump station off-line once the new pump station is constructed for the Waterfront Project. The Waterfront Project will construct a new pump station for that project that will be deep enough to take the 2nd and Columbia pump station off-line. The Waterfront Project will extend main to Columbia Street. The City project will extend this main further to the site of the station allowing it to be decommissioned. Timing is dependent on the Waterfront Project.</p>			
Project Boundary	Vancouver City Limits																		
Transportation	Sewer Service Area																		
Sanitary Sewer	Water Service Area																		
Surface Water	Clark County																		
Water	Battle Ground																		
SCIP	Camas																		
Taxlots	Washougal																		
<h3>VICINITY MAP</h3>		<table border="1"> <thead> <tr> <th colspan="2">ESTIMATED PROJECT COSTS</th> <th colspan="2">FUNDING STRATEGY</th> </tr> </thead> <tbody> <tr> <td><b>Total Proj. Cost:</b></td> <td>\$70,000.00</td> <td><b>Budget / Proj. #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td><b>Budget / Proj. Task #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td><b>*Start of Construction (Year):</b></td> <td>2015</td> </tr> </tbody> </table>		ESTIMATED PROJECT COSTS		FUNDING STRATEGY		<b>Total Proj. Cost:</b>	\$70,000.00	<b>Budget / Proj. #:</b>				<b>Budget / Proj. Task #:</b>				<b>*Start of Construction (Year):</b>	2015
ESTIMATED PROJECT COSTS		FUNDING STRATEGY																	
<b>Total Proj. Cost:</b>	\$70,000.00	<b>Budget / Proj. #:</b>																	
		<b>Budget / Proj. Task #:</b>																	
		<b>*Start of Construction (Year):</b>	2015																

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: BASIN E5-4 RELIEF SEWERS

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3>	
		<p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Collection  <b>Project Status:</b></p>	
		<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>                  (4) = Replace/preserve/rehabilitate systems</p> <p><b>Project Description / Comments</b>                  This relief sewer program project will provide added capacity in the E5 Trunk Sewer and the E5-4 Trunk Sewer if flows from SEH exceed 2.8 MGD. SEH has inquired about the City's ability to handle flows of 2.8 MGD to 4.2 MGD. Flows above 2.8 MGD will trigger relief sewers. Timing of a project will depend on the timing of the flows. The project budget is based on installation of 85 feet of parallel 15-inch pipe under the railroad tracks at SE 164th Avenue (Basin E5) and paralleling 2,300 feet of 15-inch main in Basin E5-4.</p>	
<h3>LEGEND</h3> <ul style="list-style-type: none"> <li>Project Boundary</li> <li>Transportation</li> <li>Sanitary Sewer</li> <li>Surface Water</li> <li>Water</li> <li>SCIP</li> <li>Taxlots</li> <li>Vancouver City Limits</li> <li>Sewer Service Area</li> <li>Water Service Area</li> <li>Clark County</li> <li>Battle Ground</li> <li>Camas</li> <li>Washougal</li> </ul>	<h3>VICINITY MAP</h3>	<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$122,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2017</p>

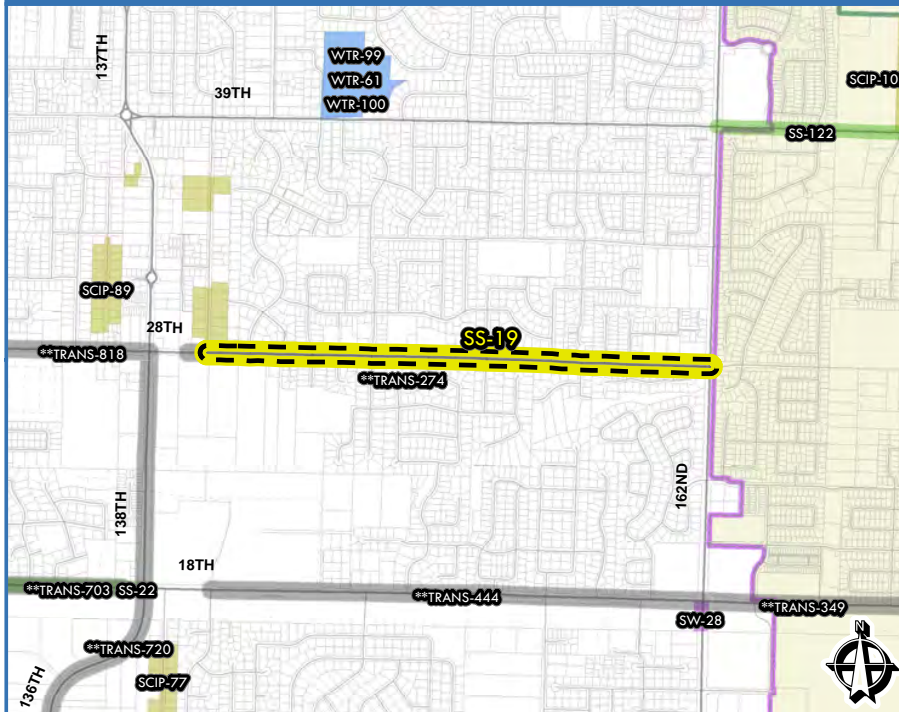
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: NE 28TH STREET, 142ND TO 162ND\*

## PROJECT AREA MAP



## PROJECT SUMMARY

Utility Type: Sanitary Sewer  
 Project Type: Collection  
 Project Status:

## PROJECT DESCRIPTION

### Project Justification / Priority

(3) = New systems

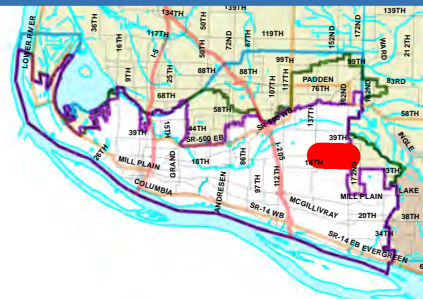
### Project Description / Comments

This roadway coordination project will install approximately 900 feet of 8-inch main to provide sewer to unsewered parcels. Timing is dependant on the Transportation project which is unfunded.

## LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Taxlots
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

Total Proj. Cost: \$170,000.00

## FUNDING STRATEGY

Budget / Proj. #:

Budget / Proj. Task #:

\*Start of Construction (Year):  
2016

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.

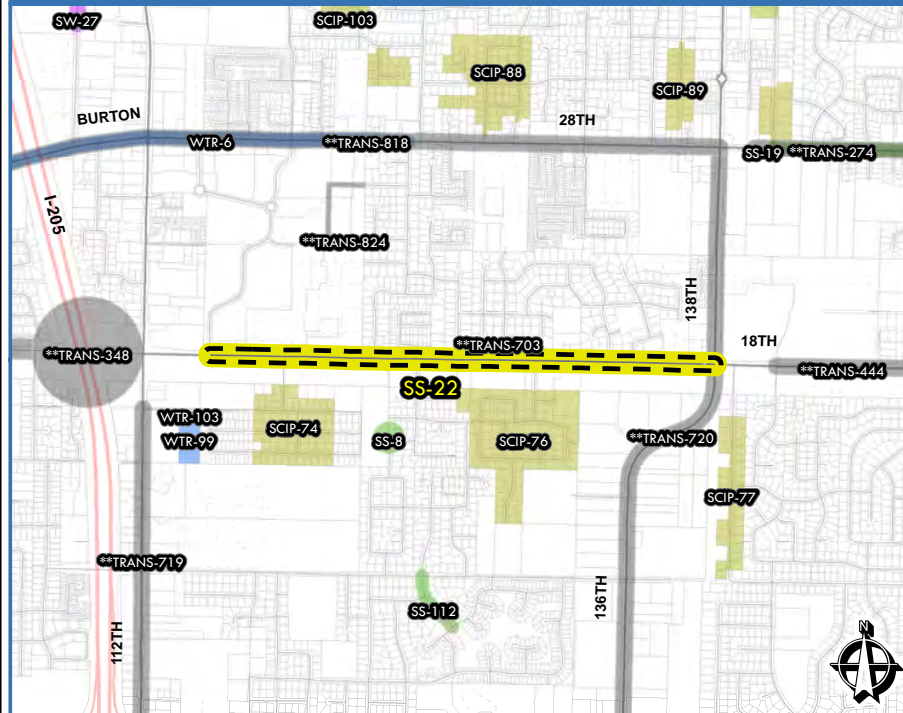




# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: NE 18TH STREET, FROM FOUR SEASONS TO NE 138TH AVE \*

## PROJECT AREA MAP



## PROJECT SUMMARY

Utility Type: Sanitary Sewer  
 Project Type: Collection  
 Project Status:

## PROJECT DESCRIPTION

### Project Justification / Priority

This project will take advantage of the proposed road improvements to install new main to serve unsewered parcels. By combining with a road improvement project, construction costs are reduced significantly.

### Project Description / Comments

This roadway coordination project will install approximately 1,700 feet of 8-inch and 10-inch main to provide sewer to unsewered parcels. Timing is dependant on the Transportation project. This project has been designed, but Transportation construction is unfunded.

## LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Taxlots
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

Total Proj. Cost: \$395,000.00

## FUNDING STRATEGY

Budget / Proj. #:

Budget / Proj. Task #:

\*Start of Construction (Year):  
2016

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: SECTION 30 ARTERIAL EXPANSION\*

PROJECT AREA MAP		PROJECT SUMMARY	
		<b>Utility Type:</b> Sanitary Sewer <b>Project Type:</b> Collection <b>Project Status:</b> Future	
		PROJECT DESCRIPTION	
		<b>Project Justification / Priority</b> (3) = New systems  <b>Project Description / Comments</b> This roadway coordination project provides funds to install sewer mains with Transportation's Section 30 Arterial Expansion Project identified in the Transportation Improvement Program. Timing is dependant on the Transportation project which is unfunded. The budget is based on an estimate of 17,000 feet of 12-inch main.	
LEGEND		ESTIMATED PROJECT COSTS	
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Vancouver City Limits</li> <li> Transportation</li> <li> Sewer Service Area</li> <li> Sanitary Sewer</li> <li> Water Service Area</li> <li> Surface Water</li> <li> Water</li> <li> SCIP</li> <li> Taxlots</li> </ul>	<ul style="list-style-type: none"> <li> Clark County</li> <li> Battle Ground</li> <li> Camas</li> <li> Washougal</li> </ul>	FUNDING STRATEGY	
		<b>Total Proj. Cost:</b> \$2,000,000.00	<b>Budget / Proj. #:</b>  <b>Budget / Proj. Task #:</b>  <b>*Start of Construction (Year):</b> 2020

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.





# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **BBC PS UPGRADE**

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3>													
		<p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Treatment  <b>Project Status:</b> Future</p>													
<h3>LEGEND</h3>		<h3>PROJECT DESCRIPTION</h3>													
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Transportation</li> <li> Sanitary Sewer</li> <li> Surface Water</li> <li> Water</li> <li> SCIP</li> <li> Taxlots</li> <li> Vancouver City Limits</li> <li> Sewer Service Area</li> <li> Water Service Area</li> <li> Clark County</li> <li> Battle Ground</li> <li> Camas</li> <li> Washougal</li> </ul>		<p><b>Project Justification / Priority</b>                  (4) = Replace/preserve/rehabilitate systems</p> <p><b>Project Description / Comments</b>                  Repair the pipe leading from BBC interceptor into the pump station wetwell.</p>													
<h3>VICINITY MAP</h3>		<h3>ESTIMATED PROJECT COSTS</h3>													
		<table border="1"> <tr> <td data-bbox="1060 1177 1501 1226"><b>Total Proj. Cost:</b></td> <td data-bbox="1333 1185 1491 1218">\$400,000.00</td> <td data-bbox="1512 1177 1942 1226"><b>Budget / Proj. #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td data-bbox="1512 1258 1942 1307"><b>Budget / Proj. Task #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td data-bbox="1512 1331 1942 1404"><b>*Start of Construction (Year):</b></td> <td>2017</td> </tr> </table>		<b>Total Proj. Cost:</b>	\$400,000.00	<b>Budget / Proj. #:</b>				<b>Budget / Proj. Task #:</b>				<b>*Start of Construction (Year):</b>	2017
<b>Total Proj. Cost:</b>	\$400,000.00	<b>Budget / Proj. #:</b>													
		<b>Budget / Proj. Task #:</b>													
		<b>*Start of Construction (Year):</b>	2017												

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: AERATION MEMBRANE UPGRADE

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Treatment  <b>Project Status:</b> Future</p>																													
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td></td> <td>Project Boundary</td> <td></td> <td>Vancouver City Limits</td> </tr> <tr> <td></td> <td>Transportation</td> <td></td> <td>Sewer Service Area</td> </tr> <tr> <td></td> <td>Sanitary Sewer</td> <td></td> <td>Water Service Area</td> </tr> <tr> <td></td> <td>Surface Water</td> <td></td> <td>Clark County</td> </tr> <tr> <td></td> <td>Water</td> <td></td> <td>Battle Ground</td> </tr> <tr> <td></td> <td>SCIP</td> <td></td> <td>Camas</td> </tr> <tr> <td></td> <td>Taxlots</td> <td></td> <td>Washougal</td> </tr> </table> <h3 style="text-align: center;">VICINITY MAP</h3>			Project Boundary		Vancouver City Limits		Transportation		Sewer Service Area		Sanitary Sewer		Water Service Area		Surface Water		Clark County		Water		Battle Ground		SCIP		Camas		Taxlots		Washougal	<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>  (4) = Replace/Preserve/Rehabilitate systems</p> <p><b>Project Description / Comments</b>  Replace aeration membranes to retain optimum treatment capability</p>	
	Project Boundary		Vancouver City Limits																												
	Transportation		Sewer Service Area																												
	Sanitary Sewer		Water Service Area																												
	Surface Water		Clark County																												
	Water		Battle Ground																												
	SCIP		Camas																												
	Taxlots		Washougal																												
		<h3 style="text-align: center;">ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$110,000.00</p>	<h3 style="text-align: center;">FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b>  2014-2017-2020</p>																												

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
\*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: CAPITAL PRESERVATION AND COMPLIANCE (2)

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Treatment  <b>Project Status:</b></p>																													
<h3>LEGEND</h3> <table border="0"> <tr> <td></td> <td>Project Boundary</td> <td></td> <td>Vancouver City Limits</td> </tr> <tr> <td></td> <td>Transportation</td> <td></td> <td>Sewer Service Area</td> </tr> <tr> <td></td> <td>Sanitary Sewer</td> <td></td> <td>Water Service Area</td> </tr> <tr> <td></td> <td>Surface Water</td> <td></td> <td>Clark County</td> </tr> <tr> <td></td> <td>Water</td> <td></td> <td>Battle Ground</td> </tr> <tr> <td></td> <td>SCIP</td> <td></td> <td>Camas</td> </tr> <tr> <td></td> <td>Taxlots</td> <td></td> <td>Washougal</td> </tr> </table>			Project Boundary		Vancouver City Limits		Transportation		Sewer Service Area		Sanitary Sewer		Water Service Area		Surface Water		Clark County		Water		Battle Ground		SCIP		Camas		Taxlots		Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          Yearly allocation of money to fund extraordinary maintenance of new capital and small equipment outside the limits of the O&amp;M Contract and/or unexpected treatment plant repairs outside the scope of the O&amp;M contract.</p> <p><b>Project Description / Comments</b>          This project will fund extraordinary maintenance of new capital and small equipment outside the limits of the O&amp;M Contract. Total list of identified projects currently totals \$7,168,807.00, with following projected construction schedule: 2014 - \$250K; 2015 - \$250K; 2016 - \$250K; 2017 - \$400K; 2018 - \$400K; 2019 - \$400K.</p>	
	Project Boundary		Vancouver City Limits																												
	Transportation		Sewer Service Area																												
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\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: CP&C 4 MULTI COATING PROJECTS

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Treatment  <b>Project Status:</b></p>																													
<h3>LEGEND</h3> <table border="0"> <tr> <td></td> <td>Project Boundary</td> <td></td> <td>Vancouver City Limits</td> </tr> <tr> <td></td> <td>Transportation</td> <td></td> <td>Sewer Service Area</td> </tr> <tr> <td></td> <td>Sanitary Sewer</td> <td></td> <td>Water Service Area</td> </tr> <tr> <td></td> <td>Surface Water</td> <td></td> <td>Clark County</td> </tr> <tr> <td></td> <td>Water</td> <td></td> <td>Battle Ground</td> </tr> <tr> <td></td> <td>SCIP</td> <td></td> <td>Camas</td> </tr> <tr> <td></td> <td>Taxlots</td> <td></td> <td>Washougal</td> </tr> </table> <h3>VICINITY MAP</h3>			Project Boundary		Vancouver City Limits		Transportation		Sewer Service Area		Sanitary Sewer		Water Service Area		Surface Water		Clark County		Water		Battle Ground		SCIP		Camas		Taxlots		Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          Funding from CP&amp;C; a yearly allocation of money used to fund extraordinary maintenance of new capital and small equipment outside the limits of the O&amp;M Contract and/or unexpected treatment plant repairs outside the scope of the O&amp;M contract.</p> <p><b>Project Description / Comments</b>          Replace coatings on various basins and units at the wastewater treatment plant facilities to protect and prolong life of facilities.</p>	
	Project Boundary		Vancouver City Limits																												
	Transportation		Sewer Service Area																												
	Sanitary Sewer		Water Service Area																												
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		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$105,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2016</p>																												

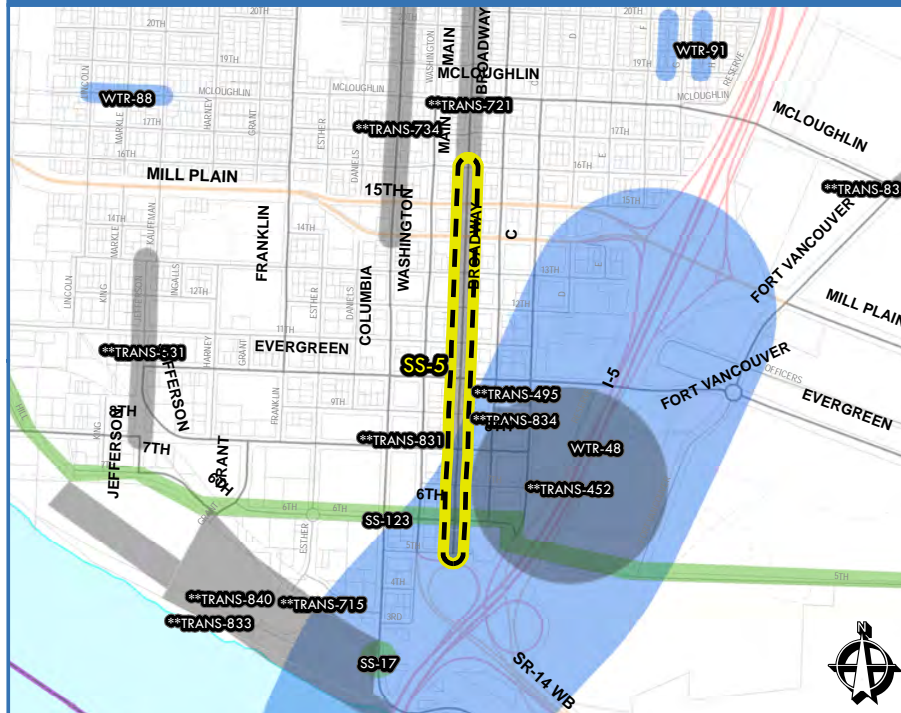
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: MAIN STREET, 5TH TO 15TH\*

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Sanitary Sewer  
**Project Type:** Collection  
**Project Status:**

## PROJECT DESCRIPTION

### Project Justification / Priority

(4) = Replace/preserve/rehabilitate systems

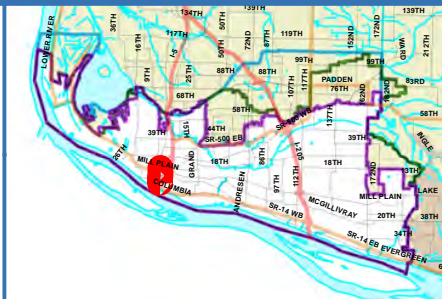
### Project Description / Comments

This roadway coordination project will replace old clay mains installed in 1890 as part of the first sanitary sewer project in the City of Vancouver with approximately 1,900 feet of new mains in coordination with the planned roadway improvements in Main Street. Construction will be triggered when funds are obtained for the roadway project and it is constructed. Sewer construction will be included in the roadway plans.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$520,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2021

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: MAINTENANCE BUILDING HVAC SYSTEM REPLACEMENT

PROJECT AREA MAP		PROJECT SUMMARY	
		<p><b>Utility Type:</b> Sanitary Sewer</p> <p><b>Project Type:</b> Treatment</p> <p><b>Project Status:</b></p>	
LEGEND		PROJECT DESCRIPTION	
<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li> Project Boundary</li> <li> Vancouver City Limits</li> <li> Transportation</li> <li> Sewer Service Area</li> <li> Sanitary Sewer</li> <li> Water Service Area</li> <li> Surface Water</li> <li> Clark County</li> <li> Water</li> <li> Battle Ground</li> <li> SCIP</li> <li> Camas</li> <li> Taxlots</li> <li> Washougal</li> </ul>		<p><b>PROJECT DESCRIPTION</b></p> <p><b>Project Justification / Priority</b> Planned for 2016 due to age, deterioration and required repairs, but further condition assessment will be in 2015. If condition assessment shows work is not needed, repairs may be pushed further into the future.</p> <p><b>Project Description / Comments</b> Maintenance of the HVAC system, to replace components due to age, deterioration and required repairs.</p>	
VICINITY MAP		ESTIMATED PROJECT COSTS	
		<p><b>ESTIMATED PROJECT COSTS</b></p> <p><b>Total Proj. Cost:</b> \$40,000.00</p>	
		<p><b>FUNDING STRATEGY</b></p> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2016</p>	

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WEST 16TH PUMP STATION

PROJECT AREA MAP		PROJECT SUMMARY	
		<p><b>Utility Type:</b> Sanitary Sewer</p> <p><b>Project Type:</b> Collection</p> <p><b>Project Status:</b></p>	
LEGEND		PROJECT DESCRIPTION	
<ul style="list-style-type: none"> <li>Project Boundary</li> <li>Transportation</li> <li>Sanitary Sewer</li> <li>Surface Water</li> <li>Water</li> <li>SCIP</li> <li>Taxlots</li> <li>Vancouver City Limits</li> <li>Sewer Service Area</li> <li>Water Service Area</li> <li>Clark County</li> <li>Battle Ground</li> <li>Camas</li> <li>Washougal</li> </ul>		<p><b>Project Justification / Priority</b> (4) = Replace/preserve/rehabilitate systems</p> <p><b>Project Description / Comments</b> The West 16th pump station serves the Fruit Valley neighborhood. The pump station must be repaired or replaced as needed to provide uninterrupted service to the community.</p>	
VICINITY MAP		ESTIMATED PROJECT COSTS	FUNDING STRATEGY
		<p><b>Total Proj. Cost:</b> \$200,000.00</p>	<p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2017</p>

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 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **SECONDARY AERATION BASIN EFFLUENT CHANNEL SPLIT**

PROJECT AREA MAP		PROJECT SUMMARY	
		<b>Utility Type:</b> Sanitary Sewer <b>Project Type:</b> Treatment <b>Project Status:</b>	
		PROJECT DESCRIPTION	
		<p><b>Project Justification / Priority</b>                      Project has been deferred for approximately 5 years due to insufficient funds and higher priorities. Money will be available in 2016 to perform work. Project will improve operational efficiency and reduce odors.</p> <p><b>Project Description / Comments</b>                      The effluent channel of the Marine Park aeration basins needs a gate valve placed between Phase 1 and Phase 2. This will prevent solids from settling out in the off-line portion of the channel, creating odor issues and an inaccurate solids inventory.</p>	
LEGEND	VICINITY MAP	ESTIMATED PROJECT COSTS	FUNDING STRATEGY
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Vancouver City Limits</li> <li> Transportation</li> <li> Sewer Service Area</li> <li> Sanitary Sewer</li> <li> Water Service Area</li> <li> Surface Water</li> <li> Clark County</li> <li> Water</li> <li> Battle Ground</li> <li> SCIP</li> <li> Camas</li> <li> Taxlots</li> <li> Washougal</li> </ul>		<p><b>Total Proj. Cost:</b> \$60,000.00</p>	<p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2016</p>

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.





# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) SYSTEM UPGRADE AND REPLACEMENT

PROJECT AREA MAP		PROJECT SUMMARY	
		<p><b>Utility Type:</b> Sanitary Sewer</p> <p><b>Project Type:</b> Treatment</p> <p><b>Project Status:</b></p>	
LEGEND		PROJECT DESCRIPTION	
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Vancouver City Limits</li> <li> Transportation</li> <li> Sewer Service Area</li> <li> Sanitary Sewer</li> <li> Water Service Area</li> <li> Surface Water</li> <li> Clark County</li> <li> Water</li> <li> Battle Ground</li> <li> SCIP</li> <li> Camas</li> <li> Taxlots</li> <li> Washougal</li> </ul>		<p><b>Project Justification / Priority</b> (1) = Compliance with regulations</p> <p><b>Project Description / Comments</b> Upgrades and replaces current CEMS, which is outdated and no longer supported by vendor. Westside Air Discharge Permit requires continuous monitoring of emissions from the fluidized bed furnace.</p>	
VICINITY MAP		ESTIMATED PROJECT COSTS	
		<p><b>Total Proj. Cost:</b> \$150,000.00</p>	
		FUNDING STRATEGY	
		<p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2015</p>	

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WESTSIDE UV SYSTEM REPLACEMENT

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Treatment  <b>Project Status:</b> Future</p>																													
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td></td> <td>Project Boundary</td> <td></td> <td>Vancouver City Limits</td> </tr> <tr> <td></td> <td>Transportation</td> <td></td> <td>Sewer Service Area</td> </tr> <tr> <td></td> <td>Sanitary Sewer</td> <td></td> <td>Water Service Area</td> </tr> <tr> <td></td> <td>Surface Water</td> <td></td> <td>Clark County</td> </tr> <tr> <td></td> <td>Water</td> <td></td> <td>Battle Ground</td> </tr> <tr> <td></td> <td>SCIP</td> <td></td> <td>Camas</td> </tr> <tr> <td></td> <td>Taxlots</td> <td></td> <td>Washougal</td> </tr> </table>			Project Boundary		Vancouver City Limits		Transportation		Sewer Service Area		Sanitary Sewer		Water Service Area		Surface Water		Clark County		Water		Battle Ground		SCIP		Camas		Taxlots		Washougal	<h3 style="text-align: center;">VICINITY MAP</h3>	
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	Taxlots		Washougal																												
<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>  (4) = Replace/Preserve/Rehabilitate systems; (1) = Compliance with regulations</p> <p><b>Project Description / Comments</b>  We are required by our NPDES permit to disinfect our treated wastewater effluent. The Ultraviolet disinfection system serves this purpose and must be repaired or replaced to provide continuous service.</p>		<table border="1"> <thead> <tr> <th style="text-align: left;">ESTIMATED PROJECT COSTS</th> <th style="text-align: left;">FUNDING STRATEGY</th> </tr> </thead> <tbody> <tr> <td><b>Total Proj. Cost:</b> \$2,700,000.00</td> <td><b>Budget / Proj. #:</b></td> </tr> <tr> <td></td> <td><b>Budget / Proj. Task #:</b></td> </tr> <tr> <td></td> <td><b>*Start of Construction (Year):</b> 2015</td> </tr> </tbody> </table>		ESTIMATED PROJECT COSTS	FUNDING STRATEGY	<b>Total Proj. Cost:</b> \$2,700,000.00	<b>Budget / Proj. #:</b>		<b>Budget / Proj. Task #:</b>		<b>*Start of Construction (Year):</b> 2015																				
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# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **PROCESS CONTROLS ELECTRONICS**

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Treatment  <b>Project Status:</b> Future</p>															
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Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
SCIP	Camas																
Taxlots	Washougal																
		<h3 style="text-align: center;">ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$500,000.00</p>	<h3 style="text-align: center;">FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2020</p>														

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 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WS WET PROCESS IMPROVEMENTS

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Treatment  <b>Project Status:</b> Future</p>																													
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	Project Boundary		Vancouver City Limits																												
	Transportation		Sewer Service Area																												
	Sanitary Sewer		Water Service Area																												
	Surface Water		Clark County																												
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	SCIP		Camas																												
	Taxlots		Washougal																												
		<h3 style="text-align: center;">ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$420,000.00</p>	<h3 style="text-align: center;">FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2020</p>																												

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# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: SEPTAGE RECEIVING STATION UPGRADE

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3>															
		<p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Treatment  <b>Project Status:</b> Future</p>															
		<h3>PROJECT DESCRIPTION</h3>															
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Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
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		<table border="0"> <tr> <td><b>Total Proj. Cost:</b></td> <td>\$200,000.00</td> <td><b>Budget / Proj. #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td><b>Budget / Proj. Task #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td><b>*Start of Construction (Year):</b></td> <td>2020</td> </tr> </table>		<b>Total Proj. Cost:</b>	\$200,000.00	<b>Budget / Proj. #:</b>				<b>Budget / Proj. Task #:</b>				<b>*Start of Construction (Year):</b>	2020		
<b>Total Proj. Cost:</b>	\$200,000.00	<b>Budget / Proj. #:</b>															
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# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: BASIN B-4 PUMP STATION REMOVAL

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Collection  <b>Project Status:</b></p>																							
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>  (4) = Replace/preserve/rehabilitate systems</p> <p><b>Project Description / Comments</b>  This collection system project will allow for the decommissioning of the Sandcastle Pump Station which was built in 1980 as a temporary facility. Only one undeveloped property lies between the existing gravity sewer and the pump station. Staff not successful in obtaining an easement from the property owner to allow the City to extend the gravity sewer to the pump station and take it off-line. The project is being delayed until the property develops. Once a developer extends a main across the property a smaller project will enable the City to decommission the station.</p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">ESTIMATED PROJECT COSTS</th> <th style="text-align: left;">FUNDING STRATEGY</th> </tr> </thead> <tbody> <tr> <td><b>Total Proj. Cost:</b> \$195,000.00</td> <td><b>Budget / Proj. #:</b></td> </tr> <tr> <td></td> <td><b>Budget / Proj. Task #:</b></td> </tr> <tr> <td></td> <td><b>*Start of Construction (Year):</b> 2017</td> </tr> </tbody> </table>		ESTIMATED PROJECT COSTS	FUNDING STRATEGY	<b>Total Proj. Cost:</b> \$195,000.00	<b>Budget / Proj. #:</b>		<b>Budget / Proj. Task #:</b>		<b>*Start of Construction (Year):</b> 2017
Project Boundary	Vancouver City Limits																								
Transportation	Sewer Service Area																								
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	<b>*Start of Construction (Year):</b> 2017																								

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
\*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **SECONDARY CLARIFIER TANK COATING**

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Treatment  <b>Project Status:</b></p>																													
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td></td> <td>Project Boundary</td> <td></td> <td>Vancouver City Limits</td> </tr> <tr> <td></td> <td>Transportation</td> <td></td> <td>Sewer Service Area</td> </tr> <tr> <td></td> <td>Sanitary Sewer</td> <td></td> <td>Water Service Area</td> </tr> <tr> <td></td> <td>Surface Water</td> <td></td> <td>Clark County</td> </tr> <tr> <td></td> <td>Water</td> <td></td> <td>Battle Ground</td> </tr> <tr> <td></td> <td>SCIP</td> <td></td> <td>Camas</td> </tr> <tr> <td></td> <td>Taxlots</td> <td></td> <td>Washougal</td> </tr> </table>			Project Boundary		Vancouver City Limits		Transportation		Sewer Service Area		Sanitary Sewer		Water Service Area		Surface Water		Clark County		Water		Battle Ground		SCIP		Camas		Taxlots		Washougal	<h3 style="text-align: center;">VICINITY MAP</h3>	
	Project Boundary		Vancouver City Limits																												
	Transportation		Sewer Service Area																												
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	Taxlots		Washougal																												
<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          (4) = Replace/preserve/rehabilitate systems</p> <p><b>Project Description / Comments</b>          Based on condition assessments - repair and replace existing worn and peeling coatings for our Clarifiers #1 and #2</p>		<table border="1"> <thead> <tr> <th style="text-align: left;">ESTIMATED PROJECT COSTS</th> <th style="text-align: left;">FUNDING STRATEGY</th> </tr> </thead> <tbody> <tr> <td><b>Total Proj. Cost:</b> \$300,000.00</td> <td><b>Budget / Proj. #:</b></td> </tr> <tr> <td></td> <td><b>Budget / Proj. Task #:</b></td> </tr> <tr> <td></td> <td><b>*Start of Construction (Year):</b> 2015 &amp; 2017</td> </tr> </tbody> </table>		ESTIMATED PROJECT COSTS	FUNDING STRATEGY	<b>Total Proj. Cost:</b> \$300,000.00	<b>Budget / Proj. #:</b>		<b>Budget / Proj. Task #:</b>		<b>*Start of Construction (Year):</b> 2015 & 2017																				
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# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **ANDRESEN DIVERSION GATE VALVE**

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3>															
		<p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Treatment  <b>Project Status:</b> Future</p>															
		<h3>PROJECT DESCRIPTION</h3>															
<h3>LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<p><b>Project Justification / Priority</b>                  (4) = Replace/preserve/rehabilitate systems</p> <p><b>Project Description / Comments</b>                  Replace existing influent channel with a diversion control structure to improve flow control into the lift station</p>	
Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
SCIP	Camas																
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<h3>VICINITY MAP</h3>		<h3>ESTIMATED PROJECT COSTS</h3>															
		<h3>FUNDING STRATEGY</h3>															
		<p><b>Total Proj. Cost:</b> \$100,000.00</p> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2017</p>															

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
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# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: WS FBF HEAT EXCHANGER ELBOW REPLACEMENT

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Treatment  <b>Project Status:</b> Future</p>																																					
<h3>LEGEND</h3> <table border="0"> <tr> <td></td> <td>Project Boundary</td> <td></td> <td>Vancouver City Limits</td> </tr> <tr> <td></td> <td>Transportation</td> <td></td> <td>Sewer Service Area</td> </tr> <tr> <td></td> <td>Sanitary Sewer</td> <td></td> <td>Water Service Area</td> </tr> <tr> <td></td> <td>Surface Water</td> <td></td> <td>Clark County</td> </tr> <tr> <td></td> <td>Water</td> <td></td> <td>Battle Ground</td> </tr> <tr> <td></td> <td>SCIP</td> <td></td> <td>Camas</td> </tr> <tr> <td></td> <td>Taxlots</td> <td></td> <td>Washougal</td> </tr> </table> <h3>VICINITY MAP</h3>			Project Boundary		Vancouver City Limits		Transportation		Sewer Service Area		Sanitary Sewer		Water Service Area		Surface Water		Clark County		Water		Battle Ground		SCIP		Camas		Taxlots		Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          Extended life of asset approximately 2 additional years by utilizing infrared technology. The furnace is shut down once per year. This project will take advantage of the shut down to replace an asset at the end of it's useful life.</p> <p><b>Project Description / Comments</b>          Replace elbow component of furnace while furnace is shut down in 2016.</p> <table border="1"> <thead> <tr> <th>ESTIMATED PROJECT COSTS</th> <th>FUNDING STRATEGY</th> </tr> </thead> <tbody> <tr> <td><b>Total Proj. Cost:</b> \$200,000.00</td> <td><b>Budget / Proj. #:</b></td> </tr> <tr> <td></td> <td><b>Budget / Proj. Task #:</b></td> </tr> <tr> <td></td> <td><b>*Start of Construction (Year):</b> 2016 &amp; 2018</td> </tr> </tbody> </table>		ESTIMATED PROJECT COSTS	FUNDING STRATEGY	<b>Total Proj. Cost:</b> \$200,000.00	<b>Budget / Proj. #:</b>		<b>Budget / Proj. Task #:</b>		<b>*Start of Construction (Year):</b> 2016 & 2018
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# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: WESTSIDE HEAT RECOVER/BIO SOLIDS DRYER

PROJECT AREA MAP		PROJECT SUMMARY	
		<p><b>Utility Type:</b> Sanitary Sewer</p> <p><b>Project Type:</b> Treatment</p> <p><b>Project Status:</b> Future</p>	
LEGEND		PROJECT DESCRIPTION	
<ul style="list-style-type: none"> <li>Project Boundary</li> <li>Transportation</li> <li>Sanitary Sewer</li> <li>Surface Water</li> <li>Water</li> <li>SCIP</li> <li>Taxlots</li> <li>Vancouver City Limits</li> <li>Sewer Service Area</li> <li>Water Service Area</li> <li>Clark County</li> <li>Battle Ground</li> <li>Camas</li> <li>Washougal</li> </ul>		<p><b>Project Justification / Priority</b> (5) = Lower operating costs</p> <p><b>Project Description / Comments</b> Cyclone separator at fluidized bed furnace exhaust to remove fly ash in dry form.</p>	
VICINITY MAP		ESTIMATED PROJECT COSTS	FUNDING STRATEGY
		<p><b>Total Proj. Cost:</b> \$1,100,000.00</p>	<p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2016</p>

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **FIRST AND "Y" PUMP STATION**

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Collection  <b>Project Status:</b> Future</p>																	
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Project Boundary	Vancouver City Limits																		
Transportation	Sewer Service Area																		
Sanitary Sewer	Water Service Area																		
Surface Water	Clark County																		
Water	Battle Ground																		
SCIP	Camas																		
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ESTIMATED PROJECT COSTS		FUNDING STRATEGY																	
<b>Total Proj. Cost:</b>	\$150,000.00	<b>Budget / Proj. #:</b>																	
		<b>Budget / Proj. Task #:</b>																	
		<b>*Start of Construction (Year):</b>	2015																

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 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: FIRE CONTROL SYSTEM UPGRADE

PROJECT AREA MAP		PROJECT SUMMARY	
		<p><b>Utility Type:</b> Sanitary Sewer</p> <p><b>Project Type:</b> Treatment</p> <p><b>Project Status:</b> Future</p>	
LEGEND		PROJECT DESCRIPTION	
<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li>Project Boundary</li> <li>Transportation</li> <li>Sanitary Sewer</li> <li>Surface Water</li> <li>Water</li> <li>SCIP</li> <li>Taxlots</li> <li>Vancouver City Limits</li> <li>Sewer Service Area</li> <li>Water Service Area</li> <li>Clark County</li> <li>Battle Ground</li> <li>Camas</li> <li>Washougal</li> </ul>		<p><b>PROJECT DESCRIPTION</b></p> <p><b>Project Justification / Priority</b> (4) = Replace/preserve/rehabilitate systems</p> <p><b>Project Description / Comments</b> Replace aged and increasingly unsupported fire alarm system at Westside, with technically advanced wireless or fiber optic system with "Smart" alarms</p>	
VICINITY MAP		ESTIMATED PROJECT COSTS	FUNDING STRATEGY
		<p><b>Total Proj. Cost:</b> \$100,000.00</p>	<p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2019</p>

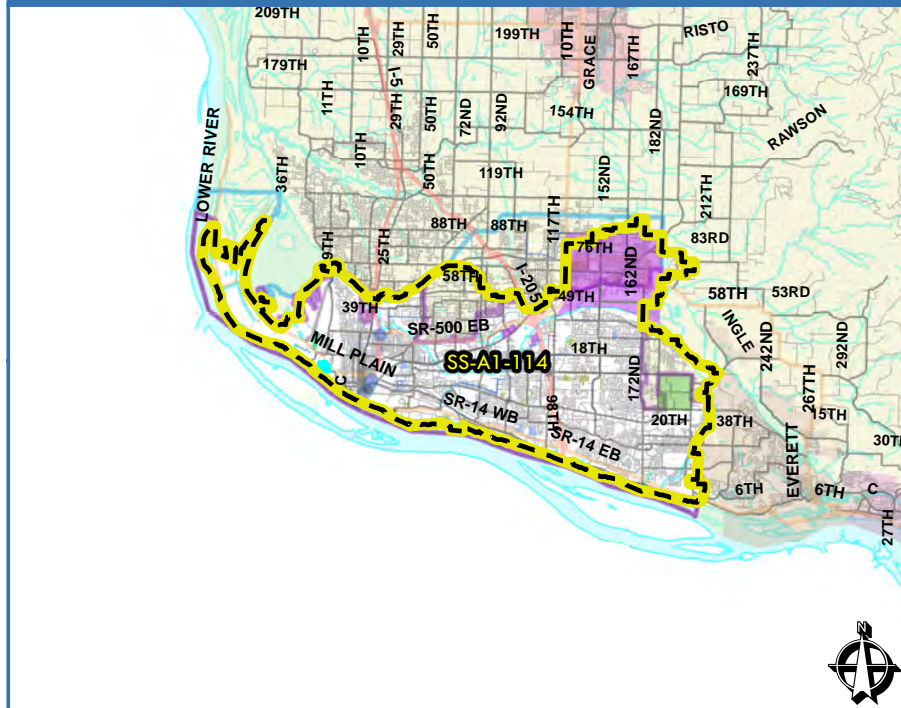
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: INTERCEPTOR INTEGRITY EVALUATION

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Sanitary Sewer  
**Project Type:** Collection  
**Project Status:** Future

### PROJECT DESCRIPTION

**Project Justification / Priority**

This project will help identify and prioritize repairs to major interceptors and trunk lines. This information will then be used by the Substandard Main Repair/Replacement project (SS-A1-6) to spend the money as efficiently as possible.

**Project Description / Comments**

To identify needed projects on our major interceptors and trunk lines

### LEGEND

- Project Boundary
- Sewer Service Area
- Transportation
- Water Service Area
- Sanitary Sewer
- Clark County
- Surface Water
- Battle Ground
- Water
- Camas
- SCIP
- Washougal
- Vancouver City Limits

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$270,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2014

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.

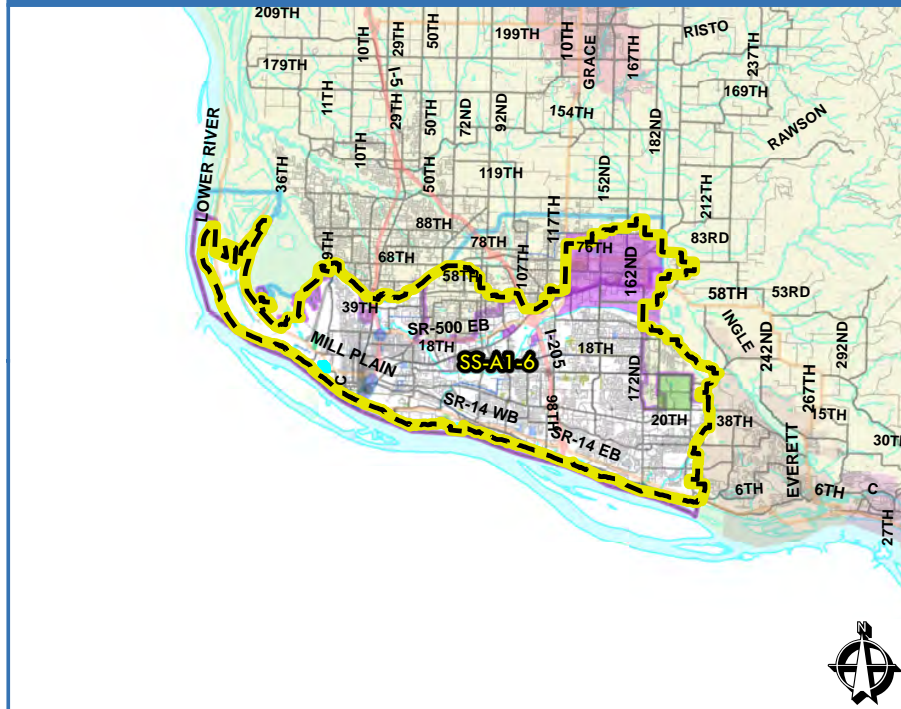




# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **SUBSTANDARD MAIN REPAIR/REPLACE**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Sanitary Sewer  
**Project Type:** Collection  
**Project Status:**

## PROJECT DESCRIPTION

### Project Justification / Priority

Many sewer main repairs have been deferred while debt was being paid off. This project is a multi year program to rehab sewer mains where our condition assessment program has shown that pipes are deteriorated and in need of repair.

### Project Description / Comments

Multi year program to replace sewer mains where our ongoing TV inspection condition assesment program has shown that they are in deteriorated condition and in need of restoration. Estimated at \$750,000 per year.

## LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$4,000,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2015 and beyond

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
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# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: FLOW MONITORING PROGRAM - PERMANENT METERS

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Sanitary Sewer  <b>Project Type:</b> Collection  <b>Project Status:</b> Future</p>	
<h3>LEGEND</h3> <ul style="list-style-type: none"> <li> Project Boundary</li> <li> Transportation</li> <li> Sanitary Sewer</li> <li> Surface Water</li> <li> Water</li> <li> SCIP</li> <li> Vancouver City Limits</li> <li> Sewer Service Area</li> <li> Water Service Area</li> <li> Clark County</li> <li> Battle Ground</li> <li> Camas</li> <li> Washougal</li> </ul> <h3>VICINITY MAP</h3>		<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          (3) = New Systems</p> <p><b>Project Description / Comments</b>          To install permanent flow meters at multiple locations, in order to monitor system flows, collect operational data, and calibrate our system hydraulic model.</p>	
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$250,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2017</p>

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Description	CIP #	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
<b>Sewer Treatment Projects - Westside</b>																		
WS Wet Process Improvements	SS-71						420,000											
Fire Control System Upgrade	SS-99				100,000													100,000
Secondary Clarifier Tank Coating 1&2	SS-92					300,000												300,000
Secondary Clarifier Center Well Upgrade 3, 4, 5	SS-116					125,000												125,000
Solids Centrifuge #2 Replacement	SS-100	345,000																345,000
FBF - Heat Ex Elbow Replacement	SS-95		100,000		100,000				100,000				100,000				100,000	500,000
Lagoon Aeration Upgrade	SS-102					1,500,000		250,000	250,000									2,000,000
Septage Receiving Station Upgrade	SS-74						200,000											200,000
WS Concrete Tank Coatings																	500,000	500,000
FBF Heat Exchanger Equipment Replacement								500,000										500,000
WS/MP Chemical Tanks Replacements								500,000										500,000
WS UV System Upgrade									500,000									500,000
Main Industrial Pumstation Upgrade									500,000									500,000
Fluidized Bed Furnace Replacement									20,000,000									20,000,000
WS Schwing Pump Replacements										600,000								600,000
WS Replace Odorous Air Treatment Scrubber										500,000								500,000
WS Grit Removal System Replacement										500,000								500,000
Lagoon Blower Upgrade										300,000								300,000
WS Centrifuge Replacement											800,000							800,000
WS Gravity Thickeners Overhaul												1,000,000						1,000,000
Frito Lay Pump Station Repair and Upgrade												1,000,000						1,000,000
WS Headworks Improvements													3,000,000					3,000,000
WS Effluent Pump and line Upgrade													2,000,000					2,000,000
Ash Clarifier Corrosion Prevention & Weir Replacement	SS-118	45,000																45,000
Gravity Thickner #1 Rehabilitation	SS-121		120,000															120,000
Maintenance Building HVAC System Replacement	SS-52		40,000															40,000
West 16th Pump Station (Pump Replacement)	SS-58			200,000														200,000
Westside Heat Recovery/Bio Solids Dryer	SS-97				1,100,000													1,100,000
CEMS Equipment Upgrade and Replacement	SS-65	150,000																150,000
Westside UV System Replacement	SS-66	2,700,000																2,700,000
UV Design Consultant (B&C)																		-
FBF Mercury Abatement System	SS-125	750,000																80,000
Enclosed Grit System	SS-105	80,000																75,000
Influent Pump Motor & VFD Replacement	SS-106	75,000																-
Primary Power Panel Bus 4A & 4B (Emergency Replacement)																		-
<b>Sub-Total</b>		<b>4,145,000</b>	<b>260,000</b>	<b>200,000</b>	<b>1,300,000</b>	<b>1,925,000</b>	<b>200,000</b>	<b>1,250,000</b>	<b>21,350,000</b>	<b>1,900,000</b>	<b>800,000</b>	<b>2,000,000</b>	<b>5,100,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>600,000</b>	<b>41,030,000</b>
<b>Sewer Treatment Projects -Marine Park</b>																		
BBC PS Repair Upgrade	SS-28			400,000														400,000
Andresen Diversion Gate Valve	SS-93			100,000														100,000
MP Wet Process Improvements	SS-110					60,000					1,000,000							1,060,000
MP Replace Odorous Air Treatment Scrubbers											1,000,000							1,000,000
Secondary Aeration Basin Effluent Channel Split	SS-99		60,000															60,000
<b>Sub-Total</b>		<b>-</b>	<b>60,000</b>	<b>500,000</b>	<b>-</b>	<b>60,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,000,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,620,000</b>
<b>Sewer Treatment Projects - Both MP &amp; WS</b>																		
Aeration Membrane Upgrade	SS-31			40,000			35,000	35,000			35,000	35,000	35,000			35,000	35,000	285,000
Capital Preservation and Compliance (2)	SS-32	115,000	145,000	500,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	5,960,000
CP&C Ash Xfer Conveyor	SS-117	60,000																
CP&C WS Influent Pump Motor	SS-106	75,000																
CP&C 4 Multi Coating Projects	SS-34		35,000		35,000		35,000		35,000		35,000		35,000		35,000		35,000	280,000
CP&C WS Gravity Thickener #1 Rehabilitation	SS-121		120,000															
Multiple Coating Projects								250,000	250,000									500,000
Energy Sustainability for Multiple Projects	SS-120		150,000	250,000														
<b>Sub-Total</b>		<b>250,000</b>	<b>450,000</b>	<b>790,000</b>	<b>435,000</b>	<b>400,000</b>	<b>470,000</b>	<b>685,000</b>	<b>685,000</b>	<b>400,000</b>	<b>470,000</b>	<b>435,000</b>	<b>470,000</b>	<b>400,000</b>	<b>435,000</b>	<b>435,000</b>	<b>470,000</b>	<b>7,680,000</b>
<b>Sewer Collection Projects</b>																		
Main Street, 5th to 15th*	SS-5							520,000										
Interceptor Integrity Evaluation	SS-A1-114	120,000	150,000															
Pinebrook Force Main Reroute	SS-112							265,000										



20 YEAR CAPITAL IMPROVEMENT PROGRAM FOR SEWER

Note: All costs are in 2015 dollars

Description	CIP #	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Basin A-20-1 & Force Main Relocation (59th Street)	SS-1			160,000														160,000
Fred Meyer Pump Station Grand Central	SS-98	150,000																150,000
Flow Monitoring Program - Permanent Meters	SS-A1-70			250,000														250,000
Standby Power	SS-A1-3		35,000															35,000
Substandard Main Repair/Replace	SS-A1-6	713,264	500,000	500,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	11,463,264
Basin B-4 Pump Station Removal	SS-8			195,000														195,000
SE 1st St, 164th to 192nd Ave Design*	SS-15	54,000																54,000
2nd and Columbia Pump Station Removal	SS-17	70,000																70,000
Basin E5-4 Relief Sewers	SS-18			122,000														122,000
NE 28th Street, 142nd to 162nd*	SS-19		170,000															170,000
NE 137th Avenue, 49th to Fourth Plain*	SS-20	430,000																430,000
NE 18th Street, Four Seasons to 138th*	SS-22		395,000															395,000
Mill Plain 102nd to Chaklov	SS-126	60,000																
GMA Pump Station Improvements	SS-122							1,600,000										1,600,000
Basin A12-3 Sewer												715,000						715,000
Sludge Force Main Extensions	SS-123							2,060,000										2,060,000
Evergreen Hwy Force Main*	SS-124							1,750,000										1,750,000
Section 30 Arterail Expansion*	SS-23						2,000,000											2,000,000
<b>Sub-Total</b>		<b>1,477,264</b>	<b>1,100,000</b>	<b>1,227,000</b>	<b>750,000</b>	<b>750,000</b>	<b>2,750,000</b>	<b>6,160,000</b>	<b>750,000</b>	<b>750,000</b>	<b>750,000</b>	<b>1,465,000</b>	<b>750,000</b>	<b>750,000</b>	<b>750,000</b>	<b>750,000</b>	<b>750,000</b>	<b>21,679,264</b>
<b>Total Sewer Fund Projects</b>		<b>5,872,264</b>	<b>1,870,000</b>	<b>2,717,000</b>	<b>2,485,000</b>	<b>3,135,000</b>	<b>3,420,000</b>	<b>8,095,000</b>	<b>22,785,000</b>	<b>3,050,000</b>	<b>4,020,000</b>	<b>3,900,000</b>	<b>6,320,000</b>	<b>1,150,000</b>	<b>1,185,000</b>	<b>1,185,000</b>	<b>1,820,000</b>	<b>73,009,264</b>

\*Project timing is dependent upon the timing of the overriding project.

