editor's note: Document source: "\\cfwfile1\SWMData\CIP\SWM Comp Plan and CIP Update 2025\Drafts\Public Review Versions\PUBLIC REVIEW DRAFT - AUGUST 1 2025.docx"

editor's note: All table and figure notations will be added during final formatting.

PUBLIC REVIEW DRAFT – 2026-2031 SURFACE WATER MANAGEMENT UTILITY – COMPREHENSIVE PLAN UPDATE

INSERT TITLE PAGE – LOGO – DATE

LIST OF STAFF / COUNCIL - AGENCIES ETC.

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ADA/TITLE VI STATEMENT

ETC.

ABBREVIATIONS

Abbreviation	Definition
BMPs	Best management practices
CCTV	Closed-circuit Television
CIP	Capital improvement programs in general, and individual Capital improvement projects
Ecology	Washington State Department of Ecology
ESA	Federal Endangered Species Act
FWRC	Federal Way Revised Code
GMA	Washington State Growth Management Act
IDDE	Illicit Discharge Detection and Elimination
KCSWDM	King County Surface Water Design Manual
LID	Low Impact Development
LMD	Lake Management District
LUTC	Land Use and Transportation Committee
MS4	Municipal separate storm sewer system
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance

Phase II Permit	Western Washington NPDES Phase II Municipal Stormwater Permit
PSP	Puget Sound Partnership
SMAP	Stormwater Management Action Planning (Annual SWMP Report)
SOPs	Standard Operating Procedures
SSS	Storming the Sound with Salmon
STORM	Stormwater Outreach for Regional Municipalities Group
SWM	Surface Water Management
SWMU-CPU	Surface Water Management Utility - Comprehensive Plan Update
SWPPPs	Stormwater Pollution Prevention Plans
TMDL	Total Maximum Daily Load
UGA	Urban Growth Area
UIC	Underground Injection Control
WDFW	Washington Department of Fish and Wildlife
WSDOT	Washington State Department of Transportation

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Editor's note: THIS SECTION TO BE OUTLINED IN A LARGE TEXT BOX – DISTINCT FROM START OF CHAPTER I TEXT

The 2026-2031 Surface Water Management Utility - Comprehensive Plan Update is organized into three Chapters and ____ Appendixes

Chapter I. Introduction, Plan Organization and Current Conditions

Chapter I provides background information, including environmental and regulatory context and an outline of the SWMU service area.

1. SWMU Comprehensive Plan Update - purpose and overview
2. Goals and objectives of the SWMU-CPU Update
3. Summary of the planning process
4. Public participation and Plan approval
5. SWMU Service Area Characteristics
6. Water Quality Assessments
7. Habitat Resources
8. Local Water Bodies and Drainage Basins
9. SWMU Infrastructure
10. Interdepartmental Coordination
11. Local and Regional Coordination
12. SWMU Applicable Regulations
13. Overview of the NPDES Phase II Permit
14. Climate Change

Chapter II. Surface Water Management Utility Services and Programs

Chapter II covers the activities, programs, and policies approved by Council to address regulatory requirements in three core areas:

1. Recent Capital Improvement Projects (CIP),

2. Asset Management Program, and

3. National Pollutant Discharge Elimination System (NPDES) Phase II Permit compliance.

Chapter III. Capital Facilities Plan

Chapter III lists priority surface water CIP projects throughout the city, focusing on the following goals:

1. Flood Reduction
2. Water Quality Improvement
3. Strategic Asset Management Program
4. Social Equity
5. Forecast of Future Needs

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Chapter I.

INTRODUCTION, PLAN ORGANIZATION, AND CURRENT CONDITIONS

1. SWMU- COMPREHENSIVE PLAN UPDATE - PURPOSE AND OVERVIEW

The 2026-2031 Surface Water Management Utility (SWMU) Comprehensive Plan:

- **Outlines how the City of Federal Way manages surface water**
- **Highlights how the City addresses regulatory requirements**
- **Outlines the Public Works Department's (PWD) operational and maintenance plans**
- **Outlines Capital Improvement Projects (CIPs)**
- **Outlines SWMU's project prioritization and the basic finances for SWMU operations, maintenance, and CIPs**

2. GOALS AND OBJECTIVES

The overarching purpose of the SWM Utility is to:

- Protect the natural and built environment through building and maintaining infrastructure scaled to manage water runoff, while also planning and constructing adequate infrastructure

capacity to meet future development capacity needs within the City.

- Provide outreach to area residents, institutions, and businesses to help prevent pollution from entering waterways. In cases where a discharge has occurred: provide tools to prevent recurrence.
- Maximize value to ratepayers through efficient use of resources and careful project planning.

The goals numbered below guide the SWM Utility's work, day-in and day-out. In implementing elements of this CSWMP Update, SWM Utility staff work to be flexible, strive to use resources efficiently, think systematically and make connection between program, projects, and compliance functions. Above all, staff will maintain a forward-thinking mindset, working diligently to ensure our services best meet ratepayer needs.

SWM Utility goals include:

1. *Comply with, plan for, and implement activities required by the 2024-2029 Western Washington Phase II Municipal* Stormwater Permit, administered by Ecology
    - Meet current Phase II requirements and plan/prepare for future requirements.
2. *Plan for Flood Control and Elimination*
    - Our stormwater system will be designed, built, and maintained to control runoff to prevent property damage to infrastructure and protect public safety.
3. *Protect and Improve Surface Water Quality*
    - Follow Illicit Discharge Detection and Elimination (IDDE) procedures to protect surface water, thereby fostering beneficial uses per Washington Administrative Code (WAC) 173-500-050 in support of both recreation and wildlife.
    - Prevent and actively reduce potential for discharge of surface water borne pollution into State Waters.
    - Protect groundwater and avoid degrading its quality.
4. *Maintain a Strategic Asset Management Program*
    - Use asset management and GIS technology to plan for, construct, and maintain resilient infrastructure, using cost-efficient methods.
5. *Keep Social Equity as a core focus of SWM Utility functions*
    - Improve equity "by design" during implementation of SWM Utility programs, projects, and policies.
    - At the project level, seek input from all parties, ensuring impacted neighborhoods and area communities voices are heard, then track this input and continue to ensure SWM Utility services are allocated equitably.

3. SURFACE WATER MANAGEMENT UTILITY - COMPREHENSIVE PLAN UPDATE PROCESS

Public Works Department staff reviewed prior and existing plans, discussed needs and emerging challenges, reviewed how existing infrastructure is impacted by age and how this focuses maintenance

practices, and considered drainage and water quality issues impacting the City's MS4.

Staff conducted site reviews and held internal discussions in order to focus on projects that will solve immediate and foreseeable stormwater issues, such stormwater capacity, pipe and drainage structures, and the condition of our many storm ponds and our large regional detention ponds.

Staff updated current Capital Improvement Program (CIP) projects and added new CIPs based on: site conditions, opportunities, and predicted preliminary project budgets. CIPs are grouped and prioritized to best manage stormwater needs. CIP projects are subject to change based on maintenance needs, budget, and opportunities to coordinate construction for minimal impacts.

4. PUBLIC INVOLVEMENT AND PARTICIPATION FOR THIS PLAN UPDATE

Staff sought public participation through:

Project web page and links to draft documents / On-line comments

The City established a webpage for the update process within Public Works web domain including a draft version of this Plan Update, and options for the public to provide direct input. Upon City Council approval of this Plan Update, the final plan and related documentation can be accessed on this webpage (*editor's note: Add Link to SWM Plan project webpage*).

Local News and Social Media

The City posted information about the Plan Update and ways for the public to provide input into the process.

Public/stakeholder meetings

In-person and virtual public/stakeholder meetings were hosted by the City to seek input on SWM Utility operations and this plan update. Comment options included a survey hosted on the comp plan's dedicated webpage and a direct email link. Public input was sought on our surface water drainage system – for example: open space areas that may be prone to flooding, or water quality /rain water runoff pollution issues. Public comments were sought at the annual Federal Way Community Fest (August 9, 2025) and at the Public Works Department's first annual RAINfest event (August 14, 2025).

A virtual open house will be hosted in early September 2025 (Date TBD).

LUTC and City Council: Review and Approval process

Staff plan to present the SWMU Comp Plan Update to the Land Use/Transportation Committee (LUTC) on October 7, 2025. The City Council is anticipated to consider Plan adoption at their October 21, 2025 meeting.

