Special City Council Meeting
April 1, 2024 - 6:30 PM
City Hall Council Chambers
AGENDA

I. CALL TO ORDER

II. LAND ACKNOWLEDGEMENT

We would like to acknowledge the Federally Recognized Muckleshoot Indian Tribe, the ancestral keepers of the land we are gathered on today. We thank them for their immense contributions to our state and local history, culture, economy, and identity as Washingtonians.

III. PUBLIC PARTICIPATION

1. Public Participation

   The Auburn Special City Council Meeting scheduled for Monday April 1, 2024 at 6:30 p.m. will be held in person and virtually.

   Virtual Participation Link:

   To view or listen to the meeting virtually please click the below link, or call into the meeting at the phone number listed below.

   Telephone: 253 205 0468
   Toll Free: 888 475 4499
   Zoom: https://us06web.zoom.us/j/84823814750

A. **Pledge of Allegiance**

IV. ROLL CALL

V. DISCUSSION ITEMS

A. Briefing - Utility Plans (Gaub) (30 Minutes)

VI. ADJOURNMENT

Agendas and minutes are available to the public at the City Clerk's Office, on the City website (http://www.auburnwa.gov), and via e-mail. Complete agenda packets are available for review at the City Clerk's Office.

AGENDA BILL APPROVAL FORM

Agenda Subject:
Briefing - Utility Plans (Gaub) (30 Minutes)

Date:
March 21, 2024

Department:
Public Works

Attachments:
Presentation

Budget Impact:
Current Budget: $0
Proposed Revision: $0
Revised Budget: $0

Administrative Recommendation:

For discussion only.

Background for Motion:

Background Summary:

The City is updating the individual Comprehensive Plan (Plans) for the Sanitary Sewer, Storm Drainage, and Water Utilities in coordination with the update of the City's overall Comprehensive Plan. The purpose of this discussion is to provide Council with a general overview of each of the Plans, what they entail, and discuss next steps in the development of the Plans.

Reviewed by Council Committees:

Councilmember: Tracy Taylor
Staff: Ingrid Gaub
Meeting Date: April 1, 2024
Item Number: DI.A

ENGINEERING SERVICES

2024 SEWER, STORM, WATER COMPREHENSIVE PLANS OVERVIEW AND UPDATE

RYAN VONDRAK, UTILITIES ENGINEERING MANAGER

CITY COUNCIL SPECIAL MEETING
APRIL 1, 2024

Public Works Department
Engineering Services • Airport Services • Maintenance & Operations Services

AUBURN VALUES

SERVICE
ENVIRONMENT
ECONOMY
CHARACTER
SUSTAINABILITY
WELLNESS
CELEBRATION

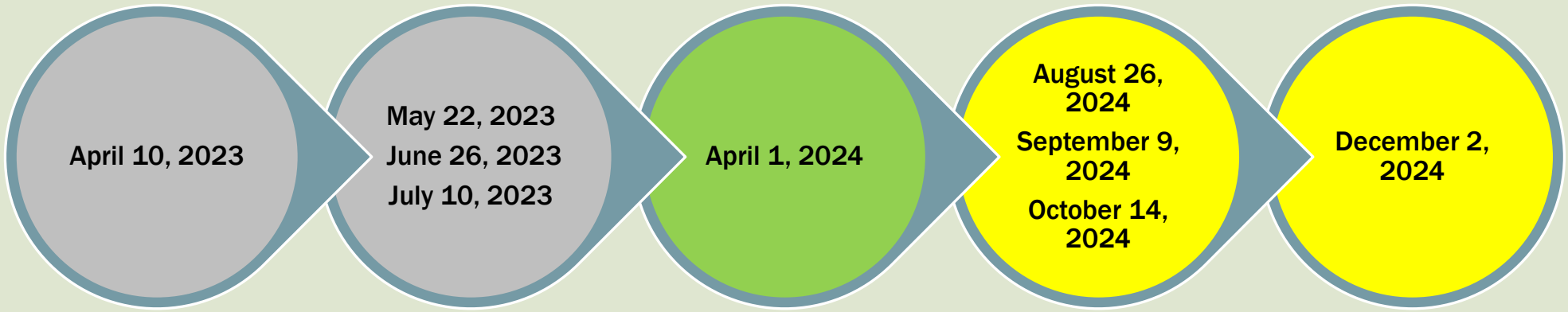
2024 SEWER, STORM, WATER COMPREHENSIVE PLANS OVERVIEW AND UPDATE

- **Auburn Comprehensive Plan Elements**
  - Core Plan (Community Development)
  - Land Use Element (Community Development)
  - Housing Element (Community Development)
  - Historic Preservation (Community Development)
  - Climate Change – NEW (Community Development)
  - Economic Development (Community Development)
  - Capital Facilities Element (Public Works)
  - Transportation Element (Public Works)
  - **Utilities Element (Public Works)**
  - Parks and Recreation (Parks)

IMAGINE AUBURN
~COMPREHENSIVE PLAN UPDATE 2024~

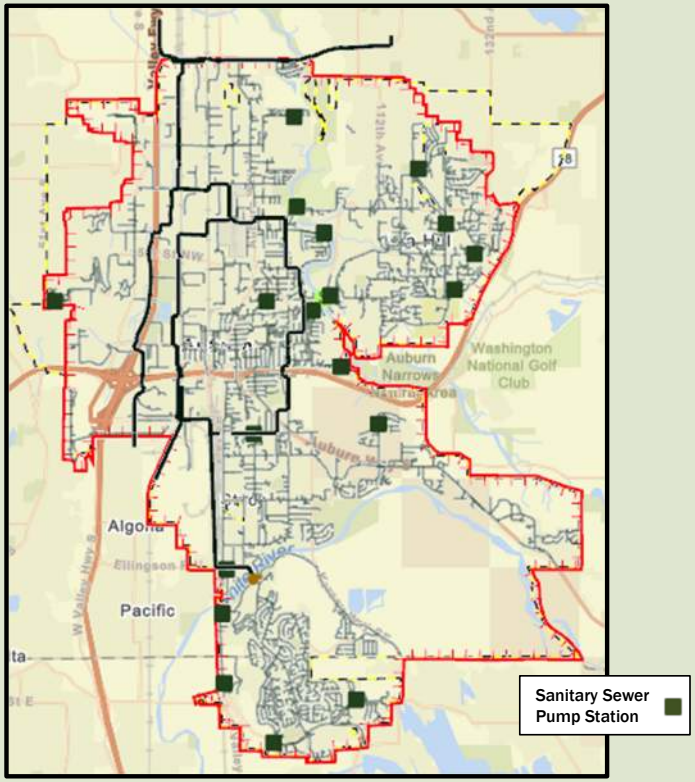
Citywide effort involving all departments coordinating together to create a cohesive, consistent, and forward-thinking Plan covering range of subject areas

