

City of Sammamish
2023-2028 Stormwater Capital Improvement Plan
Enhanced LOS Detailed CIP 10-18

LEGEND

- Storm & Surface Water Capital Programs
- Stormwater Projects between \$50,000 and \$300,000
- Stormwater Projects greater than \$300,000
- Proposed TCIP Funded Projects and Programs

Project Number	Project Name	Estimated Project Costs (2022 Dollars)*						6-Yr Total
		2023	2024	2025	2026	2027	2028	
		1	2	3	4	5	6	
SW-100	Small Drainage Resolutions Program	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,200,000
SW-200	Storm Pipe Rehabilitation Program	\$200,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$2,200,000
SW-300	Storm Facility Retrofit Program	\$500,000	\$500,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$5,000,000
SW-400	Storm Facility Restoration Program	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$1,800,000
SW-500	PROJECTS \$50k - \$300k	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,500,000
SW-600	PROJECTS >\$300k	\$2,364,000	\$10,232,800	\$750,000	\$650,000	\$745,000	\$650,000	\$15,391,800
SW-601 (SW-05)	George Davis Creek Fish Passage & Storm Improvement (M-02)	\$1,460,000	\$5,704,800					\$7,164,800
SW-602 (SW-11)	Hazel Wolf Culvert Improvement Project (F-06)	\$150,000	\$150,000	\$400,000				\$700,000
SW-603 (SW-02/TR-101)	Louis Thompson Road Tightline Project (M-20)	\$504,000	\$4,128,000					\$4,632,000
SW-604	248th Ave SE Ditch Avulsion (F-12)			\$100,000	\$200,000			\$300,000
SW-605	Queen's Bog Bioretention				\$200,000	\$345,000		\$545,000
SW-606	Culvert Improvement/Ditch Rehabilitation at 3420 ELSP NE (M-18)					\$150,000	\$300,000	\$450,000
SW-607	212th Ave NE Flooding at Zackuse Headwaters Wetland						\$100,000	\$100,000
SW-608	Property Acquisition Fund (SW-A)*	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,500,000
STORMWATER SUBTOTAL (Fund 438)		\$3,814,000	\$11,882,800	\$2,900,000	\$2,800,000	\$2,895,000	\$2,800,000	\$27,091,800
Stormwater Component of Transportation Projects								
TR-109	East Lake Sammamish Parkway Shore Lane Reconstruction	\$120,650						\$120,650
TR-63	Flood Mitigation: 212 Ave SE/SE 14th PL to SE 18th St		\$117,040			\$1,105,360	\$121,320	\$1,348,000
TR-100	Flood Mitigation: SE Issaquah Fall City Road: Endeavor Elem. School to SE Duthie Hill Rd (F-03)		\$287,260	\$979,970	\$1,060,000		\$20,770	\$2,348,000
TR-115(05)	Sahalee Way NE: City Limits to 28th Pl/223rd Ave NE	\$80,000	\$412,800	\$1,475,000	\$3,152,200			\$5,120,000
TRANSPORTATION SUBTOTAL (Fund 438)		\$200,650	\$817,100	\$2,454,970	\$4,212,200	\$1,105,360	\$142,090	\$8,936,650
TOTAL (Fund 438)		\$4,014,650	\$12,699,900	\$5,354,970	\$7,012,200	\$4,000,360	\$2,942,090	\$36,028,450

*All project and program costs are 2022 dollars, with the exception of SW-608 which is shown in 2016 dollars.

NOTES

All basin planning efforts are included in the utility's operational programs (Fund 408); some were previously listed in the prior SW CIP.

