

# Pipeline No. 1 Pressurization Project Utility Board Update

January 12, 2022

Presentation by:

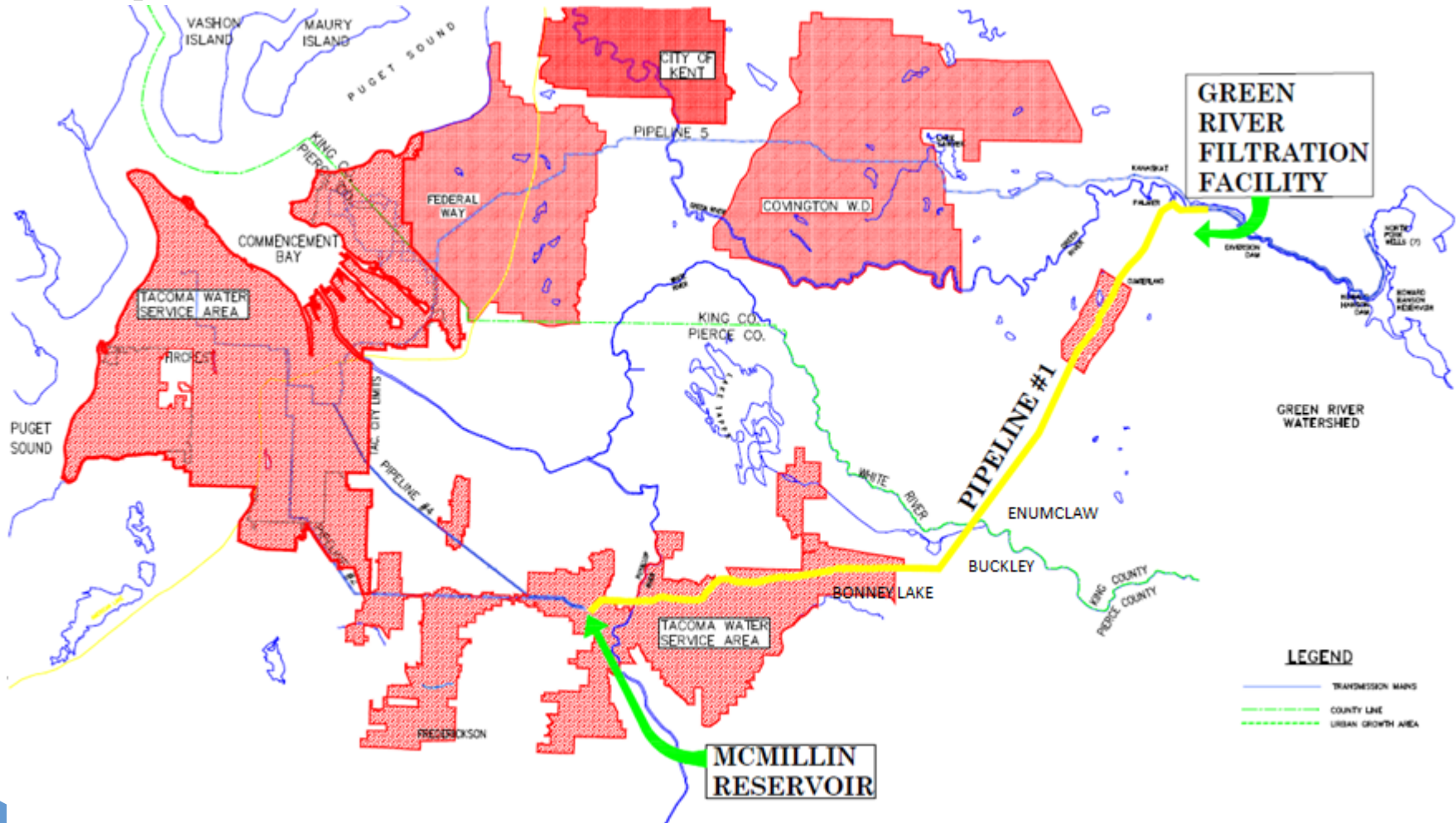
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# Presentation Overview

- **Introductions**
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# Pipeline No. 1 Overview



