



## Staff Report

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**File #:** 20-385

**Version:** 1

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**Item #:** 7.2a.

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**TO:** Mayor and City Council

**THROUGH:** Steve Powers, City Manager

**FROM:** Peter Fernandez, PE, Public Works Director

**SUBJECT:**

Amendment to Salem's Stormwater Master Plan.

Ward(s): All Wards

Councilor(s): All Councilors

Neighborhood(s): All Neighborhoods

Result Area(s): Natural Environment Stewardship; Safe, Reliable, and Efficient Infrastructure.

**ISSUE:**

Shall the City Council adopt Ordinance Bill No. 11-20, which amends Salem's Stormwater Master Plan?

**RECOMMENDATION:**

Adopt Ordinance Bill No. 11-20, which amends Salem's Stormwater Master Plan.

**SUMMARY:**

Ordinance Bill No. 11-20 (Attachment 1) enacts an amendment to the *Stormwater Master Plan*. The *Stormwater Master Plan* is a "public facilities plan" and a "public facilities support document" of the *Salem Area Comprehensive Plan* under *Salem Revised Code* (SRC) Chapter 64 (Comprehensive Planning). The proposed amendment to the *Stormwater Master Plan* (Attachment 2 to this report and Exhibit 1 to Ordinance Bill No. 11-20) contains goals, objectives, and policies that will guide how the Salem community should address the many challenges associated with urban stormwater runoff. In addition, this proposed amendment identifies over 240 capital improvement projects located in nine drainage basins. These projects will help meet current and future demands on the stormwater system, reduce risks of flooding, and enhance the quality of Salem's receiving waters.

This proposed amendment to the *Stormwater Master Plan* supersedes and replaces in total the City

of Salem 2000 *Stormwater Master Plan* and the two technical supplements to the 2000 plan, the *Drainage System Improvement Plan* and the *Stormwater Management Program Plan*. Goals and policies have been revised to reflect changes in the regulatory environment and advances in stormwater management practices. The list of public stormwater facilities needed to support land uses has been updated from the 2000 *Stormwater Master Plan* based on projects that have been completed or determined to be no longer necessary. Additionally, public facilities for Battle Creek, Mill Creek, and Pringle Creek basins have been added based on detailed analysis that is documented in the three associated basin plans (see Attachment 3, Attachment 4, and Attachment 5, respectively). These three basin plans are technical supplements to the *Stormwater Master Plan* and are provided for reference but do not require adoption by ordinance.

A central feature of the amended *Stormwater Management Plan* is that it contains a chapter for each stormwater basin. This feature will facilitate periodic updates to the overall master plan as basin plans are revised and updated. The next three basins scheduled for detailed analysis beginning in early 2021 are: Glenn-Gibson Basin, West Bank Basin, and Upper Claggett Basin.

## **FACTS AND FINDINGS:**

1. The current *Stormwater Master Plan* was adopted by Ordinance No. 52-2000, enacted September 25, 2000.
2. Per SRC 64.005 (Definitions), the following portions of the *Stormwater Master Plan* are defined as a “public facilities plan” and a “component” of the *Salem Area Comprehensive Plan*:
  - a. Descriptions of the stormwater facilities needed to support the land uses designated in the comprehensive plan map and lying within the urban growth boundary;
  - b. Lists of the public facility project titles; and
  - c. Maps and written descriptions of the projects' locations or service areas.
3. Per SRC 64.005 (Definitions), the remaining portions of the *Stormwater Master Plan* that are not part of the “public facilities plan” are a “public facilities support document” of the *Salem Area Comprehensive Plan*.
4. Per SRC 64.020(b) (Comprehensive Plan Amendments), this action is a “major comprehensive plan amendment” and will be processed according to SRC Chapter 300, using criteria contained in SRC 64.020(f)(1).
5. The criteria of SRC 64.020(f) and the findings necessary for a major comprehensive plan

amendment are as follows:

Criteria per SRC 64.020(f)(1)(A): The amendment is in the best interest of the public health, safety, and welfare of the city.

Finding: The proposed amendments to the *Stormwater Master Plan* are in the best interest of the public health, safety, and welfare of the city in the following ways:

- a. It contains goals and policies that apply system-wide and are designed to support capital project and programmatic decision-making by providing information, establishing policies, and identifying and prioritizing action items;
- b. It identifies short- and long-term stormwater capital projects necessary to support the land uses designated in the *Salem Area Comprehensive Plan*;
- c. The capital projects identified in the plan are intended to safely and efficiently convey stormwater runoff in manner that reduces risks of flooding while being protective of the natural environment; and
- d. Adoption of the plan by City Council and final approval of the plan by the Federal Emergency Management Agency (FEMA) are a minimum prerequisite for Salem to achieve a Class 4 or better ranking under the Community Rating System. This will enable all residents and businesses in Salem to receive a 30 percent or greater discount on flood insurance premiums.

