

**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

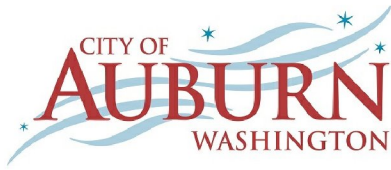
IV. ROLL CALL

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)

Department:

Public Works

Attachments:

[Presentation](#)

Date:

March 21, 2024

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

Meeting Date: April 1, 2024

Staff:

Ingrid Gaub

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

S E R V I C E
E N V I R O N M E N T
E C O N O M Y
C H A R A C T E R
S U S T A I N A B I L I T Y
W E L L N E S S
C E L E B R A T I O N

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)

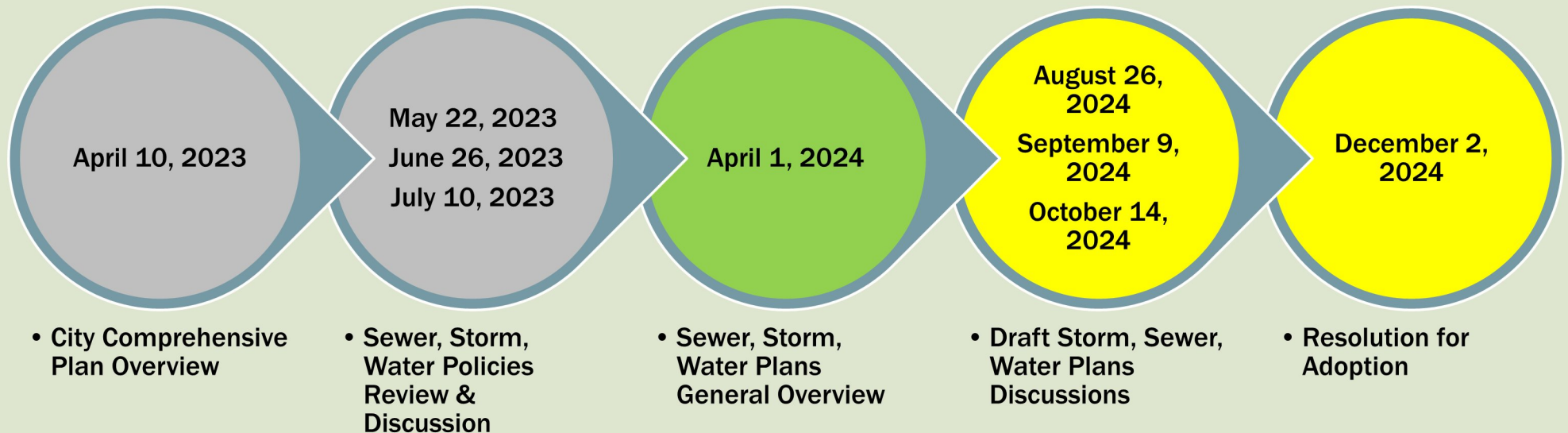
- **Utilities Element (Public Works)**

- Parks and Recreation (Parks)



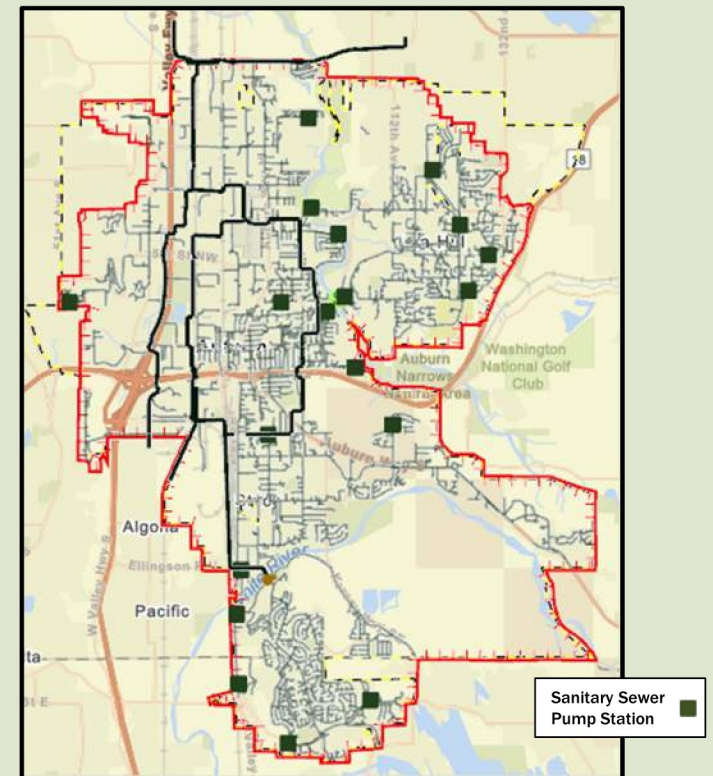
Citywide effort involving all departments coordinating together to create a cohesive, consistent, and forward-thinking Plan covering range of subject areas

