

## PROGRAM AND PROJECT GUIDE

## for the

# 2025-2030 STORMWATER CAPITAL IMPROVEMENT PLAN (2025-2030 SWIP)

This guide complements the 2025-2030 SWIP and provides detailed information for stormwater programs and projects.

6/13/2024

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## INTRODUCTION

The 6-year Stormwater Capital Improvement Plan is an optional planning tool employed by the Surface Water Utility to plan for funding needs for capital improvement projects over the coming 6-year period. The planning horizon incorporates potential project needs into a planning list. The list of projects in each program is developed from a variety of sources including basin plans, drainage complaints, maintenance issues, and other planning documents such as the *Stormwater Retrofit Strategy* (2021).

The projects listed in this program guide are anticipated to require capital funds to complete. This funding is allocated through the City's biennial (2-year) budget process. The projects within these lists may or may not be constructed within the 6-year window. Project implementation uses the prioritization criteria adopted by Resolution R2018-804. Actual timing of implementation may not align with priority scoring due to coordination of project activities and timelines, available funds, grant funding, permitting, staff workloads, and other unforeseen circumstances. City staff post project updates and progress within these programs on the Stormwater projects web page at <u>www.sammamish.us/stormwater</u>.

## **REVENUE ASSUMPTIONS**

The primary revenue source for the stormwater capital projects and programs is Surface Water Management (SWM) fees. Several projects have received funding from local, State, and Federal grant partners. The list below includes grant awards 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.

Funding Organization	Grant Name	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				
WA State Legislature	Brian Abbot Fish Barrier Removal Board (FBRB)	Awarded 2023	\$1,300,000				
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 R	oad 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				

TABLE 1. SUMMARY OF CURRENT GRANT FUNDING BY PROJECT

## 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.

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 typically less than \$50,000. This allows for an average of four projects per year.

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 (on page 4) provides an overview of upcoming projects. The photo in Figure 1 is an example of a completed project.



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

#### **PROGRAM SUMMARY**

Webpage Coming soon!

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

> Origin Maintenance/NPDES

**Program Cost Forecast** \$231 – 273k (2025 to 2030)

> Project Cost Range <\$50k

#### **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.

#### LOCATIONS OF PROJECTS

Citywide

Drainage Basin	Priority Score	Project Name
Beaver Lake	25	SE 28th Street Runoff (F-26)
Inglewood	25	Tract E Llama Landing Pond Restoration (M-27) (Completed)
Monohon	25	Locate and Clean Catch Basins in Public Drainage Easement to D92970 (M-29)
Pine Lake Creek	20	Ashton Woods Bioswale
Evans Creek	15	Pacific Estates Outlet Flooding (NE 24 <sup>th</sup> PI)
North Fork Issaquah Creek	10	Klahanie Ditch Restoration (E-13)

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

## SW-200: STORM PIPE REHABILITATION PROGRAM

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

#### **Overview of the Storm Pipe Condition Assessment**

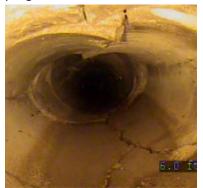
As part of the Enhanced LOS, the utility started a Storm Pipe Condition Assessment Program in 2023, with a goal of evaluating 2.5 to 5 miles of storm pipe each year. The program will consider increasing this goal to complete condition assessment of all cityowned pipes within a reasonable time frame. Pipes will be initially selected for evaluation based on age, material, and known concerns in high priority watersheds. 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.

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

#### **PROGRAM SUMMARY**

#### Webpage

https://www.sammamish.us/projects/stormpipe-rehabilitation-program/

#### Intent

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

#### Origin

2016 Storm & Surface Water Comprehensive Plan Update

#### **Program Cost Forecast**

\$462k in 2025; \$476k-\$547k (2026 to 2030)

Project Cost Range Varies

#### **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.

#### LOCATIONS OF PROJECTS

Citywide

## SW-300: STORM FACILITY RETROFIT PROGRAM

This program consists of 20 recommended projects from the 2021 Retrofit Strategy. The Sammamish <u>Stormwater Retrofit</u> <u>Strategy and Guidance Manual (March 2021)</u> 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 \$1M in 2025 – 2030 would deliver an average of 4 projects within the proposed 6-year timeframe of the SWIP. 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 3.

