

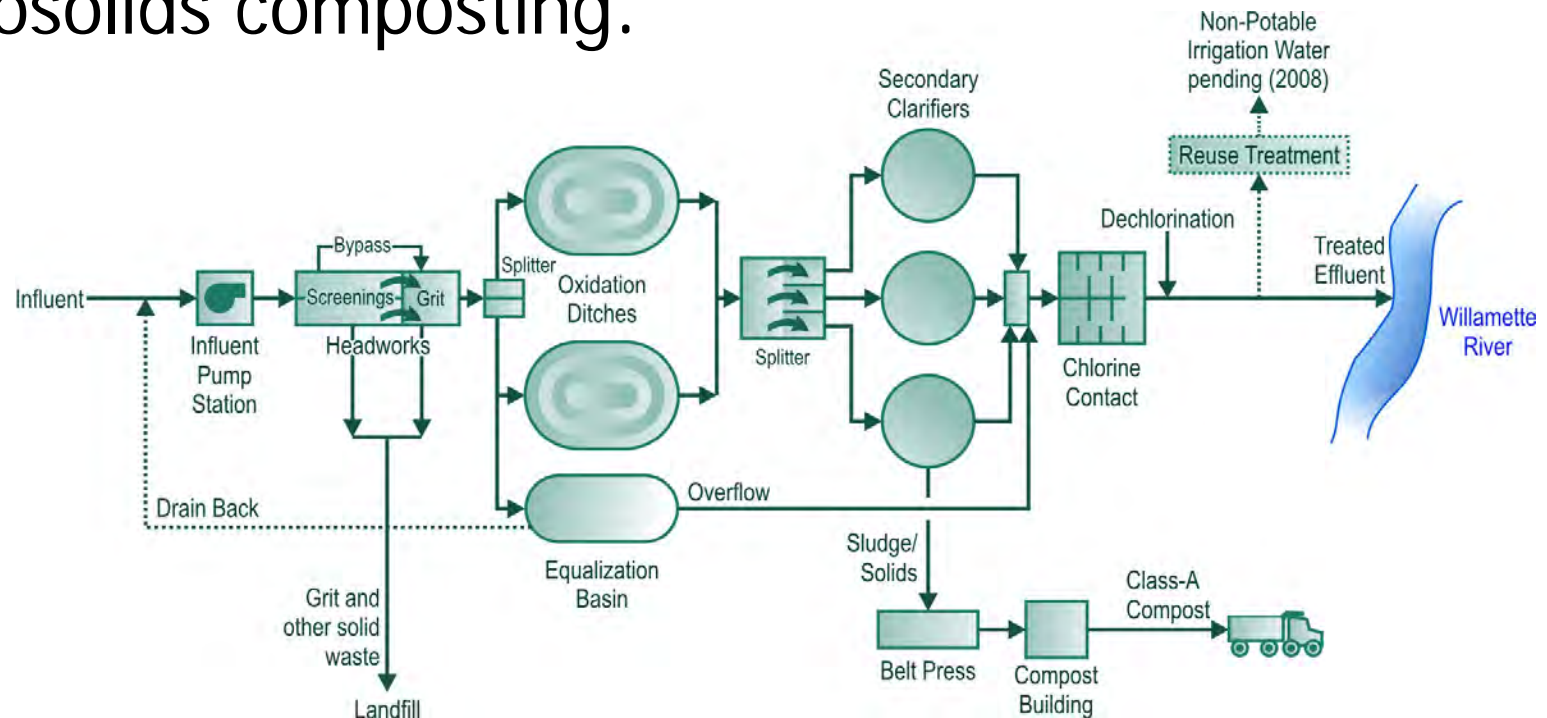


Wastewater Treatment Plant Facilities Plan Update

- Last WWTP Facilities Plan dated 1985
- Current WWTP dates from 1987
- Various minor improvements and upgrades of the plant have occurred over the last 20 years
- No extensive evaluation and forecast of future requirements has occurred.

Wastewater Treatment Plant Facilities Plan Update

The WWTP is a Class IV oxidation ditch type, activated sludge plant with Class A in-vessel biosolids composting.