CITY COUNCIL SCHEDULE OVERVIEW



2024 SANITARY SEWER COMPREHENSIVE PLAN

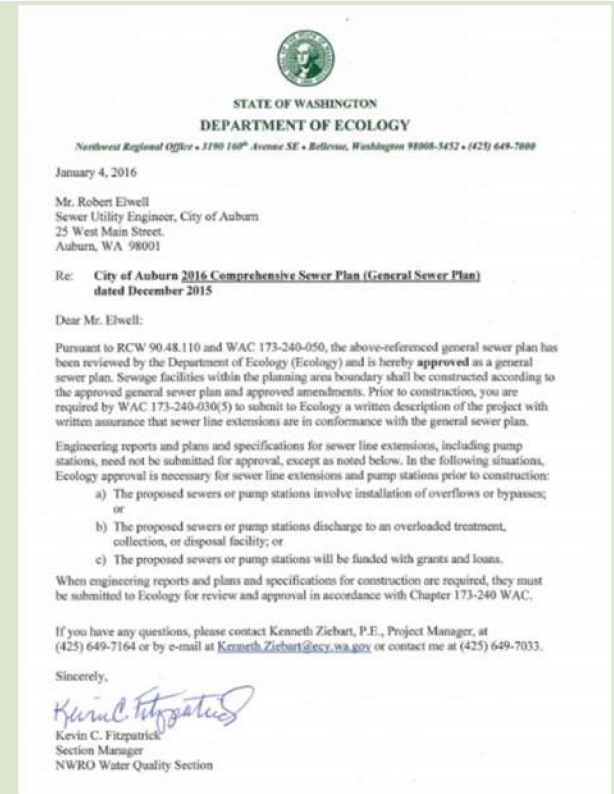
- Approximately 205 miles of Gravity Mains
- Approximately 5 miles of Force Mains
- 12,700 Service Connections
- 17 Pump Stations



2024 SANITARY SEWER COMPREHENSIVE PLAN

Key Elements

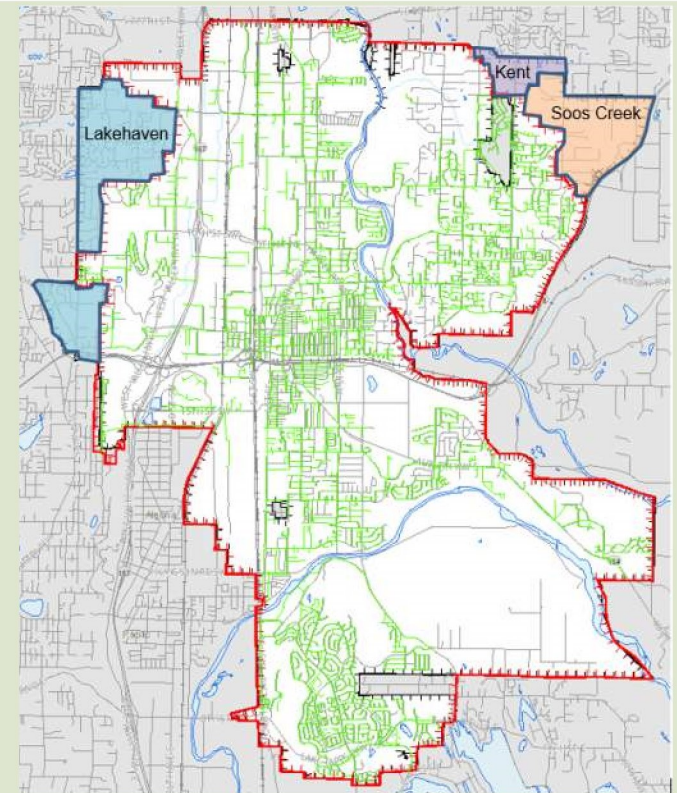
- Creating 6-yr and 20-yr Planning Periods
- Sewer Comprehensive Plan Requires Approval from King County
- Sewer Comprehensive Plan Requires Ecology Approval