CITY COUNCIL SCHEDULE OVERVIEW



2024 SANITARY SEWER COMPREHENSIVE PLAN

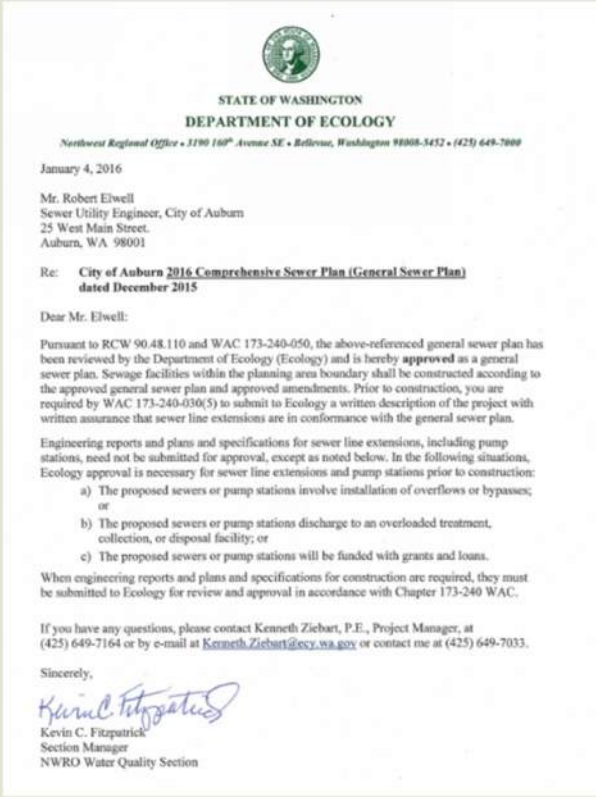
- Approximately 205 miles of Gravity Mains
- Approximately 5 miles of Force Mains
- 12,700 Service Connections
- 17 Pump Stations



2024 SANITARY SEWER COMPREHENSIVE PLAN

Key Elements

- Creating 6-yr and 20-yr Planning Periods
- Sewer Comprehensive Plan Requires Approval from King County
- Sewer Comprehensive Plan Requires Ecology Approval



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

January 4, 2016

Mr. Robert Elwell
Sewer Utility Engineer, City of Auburn
25 West Main Street.
Auburn, WA 98001

Re: **City of Auburn 2016 Comprehensive Sewer Plan (General Sewer Plan) dated December 2015**

Dear Mr. Elwell:

Pursuant to RCW 90.48.110 and WAC 173-240-050, the above-referenced general sewer plan has been reviewed by the Department of Ecology (Ecology) and is hereby **approved** as a general sewer plan. Sewage facilities within the planning area boundary shall be constructed according to the approved general sewer plan and approved amendments. Prior to construction, you are required by WAC 173-240-030(5) to submit to Ecology a written description of the project with written assurance that sewer line extensions are in conformance with the general sewer plan.

Engineering reports and plans and specifications for sewer line extensions, including pump stations, need not be submitted for approval, except as noted below. In the following situations, Ecology approval is necessary for sewer line extensions and pump stations prior to construction:

a) The proposed sewers or pump stations involve installation of overflows or bypasses; or
b) The proposed sewers or pump stations discharge to an overloaded treatment, collection, or disposal facility; or
c) The proposed sewers or pump stations will be funded with grants and loans.

When engineering reports and plans and specifications for construction are required, they must be submitted to Ecology for review and approval in accordance with Chapter 173-240 WAC.

If you have any questions, please contact Kenneth Ziebart, P.E., Project Manager, at (425) 649-7164 or by e-mail at Kenneth.Ziebart@ecy.wa.gov or contact me at (425) 649-7033.

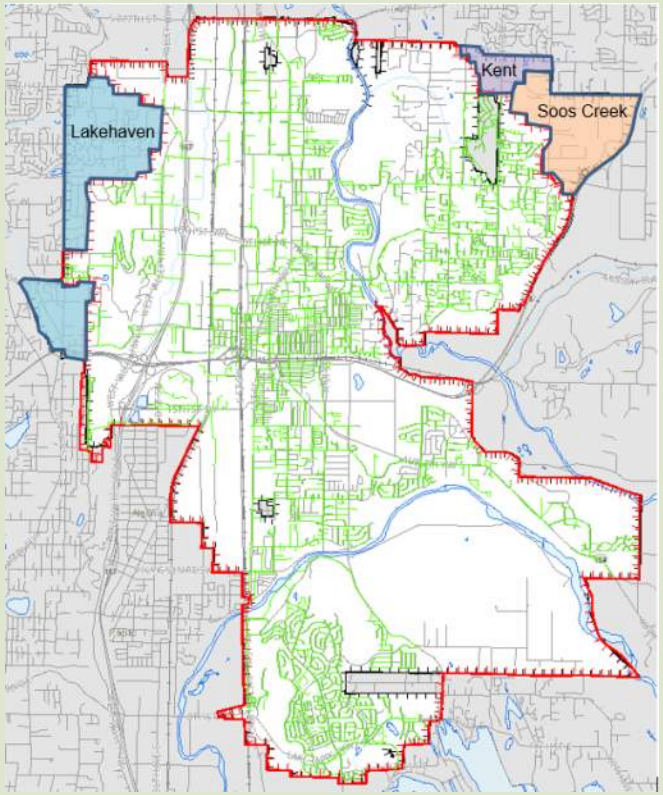
Sincerely,

Kevin C. Fitzpatrick
Section Manager
NWRO Water Quality Section

2024 SANITARY SEWER COMPREHENSIVE PLAN

Chapter 1 Introduction and Background

- Explains need for Updating the Plan
- Identifies Objectives
- Provides Background Utility Information
- Describes the Sanitary Sewer Service Area and Neighboring Service Areas