Projects Removed from 2017-2022 SW CIP

- SW-01 Town Center Regional Stormwater Plan
- SW-03 Zackuse Creek Fish Passage Culvert and Stream Restoration
- SW-04 Ebright Creek Fish Passage Culvert Project
- SW-06 Sahalee Way Stormwater Tightline
- SW-07 Zackuse Creek Basin Plan
- SW-09 Laughing Jacobs Basin Plan
- SW-08 Pine Lake Creek Basin Plan
- SW-10 Evans Creek Basin Plan
- SW-12 Tamarack Neighborhood Drainage & Water Quality Retrofit
- SW-B Stormwater Opportunity Fund
- SW-C Basin Plan Project Implementation Placeholder.
- SW-E Beaver Management Program
- SW-F KC Contract 1999 Principal & Interest
- SW-G KC Contract 2001 Principal & Interest
- SW-H Interfund Loan Repayment



PROGRAM AND PROJECT GUIDE

for the

2023-2028 STORMWATER CAPITAL IMPROVEMENT PLAN (2023-28 SW CIP)

This guide complements the 2023-2028 SW CIP and provides detailed information for stormwater programs and projects.

10/18/2022

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REVENUE ASSUMPTIONS FOR THE SW CIP PLAN

The primary revenue source for the stormwater capital projects and programs in the 2023-2028 SW CIP is Surface Water Management (SWM) fees. Several projects have received funding from local, State, and Federal grant partners. The list below includes grant awards that the City has received for projects on the SW CIP. Grant applications that the City has submitted but not yet received award notification are in *italics*.

Potential funding partners for future grant awards/opportunities (grants to pursue) were not listed below, though the City plans to continue to pursue grants in the future for applicable water quality, flood mitigation, and stormwater infrastructure improvement projects.

TABLE 1. SUMMARY OF CURRENT GRANT FUNDING BY PROJECT

Funding Organization	Grant	Grant/Award Status	Amount
SW-601 George Davis Creek Fish Passage & Storm Improvement Project			
WA State Legislature	Brian Abbot Fish Barrier Removal Board (FBRB)	Awarded 2019	\$722,350
<i>WA State Legislature</i>	<i>Brian Abbot Fish Barrier Removal Board (FBRB)</i>	<i>Applied 2022</i>	<i>\$1,300,000</i>
King County Flood Control District	Cooperative Watershed Management	Awarded 2020	\$300,000
WA State Department of Commerce	Direct Appropriation	Awarded 2019	\$504,700
SW-603 Louis Thompson Road Tightline Project			
ARPA, WA State Department of Commerce	Direct Appropriation	Awarded 2021	\$2,910,000
King County Flood Control District	Flood Reduction Grant, grant year 2021	Awarded 2021	\$400,000
King County Flood Control District	Sub-Regional Opportunity Fund	Awarded 2021	\$192,000
TR-100 Flood Mitigation: SE Issaquah Fall City Road: Endeavor Elem. School to SE Duthie Hill Rd (F-03)			
King County Flood Control District	Flood Reduction Grant, grant year 2022	Awarded 2022	\$297,000

SW-100: SMALL DRAINAGE RESOLUTIONS PROGRAM

This program identifies, ranks, and implements projects to address flooding, water quality, erosion, and significant stormwater repair issues within the City. In April 2018, the City Council adopted R2018-804 - Stormwater CIP Prioritization Criteria that allows for transparency in prioritizing these Small Public Works Projects. This program is included in all Levels of Service in the rate study and has been historically funded annually at \$150,000/year.

The program provides consistent funding for staff to implement projects that typically address localized flooding or water quality issues. Most projects within this program are identified by maintenance staff or through drainage complaints. All projects within the program are less than \$50,000.

Funding these types of projects programmatically allows staff to:

- ✓ bundle design and construction costs to increase efficiency
- ✓ adaptively manage the program
- ✓ respond to localized flooding or water quality issues associated with varying storm events

While the list of projects for this program vary by location and year, the project list in Table 1 (page 3) provides an overview of upcoming projects. The photo in Figure 1 is an example of a completed project.

PROGRAM SUMMARY

Program Funding: \$200,000 per year

Project Cost Range: <\$50k

Location of Projects: Citywide

Origin: Maintenance/NPDES

Intent: Address localized flooding & water quality issues; helps meet NPDES requirements

City Goals: 2016 Storm & Surface Water Management Comprehensive Plan: *Goal G.1*. Comprehensively evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.