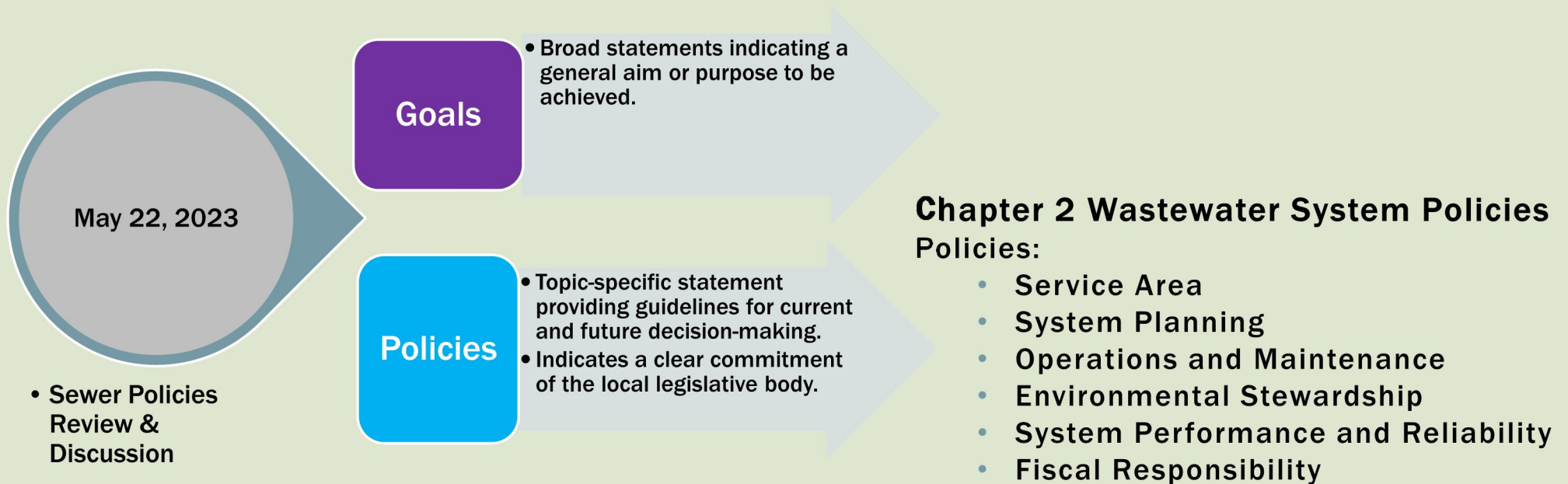
2024 SANITARY SEWER COMPREHENSIVE PLAN

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



2024 SANITARY SEWER COMPREHENSIVE PLAN

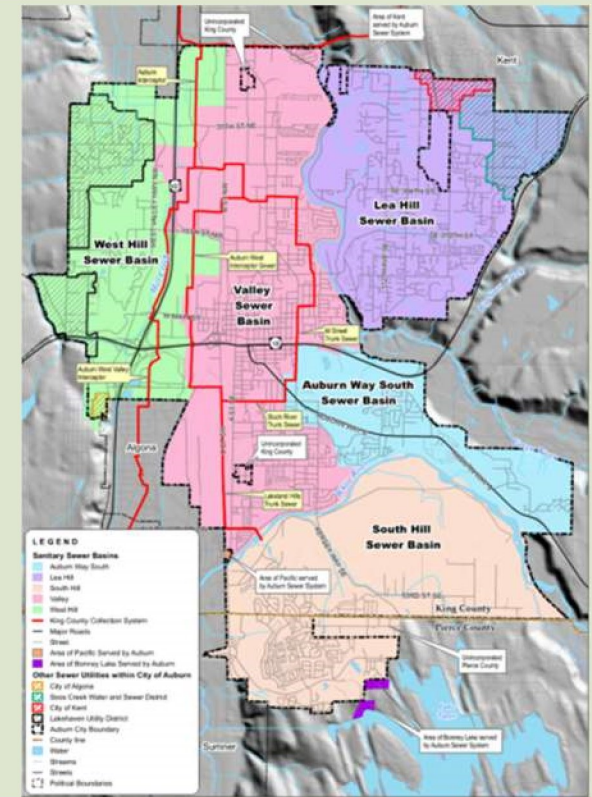


Chapter 3 Planning Considerations