Criteria per SRC 64.020(f)(1)(B): The amendment conforms to the applicable statewide planning goals and applicable administrative rules adopted by the Department of Land Conservation and Development.

Finding: The amendment conforms to all applicable statewide planning goals, as described below:

*Goal 1: Citizen Involvement. (To develop a citizen involvement program that ensures the opportunity for citizens to be involved in all phases of the planning process.)*

The proposed amendment complies with Goal 1 because residents of Salem were provided various opportunities to be involved in its development, including:

1. A Stormwater Advisory Committee was formed during development of the policies contained in the proposed amendment to the *Stormwater Master Plan*. Its members represented a range of personal and professional perspectives,

- including engineering, architecture, construction, home builders, businesses, development, local governments, real estate, environmental advocacy, and more.
2. During development of the proposed amendment to the *Stormwater Master Plan*, staff made in-person presentations in 2018 and 2019 to the following neighborhood associations: CAN-DO, ELNA, Faye Wright, NOLA, Northgate, SCAN, South Gateway, Sunnyslope, and SWAN.
  3. Electronic versions of the draft *Battle Creek Basin Plan*, draft *Mill Creek Basin Plan*, and draft *Pringle Creek Basin Plan* have been available on the City of Salem public website since October 2019, with a point of contact email and phone number provided.
  4. The electronic version of the draft amendment to the *Stormwater Master Plan* has been available on the City of Salem public website since April 2020, with a point of contact email and phone number provided.
  5. A virtual open house was available online for three weeks in July/August 2020. Up to 50 key stakeholders were notified of the open house by email. Approximately 1,500 residents were reached directly via social media/web, and even more were reached indirectly through stakeholder organizations. The open house received 135 total page views and 180 unique page views with an average of nearly eight minutes average time on the page. The open house generated 14 comments from community members. Most comments were supportive of the City's stormwater programs. Concerns from community members included protection of riparian areas and transparency in budgeting stormwater revenues.

*Goal 2: Land Use Planning (To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.)*

The proposed amendment complies with Goal 2 because the capital projects identified in the *Stormwater Master Plan* were determined using the land use classifications designated in the *Salem Area Comprehensive Plan*. Specifically, the impervious surface values of the existing undeveloped areas, golf courses, agricultural areas, and other open land within the Urban Growth Boundary (UGB) were modified to reflect the full build-out land cover classifications.

*Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces (To protect natural*

*resources and conserve scenic and historical areas and open spaces.)*

The proposed amendment to the *Stormwater Master Plan* complies with Goal 5 through its policies and projects. For example:

- Policy 1.3 (Willamette Greenway) states that “All programs and projects conducted within the Willamette Greenway Overlay Zone will serve to protect and enhance the natural, scenic, recreational, historical, and economic resources of the Willamette River corridor.
- Policy 2.1 (CIP Project Criteria) places protecting and enhancing “the functions of creeks, lakes, ponds, waterways, wetlands, and their associated riparian zones” as the third highest priority, behind reducing risks to life and reducing risks to property by flooding.
- The goal of Policy 5 (Quality and Quantity Facilities) is “to reduce the adverse impacts of high stormwater flow rates and volumes, remove pollutants from stormwater runoff, and safely convey stormwater flows to receiving water bodies.”
- The basin plans contain projects intended to reduce high flows, stabilize banks, improve channels, and enhance riparian zones.

*Goal 6: Air, Water, and Land Resources Quality (To maintain and improve the quality of air, water, and land resources of the state.)*

The proposed amendment complies with Goal 6 specific for water resources of the state through its policies and projects that mitigate the adverse impacts of high flows on water resources and reduce the amount of pollutants in stormwater runoff carried into receiving waters.

*Goal 7: Areas Subject to Natural Disasters and Hazards (To protect people and property from natural hazards.)*

The proposed amendment complies with Goal 7 through its policies and projects that reduce risks of flooding. For example:

- Policy 2.1 (CIP Project Criteria) places reducing the risks to life caused by flooding and reducing the risks to property caused by flooding as the highest two among the 12 criteria for prioritizing stormwater capital projects.

