Metropolitan Syracuse Wastewater Treatment Plant

SOLIDS TREATMENT & DISPOSAL

Thickening

Reduces the liquid content of “sludge.”

Anaerobic Digestion

Breaks down solids to reduce volume and pathogens without oxygen.

Creates methane through a natural biological process.

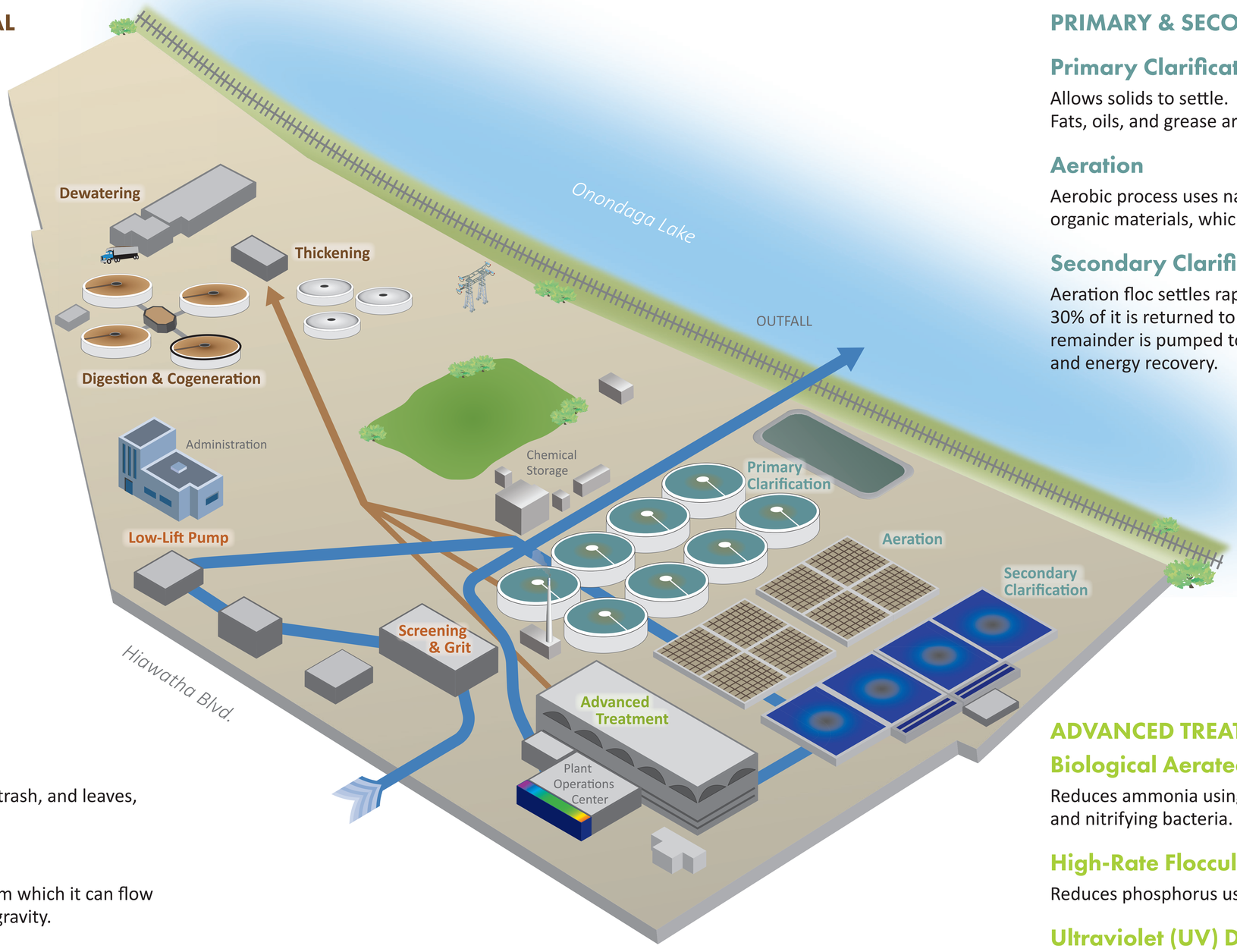
Biosolids are recycled or disposed of properly.

One tank stores biogas.

Cogeneration

Uses methane to heat digesters and buildings.

Generates electricity and sells to grid.



PRELIMINARY TREATMENT

Screening and Grit Removal

Filters out large objects like rags, bottles, trash, and leaves, as well as small stones and inorganics.

Low-lift Pump

Raises incoming wastewater to a level from which it can flow through Metro’s treatment processes by gravity.

PRIMARY & SECONDARY TREATMENT

Primary Clarification

Allows solids to settle.
Fats, oils, and grease are skimmed.

Aeration

Aerobic process uses natural biology to decompose organic materials, which coalesce to form “floc.”

Secondary Clarification

Aeration floc settles rapidly in a clarifier, and about 30% of it is returned to the aeration tank as seed. The remainder is pumped to digesters for further reduction and energy recovery.

ADVANCED TREATMENT

Biological Aerated Filtration (BAF)

Reduces ammonia using a specialized biological process and nitrifying bacteria.

High-Rate Flocculated Settling (HRFS)

Reduces phosphorus using coagulant, polymer, and sand.

Ultraviolet (UV) Disinfection

Disinfects wastewater by sterilizing pathogens (April 1–October 15).

J. Ryan McMahon II
County Executive

Onondaga County Department of WATER ENVIRONMENT PROTECTION
Tom Rhoads, P.E.
Commissioner

Save the Rain

Learn more:
www.ongov.net/wep

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