- 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

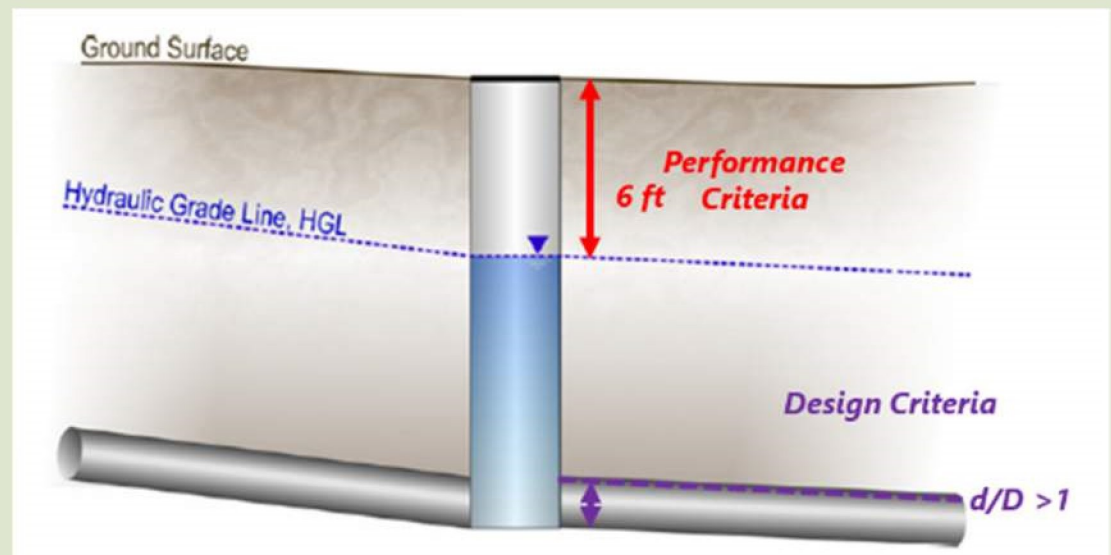


SERVICE • ENVIRONMENT • ECONOMY • CHARACTER • SUSTAINABILITY • WELLNESS • CELEBRATION

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?