Retrofit sites #3000 and #2131 are in design phase. As these projects progress, additional details pertaining to permitting, construction cost, and construction dates will be updated on the City's website.

- Active projects are shown in **bold**.
- Newly added projects are shown in *italics*.

#### **PROGRAM SUMMARY**

#### Webpage

Coming soon!

#### Intent

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

#### Origin

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

#### **Program Cost Forecast**

\$1.1 – 1.3M annually (2025 to 2030)

#### **Project Cost Range**

Project costs range from \$205,502 to \$5,742,952. Total program cost is \$31.4m. All costs provided below are in 2024 dollars. The rate model utilizes escalators for projected costs.

#### **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.

#### LOCATIONS OF PROJECTS

Inglewood, Thompson, Allen Lake, Pine Lake, and Pine Lake Creek drainage basins.

#### Table 3. PROJECTS WITHIN THE RETROFIT PROGRAM.

Basin	Priority	Project Location	Estimated Cost (2024 \$)
Pine Lake	62	Retrofit Site #3000 - SWC SE 20th Street & 228th Ave SE / Drainage Facility No: DS0011	\$ 205,502.40
Inglewood	61	Retrofit Site #2131 - Demery Hill / Drainage Facility No. D91349	\$ 629,014.68
Inglewood	61	Retrofit Site #1548 - Cedar Cove / Drainage Facility No. DS0092	\$ 5,742,952.92
Inglewood	60	Retrofit Site #2095 - Eastlake High School / Drainage Facility No. D98396 <sup>1</sup>	\$ 330,279.12
Inglewood/Allen Lake	60	Retrofit Site #2363 - Tree Farm / Drainage Facility No. N/a	\$ 2,832,574.32
Inglewood	58	Retrofit Site #2096 - Eastlake HS / Drainage Facility No. D98397 <sup>1</sup>	\$ 789,444.36
Inglewood	56	Retrofit Site #2085 - Sammamish Library - Boys & Girls Club / Drainage Facility No. D98417	\$ 814,860.00
Inglewood	55	Retrofit Site #2141 - 228th Ave NE/SE / Drainage Facility No. DS0015 & D98903	\$ 425,473.56
Thompson	55	Retrofit Site #2125 - Chestnut Lane / Drainage Facility No. D93012	\$ 1,817,528.76
Zackuse	55	ZAK-CIP-1 – Retrofit West Montage Neighborhood Vault Facility No. D91857	\$ 6,699,915.00
Thompson	54	Retrofit Site #2132 - Greenbriar / Drainage Facility No. DS0001 & DS0002	\$ 1,629,277.20

<sup>&</sup>lt;sup>1</sup> Project proposed on Lake Washington School District property, requires interlocal agreement to pursue.