FIGURE 1. NEW CATCH BASIN INSTALLATION AT NE 22ND ST AND 229TH AVE NE

TABLE 2. PROJECT LIST FOR SW-100 SMALL DRAINAGE CAPITAL RESOLUTIONS PROGRAM

Drainage Basin	Priority Score	Project Name
Panhandle	55	ELSP Slump Repair (G-11)
Evans Creek	45	Heritage Hills Pond Restoration (M-22)
Beaver Lake	25	SE 28th Street Runoff (F-11)
Inglewood	25	Tract E Llama Landing Pond Restoration (M-27)
Pine Lake Creek	20	Ashton Woods Bioswale
Evans Creek	15	Pacific Estates Outlet Flooding (NE 24th Pl)
Monohon	15	Outfall Erosion Mitigation (E14)
North Fork Issaquah Creek	10	Klahanie Ditch Restoration (E-13)
Pine Lake Creek	0	Locate and Clean buried Catch Basin #2 on SE 27th St (M-28)

SW-200: STORM PIPE REHABILITATION PROGRAM (NEW)

This program pro-actively provides funding for the utility to replace aging and/or degrading stormwater conveyance pipes. Projects within SW-200 address stormwater pipes recommended for rehabilitation as recommended in the Storm Pipe Condition Assessment (a new operational program in the Stormwater 408 Fund). The data from the condition assessment informs the type of repair and priority for this program.

Overview of the Storm Pipe Condition Assessment

As part of the Enhanced LOS, the utility will implement a Storm Pipe Condition Assessment Program in 2023, with a goal of evaluating 2.5 to 5 miles of storm pipe each year. Pipes will be initially selected for evaluation based on age, material, and known concerns. The condition assessment includes 3 primary steps for each pipe:

- 1) video/screen the entire pipe
- 2) assign a condition score using national standards
- 3) add a criticality score

Pipes that have a poor or failing score will be placed into categories of repair based on their condition score and rehabilitation type.

Storm Pipe Rehabilitation Program

The costs for this program were estimated based on funding amounts from cities that have recently implemented similar programs and assume that both open cut (trench) pipe repairs and replacements will be needed as well as trenchless (pipe lining) repairs. Programmatic funding allows the City to bundle repair type to increase efficiency in both design and construction.

PROGRAM SUMMARY

Program Funding: \$200,000 in 2023; \$400,000 annually in 2024 - 2028

Project Cost Range: Varies

Location of Projects: Citywide

Origin: 2016 Storm & Surface Water Comprehensive Plan Update

Intent: Pro-actively repair and/or replace aging and/or deteriorating storm pipes using asset management and national standards.

City Goals: Identified in Issue Paper #1 for the Rate Study: Surface Water Utility Fiscal Policies; 2016 Storm & Surface Water Management Comprehensive Plan:

Goal G.1. Comprehensively evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.

Goal G.8, Objective G.8.1 Assess condition of storm and surface water systems, operating and capital needs to maintain functionality and meet regulatory and discretionary requirements.



FIGURE 2. EXAMPLE PHOTO FROM VIDEO SCREENING OF PIPE CONDITION (CITY OF NEWCASTLE S-38 PROGRAM WEBSITE)

SW-300: STORM FACILITY RETROFIT PROGRAM (NEW)

This program, new to the SW CIP, consists of 20 recommended projects from the 2021 Retrofit Strategy. The [Sammamish Stormwater Retrofit Strategy and Guidance Manual \(March 2021\)](#) provides City staff with a planning approach that emphasizes protection of and improvements to the quality of the bogs, lakes, and streams that receive stormwater runoff from existing development.

While project implementation within this program may be bundled to minimize design and permitting resources, funding the program at the Enhanced LOS (\$250k in 2023 and 2024; \$500k in 2025 – 2028) would deliver an average of 4 projects within the proposed 6-year timeframe of the SW CIP. While staff plans to implement projects by priority score, there may be circumstances in which retrofits may not be completed in order due to ending fund balance in the SWM Fund. Providing funding programmatically allows for some flexibility while delivering projects allocated to the Retrofit Program.

In addition, staff anticipates that this program may address some new NPDES permit requirements in the 2024-2029 permit cycle.