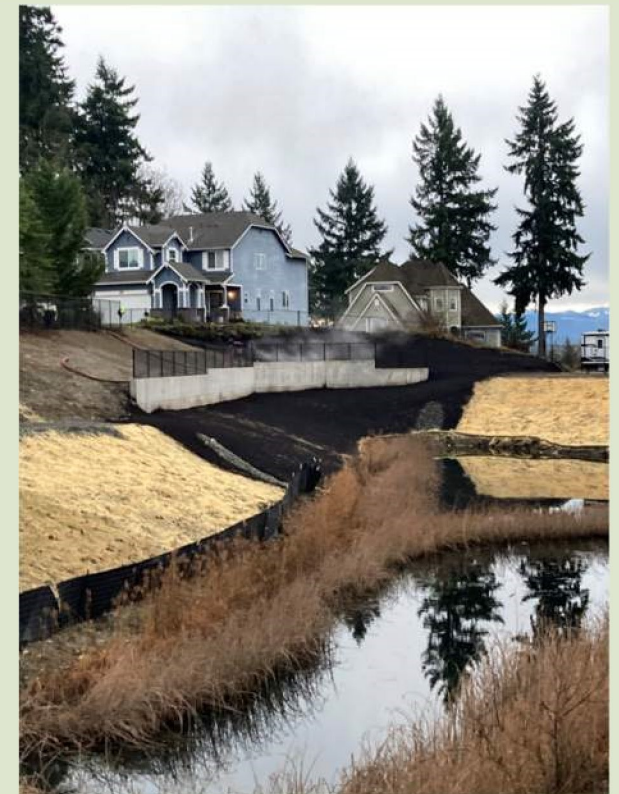
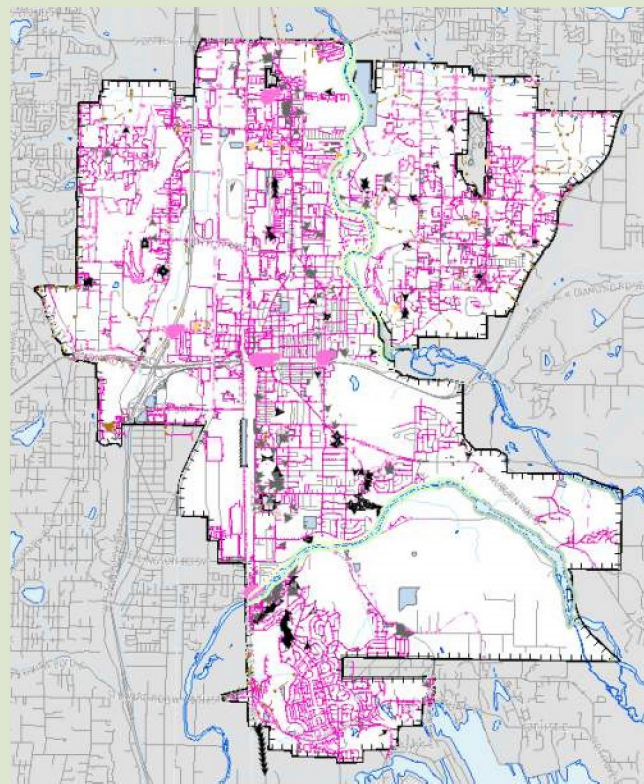
2024 STORM DRAINAGE COMPREHENSIVE PLAN

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



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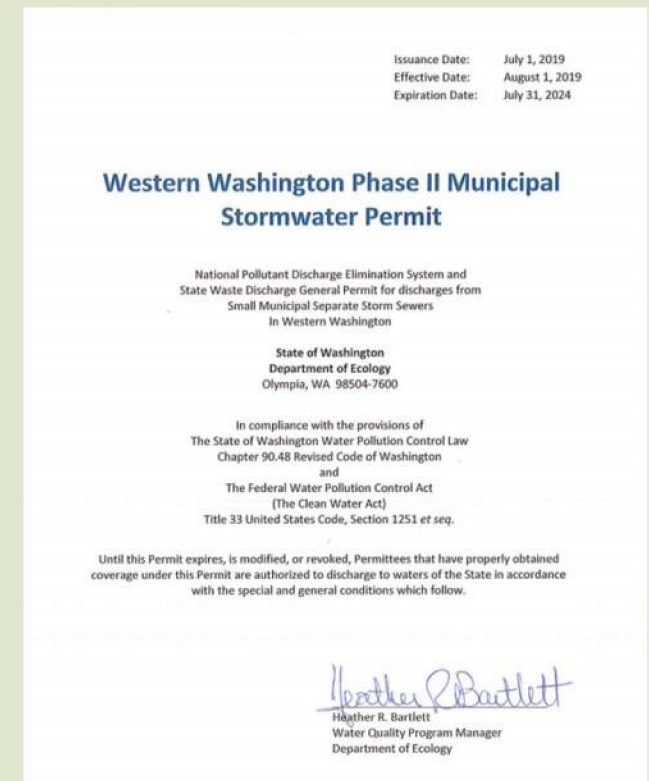
2024 STORM DRAINAGE COMPREHENSIVE PLAN