# SCIP



## Capital Improvement Program For Water, Sewer, and Surface Water

# SCIP Project List



Capital Improvement Program  
For Water, Sewer, and Surface Water

## Sewer Connection Incentive Program (SCIP) CIP Changes

This page provides an overview of the changes from the previous 6 year project list (2015-2020) to this year's 6 year project list (2016-2021). The changes are segmented by: projects added; projects removed; and other.

Projects Added	Project Number	Comments
NE 47 <sup>th</sup> Ave SCIP	SCIP-127	\$220,000 budgeted for 2015

Projects Removed	Project Number	Comments
Holly Acres (153 lots)	SCIP-172	Completed
Holly Acres – Laterals only (36 lots)	SCIP-172A	Completed
Columbia Terrace (46 lots)	SCIP-42	Completed

Other Changes	Project Number	Comments
Evergreen Meadows (64 lots)	SCIP-74	Budget carried forward from 2014
Fircrest (39 lots)	SCIP-64	Construction moved to 2016 to coordinate with street project
NE 136 <sup>th</sup> /141 <sup>st</sup> Ave (40 lots)	SCIP-89	Construction moved to 2016 to coordinate with street project

Note 1. "Completed" indicates already completed as of the date of this document or anticipated completion prior to January 1, 2016.

**6 YEAR CAPITAL IMPROVEMENT PROGRAM FOR SCIP  
(2016-2021)**

Note: All costs are in 2015 dollars

Description	CIP/TIP ID #	2015	2016	2017	2018	2019	2020	2021	6-yr Total
<b>SCIP Projects</b>									
Demand Response	SCIP-A1-0	250,000	250,000	250,000	250,000	250,000	250,000	250,000	1,500,000
Evergreen Meadows (64 homes)	SCIP-74	620,000							-
Village Green (72 homes)	SCIP-88	695,000							-
Fircrest (39 homes)	SCIP-64	430,000							-
NE 136th/141st Ave (40 homes)	SCIP-89	430,000							-
Granada South (282 homes)	SCIP-235	2,400,000							-
NE Drexel (14 homes)	SCIP-34	250,000							-
Evergreen Airpark North (30 homes)	SCIP-77	300,000	50,000						50,000
Southridge (24 homes)	SCIP-56	40,000	215,000						215,000
Premier Acres (70 homes)	SCIP-103	50,000	650,000						650,000
Lieser Homesites (58 homes)	SCIP-63		500,000						500,000
Wil Har Terrace (15 homes)	SCIP-69		250,000						250,000
Allum Acres (17 homes)	SCIP-104		250,000						250,000
Fruit Lawn (22 homes)	SCIP-106		400,000						400,000
Alpine View (44 homes)	SCIP-107		500,000						500,000
Evergreen Highlands (12 homes)	SCIP-37			150,000					150,000
Evergreen Estates (99 homes)	SCIP-76			500,000	540,000				1,040,000
West Vancouver (216 parcels)	SCIP-W-238			800,000	1,200,000				2,000,000
Central Vancouver - South (369 parcels)	SCIP-CS-243			1,500,000	1,600,000				3,100,000
East Vancouver - Central (577 Parcels)	SCIP-EC-242					3,000,000	1,800,000		4,800,000
Central Vancouver - North (462 parcels)	SCIP-CN-239						1,000,000	3,000,000	4,000,000
NE 47th Ave SCIP	SCIP-127	220,000							
<b>Total SCIP Projects</b>		<b>5,465,000</b>	<b>3,065,000</b>	<b>3,200,000</b>	<b>3,590,000</b>	<b>3,250,000</b>	<b>2,050,000</b>	<b>250,000</b>	<b>15,405,000</b>

\*All project timing will be dependent on coordination with other departments including pavement management, water, and surface water

\*\*Water utility to fund SCIP through 2016. Sewer utility will fund SCIP starting in 2017.

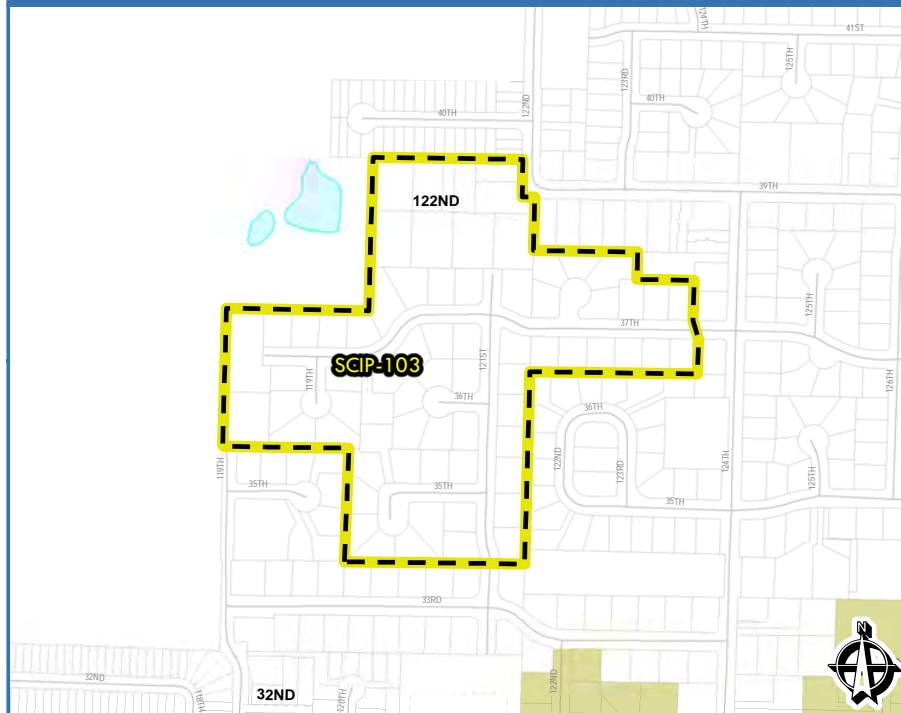
Shading indicates not in 6-year plan, but money expected to be spent in 2015.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **PREMIER ACRES**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** SCIP  
**Project Type:** Future  
**Project Status:** Future  
**Other Info.:** 70 Lots

## PROJECT DESCRIPTION

### Project Justification / Priority

A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems

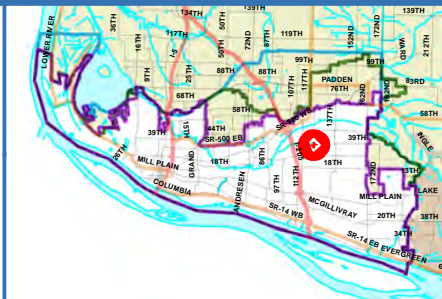
### Project Description / Comments

Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$700,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2015-2016

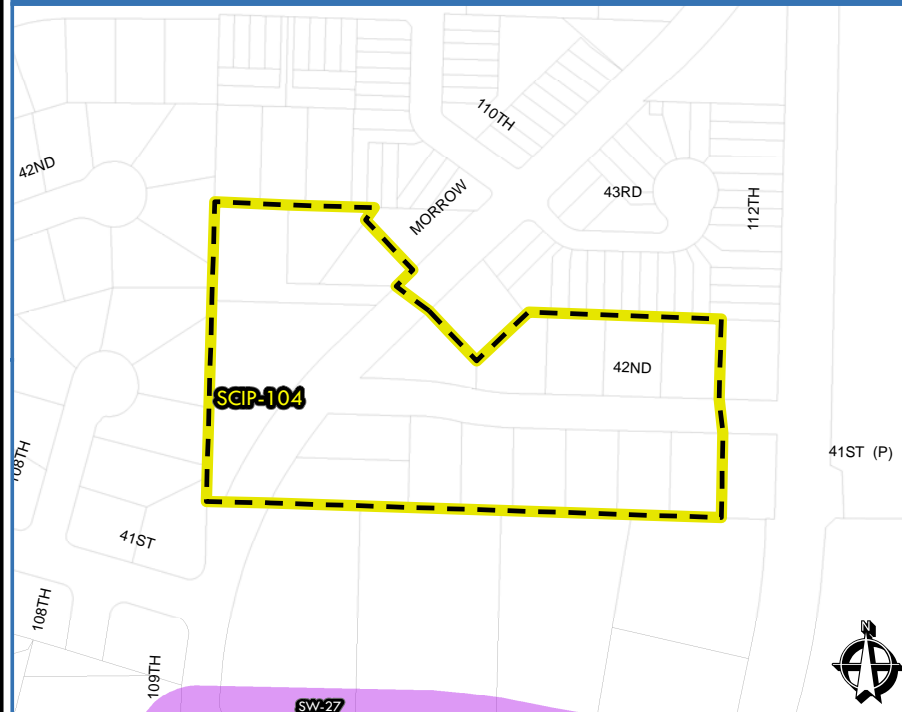
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **ALLUM ACRES**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** SCIP  
**Project Type:** Future  
**Project Status:** Future  
**Other Info.:** 17 Lots

## PROJECT DESCRIPTION

### Project Justification / Priority

A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems

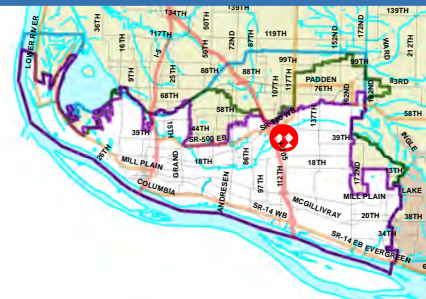
### Project Description / Comments

Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$250,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2016

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.

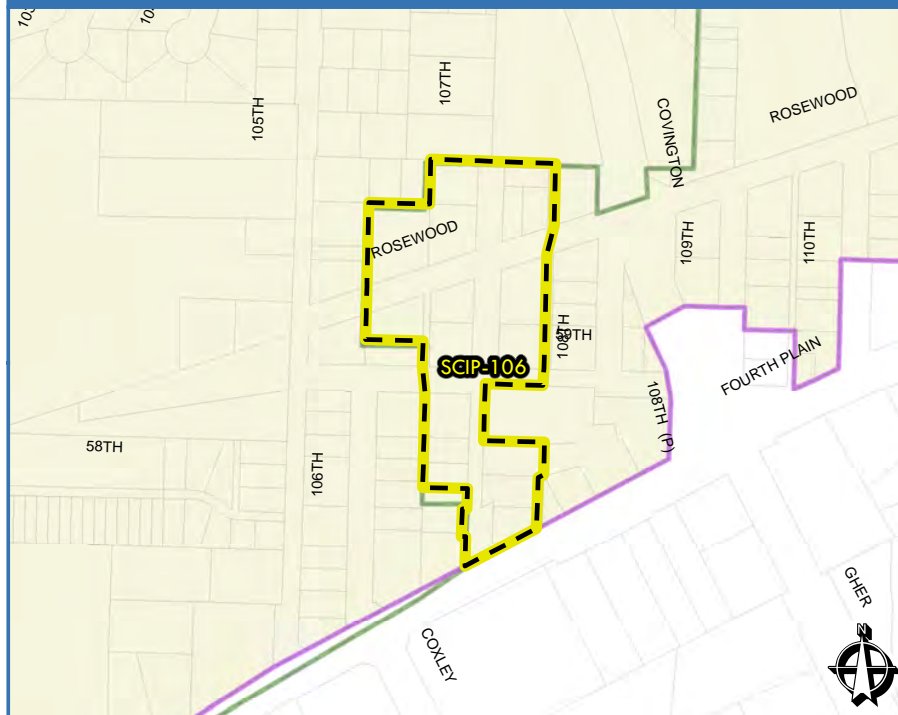




# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **FRUIT LAWN**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** SCIP  
**Project Type:** Future  
**Project Status:** Future  
**Other Info.:** 22 Lots

## PROJECT DESCRIPTION

### Project Justification / Priority

A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems

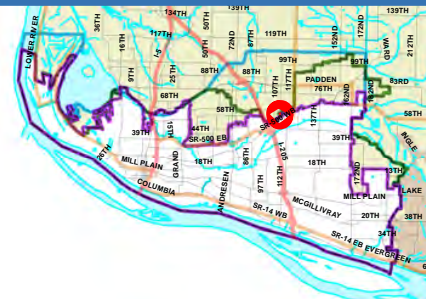
### Project Description / Comments

Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$400,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2016

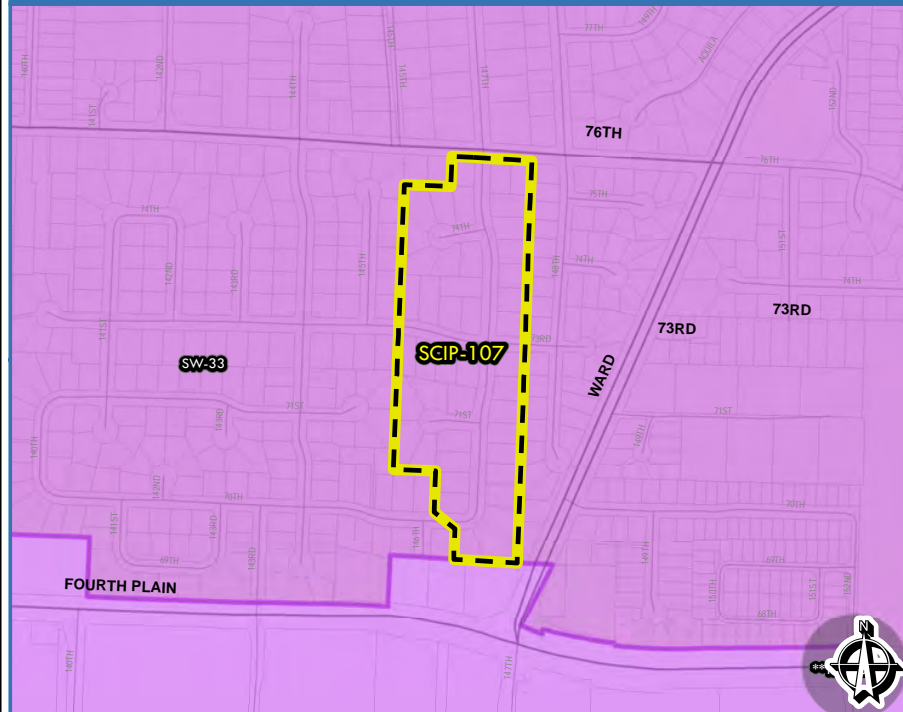
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **ALPINE VIEW**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** SCIP  
**Project Type:** Future  
**Project Status:** Future  
**Other Info.:** 44 Lots

## PROJECT DESCRIPTION

### Project Justification / Priority

A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems

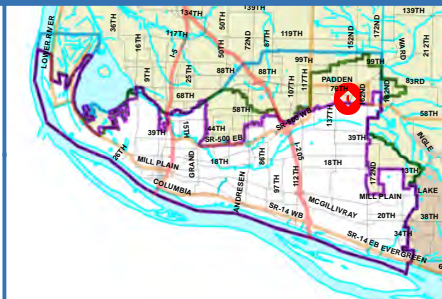
### Project Description / Comments

Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$500,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2016

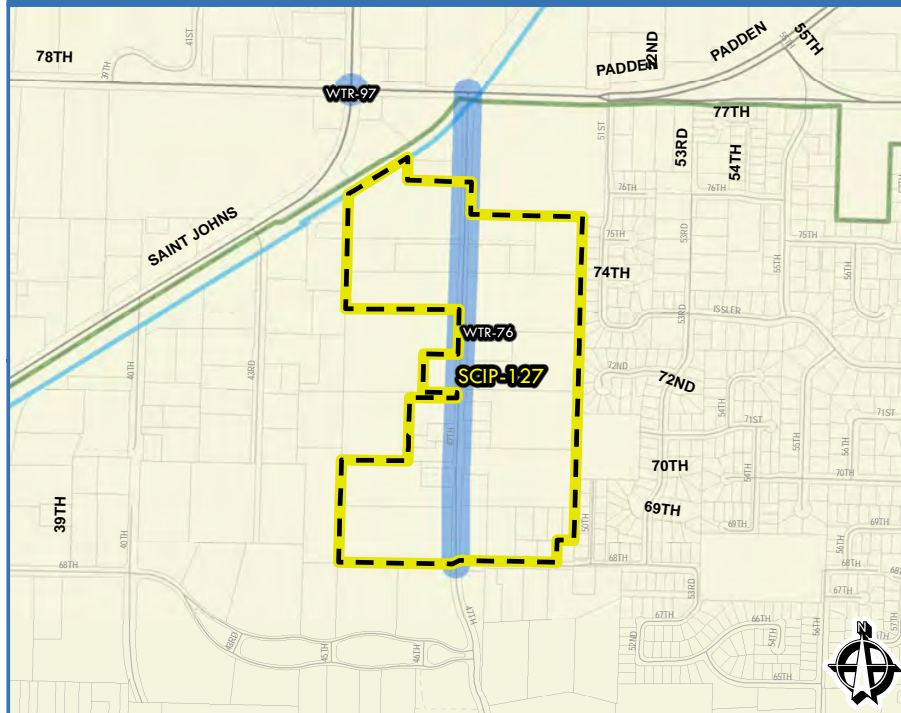
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: NE 47TH AV

## PROJECT AREA MAP



## PROJECT SUMMARY

Utility Type: SCIP  
 Project Type:  
 Project Status: Active  
 Other Info.: 32 Lots

## PROJECT DESCRIPTION

### Project Justification / Priority

This project is being completed in coordination with a Clark County Road Improvement project. A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) =

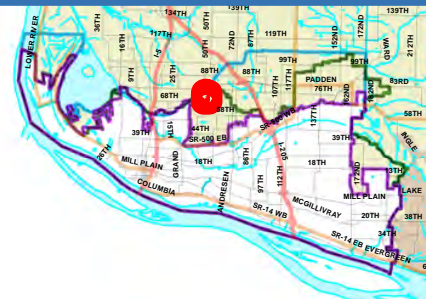
### Project Description / Comments

Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.

## LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Taxlots
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

Total Proj. Cost: \$220,000.00

## FUNDING STRATEGY

Budget / Proj. #:

Budget / Proj. Task #:

\*Start of Construction (Year): 2015

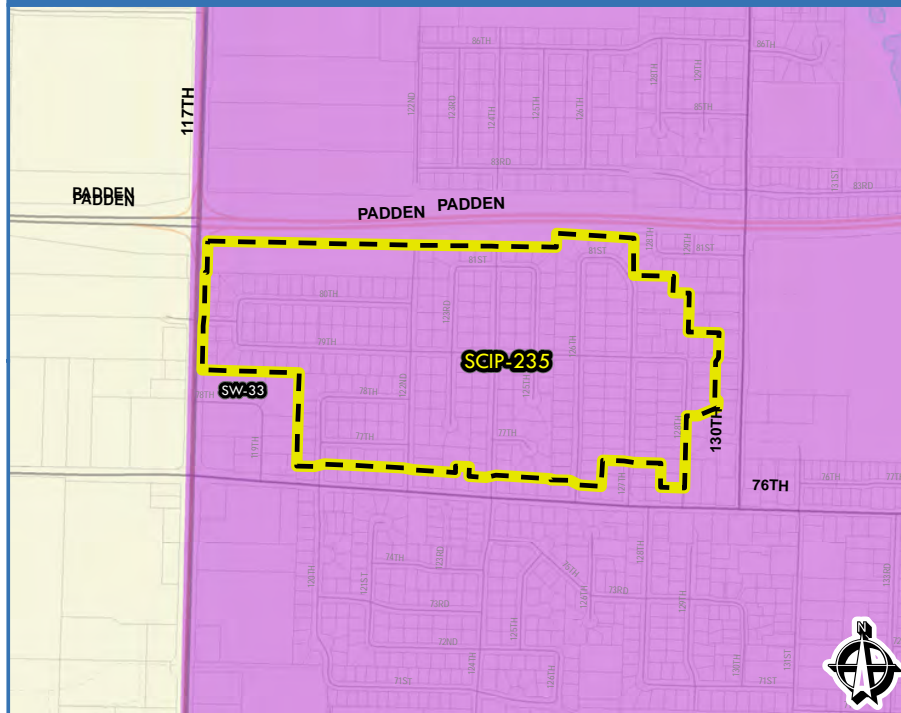
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **GRANADA - SOUTH**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** SCIP  
**Project Type:** Active  
**Project Status:** Active  
**Other Info.:** 282 Lots

## PROJECT DESCRIPTION

### Project Justification / Priority

A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems

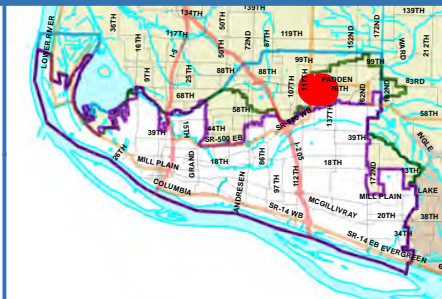
### Project Description / Comments

Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$2,400,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2016-2017

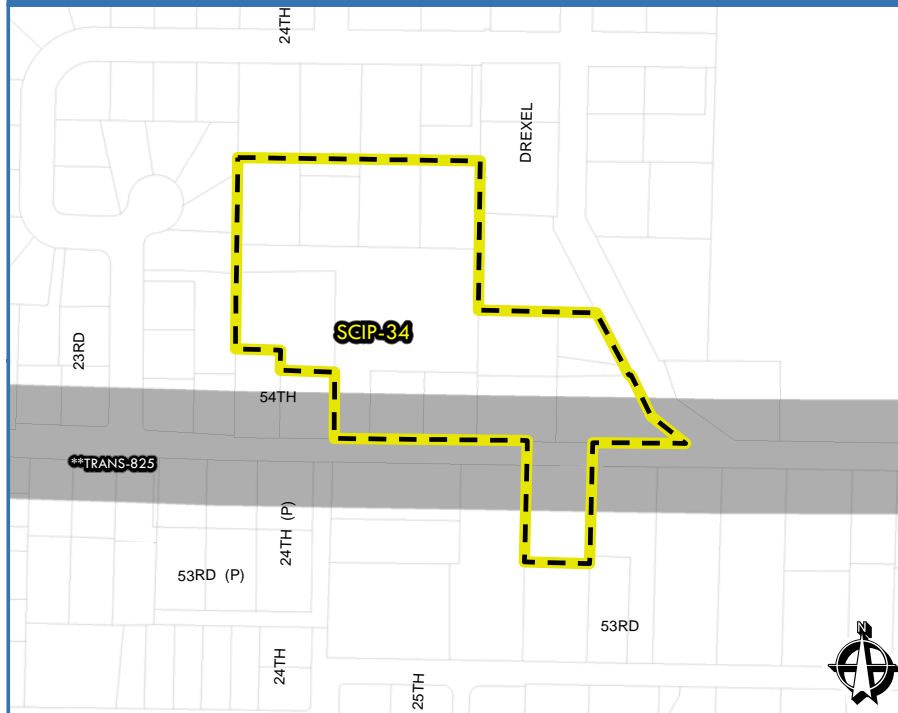
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **NE DREXEL**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** SCIP  
**Project Type:** Future  
**Project Status:** Future  
**Other Info.:** 14 Lots

## PROJECT DESCRIPTION

### Project Justification / Priority

A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems

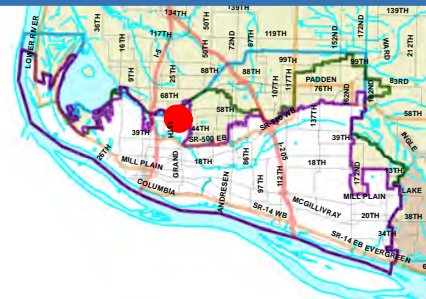
### Project Description / Comments

Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.

## LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Taxlots
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$250,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2015

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **EVERGREEN HIGHLANDS**

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3>	
		<p><b>Utility Type:</b> SCIP</p> <p><b>Project Type:</b> Future</p> <p><b>Project Status:</b> Future</p> <p><b>Other Info.:</b> 12 Lots</p>	
		<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>                  A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems</p> <p><b>Project Description / Comments</b>                  Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.</p>	
<h3>LEGEND</h3>	<h3>VICINITY MAP</h3>	<h3>ESTIMATED PROJECT COSTS</h3>	<h3>FUNDING STRATEGY</h3>
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Transportation</li> <li> Sanitary Sewer</li> <li> Surface Water</li> <li> Water</li> <li> SCIP</li> <li> Taxlots</li> <li> Vancouver City Limits</li> <li> Sewer Service Area</li> <li> Water Service Area</li> <li> Clark County</li> <li> Battle Ground</li> <li> Camas</li> <li> Washougal</li> </ul>		<p><b>Total Proj. Cost:</b> \$150,000.00</p>	<p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2017</p>

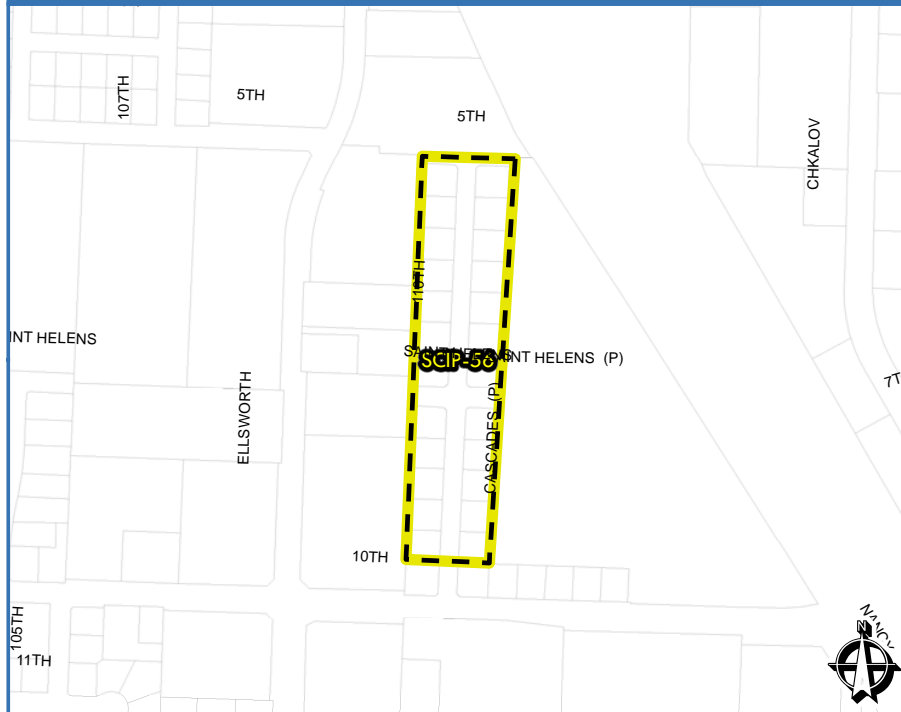
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **SOUTHRIDGE**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** SCIP  
**Project Type:** Active  
**Project Status:** Active  
**Other Info.:** 24 Lots

## PROJECT DESCRIPTION

### Project Justification / Priority

A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems

### Project Description / Comments

Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$255,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

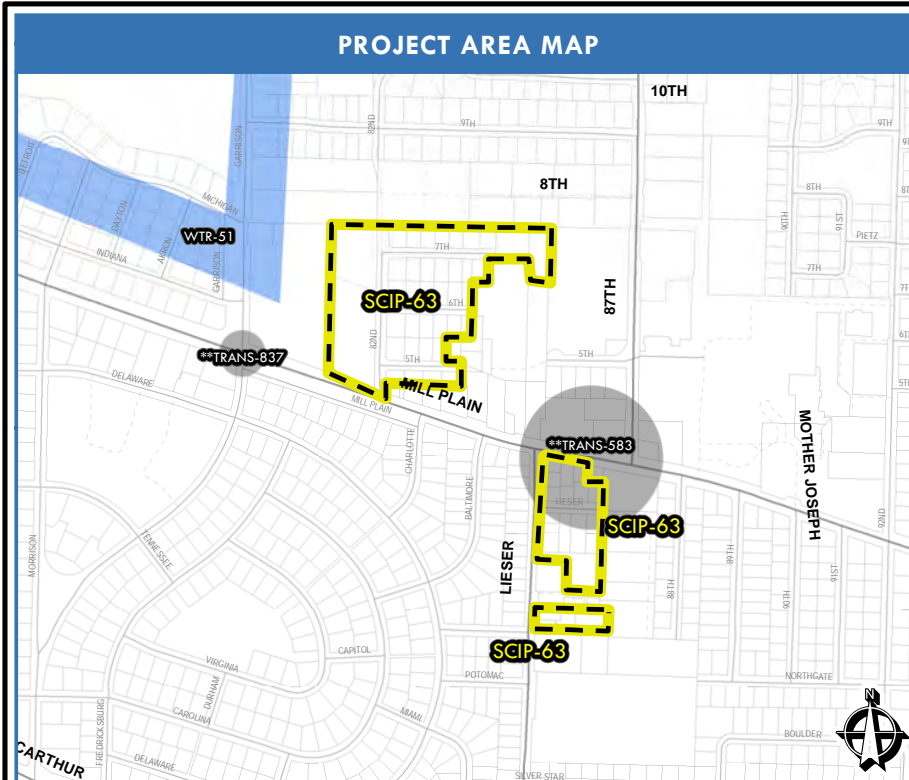
**\*Start of Construction (Year):**  
2016

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: LIESER HOMESITES



### PROJECT SUMMARY

**Utility Type:** SCIP  
**Project Type:** Future  
**Project Status:** Future  
**Other Info.:** 58 Lots

### PROJECT DESCRIPTION

**Project Justification / Priority**

A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems

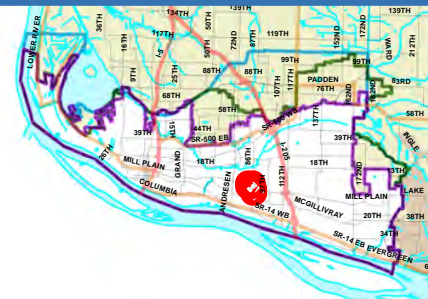
**Project Description / Comments**

Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.

### LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$500,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2016

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.

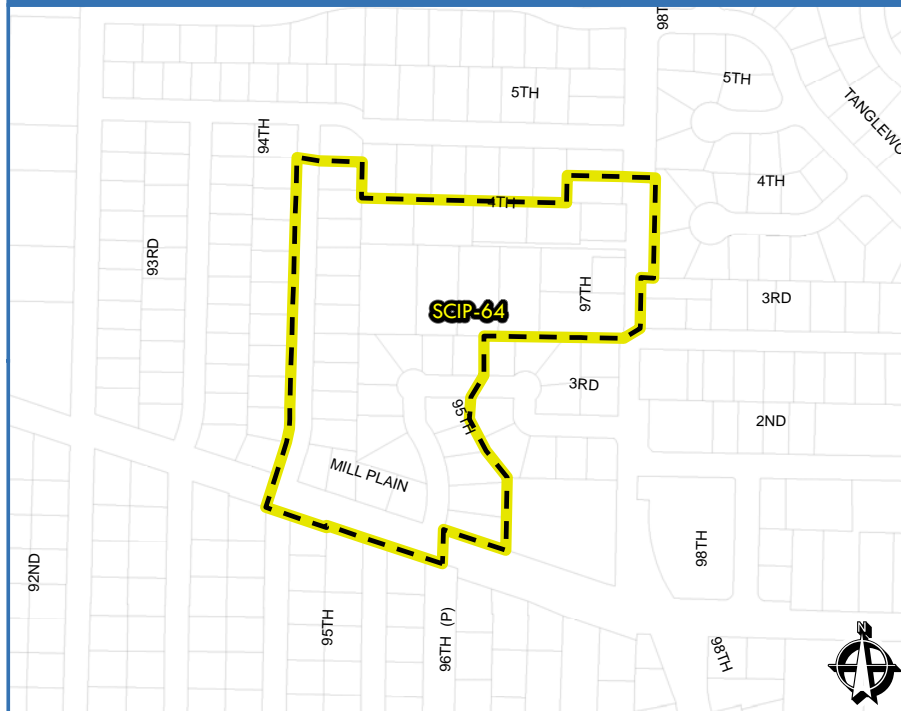




# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **FIRCREST**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** SCIP  
**Project Type:** Active  
**Project Status:** Active  
**Other Info.:** 41 Lots

## PROJECT DESCRIPTION

### Project Justification / Priority

A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems

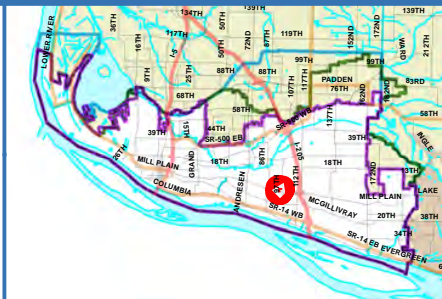
### Project Description / Comments

Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems. Completing improvements prior to Pavement Management work.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$430,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2015-2016

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **WIL HAR TERRACE**

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3>	
		<p><b>Utility Type:</b> SCIP</p> <p><b>Project Type:</b></p> <p><b>Project Status:</b> Future</p> <p><b>Other Info.:</b> 15 Lots</p>	
		<h3>PROJECT DESCRIPTION</h3>	
<h3>LEGEND</h3>		<p><b>Project Justification / Priority</b>                  A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems</p> <p><b>Project Description / Comments</b>                  Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.</p>	
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Transportation</li> <li> Sanitary Sewer</li> <li> Surface Water</li> <li> Water</li> <li> SCIP</li> <li> Taxlots</li> <li> Vancouver City Limits</li> <li> Sewer Service Area</li> <li> Water Service Area</li> <li> Clark County</li> <li> Battle Ground</li> <li> Camas</li> <li> Washougal</li> </ul>		<h3>VICINITY MAP</h3>	
		<h3>ESTIMATED PROJECT COSTS</h3>	
		<p><b>Total Proj. Cost:</b> \$250,000.00</p> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2016</p>	

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: **EVERGREEN MEADOWS**

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> SCIP  <b>Project Type:</b> Active  <b>Project Status:</b> Active  <b>Other Info.:</b> 64 Lots</p>															
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3 style="text-align: center;">VICINITY MAP</h3>	
Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
SCIP	Camas																
Taxlots	Washougal																
<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>  A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems</p> <p><b>Project Description / Comments</b>  Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems. Requires an easement from Bonneville Power Administration for extension to properties on the north edge of the project boundary. Project could be delayed if easement is not obtained.</p>		<table border="1"> <thead> <tr> <th style="text-align: left;">ESTIMATED PROJECT COSTS</th> <th style="text-align: left;">FUNDING STRATEGY</th> </tr> </thead> <tbody> <tr> <td><b>Total Proj. Cost:</b> \$620,000.00</td> <td><b>Budget / Proj. #:</b></td> </tr> <tr> <td></td> <td><b>Budget / Proj. Task #:</b></td> </tr> <tr> <td></td> <td><b>*Start of Construction (Year):</b> 2014</td> </tr> </tbody> </table>		ESTIMATED PROJECT COSTS	FUNDING STRATEGY	<b>Total Proj. Cost:</b> \$620,000.00	<b>Budget / Proj. #:</b>		<b>Budget / Proj. Task #:</b>		<b>*Start of Construction (Year):</b> 2014						
ESTIMATED PROJECT COSTS	FUNDING STRATEGY																
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	<b>Budget / Proj. Task #:</b>																
	<b>*Start of Construction (Year):</b> 2014																

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
\*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: EVERGREEN ESTATES

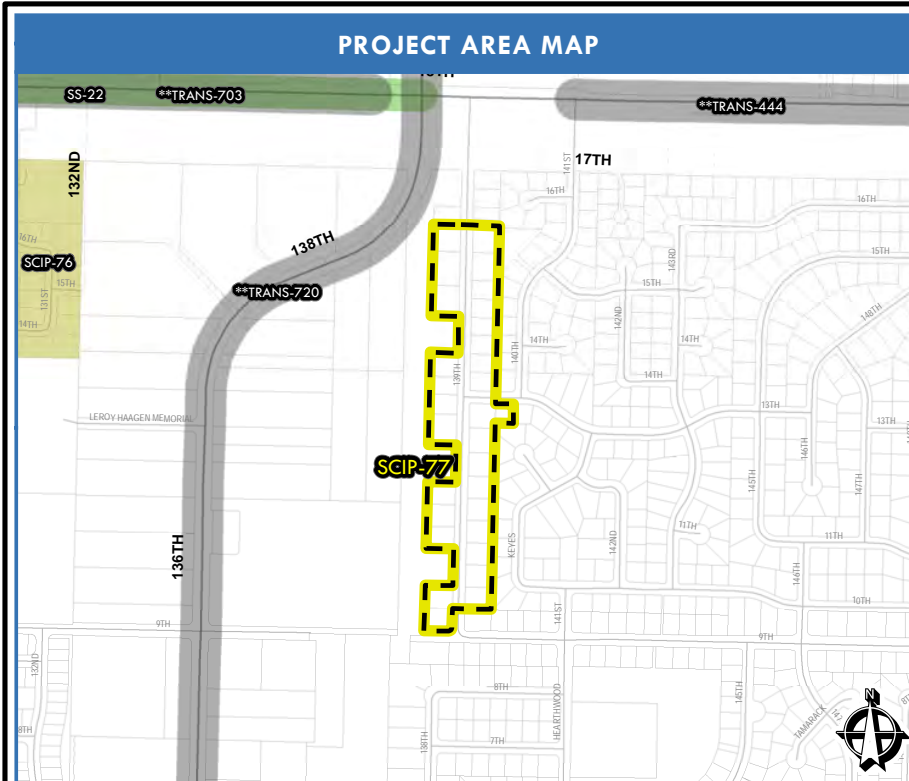
<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> SCIP  <b>Project Type:</b> Future  <b>Project Status:</b> Future  <b>Other Info.:</b> 99 Lots</p>																													
<h3>LEGEND</h3> <table border="0"> <tr> <td></td> <td>Project Boundary</td> <td></td> <td>Vancouver City Limits</td> </tr> <tr> <td></td> <td>Transportation</td> <td></td> <td>Sewer Service Area</td> </tr> <tr> <td></td> <td>Sanitary Sewer</td> <td></td> <td>Water Service Area</td> </tr> <tr> <td></td> <td>Surface Water</td> <td></td> <td>Clark County</td> </tr> <tr> <td></td> <td>Water</td> <td></td> <td>Battle Ground</td> </tr> <tr> <td></td> <td>SCIP</td> <td></td> <td>Camas</td> </tr> <tr> <td></td> <td>Taxlots</td> <td></td> <td>Washougal</td> </tr> </table> <h3>VICINITY MAP</h3>			Project Boundary		Vancouver City Limits		Transportation		Sewer Service Area		Sanitary Sewer		Water Service Area		Surface Water		Clark County		Water		Battle Ground		SCIP		Camas		Taxlots		Washougal	<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems</p> <p><b>Project Description / Comments</b>          Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.</p>	
	Project Boundary		Vancouver City Limits																												
	Transportation		Sewer Service Area																												
	Sanitary Sewer		Water Service Area																												
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	Water		Battle Ground																												
	SCIP		Camas																												
	Taxlots		Washougal																												
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$1,040,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2017-2018</p>																												

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **EVERGREEN AIRPARK NORTH**



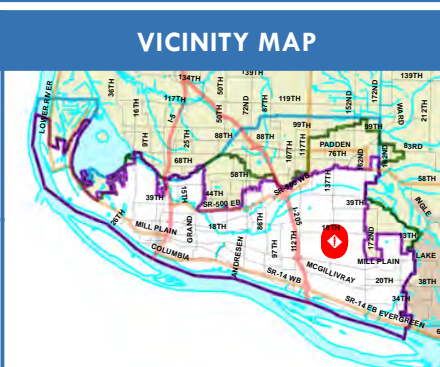
PROJECT SUMMARY	
Utility Type:	SCIP
Project Type:	Future
Project Status:	Future
Other Info.:	30 Lots

**PROJECT DESCRIPTION**

**Project Justification / Priority**  
 A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems

**Project Description / Comments**  
 Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.

LEGEND	
Project Boundary	Vancouver City Limits
Transportation	Sewer Service Area
Sanitary Sewer	Water Service Area
Surface Water	Clark County
Water	Battle Ground
SCIP	Camas
Taxlots	Washougal



ESTIMATED PROJECT COSTS	
Total Proj. Cost:	\$350,000.00

FUNDING STRATEGY	
Budget / Proj. #:	
Budget / Proj. Task #:	
*Start of Construction (Year):	2015-2016

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: VILLAGE GREEN

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> SCIP  <b>Project Type:</b> Active  <b>Project Status:</b> Active  <b>Other Info.:</b> 81 Lots</p>																	
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>  A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems</p> <p><b>Project Description / Comments</b>  Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.</p>			
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<h3 style="text-align: center;">VICINITY MAP</h3>		<table border="1"> <thead> <tr> <th colspan="2" style="text-align: center;">ESTIMATED PROJECT COSTS</th> <th colspan="2" style="text-align: center;">FUNDING STRATEGY</th> </tr> </thead> <tbody> <tr> <td><b>Total Proj. Cost:</b></td> <td style="text-align: right;">\$695,000.00</td> <td><b>Budget / Proj. #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td><b>Budget / Proj. Task #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td><b>*Start of Construction (Year):</b></td> <td style="text-align: center;">2015</td> </tr> </tbody> </table>		ESTIMATED PROJECT COSTS		FUNDING STRATEGY		<b>Total Proj. Cost:</b>	\$695,000.00	<b>Budget / Proj. #:</b>				<b>Budget / Proj. Task #:</b>				<b>*Start of Construction (Year):</b>	2015
ESTIMATED PROJECT COSTS		FUNDING STRATEGY																	
<b>Total Proj. Cost:</b>	\$695,000.00	<b>Budget / Proj. #:</b>																	
		<b>Budget / Proj. Task #:</b>																	
		<b>*Start of Construction (Year):</b>	2015																

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
\*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.









# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: CENTRAL VANCOUVER - NORTH

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> SCIP  <b>Project Type:</b> Future  <b>Project Status:</b> Future  <b>Other Info.:</b> 462 Lots</p>																													
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td></td> <td>Project Boundary</td> <td></td> <td>Vancouver City Limits</td> </tr> <tr> <td></td> <td>Transportation</td> <td></td> <td>Sewer Service Area</td> </tr> <tr> <td></td> <td>Sanitary Sewer</td> <td></td> <td>Water Service Area</td> </tr> <tr> <td></td> <td>Surface Water</td> <td></td> <td>Clark County</td> </tr> <tr> <td></td> <td>Water</td> <td></td> <td>Battle Ground</td> </tr> <tr> <td></td> <td>SCIP</td> <td></td> <td>Camas</td> </tr> <tr> <td></td> <td>Taxlots</td> <td></td> <td>Washougal</td> </tr> </table>			Project Boundary		Vancouver City Limits		Transportation		Sewer Service Area		Sanitary Sewer		Water Service Area		Surface Water		Clark County		Water		Battle Ground		SCIP		Camas		Taxlots		Washougal	<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>  A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems</p> <p><b>Project Description / Comments</b>  Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.</p>	
	Project Boundary		Vancouver City Limits																												
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ESTIMATED PROJECT COSTS		FUNDING STRATEGY																													
<b>Total Proj. Cost:</b>	\$4,000,000.00	<b>Budget / Proj. #:</b>																													
		<b>Budget / Proj. Task #:</b>																													
		<b>*Start of Construction (Year):</b>	2020-2021																												

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
\*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: CENTRAL VANCOUVER - SOUTH

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> SCIP</p> <p><b>Project Type:</b></p> <p><b>Project Status:</b> Future</p> <p><b>Other Info.:</b> 369 Lots</p>	
<h3>LEGEND</h3> <ul style="list-style-type: none"> <li>Project Boundary</li> <li>Transportation</li> <li>Sanitary Sewer</li> <li>Surface Water</li> <li>Water</li> <li>SCIP</li> <li>Taxlots</li> <li>Vancouver City Limits</li> <li>Sewer Service Area</li> <li>Water Service Area</li> <li>Clark County</li> <li>Battle Ground</li> <li>Camas</li> <li>Washougal</li> </ul> <h3>VICINITY MAP</h3>		<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b> A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems</p> <p><b>Project Description / Comments</b> Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.</p>	
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$3,100,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b></p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b> 2017 - 2018</p>

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.

