

# City of Wilsonville

City Council Meeting

March 5, 2018



**AGENDA**

**WILSONVILLE CITY COUNCIL MEETING  
MARCH 5, 2018  
7:00 P.M.**

**CITY HALL  
29799 SW TOWN CENTER LOOP  
WILSONVILLE, OREGON**

Mayor Tim Knapp

Council President Scott Starr  
Councilor Susie Stevens

Councilor Kristin Akervall  
Councilor Charlotte Lehan

**CITY COUNCIL MISSION STATEMENT**

To protect and enhance Wilsonville's livability by providing quality service to ensure a safe, attractive, economically vital community while preserving our natural environment and heritage.

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**Executive Session is held in the Willamette River Room, City Hall, 2<sup>nd</sup> Floor**

- 5:00 P.M. EXECUTIVE SESSION** [20 min.]  
A. Pursuant to: ORS 192.660 (2)(e) Real Property Transactions  
ORS 192.660(2)(h) Litigation
- 5:20 P.M. REVIEW OF AGENDA** [5 min.]
- 5:25 P.M. COUNCILORS' CONCERNS** [5 min.]
- 5:30 P.M. PRE-COUNCIL WORK SESSION**
- A. Property Tax Exemptions (Rodocker) [5 min.]  
B. I-5 Southbound Boone Bridge Congestion Study (Kraushaar/Adams) [30 min.]
- 6:05 P.M. ADJOURN**
- 

**CITY COUNCIL MEETING**

The following is a summary of the legislative and other matters to come before the Wilsonville City Council a regular session to be held, Monday, March 5, 2018 at City Hall. Legislative matters must have been filed in the office of the City Recorder by 10 a.m. on Tuesday, February 20, 2018. Remonstrances and other documents pertaining to any matters listed in said summary filed at or prior to the time of the meeting may be considered therewith except where a time limit for filing has been fixed.

**7:00 P.M. CALL TO ORDER**

- A. Roll Call
- B. Pledge of Allegiance
- C. Motion to approve the following order of the agenda and to remove items from the consent agenda.

**7:05 P.M. CITIZEN INPUT & COMMUNITY ANNOUNCEMENTS**

This is an opportunity for visitors to address the City Council on items *not* on the agenda. It is also the time to address items that are on the agenda but not scheduled for a public hearing. Staff and the City Council will make every effort to respond to questions raised during citizens input before tonight's meeting ends or as quickly as possible thereafter. Please limit your comments to three minutes.

**7:10 P.M. MAYOR'S BUSINESS**

- A. Soul'd Out Week Proclamation
- B. Upcoming Meetings

**7:25 P.M. COUNCILOR COMMENTS**

- A. Council President Starr
- B. Councilor Stevens
- C. Councilor Lehan
- D. Councilor Akervall

**7:35 P.M. PUBLIC HEARING**

- A. **Ordinance No. 815** (legislative hearing)  
An Ordinance Of The City Of Wilsonville Adopting The 2017 Water Treatment Plant Master Plan Update As A Sub-Element Of The City's Comprehensive Plan And The Capital Improvement Project List For The Water Treatment Plant.

*Staff is requesting the hearing be continued to April 16, 2018.*

**7:45 P.M. CITY MANAGER'S BUSINESS**

**7:50 P.M. LEGAL BUSINESS**

**7:55 P.M. ADJOURN**

Time frames for agenda items are not time certain (i.e. Agenda items may be considered earlier than indicated.) Assistive Listening Devices (ALD) are available for persons with impaired hearing and can be scheduled for this meeting if required at least 48 hours prior to the meeting. The city will also endeavor to provide the following services, without cost, if requested at least 48 hours prior to the meeting: Qualified sign language interpreters for persons with speech or hearing impairments. Qualified bilingual interpreters. To obtain services, please contact the City Recorder, (503) 570-1506 or [veliz@ci.wilsonville.or.us](mailto:veliz@ci.wilsonville.or.us).



**CITY COUNCIL MEETING  
STAFF REPORT**

<p><b>Meeting Date:</b> March 5, 2018</p>	<p><b>Subject:</b> Information Only: Property Tax Exemptions Requests for Autumn Park Apartments, Charleston Apartments, Creekside Woods, Wiedemann Apartments and Rain Garden Apartments.</p> <p><b>Staff Member:</b> Cathy Rodocker, Assistant Finance Director</p> <p><b>Department:</b> Finance</p>
<p><b>Action Required</b></p>	<p><b>Advisory Board/Commission Recommendation</b></p>
<p> <input type="checkbox"/> Motion  <input type="checkbox"/> Public Hearing Date:  <input type="checkbox"/> Ordinance 1<sup>st</sup> Reading Date:  <input type="checkbox"/> Ordinance 2<sup>nd</sup> Reading Date:  <input type="checkbox"/> Resolution  <input type="checkbox"/> Information or Direction  <input checked="" type="checkbox"/> Information Only  <input type="checkbox"/> Council Direction  <input type="checkbox"/> Consent Agenda                 </p>	<p> <input type="checkbox"/> Approval  <input type="checkbox"/> Denial  <input type="checkbox"/> None Forwarded  <input type="checkbox"/> Not Applicable                 </p> <p><b>Comments:</b></p>
<p><b>Staff Recommendation:</b> Information only.</p>	
<p><b>Recommended Language for Motion:</b> NA</p>	
<p><b>Project / Issue Relates To:</b></p>	
<p><input type="checkbox"/> Council Goals/Priorities</p>	<p><input type="checkbox"/> Adopted Master Plan(s)</p>
<p><input checked="" type="checkbox"/> Not Applicable</p>	

**ISSUE BEFORE COUNCIL:**

Staff will present information on property tax exemption requests for various properties in Wilsonville.

## **EXECUTIVE SUMMARY:**

Each year property tax exemptions are requested for properties located within the city limits that offer subsidized rent to families, seniors and individuals meeting certain income requirements set forth by the federal government. The requirement is 60 percent of the estimated state median income. The five existing complexes noted above are expected to submit renewal requests prior to March 1. The properties have received property tax exemption status in previous years and are in compliance with the requirements stated in ORS 307.540-307.548.

Providing affordable housing in Wilsonville has been a long standing priority for City Council. The first resolution to allow property tax exemption status for low income housing was approved by Council on December 15, 2003. Currently, there are five facilities that provide 366 units within the city for low income housing rental rate reductions. All properties are required to meet State and Federal funding requirements which include annual physical inspections and an annual audit of financial activity and programmatic compliance.

Last year, both Councilors and City staff were able to tour the facilities that have received property tax exemption status in the past. The tours helped those in attendance to gain a better understanding of the facilities provided for the tenants as well information regarding some of the additional programs that each organization provides. Each organization pools various funding sources including grants, tax exemptions, contributions, etc. in order to provide rents that are well below market.

Based on the information provided by the property managers last March of 2017, the total rents for low income families, seniors, and individuals were lowered by approximately \$318,600 due to the portion of their property tax exemption. The total reported by the property managers represent the total reduction in their property taxes overall, not just the portion received from the City of Wilsonville. Currently, the property tax exemptions are approved by the City and the West Linn/Wilsonville School district. The State of Oregon requires a majority of the taxing districts to approve the tax exempt status and together the City and West Linn/Wilsonville School district continue to meet the majority approval requirement.

## **EXPECTED RESULTS:**

Information only.

## **TIMELINE:**

Applications for renewal requests are received by the City prior to March 1 of each year. Property tax exemption requests will be presented at the March 19 City Council meeting.

The deadline to certify the property tax exemption with the Assessor's office is April 1, 2018

## **CURRENT YEAR BUDGET IMPACTS:**

Based on the latest current assessed values, the exempt properties have a combine assessed value of \$24,209,663. Based on the City's current tax rate of \$2.5206/\$1000, the total amount of forgone property tax revenue will be approximately \$71,562.

## **FINANCIAL REVIEW / COMMENTS:**

Reviewed by: SCole Date: 3/1/2018

## **Property Tax Exemptions Staff Report**

Page 2 of 3

N:\City Recorder\Council Packets\2018 Council Packets\3.5.18 Council Packet\3. Final 2018 Work Session Property Tax Exemption Staff Report.docm

**LEGAL REVIEW / COMMENT:**

Reviewed by: BAJ Date: 3/1/2018

Last year Council President Starr, Councilor Lehan and several staff members visited these locations to verify their commitment to quality affordable housing and found that all appeared to be deserving of this benefit.

**COMMUNITY INVOLVEMENT PROCESS:**

**POTENTIAL IMPACTS or BENEFIT TO THE COMMUNITY:**

Property tax exemptions assist in the availability of housing for low-income families and individuals.

**ALTERNATIVES:**

Discontinue property tax exemption program.

**CITY MANAGER COMMENT:**

**ATTACHMENTS:**

None.

