

An aerial photograph of a city, likely Union County, showing a river, industrial areas, and residential neighborhoods. The image is faded and serves as a background for the text.

JOINT MEETING OF ESSEX AND UNION COUNTIES

Virtual Plant Tour

An aerial photograph of a city, likely Essex and Union Counties, showing a river winding through the urban landscape. The image is used as a background for the presentation slide.

JOINT MEETING OF ESSEX AND UNION COUNTIES

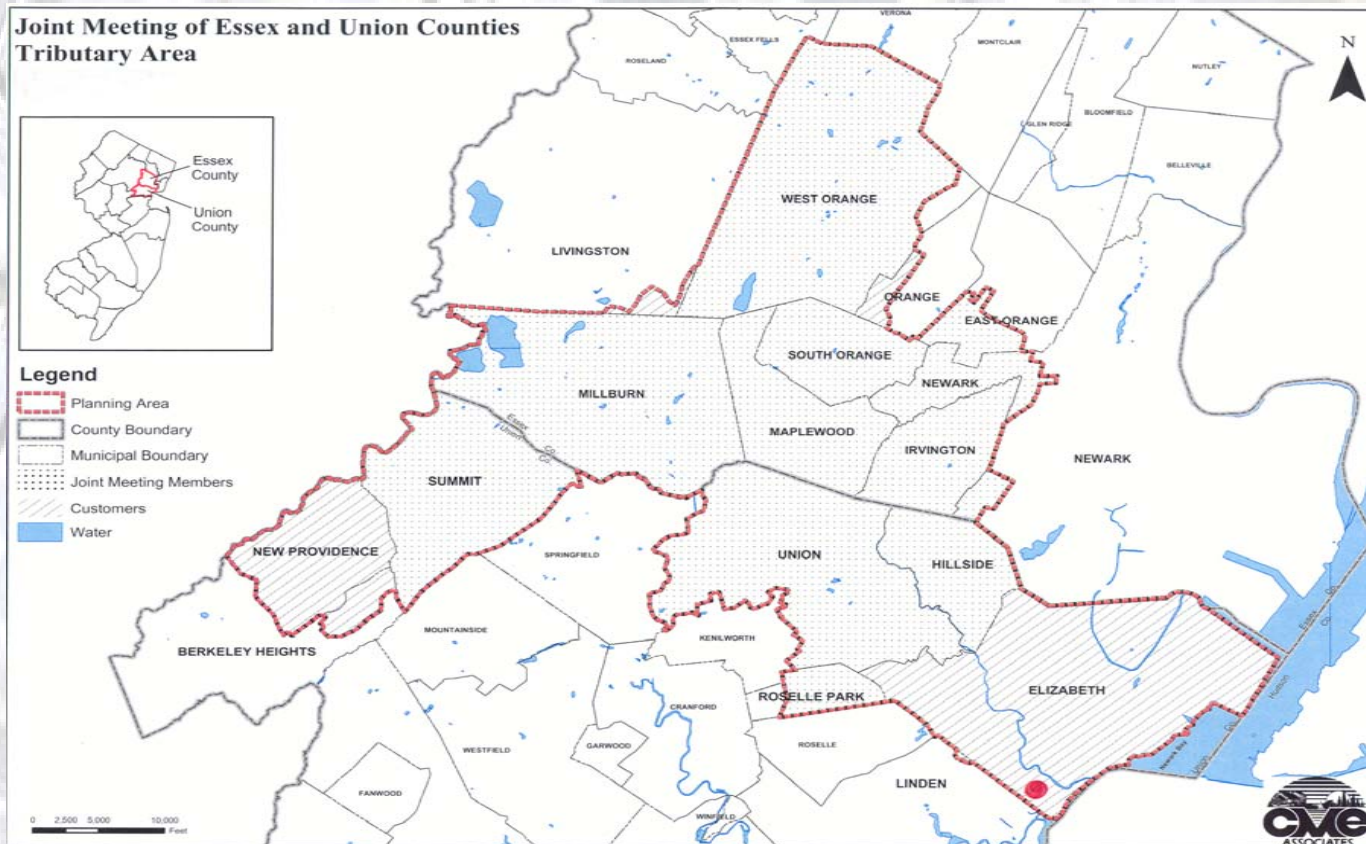
Plant Overview

- Joint Meeting founded in 1898
- Original plant built in 1930's and upgraded in 1970's, 1990's and 2000's.
- Subsequent sludge dewatering and sludge drying operations
- Plant rated capacity of 85 million gallons per day (mgd), average flow rate 67 mgd
- Serves 64 square mile drainage area and 520,000 users
- 43 miles of original and supplementary trunk lines