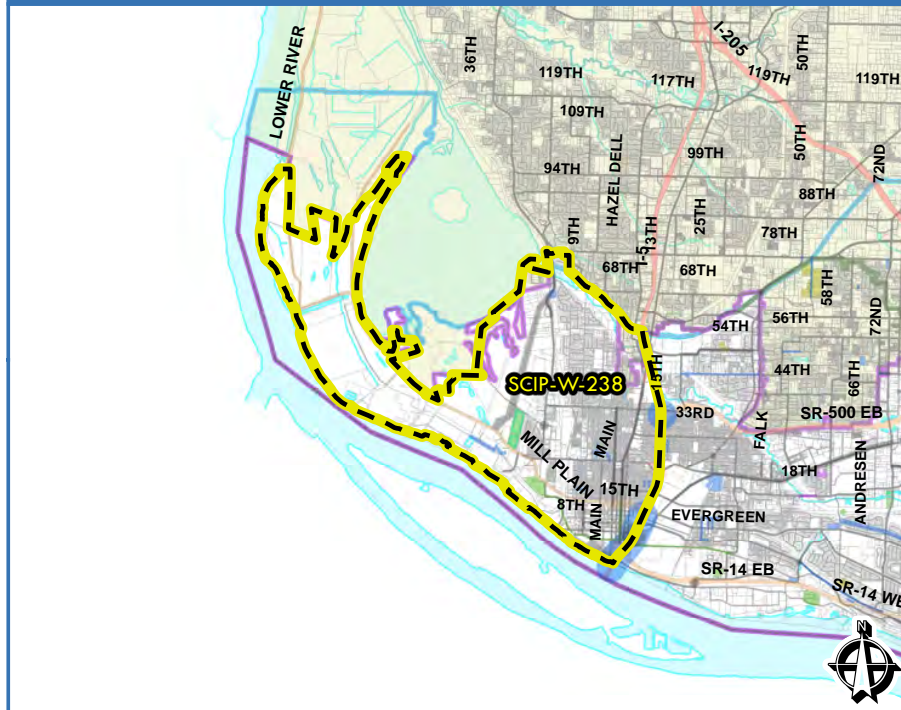




# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: WEST VANCOUVER

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** SCIP  
**Project Type:**  
**Project Status:** Future  
**Other Info.:** 216 Lots

## PROJECT DESCRIPTION

### Project Justification / Priority

A prioritization criteria was originally established by the City Engineer at the beginning of the program based on health and safety (viability of existing septic systems), proximity to ground water supply and surface water, density and home owner requests. Projects are being completed based on the overall prioritization rating. The projects with the higher priority ratings were completed by 2010 and the remaining projects are prioritized and completed based primarily on health and safety, budget and home owner requests. (2) = Improve Safety; (3) = New Systems

### Project Description / Comments

Sanitary sewer will be extended as part of the City's ongoing proactive efforts to make reliable public sewer available within our service area prior to failure of the existing septic systems.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$2,000,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2017-2018

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



20 YEAR CAPITAL IMPROVEMENT PROGRAM FOR SCIP

Note: All costs are in 2015 dollars

Description	CIP #	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
<b>SCIP Projects</b>																		
Demand Response	SCIP-A1-0	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000							2,500,000
Evergreen Meadows (64 homes)	SCIP-74	620,000																620,000
Village Green (72 homes)	SCIP-88	695,000																695,000
Fircrest (39 homes)	SCIP-64	430,000																430,000
NE 136th/141st Ave (40 homes)	SCIP-89	430,000																430,000
Granada South (282 homes)	SCIP-235	2,400,000																2,400,000
NE Drexel (14 homes)	SCIP-34	250,000																250,000
Evergreen Airpark North (30 homes)	SCIP-77	300,000	50,000															350,000
Southridge (24 homes)	SCIP-56	40,000	215,000															255,000
Premier Acres (70 homes)	SCIP-103	50,000	650,000															700,000
Lieser Homesites (58 homes)	SCIP-63		500,000															500,000
Wil Har Terrace (15 homes)	SCIP-69		250,000															250,000
Allum Acres (17 homes)	SCIP-104		250,000															250,000
Fruit Lawn (22 homes)	SCIP-106		400,000															400,000
Alpine View (44 homes)	SCIP-107		500,000															500,000
Evergreen Highlands (12 homes)	SCIP-37			150,000														150,000
Evergreen Estates (99 homes)	SCIP-76			500,000	540,000													1,040,000
West Vancouver (216 parcels)	SCIP-W-238			800,000	1,200,000													2,000,000
Central Vancouver - South (369 parcels)	SCIP-CS-243			1,500,000	1,600,000													3,100,000
East Vancouver - Central (577 Parcels)	SCIP-EC-242					3,000,000	1,800,000											4,800,000
Central Vancouver - North (462 parcels)	SCIP-CN-239						1,000,000	3,000,000										4,000,000
NE 47th Ave SCIP	SCIP-127	220,000																220,000
East Vancouver - North (442 Parcels)	SCIP-EN-240								3,000,000	700,000								3,700,000
East Vancouver - South (152 parcels)	SCIP-ES-241									1,500,000								1,500,000
<b>Total SCIP Projects</b>		<b>5,685,000</b>	<b>3,065,000</b>	<b>3,200,000</b>	<b>3,590,000</b>	<b>3,250,000</b>	<b>3,050,000</b>	<b>3,250,000</b>	<b>3,250,000</b>	<b>2,450,000</b>	<b>250,000</b>	-	-	-	-	-	-	<b>31,040,000</b>

\*All project timing will be dependent on coordination with other departments including pavement management, water, and surface water  
 \*\*Water utility to fund SCIP through 2016. Sewer utility will fund SCIP starting in 2017.  
 \*\*\*It is anticipated that the SCIP Program will be completed by 2024.

# Surface Water Utility



Capital Improvement Program  
For Water, Sewer, and Surface Water

# Surface Water Utility Recent Financial History



Capital Improvement Program  
For Water, Sewer, and Surface Water



**SURFACE WATER FUND ACTIVITY  
(2004-2014)**

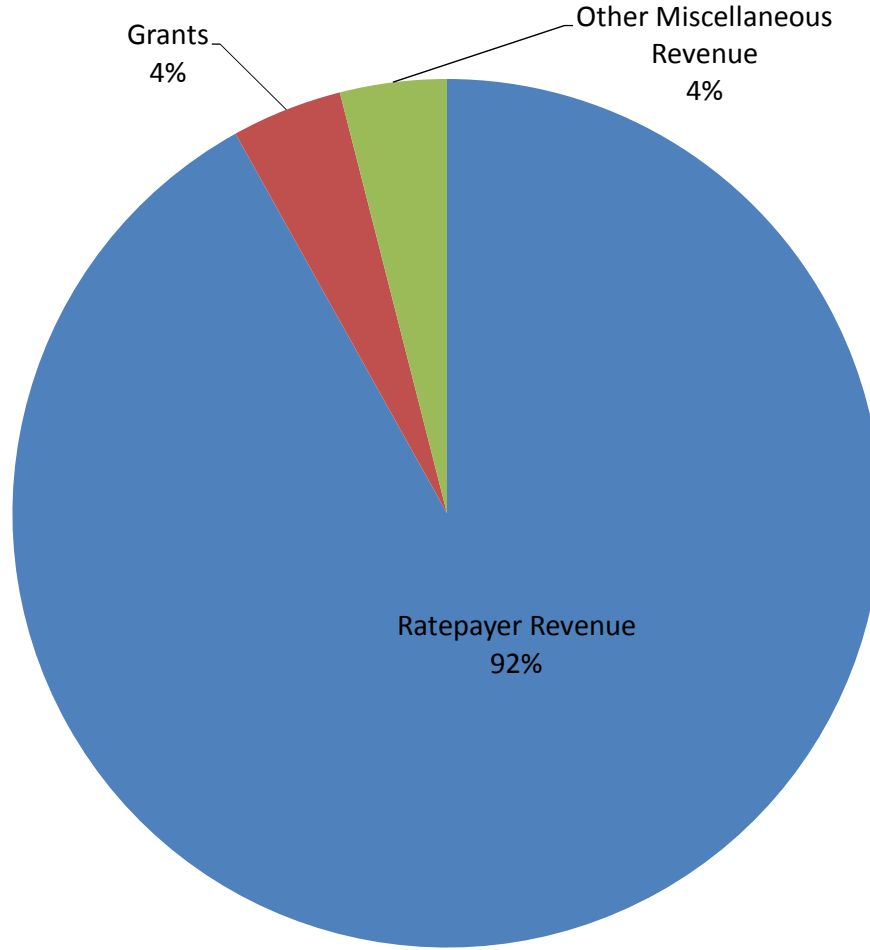
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Revenue</b>											
Ratepayer Revenue	4,823,355	6,988,558	8,520,967	8,655,843	8,845,260	9,660,900	9,890,603	9,989,162	10,202,474	10,971,328	11,661,445
SRF Loan (included in Misc. Rev.)							331,007				
Grants	146,274	1,085,059	48,812	264,198	88,919	18,500	48,629	564,825	396,540	295,500	523,679
Other Miscellaneous Revenue*	322,737	472,023	376,403	454,817	305,636	240,584	237,557	231,594	113,034	621,132	503,531
<b>Total Revenue</b>	<b>5,292,366</b>	<b>8,545,640</b>	<b>8,946,182</b>	<b>9,374,858</b>	<b>9,239,815</b>	<b>9,919,984</b>	<b>10,507,796</b>	<b>10,785,581</b>	<b>10,712,048</b>	<b>11,887,960</b>	<b>12,688,655</b>
<b>Expenses</b>											
Salaries & Benefits	1,553,310	1,712,683	2,021,222	2,669,838	3,361,529	3,178,006	3,340,639	3,847,323	3,570,717	3,758,869	3,784,125
Supplies and Services	245,822	432,014	604,715	812,497	810,175	878,455	734,708	1,007,404	807,314	831,991	934,475
Professional Services	100,853	431,247	282,302	325,817	403,513	297,440	309,931	435,625	356,200	324,489	388,733
Indirects and ER&R	<u>1,482,948</u>	<u>1,838,414</u>	<u>1,898,841</u>	<u>1,614,949</u>	<u>2,429,149</u>	<u>1,683,394</u>	<u>1,833,386</u>	<u>2,155,426</u>	<u>2,245,720</u>	<u>2,437,780</u>	<u>2,216,433</u>
<b>Operations &amp; Maintenance Expenses</b>	<b>3,382,933</b>	<b>4,414,358</b>	<b>4,807,079</b>	<b>5,423,101</b>	<b>7,004,366</b>	<b>6,037,294</b>	<b>6,218,664</b>	<b>7,445,778</b>	<b>6,979,952</b>	<b>7,353,129</b>	<b>7,323,766</b>
Taxes and fees	60,536	1,114,469	1,337,128	1,460,163	1,523,354	2,054,616	2,121,600	2,132,527	2,173,263	2,338,834	2,471,031
Debt Service										44,173	86,231
Capital Construction Expenses	598,872	7,304,210	2,353,192	902,810	346,797	529,379	854,527	494,504	795,769	319,656	912,996
General Fund	130,711	345,296	333,265	329,995	350,000	0	144,121	0	0	0	
Water Fund (Utilities Administration Allocation)	0	0	0	0	0	983,642	925,273	1,025,721	1,062,698	1,091,383	1,111,723
Street Maintenance Fund	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>176,151</u>	<u>204,753</u>	<u>823,526</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Expenses Subtotal</b>	<b>4,173,052</b>	<b>13,178,333</b>	<b>8,830,665</b>	<b>8,116,068</b>	<b>9,400,668</b>	<b>9,809,684</b>	<b>11,087,710</b>	<b>11,098,530</b>	<b>11,011,682</b>	<b>11,147,175</b>	<b>11,905,747</b>
Depreciation	<u>155,859</u>	<u>175,310</u>	<u>188,841</u>	<u>220,606</u>	<u>267,224</u>	<u>298,894</u>	<u>303,838</u>	<u>326,126</u>	<u>348,825</u>	<u>361,816</u>	<u>377,653</u>
<b>Total Expense</b>	<b>4,328,911</b>	<b>13,353,643</b>	<b>9,019,506</b>	<b>8,336,674</b>	<b>9,667,892</b>	<b>10,108,578</b>	<b>11,391,548</b>	<b>11,424,656</b>	<b>11,360,507</b>	<b>11,508,991</b>	<b>12,283,400</b>

\* Other Miscellaneous Revenues include items such as:

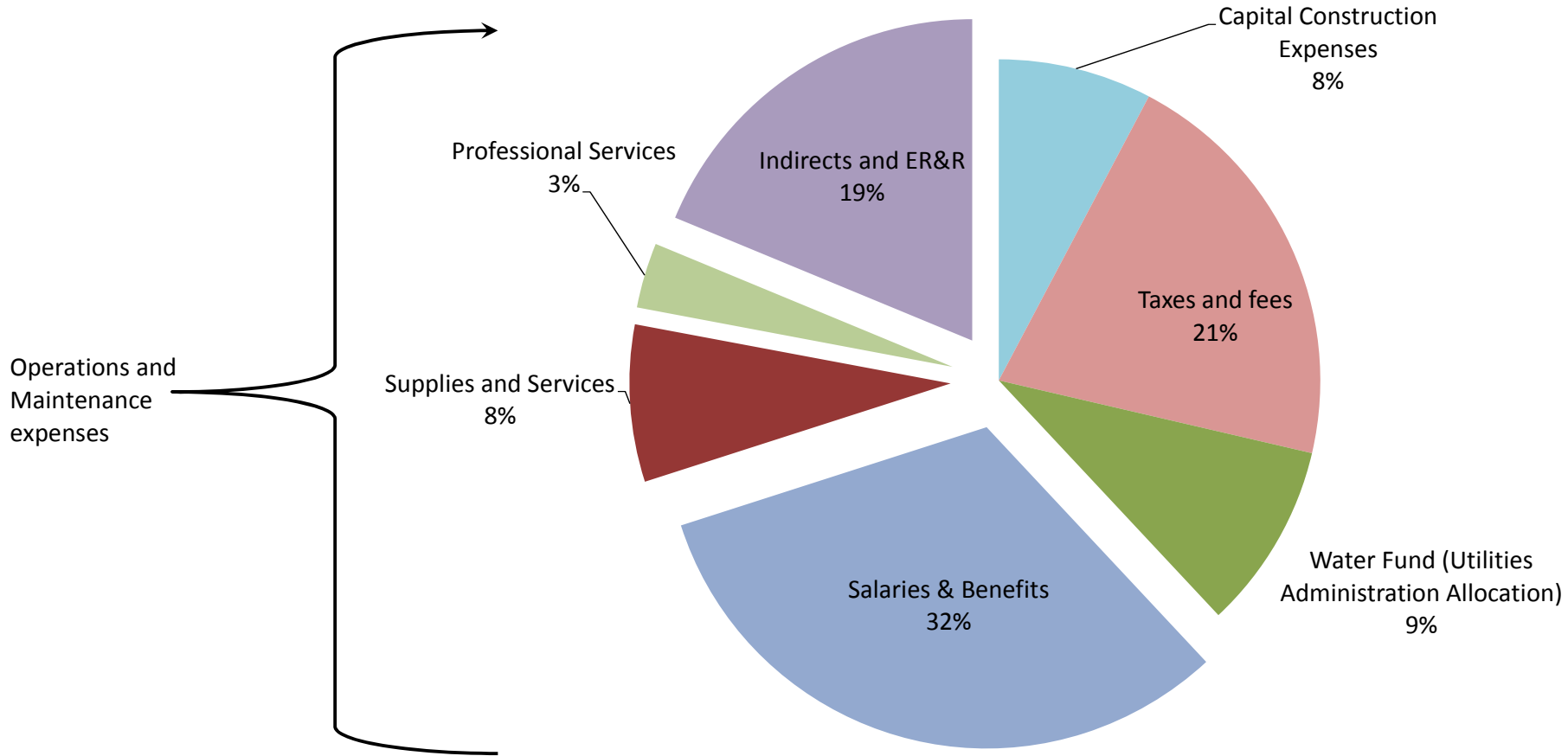
- Site Plan Review
- Subdivision Fees
- Interest
- WDOT Revenue
- Transfer from General Fund



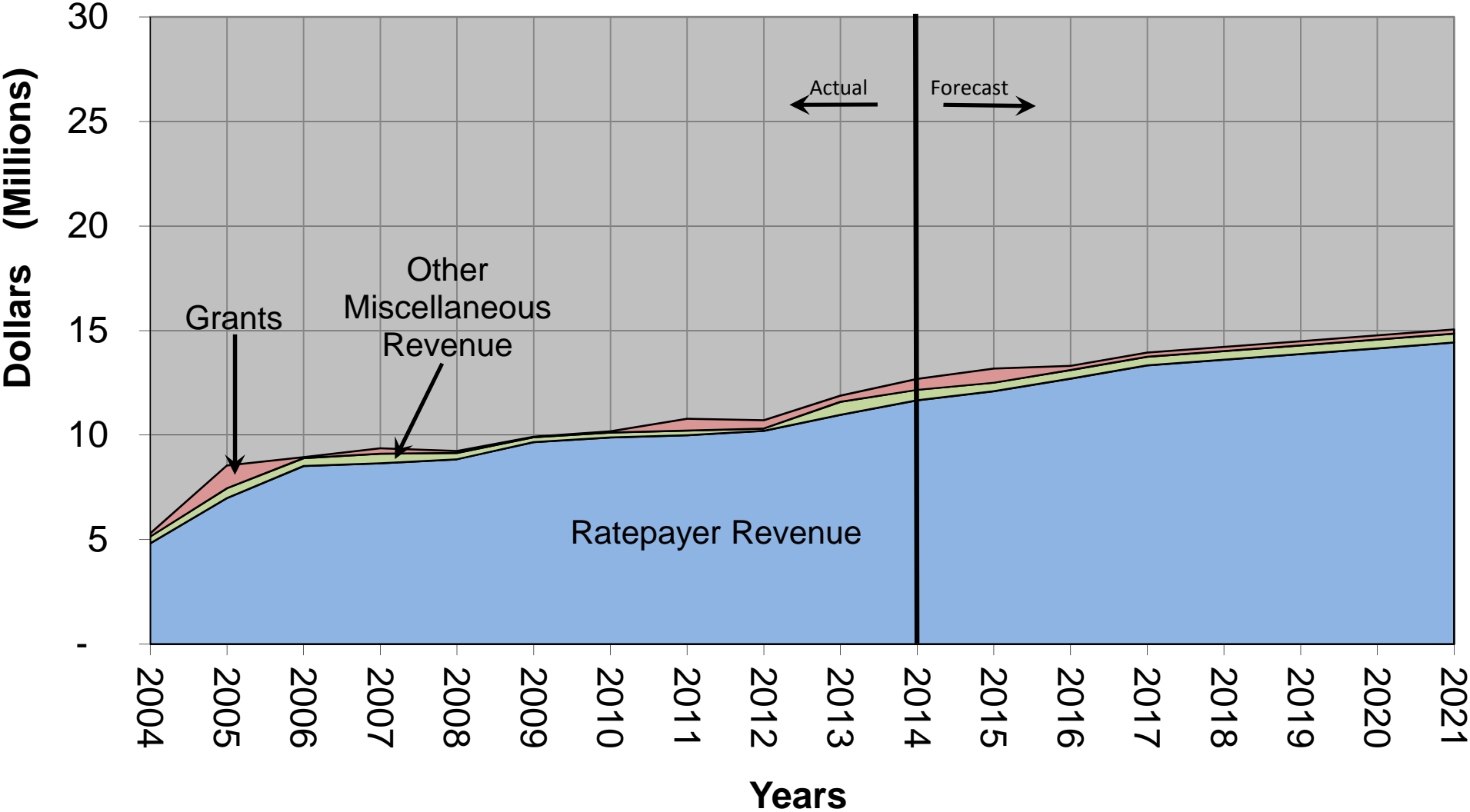
**2014 Surface Water Utility Revenues = \$12,688,655**



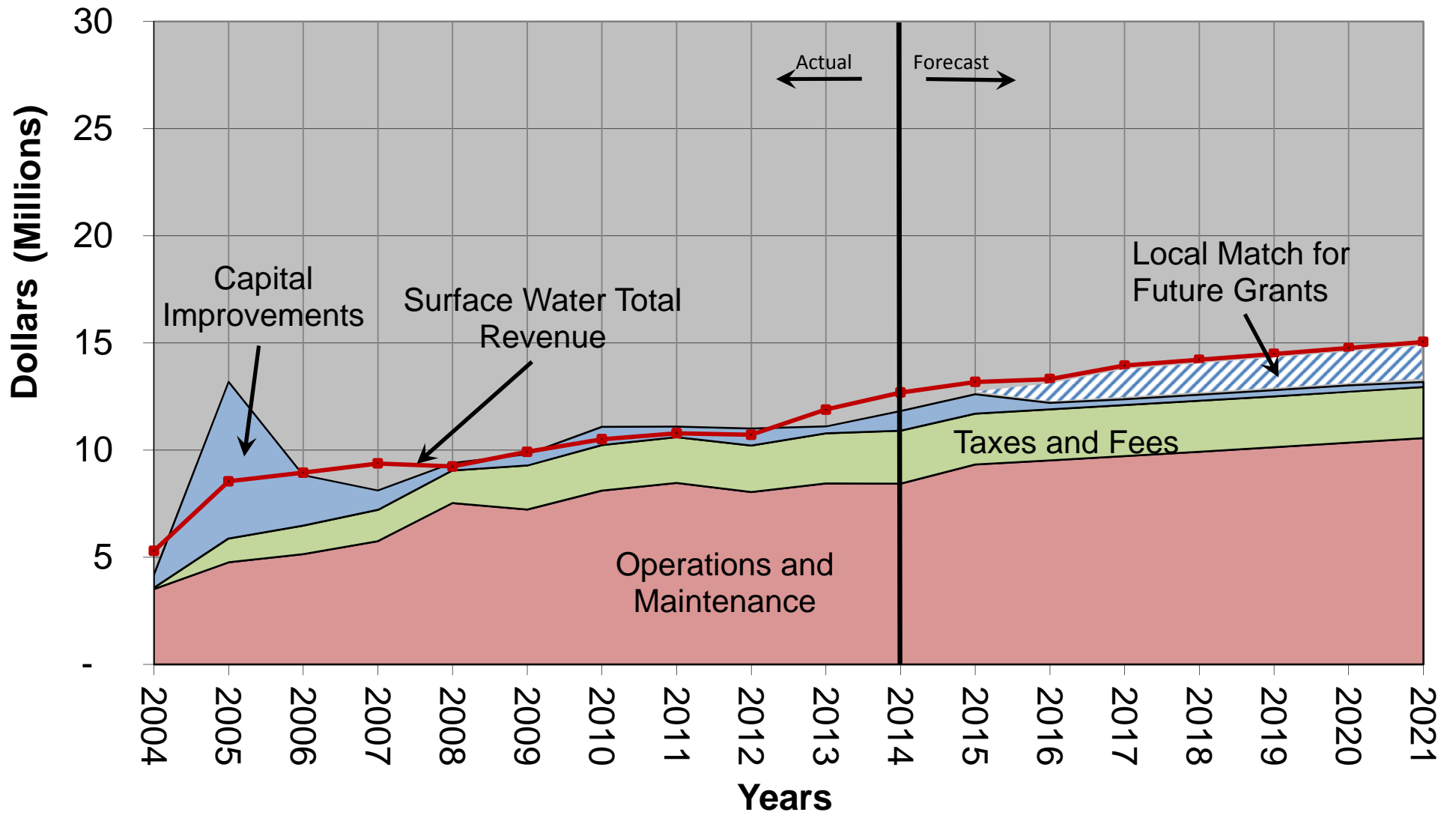
**2014 Surface Water Utility Expenses = \$11,905,747**



# Surface Water Revenues (2004-2021)



# Surface Water Expenses (2004-2021)



# Surface Water Utility Project List



Capital Improvement Program  
For Water, Sewer, and Surface Water

## Surface Water Management CIP Changes

This page provides an overview of the changes from the previous 6 year project list (2015-2020) to this year's 6 year project list (2016-2021). The changes are segmented by: projects added; projects removed; and other.