**Proclamation**  
***Soul'd Out Week***  
**March 5-11, 2018**

**WHEREAS**, Wilsonville residents honor the faculty and administration of Wilsonville High School for their commitment to providing a well-rounded education that includes study and appreciation of the arts; and

**WHEREAS**, Choir students at Wilsonville High School balance their family life, friendships, academic responsibilities, and other extra-curricular activities and are no less willing to dedicate significant time to pursuing excellence in an artistic pursuit; and

**WHEREAS**, Soul'd Out, the a capella choir representing Wilsonville High School, won the Northwest Semifinal of the International Championship of High School A Capella (ICHSA) on January 26, 2018, at the Elsinore Theater in Salem; and

**WHEREAS**, Soul'd Out outperformed nine other Oregon high schools to win this Semifinal event, advancing to the ICHSA Finals at New York City's famed Lincoln Center on April 20, 2018; and

**WHEREAS**, This marks the fourth time since 2010 that Soul'd Out has qualified for the ICHSA Finals by winning a Semifinal event; and

**WHEREAS**, Success of Soul'd Out members, on stage and in the classroom, brings positive exposure to our city, builds civic pride, and serves as an inspiration to members the Wilsonville community; and

**WHEREAS**, Sustained excellence of this group for more than a decade demonstrates the outstanding instruction available within West Linn-Wilsonville School District, which makes our community a more desirable place to live; and

**NOW, THEREFORE, the Wilsonville City Council proclaims**  
**March 5-11, as: "SOUL'D OUT WEEK"**

The Wilsonville City Council commends the passion, dedication and supreme talents of these young performers and their director; we congratulate Wilsonville High School's outstanding a capella choir, Soul'd Out, for winning the ICHSA NW Semifinals and advancing to the ICHSA International Finals in New York City.

**IN WITNESS WHEREOF**, We set our hands and cause the seal of the City of Wilsonville to be affixed this 5th day of March, 2018.

\_\_\_\_\_  
Mayor Tim Knapp



# **CITY COUNCIL ROLLING SCHEDULE**

## **Board and Commission Meetings 2018**

**Items known as of 03/01/18**

### **March**

<b>DATE</b>	<b>DAY</b>	<b>TIME</b>	<b>EVENT</b>	<b>LOCATION</b>
3/8	Thursday	6:00 p.m.	Budget Committee Meeting	Council Chambers
3/12	Monday	6:30 p.m.	DRB Panel A - <b>CANCELLED</b>	Council Chambers
3/14	Wednesday	6:30 p.m.	Planning Commission	Council Chambers
3/14	Wednesday	3:00 p.m.	Wilsonville Community Seniors, Inc. Advisory Board	Wilsonville Community Center
3/15	Thursday	6:00 p.m.	Wilsonville Citizens Academy	Willamette River Rooms
3/19	Monday	7:00 p.m.	City Council Meeting	Council Chambers
3/26	Monday	6:30 p.m.	DRB Panel B	Council Chambers
3/28	Wednesday	6:30 p.m.	Library Board Meeting	Library

### **April**

<b>DATE</b>	<b>DAY</b>	<b>TIME</b>	<b>EVENT</b>	<b>LOCATION</b>
4/2	Monday	7:00 p.m.	City Council Meeting	Council Chambers
4/9	Monday	6:30 p.m.	DRB Panel A	Council Chambers
4/11	Wednesday	3:00 p.m.	Wilsonville Community Seniors, Inc. Advisory Board	Wilsonville Community Center
4/11	Wednesday	6:00 p.m.	Planning Commission	Council Chambers
4/12	Thursday	6:00 p.m.	Parks and Recreation Advisory Board Meeting	Parks and Recreation Administration Building
4/19	Thursday	5:30 p.m.	Wilsonville Citizens Academy	Water Treatment Plant
4/16	Monday	7:00 p.m.	City Council Meeting	Council Chambers
4/23	Monday	6:30 p.m.	DRB Panel B	Council Chambers
4/25	Wednesday	6:30 p.m.	Library Board Meeting	Library

### **Community Events:**

- 3/14** Southbound I-5 Boone Bridge Congestion Study Open House, 5 - 6:30 p.m., at Wilsonville City Hall
- 3/15** Grant Review Meeting - Community Tourism Matching Grant & Clackamas County Tourism - Community Partnership Program, 6:00 p.m., at Wilsonville City Hall
- 3/31** Egg Hunt, 10:00 a.m., at Memorial Park

- 4/5** Community Garden Registration Opens, 8:00 a.m. at Parks and Recreation Admin. Building
- 4/25** Spring Walk at Lunch - Visit [Ridesmart.com/walksmart](http://Ridesmart.com/walksmart) for times and locations
- 5/9** Spring Walk at Lunch - Visit [Ridesmart.com/walksmart](http://Ridesmart.com/walksmart) for times and locations
- 5/12** W.E.R.K Day, 9-11:30 a.m., meet at the Community Center
- 5/23** Spring Walk at Lunch - Visit [Ridesmart.com/walksmart](http://Ridesmart.com/walksmart) for times and locations

All dates and times are tentative; check the City's online calendar for schedule changes at [www.ci.wilsonville.or.us](http://www.ci.wilsonville.or.us).



**CITY COUNCIL MEETING  
STAFF REPORT**

<p><b>Meeting Date:</b> March 5, 2018</p>	<p><b>Subject: Ordinance No. 815</b> Adopting the 2017 Water Treatment Plant Master Plan Update as a Sub Element of the City of Wilsonville Comprehensive Plan and a Capital Improvement Project List for the Treatment Plant.</p> <p><b>Staff Member:</b> Nancy Kraushaar, PE, Community Development Director</p> <p><b>Department:</b> Community Development</p>	
<p><b>Action Required</b></p>	<p><b>Advisory Board/Commission Recommendation</b></p>	
<p><input checked="" type="checkbox"/> Motion</p> <p><input checked="" type="checkbox"/> Public Hearing Date: Scheduled for March 5, 2018 to be continued to April 16, 2018</p> <p><input checked="" type="checkbox"/> Ordinance 1<sup>st</sup> Reading Date: April 16, 2018</p> <p><input checked="" type="checkbox"/> Ordinance 2<sup>nd</sup> Reading Date: May 7, 2018</p> <p><input type="checkbox"/> Resolution</p> <p><input type="checkbox"/> Information or Direction</p> <p><input type="checkbox"/> Information Only</p> <p><input type="checkbox"/> Council Direction</p> <p><input type="checkbox"/> Consent Agenda</p>	<p><input checked="" type="checkbox"/> Approval</p> <p><input type="checkbox"/> Denial</p> <p><input type="checkbox"/> None Forwarded</p> <p><input type="checkbox"/> Not Applicable</p>	
<p><b>Comments:</b> At its February 14, 2018 meeting, the Planning Commission adopted Resolution LP18-1002 recommending approval to the City Council of the 2017 Water Treatment Plant Master Plan Update with some clarifying additions.</p>		
<p><b>Staff Recommendation:</b> Staff recommends that the City Council continue the public hearing for Ordinance No. 815 that would adopt the 2017 Water Treatment Plant Master Plan Update to a date certain of May 7, 2018. The Council can open the public hearing if they wish.</p>		
<p><b>Recommended Language for Motion:</b> Move to continue the public hearing for Ordinance No. 815 to April 16, 2018.</p>		
<p><b>Project / Issue Relates To:</b></p>		
<p><input checked="" type="checkbox"/> <u>Council Goals/Priorities</u> Fiscal Discipline, Environmental Stewardship, Well Maintained Infrastructure</p>	<p><input checked="" type="checkbox"/> Adopted Master Plan(s)</p>	<p><input type="checkbox"/> Not Applicable</p>

## **ISSUE BEFORE CITY COUNCIL:**

The public hearing for Ordinance No. 815 that would adopt the 2017 Water Treatment Plant Master Plan Update noticed for March 5, 2018. While the Planning Commission members recommend adoption of the Master Plan, they requested additional clarifying language to put the treatment plant in context with the city-wide water system planning. Staff agrees that such language will be useful to include in the document that moves forward for adoption, but additional time is required to prepare the final version for City Council review. Continuing the public hearing to April 16, 2018 will provide staff and our consultant time to complete the document.

## **EXECUTIVE SUMMARY:**

The City of Wilsonville is updating the master plan for the Willamette River Water Treatment Plant. Master Plans, once adopted, become amendments to the City's Comprehensive Plan, and as such, require a formal adoption process that first includes a hearing before the Planning Commission where conclusionary findings are considered for consistency with Statewide Planning Goals followed by a recommendation for adoption to the City Council. Then the City Council holds a public hearing and considers adoption of the master plan by ordinance.

The 2017 Water Treatment Plant Master Plan Update (2017 MPU) addresses the existing Willamette River Water Treatment Plant, operational since 2002 and currently providing treated water to the citizens of Wilsonville and Sherwood. The draft Table of Contents and Executive Summary are presented in **Attachment A**. Some primary goals of the 2017 MPU are:

- 1) To confirm the quantity and timing of long range water delivery from the treatment plant over a 20 year planning horizon;
- 2) To identify and select appropriate treatment technologies and design criteria for future water treatment facilities;
- 3) To evaluate existing treatment plant facilities for upgrades and replacements; and
- 4) To identify the capital costs, timing, and funding strategy required to meet the future water supply and level of service goals.

These goals are addressed in the 2017 MPU. The chapters are summarized below:

- Chapter 1 provides general background information.
- Chapter 2 provides information on existing and future water demand, and the expected future Level of Service.
- Chapters 3 and 4 describe the existing treatment technologies and associated operational performance in terms of water quality and regulatory compliance.
- Chapter 5 evaluates the condition and reliability of the existing plant infrastructure with particular focus on life safety deficiencies, surge protection and seismic resiliency.
- Chapter 6 presents the recommended short-term and long-term capital improvement plan needed to ensure continued reliability of the treatment plant as the plant capacity increases from the current 15 mgd to 30 mgd in year 2035 and beyond.
- Chapter 7 presents the capital cost estimates and recommended schedules for the design and construction of improvements identified in Chapter 6.

