



SCAPPOOSE
Oregon

MERCURY TMDL IMPLEMENTATION PLAN

Prepared by City of Scappoose

November 2023

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I. Background

The Environmental Protection Agency (EPA) and the Oregon Department of Environmental Quality (DEQ) are responsible for developing and implementing water quality standards. EPA has identified that the Willamette River and many tributaries within the Willamette Basin do not meet current standards for mercury levels. Among the water quality standards established by the Clean Water Act, the Act requires a Total Maximum Daily Load, or TMDL, to be developed for waters that have been identified as failing to meet the thresholds for particular pollutants, in this instance mercury.

On Nov. 22, 2019, DEQ issued the Final Revised Willamette Basin Mercury Total Maximum Daily Load and Water Quality Management Plan that was submitted to the U.S. Environmental Protection Agency (EPA) for action. EPA disapproved DEQ's TMDL on Dec. 30, 2019, and issued their final TMDL on Feb. 4, 2021, following a public comment period. The Water Quality Management Plan continues to remain in effect. The WQMP describes the framework for implementing the required management strategies in accordance with EPA's Mercury TMDL. Additionally, the WQMP identifies Designated Management Agencies (DMA) other than DEQ that have implementing responsibilities as it relates to mercury in the Willamette Basin.

The final Mercury TMDL and WQMP document the necessary mercury reductions and planned implementation through best management practices, conservation strategies, and other management strategies to reduce the amount of mercury entering the Basin over the coming years and decades.

II. Introduction and Organization of the City of Scappoose Mercury TMDL Implementation Plan

Pursuant to Oregon Administrative Rule (OAR) Chapter 340, Division 42, local governments that are identified as DMAs are required to develop and adopt a Mercury TMDL Implementation Plan, which must be approved by DEQ. The Implementation Plan is required to contain pollution mitigation and reduction strategies that the DMA will take to reduce the total load of mercury contributed to the Basin from within the DMA's jurisdiction.

III. City of Scappoose

The City of Scappoose – a community with a population of just over 8,000 residents as of 2022 – is situated in the Lower Willamette Subbasin, along the Multnomah Channel in Columbia County, 20 miles northwest of Portland. The City obtains its water supply from three surface water diversions (South Fork Scappoose Creek, Lazy Creek, and Gourlay Creek¹) and five permanent groundwater wells. The City's supply sources are treated at two water treatment plants – the Keys Road WTP (surface and groundwater) and Miller Road WTP (groundwater only). The City's stormwater system is comprised of drywells, pipe of various diameters, public and private detention basins, and South Scappoose Creek.² Wastewater is conveyed to and treated at the City's Wastewater Treatment Plant on East Columbia Avenue. The City holds an NPDES permit for discharging treated effluent into the Multnomah Channel.

According to DEQ's Willamette Basin TMDL and WQMP, mercury enters the Basin from local, regional, and global sources. Locally and regionally, mercury sources include nearby natural sources (e.g. resurfacing groundwater, soil erosion, air emissions), wastewater discharges, and combustion of fossil fuels. Mercury is also contained in many consumer products such as fluorescent lights, thermometers, old automobile switches, and dentistry equipment. Global sources of mercury deposition include natural sources (such as wildfires and forest fires) and large-scale combustion from human activities (e.g. transportation, industry). DEQ estimates that surface runoff of atmospherically deposited mercury and erosion of mercury containing soils account for approximately 76% of total mercury contributions to the Basin.

IV. Applicable Water Quality Targets

There are two categories of sources of pollutants, as defined by DEQ – 'nonpoint sources' and 'point sources.' Nonpoint sources include the general nonpoint source sector (i.e. background sources, forestry, agriculture, dams, water conveyance entities), legacy metals mining sector, cities' stormwater conveyance systems not regulated under an MS4 permit (such as the City of Scappoose), and atmospheric sources.

¹ The surface water diversions at South Fork Scappoose Creek, Lazy Creek, and Gourlay Creek are all located approximately five miles west of City limits and are not impacted by stormwater runoff originating from within the City.

² This portion of South Scappoose Creek runs adjacent to and approximately 0.25 miles west of US30.

Point sources include permitted wastewater and stormwater dischargers. The following table shows the target reduction percentages by source sector that are applicable to the City.

Table 1 – Target Percent Reductions of Total Mercury Applicable to DMAs in the Multnomah Channel Area of Mercury

Nonpoint Sources	Target % Total Mercury Reduction
Agriculture, forest, shrub, developed, other ³ (runoff and sediment)	88%
Non-Permitted Urban Stormwater Sector	75%

V. Overview of the Implementation Plan

Pursuant to OAR 340-042-0080(4), DMAs identified in a WQMP as responsible for developing and revising sector-specific or source-specific implementation plans must prepare an implementation plan and submit the plan to DEQ for review and approval according to the schedule specified in the WQMP. Following DEQ approval, DMAs are required to implement the plan. The required components of the implementation plan include:

- A) Post the approved implementation plan on the City’s website.
- B) Identify the management strategies the DMA will use to achieve load allocations and reduce pollutant loading.
- C) Provide a timeline for implementing management strategies and a schedule for completing measurable milestones.
- D) Provide for performance monitoring with a plan for periodic review and revision of the implementation plan.
- E) To the extent required by ORS 197.180 and OAR 340-18, provide evidence of compliance with applicable statewide land use requirements.
- F) Provide any other analyses or information specified in the WQMP.

Additionally, the implementation plan must provide an estimate of the technical and financial resources, costs, and authorities that will be necessary to implement the plan. Furthermore, EPA has established six stormwater control measures to reduce pollutant impacts to waters. For cities *without* MS4⁴ permits, DEQ is requiring implementation of these six minimum stormwater measures to achieve the mercury goals

³ “Other” includes additional land uses: barren, grassland/herbaceous, pasture/hay, wetlands and open water excluding the river network and lakes explicitly represented in the HSPF watershed model.

⁴ Municipal Separate Storm Sewer System (MS4)

detailed in the WQMP. The six minimum measures are listed below. See **Appendix A** for a full table complete with a description of each measure as defined by DEQ.

- 1) Pollution Prevention and Good Housekeeping for Municipal Operations
- 2) Public Education and Outreach
- 3) Public Involvement and Participation
- 4) Illicit Discharge Detection and Elimination
- 5) Construction Site Runoff Control
- 6) Post-Construction Site Runoff for New Development and Redevelopment

In addition to these six minimum measures, the City has several strategies that will work to reduce pollutant loading that are of an ongoing nature.

Also, the community's local partners – Scappoose Bay Watershed Council (SBWC)ⁱ and the Columbia Soil and Water Conservation District (CSWCD)ⁱⁱ – work to preserve and improve the quality of waterways in the Lower Willamette Subbasin. The City will partner with SBWC and CSWCD where possible, specifically as it pertains to public education and outreach.

This Plan will be uploaded to the City website for access by the public.

VI. City of Scappoose Actions

Measure #1 -- Implement Stormwater Master Plan

Goal: Adopt City of Scappoose Stormwater Master Plan

Current Conditions: Prior to the adoption of the Stormwater Master Plan in 2022, the Stormwater Master Plan was out of date, having last been updated in 1998. It did not adequately reflect the current or future needs of the City's stormwater management system. The new Master Plan is a major improvement.