2024 SANITARY SEWER COMPREHENSIVE PLAN

May 22, 2023

- Sewer Policies Review & Discussion

Goals

- Broad statements indicating a general aim or purpose to be achieved.

Policies

- Topic-specific statement providing guidelines for current and future decision-making.
- Indicates a clear commitment of the local legislative body.

Chapter 2 Wastewater System Policies

Policies:

- Service Area
- System Planning
- Operations and Maintenance
- Environmental Stewardship
- System Performance and Reliability
- Fiscal Responsibility

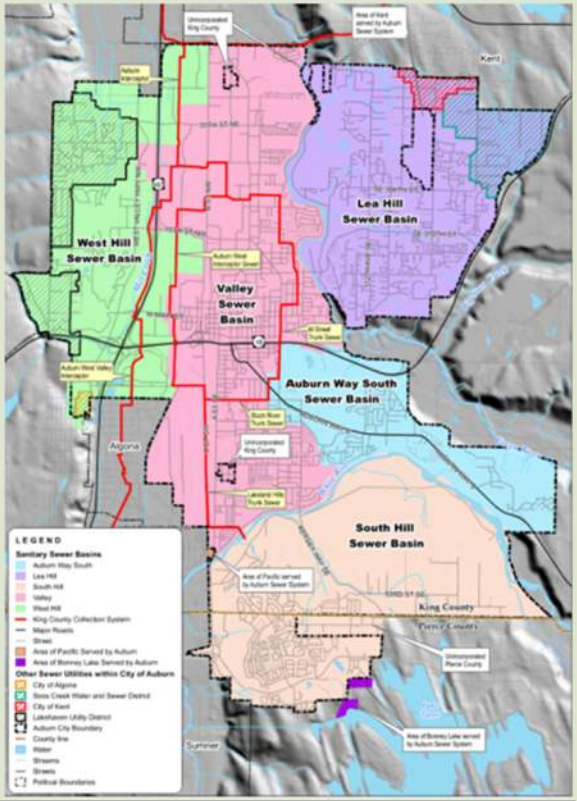
2024 SANITARY SEWER COMPREHENSIVE PLAN

Chapter 3 Planning Considerations

- Hydraulic Modeling for Existing Conditions and Projected (2044)
- Information on Projected Future Growth and Capacity Improvements

Chapter 4 Description of Existing System

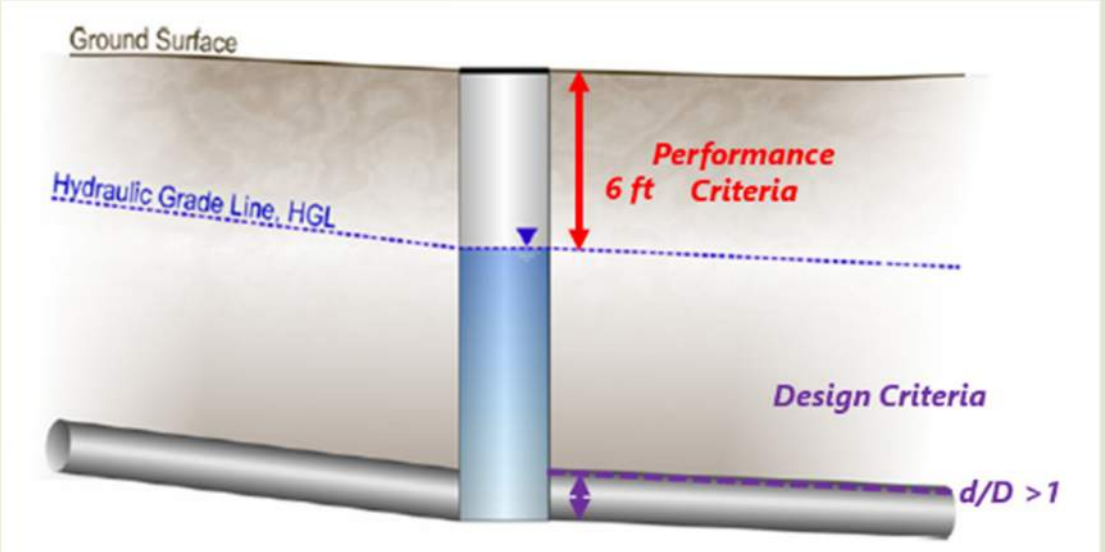
- Description of the City's System
- Description of King County System
- Infiltration and Inflow
- Industrial Waste Discharges



2024 SANITARY SEWER COMPREHENSIVE PLAN

Chapter 5 Wastewater System Analysis

- Existing System Evaluation
- Future System Evaluation
- Identify Deficiencies for Capital Improvements
- Inflow and Infiltration Analysis



2024 SANITARY SEWER COMPREHENSIVE PLAN

Chapter 6 Maintenance and Operations

- Organization Overview and Responsibilities
- System Operations
- Fats, Oils, and Grease Reduction Program
- Maintenance Program

2024 SANITARY SEWER COMPREHENSIVE PLAN

Chapter 7 Capital Improvements Plan

- Capital Improvement Needs
- High Level Costs

Chapter 8 Finance

- Costs of Service
- Capital Improvement Funding Plan
- Maintaining Reserves
- Rate Evaluation

2024 SANITARY SEWER COMPREHENSIVE PLAN

Any Questions?