## Pipeline Basic Information

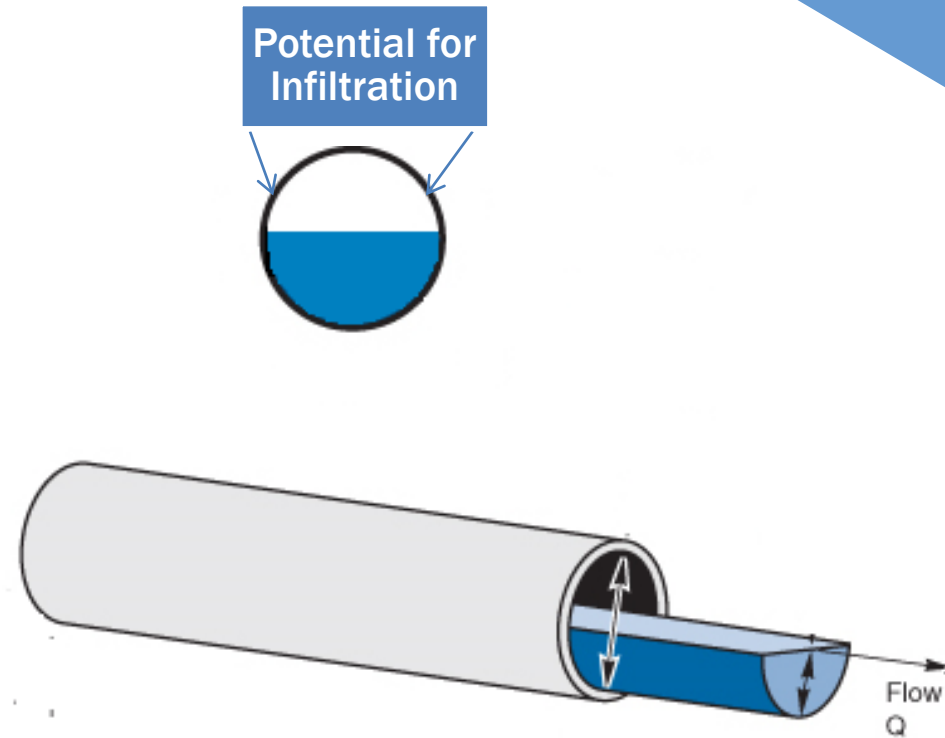
Length: 27 miles

Pipe Diameter Size Range: 30" to 78"

Material: Steel and Concrete

# Problem

System and operational changes have reduced the flow transferred by Pipeline No. 1 resulting in portions of the pipeline to become unpressurized which increases the potential for infiltration. How can Tacoma Water address the pressurization issue on Pipeline No. 1 to prevent infiltration?



Pipeline Flow Rate (MGD)	% of Pipeline Unpressurized
12	41%
24	33%
36	24%
48	16%
60	3%

# Regulatory Drivers

Regulatory Items	Definitions/Findings
<p>GROUP A – PUBLIC WATER SUPPLY SYSTEMS WAC 246-290-230(9)</p>	<p>Transmission lines defined in WAC <a href="#">246-290-010</a> shall be designed to maintain greater than or equal to five psi (35 kPa) during normal operations, except when directly adjacent to storage tanks, and shall be sized according to a hydraulic analysis...</p>
<p>2018 SANITARY SURVEY FINDINGS FROM WASHINGTON STATE DEPARTMENT OF HEALTH</p>	<p>Significant Deficiency – A deficiency that directly creates a significant public health risk.</p> <p><i>“Please identify the need to develop an approach to pressurizing the pipeline in your current Capital Improvement Program (CIP) and continue to prioritize the replacement of Pipeline 1 as you update your CIP.”</i></p>

