

PLANNING COMMISSION STUDY SESSION AGENDA JANUARY 28, 2019



Commission Members

David Culbertson
Joe Foley
Bill Mansfield
David McFadden
Mark McKechnie
E. J. McManus
Patrick Miranda
Jared Pulver

Planning Commission study sessions
are held on the second and fourth
Mondays of every month
Study Sessions begin at noon

City of Medford

Lausmann Annex Room 151
200 S. Ivy Street, First Floor
Medford, OR 97501
541-774-2380



Planning Commission

Agenda

Study Session

January 28, 2019

Noon

Lausmann Annex, Room 151

200 South Ivy Street, Medford, Oregon

10. Introductions
20. Discussion items
 - 20.1 **CP-18-185** Sanitary Sewer Collection Master Plan
30. Adjournment

Meeting locations are generally accessible to persons with disabilities. To request interpreters for hearing impaired or other accommodations for persons with disabilities, please contact the ADA Coordinator at (541) 774-2074 or ada@cityofmedford.org at least three business days prior to the meeting to ensure availability. For TTY, dial 711 or (800) 735-1232.



MEMORANDUM

Subject Sanitary Sewer Collection System Master Plan – Public Facilities Element
File no. CP-18-185
To Planning Commission *for January 28, 2019 study session*
From Kyle Kearns, Planner II – Long Range Division
Date January 23, 2019

BACKGROUND

On December 6, 2018 City Council initiated a Major Comprehensive Plan Amendment, per Resolution 2018-134, to include the *Sanitary Sewer Collection System Master Plan* (SSMP) into the comprehensive plan. The previous SSMP was completed in 2005. In order to verify current conditions as well as plan for growth in areas due to the expanded Urban Growth Boundary (UGB), approved in the summer of 2018, the SSMP needed to be updated as well.

The creation of the SSMP began on November 12, 2015 upon the hiring of the consultant, Carollo Engineering, Inc., to prepare the SSMP. In September of 2017 staff formed the Technical Advisory Group (TAG) to review the draft SSMP and provide input on the plan. From September of 2017 until November 14, 2018 the TAG met a total of five times to provide comments, input and guide final formation of the SSMP. Staff has now prepared an amendment to the Public Facilities Element (Exhibit A) of the Comprehensive Plan, including language incorporating the full SSMP by reference.

SSMP OVERVIEW

One of the requirements of annexing and developing the newly expanded UGB lands is to have an updated public facilities element in the Comprehensive Plan, including the *Sanitary Sewer Collection Master Plan*. Lands being developed, whether in the newly expanded UGB or not, are required to maintain what is defined as “Category A Facilities;” sanitary sewer collection facilities are considered a Category A facility. An update to the SSMP was necessary to analyze and define what is needed to maintain sanitary sewer collection facilities, meeting the standards of “Category A Facilities. Much like the Transportation System Plan (TSP) the SSMP has several sections that combine to analyze current conditions and capacity, anticipate growth areas, plan for future projects and determine the financials of the growth of the sanitary sewer

collection system. Items relating to sanitary sewer treatment are not addressed in this comprehensive plan amendment; they will be addressed in a subsequent update upon completion of the applicable plans (2+ years out anticipated). Text related to treatment facilities in Exhibit A is existing comprehensive plan language, not proposed language.

SSMP Sections

A complete SSMP document can be found here:

https://www.ci.medford.or.us/SIB/files/Medford_Draft_SSMP_October2018.pdf

The various sections include:

- **Executive Summary:** Summarizes each individual section
- **1-Introduction:** Summarizes resources and methods used, SSMP objectives and the general outline of the document
- **2-Basis of Planning:** Contains land use, environmental, and planning horizon considerations as well as goals and policies
- **3-Existing System:** Overview of existing wastewater collection system
- **4-Hydraulic Model Development:** Reviews use of model to determine impact of storms on system to identify deficiencies
- **5-Capacity Evaluation:** Conveys the capacity of the existing system and identifies projects to correct deficiencies for existing and future users
- **6-Infiltration & Inflow Reduction Program:** Summarizes the current inflow and infiltration estimates, reviews options for reduction and assesses cost compared to projects recommended in chapter 5
- **7-Capital Improvement Plan (CIP):** Recommended projects as discussed in previous chapters to meet service goals for existing and future users
- **8-Finacial Analysis:** Assesses cost associated with funding the CIP; potential funding options include bonds, loans and increasing sewer fees and system development charges (SDCs)