The Planning Commission public record that includes their Resolution LP18-1002 and the Conclusionary Findings demonstrating consistency with Statewide Planning Goals are included as **Exhibit 1** to Ordinance No. 815.

**EXPECTED RESULTS:**

Adoption by City Council will make the 2017 MPU part of the City’s Comprehensive Plan. Inclusion in the Comprehensive Plan allows identified capital and operational improvements to be planned and budgeted in future rate and system development charge studies and methodologies and capital spending plans. From a utility management standpoint, this master plan provides a 20-year planning tool to ensure reliable delivery of high quality drinking water to Wilsonville citizens and businesses.

**TIMELINE:**

- Planning Commission Hearing: February 14, 2018
- City Council Hearing: Noticed for March 05, 2018 to be continued to April 16, 2018
- City Council: April 16, 2018-First Reading of Ordinance
- City Council: May 7, 2018 – Second Reading of Ordinance
- Effective Date: 30 Days after Second Reading

**CURRENT YEAR BUDGET IMPACTS:**

Consulting Services and staff overhead for the 2017 MPU are budgeted under CIP #1122.

**FINANCIAL REVIEW / COMMENTS:**

Reviewed by: SCole Date: 2/21/2018

**LEGAL REVIEW / COMMENT:**

Reviewed by: BAJ Date: 2/28/2018

I agree with the recommendation for a continuation. Due to a change in staffing, new staff members are now working with the consultants to ensure all issues are addressed with respect to the current plant operations and the additional complication of the expansion of the intake facilities that will serve the Wilsonville Plant and the new TVWD/Hillsboro Plant.

**COMMUNITY INVOLVEMENT PROCESS:**

A web page and virtual open house have been set up at [www.ci.wilsonville.or.us/WTPMPupdate](http://www.ci.wilsonville.or.us/WTPMPupdate) where the entire document can be viewed, and public comment and questions can be submitted.

**POTENTIAL IMPACTS or BENEFIT TO THE COMMUNITY**

A reliable source of properly treated domestic water is essential to the well-being of the community.

**ALTERNATIVES:**

To not adopt the master plan at this time.

**CITY MANAGER COMMENT:**

**Ordinance No. 815 Staff Report**

**ATTACHMENTS:**

Attachment A: 2017 Water Treatment Plant Master Plan Update – Executive Summary

Ordinance No. 815

Exhibit 1 – Planning Commission Public Record (to be provided for the April 16, 2018  
City Council Meeting)

ATTACHMENT A



City of Wilsonville

Willamette River Water Treatment Plant 2017 Master Plan Update

# 2017 MASTER PLAN UPDATE

FINAL DRAFT | February 2018



## ATTACHMENT A

ATTACHMENT A



City of Wilsonville  
Willamette River Water Treatment Plant

2017 MASTER PLAN UPDATE

Jude D. Grounds,  
February 5, 2018,  
State of Oregon,  
P.E. No. 74678

## ATTACHMENT A

## Contents

### EXECUTIVE SUMMARY

ES.1	Introduction	ES-1
ES.2	Plant Expansion and Level of Service Goals	ES-2
ES.3	Existing Facilities and Operational Performance	ES-2
ES.4	Historical Raw and Finished Water Quality	ES-3
ES.5	Existing Infrastructure	ES-3
ES.5.1	Electrical Supply and Distribution CIP	ES-3
ES.5.2	Seismic Evaluation CIP	ES-3
ES.5.3	Life-Safety Evaluation CIP	ES-3
ES.6	WRWTP Expansion CIP	ES-3
ES.6.120	-MGD Expansion CIP	ES-4
ES.6.230	-MGD Expansion CIP	ES-5
ES.6.3	Electrical Expansion CIP	ES-11
ES.6.4	Repair and Replacement CIP	ES-11
ES.7	CIP Approach and Schedule	ES-11

### Chapter 1 - INTRODUCTION

1.1	WRWTP AND SOURCE BACKGROUND	1-1
1.2	MASTER PLAN UPDATE OBJECTIVES AND ORGANIZATION	1-3

### Chapter 2 - PLANT EXPANSION AND LEVEL OF SERVICE GOALS

2.1	Introduction	2-1
2.2	Water Demands and Expansion Strategy	2-1
2.2.1	Demand Projections and Hydraulic Requirements	2-1
2.2.2	Capacity Expansion and Phasing Strategy	2-3
2.3	Hazard Analysis and Associated Level of Service Goals	2-4
2.3.1	LOS Goal Objective	2-4
2.3.2	Catastrophic Event	2-5
2.3.3	Regional Precedents	2-8
2.3.4	Recommended Preliminary LOS Goals for WRWTP Expansion	2-10

### Chapter 3 - EXISTING FACILITIES AND OPERATIONAL PERFORMANCE

3.1 Introduction	3-1
3.2 Summary of Previous Studies	3-1
3.3 Major Plant Components	3-3
3.3.1 General	3-3
3.3.2 Raw Water Facilities	3-17
3.3.3 Chemical Injection Vault and Initial Mixing Facility	3-17
3.3.4 Ballasted Flocculation (Actiflo®) System	3-18
3.3.5 Ozonation System	3-19
3.3.6 Filtration System	3-20
3.3.7 Liquid Chemical Storage and Feed Facilities	3-21
3.3.8 Washwater Equalization Basin	3-22
3.3.9 Gravity Thickener	3-22
3.4 Historical Plant Performance	3-23
3.5 Conclusions	3-30

### Chapter 4 - HISTORICAL WATER QUALITY AND REGULATORY COMPLIANCE

4.1 Introduction	4-1
4.2 Historical Water Quality	4-1
4.3 Regulatory Compliance	4-11
4.3.1 Existing Regulations	4-11
4.3.2 Unregulated Contaminant Monitoring	4-11
4.3.3 CT Compliance	4-13
4.3.4 Future Regulations	4-14
4.4 Emerging Contaminants	4-14
4.4.1 National Perspective and Literature Review	4-15
4.4.2 Regional Perspective	4-17
4.4.3 2015 MPU Participant Interviews	4-18
4.5 Conclusion	4-19

### Chapter 5 - EXISTING INFRASTRUCTURE

5.1 Introduction	5-1
5.2 Site Mapping	5-1
5.3 Hydraulic Assessment	5-5

5.4 Equipment Assessment	5-8
5.5 Electrical Assessment	5-8
5.5.1 Evaluation Results	5-8
5.5.2 Recommendations	5-10
5.6 Seismic Evaluation and Mitigation Alternatives	5-15
5.6.1 Oregon Seismic Requirements	5-15
5.6.2 Geotechnical Investigation Summary	5-16
5.6.3 Seismic Evaluation of Existing Facilities	5-16
5.7 Life Safety Evaluation	5-17
5.8 Transient Surge Analysis	5-17
5.8.1 Evaluation Methodology	5-17
5.8.2 Evaluation Results	5-23
5.8.3 Recommendations	5-23
<b>Chapter 6 - EXPANSION ALTERNATIVES ANALYSIS</b>	
6.1 Introduction	6-1
6.2 Treatment Technologies	6-1
6.3 Confirmation of Treatment Recommendation	6-1
6.4 20 mgd Expansion	6-2
6.4.1 Flow Projections	6-2
6.4.2 Raw Water Pumping	6-2
6.4.3 Flash Mix	6-7
6.4.4 Ballasted Flocculation (Actiflo®)	6-7
6.4.5 Ozonation and Ozone Generation	6-7
6.4.6 Filtration	6-8
6.4.7 Clearwell/Chlorine Disinfection	6-8
6.4.8 Finished Water Pumping	6-9
6.4.9 Waste Washwater Recovery	6-9
6.4.10 Mechanical Solids Dewatering	6-9
6.4.11 Chemical Storage and Metering	6-9
6.5 30-mgd Expansion	6-18
6.5.1 Expansion Alternatives	6-18
6.5.2 Flow Projections	6-23

6.5.3 Raw Water Pumping	6-23
6.5.4 Flash Mix	6-27
6.5.5 Ballasted Flocculation (Actiflo®)	6-27
6.5.6 Ozonation	6-27
6.5.7 Filtration	6-27
6.5.8 Clearwell/Chlorine Disinfection	6-27
6.5.9 Finished Water Pumping	6-27
6.5.10 Waste Washwater Recovery	6-28
6.5.11 Mechanical Solids Dewatering	6-28
6.5.12 Chemical Storage and Metering	6-28
6.6 Electrical Upgrades	6-37
6.7 Repair and Replace	6-38

## Chapter 7 - CIP APPROACH AND SCHEDULE

7.1 Introduction	7-1
7.2 Capital Cost Assumptions	7-1
7.2.1 Cost Estimate Classification	7-1
7.2.2 Opinion-of-Probable Construction Cost Estimate	7-1
7.2.3 Cost Factoring Workbook	7-2
7.2.4 CIP Workbook	7-2
7.3 Design and Construction Schedule	7-3
7.4 Financial Summary	7-3

## Appendices

Appendix A – Condition Assessment Calculations

Appendix B – Life Safety and Seismic Assessment Technical Memorandum

Appendix C – Surge Transient Analysis & Pre-Design Recommendations Technical Memorandum