5. SWMU SERVICE AREA CHARACTERISTICS

Federal Way is situated on Puget Sound's East Passage, with land bordered on the south and southwest by Tacoma and unincorporated Pierce County, on the east by unincorporated King County

and Auburn, and to the north by Kent and Des Moines. City boundaries encompass 23.7 square miles, and the City has over 101,000 residents.

Land Use

Impervious areas are developed sites where stream run-off into our MS4 are shown in Figure n-n. Changes in land use are guided over time by the *City of Federal Way Comprehensive Plan* that incorporates the requirements of the Growth Management Act (GMA). The GMA promotes development inside the municipal Urban Growth Area (UGA) to allow local infrastructure costs to be recouped, to ensure future development and planned infrastructure capacity match, and to reduce the broader environmental impacts resulting from urban sprawl.

The City's *Comprehensive Plan* envisions a vibrant city center with mixed-use commercial and residential development in the downtown business area, redevelopment and infill scaled to infrastructure, and expanded public transportation access and options.

As infill development and redevelopment projects are planned, Low Impact Development (LID) standards will be factored in, such as: onsite rainfall infiltration, stormwater pre-treatment, stormwater release 'flow control', etc.) Over time, new developments that incorporate in modern stormwater management infrastructure into site design will benefit the MS4's overall function.

Soil Characteristics

The area's primary soil type: "Alderwood gravelly sandy loam" is a "moderately well-drained" soil which then overlays a more restrictive layer of glacial till at roughly 40 inches below the ground surface (Natural Resources Conservation Service 2019). While Alderwood soils are classified as hydrologic Soil Group B, indicating adequate infiltration capacity, the underlying glacial till layer is a challenge for stormwater infiltration in both construction and drainage planning. Local slopes are generally steepest in the suburban northern half of the city – with terraced bluffs overlooking Puget Sound. To the south, more open wetlands drain into the Hylebos Creek basins.

6. Water Quality Assessments

Ecology actively assesses statewide water quality , focusing on pollutants that require improvements to meet Total Maximum Daily Load (TMDL). Ecology's 303(d) list includes water bodies with beneficial uses (drinking water, recreation, aquatic habitat, and industrial processes) that are impaired by pollutants as determined through water quality testing.

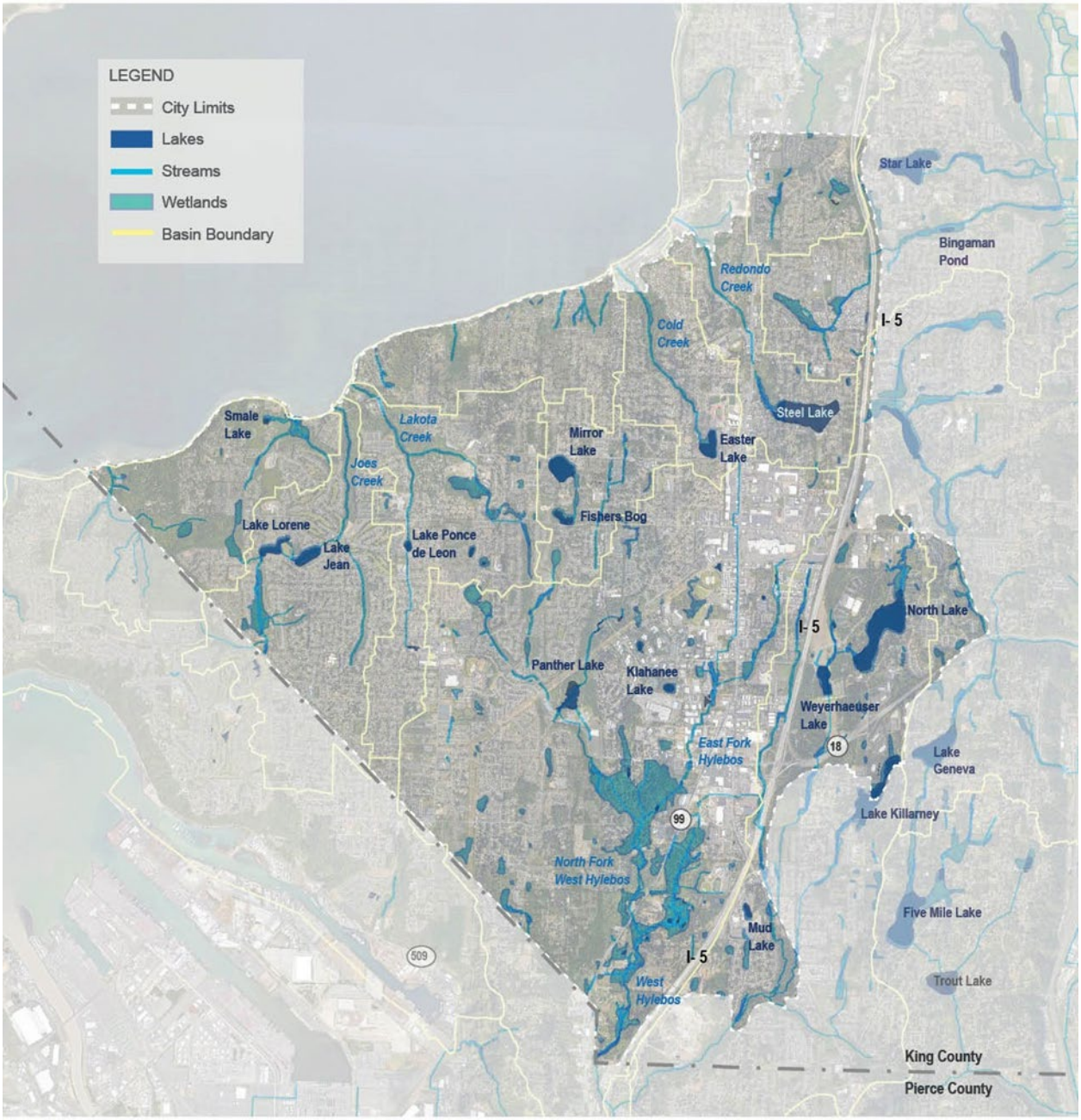
7. Habitat Resources

In general, Habitat Resources are tracked by two indexes: Benthic Index of Biotic Integrity (BIBI) data, and Puget Sound Watershed Characterization Project data. BIBI scores quantify the health of benthic macroinvertebrates in streams – these 'bugs' are prime indicators of a waterway's biological health. The BIBI scoring system allows comparisons between different streams, and individual stream changes over time. Higher BIBI scores indicate healthier streams. In the descriptions below, two local basins feature applicable datasets. These descriptions also summarize Cultural and commercial attributes.

8. Local Water Bodies and Basins

Water bodies in Federal Way are shown in Figure n-n. Figure n-n shows the City's stormwater runoff basins:

- Hylebos Creek – West
- Hylebos Creek – East
- Lower Green River – West
- Mill Creek
- Browns-Dash Points
- Central Puget Poverty Bay
- Joes Creek
- Central Puget Redondo Creek
- Dumas Bay
- Lakota Creek
- Lower North Puget Sound
- Central Puget Cold Creek


LEGEND
City Limits
Lakes
Streams
Wetlands
Basin Boundary
Star Lake
Bingaman Pond
Redondo Creek
Cold Creek
I- 5
Steel Lake
Smale Lake
Lakota Creek
Mirror Lake
Easter Lake
Joes Creek
Fishers Bog
Lake Lorene
Lake Jean
Lake Ponce de Leon
North Lake
Panther Lake
Klahanee Lake
Weyerhaeuser Lake
East Fork Hylebos
18
Lake Geneva
99
Lake Killarney
North Fork West Hylebos
Five Mile Lake
Mud Lake
509
West Hylebos
Trout Lake
King County
Pierce County


LEGEND
City Limits
County Line
Streams
Basins
Puget Sound
I-5
Lower North Puget Sound
Lower Green River - West
Central Puget Redondo Creek
Central Puget Cold Creek
Central Puget Poverty Bay
Mill Creek
Dumas Bay
Lakota Creek
Mirror Lake
Joes Creek
I-5
167
18
Hylebos Creek - West
Browns-Dash
99
509
Hylebos Creek - East
King County
Pierce County

Overviews of each basin/drainage and creek follow, including notable water quality issues and habitat conditions.

