

### STEVENSON

# Wastewater Treatment Plant IMPROVEMENTS PROJECT

Staff Presentation to City Council October 17, 2019



# PRESENTATION OUTLINE

Background

Project Schedule

Immediate Improvements

Preliminary Design

Implementation Plan

**Next Steps** 



# BACKGROUND

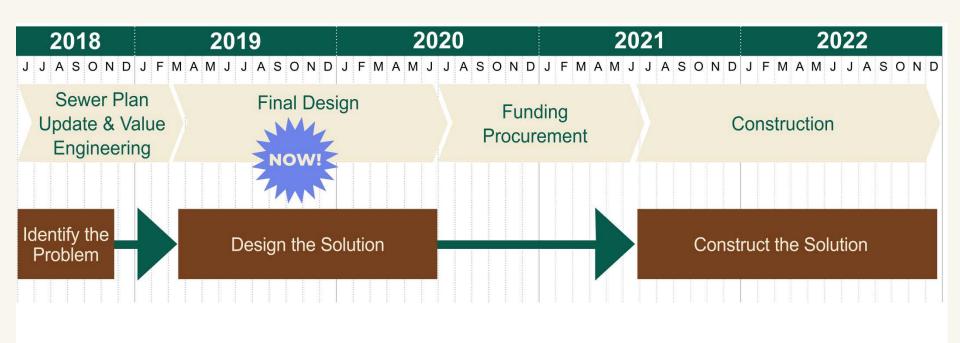
City's wastewater treatment plant (WWTP) is in need of upgrades to provide current and future capacity

The General Sewer
Plan/Facility Plan
Update identified ~\$16
Million in
improvements

City's consultant is currently designing the first phase of these upgrades



# PROJECT SCHEDULE





## IMMEDIATE IMPROVEMENTS

WWTP has had multiple permit violations

More were expected - full improvements won't be complete until December 2022

Immediate upgrades fast-tracked to reduce permit violations in the interim

Immediate upgrades will be constructed by the end of the year



## PRELIMINARY DESIGN

# Predesign report complete, submitted to Department of Ecology by October 31<sup>st</sup>.



# Predesign report includes:

Technical memos and Prelim drawings Basis for design of Phase 1

Cost estimate for Phase 1

Implementation plan for Phase 1 and future improvements



# **DESIGN OF PHASE 1**

Per the Facility Plan:

\$10.9 Million to design and build Phase 1

Cost saving measures to reduce cost and delay:

Remodel the existing lab building instead of a new building

Delay construction of the sludge thickening building

Delay construction of the second UV channel

The current design:

\$8.2 Million to design and build Phase 1

### SITE LAYOUT - PHASE 1 STEVENSON, WA **Exisiting Flood Wall Standby Generator Existing UV Existing** Ops **Building Existing Existing RAS/WAS Existing** Clarifier **Pump Station** Clarifier SW Rock Creek Dr Existing Lab Building **Aeration Existing** Basin #2 Oxidation Ditch Legend Blower **Existing** Building Phase 1 **Aerobic Digester** Selector **Basins Aeration Basin Headworks Distribution Structure**



#### SITE LAYOUT – PHASE 3 STEVENSON, WA Flood Wall Relocation **Effluent Pump Station** Standby Generator **UV** Disinfection **Existing UV Existing** Ops **Building Existing** Clarifier #3 **Existing** RAS/WAS **Existing** Clarifier **Pump Station** Clarifier SW Rock Creek Dr Existing Lab Building **Aeration Existing** Basin #2 Oxidation Ditch Legend **Blower Existing** Building Phase 1 **Aerobic** Digester Phase 2 Selector Phase 3 **Basins Aeration Basin Headworks Distribution Structure**

#### SITE LAYOUT – FUTURE STEVENSON, WA Flood Wall Relocation **Effluent Pump Station** Lab & Ops **Standby Generator Building UV** Disinfection **Existing UV** Clarifier #4 **Existing** Clarifier #3 **Existing** RAS/WAS **Existing** Clarifier **Pump Station** Clarifier SW Rock Creek Dr **Solids** Legend **Processing** Phase 1 Aeration Aeration Aeration **Existing Basin Basin** Phase 2 Basin #2 Oxidation #3 #4 Phase 3 Ditch **Aerobic Aerobic** Blower **Digester** Digester **Building** Phase 4 Selector Basins **Aeration Basin Headworks Distribution Structure**



# IMPLEMENTATION PLAN

Funding Package A \$5.1M

Rock Creek Pump Station

Fairgrounds Pump Station

Cascade Avenue Pump Station

WWTP Flood Protection

WWTP Standby Generator & SCADA

Kanaka Pump Station

Cascade Interceptor

Funding Package B

\$8.2M

WWTP Improvements (Phase 1) Funding Package C

\$1.0M

WWTP Improvements (Phase 2) Funding Package D

\$2.7M

WWTP Improvements (Phase 3)



# **NEXT STEPS**

Final design of Phase I Improvements complete by June 2020

Construction **2021-2022** 



Funding procurement **2020-2021** 



# QUESTIONS