COMPREHENSIVE PLAN, PUBLIC FACILITIES ELEMENT

To supplement the SSMP document, staff has prepared a more concise Comprehensive Plan Element for the *Sanitary Sewer Collection Master Plan*. The use of Comprehensive Plan Elements to supplement larger documents is common place and has been used in the case of other Category A Facilities such as water service (*Water System Facility Plan*, 1999), stormwater management (*Comprehensive Medford Area Drainage Master Plan*, 1996), as well as Catergory B Facilities such as parks and recreation (*Parks and Recreation Leisure Service Plan*, 2016). Included in the Comprehensive Plan Element are items addressing existing conditions, level of service, a list of capital improvement projects, and goals and policies.

Conformance with OAR 660 Division 11 (660-011)

To comply with State law, staff had determined the following to be needed in the comprehensive plan element in regards to the SSMP:

- Adopt SSMP by reference (policy stating such)
- Sections explaining the City's:
 - Treatment facilities system (not pertinent to SSMP update)
 - Primary Collection System
- Items contained within 660-011-0010 (may be incorporated by reference):
 - Inventory and general assessment of condition of public facilities
 - List of significant public facility projects
 - Rough cost estimates
 - Map or description of each project's location/service area
 - Policy statements or UGMA stating who provider is
 - Estimate of when projects are needed
 - Discussion of existing and projected funding for projects
- Items needed directly in comp. plan element:
 - List of public facility projects, excluding (if chosen) descriptions
 - Map or description of public facility projects location/service area
 - Policies or UGMA stating who provider is

Exhibit A conforms with the OAR upon staff's review as the SSMP meets or exceeds the above referenced standards.

NEXT STEPS

Staff is seeking direction from the Planning Commission as to whether more time is needed to review the SSMP and Comprehensive Plan Element. CP-18-185 reflects the Master Plan prepared for the City and is consistent with the recommendation to initiate a Major Comprehensive Plan Amendment from the December 6, 2018, City Council Hearing. Planning Commission hearing is set for February 14, 2019, and City Council Hearing for March 7, 2019.

EXHIBITS

- A Proposed Text CP-18-185

Exhibit A

Proposed Text CP-18-185

~~Deleted Text~~

New Text

~~Moved Text~~, Moved Text

Medford Comprehensive Plan Chapter 8

Public Facilities

Amd Pub. Fac. Element, Ord. No. 2003-134, April 17, 2003;
Amd Parks, Recreation and Leisure Services Section, Ord. No. 2010-240, November 4, 2010;
Amd Schools Section, Ord. No. 2014-16, January 16, 2014;
Amd Pub. Fac. Element, Ord. No. 2016-08, January 7, 2016
Amd Pub. Fac. Element, Ord. NO. 2019-XX Month Day, 2019

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List of Tables & Figures

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Table B-1 Sanitary Sewer Collection System Capital Improvements.....XX

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Introduction

The fundamental purpose of the Public Facilities Element is to establish and maintain a general but timely view of where, when, and how public facilities and services will be provided to support planned urban growth within Medford’s Urban Growth Boundary. Each year, decisions are made to commit considerable funds for acquisition, construction, expansion, and repair of public facility systems. One important role of this *Comprehensive Plan* element is to describe the principles and criteria underlying these decisions and to integrate them with the overall land use planning process.

Public facilities elements are required by state law (ORS 197.175 and OAR 660-011) for all cities with a population greater than 2,500. The Public Facilities Element implements Statewide Planning Goal 11, which is intended to assure that cities plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban development. This element was written in accordance with Oregon Administrative Rules (OAR) 660-011 (Public Facilities Planning).

PUBLIC FACILITIES CATEGORIES

Public facilities and services are divided into two categories.

Category “A” includes:

- Water Service
- Sanitary Sewer and Treatment
- Storm Drainage

These are the key minimum physical facilities necessary for urban development and are those for which specific documentation is required by state rule.