Hylebos Creek – West

The **Hylebos Creek – West** drainage basin is approximately 5,840 acres. It is the largest basin in the city, with approximately 91 percent inside city limits. The Hylebos basin includes three sub-basins:

- West Fork
- East Fork
- Lower Hylebos

Hylebos Creek drains directly to Commencement Bay and the Puget Sound. The West Fork drains the central and southern portions of the city, with several smaller tributaries that converge within the West Hylebos Wetland Park. Hylebos Creek provides spawning habitat for threatened fall-run Chinook salmon (*Oncorhynchus tshawytscha*) and has documented presence of threatened winter-run steelhead (*O. mykiss*) (WDFW 2020a, 2020b). The Hylebos basin has areas with significant development and urbanization. Hylebos Creek and the West Fork of Hylebos Creek are on Ecology's 303(d) list for several characteristics: bacteria, dissolved oxygen, and temperature (Ecology 2019a).

Southern portions of the West and East Forks flow through Puyallup Tribal Lands. The Muckleshoot Tribe maintains fishing rights on Hylebos Creek, which was formerly home to substantial runs of Coho (*O. kisutch*), chum (*O. keta*), and Chinook salmon, as well as cutthroat (*O. clarki*) and steelhead trout; these populations are now diminished. The Puyallup Tribe releases between 10,000 and 20,000 juvenile fall Chinook salmon into the West Fork on an annual basis (Schwartz 2016). The Salmon Habitat Protection and Restoration Strategy for water resource inventory area (WRIA) 10 does not prioritize Hylebos Creek as an area for salmon recovery due to the small populations it contains compared to populations in the main stem Puyallup, White, and Carbon Rivers.

Hylebos Creek – East

The **Hylebos Creek – East** drainage basin area is approximately 3,900 acres, with approximately 45 percent of the basin inside city limits. The Hylebos Creek – West description above provides general information regarding the larger, combined Hylebos basin. The East Fork begins with several smaller tributaries in the eastern portion of the city near North Lake and Lake Killarney including areas along the east boundary of the city. The Hylebos Creek – East drainage contains threatened fall-run Chinook salmon spawning habitat and threatened winter-run steelhead documented presence (WDFW 2020a, 2020b).

North Lake is a 55-acre mesotrophic lake overseen by a Lake Management District (NLMD). This District formed in 2010 to self-fund ongoing aquatic vegetation management, water quality monitoring, public education, and other improvements. North Lake has a maximum depth of 34 feet, has a boat ramp and is stocked with rainbow trout (King County 2015a).

Lake Killarney is a 31-acre mesotrophic lake with a maximum depth of 15 feet and mean depth of 9 feet. Most of this lake is outside the city limits, and it features a public park, boat ramp, and is stocked with bass and rainbow trout.

Lower Green River – West

This basin is approximately 9,300 acres, with only approximately 5 percent of the basin inside the city limits. Bingaman Creek begins at Laurelwood Park, then crosses Interstate 5 (I-5) (fish passage barrier), and then drains through the Bingaman Pond Natural Area, converging with drainage from Star Lake into a tributary to the Green River. While the Green River is only remotely connected to the City's waterways, it has spawning habitat for ESA-designated threatened fall-run Chinook salmon and threatened winter-run steelhead. It also has documented threatened bull trout (*Salvelinus confluentus*) and State-listed coastal cutthroat trout. Habitat for these species may extend to Bingaman Creek (WDFW 2020a, 2020b). The Green River designates as TMDL (temperature).

Mill Creek

The Mill Creek drainage basin (sometimes known as Hill Creek) is located in WRIA 9 (Duwamish-Green), draining northward into King County. This large drainage basin covers roughly 15 square miles and includes portions of the cities of Kent, Auburn, Algona, and a small percentage (approximately 2 percent) in Federal Way. This basin provides spawning habitat for federally listed fall-run Chinook salmon and winter-run steelhead, and also contains federally-listed bull trout and state-listed coastal cutthroat trout (WDFW 2020a, 2020b).

Browns-Dash Points

The Browns-Dash drainage basin is approximately 3,400 acres, with less than 2 percent of the basin located within city limits. Most of the basin is in unincorporated Pierce County and Tacoma. There only minor streams mapped within the basin, which drains directly to Commencement Bay in Puget Sound and includes presumed presence of federally listed fall-run Chinook salmon and winter-run steelhead (WDFW 2020a, 2020b). There are several nearshore 303(d) data findings near this basin, including polychlorinated biphenyls (PCBs) in Dalco Passage and East Passage, and dissolved oxygen, phthalates, and PCBs in Commencement Bay (Outer) (Ecology 2019a).

Central Puget Poverty Bay

The Central Puget Poverty Bay drainage basin is approximately 820 acres and is located almost entirely (99 percent) within the city limits, with nearly one-fifth categorized as impervious surface. Several mapped but unnamed streams drain directly to Puget Sound. While there is no documented use by federally listed or state-listed species (WDFW 2020a, 2020b), and no document fish passage barriers (WDFW 2019a), there is documented residential fish evidence (WDFW 2019b). This basin is also located within the boundary of Poverty Bay Shellfish Protection District (PBSPD) (King County 2018b). (Check re the other Basins, is it only mentioned here?)

Joes Creek

The Joes Creek basin is approximately 1,530 acres; approximately 80 percent of the basin is located inside city limits; headwaters are to the south in Tacoma. Upper Joes Creek is designated as a highly modified urban stream, that discharges into Dumas Bay . The Joes Creek Basin includes Lake Jeane and Lake Lorene, commonly referred to as "Twin Lakes", This basin has presumed presence of federally listed threatened fall-run Chinook salmon and winter-run steelhead (WDFW 2020a, 2020b). 2014 BIBI scores: 14.5 (very poor) and 10.3 (very poor) for two locations on Joes Creek are of concern. Joes Creek is also on Ecology's 303(d)

list for (high?)temperature (Ecology 2019a). There is documented presence of Coho salmon at the mouth of Joes Creek (WDFW 2019b).

Central Puget Redondo Creek

The Central Puget Redondo Creek Basin is approximately 800 acres, with approximately 90 percent within the city limits. Redondo Creek drains from Steel Lake directly to Poverty Bay in Puget Sound. The Central Puget Redondo Creek Basin has presumed presence of federally listed fall-run Chinook salmon and winter-run steelhead, and documented presence of state-listed coastal cutthroat trout (WDFW 2020a, 2020b). Heavy erosion occurs during high flows and poor water quality is present in the creek from nonpoint pollution (FHWA et al. 2003). Several fish passage barriers have been identified, including culvert crossings along Redondo Way South (which generally follows the entire stream length), and the final crossing at Redondo Beach Drive South prior to discharge into Poverty Bay (WDFW 2019b). This basin is located within the boundary of Poverty Bay Shellfish Protection District (PBSPD) (King County 2018b).

The main source of Redondo Creek is Steel Lake, a 46-acre mesotrophic lake that is managed by a Lake Management District to support vegetation management and water quality projects. Steel Lake has very good water quality (King County 2015c). The lake has a maximum depth of 24 feet, a boat ramp, and is stocked with rainbow trout.

Dumas Bay

The Dumas Bay basin is approximately 1,284 acres, with approximately two-thirds located within the city limits. Approximately 16 percent of the drainage basin is impervious surface. A significant portion of the drainage basin consists of Dash Point State Park No named streams are mapped in this drainage basin; however, several unnamed streams (including the informally-named Thames Creek) discharge into Dumas Bay and have documented fish presence (WDFW 2019b). This basin has a presumed presence of federally listed fall-run Chinook salmon and winter-run steelhead (WDFW 2020a, 2020b).

Lakota Creek

The Lakota Creek basin is approximately 2,000 acres in size and is entirely within city limits. Lakota Creek drains from Lake Ponce De Leon, Mirror Lake, and Fishers Bog and then discharges to Puget Sound. The lower reaches of Lakota Creek have presumed presence of federally listed fall-run Chinook salmon and winter-run steelhead. Impervious surface makes up approximately 30 percent of the drainage basin. Based on the City's GIS mapping, approximately 18 percent of the drainage basin is zoned for increased development density in potentially sensitive areas.

Mirror Lake is an 18-acre mesotrophic lake with a maximum depth of 27 feet. Monitoring in Mirror Lake has shown good water quality. (King County 2015d). There are no boat ramps or public access points for Mirror Lake, but noxious weeds are identified as a potential issue in the nearshore environment.