Inglewood54Retrofit Site #2160 - Sammanish Heights Estates / Drainage Facility No. DS0008\$ 1,712,215.80Inglewood53Retrofit Site #2133 - Greens at Beaver Crest / Drainage Facility No. D92745\$ 2,620,620.00Inglewood53Retrofit Site #2165 - Three Willows / Drainage Facility No. D92610\$ 928,033.20Inglewood52Retrofit Site #1454 - Drainage Facility No. DS0043\$ 433,566.00Inglewood52Retrofit Site #1454 - Drainage Facility No. DS0043\$ 593,285.04Inglewood49Retrofit Site #1210 - Bellasera / Drainage Facility No. DS043\$ 547,853.76Inglewood49Retrofit Site #2128 - Torsenge at Pine Lake Drainage Facility No. D92854\$ 427,408.92Pine Lake Creek48Retrofit Site #2128 - Drainage Facility No. D92928\$ 427,408.92Thompson47Retrofit Site #2150 - The Meadow at Redford Ranch / Drainage Facility No. D92928\$ 963,098.64Inglewood47Retrofit Site #2159 - Renaissance / Drainage Facility No. D92855\$ 963,098.64Inglewood47Retrofit Site #2159 - Renaissance / Drainage Facility No. D92855\$ 963,098.64Inglewood445Zackuse\$ 2ACUPA Retrofit East Montage Facility No. D91856\$ TBD Dainage Facility No. D91856				
Greens at Beaver Crest / Drainage Facility No. D92745Greens at Beaver Crest / Drainage Facility No. D92745Inglewood53Retrofit Site #2165 - Three Willows / Drainage Facility No. D92610\$ 928,033.20Inglewood52Retrofit Site #1454 - Benham Ridge / Drainage Facility No. D50043\$ 433,566.00Thompson49Retrofit Site #2120 - Bellasera / Drainage Facility No. D92883\$ 593,285.04Inglewood49Retrofit Site #2158 - Facility No. D92883\$ 547,853.76Pine Lake Creek48Retrofit Site #2128 - Crossings at Pine Lake / Drainage Facility No. D92928\$ 427,408.92Thompson47Retrofit Site #2150 - The Meadow at Redford Ranch / Drainage Facility No. D92856\$ 1,270,799.28Inglewood47Retrofit Site #2159 - Renaissance / Drainage Facility No. D92855\$ 963,098.64Inglewood47Zark-CIP-4 Retrofit East Montage Facility No. D92855\$ TBDZackuse45ZAK-CIP-4 Retrofit East Montage Facility No. D91856\$ TBD	Inglewood	54	Sammamish Heights Estates / Drainage	\$ 1,712,215.80
Three Willows / Drainage Facility No. D92610Inglewood52Retrofit Site #1454 - Benham Ridge / Drainage Facility No. 	Inglewood	53	Greens at Beaver Crest / Drainage Facility No.	\$ 2,620,620.00
Benham Ridge / Drainage Facility No. DS0043Benham Ridge / Drainage Facility No. 	Inglewood	53	Three Willows / Drainage	\$ 928,033.20
Bellasera / Drainage Facility No. D92883Bellasera / Drainage Facility No. D92883Inglewood49Retrofit Site #2158 - Renaissance / Drainage Facility No. D92854\$ 547,853.76Pine Lake Creek48Retrofit Site #2128 - Crossings at Pine Lake / Drainage Facility No. D92928\$ 427,408.92Thompson47Retrofit Site #2150 - The Meadow at Redford Ranch / Drainage Facility No. D92668\$ 1,270,799.28Inglewood47Retrofit Site #2159 - Renaissance / Drainage Facility No. D92855\$ 963,098.64Zackuse45ZAK-CIP-4 Retrofit East Montage Facility No. D91856\$ TBD	Inglewood	52	Benham Ridge / Drainage Facility No.	\$ 433,566.00
Renaissance / Drainage Facility No. D92854Pine Lake Creek48Retrofit Site #2128 - Crossings at Pine Lake / Drainage Facility No. 	Thompson	49	Bellasera / Drainage	\$ 593,285.04
Crossings at Pine Lake / Drainage Facility No. D92928Thompson47Retrofit Site #2150 - The Meadow at Redford Ranch / Drainage Facility No. D92668\$ 1,270,799.28Inglewood47Retrofit Site #2159 - Renaissance / Drainage Facility No. D92855\$ 963,098.64Zackuse45ZAK-CIP-4 Retrofit East Montage Facility Drainage Facility No. D91856\$ TBD	Inglewood	49	Renaissance / Drainage	\$ 547,853.76
Meadow at Redford Ranch / Drainage Facility No. D92668Meadow at Redford Ranch / Drainage Facility No. D92668Inglewood47Retrofit Site #2159 - Renaissance / Drainage Facility No. D92855\$ 963,098.64Zackuse45ZAK-CIP-4 Retrofit East Montage Facility Drainage Facility No. D91856\$ TBD	Pine Lake Creek	48	Crossings at Pine Lake / Drainage Facility No.	\$ 427,408.92
Renaissance / Drainage Facility No. D92855Zackuse45Zackuse45Zackuse2AK-CIP-4 Retrofit East Montage Facility Drainage Facility No. 	Thompson	47	Meadow at Redford Ranch / Drainage Facility	\$ 1,270,799.28
Montage Facility Drainage Facility No. D91856	Inglewood	47	Renaissance / Drainage	\$ 963,098.64
TOTAL PROGRAM COST\$31,490,750	Zackuse	45	Montage Facility Drainage Facility No.	\$ TBD
			TOTAL PROGRAM COST	\$31,490,750