Actions: Completion and implementation of Stormwater Master Plan.

Progress Measurement: Completion of items identified within the Stormwater Master Plan, including rate increases, staffing levels, levels of service, and completion of Capital Improvement Plan.

Timeline: The new Stormwater Master Plan was completed in 2022. Upon adoption, the City began immediate implementation of certain parts of the plan by updating stormwater rates, and is working to fund additional staffing as suggested in the Plan. City is currently working on attaining funding for Capital Improvement Plan projects through rates and SDCs.

Measure #2 – Pollution Prevention and Good Housekeeping for Municipal Operations

By March 3, 2024

Requirement: See Appendix A

Pollutant Source: Stormwater runoff

Goal: Reduce debris and associated pollutants from entering waterbodies by cleaning catch basins, scheduled filter replacement, and sediment manhole and UIC cleaning as needed

Current Conditions: The City currently engages in housekeeping strategies including catch basin cleaning, manhole inspections, and Contech filter replacement. Catch basins are inspected annually and cleaned as needed. Contech filters are replaced every two years, UICs are inspected annually, sedimentation manholes are inspected annually and cleaned when needed.

The City has evaluated its facilities to determine if any facilities within the City require a 1200-Z Industrial Stormwater General Permit. The City does not currently own or operate any facilities that engage in industrial activity identified in DEQ's 1200-Z Industrial Stormwater General Permit.

Action: In addition to continuing the current housekeeping strategies, the City will develop and implement a storm facility maintenance and pollution plan now that the Stormwater Master Plan has been adopted. The storm facility maintenance plan will be developed and implemented by March 3, 2024.

The City will continue review facilities to ensure that any facilities owned by the City that require a 1200-Z permit have coverage under said permit.

Progress Measurement: Document catch basins cleaned, UICs and sediment manholes inspected and cleaned, and filters replaced. Document the number of cubic yards captured and disposed; progress will be measured by an annual reduction in disposed materials.

Document if any new facilities that require a 1200-Z Industrial Stormwater General Permit exist, and ensure they are adequately permitted.

Timeline for Completion: Ongoing; maintenance plan beginning March 3, 2024.

Measure #3 – Pollution Prevention and Good Housekeeping for Municipal Operations (Street Sweeping)

Pollutant Source: Debris in roadway

Goal: Regular street sweeping

Current Conditions: The City currently sweeps streets weekly in the fall, and sweeps all curbed streets once a month in the spring and summer.

Actions: The City will continue to sweep weekly in the fall, and monthly in the spring and summer.

Progress Measurement: Tracking the amount of debris disposed of annually.

Timeline: Ongoing

Measure #4 – Public Education and Outreach

By March 3, 2024

Requirement: See Appendix A.

Goal: Educate the public about water quality management practices to reduce pollutant load on waterbodies.

Current Conditions: The City engages in outreach with partners such as the Scappoose Bay Watershed Council, Columbia Sewer and Water, and the Lower Columbia Estuary Partnership. The City posts educational materials created by these partners to the City website and Facebook page. The City also has a website for stormwater management: www.scappoose.gov/publicworks/page/stormwater-management.

Actions: Share educational materials about water quality and waste containing mercury, promote Columbia County's Household Hazardous Waste annually, and coordinate with partners when possible. Educational materials, including this Plan, will be posted on the City website, City Facebook page, or on the City app as well as in-person materials distributed by mail with City Newsletters or utility bills, or posted on the City Hall notifications board.

Progress Measurement: Measure the number of Facebook post engagements, number of City app downloads, number and type of flyers distributed and/or displayed. Track comments via surveys distributed to the public regarding water quality and City outreach efforts. The City will evaluate education and outreach efforts annually for messaging quality and public feedback.

Timeline: Implement a public education and outreach plan by March 3, 2024.

Measure #5 – Public Involvement and Participation

By March 3, 2024

Requirement: See Appendix A.

Goal: Facilitate public involvement

Current Conditions: The City currently has a website for stormwater management, as mentioned above. When ordinances are created or modified, City Council discusses those ordinances at public meetings where the public is able to comment. City Council also receives annual updates on the status of stormwater operations at public meetings.

Actions: Upload the Plan to the City's stormwater management page. Solicit feedback via online surveys, using the City Facebook and City app to promote the Plan following public outreach efforts in #4 above. Present Mercury TMDL Plan to City Council after DEQ approval.

Progress Measurement: Track number of engagements on Facebook, number of City app downloads. Track public comments and feedback on surveys and at Council meetings. Factor public opinion into

decisions when applicable. Look for an overall reduction in negative feedback or complaints from surveys and other outreach efforts.

Timeline: March 3, 2024.

Measure #6 – Illicit Discharge Detection and Elimination

By September 3, 2025

Requirement: See Appendix A.

Pollutant Source: Illegal sewer connection, illegal dumping in storm drains

Goal: Detect and eliminate illicit discharges/dumping

Current Conditions: The City monitors for illegal dumping and stormwater connections via regular Public Works inspections as well as complaints from the public. Complaints are received through the City’s website, or direct phone calls to the City. Complaints are tracked and physical copies of these complaints are filed by the City.

The City regularly updates inventory in GIS, including all new outfalls, connections and water quality facilities. The City’s GIS system data is based on as built plans and field surveys, and follows industry standards.

Actions: Ensure all new outfalls and water quality facilities are continually updated in City’s GIS system. The City will record complaints and maintenance efforts in our asset management system, CityWorks, in order to ensure that facilities are maintained frequently. Update SMC 8.20.050 to explicitly ban illegal dumping.

Progress Measurement: Document inventory updates to GIS. Document and respond to complaints about water quality, illegal dumping, or illicit discharges; progress will be measured by a reduction in annual complaints. Ensure SMC 8.20.050 is updated.

Timeline: Milestone 1: Review and draft update to SMC 8.20.050 by the summer 2024.

Milestone 2: Develop process for complaints and enforcement in conjunction with Police Department by the end of 2024.

Milestone 3: Implementation of said process by September 3, 2025.

Measure #7 – Construction Site Runoff Control

By September 3, 2030

Requirement: See Appendix A.

Pollutant Source: Erosion from construction sites

Goal: Reduce construction site sediment runoff

Current Conditions: Scappoose Municipal Code 17.154.107 Erosion Control requires adherence to Public Works Design Standards as guidelines for erosion control. Erosion control permit required (1200C) for >0.5 acre soil disturbance.

Actions: Review Scappoose Municipal Code sections and update if necessary.

Progress Measurement: Maintain records of issued 1200C permits, track number of inspections completed as well as the number of enforcement actions, with the goal of reducing enforcement actions necessary.

Timeline: Milestone 1: Review sufficiency of existing relevant code sections and determine necessary enforcement measures by end of 2024.

Milestone 2: Update Public Works Design Standards and update municipal code and permits as necessary by end of 2026.

Milestone 3: Propose draft ordinance to City Council for adoption by summer 2027.

Milestone 4: New ordinance takes effect requiring permit for this class of construction projects by end of 2028.