Lower North Puget Sound

The Lower North Puget Sound basin is approximately 4,270 acres but only about ten percent of the basin is within the city. There are no named streams in this basin mapped inside the city limits; all mapped streams are

outside the city limits, including Barnes Creek, Massey Creek, and McSorley Creek; all three streams are on Ecology's 303(d) list for fecal coliform bacteria and dissolved oxygen (Ecology 2019a). Although there are no federally listed species within this basin, the streams include documented presence of state-listed coastal cutthroat trout (WDFW 2020a, 2020b). This basin is located within the boundary of Poverty Bay Shellfish Protection District (PBSPD). In addition, the basin within the city ranks in the "Highest Restoration" category (high importance and high degradation) by the Puget Sound Characterization Project.

Central Puget Cold Creek

The Central Puget Cold Creek basin is approximately 680 acres, with over 90 percent located within the city limits. Approximately 15 percent of this basin is zoned for increasing development density in potential areas of ecological concern. Cold Creek drains from Easter Lake and flows directly to Puget Sound. The stream runs through pipes and channels in several locations. Federally listed fall-run Chinook salmon and winter-run steelhead have a presumed presence, and state-listed coastal cutthroat trout are documented within this basin (WDFW 2020a, 2020b). Two fish passage barriers have been identified in the stream; the SR 509 crossing was designated as zero percent passable. To address this, several connected capital projects are either recently completed or now being planned to remove buried pipe and construct new culverts. This basin is also located within the boundary of Poverty Bay Shellfish Protection District (PBSPD) (King County 2018b).

9. SWMU Infrastructure

The City's SWM Utility manages a large interconnected storm drainage system within the public right-of-way.

The figures in Table 1-x include infrastructure in easements and connections with private storm systems. The Utility's overarching goals for this system are to:

- Protect public and private property
- Ensure public safety, and
- Provide run-off flow control and water quality treatments before discharge into receiving waters.

Table 1-x. Surface Water Assets in the City of Federal Way.

Surface Water Asset	Quantity	Units
Bioswale Facilities	170	Each
Coalescing Plate Filters	22	Each
Dispersal Trench Facilities	53	Each
Stormwater Ponds	303	Each
Storm-filter Vaults	119	Each
Stormwater Vaults or Tanks	524	Each
Catch Basins	22,997	Each
Outfalls	271	Each

Pipes	386	Miles
Ditches	91	Miles

Source: Federal Way 2025.

10. Interdepartmental Collaboration

Divisions within the Public Works Department all have roles in day-to-day SWM Utilities functions.

- The Operations Division performs physical inspections of SWM infrastructure and maintenance of ponds and other SWM facilities. Core functions include: management of conservation properties (including ongoing abatements), street sweeping (an augmented sweeping plan will be implemented as required by the Permit), emergency response (managing spills from vehicle accidents, environmental hazard mitigation, etc.), and the recent implementation of a ditching program (including the addition of a dedicated wheeled excavator) to renovate ditches throughout the City.

- The Environmental Services Division performs Water Quality functions such as annual site visits, responses to illicit discharges, and educational functions including volunteer driven activities such as Stream Team and grounds maintenance around SWM facilities.

- All other Divisions (including Administration, Street Systems, Engineering, Traffic, and Development Services) provide specific planning, engineering, and administrative input for the SWM-U.

- Inspection of construction and private stormwater facilities are performed by Development Services and Operations Divisions.

- Overall asset management and project planning is a team effort among all these Divisions, in consultation with local utilities and other Departments within the City.

Other SWM Utility partners include:

- *Community Development*

  The SWM Utility receives data and input from the Community Development Department on long- term planning efforts and capital project permitting.

- *Finance Department*

  The SWM Utility collaborates with the Finance Department to develop project and program budgets, including funding strategies for capital projects and operations.

- *Parks Department*

  The SWM Utility partners with Parks to implement educational and stewardship opportunities and maintain stormwater facilities and conservation areas.

- *Police Department*

The SWM Utility coordinates with the Police Department to maintain and protect conservation properties. These efforts protect surface water from water quality impacts associated with camps on conservation properties

11. Regional Coordination

The SWM Utility continues to work with regional stakeholder groups and other local governments with shared drainage basins to protect groundwater and surface water quality, and to manage and treat surface water effectively. The agencies and regional programs include:

Stormwater Planning

- Coordination with neighboring jurisdictions including KingCounty, Pierce County, and the cities of Tacoma, Des Moines, Milton, and Fife
- King County Conservation Futures Trust
- Washington Department of Ecology
- Washington Department of Fish and Wildlife
- Central and South Sound NPDES Permit Coordinators Groups
- Poverty Bay Shellfish Management District
- Water Resource Inventory Areas 9 and 10 – chiefly focused on salmon recovery

Public Education and Outreach

- Federal Way Public Schools
- Steel Lake and North Lake LMDs

Illicit Discharge Detection and Elimination

- STORM regional education program
- South King Fire
- Washington Department of Ecology
- Washington Department of Fish and Wildlife

Operations and Maintenance

- Lakehaven Utility District

- Regional Road Maintenance Forums
- King County Road Services
- On-call contracted service providers (after-hours spill response, large spills, etc.)

12. SWM-U Applicable Regulations And FWRC

The City's SWM Utility supports efforts to comply with the following local, state, and federal regulations and other requirements:

The Underground Injection Control Program

The UIC program is a federal program intended to ensure that underground sources of drinking water are protected from surface discharges to the ground. In Washington, the UIC program is administered by Ecology through Chapter 173-218 of the WAC. Volume I, Chapter 4 of the Stormwater Management Manual for Western Washington (Ecology 2019c), includes requirements for UIC wells used to manage stormwater.

Ecology TMDL Implementation Plans

TMDL cleanup action is required for water bodies that have been identified as impaired on Ecology's Section 303(d) list due to poor water quality. TMDLs that apply within Federal Way are described in the water bodies section.

Action Agenda for the Puget Sound

The Puget Sound Partnership (PSP) is the regional organization that the Washington State Legislature established to coordinate and lead the effort to recover the Puget Sound. The 2022-2026 Action Agenda Implementation Plan does not list any specific actions for Federal Way .

The Federal Endangered Species Act

The Federal Endangered Species Act (ESA) prohibits the "take" of all listed species, including any "take" that could result from the City's stormwater facility operations or private development stormwater management permitted by the City. "Take" under Section 3(18) of the ESA is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." ESA listings in Federal Way include fall-run Chinook salmon (Puget Sound Evolutionarily Significant Unit), steelhead (Puget Sound distinct population segment), and bull trout (Coastal-Puget Sound distinct population segment).

The Washington State Growth Management Act

The GMA requires the City to inventory and protect environmentally critical areas (such as steep slopes, wetlands, and streams) (Chapter 36.70A of the Revised Code of Washington). The GMA also requires the City plan for environmentally responsible and economically sustainable development, including planning for stormwater-related capital facilities.

Federal Way Revised Code

There are three major sections of the FWRC that govern surface water management:

- FWRC Title 11 Division III – Surface Water Utility: This section establishes thesurface water utility, utility fees, and enforcement mechanisms.

- FWRC Title 16 – Surface Water Management: This section governs aspects of surface water management on new development and redevelopment project sites, as well as inspection and maintenance requirements for private stormwater facilities.

- FWRC Chapter 19.96 – Surface and Stormwater Utility System Development Charges:This chapter governs surface and stormwater utility system development charges.

FWRC Concurrency with Regulatory Standards

The City modified sections of the Federal Way Revised Code (FWRC) in 1999, 2009, 2016, and 2019 to comply with changing stormwater regulations to protect aquatic resources and promote public safety through stormwater management.

Public Works Development Standards and King County design and construction standards

The City has adopted the current King County Surface Water Design Manual (KCSWDM) and the City of Federal Way addendum to the KCSWDM. The City periodically amends the Federal Way Public Works Development Standards (most recently in 2024). These documents set requirements for stormwater design and construction that protect water quality and reduce the potential for pollutant discharges.

