

Reliable sewer service is essential to our economy and the health of our communities and environment.

## **Funding**

Planning, design and construction costs for the project are covered in the Alliance's Capital Plan, which includes funding for all long-range planning projects such as this one. The operations and maintenance costs associated with power and general maintenance for the odor control system will be factored into the annual operating costs for the plant. In total, the project is anticipated to cost approximately \$10 million. Those costs are allocated to the Alliance partners that share ownership of the facility – the City of Battle Ground and the Clark Regional Wastewater District. The City and the District, in turn, make the final decisions on what rate and charge structures are appropriate for their customers in paying for the project. The City and District have included the project costs in long range financial planning efforts to ensure overall affordability of rates and charges for everyone.

## **Project Timeline**

Construction started on this project in early 2020 and the work is anticipated to extend into 2021.



## Stay Up to Date

Throughout the project, interested community members can follow progress and provide feedback through the Alliance website, *www.discoverycwa.org*.

#### For More Information

Contact Dale Lough, Alliance Capital Program Manager, Clark Regional Wastewater District at (360) 993-8856



Visit us online at www.discoverycwa.org

SCTP Odor Control and Existing Facilities Improvements Fact Sheet — Page 4

# Salmon Creek Treatment Plant Odor Control and Existing Facilities Improvements

Fact Sheet - May 2020

The treatment plant is a vital part of the wastewater system - helping to keep our community livable and protect the environment. This project will improve odor control and operational reliability for the facility.

## **Project Overview**

The Salmon Creek Wastewater Treatment Plant receives and treats roughly 8–10 million gallons of wastewater per day from homes and businesses. All wastewater received at the plant is treated to a high standard before clean water, or effluent, is conveyed and discharged into the Columbia River. As the plant ages, several areas of the in-plant mechanical systems will be renovated to keep the facility operating efficiently and in good working order. Improvements will also be made to the odor control systems to treat sources of odorous air before discharge to the atmosphere. Lastly, a new structure will be built to house stored materials and an older structure will need to be demolished to make space for future new facilities.

#### **Odor Control**

Although our operators take great care in minimizing odors by keeping the treatment processes balanced and operating in a healthy manner, some odors do occur as a result of regular operations. We are undertaking this improvement project to eliminate about 80-90% of the odors nearby neighbors may experience currently. The new equipment will capture and treat the odor that is generated as a result of regular treatment operations; however, some odor generating events will still occur that will result in minor odor releases from time to time, such as when basins are taken off-line for cleaning and repair.

This project includes installing new odor control systems at the front and back ends of the plant. On the front end, new biotrickling filters will treat air from the preliminary treatment and primary treatment processes. In order to help collect the air for treatment, new aluminum covers will be added over the Primary Clarifiers. On the back end, new carbon adsorbers will treat air collected from the solids treatment process. These methods have proven very effective in reducing odors and the technologies were selected to specifically treat odors generated at each end of the facility.

## **About the Alliance**

The Discovery Clean Water Alliance is a regional partnership made up of Clark County, Clark Regional Wastewater District, and the Cities of Battle Ground and Ridgefield. It was formed in 2013 to improve sewer service delivery to the partners' customer bases by leveraging existing resources, controlling future capital costs, and stabilizing rates. The Alliance brings operation and expansion of treatment and transmission services under joint ownership, allowing for shared decision-making between the partners and better long-term regional planning.

For more information about the Alliance, visit the website at: www.discoverycwa.org



Visit us online at www.discoverycwa.org

## Salmon Creek Treatment Plant:

**Odor Control and Existing Facilities Improvements** 

#### **Clarifier Covers**

The primary treatment clarifier, which removes solid waste and other objects from the wastewater, will get new aluminum covers similar to the photo shown to the right. These coverings will reduce the escape of odors that periodically emit from these areas.



### **Biotrickling** Filter

A new biotrickling filter will be constructed to reduce odors.



Odorous gases from wastewater are pumped through a silo-like structure that contains biofilm. Multiple types of bacteria live on the surface of the biofilm where they break down various organic and inorganic compounds which cause offensive odors. The process involves a continuous trickle of fresh water over the biofilm which supports the diversity of bacteria.

## **Chlorination System**

A small amount of liquid bleach will be kept onsite and used on an asneeded basis to discourage growth of certain bacteria that are harmful to the treatment process.



#### **Aeration Basin Modifications**

The existing aeration basins 5 and 6 will have equipment installed to improve mixing, along with modifications to pumps in each basin. New instrumentation will improve monitoring and control of conditions in the aeration basins to improve treatment performance.

## **Storage Building**

A new oil and lubricant storage building will be constructed to consolidate safe storage of these materials, and to replace storage space lost through demolition of an existing building required for future treatment facilities.

## **Project benefits**

The project will:

- Construct a new odor control system that will continue to comply with air emissions regulations and improve quality of life for neighbors.
- Applying new technology will optimize day to day operations at the treatment plant.
- Prepare the site for the future treatment plant expansion in order to minimize future impacts to neighbors.
- Ensure continued reliable service at a stable, affordable rate.

## **Planning for the Future**

It's important to plan for the future. Our community expects dependable, affordable sewer services that are essential to our quality of life. Our personal health, the community's economic health, and the health of our rivers and environment depend in large part on treating the wastewater we all generate so that it can be returned safely to the environment. The regional wastewater system has already been expanded four times over the first 40 years of operation as our community grows and as regulatory requirements change. The regional wastewater system will continue to be updated about every 10 years, and this project represents the current planned investment in that overall longer-term program. Staying ahead of the reliability and resiliency needs is vitally important. By proactively planning now, the Alliance ensures that ample wastewater treatment facilities will be in place to continue to provide reliable service at an affordable cost well into our future.

The odor control equipment being installed as part of this project will not just be sized for the capacity of the treatment plant today, but will be adequately sized for the ultimate build-out of the treatment plant. These improvements are required as part of the plant's future capacity expansion, however the Alliance is moving forward with them now to be responsive to needs of our nearby neighbors.

## **Carbon Adsorbers**

Two new carbon adsorber vessels will be constructed to reduce odors from the solids treatment process. Odorous air collected from several solids processes spaces moves through a bed of granular carbon that removes odors that adsorb to the carbon.