Category “B” include:

- Fire Protection
- Law Enforcement
- Parks and Recreation
- Solid Waste Management
- Schools
- Health Services

Category “B” public facilities and services enhance and protect development within the city and are provided in response to development that occurs. Because of this they will generally be discussed in less intensive detail than Category “A” facilities. The division of public facilities into these two categories is useful when determining facility adequacy prior to development. Creation of these two categories complies with OAR 660-011. This document identifies Category “A” facilities and the improvements to city infrastructure and services that are necessary to support land uses allowed by the *Comprehensive Plan*. Because this plan element also describes potential funding mechanisms, the plan is

essential to long range financial planning of capital facilities, and provides general guidance for the cost and location of future facilities.

EXISTING PLANS

Medford has a number of separate plans for parks, streets, drainage, water, etc. These separate plans generally utilize similar future economic and population growth trends for the community and the region. However, some of them differ markedly in terms of their planning periods. They have varying lead times from original planning to construction dates. Some of the facilities, such as water and sewer systems, are expected to be operational in advance of population growth; while others that are not directly critical to health or safety are staged to coincide with or follow urban growth, for example, parks. One purpose of the “Public Facilities Element”, therefore, is to review these various plans in relation to each other, and to Statewide Planning Goal 11. Key information, as well as policy direction contained in these existing plan documents is also summarized in this plan element.

The information for this element comes from existing facility plans. In addition, interviews were conducted with the respective service providers and the information from the facility plans was updated, where appropriate. The facility plans used for this element are listed below.

Water Service - Medford Water Commission Water System Facility Plan, 1999.

Water Service - Medford Water Commission Water System Final Budget, 1998.

Water Service - Robert A. Duff Water Treatment Facility Plan, 1997.

Water Service - *Water Curtailment Plan*, 1992.

Sanitary Sewer Treatment - City of Medford Facilities Plan, Water Quality Control Plant, 1992.

Sanitary Sewer Collection - ~~City of Medford Sewer Master Plan~~ Sanitary Sewer Collection System Master Plan, 1999/2018

Sanitary Sewer Collection - Bear Creek Valley Sanitary Authority (now Rogue Valley Sanitary Sewer Services) Comprehensive Plan, 1990.

Storm Drainage - Comprehensive Medford Area Drainage Master Plan, 1996.

Parks and Recreation – Parks, Recreation & Leisure Services Plan, 2016.

Schools - Medford School District Long-Range Facilities Plan, ~~May 12, 2012~~ Update, 2016

Solid Waste Management – Solid Waste Management Plan, Jackson/Josephine Counties, 1994.

These plans are, hereby, incorporated into this document and officially acknowledged upon adoption of the “Public Facilities Element”.

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SANITARY SEWER SERVICE

COLLECTION

Sanitary sewer facilities are a key concern of state and local policies relating to the management of urban growth. The acknowledged joint City-County Urban Growth Boundary and Urbanization Policies (~~1990~~) set forth policies governing extension of sewers both within and outside of the City and its UGB. These policies can be found in the Urbanization Element of Medford's *Comprehensive Plan*.

Existing Planning and Facilities

The majority of the sanitary sewer collection system within the UGB is owned and maintained by the City. ~~The Bear Creek Valley Sanitary Authority (BCVSA)~~ Rogue Valley Sewer Services (RVSS) provides sanitary sewer interceptors for the UGB area and collection service to some areas. The City of Medford, along with White City, Central Point, Eagle Point, Jacksonville, Phoenix, and Talent discharge into the ~~BCVSA-RVSS~~ operated interceptor system, which transports the wastewater to the Regional Water Reclamation Facility (RWRf) located adjacent to the Rogue River outside Medford's UGB.

A Regional Sewer Agreement (RSA) allows for a division of responsibility for wastewater collection and treatment. ~~BCVSA-RVSS~~ operates and maintains the Interceptor System and the City operates and maintains the Regional Water Reclamation Facility. The participants in the RSA pay monthly wastewater treatment charges to the City and contribute, based on percentages set out in the agreement, to the operation and maintenance of the ~~BCVSA-RVSS~~ Interceptor System. ~~BCVSA-RVSS~~ and the City jointly agree upon the party responsible for the collection of wastewater for new developments.