- The goal of Policy 3 (Flood Risk Reduction) is “to identify flood-related hazards, establish actions to mitigate those hazards, and provide information related to flood risks to residents and businesses in Salem.”
- The majority of the 300-plus capital projects identified in the proposed amendment to the *Stormwater Master Plan* are intended to improve the performance of the City’s municipal separate stormwater system, thereby reducing risks of flooding. Included in the proposed amendment are projects that augment conveyance capacity, add storage, improve natural flow channels, increase infiltration, and enhance riparian corridors.

*Goal 11: Public Facilities and Services (To plan and develop a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.)*

The proposed amendment complies with Goal 11 through its policies and projects, which are specifically developed to support the timely, orderly, and efficient arrangement of stormwater facilities and services. The proposed timeframes for the capital projects are identified as short-term, intermediate-term, and long-term. The analysis conducted to develop the projects was based on information contained in the *Salem Area Comprehensive Plan*, which is the governing document for planning and development in the Salem area.

*Goal 14 Urbanization (To provide for an orderly and efficient transition from rural to urban land use.)*

The proposed amendment complies with Goal 14 in that it addresses expected increases of urban stormwater runoff owing to increases in impervious surface area as undeveloped lands are urbanized within the Salem-Keizer UGB. Capital projects are proposed to address increased flow rates, flow volumes, and pollutant transport.

Urbanization is also addressed directly in Policy 6.4 (Balancing Urban Development and Stormwater Risks), which states “Stormwater regulations and standards will be adopted and administered in a manner that reasonably balances the need to encourage efficient use and development of buildable land within the Salem-Keizer Urban Growth Boundary with the need to avoid significantly increasing risks to existing properties and the environment from damage caused by runoff.”

*Goal 15 Willamette River Greenway (To protect, conserve, enhance, and maintain the natural, scenic, historical, agricultural, economic, and recreational qualities of lands along the*

*Willamette River as the Willamette River Greenway.)*

The proposed amendment complies with Goal 15 specifically through Policy 1.3 (Willamette Greenway), which states “All programs and projects conducted within the Willamette Greenway Overlay Zone (See *Salem Revised Code* Chapter 600) will serve to protect and enhance the natural, scenic, recreational, historical, and economic resources of the Willamette River corridor.”

The following statewide planning goals are not applicable to the *Stormwater Master Plan*: Goal 3 (Agricultural Lands), Goal 4 (Forest Lands), Goal 8 (Recreational Needs), Goal 9 (Economic Development), Goal 10 (Housing), Goal 12 (Transportation), Goal 13 (Energy Conservation), Goal 16 (Estuarine Resources), Goal 17 (Coastal Shorelands), Goal 18 (Beaches and Dunes), and Goal 19 (Ocean Resources).

6. Per SRC 64.030(b)(2) (Support document amendments), “staff may initiate an amendment to a support document by preparing an ordinance bill and placing the ordinance on the Council agenda for first reading.”
7. Per SRC 64.030(b)(2) (Support document amendments), “the Council may schedule a public hearing on the ordinance bill, may refer the ordinance bill to Review Authority for its review and recommendation, may refer the ordinance to a subcommittee for further review, prior to holding a public hearing, or may decline to advance the ordinance to second reading.” Note: An overview of the proposed amendment to the *Stormwater Master Plan* was given by staff to the Salem Planning Commission on February 25, 2020.
8. Per SRC 300.1110(b)(2) (Legislative procedure/Public hearings; when required), this proposed amendment requires at least one public hearing “for the purpose of receiving evidence and testimony in a legislative land use proceeding.”
9. Per SRC 300.1110(d) (Legislative procedure/Oregon Department of Land Conservation and Development pre-adoption notice) and *Oregon Revised Statute* 197.610 (Submission of proposed comprehensive plan or land use regulation changes to Department of Land Conservation and Development), this amendment requires a 35-day notification to the Director of the Department of Land Conservation and Development before the first evidentiary hearing on adoption of the proposed change. This notice was provided on August 21, 2020.
10. A public hearing was conducted on September 28, 2020. Notice of the public hearing was provided prior to the hearing as required under SRC 300.1110(e). Following the public hearing, Council advanced Ordinance Bill No. 11-20 to first reading on September 28, 2020.
11. Council advanced Ordinance Bill No. 11-20 to second reading for enactment on September 28,

2020.

12. Minor corrections and formatting edits have been made to the draft Stormwater Master Plan that was presented to Council on September 28, 2020. Attachment 1 represents the final version of the document, which is dated October 2020.

