

3.0 STORMWATER MANAGEMENT PROGRAM EVALUATION AND RECOMMENDATIONS

Chapter 3 of this plan summarizes the key SWMP required and recommended future activities to meet 2024–2029 Phase II Permit requirements and meet Lacey’s long-term goals for the SWMP. The activities were developed based on a gap analysis (comparison of Lacey’s present SWMP to the 2024–2029 Phase II Permit requirements) and a needs assessment conducted in 2025 and 2026 to evaluate specific components of Lacey’s SWMP with respect to 2024–2029 Phase II Permit requirements. In addition to meeting permit requirements and meeting Lacey’s long-term goals for the SWMP, Section 3.3 identifies climate change adaptation strategies and ways that the existing stormwater program builds climate change resilience.

3.1 Level of Service

Lacey has identified two levels of service for this plan:

- **Required:** the required level of service is compliant with current and future permit requirements, maintains existing programs, and implements critical capital projects.
- **Recommended:** the recommended level of service expands programs to make more progress towards long-term goals and implements critical, high, and moderate priority capital projects.

For each level of service, Lacey identified future activities. Some of these future activities need additional staffing and/or outside support while others can be completed without additional resources. The following sections and chapters focus on the activities that need additional staffing and/or outside support.

STREAM TEAM SAMPLING



3.2 Required Future Activities

This section includes required future activities that need additional staffing and/or outside support for 2027. Each required future activity is organized by program element. However, not all program elements are covered by these required future activities, as some of these program elements are covered by the following activities and programs:

- Required future activities that do not need additional staffing and/or outside support
- Required future activities that occur later in the planning horizon (i.e., 2028 through 2035)
- Recommended future activities (refer to Section 3.3)
- Capital Improvement Program and Maintenance Programs (refer to Section 4.0)



Groundwater Protection and Recharge

- Conduct annual maintenance inspections of municipal UIC wells.
- Integrate areas served by municipal UIC wells into the IDDE Program as part of routine response activities.
- Create a map of all municipal UIC wells to be used during IDDE spill response activities.



Public Participation (Education, Outreach, and Involvement)

- Develop an overburdened community pet waste program.



Pollutant Source Control

- Update practices, policies, and procedures to include Source Control BMPs for minimizing PCBs entering the MS4 from City-owned buildings exterior cleaning and maintenance and to prevent PCBs from entering the MS4 in preparation for and during demolition and renovation of City-owned buildings.



Development Practices

- Continue to implement stormwater plan review.
- Meet the SMED requirements found in Section S5.C.7 and Appendix 12 of the 2024-2029 Phase II Permit.



Stormwater Planning, Administration, and Funding

- Add actions to the Woodland Creek SMAP.
- Continue to make annual payment of \$14,545 (by August 15th each year) to the collective fund for Regional Status and Trends Monitoring per Phase II Permit Section S8.A.
- Continue to make annual payment of \$21,527 (by August 15th each year) to the collective fund for SWMP Effectiveness and Source ID Studies per Phase II Permit Section S8.B.

A detailed list of required future activities for the 9-year planning horizon (2027 through 2035), including associated staffing, outside support needs, and a proposed implementation schedule, is provided in Appendix F.

Earth Day Work Party in 2025



3.3 Recommended Future Activities

This section includes recommended future activities that need additional staffing and/or outside support for 2027. Each recommended future activity is organized by program element. However, similar to the required future activities, not all program elements are covered by the recommended future activities, as some of these program elements are covered by the following activities and programs:

- Required future activities (refer to Section 3.2)
- Recommended future activities that do not need additional staffing and/or outside support
- Recommended future activities that occur later in the planning horizon (i.e., 2028 through 2035)
- Capital Improvement Program and Maintenance Programs (refer to Section 4.0)





Public Participation (Education, Outreach, and Involvement)

- Continue to coordinate with Parks on stewardship events.
- Host a yearly open house to discuss the City's SWMP Plan, SMAP, and SMED program and projects.



Pollutant Source Control

- Continue to train staff on SwiftComply software.



Infrastructure Operations and Maintenance:

- Apply for a Department of Natural Resources (DNR) grant to perform an additional tree canopy assessment.
- Review and update inspection, operation and maintenance processes and procedures for City owned or operated stormwater catch basins, flow control, and treatment facilities.
- Continue to coordinate with North Thurston Public Schools on inspections of schools within the city.
- Continue to coordinate with Lacey Fire District 3 on inspections of fire stations within the city.
- Continue to train staff on Naviline software.

A detailed list of recommended future activities for the 9-year planning horizon (2027 through 2035), including associated staffing, outside support needs, and a proposed implementation schedule, is provided in Appendix F.

3.4 Building Climate Change Resilience Through Stormwater Management

There are numerous actions that Lacey is taking to increase the resilience of the stormwater system to changes in temperature and precipitation patterns. As part of the City of Lacey Comprehensive Plan (Lacey 2025) update process, Lacey developed a Resilience Sub-Element Policy Framework which outlines 12 goals for reducing the risks facing the city as the climate changes. Continuing to support and implement these policies, as well as the program elements and long-term goals in Chapter 1, will support Lacey's stormwater systems. Within Resilience Sub-Element, several goals overlap with policy and management related to Lacey's stormwater systems:

Goal R-2. Recruit, train, and support teams of community resilience volunteers.

- R-2A: Recruit and support volunteers to monitor and enhance ecosystem health, including shoreline areas, riparian zones, and forests.

Goal R-3. Ensure that Lacey has adequate funding and staffing to implement climate resilience goals and policies.

- R-3A: Leverage mitigation grants to finance resilience projects.
- R-3B: Prioritize climate resilience funding and staffing in City budgets.
- R-3C: Advocate for State and Federal policies and funding that support resilience to climate change.