The City of Medford's collection system consists of ~~eight-five~~ pump stations and approximately ~~21~~70 miles of pipeline ranging from 6 to 33 inches in diameter, and ~~BCVSA~~ RVSS operates approximately 18 miles of trunk and interceptor pipeline and approximately 33 miles of collection lines within the UGB. This does not include the Lower Bear Creek Interceptor, the Upper Bear Creek Interceptor or the White City Trunk Sewer, all of which are operated by ~~BCVSA-RVSS~~ and extend beyond the UGB boundary.

The Medford collection system has been constructed in stages, as the populated area grew, with some sewers in the original town-site of Medford being over 100 years old. The original town site is the area west of Interstate 5 to Oakdale Avenue and between Jackson and Twelfth Streets. For years the City has maintained the sewer collection system as needed. Starting in 2010, the City significantly increased replacement and relining of the collection system to ~~approach~~extend anticipated life expectancy of ~~our~~the aging infrastructure. ~~Between 1990 and 1999, 5,200 feet of existing collection lines have been replaced. Of the replaced lines, over 2,400 feet have been replaced in the original~~

~~section of town. The majority of the remaining, replaced line is in the southwestern portion of the City.~~

The two major interceptors include the Upper Bear Creek Interceptor that transports wastewater from the southern UGB area, through town, past the airport and to the RWRP entirely by gravity. The existing line should handle the planned flows for the UGB ~~through 2015~~ with possible upgrades just south of the airport where grades are relatively flat. The Lower Bear Creek Interceptor picks up flow from the west side of town and the city of Central Point and transfers it down the Bear Creek Valley to Kirkland Road where a pump station pumps it to the RWRP.

Level of Service

The City of Medford has little flexibility in terms of the level of sanitary sewer collection it provides. City Code prohibits new on-site septic facilities. Hence, piped collection systems are installed with all new construction. Pump stations are required to service some areas, however, these are kept to a minimum to reduce operation and maintenance costs. Level of service minimums for a property to be considered for an unconditional zone change is that all downgradient pipes must show the hydraulic grade line is a minimum of three feet below manhole rims. Replacement pipe criteria when a new or replacement pipe is installed is based on depth over diameter (d/D) criteria. For pipes 12" and smaller, the d/D ratio shall be lower than 0.65, for pipes 15" and larger, the d/D ratio shall be lower than 0.75. ~~Parcels having on-site facilities that are annexed to the City must connect to the system if they are within 300 feet of a collection line.~~

Capacity for Growth

The City of Medford does have some flexibility in terms of the amount of growth for which it can provide. Sewers are normally built with sufficient capacity to serve an area developed to the maximum density allowed by zoning. There is flexibility in terms of how far those sewers are extended. Sewers can be installed only in developed areas or they can be extended to undeveloped areas to provide for future growth. In 2014, the sanitary sewer collection system was at capacity in many portions of the City. In 2018, a Sanitary Sewer Master Plan was adopted to address collection system capacity needs to buildout of the Urban Growth Boundary and Urban Reserves. ~~The citizens of the City have the option to decide, based on their goals for population growth and economic development, how much capacity for growth will be built into the sanitary sewer collection system.~~

TREATMENT

Existing Planning and Facilities

The Regional Water Reclamation Facility (RWRP) is located on the former Camp White treatment plant site, which was acquired from the federal government in 1948. The site is located adjacent to the Rogue River approximately one mile downstream from Touvelle

Park, and is confined on the north by the River and on the south by Kirkland Road. With the exception of the old White City lagoons directly to the west and potential wetlands mitigation sites, there are no neighbors, structures, or other features in the vicinity of the plant that would constrain plant expansion. The City owns approximately 1,100 acres at the facility site; of that, approximately 350 acres is for future expansion.

The RWRF preliminary treatment facility is designed for a peak wet weather flow (PWWF) of 60 million gallons per day (mgd). The system currently consists of both primary and secondary treatments. A detailed description of the treatment process and the associated equipment is available in the *City of Medford Sewer Master Plan, 1990*.