Measure #8 – Post-Construction Site Runoff for New Development and Redevelopment

By September 3, 2030

Requirement: See Appendix A.

Pollutant Source: Soil erosion from post-construction sites

Goal: Mitigate pollutant load entering stormwater system and waterbodies

Current Conditions: The City monitors the health of all new development and redevelopment projects and requires developers to correct deficiencies during a one-year warranty period. At the conclusion of the warranty period, the City ensures that continued maintenance and management of stormwater maintenance facilities are provided by the property owner or HOA as identified in the maintenance agreement. Failures to comply with the maintenance agreement are currently addressed by Scappoose code enforcement. The City currently maintains a list of stormwater system maintenance agreements.

Actions: City to begin adding maintenance agreements into CityWorks. Implement inspection and reporting based on City's inventory. City is also working to create a plan to improve long-term maintenance of failing facilities due to the dissolution of HOAs that previously maintained those facilities.

Progress Measurement: Reduction in facility complaints, with the goal of increased compliance levels over time.

Timeline: Completion of standards by September 2030.

Measure #9 – Require Stormwater Detention and Water Quality Measures for Development

Pollutant Source: Increased impervious surface area necessitated by increased impact of development

Goal: Mitigate pollutant load entering stormwater system and waterbodies

Current Conditions: Drainage plans are required to be submitted to City per SMC 17.120.180(N). Storm drainage required for new development projects per SMC 17.154.120. Public Works Design Standards Section 2.0000 – Storm Drainage details design requirements and specifications.

Actions: Enforce applicable land use development code (SMC Title 17) and provisions and applicable Public Works Design Standards during development plan review. Coordinate new asbuilt information with City's GIS managed services consultant.

Progress Measurement: Maintain records of water quality and stormwater detention facilities.

Timeline: Ongoing.

Measure #10 – Partner with Agencies on Scappoose Creek Management (When Possible)

Pollutant Source: Erosion of Scappoose Creek Banks

Goal: Mitigate erosion of creek banks, reducing the amount of sediment entering the creek.

Current Conditions: The City works with Scappoose Bay Watershed Council, Lower Columbia Estuary Partnership, and Columbia Soil and Water Conservation District to conduct landscaping and creek projects with the goal of controlling erosion and enhancing the riparian zone.

Actions: Continue partnership with SBWC, LCEP, and CSWCD.

Progress Measurement: Document procurement efforts, IGAs, and meeting minutes with SBWC, LCEP, and CSWCD on creek-related projects (if applicable).

Timeline: Ongoing.

VII. Monitoring Procedures

In addition to the monitoring procedures listed alongside each management strategy above, the City will also monitor annual disposal volumes. The City will monitor year-over-year change in disposal volumes, as well as ensure facilities are inspected annually. Photographs will be taken to document changes year-over-year.

VIII. Adaptive Management and Reporting Requirements

Pursuant to DEQ's Mercury TMDL and WQMP, the City will adaptively manage the mercury reduction strategies through a collaborative review and reporting process with DEQ. More specifically, the City will review the management strategies matrix (Table 2) and submit a report to DEQ on the City's progress with respect to the strategies on an annual basis. If significant changes in the mercury reduction strategies are necessary, then the implementation plan will need to be updated ahead of the five-year review. Five years after the City's Mercury TMDL Implementation Plan is adopted, the City and DEQ will collaboratively review the implementation plan to evaluate whether strategies, timelines, milestones, or other components of the plan should be updated for the next five-year period. This plan will be submitted to DEQ in 2028. See **Appendix C** for the Implementation Plan Reporting Matrix, which includes a section for annual status updates.

IX. Land Use Compliance

Statewide Planning Goals Oregon Administrative Rules 660 Division 15 establishes several Statewide Land Use Planning Goals that are relevant to this Plan:

- Goal 5 describes the protection of natural resources, including wetlands and riparian corridors.
- Goal 6 describes the protection of air, water quality, and land resources quality.
- Goal 7 describes protection of areas subject to natural disasters and hazards.

The City has adopted several zoning regulation overlays to implement Goal 5, referred to as the Fish and Riparian Corridor Overlay and the Sensitive Lands Wetlands Overlay. The City maintains an adopted List of Significant Goal 5 Natural Resources areas in Scappoose and its UGB, which consists of riparian corridors, wetlands, and other wildlife habitat. The Fish and Riparian Corridor Overlay and the Sensitive Lands Wetlands Overlay require that a buffer be maintained around each significant wetland of 25-feet (if not adjacent to a riparian area) or 50-feet if adjacent to the riparian corridor. Scappoose Municipal Code Chapters 17.89 and 17.85 provide the standards for development within or adjacent to riparian areas and wetlands, respectively. These chapters also include incentives for avoiding impacts to these resource areas. A Local Wetland Inventory has also been developed by the City under Goal 5 to inform planning and new development.

Goals 6 and 7 are addressed in the Comprehensive Plan as well, and a list of concerns and local conditions regarding the protection of air, water quality, land resources quality, floodplains, and steep slopes are included.

The City's adopted regulations related to stormwater management can be found in the below list of Scappoose Municipal Code chapters and Public Works Design Standard sections. Together, these regulations implement the goals and policies of the Comprehensive Plan, and ultimately, Statewide Planning Goals 5, 6 and 7:

- 1) **SMC 13.22 – Stormwater Management** – established the Stormwater Utility and incurred charge rate structure to fund the utility.

- 2) **SMC 17.81 – Planned Development Overlay** – provides the procedure and approval criteria for planned developments, which encourages the conservation of natural areas by allowing clustered development that avoids impacts to sensitive areas.
- 3) **SMC 17.84 – Sensitive Lands – Flooding** – regulates City development standards with respect to the current floodplain and floodways within the City in order to promote public health, safety and general welfare, and to minimize public and private losses due to flooding.
- 4) **SMC 17.85 – Sensitive Lands – Wetlands** – established to protect and restore significant wetland areas, thereby protecting and restoring the hydrologic, ecological, and land conservation functions these areas provide. Specifically, this chapter is intended to protect habitat for fish and other aquatic life, protect habitat for wildlife, protect water quality for human uses and for aquatic life, control erosion and limit sedimentation, and reduce the effects of flooding.
- 5) **SMC 17.86 – Sensitive Lands – Slope Hazard** – established to regulate development and alterations to steep slope areas in order to protect members of the public and public resources and facilities from injury, loss of life, property damage, or financial losses due to erosion, flooding, landslide, seismic events, soil subsidence or steep slope failures.
- 6) **SMC 17.89 – Sensitive Lands – Fish and Riparian Corridor Overlay** – established to protect and restore water bodies and their associated riparian areas, thereby protecting and restoring the hydrologic, ecological and land conservation functions these areas provide. Specifically, this chapter is intended to protect habitat for fish and other aquatic life, protect habitat for wildlife, protect water quality for human uses and for aquatic life, control erosion and limit sedimentation, and reduce the effects of flooding. This chapter attempts to meet these goals by excluding structures from areas adjacent to fish-bearing lakes and streams, and their associated wetlands, and by prohibiting vegetation removal or other alterations in those areas.
- 7) **SMC 17.120 – Site Development Review** – this portion of SMC provides the framework for the City’s development application review process to implement the City’s Comprehensive Plan.
- 8) **SMC 17.154.100 – Street and Utility Improvement Standards – Storm Drainage** – storm drainage required for managing stormwater and floodwater runoff.
- 9) **SMC 17.154.107 – Street and Utility Improvement Standards – Erosion Controls** – established City’s standards and guidelines for erosion control using the Public Works Design Standards.⁵

⁵ Storm drainage design standards are included in Section 2.000 of the City of Scappoose Public Works Design Standards (PWDS).