Goal R-4: Use the most up-to-date data and analysis to regularly monitor changes in climate hazard impacts and related forecasts and to update resilience plans and strategies accordingly.

- R-4A: Partner with state and federal agencies, colleges, universities, and non-governmental organizations to better understand and prepare for climate hazards.
- R-4B: Update climate impacts risk assessments and policies in the hazard mitigation plan, with increasing focus on extreme heat events and wildfire smoke.
- R-4C: Prepare plans that guide post-disaster recovery, including changes in land use, modifications

to infrastructure and facilities, and resilient development standards.

Goal R-5. Prioritize resilience when planning future land uses.

- R-5C: Prioritize denser infill development over greenfield development to avoid encroachment on potential hazard areas, critical areas, and other ecologically important lands.

Goal R-6. Expand and preserve ecosystems, natural habitat, and open space to reduce risks from flooding, wildfire, extreme heat, or other hazards.

- R-6B: Restore and protect riparian ecosystems to reduce erosion and flooding during storm events.
- R-6C: Vegetate shorelines. Protect existing native shorelines and support vegetation of shorelines with materials supportive of natural shoreline functions that will help maintain and improve water quality and habitat.
- R-6D: Plan for ecosystem resilience. Create and support natural resource management plans that address existing stressors, consider climate change impacts, increase resilience, incorporate habitat connectivity, and guide adaptive management.

Goal R-7. Expand and maintain the urban tree canopy and forest to maximize resilience to heat, drought, wildfire, and other hazards.

- R-7B: Implement climate-smart forest management, including tree species that are well-adapted to climate changes like drought and new pest threats.

Goal R-8. Update development standards to ensure the resilience of development and redevelopment projects.

- R-8B: Update stormwater management standards as necessary for public infrastructure and private development to minimize flooding, maximize water recharge, and minimize pollution through the use of green infrastructure and low impact development (LID) practices.

Goal R-9. Enhance infrastructure to reduce vulnerabilities to hazards.

- R-9A: Protect City water sources and infrastructure from hazard risks, including impacts of flooding and drought on water supplies.
- R-9B: Enforce regulations that require trimming and vegetation removal to be performed according to professional arboricultural specifications and standards. Educate the community on proper pruning practices (i.e.i.e., no tree topping), directional pruning, and phased replacement of incompatible vegetation within the right-of-way.

Additional strategies could help Lacey increase climate resilience of the stormwater system, including:

- **Determine hot spot areas at or near flow capacity.** Modeling the stormwater management system to determine what areas are at or near flow capacity and thus prone to increased flood risk in the future; particularly in neighborhoods, where redevelopment is expected to occur or where large capital improvement projects are planned could help reduce future flood risk.
- **Retrofit stormwater facilities.** Retrofitting existing stormwater facilities for both better infiltration and treatment performance, or constructing new stormwater infrastructure such as constructed wetlands, or LID facilities that more effectively treat water quality in areas that have surface runoff (i.e., areas that do not infiltrate 100 percent of stormwater) could help mitigate future stressors on water quality and groundwater recharge.

These resiliency building activities are organized by program elements and described more detail in Table 2-2. Many of these activities are part of Lacey's existing stormwater program. Activities that are not part of Lacey's stormwater program are noted.

Table 2-2. Stormwater Management Activities Addressing Climate Change Impacts.

Resiliency-Building Activity	Climate Change Stressor Addressed
Program Element: Surface Water Quality Improvement	
<ul style="list-style-type: none"> Constructing stormwater quality retrofit projects and protecting and restoring riparian areas Enhancing water infrastructure to reduce vulnerabilities to climate hazard 	<ul style="list-style-type: none"> Drought Flooding Heat island Water quality
Program Element: Public Participation	
<ul style="list-style-type: none"> Educational campaigns to encourage the public to decrease pollutant generation, such as by decreasing fertilizer use, particularly in lake watersheds Public involvement in the stream team and other stewardship programs Volunteer support to monitor and enhance ecosystem health 	<ul style="list-style-type: none"> Water quality Flooding
Program Element: Infrastructure Operations and Maintenance	
<ul style="list-style-type: none"> Operations and maintenance activities including street sweeping and spot checks of inlets and other critical points in the stormwater conveyance system before storms 	<ul style="list-style-type: none"> Flooding Erosion Water quality
Program Element: Development Practices	
<ul style="list-style-type: none"> Continuing to require flow control on redevelopment projects and prioritizing infiltrating stormwater facilities; LID as the preferred approach Prioritizing resilience when planning future land uses* Updating development standards to ensure resilience of development and redevelopment projects 	<ul style="list-style-type: none"> Flooding Heat island effects Water quality
Program Element: Stormwater Planning, Administration, and Funding	
<ul style="list-style-type: none"> Ensuring the City Lacey has adequate funding and staffing to implement climate resilience goals and policies Using up to date data and analysis to monitor changes in climate hazards and update resilience plans and strategies Purchasing land for conservation purposes to offset loss of streamside vegetation and reduce flooding impacts by acquiring frequently-flooded properties^a Expanding and preserving ecosystems, natural habitat, and open space 	<ul style="list-style-type: none"> Drought and fire Erosion Flooding Water quality
<ul style="list-style-type: none"> Reducing the amount of nutrients in stormwater through regulations aimed at decreasing fertilizer use, particularly in lake watersheds Revisiting flood reduction policies, design standards for new development, and priorities for retrofit projects 	<ul style="list-style-type: none"> Water quality Flooding
<ul style="list-style-type: none"> Expanding and maintaining urban tree canopy and foresta Developing a forest management plan with fire management strategies for vegetation in the City Lacey by coordinating with the Fire Department^a 	<ul style="list-style-type: none"> Fire Water quality

^a Not part of Lacey's stormwater management program.