Level of Service

The RWRF has a long history of producing an effluent that is cleaner than the discharge permit requirements. The current National Pollution Discharge Elimination System (NPDES) permit requires a summer discharge of 10 parts per million (ppm) of biochemical oxygen demand (BOD) and suspended solids (SS) and a winter discharge of 30 ppm of BOD and SS. The plant summer discharge averages 5-7 ppm BOD and SS, and the winter discharge averages approximately 8-10 ppm of BOD and SS.

Capacity for Growth

The RWRF has sufficient capacity to handle forecasted ~~five-year~~ population growth. Most equipment is designed for an average daily weather flow (ADWF) of 20 mgd and PWWF of 60 mgd. The average daily dry weather flow for 1997 was 16.7 mgd - about 84 percent of the ADWF capacity for most of the plant. In early January 1997, the area experienced a five-year storm event. During the storm, the plant handled flows that averaged 45 mgd, which is about 75 percent of the PWWF capacity for most of the plant. Recent wet winters have prompted investigation into projects that would further expand the capacity to accommodate higher peak wet weather flows.

Funding

Approximately 66 percent of the of the RWRF influent is due to customers in the Medford UGB. Hence, approximately 66 percent of the costs of improvements are the responsibility of the customers within the Medford UGB. The sanitary sewer collection and treatment system is funded with specific funds and user fees.

Sanitary Sewer Utility Fee – This “user fee” funds maintenance of the sanitary sewer main lines, manholes, and pump stations.

System Development Charges - These charges are collected when new customers are added to the system. This is used to generate funds to build and maintain treatment plant facilities.

SANITARY SEWAGE COLLECTION CONCLUSIONS

1. Medford’s sanitary sewer facility plans are coordinated with ~~Jackson County and the Rogue Valley Sewer Services (RVSS). Bear Creek Valley Sanitary Authority (BCVSA).~~ The City of Medford and ~~BCVSA–RVSS~~ coordinate sewage collection efforts.
2. All areas within the City of Medford are served where possible with gravity sewers.
3. There is a low level of water inflow and infiltration into the newer sections of Medford’s sewage collection system. The inflow and infiltration, however, is higher in the older sections of the collection system.
4. Medford’s monthly “Sewer Utility Fee” provides funding for the maintenance of sanitary sewer lines, manholes, and pump stations.
5. A Sanitary Sewer Collection System Development Charge (SDC) helps pay for new sanitary sewage collection facilities.

SANITARY SEWAGE TREATMENT CONCLUSIONS

1. The City of Medford has sole responsibility for the operation of the Regional Water Reclamation Facility (RWRf) for regional sanitary sewage treatment.
2. The Medford urban growth area is responsible for approximately two-thirds of the Regional Water Reclamation Facility (RWRf) inflow.
3. The 1992 *Facilities Plan for the Water Quality Control Plant* developed a long-range capital improvement program to upgrade and expand the Regional Water Reclamation Facility (RWRf) to meet needs into the twenty-first century.
4. As of Spring 2000, the Regional Water Reclamation Facility (RWRf) had a dry weather flow capacity of 20 million gallons per day (MGD).
5. Ongoing capital improvements at the Regional Water Reclamation Facility (RWRf) are designed to maintain a three-year growth cushion to accommodate development throughout the region.

SANITARY SEWER—GOALS, POLICIES, AND IMPLEMENTATION MEASURES

Sanitary Sewage Collection

Goal 1: To provide appropriate sanitary sewage collection facilities to serve the Medford Urban Growth Boundary.

~~Policy 1-A: The City of Medford shall plan the sanitary sewage collection system to serve all new development within the City. Existing on-site septic systems shall not be permitted to remain in use if sewage collection facilities are available within 300 feet.~~^[KWK1]

Policy 1-~~B~~A: The City of Medford shall extend the sanitary sewage collection

system within the City as development approvals occur, consistent with the Land Development Code and Engineering Division standards. Sewers outside the City but within the Urban Growth Boundary are constructed pursuant to the Joint Urbanization Policies and cooperative agreements with the Bear Creek Valley Sanitary Authority (now Rogue Valley Sanitary Sewer Services).

Policy 1-~~CB~~: The City of Medford shall maintain and improve the existing sanitary sewage collection system through preventative maintenance and on-going replacement or rehabilitation of deteriorated lines.

