

Preface

This Metropolitan Wastewater Management Commission (MWMC) planning document is the first of three volumes that together comprise the Comprehensive Facilities Plan (CFP).

- Volume 1: Process Facilities Plan
- Volume 2: Integrated Wastewater Utility Plan
- Volume 3: Opportunities Plan

The multi-volume comprehensive planning approach is new for the MWMC Regional Wastewater Program (RWP). While it builds upon earlier planning efforts—including the 2001 Wastewater Facilities Master Plan, the 2004 Facilities Plan, and the 2014 Partial Update—it also differs in important ways. Those previous plans focused primarily on identifying capital projects driven by treatment capacity limitations and the need for expanded wastewater processing. In contrast, the CFP centers on a complete, system-wide assessment of the entire wastewater treatment program and process, along with an evaluation of equipment and facilities based on their current condition and performance.

Volume 1, the Process Facilities Plan evaluates the WPCF and ancillary facilities, assets, and supporting infrastructure in detail. It documents current system conditions, verifies the performance of key treatment processes, and identifies realistic improvements. The study includes a physical assessment of fixed facilities and portions of the underground system, as well as an evaluation of wastewater treatment efficiency and effectiveness. It also analyzes the facility's ability to accommodate projected residential and commercial growth within the MWMC service area through the 20-year planning period past 2045.

This plan is not a list of deficiencies; rather, it offers a thorough physical evaluation of both above ground and portions of the in-ground system. The plan examines the efficiency and effectiveness of current wastewater treatment processes and evaluates the systems ability to support projected residential and commercial growth. It also takes a wide-lens view of emerging regulatory expectations for publicly owned treatment works, including anticipated permit changes, advancements in wastewater treatment technology, and new opportunities for resource recovery. By studying how the treatment process functions today—and how it can be sustained and improved—this plan prepares the RWP for future demands and requirements. Ultimately, the PFP tells the story of an aging but resilient system: a wastewater treatment system that, while nearly 50 years old and in need of targeted upgrades and further study, has performed exceptionally well and continues to provide a high level of service to the community.

Not all recommendations from the 2004 Facilities Plan were implemented, and under this study-driven PFP, only a limited number of capital projects are expected to advance to construction. Many project recommendations require further evaluation beyond the Class 5 planning-level assessments provided here. Class 5 estimates carry a broad accuracy range (-20 to -50 percent / +30 to +100 percent) and are intended primarily for early feasibility screening and high-level decision-making. At this stage of planning, they offer only order-of-magnitude costs, and additional analysis will be necessary before projects can move into design or implementation.

The organization of this Process Facilities Plan is based primarily on the facilities plan outline provided in Appendix C of the *Guidelines for the Preparation of Facilities Plans and Environmental Reports for Community Wastewater Projects* (Oregon Department of Environmental Quality, 2018). The information developed in this plan is intended to provide a technical basis for planning decisions as MWMC approaches renewal of the WPCF's National Pollutant Discharge Elimination System permit in 2027.