Low Impact Development

The City reviewed the following development-related sources to determine how the SWMU can adopt Low Impact Development (LID) elements:

- Federal Way Revised Code (FWRC)
- King County Surface Water Design Manual (KCSWDM)
- Federal Way Addendum to KCSWDM
- Public Works Development Standards
- King County Stormwater Pollution Prevention Manual
- Low Impact Development Technical Guidance Manual for Puget Sound
- The 2024-2029 NDPES Phase II Permit establishes a new goal: Stormwater Management for Existing Development (SMED). In the coming two years, analysis of improvements to existing SWM infrastructure will be included as a dedicated capital project, while eligible capital projects will now include a tracking element to meet the SMED. Projects must be funded by early 2028, and the acreage goal will be calculated per Permit guidelines. Eligible projects may include retrofit

projects, regional coordination with partner agencies, and projects that benefit overburdened communities and/or provide Tribal surface water improvements.

13. NPDES Phase II Municipal Stormwater Permit

The 2024-2029 Phase II Permit establishes requirements for managing stormwater runoff and requires the City to develop several distinct Stormwater Management Program (SWMP) components. The Permit allows conditional discharge of the surface water and runoff managed by the City's conveyances and stormwater structure system. If contaminated water enters the City's system, the City must take enforcement actions and document compliance. When construction projects are planned, they must meet run-off capacity and/or pre-treatment standards that allow the City to accept this run-off into the City's stormwater structures and system.

The Permit also establishes education and outreach requirements and annual reporting standards. Planning and related resources are available through regional stormwater consortiums that all Permittees can access.

The first Phase II Permit was issued to the City by Ecology in 2007. Permits are reissued every five years; the latest Permit is in effect from August 2024 through July 2029. The Permit sets requirements for the City's SWMP. These requirements are generally more stringent with each new Phase II Permit. The Phase II Permit sets eleven primary areas for the City's SWMP to meet requirements:

- Stormwater planning
- Public education and outreach
- Public involvement and participation
- Municipal separate storm sewer system (MS4) Phase II Permit mapping and documentation
- Illicit discharge detection and elimination (IDDE)
- Controlling runoff from new development, redevelopment, and construction sites
- Operations and maintenance (O&M)
- Source control program for existing development
- Compliance with TMDL requirements
- Monitoring and assessment
- Reporting requirements

Some of the current Permit's upcoming milestones include:

- Develop behavior change strategy by July 1, 2025. This is addressed by the Adopt-a-Drain program, which includes a survey to measure behavior change. Implementation is due September 1, 2025 (included in the Adopt-a-Drain program).
- Develop Permit coordination mechanisms among City Departments, to be detailed in the 2026 Annual Report (SWMP) due March 31, 2026.
- Record and submit the location, size, and material type of all known outfalls with March 31, 2026 annual report.
- Document methods used to identify overburdened communities by December 31, 2026.
- Map substantial tree canopy on City-owned properties by December 31, 2026.
- Budget additional stormwater management infrastructure to meet Surface Water Management for Existing Development (SMED) requirement in 2028, as detailed in the CIP Chapter.

A complete list of Phase II Permit requirements can be found online.

With each new Permit cycle, requirements have become broader and, in some cases, more complex. Examples of this include the Stormwater Management Action Planning (SMAP) process, Source Control for Existing Development (SMED), and a Structural Stormwater Control Program designed to reduce impacts to receiving waters caused by discharges from existing development within the MS4. This trend toward more stringent requirements means the City must also plan and budget for future staff and resource needs. If not undertaken earlier, a SMWU Rate Study will be part of the CIP that updates this plan.

14. Climate and Climate Change

The climate in Federal Way is typical of the region with mild, wet winters and warm, dry summers. The average annual precipitation in Federal Way is 41 inches (Climate-data 2020).

Hydrologic changes resulting from climate change will mean that stormwater management controls and enhanced infiltration practices become ever more critical. Climate change also poses challenges to protecting and enhancing water quality.

Table 2-2 outlines anticipated climate change impacts to stream flows, flood risk, water quality, and habitat. Increased winter precipitation will increase flood risk. Higher summertime air temperature will result in an increase in evaporation and transpiration, worsening water conditions and impacting habitat quality and/or encouraging algal blooms. Fish that require cold-water streams are threatened by increased temperatures, reduced dissolved oxygen and reduced stream flow during drought conditions. Coastal habitats will be impacted by sea level rise, and increased erosion effects from waves and storm surges. Lakes and ponds will also be more susceptible to harmful, and potentially dangerous, algal blooms due to warmer temperatures.

Table 1-x. Expected Impacts to Surface Water Management Utilities Due to Predicted Climate Change

Surface Water Management Component	Predicted Impacts to Climate Change (Puget Sound Basin)
Stream Flows	Increased winter flows Decreased summer flows Likely increased magnitude and frequency of peak storm events

Groundwater Supply	Decreased recharge during summer months Increased use/depletion during summer months
Flood Risk	Increased flood risk from rivers, streams, and stormwater conveyance system Possible increase in groundwater-induced flooding Increased flood risk and erosion along coastal areas due to sea level rise and increased storm surge height and force
Water Quality	Increased year-round average and summer water temperature Increased erosion and suspended materials/silt Lower dissolved oxygen Increased algal blooms
Habitat	Wetland conversion from perennial to seasonal Possible loss of streamside vegetation due to scouring/erosion Decrease in cooler/oxygenated aquatic habitat necessary for all salmonids and related species

Based on: Mauger 2017.

Climate Change considerations are key factors when implementing both CIPs and ongoing projects. For example: improving and expanding habitat by rebuilding culverts on Redondo and Cold Creeks, and also restorative tree and shrub planting on conservation properties (increasing shade coverage for wetlands and Hylebos Creek.)

Chapter II

SURFACE WATER MANAGEMENT UTILITY SERVICES AND PROGRAMS

The SWM Utility formed in 1990, coinciding with incorporation of the City of Federal Way. Over that 35-year span, the City has made significant progress to reduce stormwater-related issues that impact Federal Way. Topmost among this work is the completion of many capital projects that address a wide range of drainage problems. City staff, with help from businesses and residents, keep watch on surface water conditions and infrastructure. This, in turn, informs how the SWMU makes plans to resolve run-off issues. The City has adopted ordinances, provided public outreach and support to businesses and property managers for sites with impervious surface, and conducts surface water sampling to identify water quality concerns and track their resolution. These actions are outlined below, along with the City's ongoing plans for future projects and required SWMU permit compliance.

The SWM Utility focuses on three core areas detailed below:

1. *Capital Improvement Program (CIP)*
2. *Asset Management Program*
3. *National Pollutant Discharge Elimination System (NPDES) Phase II Permit compliance*

1. *Surface Water Utility – Recent Capital Improvement Programs (CIP)*

The City has completed many SWMU capital projects over the past decade:

- Installed permeable pavement areas, a 'living' rain garden (for on-site infiltration), and native species plantings during reconstruction of Town Square Park (2016).
- Ongoing annual program to replace failing stormwater conveyances throughout the city to reduce the risk of failure and increase capacity of the SWMU system.
- West Hylebos stream bed restoration at the 373rd bridge to remove gravel and sediment buildup and restore capacity for stream flow (2017).
- Removed unusable structures on West Hylebos conservation properties (2017, 2024).
- Rebuilt the failing earthen berm around the Lakota Wetlands detention area to reduce flooding of Lakota Park and Dash Point Road (2017).
- Pacific Highway Phase 5 – land acquisition and drainage infrastructure installation (2017 - 2018).