X. Appendices

A. Appendix A – Table⁶ of Minimum Stormwater Control Measures for Cities without an MS4 Permit

Stormwater Control Measure	Requirements
1) Pollution Prevention and Good Housekeeping for Municipal Operations	<p>DMAs must properly operate and maintain its facilities, using prudent pollution prevention and good housekeeping to reduce the discharge of mercury-related pollutants, such as sediment, through the stormwater conveyance system to waters of the state.</p> <p>DMAs must ensure that DMA-owned or operated facilities with industrial activity identified in DEQ’s 1200-Z Industrial Stormwater General Permit have coverage under this permit. The DMA must also conduct its municipal operation and maintenance activities in a manner that reduces the discharge of pollutants to protect water quality.</p> <p>DMAs must maintain records for activities to meet the requirements of [this control measure] and include a descriptive summary of their activities in the required TMDL Annual Report.</p>
2) Public Education and Outreach	<p>DMAs must conduct an ongoing education and outreach program to inform the public about the impacts of stormwater discharges on waterbodies and the steps that they can take to reduce mercury-related pollutants in stormwater runoff. The education and outreach program must address stormwater issues of significance within the DMA’s community.</p> <p>DMAs must track implementation of the public education and outreach requirements. In each corresponding TMDL Annual Report, the DMA must assess their progress toward implementation of the program, including a qualitative evaluation of at least one education and outreach activity corresponding to the reporting timeframe for the associated TMDL Annual Report. The evaluation should be used to inform future stormwater education and outreach efforts to most effectively convey the educational material to the target audiences.</p>
3) Public Involvement and Participation	<p>DMAs must implement a public involvement and participation program that provides opportunities for the public to effectively participate in the development of stormwater control measures. The DMA must comply with their public notice requirements when implementing a public involvement participation process, including maintaining and promoting at least one publicly accessible website with information on the city’s stormwater control implementation, contact information and educational materials.</p>
4) Illicit Discharge Detection and Elimination	<p>DMAs must implement and enforce a program to detect and eliminate illicit discharges into the stormwater conveyance system. An illicit discharge is any discharge to a stormwater conveyance system that is not composed entirely of</p>

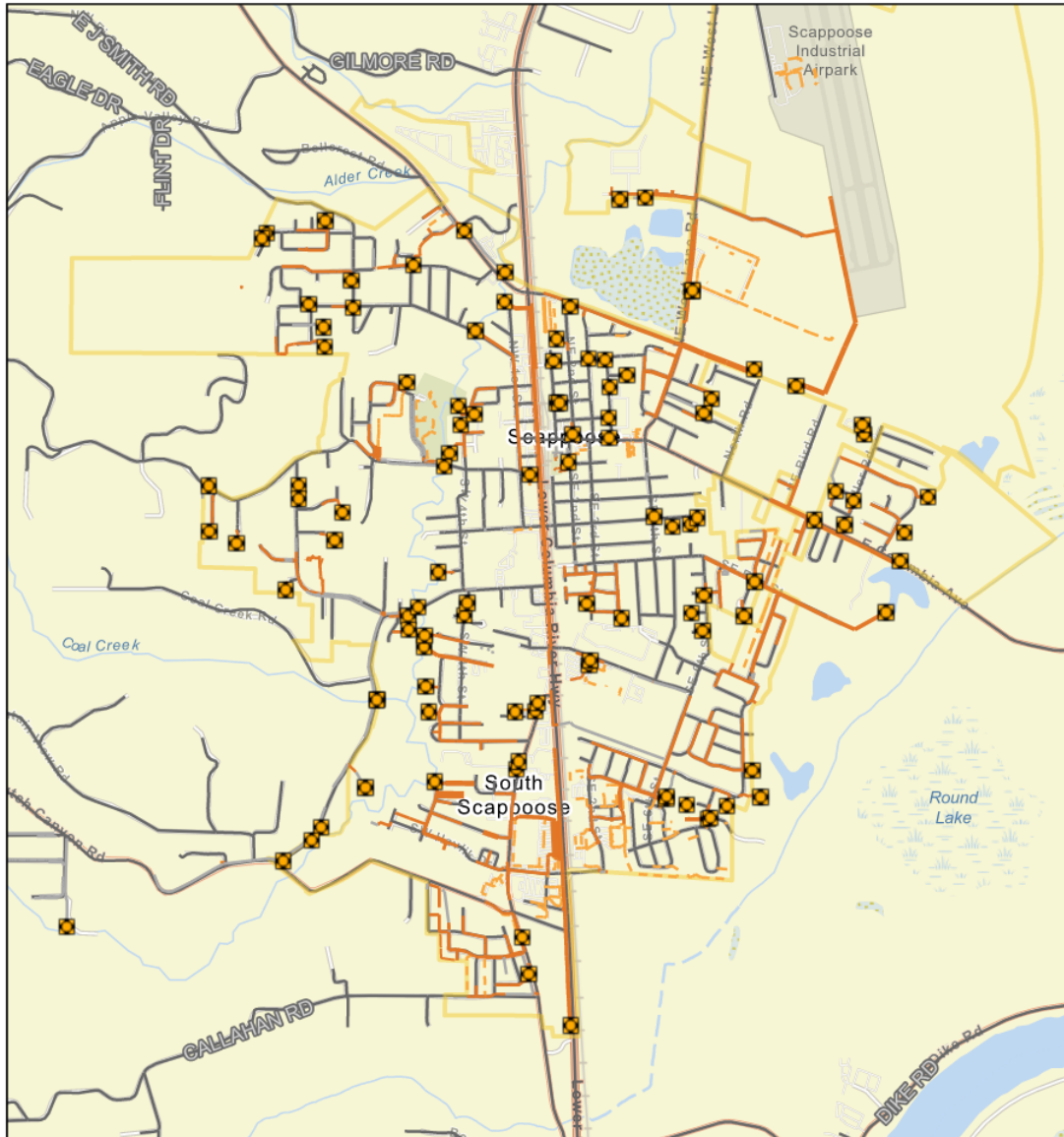
⁶ Oregon Department of Environmental Quality. (2019). *Final Revised Willamette Basin Mercury Total Maximum Daily Load*, at 92 – 221.