Wastewater Treatment Plant Facilities Plan Update

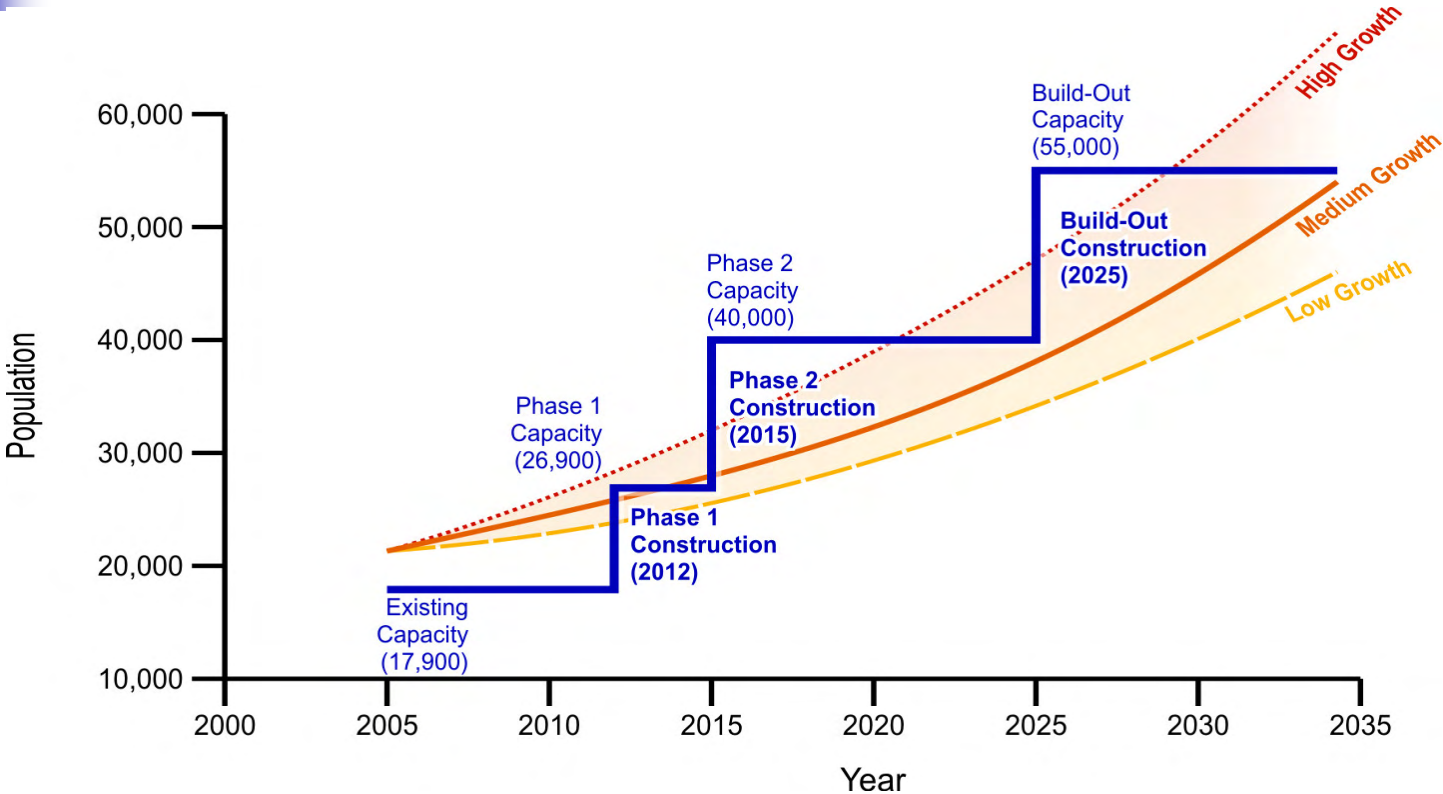
- Goals of the Facilities Plan Update
 - Meeting existing and predicted regulatory requirements to protect the environment
 - Prepare for community growth
 - Ensure the maintenance of the City's valuable community investment



Wastewater Treatment Plant Facilities Plan Update

- The WWTP Facilities Plan Update recommends a phased repair renovation and expansion program.
 - **Phase 1** to meet existing capacity shortfalls and required repairs
 - **Phase 2** designed to meet population demands through 2025
 - **Phase 3** maximizing the existing site in order to meet 2040 population estimates