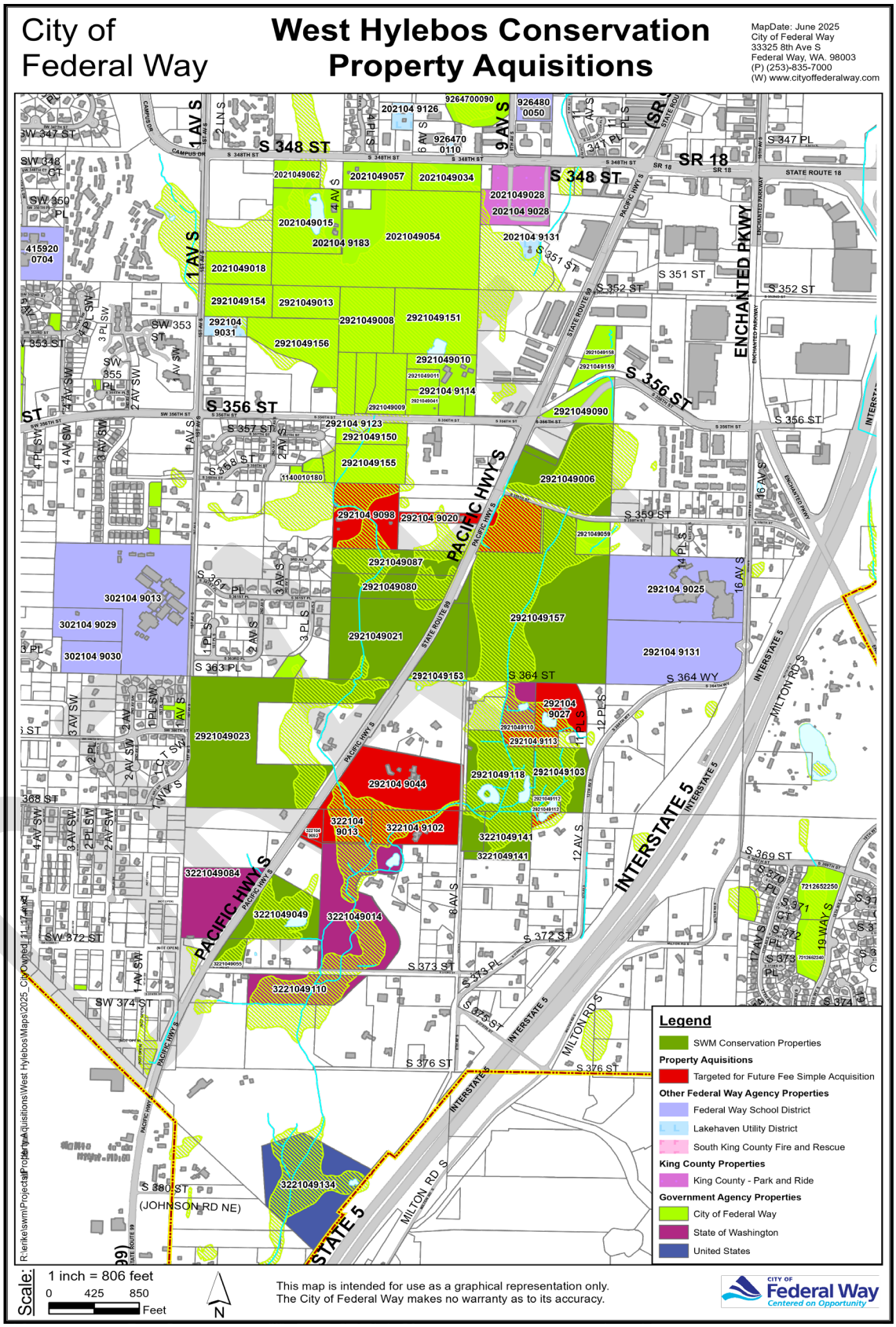
- Extended the West Hylebos Wetlands boardwalk trail to connect to a new trail head at the Brooklake Community Center and also provided additional parking for trail access (2019). In addition, 1.5 acres of property at the Brooklake site was acquired by the City from SKF (2024). This allows the entire site fronting S 356th St to become part of the ongoing Brooklake Master Plan. This supports current CIPs for extended trails systems and interpretive trailheads that will expand existing trails southward from the Brooklake site.

- Replaced failing stormwater pipes at multiple locations through annual Pipe Rehabilitation projects.

- Completed the Cold Creek Basin Study to identify basin improvements to support fish passage and habitat enhancement; stream channel stabilization; and reduced maintenance (2022). Active work on installing a new culvert that allows for fish passage has resulted in four new Cold Creek CIP Phases, as highlighted in Chapter III.

- Conservation Property Acquisitions along the Hylebos. The map below shows land use, acquisitions and owners of major adjacent parcels as of 2024.

(Editor Note: Add Figure Notation for Following Map – remove Scale)


City of Federal Way
West Hylebos Conservation Property Aquisitions
MapDate: June 2025
City of Federal Way
33325 8th Ave S
Federal Way, WA. 98003
(P) (253)-835-7000
(W) www.cityoffederalway.com
S 348 ST
SR 18
PACIFIC HWY S
INTERSTATE 5
ENCHANTED PKWY
MILTON RD S
S 356 ST
S 364 ST
S 372 ST
S 376 ST
(JOHNSON RD NE)
Legend
SWM Conservation Properties
Property Aquisitions
Targeted for Future Fee Simple Acquisition
Other Federal Way Agency Properties
Federal Way School District
Lakehaven Utility District
South King County Fire and Rescue
King County Properties
King County - Park and Ride
Government Agency Properties
City of Federal Way
State of Washington
United States
Scale:
1 inch = 806 feet
0 425 850
Feet
N
This map is intended for use as a graphical representation only.
The City of Federal Way makes no warranty as to its accuracy.
CITY OF Federal Way
Centered on Opportunity

2. *Asset Management System*

As a core responsibility, the SWMU tracks the condition of capital projects, pipes and drainage structures. Video-based Asset Management data recording and tracking began over a decade ago. Remote video inspection allows clear visual access to underground pipes and other surface water infrastructure via closed-circuit video (CCTV). This ongoing in-house video inspection supports ongoing maintenance operations and aids the design and construction of annual pipe rehabilitation projects. These assessments allow the Utility to proactively manage the stormwater system to prevent flooding, drainage problems, and other water quality concerns.

The SWM Utility continues to improve in-field data entry to streamline inspections of catch basins, outfalls, and SWM structures. This aids in planning maintenance, improves the efficiency of Water Quality inspections, and reduces redundancy during preparation of Phase II Permit reports.

The City is currently bringing a substantial Asset Management tool on-line: *Cityworks*. This software will replace other data management systems that are redundant, no longer supported, or unable to interconnect. One of the core functions of *Cityworks* is supporting a comprehensive Asset Management System based on GIS. This system will track all SWM infrastructure plus all periodic inspections of existing sites/structures and new construction - such as during Building Permit processes and during construction when SWM Inspectors perform on-site inspections to verify drainage systems 'fit' with the City's SWM infrastructure.

Cityworks will ultimately itemize a large array of assets managed by the Public Works Department and other departments. *Cityworks* will greatly enhance asset maintenance planning and tracking, which in turn will optimize the useful life of these public assets. *Cityworks* will precisely geo-locate all City-maintained structures, roadway components: curb, gutter, sidewalk, street lights, etc. and all SWM drainage systems: pipes, ponds, culverts, catch basins, etc. *Cityworks* allows links to other utilities sharing the right-of-way to better account for their pipes, wires, and related structures. The added efficiency in planning and tracking the Department's maintenance work and physical assets is expected to accrue benefits and optimize cost-benefits far into the future.

In addition, Public Works continues expanding drone-based capabilities to collect precise data for existing infrastructure (such as detention ponds) and to visually document changes over time. To date, three staff are now certified to operate drone equipment, and future elements (such as LiDAR imaging) are likely to be introduced as technology costs decrease. Drone imagery also supports Public Work's required inspections of new construction – particularly large-scale projects that broadly interface with Public Work's assets and SWMU (such as Sound Transit's light-rail track and related maintenance operations).

3. NPDES Phase II Permit Compliance Program: Education and Outreach and Illicit Discharge and Detection (IDDE)/Water Quality (WQ) actions.

SWMU conducts education and outreach about stormwater related issues that impact the health and well-being of our community, riparian and wetland habitats, and ultimately the Puget Sound. Details about this work are found in the annual "***Surface Water Management Plan***" (SWMP)**.** In conjunction with the annual SWMP, SWMU also prepares an ***Annual Report*** that tracks SWMU's core Water Quality and IDDE actions over the preceding year. These updates are completed each spring, then approved by the City Council, and submitted to Ecology for compliance review. The latest versions are on this webpage: (insert link)

Outreach programs provide opportunities for public participation through volunteer activities, such as stream monitoring, catch basin 'adoption' and curb markers, and the timely removal of litter and debris that may otherwise enter the City's stormwater system.

Core IDDE and WQ elements include:

- **Educational Workshops and Information**: SWM Utility provides outreach focused on actions our citizens can take to help make a positive difference. SWM also provides technical advice to help residents, HOA's, and businesses solve stormwater-related problems.

- **Lake Management District (LMD) Education and Outreach**: SWM Utility coordinates the North Lake and Steel Lake Management Districts, assisting with weed and wildlife surveys through a third-party contractor. Each District's board meets quarterly to approve workplans and to coordinate involvement of all member residents. SWM Utility assists with publishing informational fliers on LMD-related topics to help keep District residents informed.