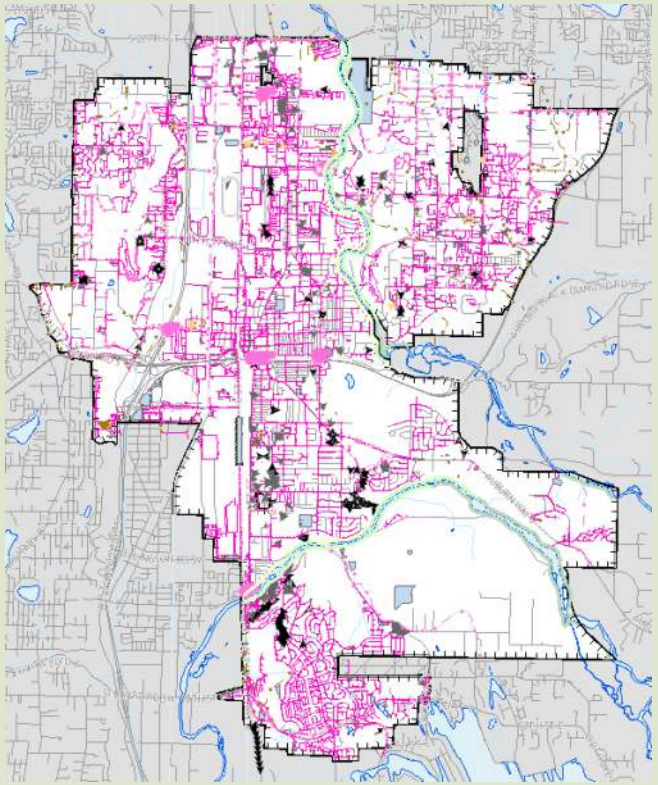
2024 STORM DRAINAGE COMPREHENSIVE PLAN

Key Elements

- **Policies updated to reflect evolving National Pollutant Discharge Elimination System (NPDES) requirements**
- **Incorporate Stormwater Management Action Plan (SMAP)**
- **Creating 6-yr and 20-yr Planning Periods**
- **Develop Strategy for Future NPDES Compliance Requirements**

2024 STORM DRAINAGE COMPREHENSIVE PLAN

- 240 Miles pipe
- 40 Miles of ditches
- 10,500 Catch Basins
- 3,060 Manholes
- 167 Stormwater Ponds
- 7 Pump Stations



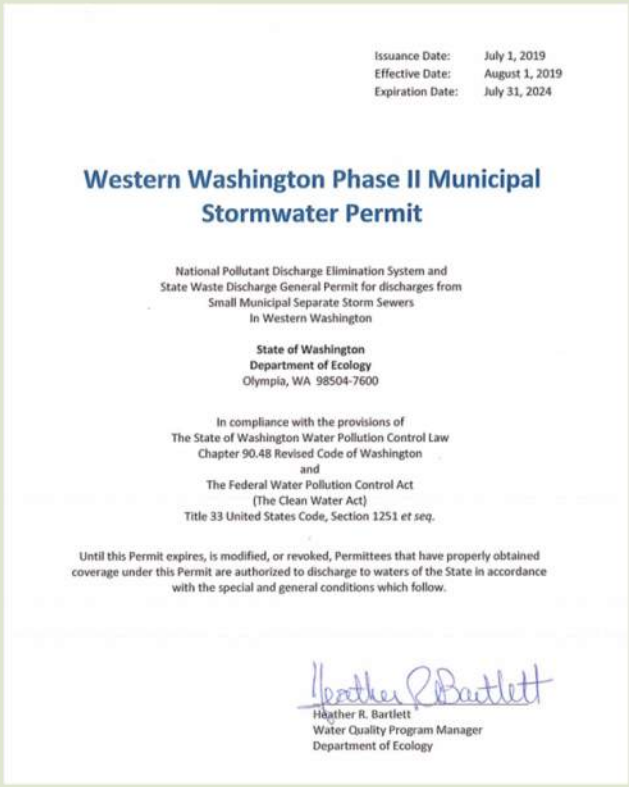
2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 1 Introduction

- Explains need for Updating the Plan
- Identifies Objectives
- Approach and Document Organization

Chapter 2 Background

- Organizational Structure
- Funding Mechanisms
- Development Code and Design Standards
- Regulatory Considerations



Issuance Date: July 1, 2019
Effective Date: August 1, 2019
Expiration Date: July 31, 2024

Western Washington Phase II Municipal Stormwater Permit

National Pollutant Discharge Elimination System and
State Waste Discharge General Permit for discharges from
Small Municipal Separate Storm Sewers
In Western Washington

State of Washington
Department of Ecology
Olympia, WA 98504-7600

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1251 *et seq.*

Until this Permit expires, is modified, or revoked, Permittees that have properly obtained coverage under this Permit are authorized to discharge to waters of the State in accordance with the special and general conditions which follow.

Heather R. Bartlett
Water Quality Program Manager
Department of Ecology

2024 STORM DRAINAGE COMPREHENSIVE PLAN

- Storm Policies Review & Discussion

Chapter 3 System Goals and Policies

Policies:

- System Planning
- Operations and Maintenance
- Fiscal Responsibility
- Environmental and Regional Coordination

2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 4 Drainage System

- Natural Drainage
- Stormwater Drainage Infrastructure
- Critical Facilities
- Water Quality
- Existing Drainage Problems

Chapter 5 Evolution of the Storm Drainage Utility

- Methodologies for Evaluating Problems
- Developing Capital Improvements

2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 6 Maintenance and Operations

- Organization Overview and Responsibilities
- Routine Operations
- Maintenance Program

2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 7 Capital Improvements

- Capital Improvement Needs
- High Level Costs

Chapter 8 Implementation Plan

- Prioritizes Capital Projects
- Future Work Plan

Chapter 9 Finance

- Costs of Service
- Capital Improvement Funding Plan
- Maintaining Reserves
- Rate Evaluation

2024 STORM DRAINAGE COMPREHENSIVE PLAN

Any Questions?