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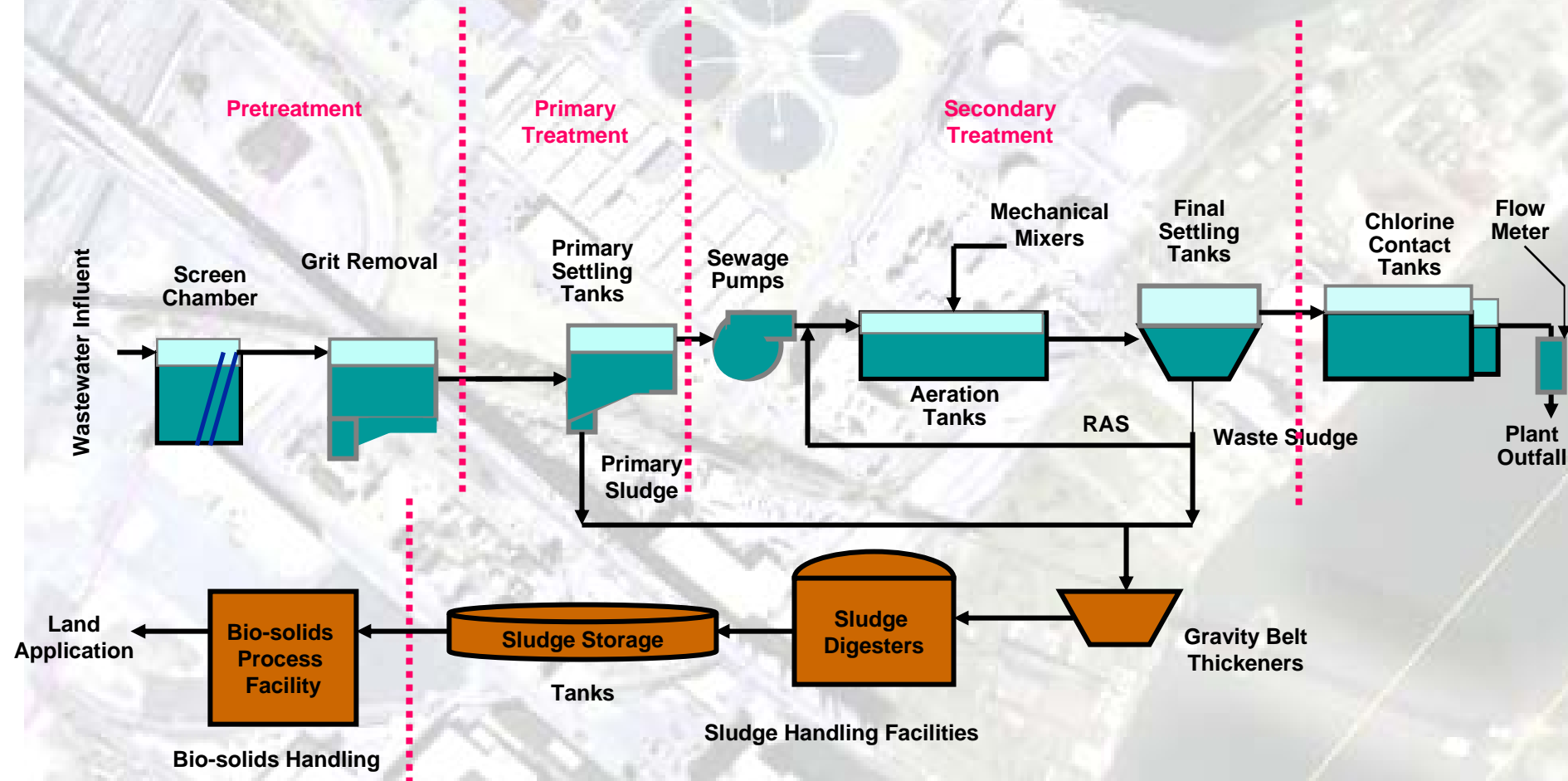
Plant Overview

- Wastewater Influent
 - Gravity Flow of Sanitary Wastes from Member Communities
 - Pumped Flow of Storm & Sanitary Wastes from City of Elizabeth



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Simplified Process Flow Diagram



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- Wastewater Influent



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- Influent Screenings
 - Two Course Screens
 - Two Fine Screens



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- Grit Removal



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- Primary Settling Tanks
 - Four Tanks
 - Typically two tanks always in service/two tanks out of Service
 - Third & Fourth Tanks for Stormwater Flow surges



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- Aeration Tanks
 - Four Tanks
 - Mechanical Aerators



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- Final Settling Tanks
 - Four Circular Settling Tanks



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- Chlorine Contact Tanks



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- Solids Handling
 - Thickening
 - Gravity Thickening
 - Belt Filter Presses
 - Sludge Digestion
 - Sludge Dewatering
 - Sludge Drying



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- Plant Outfall
 - Discharges into Arthur Kill