Chapter 1 Introduction

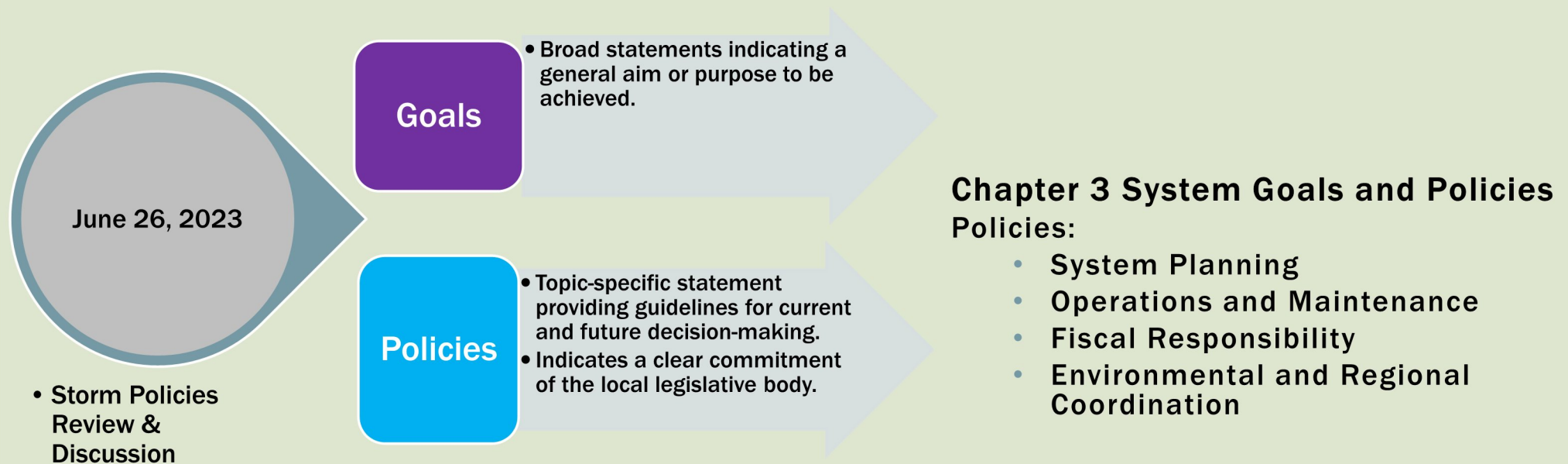
- Explains need for Updating the Plan
- Identifies Objectives
- Approach and Document Organization

Chapter 2 Background

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



2024 STORM DRAINAGE COMPREHENSIVE PLAN



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

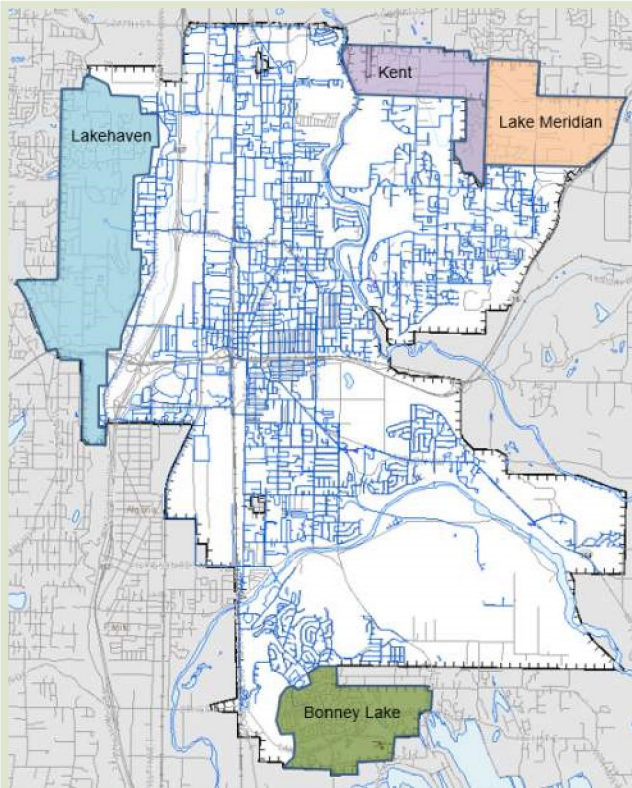
Key Elements

- 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

 Planning and Financial Viability
Water System Planning Guidebook
331-068 • Revised 8/10/2020