Project descriptions/details are shown in Table 2 (page 6).

PROGRAM SUMMARY

Program Funding: \$500,000 annually in 2023 and 2024; \$1M annually 2025 – 2028.

Project Cost Range: Project costs range from \$190,280 to \$5,317,549. Total program cost is \$22.8M. All costs provided below are in 2022 dollars. The rate model utilizes escalators for projected costs.

Location of Projects: Inglewood, Thompson, Allen Lake, Pine Lake, and Pine Lake Creek drainage basins.

Origin: 2021 Retrofit Strategy, 2016 Storm & Surface Water Comprehensive Plan Update

Intent: To provide flow control and water quality in areas within the City with the highest resource value by retrofitting existing stormwater assets.

City Goals: 2016 Storm & Surface Water Management Comprehensive Plan:

Goal G.1. Comprehensively Evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.

Objective G.1.2.A: Provide opportunities to retrofit existing stormwater facilities to enhance their effectiveness and/or aesthetics.

SW-300: STORM FACILITY RETROFIT PROGRAM (CON'T)

TABLE 3. PROJECTS WITHIN THE RETROFIT PROGRAM. PROJECTS ARE LISTED WITH THE HIGHEST PRIORITY FIRST. COSTS ARE SHOWN IN 2022 DOLLARS.

Basin	Priority	Project Location	Estimated Cost (2022 \$)
Pine Lake	62	Retrofit Site #3000 - SWC SE 20th Street & 228th Ave SE / Drainage Facility No: DS0011	190,280
Inglewood	61	Retrofit Site #2131 - Demery Hill / Drainage Facility No. D91349	582,421
Inglewood	61	Retrofit Site #1548 - Cedar Cove / Drainage Facility No. DS0092	5,317,549
Inglewood	60	Retrofit Site #2095 - Eastlake High School / Drainage Facility No. D98396	305,814
Inglewood/Allen Lake	60	Retrofit Site #2363 - Tree Farm / Drainage Facility No. N/a	2,622,754
Inglewood	58	Retrofit Site #2096 - Eastlake HS / Drainage Facility No. D98397	730,967
Inglewood	56	Retrofit Site #2085 - Sammamish Library - Boys & Girls Club / Drainage Facility No. D98417	754,500
Inglewood	55	Retrofit Site #2141 - 228th Ave NE/SE / Drainage Facility No. DS0015 & D98903	393,957
Thompson	55	Retrofit Site #2125 - Chestnut Lane / Drainage Facility No. D93012	1,682,897
Thompson	54	Retrofit Site #2132 - Greenbriar / Drainage Facility No. DS0001 & DS0002	1,508,590
Inglewood	54	Retrofit Site #2160 - Sammamish Heights Estates / Drainage Facility No. DS0008	1,585,385
Inglewood	53	Retrofit Site #2133 - Greens at Beaver Crest / Drainage Facility No. D92745	2,426,500
Inglewood	53	Retrofit Site #2165 - Three Willows / Drainage Facility No. D92610	859,290
Inglewood	52	Retrofit Site #1454 - Benham Ridge / Drainage Facility No. DS0043	401,450
Thompson	49	Retrofit Site #2120 - Bellasera / Drainage Facility No. D92883	549,338
Inglewood	49	Retrofit Site #2158 - Renaissance / Drainage Facility No. D92854	507,272
Pine Lake Creek	48	Retrofit Site #2128 - Crossings at Pine Lake / Drainage Facility No. D92928	395,749
Thompson	47	Retrofit Site #2150 - The Meadow at Redford Ranch / Drainage Facility No. D92668	1,176,666
Inglewood	47	Retrofit Site #2159 - Renaissance / Drainage Facility No. D92855	891,758
		TOTAL PROGRAM COST	22,883,137

SW-400: STORM FACILITY RESTORATION PROGRAM (NEW)

This program provides funding to restore the City’s aging and/or deteriorating stormwater ponds, tanks, or vaults (collectively known as stormwater facilities) to ensure that they are functioning as designed. This program helps the City to maintain existing assets and to meet the City’s NPDES Permit requirements.