	<p>stormwater. The DMA must develop and maintain a current map of their stormwater conveyance system. The stormwater conveyance system map and digital inventory must include the location of outfalls and an outfall inventory, conveyance system and stormwater control locations. The DMA must make maps and inventories available to DEQ upon request. When in digital format, the DMA must fully describe mapping standards in the TMDL implementation plan or other city planning document.</p> <p>The IDDE program must prohibit non-stormwater discharges into the stormwater conveyance system through enforcement of an ordinance or other legal mechanism, including appropriate enforcement procedures and actions to ensure compliance. The ordinance or other regulatory mechanism must also define the range of illicit discharges it covers, including those discharges that are conditionally allowed, such as groundwater and lawn watering discharges. The IDDE program must also maintain a procedure or system to document all complaints or reports of illicit discharges into and from the stormwater conveyance system.</p> <p>The DMA must track implementation of the IDDE program requirements. In each TMDL Annual Report, the DMA must assess their progress towards implementation of the program.</p>
<p>5) Construction Site Runoff Control</p>	<p>DMAs must refer project sites to DEQ, or the appropriate DEQ agent, to obtain NPDES 1200-C Construction Stormwater Permit coverage for construction projects that disturb one or more acres (or that disturb less than one acre, if it is part of a “common plan of development or sale” disturbing one or more acres).</p> <p>In addition, DMAs must require construction site operators to complete and implement an Erosion and Sediment Control Plan for construction project sites in its jurisdictional area that result in a minimum land disturbance of 21,780 square feet (0.5 acres) or more, and are not already covered by a 1200-C permit.</p> <p>Through ordinance or other regulatory mechanism, to the extent allowable under state law, the DMA must require erosion controls, sediment controls, and waste materials management controls to be used and maintained at all qualifying construction projects (as described above) from initial clearing through final stabilization to reduce pollutants in stormwater discharges to the stormwater conveyance system from construction sites.</p> <p>The DMA must develop, implement and maintain a written escalating enforcement and response procedure for all qualifying construction sites. The procedure must address repeat violations through progressively stricter response, as needed, to achieve compliance.</p> <p>The DMA must track implementation of its construction site runoff program required activities. In each TMDL annual report, the DMA must assess their progress toward implementing its construction site runoff program’s control measures.</p>

<p>6) Post-Construction Site Runoff for New Development and Redevelopment</p>	<p>DMA's must develop, implement, and enforce a program to reduce discharges of pollutants and control post-construction stormwater runoff from new development and redevelopment project sites in its jurisdictional area. Example of such programs and program elements are provided in DEQ's Mercury TMDL and WQMP in Appendix D.</p> <p>Through ordinance or other regulatory mechanism, the DMA must require the following for project sites discharging stormwater to the storm water conveyance system that create or replace 10,890 square feet (0.25 acres) or more of new impervious surface area:</p> <p>(A) The use of stormwater controls at all qualifying sites. (B) A site-specific stormwater management approach that targets natural surface or predevelopment hydrological function through the installation and long-term operation and maintenance of stormwater controls. (C) Long-term operation and maintenance of stormwater controls at project sites that are under the ownership of a private entity.</p> <p>The DMA must target natural surface or predevelopment hydrologic function to retain rainfall on-site and minimize the offsite discharge of precipitation utilizing stormwater controls that infiltrate and evapotranspire stormwater. For projects that are unable to fully retain rainfall/runoff from impervious surfaces must be treated prior to discharge with structural stormwater controls. These stormwater structural controls should be designed to remove, at a minimum, 80 percent of the total suspended solids.</p> <p>The DMA must maintain records for activities to meet the requirements of the post-construction site runoff program requirements and include a descriptive summary of their activities in the TMDL Annual Report.</p>
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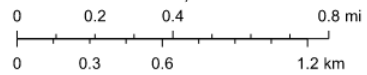
B. Appendix B – Map of Scappoose Storm System

Scappoose Storm System (Public Assets)



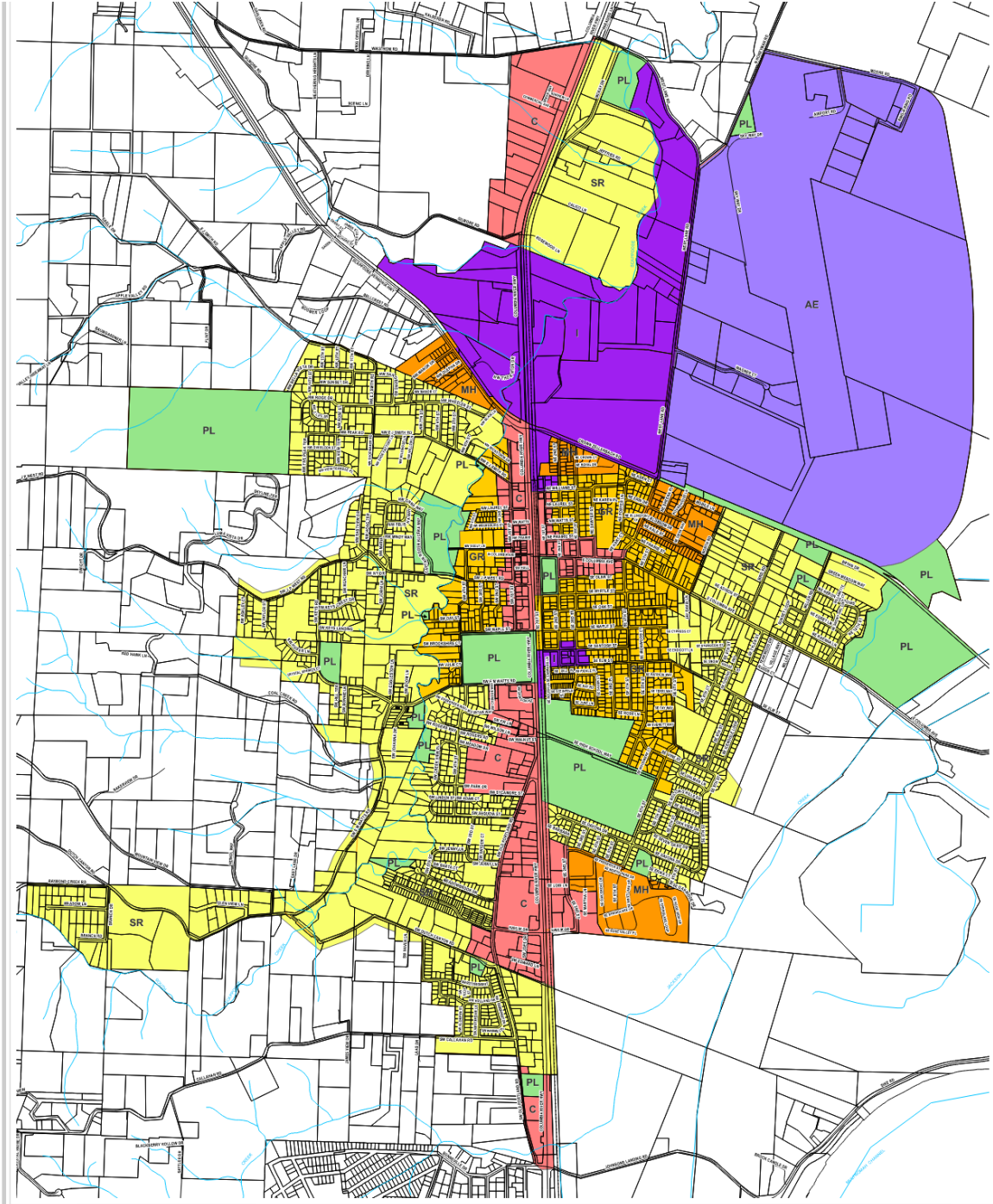
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Oregon Metro, State of Oregon GEO, WA State Parks GIS, Esri Canada, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA

C. Appendix C – Comprehensive Plan Map



City of Scappoose

Comprehensive Plan Map



- Legend**
- Streets
 - ~ Rivers
 - Railroads
 - ⊞ Taxlots
 - ▭ City Limits

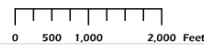
- Comprehensive Plan Designation**
- SR - Suburban Residential
 - GR - General Residential
 - MH - Manufactured Home
 - C - Commercial
 - I - Industrial
 - AE - Airport Employment
 - PL - Public Lands

1" = 1500'

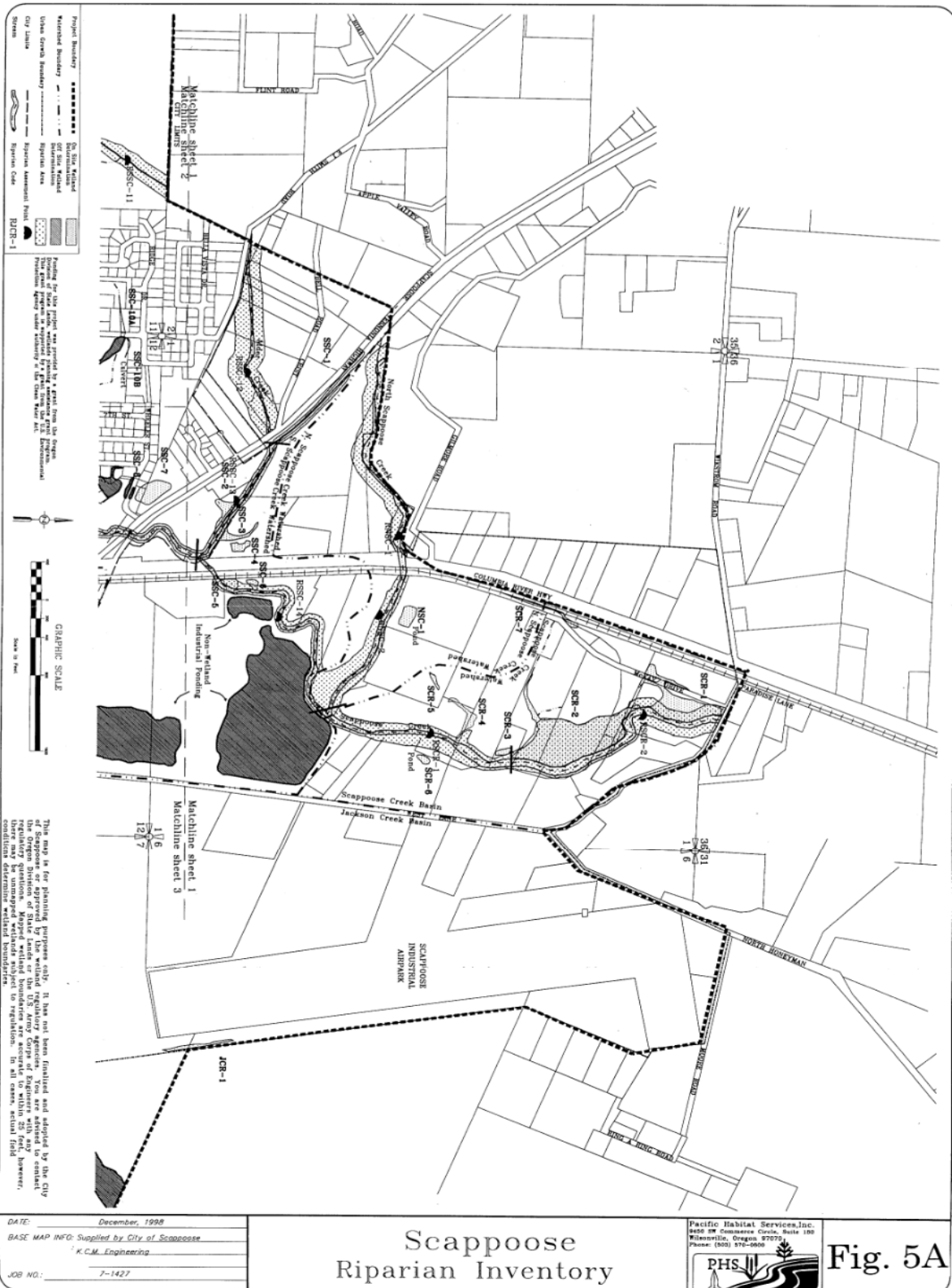


Taxlot Revision: 5/2020

Compilation Date: 5/2020



D. Appendix D – Maps of Local Riparian Inventory



Maps available at: www.scappoose.gov/planning/page/local-wetlands-and-riparian-inventory-maps