Appendix D – Capital Cost Estimates

Appendix E – CIP Workbook

## Tables

Table ES.1 Cities of Wilsonville and Sherwood Treatment LOS Goals	ES-2
Table ES.2 Estimated CIP Costs (2017 Dollars)	ES-11
Table ES.3 Operations – Repair and Replace Estimated CIP Cost (2017 Dollars)	ES-12
Table ES.4 WRWTP Expansion Design and Construction Schedule	ES-12
Table 2.1 Hydraulic and Capacity Requirements of the WRWTP Participants	2-3
Table 2.2 Catastrophic Hazards Events and Potential Impact on the WRWTP Lower Site	2-5
Table 2.3 Likelihood of Volcanic Ash Having Substantial Impact on Watersheds with a Southwest Wind	2-6
Table 2.4 Water Treatment Facility Recovery Levels for Various Earthquake Hazard Levels as Implied by Current Codes and Standards for New Construction	2-7
Table 2.5 East Bay Municipal Utility District Level of Service Goals	2-8
Table 2.6 Oregon Resilience Plan Recommended LOS Goals for Water Systems	2-9
Table 2.7 Joint Water Commission WTP LOS Goals	2-10
Table 2.8 Adopted LOS Goals for the WRWTP	2-11
Table 3.1 WRWTP Existing Facilities Treatment Processes and Procedures	3-3
Table 3.2 WRWTP Production (mgd)	3-28
Table 4.1 WRWTP Comparison of Regulatory and Contract Sampling Frequencies	4-2
Table 4.2 Comparison of Regulatory and Contract Finished Water Parameters	4-3
Table 4.3 WRWTP Summary of Raw Water Quality and Corresponding Finished Water MCL (May 2006 through 2014)	4-5
Table 4.4 WRWTP Summary of Finished Water Quality (May 2006 through 2014)	4-8
Table 4.5 Summary of Wilsonville Distribution System Water Quality Data	4-11
Table 4.6 Summary of UCMR 3 Finished and Distribution Water Quality	4-12
Table 4.7 Summary of Preliminary UCMR 3 Results	4-16
Table 4.8 Summary of CECs Interview Responses by Regional Surface Water Suppliers	4-17
Table 4.9 Summary of CECs Interview Responses by 2015 MPU Participant Water Suppliers	4-18
Table 5.1 WRWTP Caisson and Willamette River Elevations	5-5
Table 5.2 WRWTP Electrical Load Summary	5-9
Table 5.3 Summary of Seismic Vulnerabilities	5-18

Table 5.4 Summary of Life Safety Findings	5-20
Table 5.5 Hydraulic Transient Analysis Demand Scenarios	5-23
Table 5.6 Hydropneumatic Tank Sizing Recommendations	5-23
Table 6.1 WRWTP 20 mgd Expansion Processes and Procedures	6-10
Table 6.2 WRWTP 30 mgd Expansion Alternatives	6-18
Table 6.3 WRWTP 30 mgd Expansion Alternatives – Design and Operating Criteria following a Catastrophic Seismic Event	6-21
Table 6.4 WRWTP 30 mgd Expansion Processes and Procedures	6-29
Table 6.5 WRWTP Repair and Replace Projects	6-38
Table 7.1 Example of CIP Actual Construction Cost	7-2
Table 7.2 WRWTP Expansion Design and Construction Schedule	7-3
Table 7.3 WRWTP Near-Term CIP Costs (2017 Dollars)	7-4
Table 7.4 WRWTP Total CIP Costs (2017 Dollars)	7-6

## Figures

Figure ES.1 WRWTP Capacity Projections and Recommended Expansion Phasing	ES-4
Figure ES.2 Site Plan – 20-MGD Capacity Expansion	ES-7
Figure ES.3 Site Plan – 30-MGD Capacity Expansion	ES-9
Figure ES.4 RWTP Near-Term CIP Costs by Project (2017 Dollars)	ES-14
Figure ES.5 WRWTP Total CIP Costs by Project (2017 Dollars)	ES-15
Figure 2.1 WRWTP Capacity Projections and Recommended Expansion Phasing	2-2
Figure 2.2 WRWTP and WWSP Water Demand Projections	2-3
Figure 3.1 WRWTP Existing Site Plan	3-11
Figure 3.2 WRWTP Process Flow Diagram	3-13
Figure 3.3 WRWTP Hydraulic Profile	3-15
Figure 3.4 WRWTP Process Performance Summary	3-25
Figure 3.5 WRWTP Raw Water Turbidity	3-29
Figure 3.6 WRWTP Raw Water and Finished Water	3-31
Figure 3.7 WRWTP Monthly Finished Water Production and Power Consumption	3-32
Figure 3.8 WRWTP Monthly Finished Water Production and Solids Production	3-33

Figure 5.1 Lower Site Survey	5-3
Figure 5.2 WRWTP Hydraulic Profile – 20 mgd Design Capacity	5-7
Figure 5.3 Current Electrical Load Distribution Diagram	5-11
Figure 5.4 Existing Electrical System – 20 mgd Capacity	5-12
Figure 5.5 Upgraded Electrical System – 20 mgd Capacity	5-13
Figure 5.6 Upgraded Electrical System – 30 mgd Capacity	5-14
Figure 6.1 WRWTP Site Layout – 20 mgd Capacity	6-3
Figure 6.2 WRWTP Hydraulic Profile – 20 mgd Design Capacity	6-5
Figure 6.3 WRWTP 30 mgd Expansion – LOS	6-19
Figure 6.4 WRWTP 30 mgd Expansion – LOS + Post Regional Seismic Event Resiliency	6-19
Figure 6.5 WRWTP Site Layout – 30 mgd Design Capacity	6-25
Figure 7.1 Example Assumptions in CIP Workbook	7-2
Figure 7.2 WRWTP Near-Term CIP Costs (2017 Dollars)	7-5
Figure 7.3 WRWTP Total CIP Costs (2017 Dollars)	7-7

## Abbreviations

%	percent
2015 MPU	2015 WRWTP Master Plan Update
AACE	American Association of Cost Engineers
BRP	Blue Ribbon Panel
C	Celsius
Caisson	Raw Water Intake Pump Station Caisson
CECs	Contaminants of Emerging Concern
CECs	contaminants of emerging concern
CFD	computational fluid dynamic
City	City of Wilsonville
COW	cost of work
DBP	disinfection by-product
EBMUD	East Bay Municipal Utility District
ENR	Engineering News Record
EPA	Environmental Protection Agency
ESA	Endangered Species Act
EWEB	Eugene Water and Electric Board
FERC	Federal Energy Regulatory Commission
ft	feet
GAC	granular activated carbon
HABs	harmful algal blooms
IBC	International Building Code
JWC	Joint Water Commission
LOS	level of service
LOX	liquid oxygen
MCC	motor control centers
MCL	maximum contaminant level
mg/L	milligrams per liter
mgd	million gallons per day
MM	million
MPU	Master Plan Update
MWh	megawatt hours
NAVD	North American Vertical Datum
NCOD	National Contaminant Occurrence Database
nm	nanometers
NMFS	National Marine Fisheries Service

NTU	Nephelometric turbidity units
OAR	Oregon Administrative Rule
ODFW	Oregon Department of Fish and Wildlife
OHA	Oregon Health Authority
ORP	Oregon Resilience Plan
ORS	Oregon Revised Statutes
OPCC	opinion-of-probable construction-cost
OSSAC	Oregon Seismic Safety Advisory Committee
OSSC	State of Oregon Structural Specialty and Fire and Life Safety Code
OWUC	Oregon Water Utility Council
PGE	Portland General Electric
PNW	Pacific Northwest
PPCPs	pharmaceuticals and personal care products
ppd	pounds per day
PWB	Portland Water Bureau
RM	Richter scale magnitude
RWF	Raw Water Facility
SCADA	supervisory control and data acquisition
SCM	streaming current monitor
SDWA	Safe Drinking Water Act
the Act	Oregon Drinking Water Quality Act
TOC	total organic carbon
TVWD	Tualatin Valley Water District
UBC	Uniform Building Code
UCM	Unregulated Contaminant Monitoring
UCMR	Unregulated Contaminant Monitoring Rule
USGS	United States Geological Survey
WRWTP	Willamette River Water Treatment Plant
WWSA	Willamette River Water Supply Agency
WWSP	Willamette Water Supply Program
µg/L	micrograms per liter

ATTACHMENT A

## EXECUTIVE SUMMARY

### ES.1 Introduction

The 2017 Willamette River Water Treatment Plant Master Plan Update (2017 MPU) for the cities of Wilsonville and Sherwood defines the strategy to meet future demands, boost supply resiliency and reliability, and support responsible growth.

Commissioned in 2002, the Willamette River Water Treatment Plant (WRWTP) has a treatment capacity of 15 mgd. Of this capacity, Wilsonville owns 10 mgd, and the Tualatin Valley Water District (District) initially owned 5 mgd. The District invested in the plant's construction, oversizing many of its facilities to enable expansion for its own future water needs.

The existing property along the Willamette River in Wilsonville is irregularly shaped, creating two semi-contiguous parcels called the Lower Site and the Upper Site. During original design, the Lower Site, home to the existing treatment plant, would allow for an expansion of up to 60 mgd. The Upper Site was identified for future development in the *Willamette River Water Treatment Plant Master Plan* (MWH, 2006), which demonstrated enough space for at least 100 mgd additional capacity. Combined, both sites have a 160 mgd potential total capacity.