# Project to Date

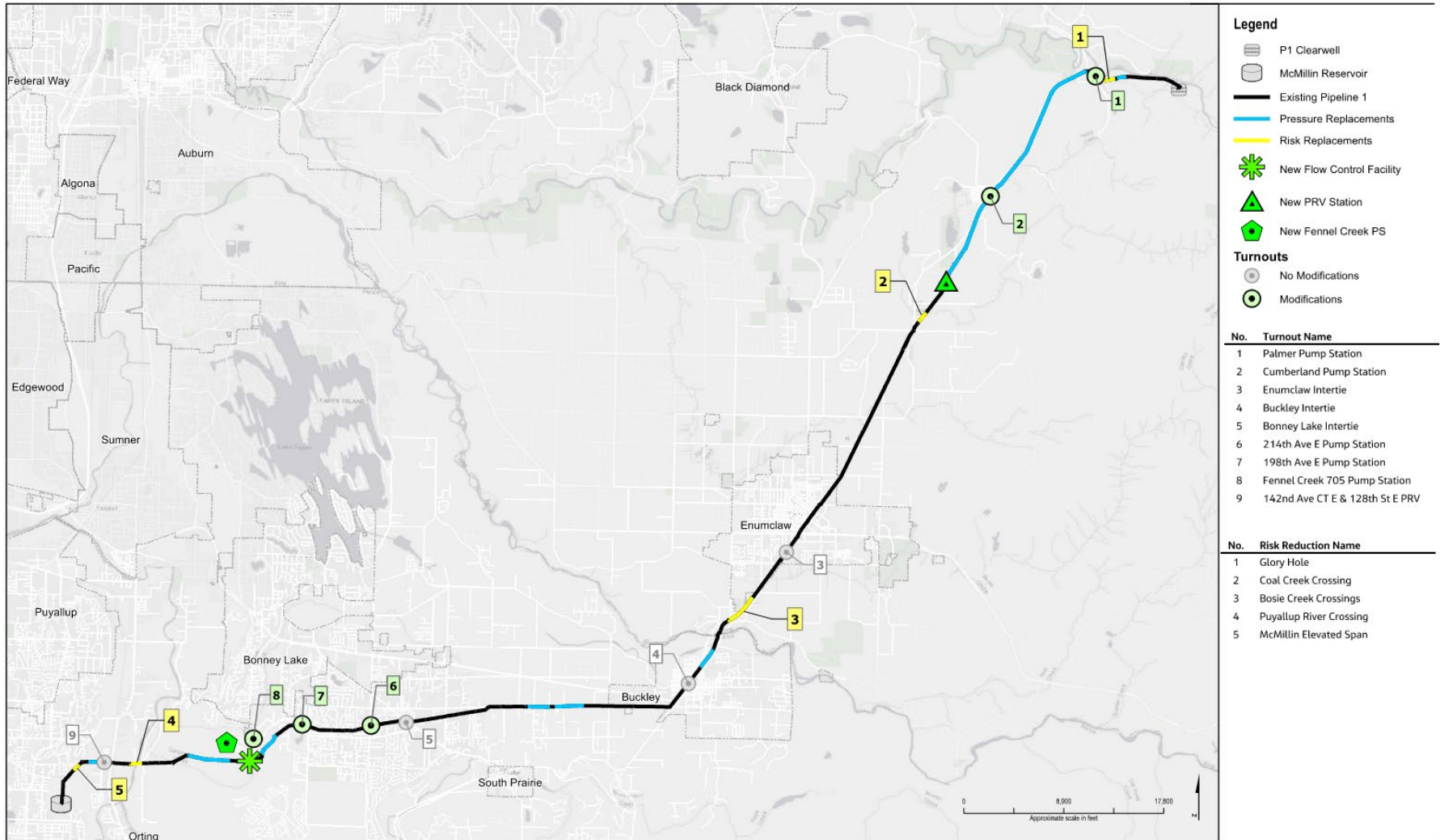
## Approval of Jacobs Contract to Develop the Plan

- Public Utility Board Meeting - 2019

## Development of the Plan

- Progress to date – January 12, 2022
  - Analysis
  - Development of alternatives
  - Selection of preferred alternative
  - **Development of Implementation Plan - Complete**

# Pipeline and Turnout Improvements



# Bilateral Compliance Agreement

- Agreement between Washington State Department of Health and Tacoma Water
- Term of the agreement is 30 years to complete the pressurization of the pipeline.
- Progress report due June 30 every year until project is complete.

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**BILATERAL COMPLIANCE AGREEMENT (BCA)  
TACOMA WATER DIVISION (TACOMA WATER) AND  
WASHINGTON STATE DEPARTMENT OF HEALTH (DEPARTMENT)**

The purpose of this BCA, drinking water reference number 2021-BCA-0002, is to assist the purveyors of Tacoma Water with addressing a deficiency associated with Tacoma Water's transmission Pipeline No. 1.

During a sanitary survey performed by the Department on September 10, 2018, a fluming deficiency was noted on transmission main Pipeline No.1. To address the fluming issue, Tacoma Water has developed a thirty (30) year Capital Improvement Plan (CIP). The CIP will eliminate the low-pressure deficiency to ensure compliance with Washington Administrative Code (WAC) 246-290-230(9), 246-290-415, and -100(4)(h) and -(i).