2024 WATER COMPREHENSIVE PLAN

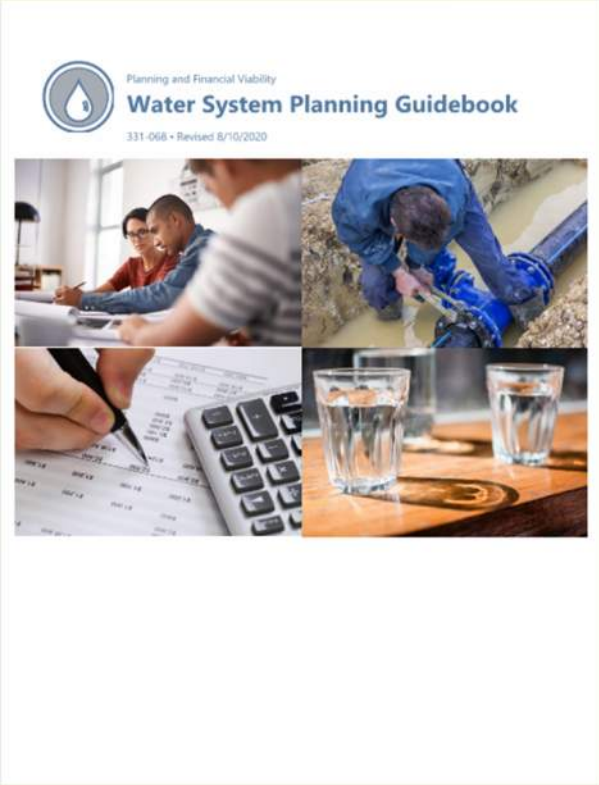
- 4 Water Service Areas
  - Academy, Lakeland Hills, Lea Hill & Valley
- Sources of Water:
  - 6 active Wells, 2 Springs & 2 Interties (Tacoma)
- ≈ 306 miles Water Main
- Over 15,000 Service Connections
- 8 Pump Stations
  - 2 Treatment Facilities
- 8 Reservoirs
- Operate 1 Satellite System
- Provide Wholesale Water to Algona
- Produce ≈ 2.5 billion gallons of water per year

Academy Pump Station

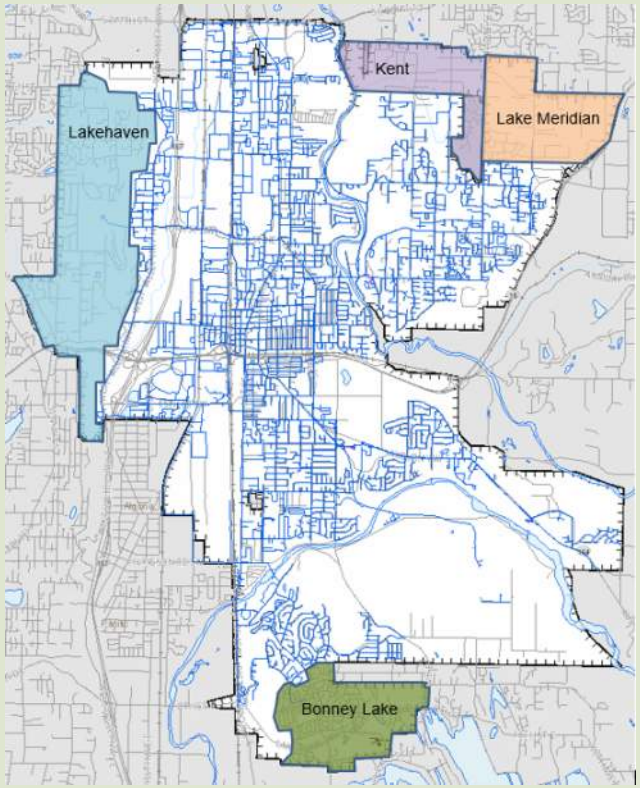
2024 WATER COMPREHENSIVE PLAN

Key Elements

- **Format updated to follow Department of Health (DOH) Guidebook and DOH Design Manual**
- **Creating 10-yr and 20-yr Planning Periods**
- **Water Comprehensive Plan Requires Approvals from King and Pierce Counties**
- **Water Comprehensive Plan Requires DOH Approval**