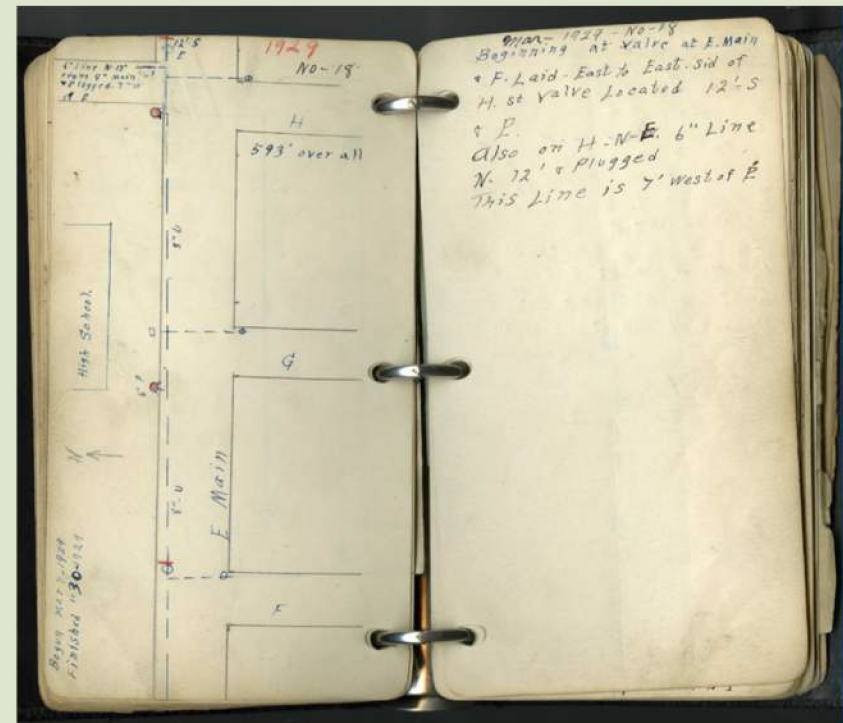


2024 WATER COMPREHENSIVE PLAN



Chapter 1 Description of the Water System

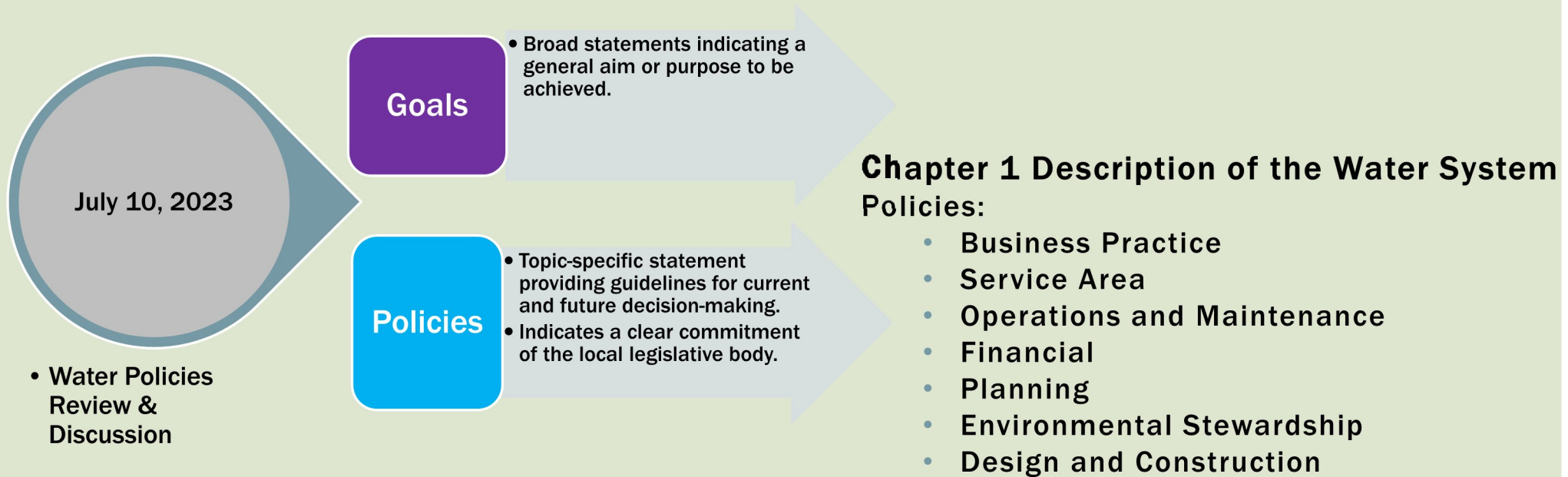
- Ownership and Management
- System History and Background
- Service Areas, Maps, and Land Uses