DATE: December, 1998

BASE MAP INFO: Supplied by City of Scappoose

K.C.M. Engineering

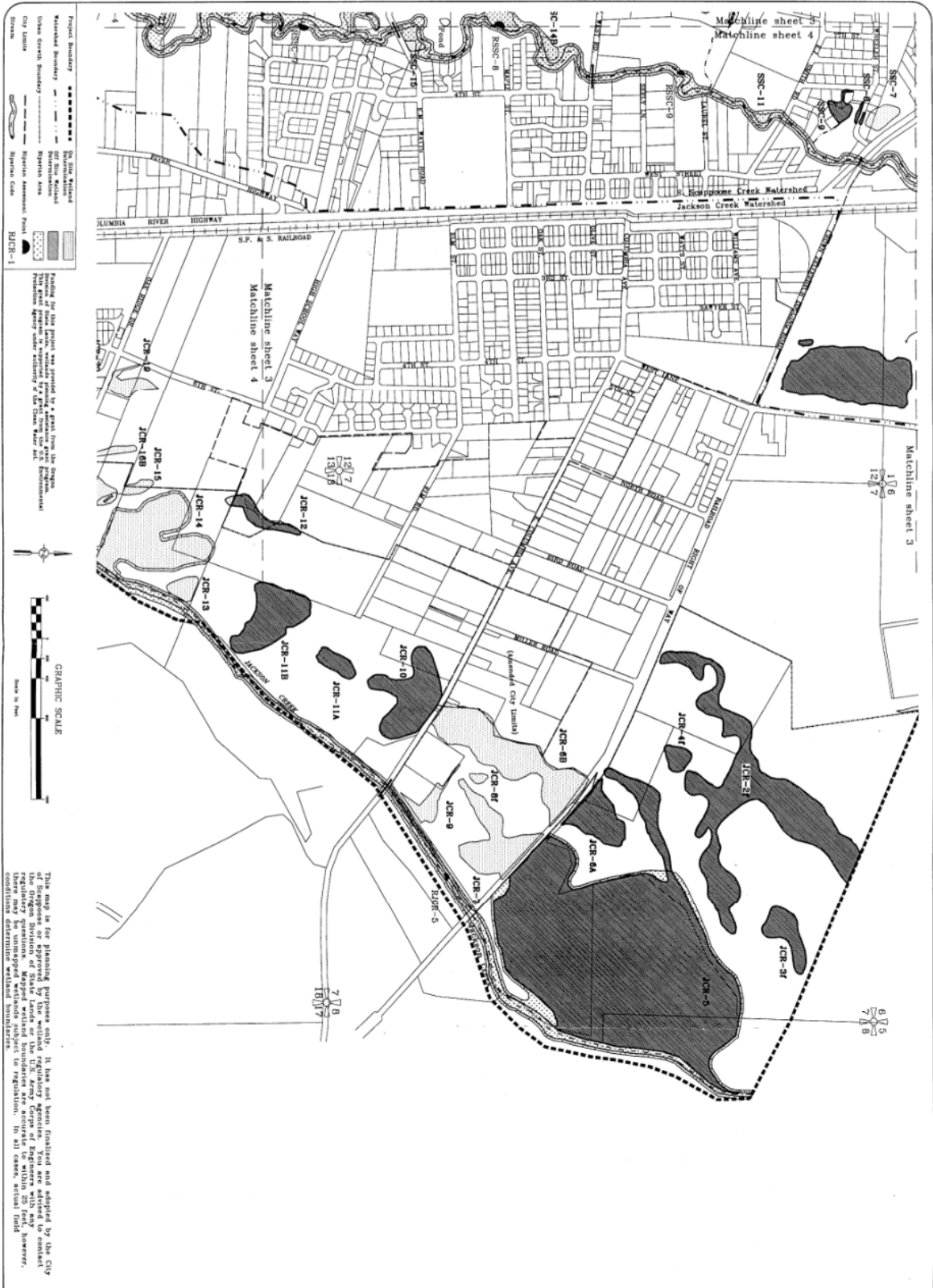
JOB NO.: 7-1427

Scappoose Riparian Inventory

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 100
Milwaukie, Oregon 97133
Phone: (503) 379-0600



Fig. 5B



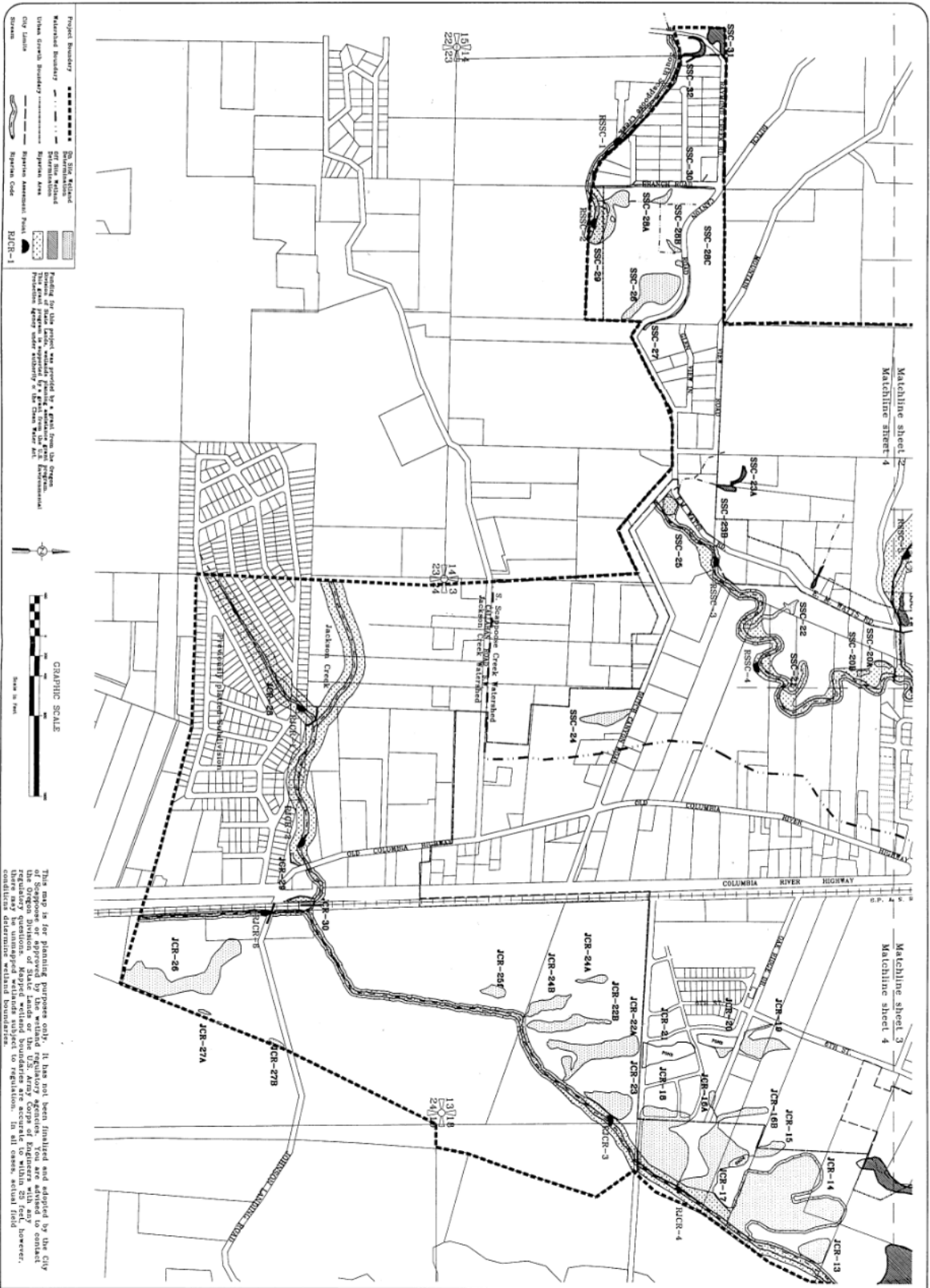
This map is for planning purposes only. It has not been finalized and adopted by the City of Scappoose. The City of Scappoose is not responsible for any errors or omissions. The City of Scappoose is not responsible for any regulatory questions. Mapped wetland boundaries are accurate to within 25 feet, however, conditions determine wetland boundaries. For regulation, in all cases, actual field conditions determine wetland boundaries.

DATE:	December, 1998
BASE MAP INFO:	Supplied by City of Scappoose
	K.C.M. Engineering
JOB NO.:	7-1427

Scappoose Riparian Inventory



Fig. 5C



This map is for planning purposes only. It has not been finalized and adopted by the City of Scappoose or approved by the wetland regulatory agencies. You are advised to contact the regulatory agencies for more information. All depicted wetland boundaries are accurate to within 25 feet, however, there may be unimpaired wetlands subject to regulation. In all cases, actual field conditions, field notes, and field photographs should be consulted.

DATE: December, 1998
 BASE MAP INFO: Supplied by City of Scappoose
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Scappoose Riparian Inventory



Fig. 5D

E. Appendix E – Implementation Plan Reporting Matrix (*see pp. 22 – 27*)

ⁱ **Scappoose Bay Watershed Council (SBWC)** – local 501(c)(3) non-profit organization that works “to promote and support a healthy watershed through projects that protect and restore native fish, wildlife, and plants, and by working with the community to educate and encourage participation in enhancing and enjoying their natural surroundings.” SBWC is a non-regulatory organization.