Since the 2006 Master Plan was published, several actions occurred that affect both construction and operational planning for expanding the WRWTP:

- In 2012, the District sold its 5 mgd of plant capacity to the City of Sherwood.
- In 2013, the District and the City of Hillsboro named the mid-Willamette supply alternative as their preferred supplemental supply, which laid the foundation for the Willamette Water Supply Program (WWSP).
- In 2014, the city of Wilsonville led a coalition of utilities that petitioned the Oregon Health Authority (OHA) for the right to recognize the disinfection benefits from intermediate ozonation.
- In 2015, the City and WWSP stakeholders updated the WRWTP Master Plan (MWH, 2006) in the 2015 MPU (Carollo, 2016) to outline how the existing plant could be expanded to meet future demand.
- As of 2017, the WRWTP is expected to supply Wilsonville and Sherwood exclusively. However, the oversized river intake and raw water pumping station will be expanded to supply raw water to both the WRWTP and the proposed WWSP treatment facilities.

The 2017 MPU updates the 2015 WRWTP MPU and addresses these changes. The 2017 MPU has the following key objectives.

1. To define the steps for expanding the existing WRWTP infrastructure to maximize the return on previous investments.
2. To optimize process selection and layout to meet capacity and water quality goals at the expanded WRWTP.
3. To strategize near- and long-term plant expansion for a 20-year planning horizon and cash-flow to guide future financial planning.
4. To ensure that WWSP-related facilities, including raw water pumping, surge protection, and standby power infrastructure, do not prevent the cities of Wilsonville and Sherwood from meeting their ultimate build-out demands for the existing WRWTP on the current site.

## ES.2 Plant Expansion and Level of Service Goals

In addition to these objectives, levels of service (LOS) goals were used to plan the preliminary site and estimate its construction and operations costs.

Municipal utilities in the United States and elsewhere commonly use LOS goals to evaluate systems and operations. LOS goals can be defined in terms of the customer’s experience of utility service and/or technical standards based on professional expertise of utility staff.

LOS goals can guide investments in maintenance, repair, and replacement. For new assets, they can be used to set design criteria and prioritize needs. Using a structured decision-making process that incorporates LOS goals helps a utility reach desired service objectives and minimize life-cycle costs.

The LOS goals address only the facilities required to operate the expanded WRWTP and do not apply to City infrastructure outside of the WTP fence line. The goals were first developed with participants of the 2015 MPU during a project workshop and adopted by the participants’ governing bodies. These LOS goals, which were revisited and re-confirmed during a 2017 MPU workshop, are shown in Table ES.1.

Table ES.1 **Cities of Wilsonville and Sherwood Treatment LOS Goals**

LOS Goal	Regional Event (Seismic)	Local Event (Non-Seismic)
“Following a W catastrophic event ...	2,500 year	Per occurrence
...within X days/weeks of the event...	48 hours	14 days
...deliver Y % of average day demand...	50% of nameplate capacity	100% of nameplate capacity
...with Z water quality.”	Potable (at minimum regulatory requirement)	Potable (at plant's intended treatment processes and procedures)

As stated in Table ES.1, 48 hours after a 2,500-year regional (seismic) event, 50 percent of the nameplate treatment plant production capacity will be available, with potable water quality that meets minimum regulatory requirements. Within 14 days of a local (non-seismic) event, 100 percent of the nameplate production capacity will be available with potable water quality at the plant's intended treatment processes and procedures.

The costs for achieving these LOS goals were developed and confirmed to fall within the cities’ affordability and risk tolerances. We recommend these LOS goals continue to guide the WRWTP planning efforts.

## ES.3 Existing Facilities and Operational Performance

When the 2006 WRWTP Master Plan was completed approximately four years after plant start-up, the City of Wilsonville was the only consumer of WRWTP finished water. In mid-2012, the City of Sherwood started using finished water from the WRWTP as its primary supply. To meet the demands of both cities, the plant went from operating on a daily start/stop basis for 8 to 16 hours per day depending on demand to operating 24 hours per day, year-round. Since the hours of operation impact plant operations and the expanded plant will continue to operate

continuously, the plant performance data evaluated for this Master Plan Update was limited to 2012 through 2014, as included in the 2015 MPU. No additional plant performance data was analyzed as part of this 2017 MPU.

The 2015 MPU review of plant performance data demonstrates exceptional operational performance for turbidity removal, disinfection levels, total organic carbon (TOC) removal, and low disinfection by-product (DBP) formation. The extremely narrow range between the 5 and 95 percentile value for key water quality parameters such as turbidity, pH, and chlorine residual is a testament to the plant's robust design and its operators' attention to continuous optimal performance.

#### **ES.4 Historical Raw and Finished Water Quality**

Raw water quality data from May 2006 through 2014 was collected, reviewed, and compared to the data in the 2006 Master Plan and 2015 MPU. The trace-level contaminants detected in the raw water have not been detected in the finished water and were therefore assumed to be removed through the treatment processes.

The historical finished water quality data confirms that the plant consistently surpasses existing finished water regulatory requirements. The high-quality source water and robust treatment process result in excellent finished water quality delivered to customers. With only minor modifications, the current treatment processes are expected to continue to meet future regulatory requirements.

#### **ES.5 Existing Infrastructure**

The 2017 MPU offers additional electrical, seismic, and life-safety assessment for the WRWTP.

##### **ES.5.1 Electrical Supply and Distribution CIP**

To meet the 2022 site capacity of nominally 20 mgd, the plant's electrical supply and distribution system will need significant upgrades. Preliminary engineering for the capacity expansion will require detailed analysis of electrical supply alternatives, including backup power requirements. Improving the "backbone" of electrical and standby power is recommended in parallel with the expansion project.

##### **ES.5.2 Seismic Evaluation CIP**

The preliminary structural analysis identified both structural and non-structural vulnerabilities that may affect plant performance in a regional catastrophic seismic event. This 2017 MPU recommends including seismic retrofits to minimize infrastructure downtime and ensure plant performance after a catastrophic event.

##### **ES.5.3 Life-Safety Evaluation CIP**

The preliminary life-safety analysis identified issues about building code compliance and structural improvements. This 2017 MPU recommends modifications to support worker safety after a catastrophic seismic event.

#### **ES.6 WRWTP Expansion CIP**

Projected demand was submitted by the cities of Wilsonville and Sherwood based on each city's planning studies. To meet the cities' combined day demand of 30 mgd by 2036 as shown in Figure ES.1, this 2017 MPU recommends the following expansion and phasing:

- Preliminary design of the near-term expansion will likely begin in 2019 to bring WRWTP capacity from 15 mgd to 20 mgd by 2022.
- Total raw water intake capacity for both WRWTP and WWSP will be between 80 mgd and 84 mgd by 2026.
- Preliminary design of the 30 mgd expansion will likely begin in 2032 to bring the nameplate capacity of the WRWTP from 20 mgd to 30 mgd by 2036.
- Capacity expansion projects should be completed two years before the capacity is needed to allow flexibility. The 20 mgd capacity expansion will be completed in 2022 and the 30 mgd capacity expansion in 2036.

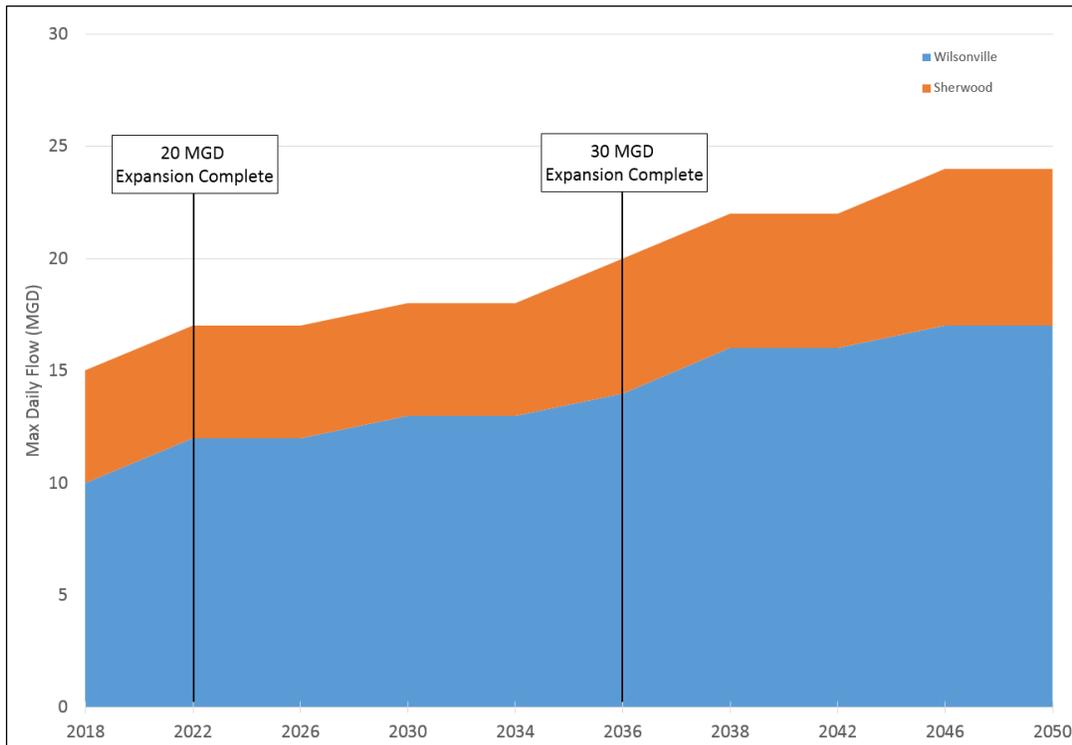


Figure ES.1 WRWTP Capacity Projections and Recommended Expansion Phasing

### ES.6.1 20-MGD Expansion CIP

As outlined in the 2015 MPU, rather than constructing additional basins, the existing treatment processes will be uprated for the 20 mgd WRWTP expansion. For the primary treatment processes, the uprating will include the following.