Policy 1-C: Unincorporated property shall be required to annex into the City prior to receipt of City sanitary sewer service, or as set forth below. Each of the following conditions must be met to provide unincorporated property with sanitary sewer service prior to annexation:

- 1) The property shall be located within the Urban Growth Boundary;
- 2) Existing sanitary sewer line operated by the City to which connection can be made in accordance with subsection (4) below is within 300 feet of the property;
- 3) The County has found that the septic system serving the property is failing and the County has required connection to a sanitary sewer system;
- 4) The extension of a sanitary sewer line to be connected to the City sanitary sewer line shall be subject to acceptance of an approved plan by the City Engineer.

Policy 1-D: When appropriate, the City shall assess the applicable codes and policies for clarification of the difference between an inspection fee and a system development charge; including reference to established system development charges.

Policy 1-E: The City shall operate sewer collection facilities to meet or exceed federal, state and local standards.

Goal 2: Protect the security and longevity of the sewer collection system.

Policy 2-A: The City shall make reasonable attempts to protect the security of its sewer collection system. The City shall determine what information about the system should remain unavailable to the general public.

Policy 2-B: The City shall manage the sewer collection system through

developing design standards, overseeing construction, operating, and maintaining the system such that service to areas in the Urban Services Boundary is adequate and reliable. Whenever possible, the City shall anticipate system interruptions, such as power outages, and design and operate the system to minimize the impact of such interruptions on its customers and the environment.

Policy 2-C: Unless specifically directed otherwise by the City Council, all facilities and equipment shall be maintained in accordance with manufacturers' specifications. The City shall adhere to maintenance and replacement schedules for all facilities and equipment.

Policy 2-D: The City shall maintain a complete inventory of all City-owned equipment, supplies, parts, and service vehicles used for maintenance of sewer facilities. The inventory should include planned replacement dates as applicable.

Goal 3: Ensure a sanitary sewer collection system that is environmentally sound and adaptive to a changing environment.

Policy 3-A: On a regular basis, the City shall update an Emergency Response Plan that focuses on problems created by major disasters (such as earthquakes, floods, or windstorms). The plan should ensure that adequate emergency provisions and procedures are in place to provide sewer services to the extent possible during an emergency event.

Policy 3-B: The City shall prepare and maintain a Vulnerability Assessment & Hazard Mitigation Plan addressing risks associated with natural and human-made hazards on the sewer. The plan should identify how the public and environment may be damaged by such a hazard, and provide detailed procedures for responding to such an act to minimize harm to the public. The Vulnerability Assessment shall not be made available to the public.

Policy 3-C: The City shall develop and maintain a Fats, Oils, and Grease (FOG) Control Program to address excessive buildup of FOG in the sewer.

Policy 3-D: The City will manage the sewer collection system, including monitoring and adapting plans, policies, and practices to collect and convey wastewater from its customers in a safe and sustainable manner in accordance with the City's Environmental element of the Comprehensive Plan.

Policy 3-E: Programs shall be implemented to prevent overflows of wastewater in the existing system, and requires all new construction to convey peak flows and storm events without overflowing the sewer during the design storm event.

Policy 3-F: New wastewater infrastructure will be sited outside of stream corridors, wetlands, and significant tree groves whenever feasible.

Sanitary Sewage Treatment

Goal 14: To provide appropriate sanitary sewer treatment facilities to serve the Medford Urban Growth Boundary.

Policy 14-A: The City of Medford shall continue to operate the regional sewage treatment facilities according to the 1969 interagency agreement with Bear Creek Valley Sanitary Authority (now Rogue Valley Sanitary Sewer Service), Jackson County, and other participating cities, until such time as a new agreement is adopted.

Policy 14-B: The City of Medford shall continue expansion of the Regional Water Reclamation Facility (RWRF) capacity sufficient to provide for continued urban growth. Facility expansion should be given a high priority in capital improvement programming. In the event that necessary funding is not forthcoming, all options, including an appropriate interagency growth management program, should be explored in a timely manner, and implemented as necessary.

Sanitary Sewage Service

Goal 5: Coordinate with other agencies and municipalities to provide adequate sewer service when applicable.

Policy 5-A: The City shall support and participate in regional planning of sewer service with neighboring jurisdictions and sewer districts.