Projects in this program may vary and are typically identified through inspections by City staff. While the priority scores for these restoration projects may rank lower than projects in other programs, they are vital to reducing flood risk and to increasing water quality. Pro-actively restoring our facilities allows staff to bundle projects to maximize efficiencies. Projects identified for the near-term within this program are in the Table 3.

PROGRAM SUMMARY

Program Funding: \$300,000 annually

Project Cost Range: Varies

Location of Projects: Varies

Origin: Staff recommendation

Intent: Pro-actively restore aging and/or deteriorating storm facilities to ensure facilities are functioning as designed.

City Goals: 2016 Storm & Surface Water Management Comprehensive Plan:

Goal G.1. Comprehensively Evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.



FIGURE 3. EXAMPLE PHOTO FROM A STORMWATER POND WITH RECENTLY COMPLETED IMPROVEMENTS.

TABLE 4. PROJECTS CURRENTLY IDENTIFIED FOR THE NEAR-TERM IN THE SW-400 PROGRAM. PROJECTS ARE LISTED BY PRIORITY SCORE.

Project Origin	Drainage Basin	Priority Score	Project Name
Maintenance/Drainage Compliant	Beaver Lake	45	Trossachs Pond Gabion Wall Repair (M-23)
Zackuse Basin Plan	Zackuse	45	East Montage Neighborhood Vault Restoration (M-17, ZAK-Oper-3) - Phase 1 (Alternatives Analysis)
Maintenance	Thompson	40	Overlook Ridge Sand Filter Vault Restoration
Maintenance/Drainage Compliant	Laughing Jacobs	25	Sorrento Heights Pond Restoration (F-14)
Maintenance		To be scored	Pond D92919 Wet Cell Dredging (north cell)

SW-500: PROJECTS \$50K-\$300K (NEW)

Projects in SW-500 range in cost estimate from \$50,000 to \$300,000. Projects are placed in this work bucket per Resolution R2018-804 and allows for staff to bundle projects to maximize efficiency. Projects within SW-500 typically qualify as small projects and allow staff to utilize the Small Works Roster for bidding and contracting. Loree Estates Outfall Diversion, shown in **bold** below, is currently in progress.

PROGRAM SUMMARY

Program Funding: \$300,000 annually

Project Cost Range: Varies

Location of Projects: Varies

Origin: Staff recommendation

Intent: Pro-actively restore storm facilities

City Goals: 2016 Storm & Surface Water Management Comprehensive Plan, *Goal G.1*. Comprehensively Evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.

TABLE 5. PROJECTS CURRENTLY IDENTIFIED FOR THE NEAR-TERM IN THE SW-500 PROGRAM. PROJECTS ARE LISTED BY PRIORITY SCORE.

Project Origin	Drainage Basin	Priority Score	Project Name
Maintenance	Pine Lake Creek	50	Loree Estates Outfall Diversion (E-11)
Laughing Jacob's Basin Plan (2022)	Laughing Jacobs	45	SE 24th Street Wetland Complex Bioretention
Laughing Jacob's Basin Plan (2022)	Laughing Jacobs	45	IPLR Engineered Hypoheic Zone Augmentation
Laughing Jacob's Basin Plan (2022)	Laughing Jacobs	35	Laughing Jacobs Lake Downstream Channel Native Vegetation Removal
Maintenance/Drainage Complaint	Panhandle	35	Inglewood 207th Ave Outfall at 835 207th Ave NE - Phase 1 (Alternatives Analysis) (E-4, F-21)
Zackuse Basin Plan (2018)	Zackuse	35	Groundwater Seepage at East Lake Sammamish Parkway (ZACK-CIP-4)
Maintenance/Drainage Complaint	Evans Creek	30	228th & NE 19th Swale Restoration and Improvement (F-20)
Maintenance/Drainage Complaint	Thompson	30	Lancaster Way Flood Mitigation (F-22)
Maintenance/Drainage Complaint	Monohon	30	SE 16th Street Groundwater at East Lake Sammamish Parkway (G-08)
Inglewood Basin Plan (2011)	Inglewood	25	211th Ave NE cul-de-sac (F-13)
Inglewood Basin Plan (2011)	Inglewood	N/A	NE 217th Street Road Drainage Modification (ING-CIP-1)
Inglewood Basin Plan (2011)	Inglewood	N/A	228th Avenue NE Stormwater Discharge Modification (ING-CIP-2)
Inglewood Basin Plan (2011)	Inglewood	N/A	NE 2nd Street Culvert Replacement (ING-CIP-3)