This agreement lists steps and milestones for the completion of the CIP for Pipeline No. 1. The steps and milestones are identified in the Executive Summary of the CIP, which is attached to this BCA.

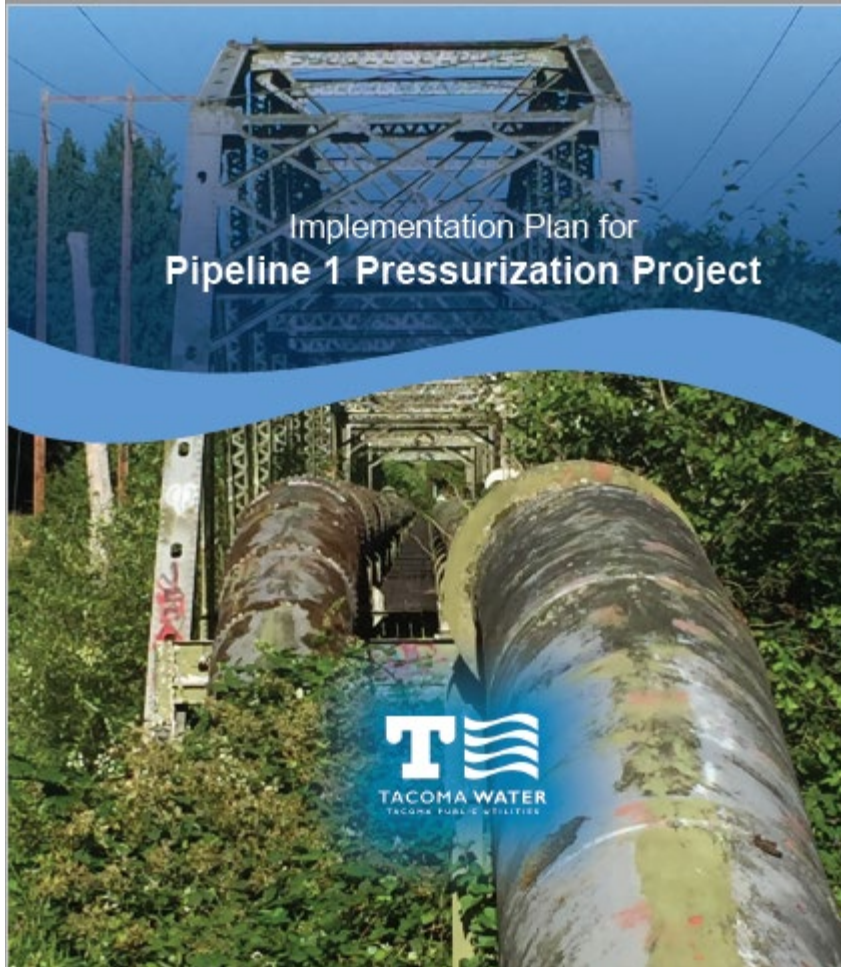
Purveyors of Tacoma Water, ID#86800 N, in Pierce County agree to do the following:

1. Submit to the Department the completed CIP to address fluming in Pipeline No. 1 which addresses the steps and milestones identified by Tacoma Water in the Tacoma Water Pipeline No.1 Implementation Plan – Executive Summary that was submitted to the Department on May 19, 2021, and which outlines a 30-year CIP for pressurizing the pipeline.
2. Submit to the Department an annual progress report. By every June 30<sup>th</sup> until the last phase of the CIP is completed (**estimated by 2051**), submit the annual progress report containing the following information:

- a. A status update on the Pipeline No. 1 CIP projects noting projects completed to
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# Implementation Plan



## Plan

- 30 - years pipeline replacement program to pressurize the pipeline

## Capital Cost

- Estimated Cost – \$60 to \$225 Million\*

### Note:

Class V Cost estimate Range – +50% on the low end and +100% on the high end. Only for pressurization not betterments associated the pipeline.

# Next Steps

- Tacoma Water will proceed with projects out of the Conceptual Plan:
  - Pipe Testing
  - Slope Stabilization
  - Right-of-Way Analysis
- Report Progress on the Project to the Washington State Department of Health every year.