Policy 5-B: The City shall work closely with adjacent jurisdictions to coordinate sewer service issues related to regional growth, regulatory requirements and changes, and opportunities for regional projects.

* * *

Category “A” Capital Improvement Program Summary

INTRODUCTION

Included in this section are **Tables A, B, and C**, which describe the planned category “A” public facilities, projects for water, stormwater management, and sanitary sewer collection and treatment. These tables include information relating to general project location, project construction timing, estimated capital costs, provider, and funding sources, as required by Oregon Administrative Rules (OAR 660-11). The following tables are the applicable Capital Improvement Plans for aforementioned category “A” facilities. is an explanation of the information in these tables.

- ~~• *Project*—A short descriptive name for the planned project.~~
- ~~• *Area/Drainage Basin Served*—The area(s) primarily benefited by the project are listed. See **Figure 2**. Many projects will benefit a larger section of the community to some degree. The drainage basins listed in this column are only those that receive the most direct benefit from the project. “Regional” means the project serves the entire UGB, or is spread throughout large sections of the UGB.~~
- ~~• *Estimated Capital Cost*—The approximate capital cost, including construction, engineering, legal and administrative costs, as estimated by the pertinent facility plan, is presented. Where known, the date of the estimate is given as short term (1-5 years) or long term (6-10 years). In almost all cases the timing is an estimate. In general, projects are built on an as-needed basis when development occurs. The capital cost for sanitary sewer and domestic water treatment projects are the proportion that the UGB is responsible for paying.~~
- ~~• *Provider*—The agency or utility responsible for the proposed project.~~
- ~~• *Funding Source*—The probable source(s) of funds for the project.~~

* * *

SANITARY SEWER COLLECTION AND TREATMENT

The ~~1990-2018~~ City of Medford Sewer Master Plan ~~Sanitary Sewer Collection System Master Plan~~ outlined ~~near~~short-term replacement of ~~over 19,000~~34,500± feet of existing pipe to increase capacity for growth. The replacement pipe ranges in size from ~~12~~8 to ~~24~~16 inches, and has ~~an~~estimated cost of approximately ~~\$2.129~~ million. ~~Many of~~

~~these lines have already been replaced. In addition~~ Additionally, the plan identifies ~~sew~~ long-term expansion needs for new ~~interceptors expansion areas~~ sewer pipes to accommodate growing areas in the newly expanded Urban Growth Boundary (UGB) areas. See **Table B** for the Sanitary Sewer System Capital Improvements Plan through 2020. See **Table B-1** for the Sanitary Sewer Collection System. For a map of the planned projects, see Figure 7.3 in the SSMP. ~~The Regional Water Reclamation Facility (RWRF) is completing several tasks. Funding for RWRF improvements comes from regional sewer fees and System Development Charges (SDCs).~~

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Table B: Sanitary Sewer System Capital Improvements

Area Served	Project	Estimated Capital Cost		Provider	Funding Source
		Short Term 2000–2005	Long Term 2006–2020		
Collection					
Regional	Piping Improvements	\$115,000		City	Bond, SDC, Sewer Rates
	Non-Treatment Facility Improvements	\$120,000		City	Bond, SDC, Sewer Rates
Treatment					
Regional	Aeration Systems Improvements	\$196,000	\$1,400,000	City	Bond, SDC, Sewer Rates
	Drying Bed Improvements	\$4,780,000	\$0	City	Bond, SDC, Sewer Rates
	Secondary Clarifier Improvements	\$436,772	\$4,100,000	City	Bond, SDC, Sewer Rates
	Digester Improvements	\$6,000	\$2,000,000	City	Bond, SDC, Sewer Rates
	Grit System Improvements	\$850,000	\$550,000	City	Bond, SDC, Sewer Rates
	Headworks/Inlet Improvements	\$500,000	\$0	City	Bond, SDC, Sewer Rates
	Instrumentation Systems	\$0	\$100,000	City	Bond, SDC, Sewer Rates
	Cogeneration Facility Improvements	\$203,000	\$305,000	City	Bond, SDC, Sewer Rates
	Sludge Storage Lagoon Improvements	\$1,400,000	\$2,600,000	City	Bond, SDC, Sewer Rates
	Primary Treatment Facility Improvements	\$1,440,000	\$900,000	City	Bond, SDC, Sewer Rates
	Sludge Thickening Facility Improvements	\$6,000	\$2,000,000	City	Bond, SDC, Sewer Rates
	Research Projects	\$25,000	\$125,000	City	Bond, SDC, Sewer Rates
	Solids Disposal Systems	\$0	\$200,000	City	Bond, SDC, Sewer Rates
	Trickling Filter Improvements	\$0	\$1,750,000	City	Bond, SDC, Sewer Rates
	Disinfection Systems	\$0	\$2,000,000	City	Bond, SDC, Sewer Rates
	Miscellaneous Improvements	\$500,000	\$1,500,000	City	Bond, SDC, Sewer Rates
	Advanced Treatment System (ATS)	\$22,582,000		City	Bond, SDC, Sewer Rates
Estimated 1–5 year Capital Cost		\$33,159,772			
Estimated 6–20 year Capital Cost		\$19,530,000			
Total Long Term Estimated Capital Cost		\$52,689,772			