- Increasing the Actiflo® flow rate from 7.5 mgd per basin to 10 mgd per basin.
- Increasing the ozonation basin flow rate from 7.5 mgd per basin to 10 mgd per basin. This will decrease the ozone contact time from 15 to 11 minutes, which still allows sufficient contact time for 1-log *Cryptosporidium* inactivation, provided increased levels of ozone can be dosed in the contactor.
- Increasing the filtration rate to a nominal rate of 5.7 gpm/sf and a maximum rate of 7.5 gpm/sf when one filter is off-line, and to a nominal rate of 7.5 gpm/sf and a maximum

rate of 10 gpm/sf when one basin is offline. This increased filtration rate will require approval from OHA prior to increasing plant capacity. To support OHA approval, a full-scale pilot study should be conducted in which the filtration rate is gradually increased and water quality is closely monitored.

Figure ES.2 depicts the site layout following completion of the 20-mgd capacity expansion.

### ES.6.2 30-MGD Expansion CIP

The following two alternatives were considered for the 30 mgd expansion.

1. Install one additional process train: 1 Actiflo® basin, 1 ozone basin, and 2 filters.
2. Install two additional treatment process trains: 2 Actiflo® basins, 2 ozone basins, and 4 filters.

Both alternatives would need to meet the LOS goal after a regional seismic event. However, Alternative 1 would have limited treatment rates during equipment maintenance. For example, during filter backwash, the maximum filtration rate of 12 gpm/sf would limit finished water production to 8 mgd. Conversely, the capital and operating costs required for Alternative 2 make it undesirable because it raises rates for Wilsonville and Sherwood residents. Therefore, we recommend that the WRWTP construct Alternative 1 and identify an additional water supply to meet the LOS goal after a regional seismic event.

Using Alternative 1, the 30 mgd expansion requires the following major construction projects:

- One Actiflo® basin.
- One ozonation basin.
- Two filters.
- One 35-foot diameter gravity thickener.

Figure ES.3 depicts the site layout for the 30-mgd capacity expansion. As recommended in the 2015 MPU, space dedicated for future AOP processes (such as UV treatment) improves the ability of the expanded WRWTP to treat constituents of emerging concern.

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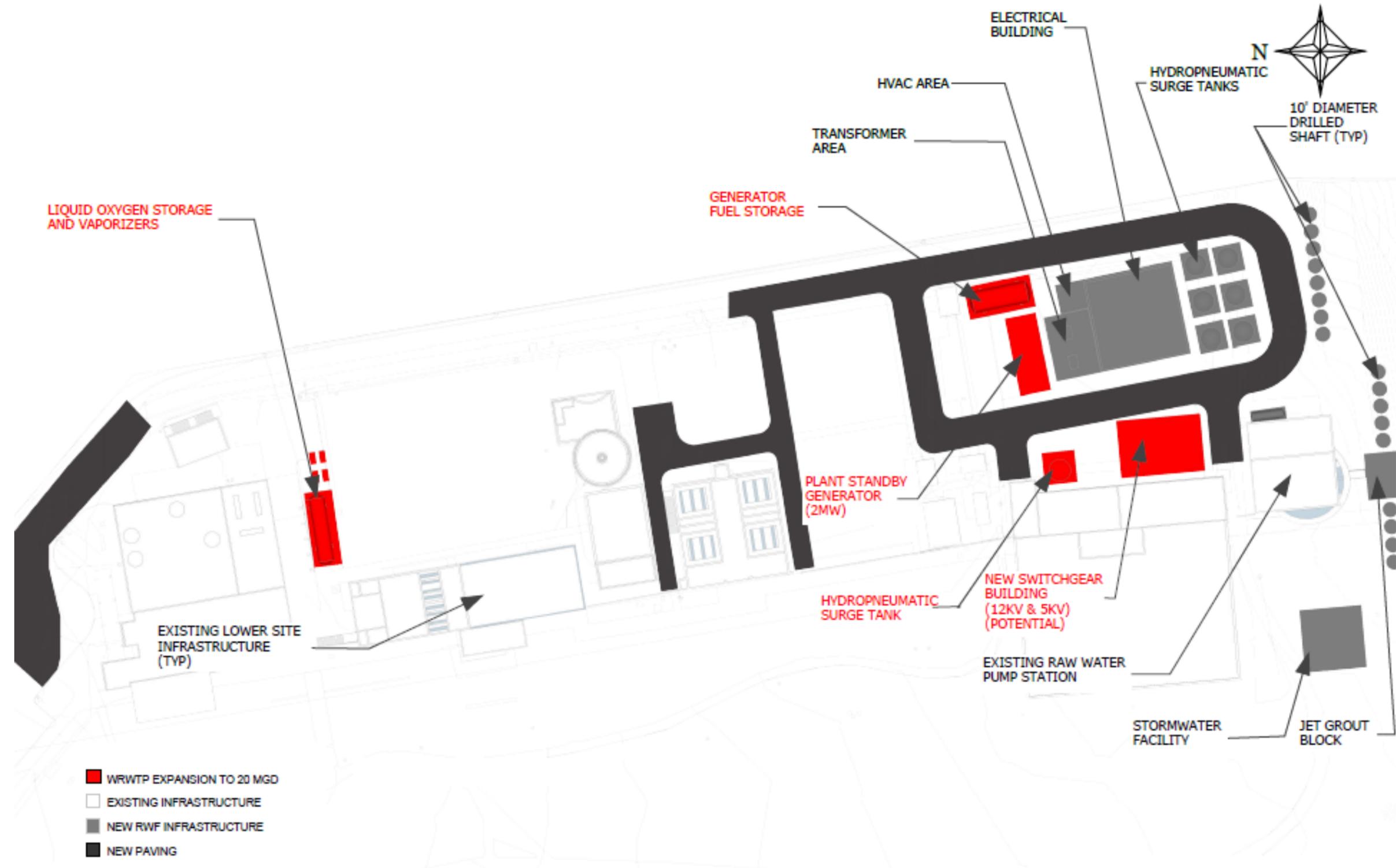


Figure ES.2 Site Plan – 20-MGD Capacity Expansion

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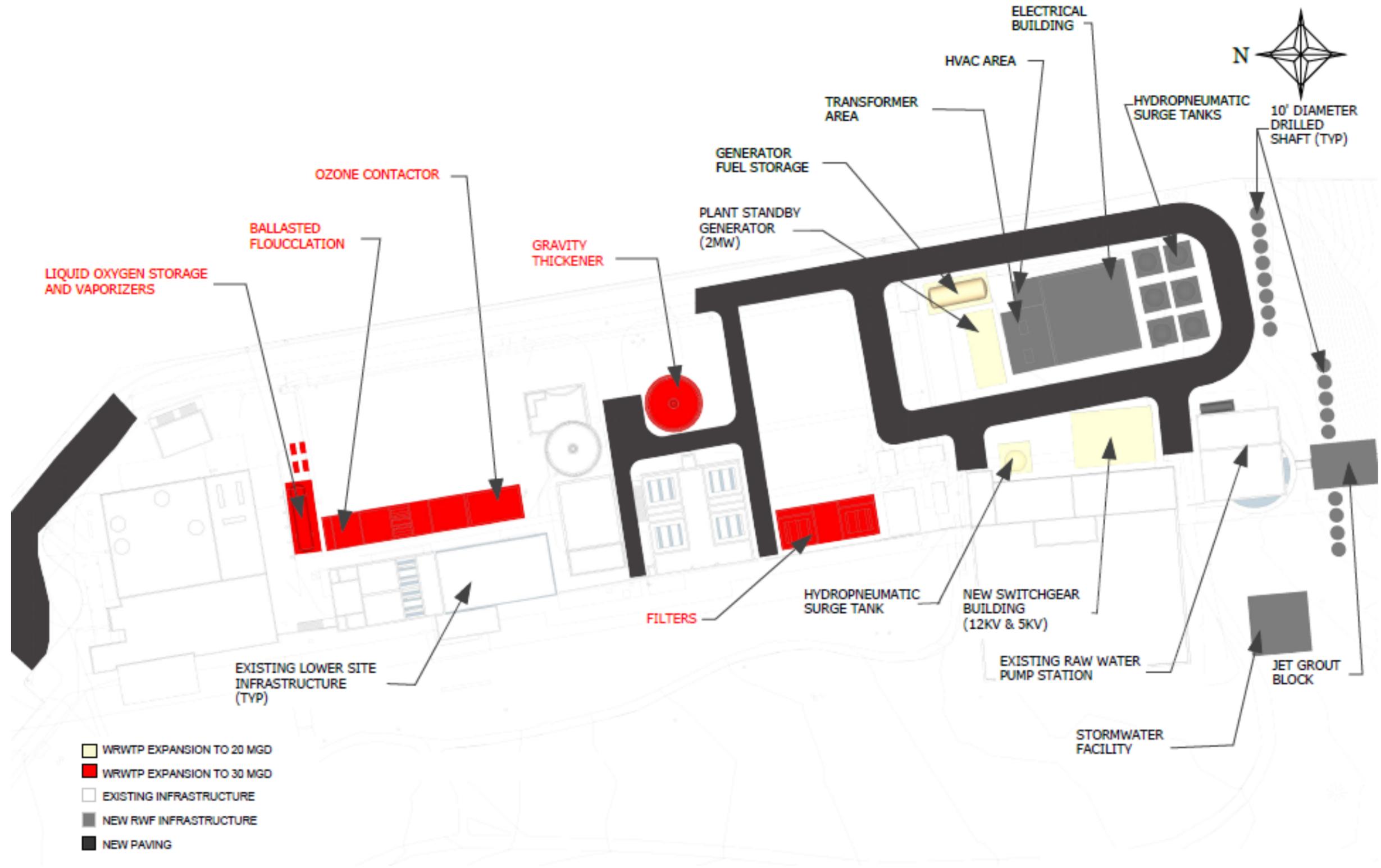


Figure ES.3 Site Plan – 30-MGD Capacity Expansion

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### ES.6.3 Electrical Expansion CIP

The electrical system is loaded above 80 percent of listed capacity and is considered overloaded. Additionally, the existing emergency generator is not connected to all WRWTP equipment; for example, it is wired only to Actiflo® Basin 2. Furthermore, its capacity is sufficient only to power the 4 mgd raw and finished water pumps.