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2024 WATER COMPREHENSIVE PLAN



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

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

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

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 0.055 ppm respectively, which are below the Action Level for lead (0.01 ppm) 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 auburnma.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 auburnma.gov/water.



PARAMETER	STANDARDS		SAMPLE RESULTS		ADDITIONAL INFORMATION
	MCLG	MCL	Average	Range	
INORGANIC SUBSTANCE					
Arsenic (ppb)	0	10		ND-1.8	Erosion of natural deposits. Most recent sampling data 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					
Halocarbon Acids (ppb)	NA	60		ND	By-product of drinking water disinfection
Total Trihalomethanes (ppb)	NA	80		8.65-10.41	By-product of drinking water disinfection
OTHER MONITORED SUBSTANCE					
Chlorine Residual (ppm)	4 (MCLG)	4 (MCLG)	0.59	0.40-0.77	Measure of disinfectant added to water
Manganese (ppb)		50 (MCL)		ND	Black to brown color, black staining, bitter metallic taste
UNIT DESCRIPTION					

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 (ug/L)

DEFINITIONS

MCLG | Maximum Contaminant Level
The highest level of a contaminant that is allowed in drinking water. MCLGs are set as close to the MCLs 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.

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

MRLG | Maximum Residual Disinfectant Level Goal
The level of a disinfectant in drinking water 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 objectionable. They are non-mandatory and not enforceable.

REQUIRED HEALTH INFORMATION FROM THE EPA

HEALTH ISSUES

Some people may be more vulnerable to contaminants in drinking water than the general population. Infants and young children, pregnant women, and the elderly are particularly vulnerable. Certain groups of people, such as those with cancer, kidney disease, or other chronic health conditions, may be more vulnerable to contaminants in drinking water. Some people may be more vulnerable to contaminants in drinking water from their health care providers. Environmental Protection Agency (EPA) Centers for Disease Control (CDC) is a federal agency responsible for assessing the risk of infection by Cryptosporidium and other microbial contaminants are available from the EPA's Safe Drinking Water 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 runoff, septic systems or fertilizer use. Pesticides and herbicides may come from a variety of sources such as agriculture, urban stormwater runoff and residential use. 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 runoff, and septic systems. Radioactive contaminants can be naturally occurring or be the result of oil and gas production and refining activities. 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

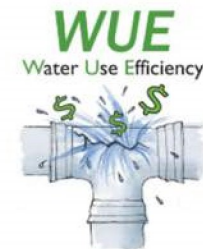
- Water Use Efficiency Program
- Distribution System Leakage
- Climate Change Resiliency

Chapter 5 Source Water Protection

- Wellhead Protection
- Watershed Control Program
- Sanitary Control Area

Water Use Efficiency Guidebook

DOH 331-375
Third Edition
Revised January 2017



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