<b>Projects Added</b>	<b>Project Number</b>	<b>Comments</b>
Stormwater Retrofit LID Grant – Oakbrook	SW-32	New grant funded project
East Orchards UIC Retrofit Study and Design – 4 <sup>th</sup> Plain	SW-33	New WSDOT Fee funded project
Greenway Restoration Program	SW-A1-34	Program is on hold due to lack of funding. Needs new funding in order to be in compliance with regulations
Stormwater Quality Improvement Program	SW-A1-35	Program is on hold due to lack of funding. Needs new funding in order to be in compliance with regulations
Facility Retrofit Program	SW-A1-36	Program is on hold due to lack of funding. Needs new funding in order to be in compliance with regulations
Sub-Standard Systems Program	SW-A1-37	Program is on hold due to lack of funding. Needs new funding in order to be in compliance with regulations
Pump Station Retrofit Program	SW-A1-38	Program is on hold due to lack of funding. Needs new funding in order to be in compliance with regulations
Comprehensive Surface & Groundwater Management Plan	SW-A1-39	Program is on hold due to lack of funding. Needs new funding in order to be in compliance with regulations

<b>Projects Removed</b>	<b>Project Number</b>	<b>Comments</b>
None		

<b>Other Changes</b>	<b>Project Number</b>	<b>Comments</b>
Stormwater Retrofit LID Grant -98 <sup>th</sup> Ave.	SW-4	\$100,000 budget carried forward from 2014
Stormwater Retrofit LID Grant – 18 <sup>th</sup> St.	SW-25	Budgeted \$160,000 for construction in 2016
Stormwater Retrofit LID Grant – 109 <sup>th</sup> Av.	SW-27	Budgeted \$300,000 for construction in 2016
Arterial Safety Projects – 18 <sup>th</sup> St and 162 <sup>nd</sup> Ave Grant	SW-28	Received grant funding for construction phase
Brookside Operations Center Grant – Stormwater Retrofit	SW-29	Received grant funding for construction phase
NE 32 <sup>nd</sup> Street Grant – UIC Retrofit	SW-31	Received grant funding for construction phase
WSDOT Fee Funded Projects	SW-A1-5	Several projects completed and several projects added in 2015
Country Club Village Phase 1 LID Grant – UIC Retrofit	SW-A1-11	Received grant funding for construction phase
Arterial Safety Projects – Mill Plain and 184 <sup>th</sup> Ave	SW-A1-24	Budget carried forward from 2014
Stormwater Retrofit LID Grant – WQ for Drywells	SW-A1-26	Budgeted \$400,000 for construction in 2016

Description	CIP#	2015	2016	2017	2018	2019	2020	2021	6-yr Total
<b>443 Surfacewater Construction Fund</b>									
<b>FUNDED PROJECTS</b>									
<b>Regulatory Compliance Projects-NPDES/TMDL</b>									
Stormwater Retrofit LID Grant - 98th Ave	SW-4	100,000							0
Stormwater Retrofit LID Grant - 18th St	SW-25	83,750	160,000						160,000
Stormwater Retrofit LID Grant - 109th Ave	SW-27	83,000	300,000						300,000
Brookside Operations Center Construction (Grant Funded)	SW-29	30,000	42,000	470,430					512,430
Stormwater Retrofit LID Grant - Oarkbrook	SW-32	12,000	52,000	170,900					222,900
<b>Regulatory Compliance-UIC Retrofits</b>									
Stormwater Retrofit LID Grant - WQ for Drywells	SW-A1-26	349,470	400,000						400,000
Country Club Village Construction (Grant Funded Phase I)	SW-30	5,000	35,000	107,000	600,180				742,180
NE 32nd Street Construction (Grant Funded)	SW-31	17,280	150,000						150,000
<b>Arterial Safety Projects</b>									
18th St & 162nd Ave Construction (Grant Funded)	SW-28	5,000	12,000	130,600					142,600
Mill Plain & 184th Ave - CTC	SW-A1-24	35,000							0
<b>WSDOT Fee Funded Projects</b>									
Administration (00)	SW-A1-5	219,518		230,000	230,000	240,000	240,000	240,000	1,180,000
Thurston Way (04)	SW-A1-5	3,817							0
I-205 Burton Detention Study (05)	SW-A1-5	15,410							0
WSDOT Culvert and Outfall Inspection (06)	SW-A1-5	37,879							0
Ellsworth Vegetation Enhance (11)	SW-A1-5	31,394							0
Ellsworth Runoff Study (12)	SW-A1-5	17,850							0
I-5/Leverich East Slope (13)	SW-A1-5	50,000							0
SR500/Andresen Islands (14)	SW-A1-5	46,420							0
I-205 Peterson Runoff (15)	SW-A1-5	39,883							0
SR500/Fourth Plain (16)	SW-A1-5	55,000							0
SR500/Sr Johns (17)	SW-A1-5	91,635							0
SR14/164th Ave (18)	SW-A1-5	5,939							0
East Orchards UIC Retrofit Study & Design - 4th Plain (19)	SW-33	149,000	220,000						220,000
<b>SCIP Coordination Projects*</b>									
Village Green (88) - UIC Grant Coord.	SW-A1-21	12,000							0
<b>Funded Subtotal</b>		<b>1,496,245</b>	<b>1,371,000</b>	<b>1,108,930</b>	<b>830,180</b>	<b>240,000</b>	<b>240,000</b>	<b>240,000</b>	<b>4,030,110</b>
<b>UNFUNDED PROJECTS</b>									
<b>Regulatory Compliance Projects-NPDES/TMDL</b>									
Greenway Restoration - Royal Oaks	SW-A1-23					100,000			100,000
Greenway Restoration - Peterson Channel	SW-A1-34						100,000	500,000	600,000
Greenway Restoration - 15th Ave East	SW-A1-34							100,000	100,000
Greenway Restoration - 18th Str to 87th Ave	SW-A1-34								0
Stormwater Quality Pond - Arnold Park/St Johns	SW-A1-35								0
Stormwater Quality Vault - Linda Lane/4th Plain	SW-A1-35							50,000	50,000
<b>Regulatory Compliance-UIC Retrofits</b>									
Country Club Village Construction - Phase 2	SW-A1-11					35,000	750,000		785,000
Fourth Plain SR500-131st Ave	SW-A1-11				750,000				750,000
Fourth Plain 131st Ave-162nd Ave	SW-A1-11					1,250,000			1,250,000
UIC Retrofit Ph 1 - Water Quality Treatment	SW-A1-11		100,000	250,000				100,000	450,000
UIC Retrofit Ph 2 - Decommission & WQ Treatment	SW-A1-11					200,000		400,000	600,000
UIC Retrofit Ph 3 - Decommission, WQ & Detain	SW-A1-11								0
<b>Arterial Safety Projects</b>									
Mill Plain & 184th Ave - CTC	SW-A1-24		100,000	520,000					620,000
Fruit Valley Rd	SW-A1-24			250,000					250,000
Mill Plain & 164th Ave	SW-A1-24				250,000				250,000
Mill Plain & Hearthwood	SW-A1-24					200,000			200,000
Mill Plain & 155th Ave	SW-A1-24						350,000		350,000
164th Ave Median Swale Retrofit	SW-A1-24		35,000	50,000					85,000
<b>SCIP Coordination Projects*</b>									
Property Acquisitions-Flood Plain,Habitat,Wetlands	SW-A1-20	60,000	50,000	50,000	50,000	50,000	50,000	50,000	300,000
51st St Sump Basin (2.5 Ac = \$170,000)	SW-A1-20				170,000			250,000	250,000
15th Ave Wetlands (11 AC = \$405,000)	SW-A1-20						405,000		405,000
BBC Headwaters Basin (\$750,000)	SW-A1-20								0
BBC Greenway (23 Ac = \$250,000)	SW-A1-20								0
Alki Basin (\$150,000)	SW-A1-20								0
<b>Facility Retrofits Program</b>									
Primrose Court DS#105	SW-A1-36			23,000					23,000
Brickhaven (NE 146th Ave & 42nd Str)	SW-A1-36								0
Tiffany Meadows (SE 169th & 17th Str)	SW-A1-36				31,000				31,000
Creekside Meadows III (NE 124th Crt & 47th Str)	SW-A1-36					27,000			27,000
Kristi Lane (NE 35th Cir & 119th Ave)	SW-A1-36						45,000		45,000
Oak Run (NE 4th Pln & Plains Way)	SW-A1-36							65,000	65,000

Description	CIP#	2015	2016	2017	2018	2019	2020	2021	6-yr Total
<b>Sub-Standard Systems</b>								100,000	100,000
Lower Grand Area Green Street	SW-A1-37			50,000	250,000				300,000
Columbia Slope Culvert - Mill Creek	SW-A1-37		75,000						75,000
Columbia Slope Culvert - Chelsea	SW-A1-37		35,000						35,000
Columbia Slope Culvert - Fisher's Creek	SW-A1-37					35,000	125,000		160,000
Columbia Slope Culvert - SE 17th Street	SW-A1-37				125,000				125,000
Waterfront Outfall Capacity Study	SW-A1-37		35,000						35,000
<b>Pump Station Optimization and Retrofit</b>									
51st Street PS Basin Study & Design	SW-A1-38					85,000			85,000
Existing Stormwater PS Retrofits - FV, LaH, 162, CR	SW-A1-38					140,000			140,000
<b>Comprehensive Surface &amp; Ground Water Management Plan</b>	SW-A1-39		300,000						300,000
<b>Stormwater Retrofits-Demand Response</b>	SW-A1-12	50,000	50,000	50,000	50,000	60,000	60,000	60,000	330,000
<b>Transportation/Pavement Coord.-LID Depave</b>	SW-A1-22	40,000	40,000	40,000	40,000	50,000	50,000	50,000	270,000
<b>Unfunded Subtotal</b>			820,000	1,283,000	1,716,000	2,032,000	2,135,000	1,725,000	9,711,000
<b>Funded and Unfunded Total</b>		1,646,245	2,191,000	2,391,930	2,546,180	2,272,000	2,375,000	1,965,000	13,741,110

\*Project timing is dependent upon the timing of the coordinating project

Shading indicates not included in 6-year plan, but money expected to be spent in 2015





# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **STORMWATER RETROFIT LID GRANT - 18TH STREET (BBC TO GENERAL ANDERSON)**

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3>									
		<p><b>Utility Type:</b> Surface Water  <b>Project Type:</b> Ecology Retrofit Grant  <b>Project Status:</b> Active</p>									
<h3>LEGEND</h3>		<h3>PROJECT DESCRIPTION</h3>									
<p><b>VICINITY MAP</b></p>		<p><b>Project Justification / Priority</b>                  Water quality and quantity treatment along 18th Street between Burnt Bridge Creek and General Anderson</p> <p><b>Project Description / Comments</b>                  Install Rain Gardens (Bio Retention) for treatment of stormwater runoff prior to discharging to Burnt Bridge Creek</p>									
<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li style="width: 50%;">🚧 Project Boundary</li> <li style="width: 50%;">🏠 Vancouver City Limits</li> <li style="width: 50%;">🚗 Transportation</li> <li style="width: 50%;">🌳 Sewer Service Area</li> <li style="width: 50%;">🚰 Sanitary Sewer</li> <li style="width: 50%;">💧 Water Service Area</li> <li style="width: 50%;">🌊 Surface Water</li> <li style="width: 50%;">🏡 Clark County</li> <li style="width: 50%;">🚚 Water</li> <li style="width: 50%;">⚔️ Battle Ground</li> <li style="width: 50%;">🏠 SCIP</li> <li style="width: 50%;">🏡 Camas</li> <li style="width: 50%;">🏠 Taxlots</li> <li style="width: 50%;">🏠 Washougal</li> </ul>		<table border="1"> <thead> <tr> <th>ESTIMATED PROJECT COSTS</th> <th>FUNDING STRATEGY</th> </tr> </thead> <tbody> <tr> <td><b>Total Proj. Cost:</b> \$160,000.00</td> <td><b>Budget / Proj. #:</b> 300 Grants - State</td> </tr> <tr> <td></td> <td><b>Budget / Proj. Task #:</b></td> </tr> <tr> <td></td> <td><b>*Start of Construction (Year):</b> 2016</td> </tr> </tbody> </table>		ESTIMATED PROJECT COSTS	FUNDING STRATEGY	<b>Total Proj. Cost:</b> \$160,000.00	<b>Budget / Proj. #:</b> 300 Grants - State		<b>Budget / Proj. Task #:</b>		<b>*Start of Construction (Year):</b> 2016
ESTIMATED PROJECT COSTS	FUNDING STRATEGY										
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	<b>Budget / Proj. Task #:</b>										
	<b>*Start of Construction (Year):</b> 2016										

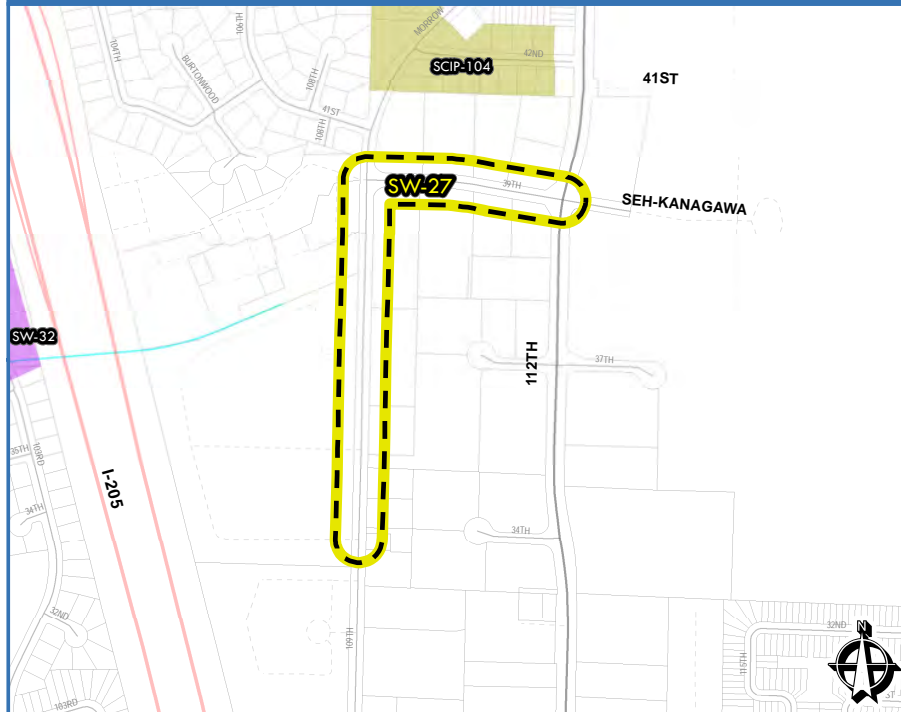
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **STORMWATER RETROFIT LID GRANT - 109TH AVENUE (INDUSTRIAL)**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Ecology Retrofit Grant  
**Project Status:** Active

## PROJECT DESCRIPTION

### Project Justification / Priority

Water quality and quantity treatment along N.E. 109th Avenue between N.E. 35th Street and N.E. 39th Street and along 39th Street between N.E. 109th Avenue and N.E. 112th Avenue

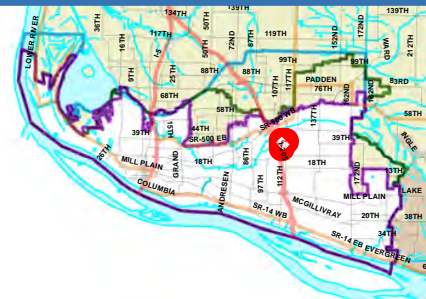
### Project Description / Comments

Install Raingardens (Bio-Retention) for treatment of stormwater runoff prior to discharging to Peterson Channel.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$300,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**  
300 Grants - State  
**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2016

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: NE 162ND AVENUE & 18TH STREET ARTERIAL SAFETY PROJECT (ECOLOGY GRANT PROJECT)

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3>															
		<p><b>Utility Type:</b> Surface Water  <b>Project Type:</b> Ecology Retrofit Grant  <b>Project Status:</b> Active</p>															
<h3>LEGEND</h3>		<h3>PROJECT DESCRIPTION</h3>															
<table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<p><b>Project Justification / Priority</b>                  This is a "Substandard Systems – Arterial Safety" Project. There is frequent and significant flooding in left turn and left northbound travel lanes of high speed street.</p> <p><b>Project Description / Comments</b>                  Install larger treatment facility for water quantity and quality. The project was funded under an Ecology grant (\$27,000) for design only in 2014. Construction will be funded by a 2015 grant (\$147,600) for completion by 2017. The system is under sized. The construction of the project would double the system to alleviate flooding and add water quality treatment for regulatory compliance.</p>	
Project Boundary	Vancouver City Limits																
Transportation	Sewer Service Area																
Sanitary Sewer	Water Service Area																
Surface Water	Clark County																
Water	Battle Ground																
SCIP	Camas																
Taxlots	Washougal																
<h3>VICINITY MAP</h3>		<h3>ESTIMATED PROJECT COSTS</h3>															
		<table border="0"> <tr> <td><b>Total Proj. Cost:</b></td> <td>\$142,600.00</td> <td><b>Budget / Proj. #:</b></td> <td>300 Grants - State</td> </tr> <tr> <td></td> <td></td> <td><b>Budget / Proj. Task #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td><b>*Start of Construction (Year):</b></td> <td>2017</td> </tr> </table>		<b>Total Proj. Cost:</b>	\$142,600.00	<b>Budget / Proj. #:</b>	300 Grants - State			<b>Budget / Proj. Task #:</b>				<b>*Start of Construction (Year):</b>	2017		
<b>Total Proj. Cost:</b>	\$142,600.00	<b>Budget / Proj. #:</b>	300 Grants - State														
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		<b>*Start of Construction (Year):</b>	2017														

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **BROOKSIDE OPERATIONS CENTER – STORMWATER RETROFIT (ECOLOGY GRANT PROJECT)**

<h3 style="text-align: center;">PROJECT AREA MAP</h3>		<h3 style="text-align: center;">PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Surface Water  <b>Project Type:</b> Ecology Retrofit Grant  <b>Project Status:</b> Active</p>																	
<h3 style="text-align: center;">LEGEND</h3> <table border="0"> <tr> <td> Project Boundary</td> <td> Vancouver City Limits</td> </tr> <tr> <td> Transportation</td> <td> Sewer Service Area</td> </tr> <tr> <td> Sanitary Sewer</td> <td> Water Service Area</td> </tr> <tr> <td> Surface Water</td> <td> Clark County</td> </tr> <tr> <td> Water</td> <td> Battle Ground</td> </tr> <tr> <td> SCIP</td> <td> Camas</td> </tr> <tr> <td> Taxlots</td> <td> Washougal</td> </tr> </table>		Project Boundary	Vancouver City Limits	Transportation	Sewer Service Area	Sanitary Sewer	Water Service Area	Surface Water	Clark County	Water	Battle Ground	SCIP	Camas	Taxlots	Washougal	<h3 style="text-align: center;">PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>                  This is a “Regulatory Compliance Project” for the City’s Stormwater NPDES permit and UIC regulations. Stormwater infiltration systems are aging. The current infiltration systems lack water quality treatment and structural spill prevention.</p> <p><b>Project Description / Comments</b>                  The project was funded under an Ecology grant (\$31,000) for design only in 2014. Construction will be funded by a 2015 grant (\$542,430). This project will upgrade and expand existing systems including installation of State approved treatment technologies and best management practices to treat stormwater runoff.</p>			
Project Boundary	Vancouver City Limits																		
Transportation	Sewer Service Area																		
Sanitary Sewer	Water Service Area																		
Surface Water	Clark County																		
Water	Battle Ground																		
SCIP	Camas																		
Taxlots	Washougal																		
<h3 style="text-align: center;">VICINITY MAP</h3>		<table border="1"> <thead> <tr> <th colspan="2" style="text-align: center;">ESTIMATED PROJECT COSTS</th> <th colspan="2" style="text-align: center;">FUNDING STRATEGY</th> </tr> </thead> <tbody> <tr> <td><b>Total Proj. Cost:</b></td> <td style="text-align: right;">\$512,430.00</td> <td><b>Budget / Proj. #:</b></td> <td>300 Grants - State</td> </tr> <tr> <td></td> <td></td> <td><b>Budget / Proj. Task #:</b></td> <td></td> </tr> <tr> <td></td> <td></td> <td><b>*Start of Construction (Year):</b></td> <td>2017</td> </tr> </tbody> </table>		ESTIMATED PROJECT COSTS		FUNDING STRATEGY		<b>Total Proj. Cost:</b>	\$512,430.00	<b>Budget / Proj. #:</b>	300 Grants - State			<b>Budget / Proj. Task #:</b>				<b>*Start of Construction (Year):</b>	2017
ESTIMATED PROJECT COSTS		FUNDING STRATEGY																	
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		<b>Budget / Proj. Task #:</b>																	
		<b>*Start of Construction (Year):</b>	2017																

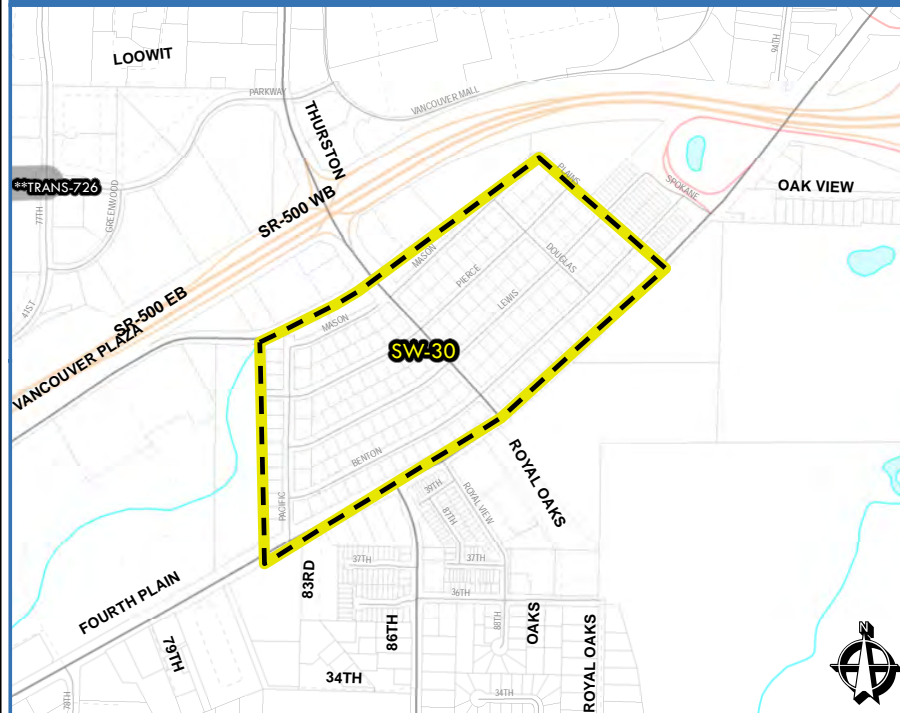
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: COUNTRY CLUB VILLAGE LID – UIC RETROFIT (ECOLOGY GRANT PROJECT)

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Ecology Retrofit Grant  
**Project Status:** Active

## PROJECT DESCRIPTION

### Project Justification / Priority

This is an "Underground Injection Control Retrofit" project. Stormwater runoff is currently discharged untreated into drywells located throughout the subdivision. The shallow groundwater contributes base flow to Burnt Bridge Creek.

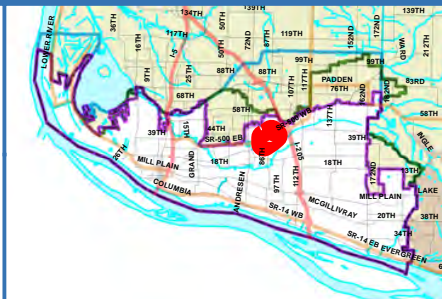
### Project Description / Comments

The project was funded under an Ecology grant (\$47,000) for design only in 2014. Construction for Phase I will be funded by a 2015 grant (\$747,180). This project will provide water quality treatment with the installation of bio-retention (rain gardens), which is a Low Impact Development methodology. Approximately 7.5 acres of impervious city road surfaces will be treated.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$742,180.00

## FUNDING STRATEGY

**Budget / Proj. #:**  
300 Grants - State

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2017

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: NE 32ND STREET – UIC RETROFIT

PROJECT AREA MAP		PROJECT SUMMARY	
		<b>Utility Type:</b> Surface Water <b>Project Type:</b> Ecology Retrofit Grant <b>Project Status:</b> Active	
PROJECT DESCRIPTION			
<p><b>Project Justification / Priority</b>                      This is an “Underground Injection Control Retrofit” project. The drywell is structurally deficient. Currently, the stormwater runoff overflows from the deficient drywell and discharges untreated into Burnt Bridge Creek.</p> <p><b>Project Description / Comments</b>                      The project was funded under an Ecology grant (\$15,000) for design only in 2014. Construction will be funded by a 2015 grant (\$167,280). This project will remove the drywell and provide water quality treatment prior to discharge to surface water along NE 32nd Street near NE 62nd Avenue.</p>			
LEGEND		VICINITY MAP	
<ul style="list-style-type: none"> <li> Project Boundary</li> <li> Transportation</li> <li> Sanitary Sewer</li> <li> Surface Water</li> <li> Water</li> <li> SCIP</li> <li> Taxlots</li> </ul>	<ul style="list-style-type: none"> <li> Vancouver City Limits</li> <li> Sewer Service Area</li> <li> Water Service Area</li> <li> Clark County</li> <li> Battle Ground</li> <li> Camas</li> <li> Washougal</li> </ul>		
ESTIMATED PROJECT COSTS		FUNDING STRATEGY	
<b>Total Proj. Cost:</b> \$150,000.00		<b>Budget / Proj. #:</b> 300 Grants - State <b>Budget / Proj. Task #:</b> *Start of Construction (Year): 2017	

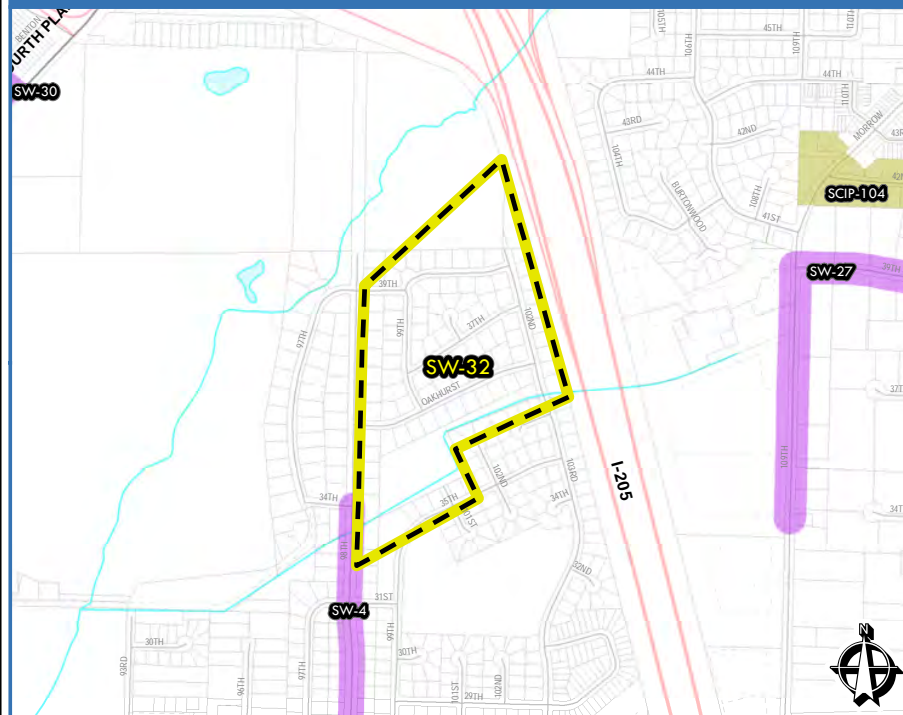
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 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **PETERSON CHANNEL RESIDENTIAL PH III LID GRANT (OAKBROOK)**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Ecology Retrofit Grant  
**Project Status:** Active

## PROJECT DESCRIPTION

### Project Justification / Priority

Storm water quality and quantity treatment of residential streets.