- **Stormwater Education in Public Schools**: Through the annual **Storming the Sound with Salmon** program, SWM coordinates with the Federal Way School District to implement stormwater-specific educational material in the classroom and in the field during the annual salmon fry release and hands-on learning events typically held over a 4-day period each spring. **Storming the Sound with Salmon** successfully involves over 1,500 students annually.

- **Green Living Workshop Program:** The City plans and hosts free workshops for the public related to green cleaning, natural lawn care, rain gardens, and native planting. All of these trainings directly or indirectly help reduce unwanted impacts to our stormwater system.
- The **Stream Team program:** Volunteers learn how to sample, record, and report stream conditions at five streams in Federal Way. These efforts provide useful data to help identify potential impacts to our waterways and trigger immediate and thorough investigation by WQ staff.

Chapter III.
CAPITAL FACILITIES PLAN

This chapter summarizes the surface water-related capital improvement projects (CIPs). CIPs are physical projects (structures, detention ponds, pipe networks, conveyances, ditches, etc.) that form the backbone of out SWMU operations and ensure that goals are met. CIP goals and key objectives are outlined below:

1. Flood Reduction and Elimination

The City's stormwater system adequately controls stormwater runoff, preventing property damage and protecting public safety.

2. Water Quality Improvement

Surface water bodies in Federal Way meet designated beneficial uses defined by WAC 173-500-050, which include recreation and fish uses. Groundwater is replenished and quality is not degraded by stormwater management.

3. Strategic Asset Management Program

The SWM Utility efficiently manages resources using available technology to build and maintain resilient infrastructure.

4. Social Equity

All core SWM Utility functions are reactive to hydrological conditions. These functions focus on known drainage conditions, as well as infrastructure maintenance and repairs. The SWM Utility focuses on distributing all capital projects equitably, but prioritization also must factor-in core objectives: protecting human health and property, flooding reduction, maintenance efficiency, and cost/benefits. As the saying goes, "water flows downhill" and in practice all basins and neighborhoods are serviced equitably by the SWM Utility's core functions. But most of this utility's functions happen beyond public view - in ponds behind fences, in ditches and pipes, and in catch basins and filtration systems. The SWM Utility benefits the entire community equitably, and does so in a manner similar to how Laws generically apply to society: there's no "tipping the scales." Our services "flow" to where needs exists, when timing and resources are in sync, and to where the SWM Utility can achieve cost-effective results and meet our stated goals.

5. Forecasting for Future Needs - Identification of Concerns and Development of Solutions

CIPs are the major structural components that make up the physical core of the SWM Utility. This chapter of Surface Water Management Utility - Comprehensive Plan Update focuses on capital construction projects anticipated from 2026 through 2031. This Plan builds on the 2019-2025 Surface Water Management Comprehensive Plan, on top of all the prior planning and work stemming from previous plans, budgets, completed capital projects, and ongoing SWMU system maintenance.

This SWMU Plan Update takes a fresh approach for presenting Capital Improvement Projects and budgets. CIP overviews and budgets are presented in a more concise format. This approach takes a "work in progress" approach due to funding uncertainty and likely rising costs, and the potential for emerging critical projects to arise (for example, due to aging infrastructure and/or regulatory changes). Detailed budgets and project schedules are not set by this Plan, instead, these details will be the focus of future Biennial Budgets and ongoing CIP project approval and progress updates that will be presented to the City Council for their consideration and input. Future CIP updates will benefit from more timely cost estimates and more detailed engineering and feasibility assessments.

In practice, each of the City's recurring Biennial Budgets maintains a rolling "Ten-Year CIP" funding horizon. This allows for timelier fiscal and operational considerations to help guide implementation of the CIPs described in this Plan Update.

The following surface water-focused CIP details were developed through City staff input and site reconnaissance, review of related documents and Ecology permit requirements, and desktop assessments and staff discussions to consider site-specific opportunities and constraints that may impact CIPs. CIPs are based on known problem sites, as identified by City staff most familiar with surface water-related issues and structures. Estimated costs were revised from current figures to account for inflation and higher construction, design and land costs. Basic design and construction costs are based on current CIPs that Public Works manages for Street Systems, costs for the City's new O&M Facility, and current costs of infrastructure within the ROW.

Conceptual Designs

Sites associated with stormwater problems were visited to determine the potential cause(s) of the problems. Engineering judgment then identifies appropriate capital projects to address each stormwater problem, factoring in constraints and opportunities at each site. As projects advance they will continue to be adjusted and refined as warranted based on found conditions.

Cost Estimates

Cost estimates were prepared for location-specific (i.e., construction) projects based upon projects of a similar scale and in similar settings. Costs for annual projects are based on City know-how of current similar CIP projects.

Project Prioritization

SWMU CIP projects are prioritized based on input from City operations and engineering staff, ongoing field observations, anticipated benefits (preservation/enhancement of habitat, or reduction/elimination of flooding, etc.) using the following criteria that help meet the City's long-term goals:

- **Flood Reduction:** How much does the project reduce flooding (e.g., reduce frequency, extents, hazards, health risks, property damage)? Will the project reduce peak run-off flows to a flow-impaired water body?

- **Water Quality Improvement:** How much does the project improve surface water quality (e.g., water quality treatment structures)?

- **Environmental Enhancement:** How much does the project improve habitat (e.g., eliminate

significant fish passage barriers, improve existing natural areas, create new habitat)?

- **Infrastructure Operations and Maintenance:** Is the project necessary to allow existing stormwater infrastructure to operate as designed (e.g., rehabilitate existing infrastructure, increase service life of infrastructure, reduce level of effort required for ongoing operations and maintenance)?

- **Public Participation:** Will the project educate the public about stormwaterand/or provide an opportunity for stewardship activities?

- **Equity:** Will the project improve social equity? Will the project improve conditions within a basin?

Each project was assigned a prioritization score. (**Table N-#. CIP Annual Cost & Implementation Schedule.** ****** to be inserted – this will be completed after the CIP Projects table is complete***

CIP PROJECTS TABLE

(Editor's Note: CIP Table / project descriptions will follow in table form – the table will be inserted once internal review is complete and project maps are hyperlinked. City-wide projects do not require project maps.)

SWMU CAPITAL PROGRAMS (CITY WIDE)				
No.	**Name**	**Program Description**	**Cost per year**	**Project Account:**
x34111	Annual Small CIP Program	Miscellaneous small capital projects and substantial maintenance work that is completed by a combination of contracted services and city staff.	$150,000	304-3100-111
x34286	Storm Drain CCTV Inspection & Assessment Program	Storm Drain CCTV Inspection and Assessment Program to track infrastructure conditions to prioritize maintenance, preservation, and replacement.	$100,000	304-3100-286
x34288	Annual Pipe Rehabilitation Program	Miscellaneous small capital projects phased into two annual initiatives: Even Years: Pipe repairs in sections prioritized by inspections, and Odd Years: Pipe Lining in sections prioritized by inspections.	$315,000	304-3100-288
x34295	Annual Catch Basin Repair Program	Annual city-wide program to repair damaged/failing catch basins.	$100,000	304-3100-295
x34xxx	Annual Regional Pond Maintenance and Rehabilitation	Annual program to rehabilitate 1 or 2 regional storm ponds per year. Each project may include: structure retrofits/upgrades, vegetation removal, dredging and spoils disposal, fence installation/repairs, and service access improvements.	$100,000	304-3100-xxx

x	Stormwater Management for Existing Development (SMED) and Stormwater Planning for Low Impact Development (LID)	Annual program to track SWMU and related infrastructure projects that improve water quality - specifically for existing development as required by Section S5.C.7 of the Phase II Permit. A consultant may be retained to perform hydrological analyses of planned CIPs to identify those with the best potential to meet this Permit requirement. Eligible CIPs will include a checklist (similar to annual GASB reporting) to track progress. The Permit requires fully funding or initiating construction of suitable stormwater infrastructure retrofits by March 2028, meaning this may also be a "New Program" proposed for the 2027-2028 Biennial Budget. Management of this annual CIP and tracking/reporting SMED and LID progress will be budgeted and/or assigned as needed.	$250,000	
		Total	**$1,015,000**	