SW-600: PROJECTS >\$300K

Projects in this grouping on the SW CIP range in complexity, cost, and location. The proposed project list consists of in-progress projects (in **bold** below), new projects, and funding for property acquisition.

A summary is below, with individual project descriptions on subsequent pages.

PROGRAM SUMMARY

Program Funding: Varies

Project Cost Range: Varies

Location of Projects: Varies

Origin: Staff recommendation

Intent: Pro-actively restore aging and/or deteriorating storm facilities to ensure facilities are functioning as designed.

City Goals: 2016 Storm & Surface Water Management Comprehensive Plan:

Goal G.1. Comprehensively Evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.

TABLE 6. PROJECTS CURRENTLY IDENTIFIED FOR THE NEAR-TERM IN THE SW-600 PROGRAM. PROJECTS ARE LISTED BY PRIORITY SCORE.

Project Origin	Drainage Basin	Priority Score	Project Number	Project Name
Maintenance	Inglewood	85	SW-601 (SW-05)	George Davis Creek Fish Passage & Storm Improvement (M-02)
Maintenance/Drainage Complaint	Beaver Lake	75	SW-602 (SW-11)	Hazel Wolf Culvert Improvement Project (F-06)
Zackuse Basin Plan (2019)	Zackuse	70	SW-603 (SW-02/TR-101)	Louis Thompson Road Tightline Project (M-20)
Maintenance	Laughing Jacobs	65	SW-604	248th Ave SE Ditch Avulsion (F-12)
Laughing Jacob's Basin Plan (2022)	Laughing Jacobs	65	SW-605	Queen's Bog Bioretention
Maintenance	Panhandle	45	SW-606	Culvert Improvement/Ditch Rehabilitation at 3420 ELSP NE (M-18)
2016 Comp Plan	City-wide	N/A	SW-609	Property Acquisition Fund (SW-A)

SW-601 (SW-05) GEORGE DAVIS CREEK FISH PASSAGE & STORM IMPROVEMENT PROJECT

The intent of this project is to improve a stormwater culvert that has been an ongoing maintenance challenge. The culvert improvements also result in re-directing George Davis Creek and require the new culvert to be fish passable. The City is designing a new fish passable culvert under East Lake Sammamish Parkway, removing other fish passage barriers, and daylighting George Davis Creek from its mouth at Lake Sammamish to the east side of East Lake Sammamish Parkway, opening one river mile of spawning habitat to kokanee salmon.

Also known as SW-05, this project has regional significance to the Kokanee salmon population.

See the [Connect Sammamish webpage](#) for more details.



FIGURES 4 AND 5. GEORGE DAVIS CREEK AT EAST LAKE SAMMAMISH PARKWAY (PHOTO RIGHT) AND DURING A STORM EVENT (PHOTO ABOVE).



PROJECT SUMMARY

Program Funding Partners:

Brian Abbott Fish Barrier Removal Board, \$722,350
King County Flood Control District, \$300,000
WA Department of Commerce, \$504,700

Total Project Cost: 2023-2024 costs are \$7.1M, 2018-2022 costs to date are ~\$4M (including \$3.4M property acquisition)

Project Schedule: Design in 2023, Construction in 2024

Location of Project: East Lake Sammamish Parkway & George Davis Creek, Inglewood drainage basin

Origin: Maintenance

Intent: Provide stormwater improvements and fish passage to an aging culvert system that requires frequent maintenance.

City Goals: 2016 Storm & Surface Water Management Comprehensive Plan:

Goal G.1. Comprehensively Evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.

Goal G.4. Protect the recovery of Lake Sammamish kokanee and other threatened endangered salmonoids.