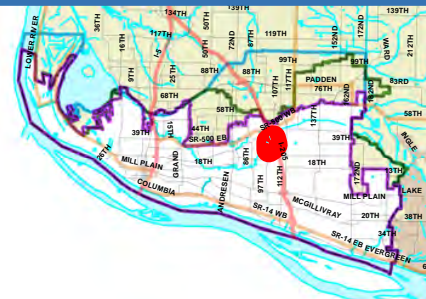
### Project Description / Comments

This project is in the residential neighborhood area of Oakbrook and will install "green" street rain gardens in where stormwater currently runs off directly into Peterson Channel.

## LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$222,900.00

## FUNDING STRATEGY

**Budget / Proj. #:**  
300 Grants - State

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2017

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



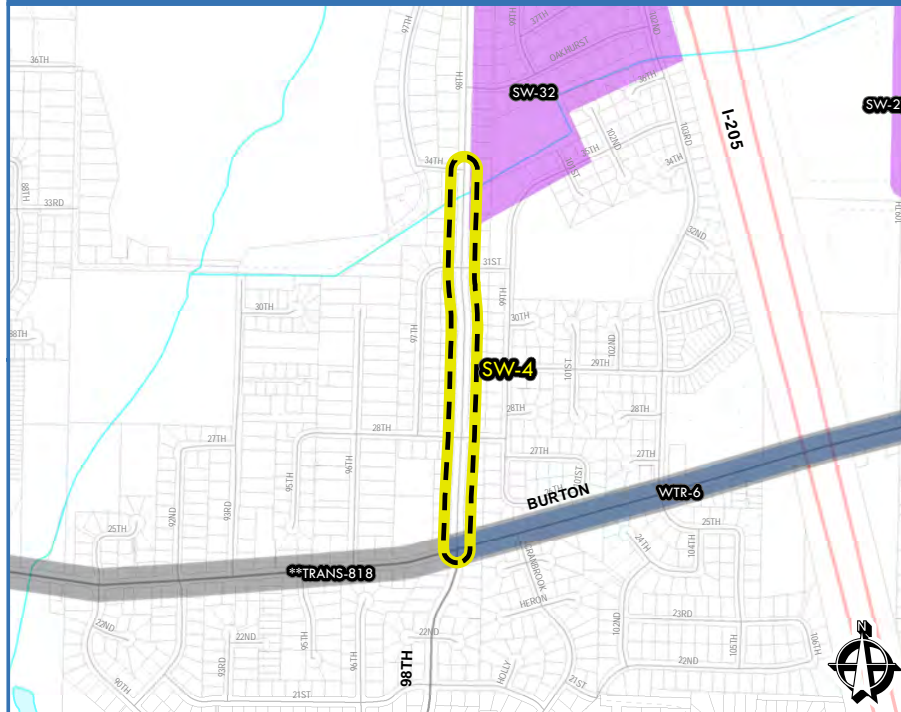




# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: PETERSON CHANNEL RESIDENTIAL PH I & II RETROFIT LID GRANT

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Ecology Retrofit Grant  
**Project Status:** Active

### PROJECT DESCRIPTION

#### Project Justification / Priority

Water quality and quantity treatment of NE 98th Ave prior to discharging to Peterson Channel

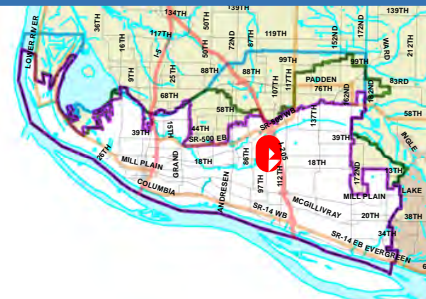
#### Project Description / Comments

Phase I (2014) of this project in the residential neighborhood area of Oakbrook installed 15 "green" street rain gardens and a quarter mile of tree lined median in NE 98th Avenue north of Burton Road. Phase II (2015) is for construction of two additional rain gardens (bioretention facilities).

### LEGEND

- Project Boundary
- Vancouver City Limits
- Transportation
- Sewer Service Area
- Sanitary Sewer
- Water Service Area
- Surface Water
- Clark County
- Water
- Battle Ground
- SCIP
- Camas
- Taxlots
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:**

### FUNDING STRATEGY

**Budget / Proj. #:**  
300 Grants - State

**Budget / Proj. Task #:**

**\*Start of Construction (Year):**  
2014

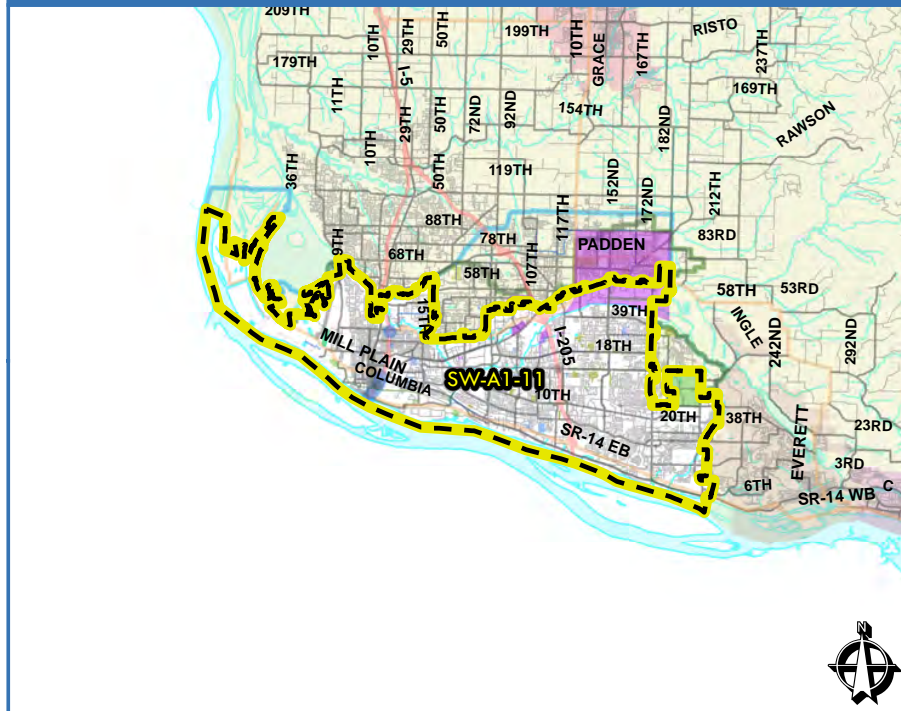
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: UNDERGROUND INJECTION CONTROL RETROFITS

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Regulatory Compliance  
**Project Status:** Unfunded

### PROJECT DESCRIPTION

**Project Justification / Priority**

State regulations require new and existing UICs (i.e. stormwater infiltration systems) meet specific requirements to protect groundwater quality

**Project Description / Comments**

Retrofit projects include: reconstructing systems, raising systems, adding water quality treatment, replacing systems to detain, treat and discharge to surface water. Country Club Village Ph I, Fourth Plain-SR500 to 131st Ave, Fourth Plain-131st Ave to 162nd Ave, UIC Retrofits Ph 1-3.

### LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$3,835,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**  
443 Surfacewater Construction Fund  
**Budget / Proj. Task #:**  
**\*Start of Construction (Year):**

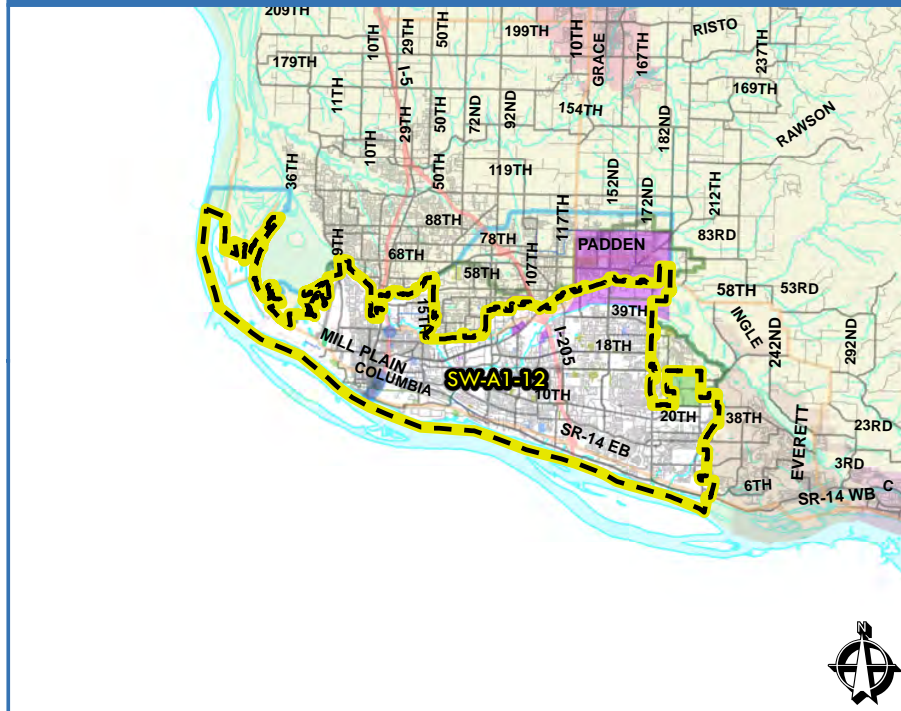
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 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: STORMWATER RETROFITS - DEMAND RESPONSE

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Emergency or Critical Demand  
**Project Status:** Unfunded

### PROJECT DESCRIPTION

**Project Justification / Priority**

Ongoing fund for unanticipated projects which include: Roadway Coordination, Traffic Hazard/Property Threatening High Water, Slope Stability/Erosion Prevention, Tree Plantings, NPDES Permitting, and Surface Water Monitoring for Quality and Quantity of FI

**Project Description / Comments**

Coordination Projects

### LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$330,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**  
443 Surfacewater Construction Fund  
**Budget / Proj. Task #:**  
**\*Start of Construction (Year):**

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



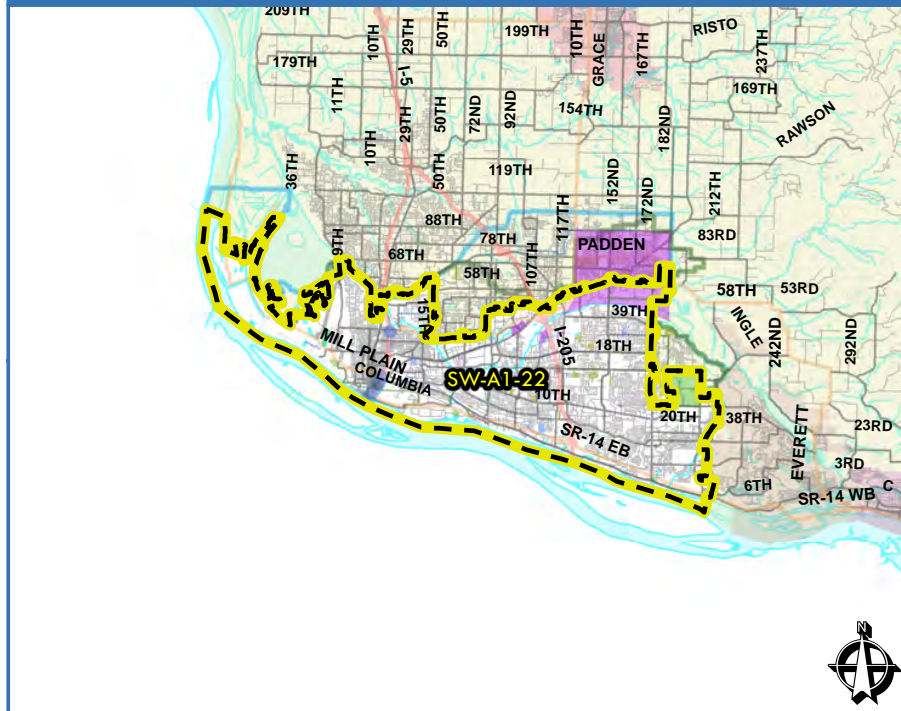




# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: TRANSPORTATION AND PAVEMENT COORDINATION

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Stormwater Retrofit Coordinati  
**Project Status:** Unfunded

### PROJECT DESCRIPTION

**Project Justification / Priority**

Ongoing funding to upgrade and standardize quantity and quality treatment facilities within the project limits of the associated City of Vancouver Transportation or Pavement management project.

**Project Description / Comments**

Coordination Projects.

### LEGEND

- Project Boundary
- Sewer Service Area
- Transportation
- Water Service Area
- Sanitary Sewer
- Clark County
- Surface Water
- Battle Ground
- Water
- Camas
- SCIP
- Washougal
- Vancouver City Limits

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$270,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**  
443 Surfacewater Construction Fund  
**Budget / Proj. Task #:**  
**\*Start of Construction (Year):**

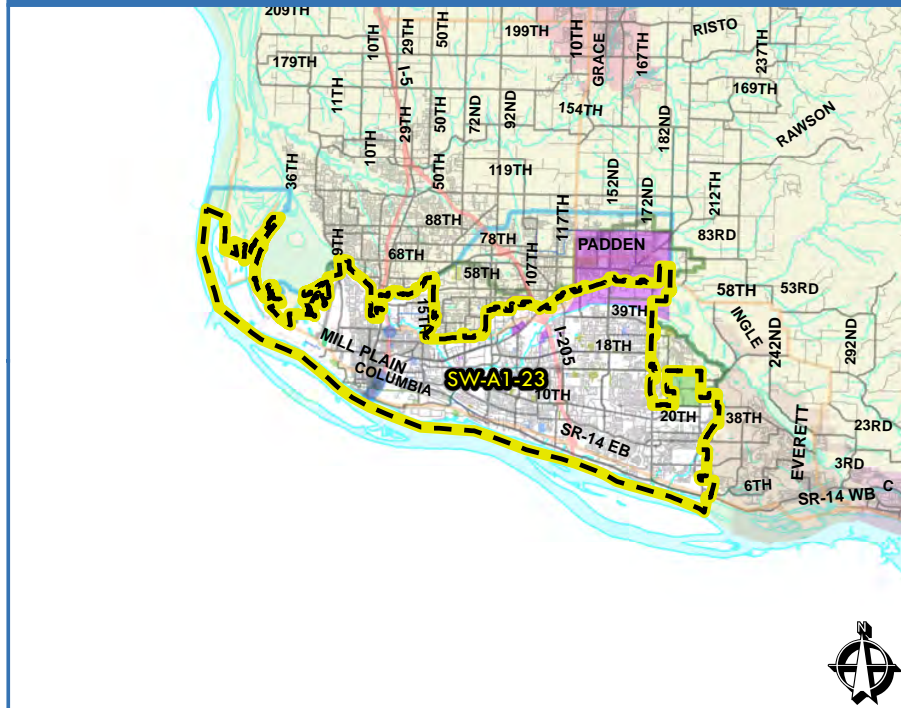
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: REGULATORY COMPLIANCE PROJECTS - NPDES/TDML

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Regulatory Compliance  
**Project Status:** Unfunded

### PROJECT DESCRIPTION

**Project Justification / Priority**

Ongoing funding to comply with NPDES permit requirements associated with quantity and quality treatment facilities affecting Burnt Bridge Creek.

**Project Description / Comments**

### LEGEND

- Project Boundary
- Sewer Service Area
- Transportation
- Water Service Area
- Sanitary Sewer
- Clark County
- Surface Water
- Battle Ground
- Water
- Camas
- SCIP
- Washougal
- Vancouver City Limits

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$100,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**  
443 Surfacewater Construction Fund  
**Budget / Proj. Task #:**  
**\*Start of Construction (Year):**

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: SUBSTANDARD SYSTEMS - ARTERIAL SAFETY PROJECTS

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Surface Water  <b>Project Type:</b> Safety  <b>Project Status:</b> Unfunded</p>	
<h3>LEGEND</h3> <ul style="list-style-type: none"> <li> Project Boundary</li> <li> Transportation</li> <li> Sanitary Sewer</li> <li> Surface Water</li> <li> Water</li> <li> SCIP</li> <li> Vancouver City Limits</li> <li> Sewer Service Area</li> <li> Water Service Area</li> <li> Clark County</li> <li> Battle Ground</li> <li> Camas</li> <li> Washougal</li> </ul> <h3>VICINITY MAP</h3>		<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          Ongoing funding to address safety concerns associated with drainage along arterial streets.</p> <p><b>Project Description / Comments</b>          Program to address multiple flooding safety issues in arterial streets, throughout the city: Mill Plain &amp; 184th Ave, Fruit Valley Rd, Mill Plain &amp; 164th Ave, Mill Plain &amp; Hearthwood, Mill Plain &amp; 155th Ave, 164th Ave Median Swale Retrofit</p>	
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$1,755,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b> 443 Surfacewater Construction Fund</p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b></p>

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.

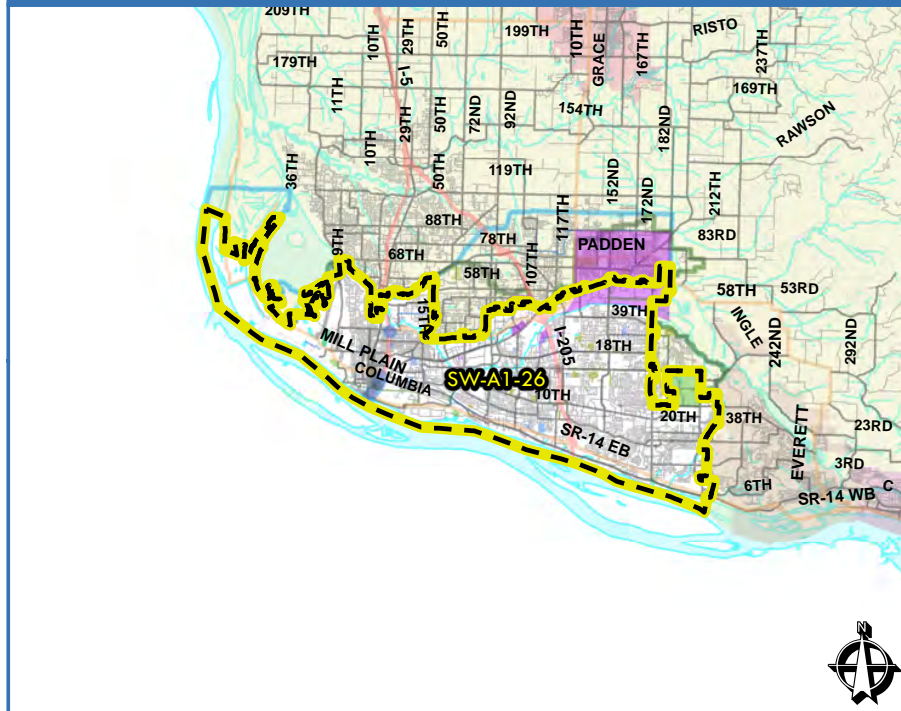




# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **STORMWATER RETROFIT LID GRANT - WQ FOR DRYWELLS - REGULATORY COMPLIANCE UIC RETROFITS**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Ecology Retrofit Grant  
**Project Status:** Active

## PROJECT DESCRIPTION

### Project Justification / Priority

Water quality for approximately 50 drywells in various locations throughout the city.

### Project Description / Comments

Install pre-sedimentation manholes and/or water quality vaults to treat stormwater runoff prior to infiltrating.

## LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$400,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**  
443 Surfacewater Construction Fund  
**Budget / Proj. Task #:**  
**\*Start of Construction (Year):**  
2015

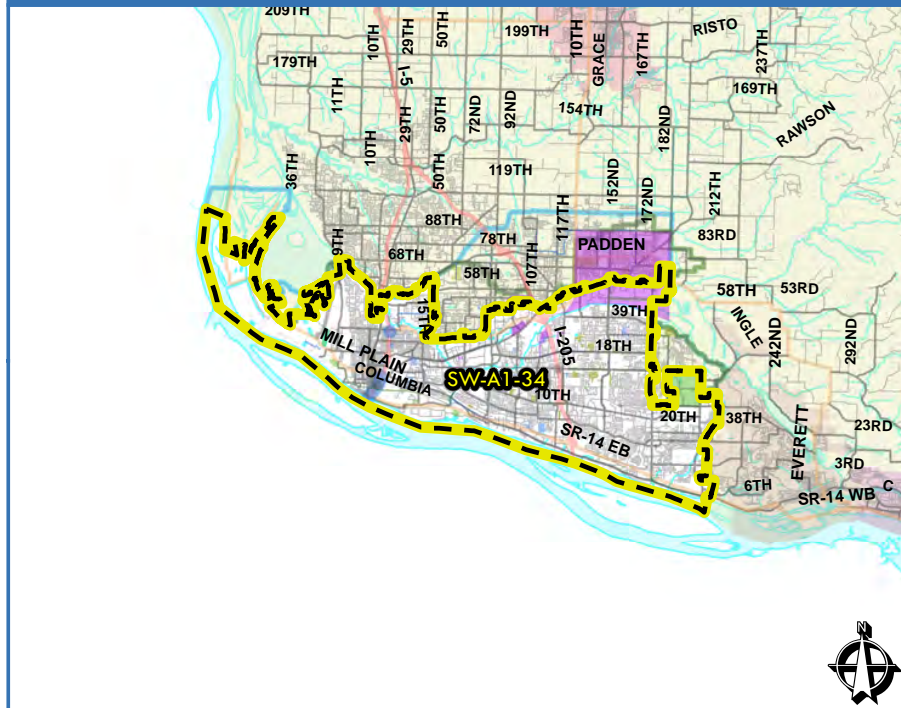
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: GREENWAY RESTORATION PROJECTS

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Regulatory Compliance  
**Project Status:** Unfunded

### PROJECT DESCRIPTION

**Project Justification / Priority**

The primary goals for the Burnt Bridge Creek Greenway are to; improve water quality, enhance fish & wildlife habitat, control flooding, treat stormwater runoff, increase tree canopy.

**Project Description / Comments**

The current list of specific projects includes; Royal Oaks is at the confluence of Burnt Bridge Creek and Petersen Channel, Peterson Channel just north of Oakbrook Park, 15th Avenue at a horseshoe bend in Burnt Bridge Creek, the completion of the Burnt Bridge Creek Greenway Master Plan, and Arnold Park at St. Johns.