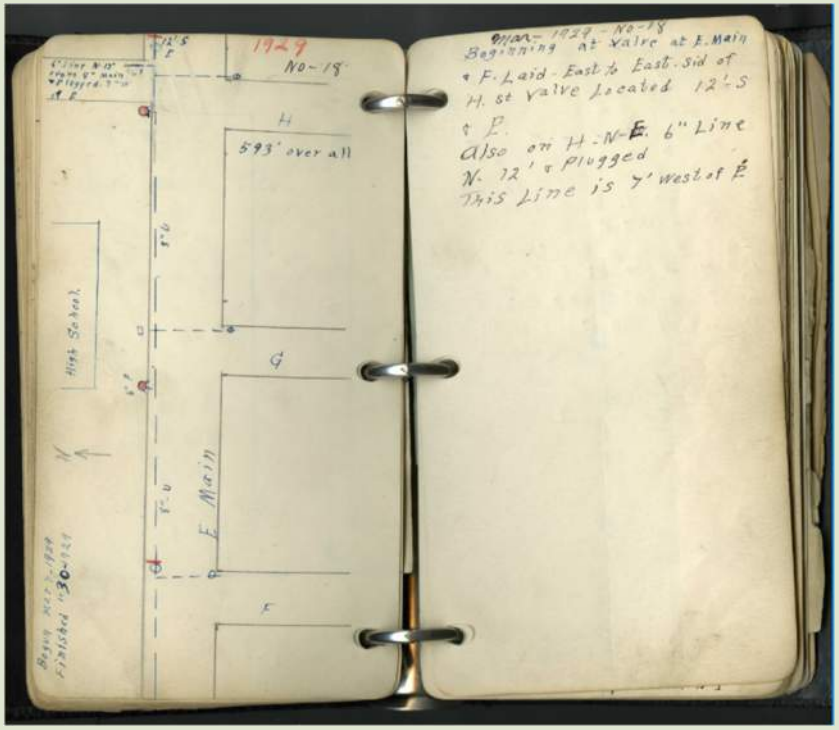


2024 WATER COMPREHENSIVE PLAN

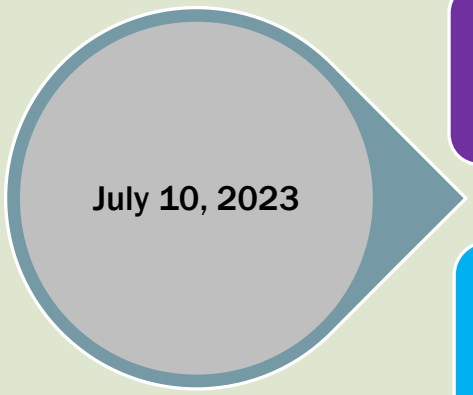


Chapter 1 Description of the Water System

- Ownership and Management
- System History and Background
- Service Areas, Maps, and Land Uses



2024 WATER COMPREHENSIVE PLAN



- Water Policies Review & Discussion

Goals

- Broad statements indicating a general aim or purpose to be achieved.

Policies

- Topic-specific statement providing guidelines for current and future decision-making.
- Indicates a clear commitment of the local legislative body.

Chapter 1 Description of the Water System

Policies:

- Business Practice
- Service Area
- Operations and Maintenance
- Financial
- Planning
- Environmental Stewardship
- Design and Construction

2024 WATER COMPREHENSIVE PLAN

Chapter 2 Basic Planning Data

- Water Service Area Population
- Water Service Connections and Usage
- Future Population Projections and Land Use
- Water Supply and Production
- Future Water Demand

Number of Connections per Customer Classification

	2022
Single-Family Residential	11,980
Multi-Family Residential	1,052
Commercial	1,244
Manufacturing & Industrial	2
Schools	55
Municipal (City Accounts)	33
Irrigation	675
Wholesale	5
Number of Connections, Total	**15,046**

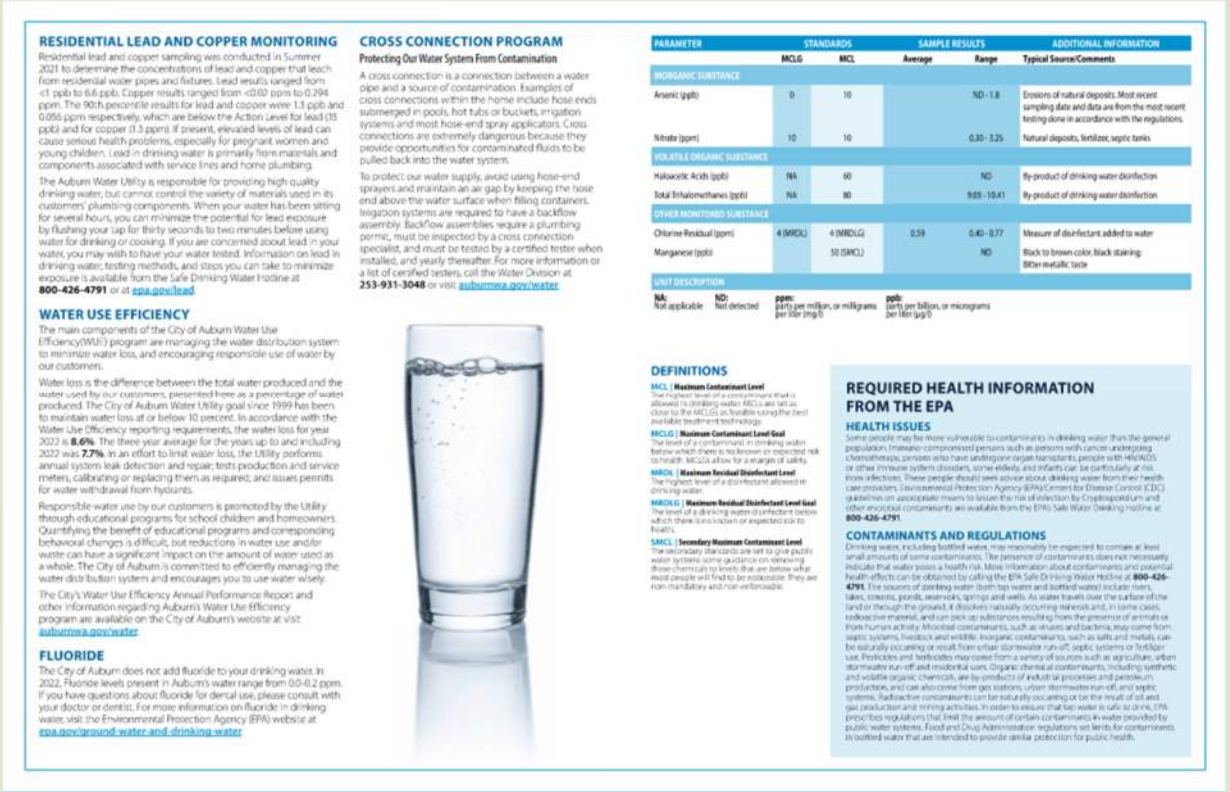
Historical Annual ADD, MDD, Peak Day, and Peaking Factor

	2015	2016	2017	2018	2019	2020	2021	2022
Annual Supply (MG)[1]	2,765	2,808	2,506	2,464	2,410	2,313	2,454	2,425
Average Day Demand (mgd)	7.57	7.67	6.87	6.75	6.60	6.32	6.72	6.64
Maximum Day Demand (mgd)	9.76	12.64	12.54	13.61	11.29	13.62	13.08	12.78
Max Day Date (month/day)	7/7	8/31	7/26	7/11	8/1	8/27	6/29	7/27
MDD/ADD Peaking Factor	1.29	1.65	1.83	2.02	1.71	2.15	1.95	1.92