SW-602 (SW-11) HAZEL WOLF CULVERT IMPROVEMENT PROJECT

This project, previously referred to as SW-11, intends to replace an undersized culvert to increase flow capacity and reduce flooding on W Beaver Lake Drive.

PROJECT SUMMARY

Program Funding Partners: None

Project Cost: \$700,000

Project Schedule: Design/Permitting in 2023-2024, Construction in 2025.

Location of Project: W. Beaver Lake Drive, Beaver Lake Drainage Basin

Origin: Maintenance/Drainage Complaint

Intent: Culvert replacement to increase flow capacity and reduce flooding on W Beaver Lake Drive.

City Goals: 2016 Storm & Surface Water Management Comprehensive Plan:

Goal G.1. Comprehensively Evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.



FIGURE 5. HAZEL WOLF CULVERT

SW-603 (SW-02/TR-101) LOUIS THOMPSON ROAD TIGHTLINE PROJECT

Louis Thompson Road is a vital connection route serving residents of Sammamish and surrounding communities. The existing stormwater conveyance consists of ditches and culverts that flood and the existing outfalls are eroded. This project mitigates flooding and landslide hazards along Louis Thompson Road and provides water quality treatment.

This project originated from the Zackuse Basin Plan and scored the highest in the plan. The project mitigates flooding and provides water quality. Currently, runoff flows untreated to Zackuse Creek, a stream that provides vital habitat to Kokanee and other species.

The City's project team is currently designing improvements to Louis Thompson Road from 210th PI SE to Eastlake Sammamish Parkway NE, and the project has reached 30% design. The project also examines the possibility of adding non-motorized improvements such as sidewalks along this segment of the road corridor.

A majority of the project is funded by the 438 Fund; however, non-motorized elements are funded through the 340 Fund. The City has received funding support from:

- King County Flood Reduction Grant, \$400k
- King County Sub-Regional Opportunity Fund, \$192k
- ARPA State and Local Recovery Funds, \$2.91M

For more project details, visit the [Connect Sammamish](#) webpage.



PROJECT SUMMARY

Program Funding Partners:
 King County Flood Control District, \$400,000
 King County Sub-Regional Opportunity Fund, \$192,000
 American Rescue Plan Act/WA Department of Commerce, \$2,910,000

Project Cost: Cost of project is dependent on non-motorized elements. 2023-2028 SW CIP allocates \$4.6M in funding (2022 \$) for the project in 2023 and 2024.

Project Schedule: Design/Permitting in 2022-2023, Construction in 2024.

Location of Project: Louis Thompson Road, Zackuse Drainage Basin

Origin: Zackuse Basin Plan

Intent: To mitigate flooding and provide water quality.

City Goals: 2016 Storm & Surface Water Management Comprehensive Plan:

Goal G.1. Comprehensively Evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.

Goal G.4. Protect the recovery of Lake Sammamish kokanee and other threatened of endangered salmonoids.

FIGURE 6. EXISTING DITCH AND DRIVEWAY CULVERT ON LOUIS THOMPSON ROAD.

SW-604 248TH AVE SE DITCH AVULSION

This project includes restoring capacity to an existing ditch and installing an overflow to the nearest storm drain. The existing ditch floods during storm events and results in frequent inspection and maintenance resources.

PROJECT SUMMARY

Program Funding Partners: None

Project Cost: \$300,000

Project Schedule: Design/Permitting in 2025, Construction in 2026.

Location of Project: 248th Ave SE, Laughing Jacobs Basin

Origin: Maintenance

Intent: Ditch restoration to improve capacity and provide/install an overflow from ditch to nearest storm drain.

City Goals: 2016 Storm & Surface Water Management Comprehensive Plan:

Goal G.1. Comprehensively Evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.

FIGURE 7. FLOODED DITCH ADJACENT TO 248TH AVE SE.