We recommend that the plant upgrade its existing electrical equipment that as part of the 20 mgd expansion to ensure that service is not interrupted by electrical fault. The following upgrades are recommended:

- **Replace switchgear** with 15-KV metering switchgear and 5 KV transformer, which should be sufficient to power the WRWTP through 60 MGD
- **Replace emergency generator** with a 2-MW generator wired directly to the 15-KV metering switchgear. This will allow all plant equipment run on the emergency generator.
- **Rewire plant** to connect all finished water pumps to the 5-V transformer/switchgear. This will leave sufficient capacity on the remaining transformers to power the rest of the plant.

### ES.6.4 Repair and Replacement CIP

In addition to the seismic and life-safety CIP, the WRWTP requires ongoing maintenance/repair and replacement (R&R) of its existing infrastructure to meet service goals. This 2017 MPU summarizes repair and replacement projects for the next 20 years.

### ES.7 CIP Approach and Schedule

The existing WRWTP must be expanded to 20 mgd by 2022 and to 30 mgd by 2036.

Table ES.2 breaks down the capital costs for the two expansions and related repair and replace projects, electrical equipment upgrades, life safety repairs, and seismic retrofits necessary to maintain plant operation. Table ES.3 details repair and replace projects by year and dollar amount. The CIP cost estimates are classified as American Association of Cost Engineers (AACE) Class 4 or Class 5 estimates. The Class 4 estimates have an expected level of accuracy of +50% to -30%. The Class 5 estimates have an expected level of accuracy of +100% to -50%. Figures ES.4 and ES.5 depict the near term and total CIP costs, respectively, as broken down by project.

Table ES.2 **Estimated CIP Costs (2017 Dollars)**

Project	Cost <sup>(1)</sup>	% Water Operations	% SDCs
20 mgd Expansion	\$3,700,000	--	100%
30 mgd Expansion	\$38,640,000	--	100%
Life Safety Repairs	\$620,000	100%	--
Seismic Retrofits	\$1,160,000	100%	--
Electrical Upgrades	\$11,090,000	100%	--
Operations - Repair and Replace	\$19,180,000	100%	--

Notes:

- (1) Includes 15% design fee and 10% administrative cost.
- (2) All costs are rounded up to nearest \$10,000.

Table ES.3 Operations – Repair and Replace Estimated CIP Cost (2017 Dollars)

Repair and Replace Year	Cost <sup>(1)</sup>	% Water Operations	% SDCs
2019	\$2,030,000	100%	--
2020	\$1,430,000	100%	--
2021	\$20,000	100%	--
2022	\$4,490,000	100%	--
2023	\$20,000	100%	--
2024	\$20,000	100%	--
2025	\$20,000	100%	--
2026	\$20,000	100%	--
2027	\$5,220,000	100%	--
2028	\$20,000	100%	--
2029	\$20,000	100%	--
2030	\$20,000	100%	--
2031	\$20,000	100%	--
2032	\$2,480,000	100%	--
2033	\$20,000	100%	--
2034	\$20,000	100%	--
2035	\$20,000	100%	--
2036	\$3,400,000	100%	--

Notes:

(1) Includes 10% administrative cost.

To meet growing water demand from Wilsonville and Sherwood, the existing WRWTP will first be expanded to a capacity of 20 mgd, followed by an expansion to 30 mgd near the end of this planning horizon. Table ES.4 summarizes a preliminary and final design and construction schedule.

Table ES.4 WRWTP Expansion Design and Construction Schedule

Project	Approx. Service Year	Duration (Months)		Start Date
		Design	Construction	
20 MGD Capacity Expansion	2022	12	18	2019
Electrical Upgrades	2022	12	12	2019
Life Safety Repairs	2022	6	6	2020
Seismic Retrofits	2022	6	6	2020
30 MGD Capacity Expansion	2036	12	24	2033
Operations – Repair and Replace				
Year 1	2018	0	0	--
Year 2	2019	0	6	2018

Table ES.4 WRWTP Expansion Design and Construction Schedule (Continued)

Project	Approx. Service Year	Duration (Months)		Start Date
		Design	Construction	
Year 3	2020	0	6	2019
Year 4	2021	0	3	2021
Year 5	2022	6	9	2020
Year 6	2023	0	3	2023
Year 7	2024	0	3	2024
Year 8	2025	0	3	2025
Year 9	2026	0	3	2026
Year 10	2027	0	9	2026
Year 11	2028	0	3	2028
Year 12	2029	0	3	2029
Year 13	2030	0	3	2030
Year 14	2031	0	3	2031
Year 15	2032	0	9	2032
Year 16	2033	0	3	2033
Year 17	2034	0	3	2034
Year 18	2035	0	3	2035
Year 19	2036	0	12	2035

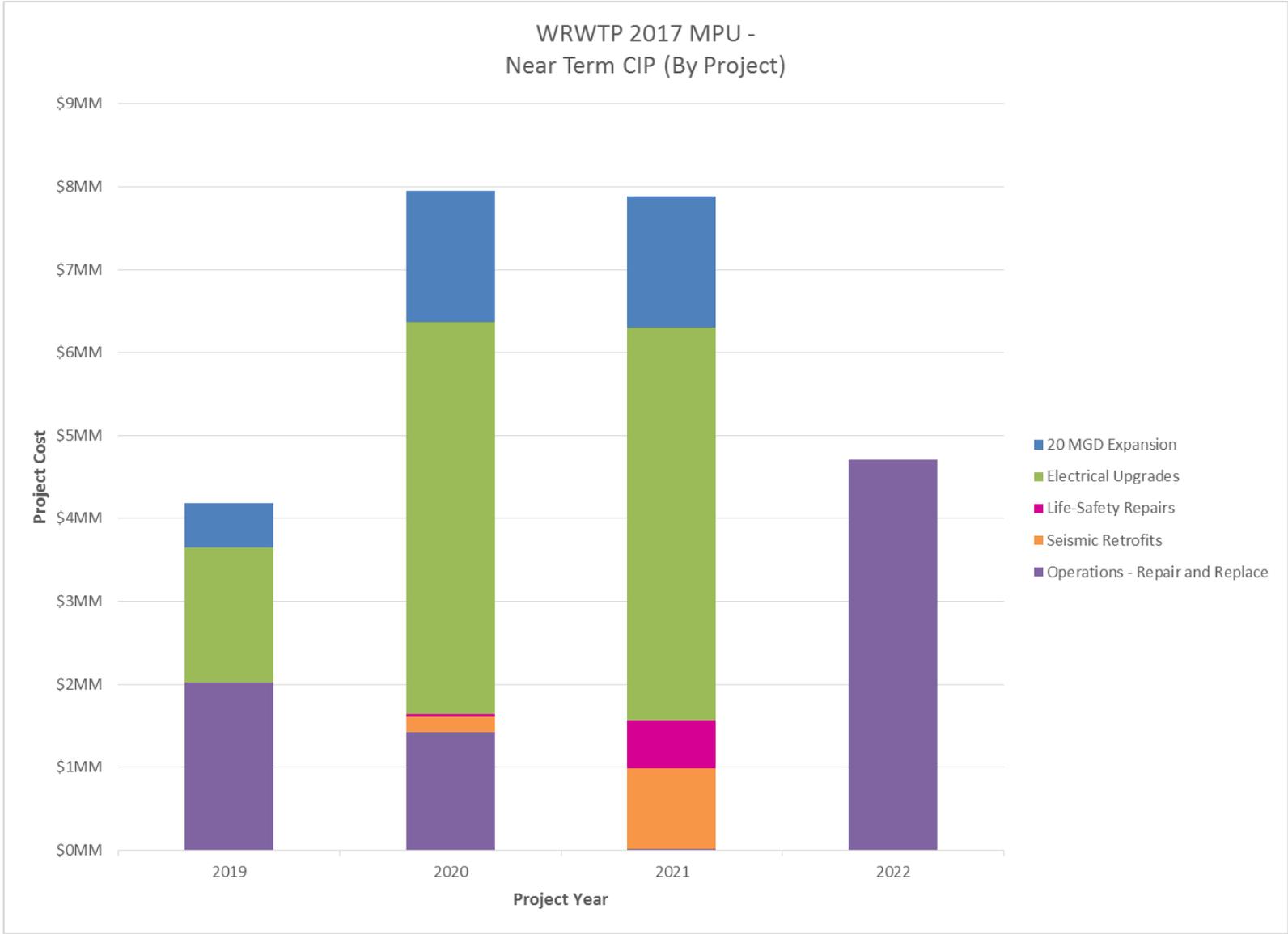


Figure ES.4 RWTP Near-Term CIP Costs by Project (2017 Dollars)