## **BACKGROUND:**

The *Stormwater Master Plan* neither creates ordinances nor raises revenue. Rather, the plan serves as the City's primary reference for goals, policies, and major capital improvement projects designed to reduce risks of flooding and to protect and enhance receiving waters from adverse impact from urban stormwater runoff. The proposed amendment updates the list of projects that were last compiled in 2000. The proposed amendment also establishes a number of policies that will help reduce flood damage, minimize negative impacts to natural waterway systems, increase citizen awareness of flood risks, and control stormwater flows during major storm events. The *Stormwater Master Plan* is but one of many elements that comprise the City's comprehensive approach to managing urban stormwater runoff. Other components of the City's stormwater management program include, for example:

1. Ordinances and Administrative Rules that establish requirements for discharges into stormwater systems, receiving waters, and the environment;
2. Ordinances and Administrative Rules that regulate development activities in the floodplain;
3. Ordinances and Administrative Rules that reduce runoff pollutants discharged from construction sites;
4. Compliance with the City's municipal stormwater permit issued under the National Pollutant Discharge Elimination System of the federal Clean Water Act, which mandates certain regulations, programs, and other activities to reduce pollutants in stormwater runoff to the maximum extent practicable;
5. Implementation of the City's *Stormwater Management Plan*, which includes a suite of activities (some of which are individually listed in this section) and is a requirement of the National Pollutant Discharge Elimination System of the federal Clean Water Act;
6. Stormwater system operations and maintenance of the City's stormwater infrastructure;
7. Continuous instream monitoring to help identify potential illicit discharge incidents;
8. Storm event monitoring at outfalls and in select creeks to evaluate possible trends and program effectiveness;



9. Long-term monitoring at select locations throughout Salem to evaluate the chemical, biological, and physical effects of stormwater discharges on receiving waters;
10. Education and outreach that promotes environmental awareness and pollution prevention;
11. Stream cleaning to remove pollutants in Salem's creeks;
12. Street sweeping to reduce pollutants street runoff;
13. Stormwater quality complaint response, inspection, and enforcement programs;
14. Illicit discharge detection and elimination program to reduce non-stormwater discharges (for example: spills, dumping, and wastewater connections) into the stormwater system;
15. Real-time monitoring and reporting of water levels at key locations in creek basins to provide an early warning system for regional emergency management staff and for public awareness of flood risks;
16. Implementation of the Council-adopted *Floodplain Management Plan* (2018), which identifies flood-related hazards and establishes an action plan to mitigate those hazards;
17. Participation in the Federal Emergency Management Agency's Community Rating System, a voluntary program that recognizes excellence in floodplain management and provides flood insurance discounts to all residents and businesses in Salem;
18. Studies to advance the state-of-the-practice of urban stormwater runoff, such as *Hydromodification Assessment* (2013); and
19. Capital improvement projects of varying scale and scope that include rehabilitation, replacement, and construction of new stormwater facilities to mitigate high runoff flow, reduce pollutants, and restore and enhance Salem's creeks, riparian areas, wetlands, and other receiving waters.

The proposed amendment to the *Stormwater Master Plan* includes the following chapters:

Introduction and Background

Includes a description of the planning area, a review of stormwater regulations, a brief history of flooding and stormwater master planning in Salem, and an inventory of stormwater facilities.

Comprehensive Goals and Policies

Goals and policies are organized under categories such as Capital Improvement Planning, Stormwater Quantity and Quality, and Flood Risk Reduction. The goals and policies apply citywide and are designed to guide decisions regarding stormwater programs and projects.

### Stormwater Facilities Plan

Identifies future stormwater capital projects necessary to support the land uses designated in *Salem Area Comprehensive Plan*. The projects are derived from the basin plans and include estimates of costs and recommended timeframes for construction.

### Financial Plan

Describes the main sources of funding for stormwater services and provides a forecast of stormwater utility fund revenue.

### Basin Plans

Describes the nine basins in nine separate chapters, each of which summarizes modeling methodologies, and identifies facilities needed to accommodate current conditions and future growth. Facilities specified in each basin plan are collectively compiled in the Stormwater Facilities Plan chapter.

### Supporting Information

Studies and reports used to develop the *Stormwater Master Plan* are referenced. Appendices are provided that contain modeling and basin planning methodologies, rainfall analysis, and other key supporting information used to produce the *Stormwater Master Plan*.

Robert D. Chandler, PhD, PE  
Assistant Public Works Director

### Attachments:

- 1 Ordinance Bill No. 11-20
2. Proposed amendment to the Stormwater Master Plan (Exhibit 1 to Ordinance Bill No. 11-20)
3. Battle Creek Basin Plan
4. Mill Creek Basin Plan
5. Pringle Creek Basin Plan