



Aerial View: Cookeville WWTP

About Us

The City of Cookeville Wastewater Treatment Plant is located in Cookeville, Tennessee just off State Highway 111 and Jefferson Avenue

Contact Us

Superintendent: John Buford
Phone: (931)-526-6866
Web: <https://www.cookeville-tn.gov/268/Sewer-Treatment>



*Water Professional Conference Awards KY/TN 2021
Knoxville, Tennessee*

Quick Facts

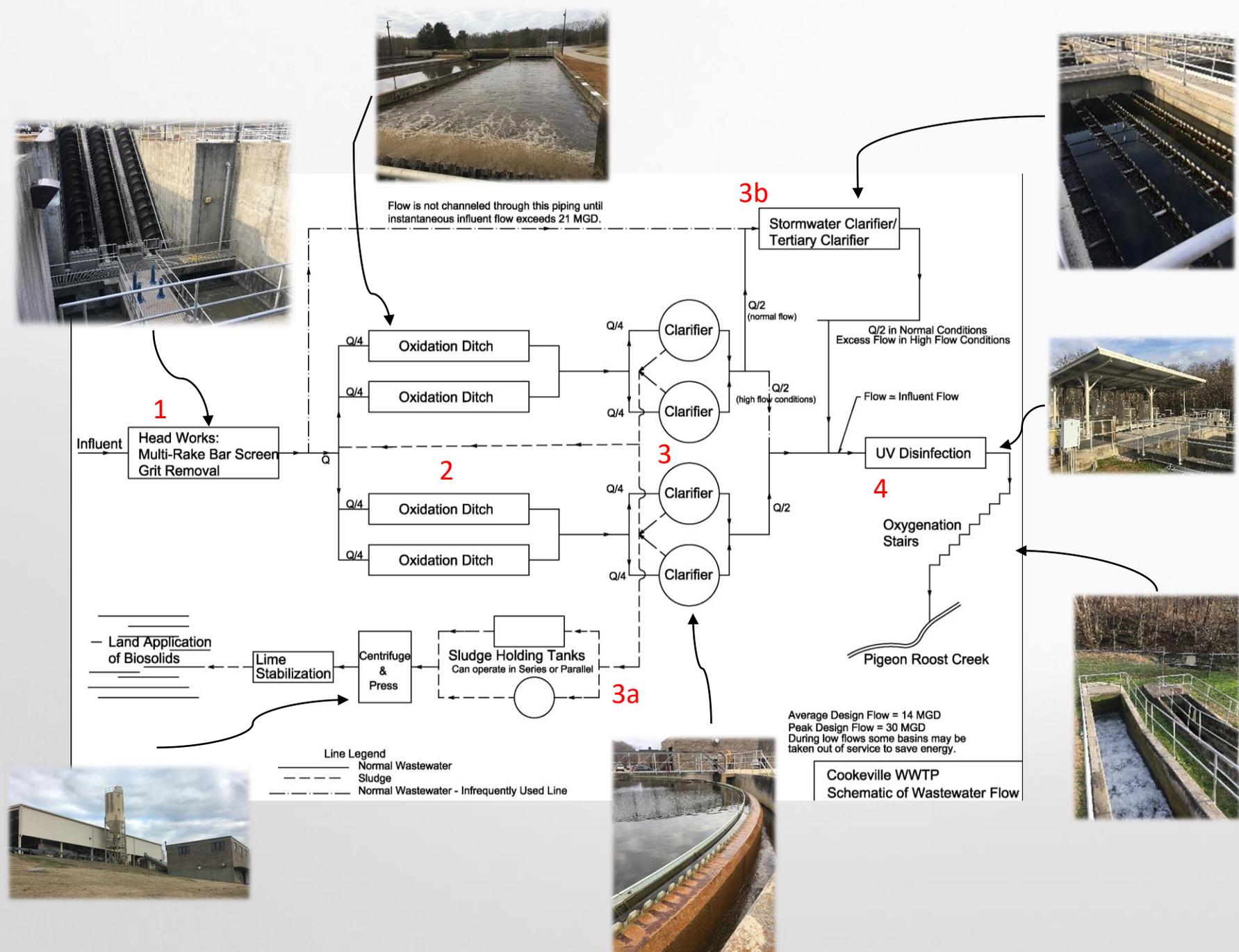
- Originally Built in 1984, with an expansion concluded in 1995
- The only treatment plant serving the City of Cookeville
- Rated as a 14 MGD (million gallon per day) activated sludge treatment plant
- Receives wastewater from 241+ miles of sewer line including low pressure and gravity lines
- Treated water is released to Pigeon Roost Creek
- End sludge process produces Class A Bio- solids (Sludge) that is applied to land as a soil amendment
- Multi year winner of the KY/TN Operational Excellence Award, Winner of Tennessee Achievement Award



Cookeville WWTP
1870 South Jefferson Avenue
Cookeville, TN 38501

Process Overview

1. **Preliminary Treatment**
 - Initial Treatment Process to remove suspended or floating solids (bar screen, grit chamber)
2. **Aeration/Mixing**
 - Aerators inside oxidation ditches provide circulation, oxygen transfer, and aeration to remove biodegradable organics (fats, alcohol, etc.)
3. **Sedimentation Process**
 - Slows wastewater down allowing settleable solids to settle to the bottom and allowing clean water to flow over weirs and exit the clarifiers.
- 3a. **Sludge Process**
 - Sludge that settled in the clarifiers returns to the oxidation ditch or makes its way to sludge holding tanks where it is generated into Bio-solids that are applied to land.
- 3b. **Storm Water/Tertiary Process**
 - The final cleaning process that improves wastewater quality before heading to the disinfection process. Only used during low flow periods.
4. **Disinfection**
 - Last Treatment Process is UV disinfection. UV disinfection is the physical process that instantaneously neutralizes microorganisms as they pass by ultraviolet lamps.



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Cookeville WWTP Process

1. **Primary Treatment**
 - Initial Treatment Process to remove suspended or floating solids (bar screen, etc.)
2. **Aeration/Mixing**
 - Aerators inside oxidation ditches provide circulation, oxygen transfer, and aeration to remove biodegradable organics (fats, alcohol, etc.)
3. **Sedimentation Process**
 - Slows wastewater down allowing settleable solids to settle to the bottom and floatable solids to rise to surface.
- 3a. **Sludge Process**
 - Sludge that settled in the clarifiers returns to the oxidation ditch or makes its way to sludge holding tanks where it is generated into Bio-solids that are applied to land.
- 3b. **Tertiary Process**
 - The final cleaning process that improves wastewater quality before heading to the disinfection process. This removes remaining inorganic compounds, nitrogen and phosphorus.
4. **Disinfection**
 - The physical process that instantaneously neutralizes microorganisms as they pass by ultraviolet lamps.



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