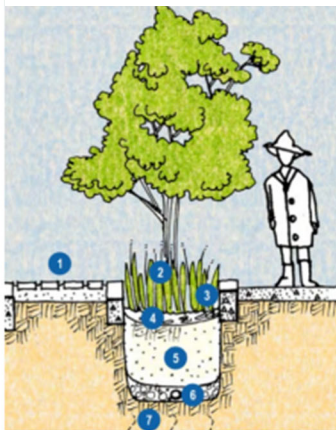


SW-605 QUEEN’S BOG BIORETENTION PROJECT

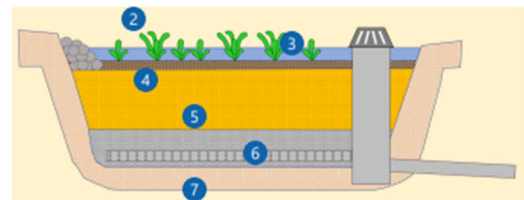
This project, identified in the 2022 Laughing Jacobs Basin Plan, plans to install bioretention to filter pollutants in stormwater runoff from the Klahanie neighborhood. This is a water quality project intended to protect the rare ecosystem present in Queen’s Bog.



FIGURES 8 & 9. QUEEN’S BOG (ABOVE), AND PROJECT SCHEMATIC (BELOW). FROM 10/26/2021 LAUGHING JACOBS BASIN PLAN WEBINAR.



- 1 Sidewalk or trail
- 2 Vegetation
- 3 Intermittent ponding
- 4 Plant roots help maintain infiltration
- 5 Specialized bioretention mix
- 6 Optional underdrain where needed
- 7 Infiltration where feasible



PROJECT SUMMARY

Program Funding Partners: None

Project Cost: \$545,000

Project Schedule: Design/Permitting in 2026, Construction in 2027.

Location of Project: Laughing Jacobs Drainage Basin

Origin: Laughing Jacobs Basin Plan

Intent: Protects rare bog and ecosystem.

City Goals:

2016 Storm & Surface Water Management Comprehensive Plan: *Goal G.1.* Comprehensively evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.

2015 Sammamish Comprehensive Plan, Environmental & Conservation Element:

Goal EC.3. Protect wetlands and other water resources from encroachment and degradation and encourage restoration of such resources.

Goal EC.5: Maintain and protect surface water and groundwater resources that serve the community and enhance quality of life.

SW-606 CULVERT IMPROVEMENT/DITCH REHABILITATION AT 3420 ELSP NE

This project will install structures to improve flow capacity and sediment transport. This project is scheduled for design in 2026 and construction in 2027 so that the culvert can also be evaluated with the fish passage barrier assessment/prioritization.

PROJECT SUMMARY

Program Funding Partners: None

Project Cost: \$450,000

Project Schedule: Design/Permitting in 2026, Construction in 2027.

Location of Project: East Lake Sammamish Parkway NE, Panhandle

Origin: Maintenance

Intent: Improve flow capacity

City Goals: 2016 Storm & Surface Water Management Comprehensive Plan: *Goal G.1.* Comprehensively evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.

SW-607 212TH AVE FLOODING AT ZACKUSE HEADWATERS WETLAND

This project addresses flooding at the Zackuse headwaters wetland. A feasibility study and alternative analysis is planned for 2028.

PROJECT SUMMARY

Program Funding Partners: None

Project Cost: \$100,000

Project Schedule: Feasibility study in 2028

Location of Project: 212th Ave, Zackuse headwaters wetland

Origin: Zackuse Basin Plan

Intent: Flood mitigation

City Goals: 2016 Storm & Surface Water Management Comprehensive Plan: *Goal G.1.* Comprehensively evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.

SW-608 PROPERTY ACQUISITION FUND

PROJECT SUMMARY

Program Funding Partners: None

Project Cost: \$250,000 per year

Project Schedule: Varies

Location of Project: Varies

Origin: 2016 Storm & Surface Water Comprehensive Plan Update

Intent: Acquire land for future stormwater facilities

City Goals: 2016 Storm & Surface Water Management Comprehensive Plan:

Goal G.1. Comprehensively evaluate and address problems related to the existing stormwater system and manage storm and surface water systems to ensure longevity of assets.

Goal G.2: Use drainage basin planning to allocate limited resources to address priority problems and opportunities.