### LEGEND

- Project Boundary
- Sewer Service Area
- Transportation
- Water Service Area
- Sanitary Sewer
- Clark County
- Surface Water
- Battle Ground
- Water
- Camas
- SCIP
- Washougal
- Vancouver City Limits

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$700,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**  
443 Surfacewater Construction Fund  
**Budget / Proj. Task #:**  
**\*Start of Construction (Year):**

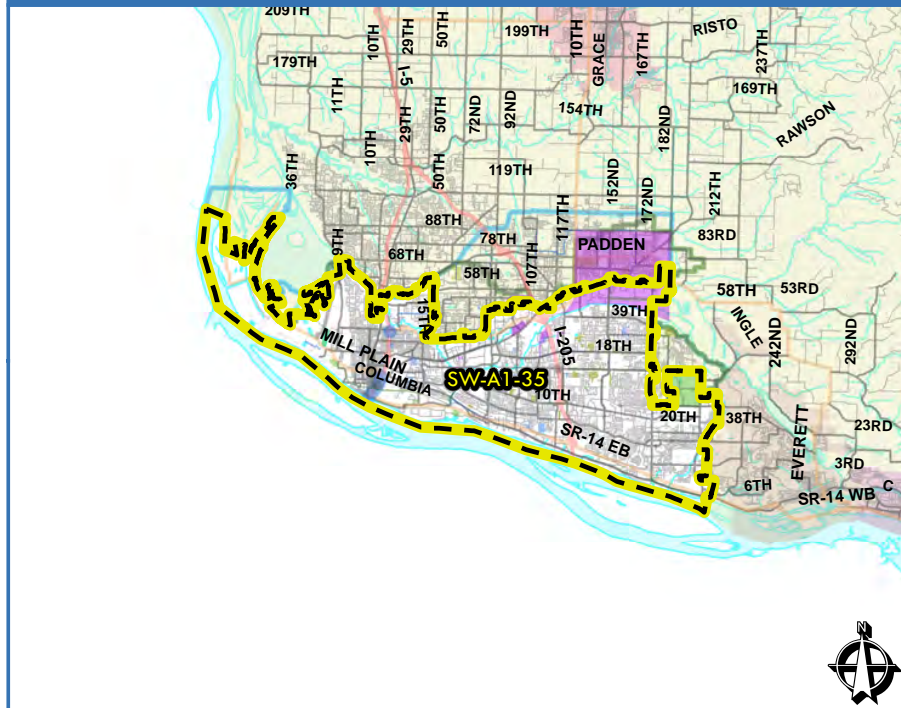
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: STORMWATER QUALITY VAULT AT LINDA LANE & FOURTH PLAIN

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Regulatory Compliance  
**Project Status:** Unfunded

### PROJECT DESCRIPTION

**Project Justification / Priority**

Restore conveyance capacity and provide additional water quality treatment to stormwater runoff from 4th Plain.

**Project Description / Comments**

The existing vault at Linda Lane was constructed in the 80's for the purposes of collecting sediment from runoff coming from the 60" storm sewer main in 4th Plain east of Falk Road. The volume of sediment exceeds the original design effecting the capacity within the 60" pipe. This project will analyze alternatives for retrofitting the vault and construct new sediment controls, upstream water quality and quantity controls, or basin-wide green street infrastructure.

### LEGEND

- Project Boundary
- Sewer Service Area
- Transportation
- Water Service Area
- Sanitary Sewer
- Clark County
- Surface Water
- Battle Ground
- Water
- Camas
- SCIP
- Washougal
- Vancouver City Limits

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$50,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**  
443 Surfacewater Construction Fund  
**Budget / Proj. Task #:**  
**\*Start of Construction (Year):**

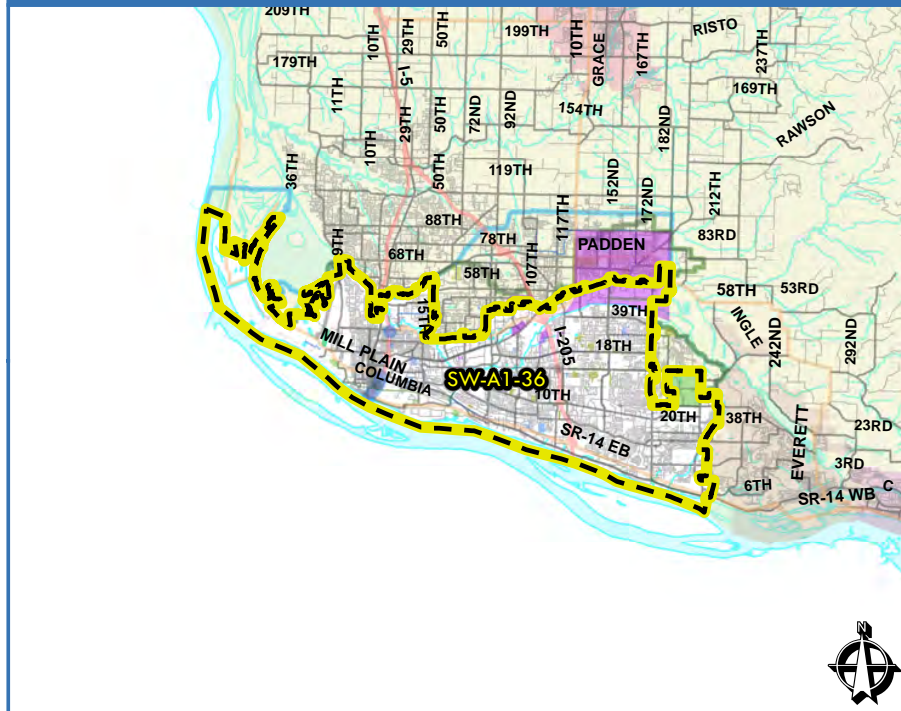
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: FACILITY RETROFIT PROGRAM

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Stormwater Retrofit Coordinati  
**Project Status:** Unfunded

### PROJECT DESCRIPTION

**Project Justification / Priority**

Assessment of the city's swale facility assets resulted in a priority list of swale requiring retrofits. The top six swales include Primrose Court, Brickhaven, Tiffany Meadows, Creekside Meadows III, Kristi Lane, and Oak Run.

**Project Description / Comments**

This program with retrofit swales providing new facilities that meeting the city's current standards for water quality and maintenance. Each swale project will include a cost benefit analysis for projected savings return on maintenance costs.

### LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$191,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**  
443 Surfacewater Construction Fund  
**Budget / Proj. Task #:**  
**\*Start of Construction (Year):**

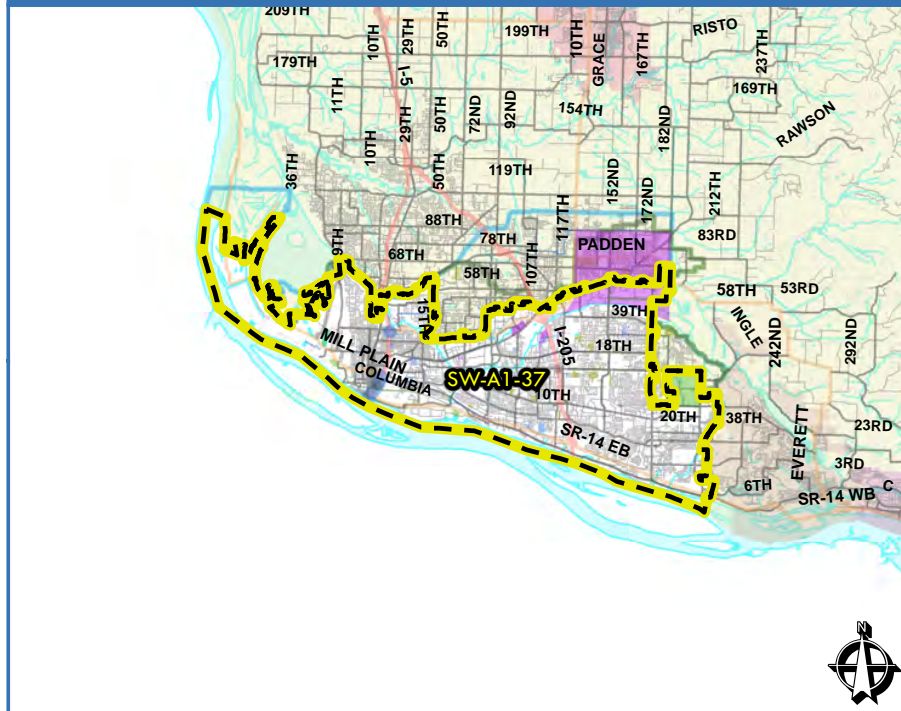
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: SUBSTANDARD SYSTEMS PROGRAM

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Stormwater Retrofit Coordinati  
**Project Status:** Unfunded

### PROJECT DESCRIPTION

**Project Justification / Priority**

This management program identifies and retrofits or replaces sub-standard stormwater systems.

**Project Description / Comments**

Typically, this is for culverts and pipes that have reached the end of their life cycle in need of repair or drywells that continue to overflow even with repeated maintenance and cleaning. Projects are prioritized based upon severity criteria such as traffic safety, potential property damage, nuisance flooding, etc.

### LEGEND

- Project Boundary
- Sewer Service Area
- Transportation
- Water Service Area
- Sanitary Sewer
- Clark County
- Surface Water
- Battle Ground
- Water
- Camas
- SCIP
- Washougal
- Vancouver City Limits

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$830,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**  
443 Surfacewater Construction Fund  
**Budget / Proj. Task #:**  
**\*Start of Construction (Year):**

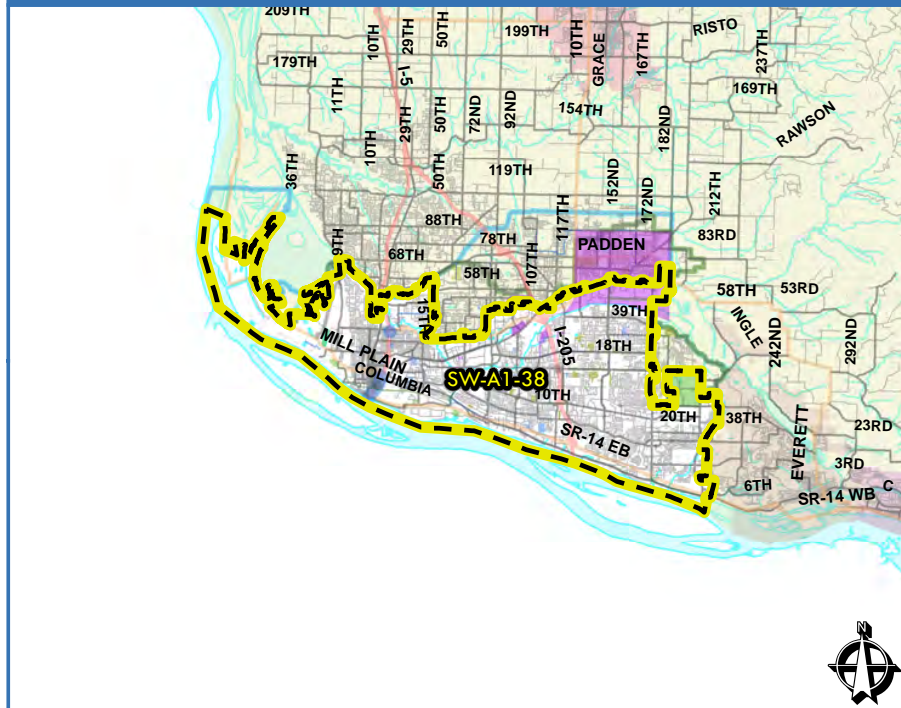
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

## PROJECT: PUMP STATION RETROFIT PROGRAM

### PROJECT AREA MAP



### PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** Stormwater Retrofit Coordianti  
**Project Status:** Unfunded

### PROJECT DESCRIPTION

**Project Justification / Priority**

The contributing drainage areas for each of these pump stations could be mitigated lessening the city's costs for maintenance and power for operation of the pump stations.

**Project Description / Comments**

The city currently has four existing stormwater pump stations and one proposed with the development of the 51st Street Sump area. This project will develop a long term management plan for the elimination, mitigation or replacement of each pump station.

### LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

### VICINITY MAP



### ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$225,000.00

### FUNDING STRATEGY

**Budget / Proj. #:**  
443 Surfacewater Construction Fund  
**Budget / Proj. Task #:**  
**\*Start of Construction (Year):**

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **COMPREHENSIVE SURFACE & GROUNDWATER MANAGEMENT PLAN**

<h3>PROJECT AREA MAP</h3>		<h3>PROJECT SUMMARY</h3> <p><b>Utility Type:</b> Surface Water  <b>Project Type:</b> Regulatory Compliance  <b>Project Status:</b> Unfunded</p>	
<h3>LEGEND</h3> <ul style="list-style-type: none"> <li> Project Boundary</li> <li> Transportation</li> <li> Sanitary Sewer</li> <li> Surface Water</li> <li> Water</li> <li> SCIP</li> <li> Vancouver City Limits</li> <li> Sewer Service Area</li> <li> Water Service Area</li> <li> Clark County</li> <li> Battle Ground</li> <li> Camas</li> <li> Washougal</li> </ul> <h3>VICINITY MAP</h3>		<h3>PROJECT DESCRIPTION</h3> <p><b>Project Justification / Priority</b>          The Department of Ecology Underground Injection Control (UIC) Rules were implemented in 2007. The city has met these regulations, the next phase requires retrofit of UIC's, otherwise known as drywells, in areas close to groundwater.</p> <p><b>Project Description / Comments</b>          This Comprehensive Management Plan will use groundwater monitoring well data currently being collected, to determine required retrofits, thereby optimizing the number, type and costs for the UIC retrofit program.</p>	
		<h3>ESTIMATED PROJECT COSTS</h3> <p><b>Total Proj. Cost:</b> \$300,000.00</p>	<h3>FUNDING STRATEGY</h3> <p><b>Budget / Proj. #:</b> 443 Surfacewater Construction Fund</p> <p><b>Budget / Proj. Task #:</b></p> <p><b>*Start of Construction (Year):</b></p>

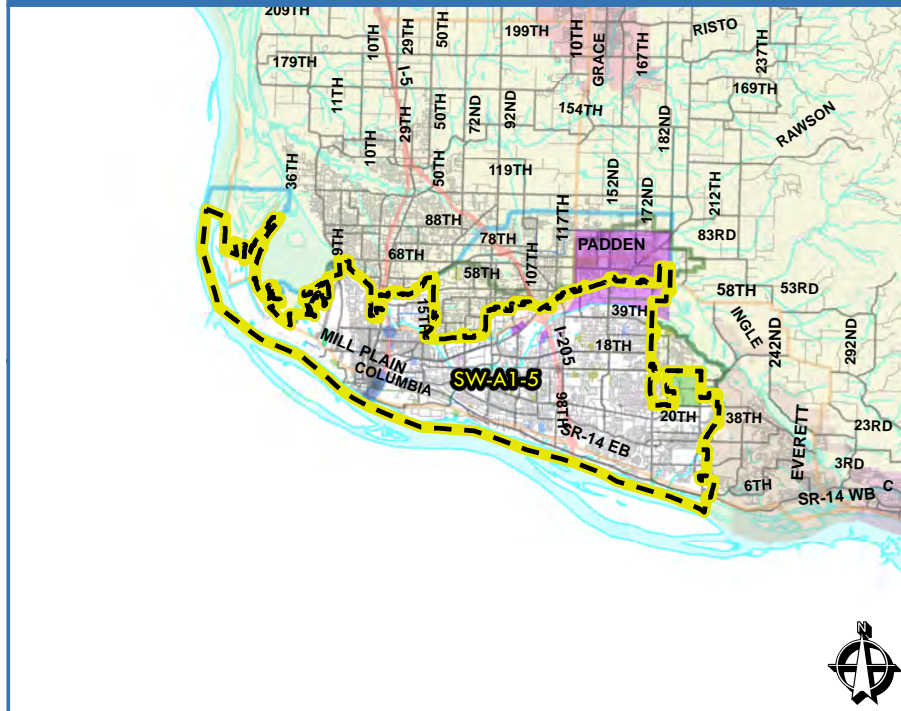
\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



# 2016 - 2021 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: **WSDOT FEE PROJECTS**

## PROJECT AREA MAP



## PROJECT SUMMARY

**Utility Type:** Surface Water  
**Project Type:** State Fee Projects  
**Project Status:** Active

## PROJECT DESCRIPTION

### Project Justification / Priority

Projects include piping and drainage ways, water quality, and property acquisition.

### Project Description / Comments

Annual fee project for Washington State Department of Transportation. State code provides imposition of charges with respect to highway right of ways.

## LEGEND

- Project Boundary
- Transportation
- Sanitary Sewer
- Surface Water
- Water
- SCIP
- Vancouver City Limits
- Sewer Service Area
- Water Service Area
- Clark County
- Battle Ground
- Camas
- Washougal

## VICINITY MAP



## ESTIMATED PROJECT COSTS

**Total Proj. Cost:** \$1,180,000.00

## FUNDING STRATEGY

**Budget / Proj. #:**  
443 Surfacewater Construction Fund  
**Budget / Proj. Task #:**  
**\*Start of Construction (Year):**

\*All project timing will be dependent on coordination with other departments including streets, pavement management, sewer, water and surface water.  
 \*\*Transportation projects (TRANS-XXX) can be found in the 6 Year Transportation Improvement Plan (TIP) document.



## 20 YEAR CAPITAL IMPROVEMENT PROGRAM FOR

Note: All costs are in 2015 dollars

Description	CIP #	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
<b>443 Surfacewater Construction Fund</b>																		
<b>FUNDED PROJECTS</b>																		
<b>Regulatory Compliance Projects-NPDES/TMDL</b>																		
Stormwater Retrofit LID Grant - 98th Ave	SW-4	100,000																100,000
Stormwater Retrofit LID Grant - 18th St	SW-25	83,750	160,000															243,750
Stormwater Retrofit LID Grant - 109th Ave	SW-27	83,000	300,000															383,000
Brookside Operations Center Construction (Grant Funded)	SW-29	30,000	42,000	470,430														542,430
Stormwater Retrofit LID Grant - Oarkbrook	SW-32	12,000	52,000	170,900														234,900
<b>Regulatory Compliance-UIC Retrofits</b>																		
Stormwater Retrofit LID Grant - WQ for Drywells	SW-A1-26	349,470	400,000															749,470
Country Club Village Construction (Grant Funded Phase I)	SW-30	5,000	35,000	107,000	600,180													747,180
NE 32nd Street Design Construction (Grant Funded)	SW-31	17,280	150,000															167,280
<b>Arterial Safety Projects</b>																		
18th St & 162nd Ave Construction (Grant Funded)	SW-28	5,000	12,000	130,600														147,600
Mill Plain & 184th Ave - CTC (Funding for Study & Design)	SW-A1-24	35,000																35,000
<b>WSDOT Fee Funded Projects</b>																		
Administration (00)	SW-A1-5	219,518		230,000	230,000	240,000	240,000	240,000	240,000	250,000	250,000	250,000	250,000	260,000	260,000	260,000	260,000	3,679,518
Thurston Way (04)	SW-A1-5	3,817																3,817
I-205 Burton Detention Study (05)	SW-A1-5	15,410																37,879
WSDOT Culvert and Outfall Inspection (06)	SW-A1-5	37,879																37,879
Ellsworth Vegetation Enhance (11)	SW-A1-5	31,394																
Ellsworth Runoff Study (12)	SW-A1-5	17,850																
I-5/Leverich East Slope (13)	SW-A1-5	50,000																
SR500/Andresen Islands (14)	SW-A1-5	46,420																39,883
I-205 Peterson Runoff (15)	SW-A1-5	39,883																55,000
SR500/Fourth Plain (16)	SW-A1-5	55,000																
SR500/St Johns (17)	SW-A1-5	91,635																
SR14/164th Ave (18)	SW-A1-5	5,939																149,000
East Orchards UIC Retrofit Study & Design - 4th Plain (19)	SW-33	149,000	220,000															220,000
<b>SCIP Coordination Projects*</b>																		
Village Green (88) - UIC Grant Coord.	SW-A1-21	12,000																12,000
<b>Funded Subtotal</b>		<b>1,496,245</b>	<b>1,371,000</b>	<b>1,108,930</b>	<b>830,180</b>	<b>240,000</b>	<b>240,000</b>	<b>240,000</b>	<b>240,000</b>	<b>250,000</b>	<b>250,000</b>	<b>250,000</b>	<b>250,000</b>	<b>260,000</b>	<b>260,000</b>	<b>260,000</b>	<b>260,000</b>	<b>7,806,355</b>
<b>UNFUNDED PROJECTS</b>																		
<b>Regulatory Compliance Projects-NPDES/TMDL</b>																		
Greenway Restoration - Royal Oaks	SW-A1-23					100,000												1,100,000
Greenway Restoration - Peterson Channel	SW-A1-34						100,000	500,000		100,000	750,000							850,000
Greenway Restoration - 15th Ave East	SW-A1-34							100,000	500,000									600,000
Greenway Restoration - 18th Str to 87th Ave	SW-A1-34										100,000	1,000,000						1,100,000
Stormwater Quality Pond - Arnold Park/St Johns	SW-A1-35											200,000	750,000					950,000
Stormwater Quality Vault - Linda Lane/4th Plain	SW-A1-35							50,000	75,000	450,000								575,000
<b>Regulatory Compliance-UIC Retrofits</b>																		
Country Club Village Construction - Phase 2	SW-A1-11					35,000	750,000											785,000
Fourth Plain SR500-131st Ave	SW-A1-11				750,000													750,000
Fourth Plain 131st Ave-162nd Ave	SW-A1-11					1,250,000												1,250,000
UIC Retrofit Ph 1 - Water Quality Treatment	SW-A1-11		100,000	250,000				100,000										450,000
UIC Retrofit Ph 2 - Decommission & WQ Treatment	SW-A1-11						200,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000			3,400,000
UIC Retrofit Ph 3 - Decommission, WQ & Detain	SW-A1-11													1,000,000	1,000,000	1,000,000	1,000,000	4,000,000

Description	CIP #	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
<b>Arterial Safety Projects</b>																		
Mill Plain & 184th Ave - CTC	SW-A1-24		100,000	520,000														620,000
Fruit Valley Rd	SW-A1-24			250,000														250,000
Mill Plain & 164th Ave	SW-A1-24				250,000													250,000
Mill Plain & Hearthwood	SW-A1-24					200,000												200,000
Mill Plain & 155th Ave	SW-A1-24						350,000											350,000
164th Ave Median Swale Retrofit	SW-A1-24		35,000	50,000														85,000
<b>SCIP Coordination Projects*</b>																		
	SW-A1-21	60,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000									410,000
<b>Property Acquisitions-Flood Plain,Habitat,Wetlands</b>																		
51st St Sump Basin (2.5 Ac =\$170,000)	SW-A1-20				170,000			250,000				250,000		400,000	400,000	400,000	400,000	2,100,000
15th Ave Wetlands (11 AC =\$405,000)	SW-A1-20						405,000											405,000
BBC Headwaters Basin (\$750,000)	SW-A1-20									750,000								750,000
BBC Greenway (23 Ac =\$250,000)	SW-A1-20								250,000									250,000
Alki Basin (\$150,000)	SW-A1-20								150,000									150,000
<b>Facility Retrofits Program</b>																		
Primrose Court DS#105	SW-A1-36			23,000														400,000
Brickhaven (NE 146th Ave & 42nd Str)	SW-A1-36								125,000									23,000
Tiffany Meadows (SE 169th & 17th Str)	SW-A1-36				31,000													125,000
Creekside Meadows III (NE 124th Cr & 47th Str)	SW-A1-36					27,000												31,000
Kristi Lane (NE 35th Cir & 119th Ave)	SW-A1-36						45,000											27,000
Oak Run (NE 4th Pln & Plains Way)	SW-A1-36							65,000										45,000
<b>Sub-Standard Systems</b>																		
Lower Grand Area Green Street	SW-A1-37			50,000	250,000			100,000	100,000	100,000	100,000	100,000	200,000	200,000	200,000	200,000	200,000	1,500,000
Columbia Slope Culvert - Mill Creek	SW-A1-37		75,000															300,000
Columbia Slope Culvert - Chelsea	SW-A1-37		35,000															75,000
Columbia Slope Culvert - Fisher's Creek	SW-A1-37					35,000	125,000											35,000
Columbia Slope Culvert - SE 17th Street	SW-A1-37				125,000													160,000
Waterfront Outfall Capacity Study	SW-A1-37		35,000															125,000
<b>Pump Station Optimization and Retrofit</b>																		
51st Street PS Basin Study & Design	SW-A1-38					85,000												
Existing Stormwater PS Retrofits - FV, LaH, 162, CR	SW-A1-38					140,000												85,000
<b>Comprehensive Surface &amp; Ground Water Management Plan</b>																		
	SW-A1-39		300,000															
<b>Stormwater Retrofits-Demand Response</b>																		
	SW-A1-12	50,000	50,000	50,000	50,000	60,000	60,000	60,000	70,000	70,000	70,000	80,000	80,000	80,000	80,000	80,000	80,000	1,070,000
<b>Transportation/Pavement Coord. - LID and Depave</b>																		
	SW-A1-22	40,000	40,000	40,000	40,000	50,000	50,000	50,000	60,000	60,000	60,000	70,000	70,000	70,000	80,000	80,000	80,000	940,000
<b>Unfunded Subtotal</b>																		
		150,000	820,000	1,283,000	1,716,000	2,032,000	2,135,000	1,725,000	1,780,000	1,980,000	1,530,000	2,150,000	1,550,000	2,450,000	2,460,000	2,060,000	2,060,000	27,881,000
<b>Funded and Unfunded Total</b>																		
		1,646,245	2,191,000	2,391,930	2,546,180	2,272,000	2,375,000	1,965,000	2,020,000	2,230,000	1,780,000	2,400,000	1,800,000	2,710,000	2,720,000	2,320,000	2,320,000	35,687,355

\*Project timing is dependent upon the timing of the coordinating project

Shading indicates not included in 6-year plan, but money expected to be spent in 2015