## SW-400: STORM FACILITY RESTORATION PROGRAM

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 he 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 Table 4.

- Active projects are shown in **bold**.
- Newly added projects are shown in *italics*.



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

#### **PROGRAM SUMMARY**

Webpage

Coming soon!

#### Intent

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

**Origin** Staff Recommendation

**Program Cost Forecast** \$337 – 394k (2025 to 2030)

> Project Cost Range Varies

#### **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.

#### LOCATIONS OF PROJECTS

Varies

TABLE 4. STORMWATER FACILITY RESTORATION PROJECTS LIST.

Project Origin	Drainage Basin	Priority Score	Project Name	Project Status
Maintenance/Drainage Complaint	Laughing Jacobs	55	Issaquah-Pine Lake Rd & 238 <sup>th</sup> Way SE "Brookshire Pond"	In progress
Maintenance/Drainage Complaint	Beaver Lake	45	Trossachs Pond Gabion Wall Repair (M-23)	In progress
Maintenance	Evans Creek	45	Heritage Hills Pond Restoration (M-22) <sup>2</sup>	In progress
Zackuse Basin Plan	Zackuse	45	East Montage Neighborhood Vault Restoration (M-17, ZAK-Oper-3) – Phase 1 (Alternatives Analysis)	Planned
Maintenance	Thompson	40	Overlook Ridge Sand Filter Vault Restoration	Completed
Maintenance	Evans Creek	30	228 <sup>th</sup> Swale Overflow at Deerfield (D91327)	Planned
Maintenance	Inglewood	30	Sara's Crossing Pond Repair (D93039)	Planned
Maintenance/Drainage Compliant	Laughing Jacobs	25	Sorrento Heights Pond Restoration (F-14)	Planned
Maintenance	Inglewood	25	Pond D92919 Wet Cell Dredging (north cell)	Planned

<sup>&</sup>lt;sup>2</sup> This project was moved from SW-100 in the 2023-28 SW CIP to SW-400 program. This issue requires additional analysis, such as geotechnical assessment and surveying to evaluate a solution. This can be combined with other efforts in SW-400 for efficiency.

#### **PROJECTS SUMMARY**

### SW-500: PROJECTS \$50K-\$300K

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, Inglewood 207<sup>th</sup> Ave Outfall (to mitigate erosion issues), and Groundwater Seepage at East Lake Sammamish Parkway (as part of the Louis Thompson project) shown in **bold** below, are currently in progress. Newly added projects are shown in *italics*.

#### Intent

Pro-actively restores storm facilities, mitigates erosion and flooding issues for small projects.

> Origin Staff Recommendation

**Program Cost Forecast** \$115k - \$485k in 2025 to 2030

> Project Cost Range Varies

#### **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.

#### LOCATIONS OF PROJECTS

Varies

#### TABLE 5. SW-500 PROJECTS CURRENTLY IDENTIFIED.

Project Origin	Drainage Basin	Priority Score	Project Name
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 Hyporheic Zone Augmentation
Laughing Jacob's Basin Plan (2022)	Laughing Jacobs	35	Laughing Jacobs Lake Downstream Channel Native Vegetation Restoration
Maintenance/Drainage Complaint	Panhandle	35	Inglewood 207th Ave Outfall at 835 207th Ave NE - Phase 1 (Alternatives Analysis) (E-04, 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)
Maintenance/Drainage Complaint	Inglewood	25	207th Place Flooding (F-21)
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.