Table B-1: Sanitary Sewer Collection System Capital Improvements (For a complete list of projects, please see the *Sanitary Sewer Collection System Master Plan (2018)*)

Project ID	Improvement Type	Description	Total Capital Improvement Cost(1)	Total Short-Term Priority 1 (2017-2021)	Total Short-Term Priority 2 (2022-2026)	Mid-Term (2027-2036)	Long-Term (2037 – Build-Out)	SDC Allocation	
								SDC Eligibility (%)	SDC Eligibility (\$)
PIPE PROJECTS									
P-1 to P-46	Gravity	Improvement and Capacity-Related Pipe Projects	\$ 29,894,000	\$ 6,569,000	\$ 6,895,000	\$ 10,376,000	\$ 6,054,000	49	\$ 15,353,000
Exp-1	Expansion	Alternative 2 - "Regional Sewers" to Expansion Areas	\$ 25,000	\$ –	\$ –		\$ 25,000	100	\$ 25,000
Exp-2	Expansion	Alternative 2 - Expansion pipes above 8-inch in diameter. 8-inch pipes are paid for by developers.	\$ 100,000	\$ –	\$ –	\$ 100,000	\$ –	100	\$ 100,000
Exp-3	Expansion	Alternative 2 - Expansion pipes above 8-inch in diameter. 8-inch pipes are paid for by developers.	\$ 25,000	\$ –	\$ –	\$ –	\$ 25,000	100	\$ 25,000
TOTAL PIPE PROJECTS			\$ 30,044,000	\$ 6,569,000	\$ 6,895,000	\$ 10,476,000	\$ 6,104,000	54	\$ 15,503,000
PUMP STATION PROJECTS									
PS-1	Pump Station	PMT Pump Station - 1024 Summit Ave. (No redundant pump)	\$ 50,000	\$ –	\$ –	\$ 50,000	\$ –	0	\$ –
PS-2	Pump Station	Service Center Pump Station - 821 Columbus Ave. (No redundant pump)	\$ 50,000	\$ –	\$ –	\$ 50,000	\$ –	0	\$ –
TOTAL PUMP STATION PROJECTS			\$ 100,000	\$ –	\$ –	\$ 100,000	\$ –		\$ –
GENERAL PROJECTS									
G-1	General	I/I Reduction Program - Basin M	\$ 675,000	\$ 675,000	\$ –	\$ –	\$ –	100	\$ 675,000
G-2	General	Master Plan Updates	\$ 300,000	\$ –	\$ –	\$ 300,000	\$ –	50	\$ 150,000
G-3	General	Master Plan Updates	\$ 300,000	\$ –	\$ –	\$ –	\$ 300,000	50	\$ 150,000
TOTAL GENERAL PROJECTS			\$ 1,275,000	\$ 675,000	\$ –	\$ 300,000	\$ 300,000		\$ 982,000
TOTAL (\$)			\$ 31,419,000	\$ 7,244,000	\$ 6,895,000	\$ 10,876,000	\$ 6,404,000		\$ 16,478,000
Total Annual (\$/year)			\$ 1,309,125	\$ 1,207,333	\$ 1,723,750	\$ 1,087,600	\$ 1,601,000		