2024 WATER COMPREHENSIVE PLAN

Chapter 3 System Analysis and Asset Management

- Physical Condition of Facilities
- Water Quality
- Capacity Analysis (Hydraulic Analysis)
- Identify Deficiencies



RESIDENTIAL LEAD AND COPPER MONITORING

Residential lead and copper sampling was conducted in Summer 2021 to determine the concentrations of lead and copper that leach from residential water pipes and fixtures. Lead results ranged from <1 ppb to 6.6 ppb. Copper results ranged from <0.02 ppm to 0.294 ppm. The 90th percentile results for lead and copper were 1.3 ppb and 0.056 ppm respectively, which are below the Action Level for lead (15 ppb) and for copper (1.3 ppm). If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

The Auburn Water Utility is responsible for providing high quality drinking water, but cannot control the variety of materials used in its customers' plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for thirty seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at **800-426-4791** or at epa.gov/lead.

WATER USE EFFICIENCY

The main components of the City of Auburn Water Use Efficiency(WUE) program are managing the water distribution system to minimize water loss, and encouraging responsible use of water by our customers.

Water loss is the difference between the total water produced and the water used by our customers, presented here as a percentage of water produced. The City of Auburn Water Utility goal since 1999 has been to maintain water loss at or below 10 percent. In accordance with the Water Use Efficiency reporting requirements, the water loss for year 2022 is **8.6%**. The three year average for the years up to and including 2022 was **7.7%**. In an effort to limit water loss, the Utility performs annual system leak detection and repair; tests production and service meters, calibrating or replacing them as required; and issues permits for water withdrawal from hydrants.

Responsible water use by our customers is promoted by the Utility through educational programs for school children and homeowners. Quantifying the benefit of educational programs and corresponding behavioral changes is difficult, but reductions in water use and/or waste can have a significant impact on the amount of water used as a whole. The City of Auburn is committed to efficiently managing the water distribution system and encourages you to use water wisely.

The City's Water Use Efficiency Annual Performance Report and other information regarding Auburn's Water Use Efficiency program are available on the City of Auburn's website at visit auburnwa.gov/water

FLUORIDE

The City of Auburn does not add fluoride to your drinking water. In 2022, Fluoride levels present in Auburn's water range from 0.0-0.2 ppm. If you have questions about fluoride for dental use, please consult with your doctor or dentist. For more information on fluoride in drinking water, visit the Environmental Protection Agency (EPA) website at epa.gov/ground-water-and-drinking-water.

CROSS CONNECTION PROGRAM

Protecting Our Water System From Contamination

A cross connection is a connection between a water pipe and a source of contamination. Examples of cross connections within the home include hose ends submerged in pools, hot tubs or buckets, irrigation systems and most hose-end spray applicators. Cross connections are extremely dangerous because they provide opportunities for contaminated fluids to be pulled back into the water system.

To protect our water supply, avoid using hose-end sprayers and maintain an air gap by keeping the hose end above the water surface when filling containers. Irrigation systems are required to have a backflow assembly. Backflow assemblies require a plumbing permit, must be inspected by a cross connection specialist, and must be tested by a certified tester when installed, and yearly thereafter. For more information or a list of certified testers, call the Water Division at **253-931-3048** or visit auburnwa.gov/water

PARAMETER	STANDARDS MCLG	STANDARDS MCL	SAMPLE RESULTS Average	SAMPLE RESULTS Range	ADDITIONAL INFORMATION Typical Source/Comments
INORGANIC SUBSTANCE					
Arsenic (ppb)	0	10		ND - 1.8	Erosions of natural deposits. Most recent sampling date and data are from the most recent testing done in accordance with the regulations.
Nitrate (ppm)	10	10		0.30 - 3.25	Natural deposits, fertilizer, septic tanks
VOLATILE ORGANIC SUBSTANCE					
Haloacetic Acids (ppb)	NA	60		ND	By-product of drinking water disinfection
Total Trihalomethanes (ppb)	NA	80		9.83 - 10.41	By-product of drinking water disinfection
OTHER MONITORED SUBSTANCE					
Chlorine Residual (ppm)	4 (MRDL)	4 (MRDLG)	0.59	0.40 - 0.77	Measure of disinfectant added to water
Manganese (ppb)		50 (SMCL)		ND	Black to brown color, black staining; Bitter metallic taste
UNIT DESCRIPTION					
NA: Not applicable	ND: Not detected	ppm: parts per million, or milligrams per liter (mg/l)	ppb: parts per billion, or micrograms per liter (µg/l)		

DEFINITIONS

MCL | Maximum Contaminant Level
The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG | Maximum Contaminant Level Goal
The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL | Maximum Residual Disinfectant Level
The highest level of a disinfectant allowed in drinking water.

MRDLG | Maximum Residual Disinfectant Level Goal
The level of a drinking water disinfectant below which there is no known or expected risk to health.

SMCL | Secondary Maximum Contaminant Level
The secondary standards are set to give public water systems some guidance on removing those chemicals to levels that are below what most people will find to be noticeable. They are non-mandatory and non-enforceable.

REQUIRED HEALTH INFORMATION FROM THE EPA

HEALTH ISSUES

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Environmental Protection Agency (EPA)/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the EPA's Safe Water Drinking Hotline at **800-426-4791**.

CONTAMINANTS AND REGULATIONS

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at **800-426-4791**. The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Microbial contaminants, such as viruses and bacteria, may come from septic systems, livestock and wildlife. Inorganic contaminants, such as salts and metals, can be naturally occurring or result from urban stormwater run-off, septic systems or fertilizer use. Pesticides and herbicides may come from a variety of sources such as agriculture, urban stormwater run-off and residential uses. Organic chemical contaminants, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater run-off, and septic systems. Radioactive contaminants can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations set limits for contaminants in bottled water that are intended to provide similar protection for public health.