SWMU CAPITAL PROJECTS AND RELATED MAJOR CONSTRUCTION				
No.	**Name (Map Number on p. 37)**	**Project Description**	**Cost**	**Project Account:**
x34271	W. Hylebos Conservation Property Acquisition (#1)	Acquire properties with significant riparian habitats to protect and maintain contiguous wildlife areas within this drainage basin.	$1,200,000	304-3100-271

x34272	S 356th Street Culvert Replacement (at approximately 500 S 356th Street) (#2)	Replace existing twin 57" x 38" arched culverts conveying West Hylebos Creek under S 356th Street. Existing culverts will be removed and replaced with a larger concrete box culvert to improve fish passage and downstream habitat. Culvert construction will coincide with the South 356th Street Roadway Improvements (Streets CIP 36229).	$10,000,000	304-3100-272
x34274	S 359th Street Culvert Replacement (at approximately 1200 S 359th Street) (#3)	Replace aged, small culvert with a larger culvert to improve fish-passage. Improve downstream stretch of stream by removing weirs and by restoring habitat.	$2,000,000	304-3100-274
x34278	West Hylebos Education and Trailhead project (#4)	Develop trailheads and interpretive signage/features throughout the West Hylebos Trail capital projects (significant southern expansion of the Hylebos Wetlands Park Trail, connecting through City-owned parcels). Construction will include parking improvements at trailheads located adjacent to ROW, and related educational signage.	$1,700,000	304-3100-278
x34281	West Hylebos Trail (Spring Valley) East of SR 99 (#5)	Construct a nature trail system within Spring Valley through the North Fork West Hylebos conservation areas (**east of SR-99**). These trails will better connect the community with the natural environment, provide numerous education and outreach opportunities, and encourage environmental stewardship. Construction will include bridges, boardwalks, signage, and improved gravel trails to improve non-motorized access throughout these wetlands.	$3,900,000	304-3100-281

x34281	West Hylebos Trail (Spring Valley) West of SR 99 (#6)	Construct a nature trail system within Spring Valley through the North Fork West Hylebos conservation areas (**west of SR-99**). These trails will better connect the community with the natural environment, provide numerous education and outreach opportunities, and encourage environmental stewardship. Construction will include bridges, boardwalks, signage, and improved gravel trails to improve non-motorized access throughout these wetlands.	$3,900,000	304-3100-281
x34293	Redondo Creek Culvert Replacement at 16th Ave (#7)	Replace failing culvert with fish-passable box culvert, including related stream restoration to improve habitat.	$4,000,000	304-3100-293
x34xxx	Kim's/Hidden Pond Restoration (#8)	Restore Kim's Pond (aka Hidden Pond) and surrounding area into functional wetland habitat. Restoration of wetland will incorporate compatible earthwork that restores creek flow to the intended downstream box culvert to enhance fish passage. Project will include qualifying for necessary ACE and/or State agency permit(s).	$2,100,000	304-3100-XXX
x34xxx	S 324th St and SR-99 Drainage Improvements (#9)	Conduct hydrological drainage study, then design and construct conveyance improvements to address recurring street flooding following intense rainfall.	$400,000	304-3100-XXX
x34xxx	Pipe Upsizing at SW Campus Dr, west of 9th Ave SW (#10)	Upsize two storm drain laterals to prevent periodic roadway flooding.	$500,000	304-3100-XXX
x34xxx	Cold Creek Phase 1 - Unmapped Culvert Replacement (#11)	Replace the unmapped culvert along with "Reach #3" (northern half) and "Reach #4" (approx. 300' north of unmapped culvert), as identified in the "2022 Cold Creek Basin Study and Prioritization Report".	$5,700,000	304-3100-XXX

x34xxx	Cold Creek Phase 2 - Reach #1 Rehabilitation (#12)	Replace "Reach #1" past the limit of WSDOT's 2025 replacement work on the SR-509 culvert, as identified in the "2022 Cold Creek Basin Study and Prioritization Report".	$2,200,000	304-3100-XXX
x34xxx	Cold Creek Phase 3 - S 302nd St & Marine Hills Culvert Replacement (#13)	Replace the S 302nd St & Marine Hills Culvert and "Reach #2" up to WSDOT's 2025 culvert improvements at SR-509, and replace "Reach #3" (the southern half) as identified in the "2022 Cold Creek Basin Study and Prioritization Report".	$6,800,000	304-3100-XXX
x34xxx	Cold Creek Phase 4 - Reach #4 Rehabilitation (#14)	Replace culvert in "Reach #4" except the southern approx. 300' (already included in the Phase 1 Unmapped Culvert project) as identified in the "2022 Cold Creek Basin Study and Prioritization Report".	$2,500,000	304-3100-XXX
0	Commons Mall Pond improvements (#15)	Upgrade Commons Mall Pond. Analyze upstream infill to determine if pond capacity can be modified to manage the potential added runoff. Replace WQ filtration elements with a higher performance filter system.	$4,900,000	304-3100-XXX
x	Lake 6 Trunk Line Rehabilitation (#16)	Using CCTV, inspect and then determine ways to rehabilitate trunkline (draining to the south) likely via sliplining. Assess extent of tree root damage that restricts flow and replace any damaged pipe sections.	$800,000	304-3100-XXX

x	CP206 Pond Assessment and Rehabilitation (Pac Hwy and 356th) (#17)	Rehabilitate pond to promote surface water infiltration. Dredge pond to restore capacity and inspect structures to determine if they function properly. If needed, remove and replace failed structures so the pond functions as originally designed. Improve pond outfall structure and if necessary increase the capacity of the channel immediately below.	$1,400,000	304-3100-XXX
x	Redondo Beach Outfall Project (above and below SW 292nd St) (#18)	Design and construct outfall system to replace existing 'piecemeal' conveyance that is in poor condition. Explore the potential for joint coordination on this project between the City of Des Moines and City of Federal Way.	$2,700,000	304-3100-XXX
x	Joes Creek Study - SW 320th St. Vicinity (#19)	Complete study of Joes Creek downstream of Lake Jean to inform Lake Jean Outfall to Joes Creek - Conveyance Rehabilitation CIP.	$500,000	304-3100-XXX
	Lake Jean Outfall to Joes Creek - Conveyance Rehabilitation (#20)	Rehabilitate open channel and closed conveyance system from Lake Jean into Joe's Creek in the SW 320th St vicinity.	$2,600,000	304-3100-XXX
x	Lakota Berm Project (#21)	Restore berm sections to eliminate the potential for structural failure. Rebuild the berm's outfall structure to improve function.	$5,000,000	304-3100-XXX
x	O&M Decant Facility (#22)	Install decant equipment and make related site improvements at the City's new O&M Facility to accommodate a compact, tank-based decant system (to manage and pre-treat liquid wastes from vactoring).	$1,000,000	304-3100-XXX
34xxx	2032-2036 SWMU Comprehensive Plan & Rate Study	Update Comprehensive Plan for 2032-2036 and complete rate study (consultant support needed).	$400,000	304-3100-XXX
		Total	**$66,200,000**	

IMPLEMENTING CIPS

Editor's note: Once the CIP grouping and prioritization is clear and Table is complete, this text needs to be edited to match.

In addition to the activities and projects listed in Table x-x, City staff will need to conduct several activities to ensure effective implementation of this Plan:

- Seek input from Public Works staff to evaluate the risk of known problems and identify new problems
- Annually review the data contained in Figure xx, and Table xx. Add any new information that is collected regarding each problem and solution
- Annually add new potential projects to the CIP and Non-CIP project lists during the development of the SWMP Annual Report in March
- Ensure stormwater problem and CIP project files have all the information needed for implementing projects and periodically updating CIPs.

SWM UTILITY RATE

The activities and projects laid out in this Plan are funded by revenue collected on property tax parcels. The rates shown in Table x-x were approved by the City Council in 2019. The revenue generated is intended to allow the City to: 1) maintain compliance with regulations, 2) work on correcting significant surface water and stormwater system issues and 3) make progress meeting SWM Utility goals. SWM Utility rates are competitive with neighboring jurisdictions, and adjust annually rather than in larger one-time rate increases. Additional funding options, such as grants and bonds, will be considered as opportunities arise.

The rates adopted in 2019 adjust annually through 2028. A Rate Study is anticipated as part of a CIP but if no adjustments are made, the rates will continue to adjust annually by CPI after 2028.

Table -xx. Annual Rate per Equivalent Service Unit.

Year	2024	2025	2026	2027	2028
Revenue Increase	9%	9%	9%	9%	9%
	$15.03	$16.38	$17.85	$19.46	$21.21
Annual Rate	$182.00	$198.38	$216.23	$235.69	$256.90