#### **PROJECTS SUMMARY**

#### Intent

Installs new water quality and/or flow control facilities, mitigates erosion and flooding issues for projects with an estimated cost of >\$300,000.

> Origin Staff Recommendation

> Program Cost Forecast Varies

Project Cost Range Varies

#### **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.

#### LOCATIONS OF PROJECTS

Varies

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)
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	Pine Lake Creek	50	SW-501	Loree Estates Outfall Diversion (E-11)
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.

For more details, see the project website: <u>https://www.sammamish.us/projects/george-davis-creek-fish-passage-culvert/</u>.



FIGURES 4 AND 5. GEORGE DAVIS CREEK AT EAST LAKE SAMMAMISH PARKWAY AND DURING A STORM EVENT.



#### **PROJECT SUMMARY**

#### Intent

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

Origin

Maintenance

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

Est. Project Cost: \$8.2M, 2018-2022 costs to date are ~\$4M (including \$3.4M property acquisition)

> Project Schedule: Design in 2025, Construction in 2026

#### **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.

#### LOCATIONS OF PROJECT

East Lake Sammamish Parkway & George Davis Creek, Inglewood drainage basin

## 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.

An alternatives analysis and preliminary design has been initiated through the stormwater task order contract.



FIGURE 5. HAZEL WOLF CULVERT

#### **PROJECT SUMMARY**

#### Intent

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

Origin Maintenance/Drainage Complaint

> Program Funding Partners None

> > **Est. Project Cost**

\$1.8M

#### **Project Schedule**

Design/Permitting in 2025, Construction in 2026.

#### **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.

#### LOCATIONS OF PROJECT

W. Beaver Lake Drive, Beaver Lake Drainage Basin

## SW-604 248<sup>TH</sup> AVE SE DITCH IMPROVEMENT

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.



FIGURE 7. FLOODED DITCH ADJACENT TO 248<sup>TH</sup> AVE SE.

#### **PROJECT SUMMARY**

Intent

Ditch restoration to improve capacity and provide/install an overflow from ditch to nearest storm drain. Possible culvert improvement.

> **Origin** Maintenance

Program Funding Partners None

**Est. Project Cost** 

\$520k

**Project Schedule** 

Design/Permitting in 2025, Construction in 2026.

#### **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.

#### LOCATIONS OF PROJECT

248<sup>th</sup> Ave SE, Laughing Jacobs Basin

# 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.



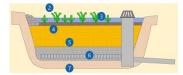


Vegetation

3 Intermittent ponding

Optional underdrain where needed Infiltration where feasible

Plant roots help maintain infiltration
Specialized bioretention mix



#### **PROJECT SUMMARY**

Intent Protects rate bog and ecosystem

**Origin** Laughing Jacobs Basin Plan

Program Funding Partners None

> Est. Project Cost \$813k

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

#### **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.

#### LOCATIONS OF PROJECT

Laughing Jacobs Drainage Basin

## 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 2027 and construction in 2028 so that the culvert can also be evaluated with the fish passage barrier assessment/prioritization.

#### **PROJECT SUMMARY**

Intent Improve flow capacity

Origin 2016 Storm & Surface Water Comprehensive Plan Update

> Program Funding Partners None

> > **Est. Project Cost** \$888,880

Project Schedule

Design/Permitting in 2026, Construction in 2027.

#### **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.

LOCATIONS OF PROJECT

East Lake Sammamish Parkway NE, Panhandle

### SW-608 PROPERTY ACQUISITION FUND

This project will be used to purchase properties that preserve natural resources that provide a surface water benefit.

#### **PROJECT SUMMARY**

Intent Acquire land for future stormwater facilities

Origin 2016 Storm & Surface Water Comprehensive Plan Update

> Program Funding Partners None

> > Est. Project Cost 202-232k Annually

Project Schedule Varies

#### **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.

#### LOCATIONS OF PROJECT

Varies