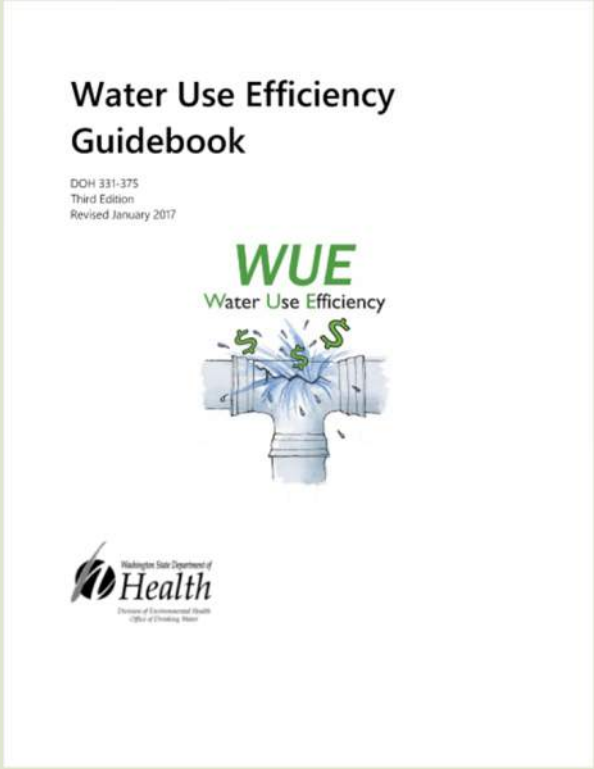
2024 WATER COMPREHENSIVE PLAN

Chapter 4 Water use Efficiency

- Water Use Efficiency Program
- Distribution System Leakage
- Climate Change Resiliency

Chapter 5 Source Water Protection

- Wellhead Protection
- Watershed Control Program
- Sanitary Control Area



2024 WATER COMPREHENSIVE PLAN

Chapter 6 Operation and Maintenance Program

- Organization Overview and Responsibilities
- System Operations
- Maintenance Program

Chapter 7 Design and Construction Standards

- Project Review Procedures
- Design and Construction Standards
- Construction Certification

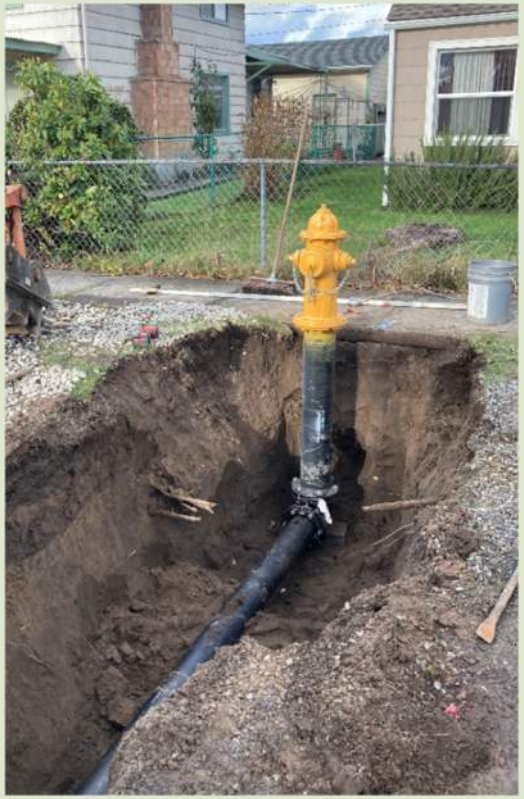
2024 WATER COMPREHENSIVE PLAN

Chapter 8 Capital Improvements Plan

- Capital Improvement Needs
- High Level Costs

Chapter 9 Financial Analysis

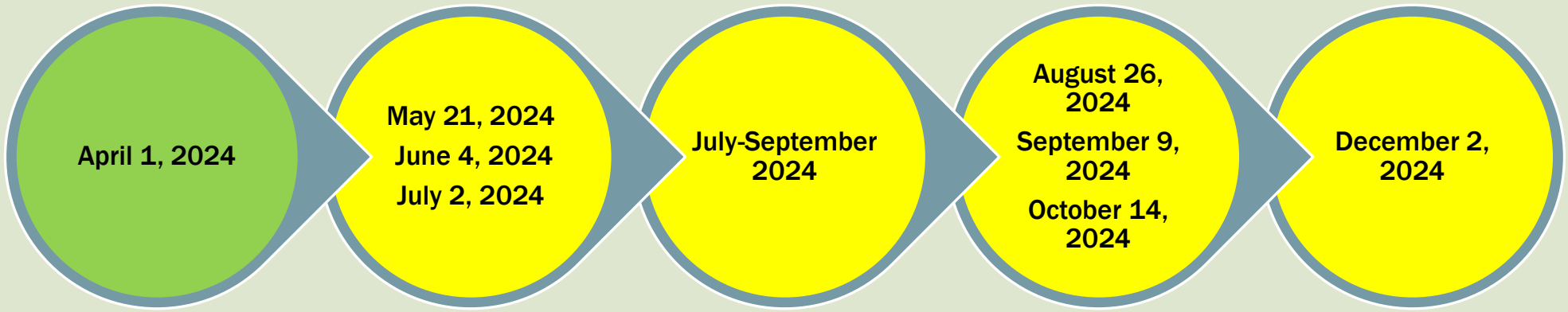
- Costs of Service
- Capital Improvement Funding Plan
- Maintaining Reserves
- Rate Evaluation



2024 WATER COMPREHENSIVE PLAN

Any Questions?

NEXT STEPS



- Sewer, Storm, Water Plans General Overview
- Planning Commission -Sewer, Storm, Water Comp Plans
- Agency Reviews and Coordination
- Draft Storm, Sewer, Water Plans Discussions with Council
- Resolution for Adoption