ⁱⁱ **Columbia Soil & Water Conservation District (CSWCD)** – local special district that focuses on helping landowners implement best management practices to prevent agriculture and water quality issues on their land. CSWCD is a non-regulatory organization.

Table 2 – Implementation Plan Reporting Matrix

Strategy	Goal	Pollutant Source	Action	Progress Measurement	Timeline	Funding (5-yr cost)	Annual Reporting
1) Implement Stormwater Master Plan (SWMP)	Adopt Stormwater Master Plan	-	Complete and implement Stormwater Master Plan	Completion of items identified in Stormwater Master Plan	Ongoing	Storm Drainage SDC Fund \$310,000	
2) Pollution prevention and good housekeeping for municipal operations Includes: catch basin cleaning, UIC and sedimentation inspection / cleaning as necessary, filter replacement, and street sweeping	Reduce debris and associated pollutants from entering waterbodies by cleaning half of all catch basins annually, scheduled filter replacement, and sediment manhole and UIC cleaning as needed	Stormwater runoff	Develop and implement a storm facility maintenance and pollution plan by March 3, 2024. The City will continue review facilities to ensure that any facilities owned by the City that require a 1200-Z permit have coverage under said permit.	Document number of cubic yards captured and disposed, catch basins cleaned, UIC's and sediment manholes inspected / cleaned, and filters replaced. Document if any new facilities that require a 1200-Z Industrial Stormwater General Permit exist, and ensure they are adequately permitted.	Ongoing – catch basin, UIC, sediment manhole cleaning and storm filter replacement. After SWMP adoption, develop and implement storm facility maintenance and pollution plan by Mar. 3, 2024.	Storm Drainage Fund \$225,000	
3) Pollution prevention and good housekeeping for municipal operations (Street sweeping)	Continue Annual Street Sweeping – achieve weekly sweeping of all curbed streets in Fall; sweep all curbed streets at least once per month in Spring and Summer	Debris in roadway	Street Sweeping	All curbed streets swept weekly in Fall; sweep all curbed streets once per month in Spring and Summer. Track amount of debris disposal annually.	Annually in October and November, City sweeps all curbed streets weekly. During Spring and Summer, 3-4 days per month are dedicated to sweeping curbed streets.	Storm Drainage Fund \$255,000	
4) Public education and outreach	Educate public about water quality	-	Share educational	Measure number of Facebook post	Implement a public education	Storm Drainage Fund	

	management practices to reduce pollutant load on waterbodies		materials about water quality and waste containing mercury, promote Columbia County's Household Hazardous Waste annually, and coordinate with partners. Educational materials, including this Plan, will be posted on the City website, City Facebook page, or on the City app as well as in-person materials distributed by mail with City Newsletters or utility bills, or posted on the City Hall notifications board.	engagements, number of City app downloads, number and type of flyers distributed and/or displayed. Track comments via surveys distributed to the public regarding water quality and City outreach efforts. Evaluate education and outreach efforts annually for messaging quality and public feedback.	and outreach plan beginning by March 3, 2024	\$2,500	
5) Public involvement and participation	Facilitate public involvement	-	Upload the Plan to the City's stormwater management page. Solicit feedback via online surveys, using the City Facebook and City app to	Track number of engagements on Facebook, number of City app downloads. Track public comments and feedback on surveys and at Council meetings. Factor public	By March 3, 2024	Storm Drainage Fund \$1,000	

			promote the Plan. Present Mercury TMDL Plan to City Council after DEQ approval.	opinion into decisions when applicable. Look for an overall reduction in negative feedback or complaints from surveys and other outreach efforts.			
6) Illicit Discharge Detection and Elimination	Detect and eliminate illicit discharges/dumping	Illegal sewer connection; illegal dumping in storm drains	Ensure all new outfalls and water quality facilities are continually updated in City's GIS system. Record complaints and maintenance efforts in our asset management system, CityWorks, in order to ensure that facilities are maintained frequently. Update SMC 8.20.050 to explicitly ban illegal dumping.	Document inventory updates to GIS. Document and respond to complaints about water quality, illegal dumping, or illicit discharges; progress will be measured by a reduction in annual complaints. Ensure SMC 8.20.050 is updated.	Ongoing; Completion by Sept 2025 Milestone 1 by Summer 2024: Review and draft update to SMC 8.20.050. Propose ordinance to City Council. Milestone 2 by end of 2024: Develop process for complaints and enforcement in conjunction with Police Department Milestone 3 by September 3, 2025: Implementation	Storm Drainage Fund \$25,000	
7) Construction Site Runoff Control	Reduce construction site sediment runoff	Erosion from construction sites	Review Scappoose Municipal Code sections and update if necessary.	Maintain records of issued 1200C permits, track number of inspections completed as well as the number of enforcement actions.	SMC 17.154.107 Erosion Controls requires adherence to PWDS as guidelines for erosion control. ; Completion by Sept 2030	Storm Drainage Fund \$25,000	

					<p>Milestone 1 by end of 2024: Review sufficiency of existing relevant code sections; determine necessary enforcement measures.</p> <p>Milestone 2 by end of 2026: Develop draft permit (SMC 15.05) and draft revisions to municipal code section and Public Works Design Standards (PWDS) as needed.</p> <p>Milestone 3 by Summer 2027: Propose draft ordinance to City Council for adoption.</p> <p>Milestone 4 by end of 2028: New ordinance takes effect requiring permit for this class of construction projects.</p>		
8) Post-Construction Site Runoff for New Development and	Mitigate pollutant load entering stormwater system and waterbodies	Soil erosion from construction sites	Add maintenance agreements into CityWorks.	Reduction in facility complaints, with the goal of increased	Completion by Sept 2030	Storm Drainage Fund \$15,000	

Redevelopment Projects			Implement inspection and reporting based on City's inventory. Create a plan to improve long-term maintenance of failing facilities due to the dissolution of HOAs.	compliance levels over time.			
9) Require stormwater detention and water quality measures for development	Mitigate pollutant load entering stormwater system and waterbodies	Increased impervious surface area necessitated by increased impact of development	Enforce applicable Land Use Development Code (SMC Title 17) provisions and Public Works Design Standards (PWDS) during development plan review; coordinate new asbuilt information with City's GIS managed services consultant	Maintain records of WQ and stormwater detention facilities	Ongoing: Drainage plans are required to be submitted to City per SMC 17.120.180(N). Storm drainage required for new development projects per SMC 17.154.120, PWDS Section 2.0000 – Storm Drainage details design requirements and specifications.	N/A – standards are applied during Site Development Review and during routine inspections throughout the construction process.	
10) Partner with SBWC on Scappoose Creek Management Projects, when possible	Mitigate erosion of creek banks, reducing amount of sediment entering creek	Erosion of Scappoose Creek banks	Continue partnership with SBWC, LCEP, and CSWCD.	Document procurement efforts, IGAs, and meeting minutes with SBWC, LCEP, and CSWCD on creek-related projects	Ongoing	Storm Drainage Fund \$150,000 (Cost depends on the FY. SBWC work plan, and project-specific needs)	