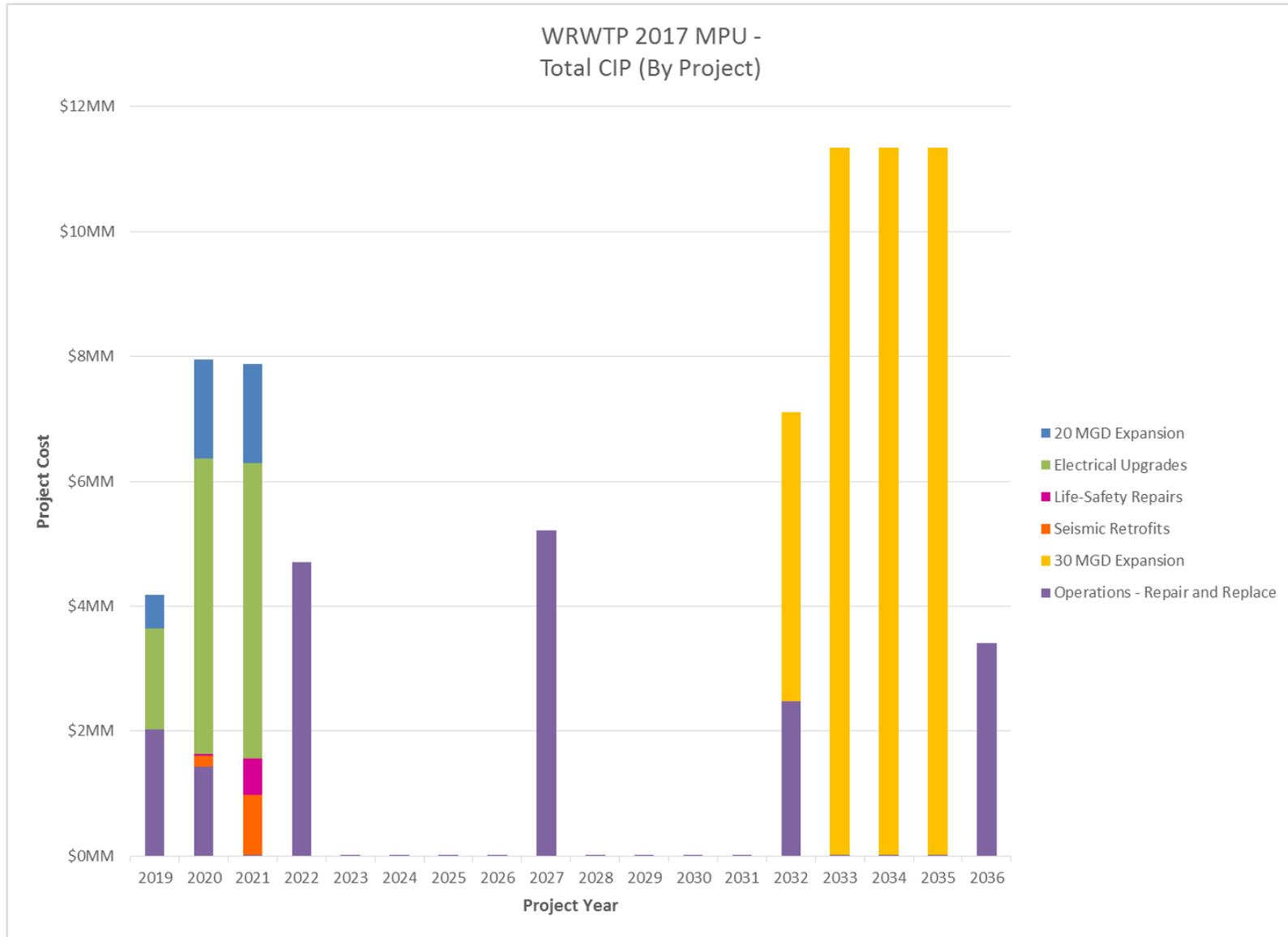


Figure ES.5 WRWTP Total CIP Costs by Project (2017 Dollars)

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The final project document chapters and appendices in their entirety  
are here:

[www.ci.wilsonville.or.us/WTPMUpdate](http://www.ci.wilsonville.or.us/WTPMUpdate)

**ORDINANCE NO. 815**

**AN ORDINANCE OF THE CITY OF WILSONVILLE ADOPTING THE 2017 WATER TREATMENT PLANT MASTER PLAN UPDATE AS A SUB-ELEMENT OF THE CITY'S COMPREHENSIVE PLAN AND THE CAPITAL IMPROVEMENT PROJECT LIST FOR THE WATER TREATMENT PLANT.**

WHEREAS, ORS 197.175 requires cities to prepare, adopt, and implement Comprehensive Plans consistent with statewide planning goals adopted by the Land Conservation and Development Commission; and

WHEREAS, ORS 197.712(2)(c) requires cities to develop and adopt a public facilities plan for areas with the Urban Growth Boundary containing a population greater than 2,500 people, including rough cost estimates for projects needed to provide sewer, water, and transportation uses contemplated in the Comprehensive Plan and Land Use Regulations; and

WHEREAS, the 2017 Water Treatment Plan Master Plan Update (2017 MPU) is needed to account for growth and plan for future development; and

WHEREAS, the Willamette Water Supply Program will be sharing the existing water treatment plant's intake facility site for its own system expansion; and

WHEREAS, the 2017 MPU documents:

- Existing and future water demand, and the expected future Level of Service;
- Existing treatment technologies and associated operational performance in terms of water quality and regulatory compliance;
- The condition and reliability of the existing plant infrastructure with particular focus on life safety deficiencies, surge protection and seismic resiliency;
- Recommended short-term and long-term capital improvement plan needed to ensure continued reliability of the treatment plant as the plant capacity increases from the current 15 million gallons per day (mgd) to 30 mgd in year 2035 and beyond; and
- The cost estimates and recommended schedules for the design and construction of the recommended capital improvements.

WHEREAS, the 2017 MPU was prepared with the following key objectives:

- Define the steps for expanding the existing treatment plant infrastructure to maximize the return on previous investments;
- Optimize process selection and layout to meet capacity and water quality goals at the expanded treatment plant;
- Strategize near-term and long-term plant expansion for a 20-year planning horizon and cash-flow to guide future financial planning; and
- Ensure that Willamette Water Supply-related facilities, including raw water pumping, surge protection, and standby power infrastructure, do not prevent the cities of Wilsonville and Sherwood from meeting their ultimate build-out demands for the existing treatment plant on the current site; and

WHEREAS, in preparing the 2017 MPU, the City has sought to carry out federal, state, and regional mandates, provide for alternative improvement solutions to minimize public and private expense, avoid the creation of nuisances, and maintain the public's health; and

WHEREAS, the City sponsored a website and conducted work sessions with the Planning Commission and City Council to solicit citizen input addressing Statewide Planning Goal #1 – Citizen Involvement; and

WHEREAS, following the timely mailing and publication of the required Ballot Measure 56 notice, the Wilsonville Planning Commission conducted a public hearing on February 14, 2018 and adopted Resolution LP18-1002 recommending approval of the 2017 MPU to the City Council; and

WHEREAS, after providing due public notice as required by City Code and Oregon Law, a public hearing was held before the City Council on April 16, 2019, at which time the City Council considered the recommendation of the Planning Commission, gathered additional evidence and afforded all interested parties an opportunity to present oral and written testimony concerning the 2017 MPU; and

WHEREAS, the City Council carefully considered the public record, including all recommendations and testimony.

NOW, THEREFORE, THE CITY OF WILSONVILLE ORDAINS AS  
FOLLOWS:

1. The above findings are adopted and incorporated herein, including the findings and conclusions of Planning Commission Resolution LP18-1002, its staff report and public record attached hereto as **Exhibit 1**.
2. The City Council finds and concludes that the 2017 MPU is necessary to protect the public health, safety, and welfare of the City of Wilsonville to help ensure adequate water capacity and quality for the City's municipal water system.
3. The City Council hereby adopts the 2017 MPU, attached hereto as **Exhibit 2** and incorporated herein.
4. This Ordinance shall be declared to be in full force and effect thirty (30) days from the date of final passage and approval on second reading.

SUBMITTED to the Wilsonville City Council and read for the first time at a regular meeting thereof on the 16<sup>th</sup> day of April, 2018, and scheduled for a second reading at a regular meeting of the Council on the 7<sup>th</sup> day of May, 2018, commencing at the hour of 7:00 P.M. at the Wilsonville City Hall.

---

Kimberly Veliz, City Recorder

ENACTED by the City Council on the 7<sup>th</sup> day of May, 2018 by the following  
votes:

Yes:    No:

---

Kimberly Veliz, City Recorder

DATED and signed by the Mayor this 7<sup>th</sup> day of May, 2018.

---

TIM KNAPP, Mayor

**SUMMARY OF VOTES:**

Mayor Knapp

Council President Starr

Councilor Stevens

Councilor Lehan

Councilor Akervall

**Attachments:**

Exhibit 1 – Planning Commission Resolution LP18-1002, staff report, and record – to be provided with the April 16, 2018 meeting packet materials

Exhibit 2 – 2017 Water Treatment Master Plan Update – to be provided with the April 16, 2018 meeting packet materials