Wastewater Treatment Plant Facilities Plan Update





Wastewater Treatment Plant Facilities Plan Update

- **Phase 1 Construction deals with –**
 - **Wastewater Quantity** - The plant lacks sufficient capacity to convey current peak flows. (Expand IPS, Headworks, Disinfection, De-chlorination, Repairs, etc)
 - **Wastewater Quality** - Improvements are needed for reliably treating wastewater effluent to meet discharge requirements to the Willamette River. (2 Oxidation Ditches, Repair Existing Ditches, & 1 Secondary Clarifier)
 - **Biosolids/Composting** - The consistency of the WWTP to provide Class A compost. The moisture content of the sawdust and feed solids are too high for the Composter. (Sawdust Dryer, Building Repairs, etc)



Wastewater Treatment Plant Facilities Plan Update

■ Phase 1-

- Estimated construction costs are \$ 31.4 million
- Plus the cost to purchase Baker Rock Property
- Design should begin as soon as funding can be obtained with work to be online by 2012.



Wastewater Treatment Plant Facilities Plan Update

- **Phase 2 Improvements deal with –**
 - **Wastewater Quantity** – Additional support facilities to meet 2025 needs. (Headworks Odor Control, Ultra-Violet Disinfection, etc)
 - **Wastewater Quality** – Expansion of the oxidation ditches and secondary clarifiers to meet NPDES requirements. (1 Oxidation Ditch, and 1 Secondary Clarifier, etc)
 - **Biosolids/Composting** – Improved sludge dewatering system and expanded composting. (Centrifuge Dewatering, Aerated Static Piles, etc)



Wastewater Treatment Plant Facilities Plan Update

■ Phase 2-

- Estimated construction costs are \$ 23.6 million
- Design could and probably should be done in conjunction with Phase 1 design work.
- The construction could be bid as an option item with the Phase 1 project.



Wastewater Treatment Plant Facilities Plan Update

- **Phase 3 Improvements deal with –**
 - **Wastewater Quantity, Quality and Biosolids/Composting** – This represents the probable maximum potential of the Wynooski Site using existing technologies. The site would support a total of 8 Oxidation Ditches, 10 Secondary Clarifiers, adequate Biosolids/Composting and the ancillary facilities. This would support a Newberg population of 54,000 to 80,000.



Wastewater Treatment Plant Facilities Plan Update

■ Phase 3-

- Estimated construction costs were not prepared as part of this Plan update as the construction would be 18 years in the future.
- Permit treatment requirements and future technologies can not be reliably forecast.



Wastewater Treatment Plant Facilities Plan Update

- **Impacts of Infiltration/Inflow -**
 - Infiltration/Inflow from rainwater and high ground water levels in the sewer system increase the quantity of wastewater to be treated.
 - Any I/I elimination program will not reduce the need for the Phase 1 project, and will only allow the possible temporary delay of the Phase 2 work.
 - Phase 3 (Site Build-out) will be most impacted by an aggressive I/I program causing a delay as to when the Wynooski site is maximized.



Wastewater Treatment Plant Facilities Plan Update

- **Recommended Manpower -**
 - **Phase 1 (2007-2015)** – There is a need for 3 additional FTE's for wastewater operations (Sr. Lab Tech/Environmental Specialist, an Operator II and a Utility Worker).
 - **Phase 2 (2015-2025)** – 3 additional FTE's for wastewater operations (Plant Mechanic, Sr. Lab Environmental Tech, and an Operator II).
 - **Phase 3 (2025-2040)** – 3 additional FTE's for wastewater operations (Operator I, a Utility Worker and an Environmental Tech.).



Wastewater Treatment Plant Facilities Plan Update

- **Now What? –**
 - Council adopts the plan.
 - City revises Wastewater SDC's & Sewer Rates.
 - Staff negotiates with Baker Rock on property purchase & provides results for Council action.
 - City budgets at least Phase 1 design.
 - City budgets increasing Operations Div. FTE's



Wastewater Treatment Plant Facilities Plan Update

Additional Questions?