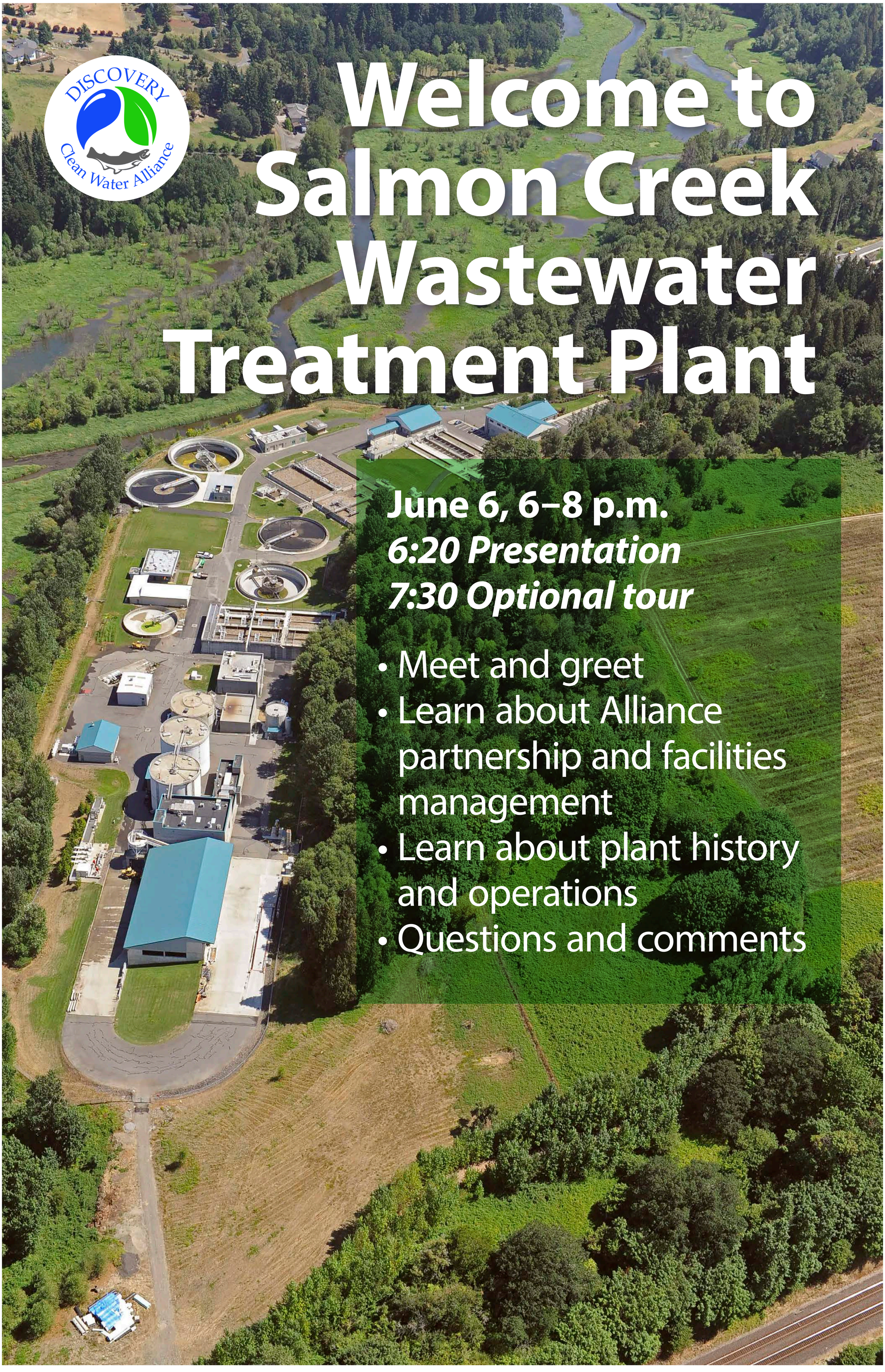
Appendix A – Informational Displays



Welcome to Salmon Creek Wastewater Treatment Plant

June 6, 6–8 p.m.

6:20 Presentation

7:30 Optional tour

- Meet and greet
- Learn about Alliance partnership and facilities management
- Learn about plant history and operations
- Questions and comments

Discovery Clean Water Alliance

The Alliance is a regional partnership created to improve sewer service delivery through joint ownership and management of regional wastewater assets.

Members

City of Battle Ground
City of Ridgefield
Clark County
Clark Regional Wastewater District

Regional Assets

Gravity interceptors
Pump stations
Force mains
Treatment plants

Where Do You Live?

What Happens at the Treatment Plant

1. Preliminary Treatment/ Screening

Preliminary treatment involves screening out objects such as personal hygiene products, wipes and other debris. Trash that is removed from the system is taken to the landfill. Each year, almost 200 tons are removed. After the flow passes through the screening systems, it is ready for the primary treatment process.

2. Primary Treatment

In the primary treatment phase, settling of the wastewater by gravity is used to efficiently remove more than half of the solid material coming into the plant. These solids settle to the bottom of the tank and are transferred for further treatment during Solids Processing.

3. Secondary Treatment/ Aeration Tanks and Clarifiers

Secondary treatment creates ideal food and oxygen conditions that allow bacteria and other microscopic organisms to work quickly and efficiently to digest dissolved waste, just as they would normally in the natural environment but on a much larger scale. At the end of secondary treatment, nearly all waste has been removed from the water.

4. Disinfection

Disinfection is the final step in the liquids treatment process. Instead of chlorine, which was typically used in past decades, the plant uses ultraviolet lamps. This is a safer process than chemical disinfection. Water passes through chambers containing ultraviolet lamps that kill any remaining disease-causing bacteria and pathogens.

5. Discharge

Following treatment, effluent (treated wastewater) from the plant is transported by pipeline and discharged to the Columbia River through a diffuser, an underwater mechanism that dilutes and mixes effluent into the river. Washington State Department of Ecology closely monitors this process to ensure that all effluent meets strict environmental standards. The diffuser is periodically inspected by a diver to ensure efficient operations.

6. Solids Processing

All solids collected during the main treatment process are further processed by mixing and heating for one month in large tanks called digesters. This process is called anaerobic digestion, where microorganisms further stabilize the organic material in a similar process to composting. This treatment meets state and federal standards and results in a final product called biosolids, which have beneficial agricultural uses.

7. Biosolids Recycling

Biosolids can be used as a nutrient-rich fertilizer that reduces soil erosion and provides micronutrients and nitrogen to the soil. Biosolids removed from the plant are regularly applied to nearby farmlands. During dry weather, about half of the biosolids are taken to farms near Woodland. During the remainder of the year, biosolids go to other farms near Goldendale, where the weather and agricultural practices can support a nearly year-round operation.

8. Process Control

Plant operation requires constant monitoring and quality control testing. Liquids and solids are carefully monitored by certified operations staff and tested and evaluated at each stage of the treatment process to ensure compliance with stringent regulatory requirements.

For more information about the Salmon Creek Wastewater Treatment Plant, visit www.discoverycwa.org

Aerial View