



Believe it or Watt:

Energy Self-Generation at NapaSan

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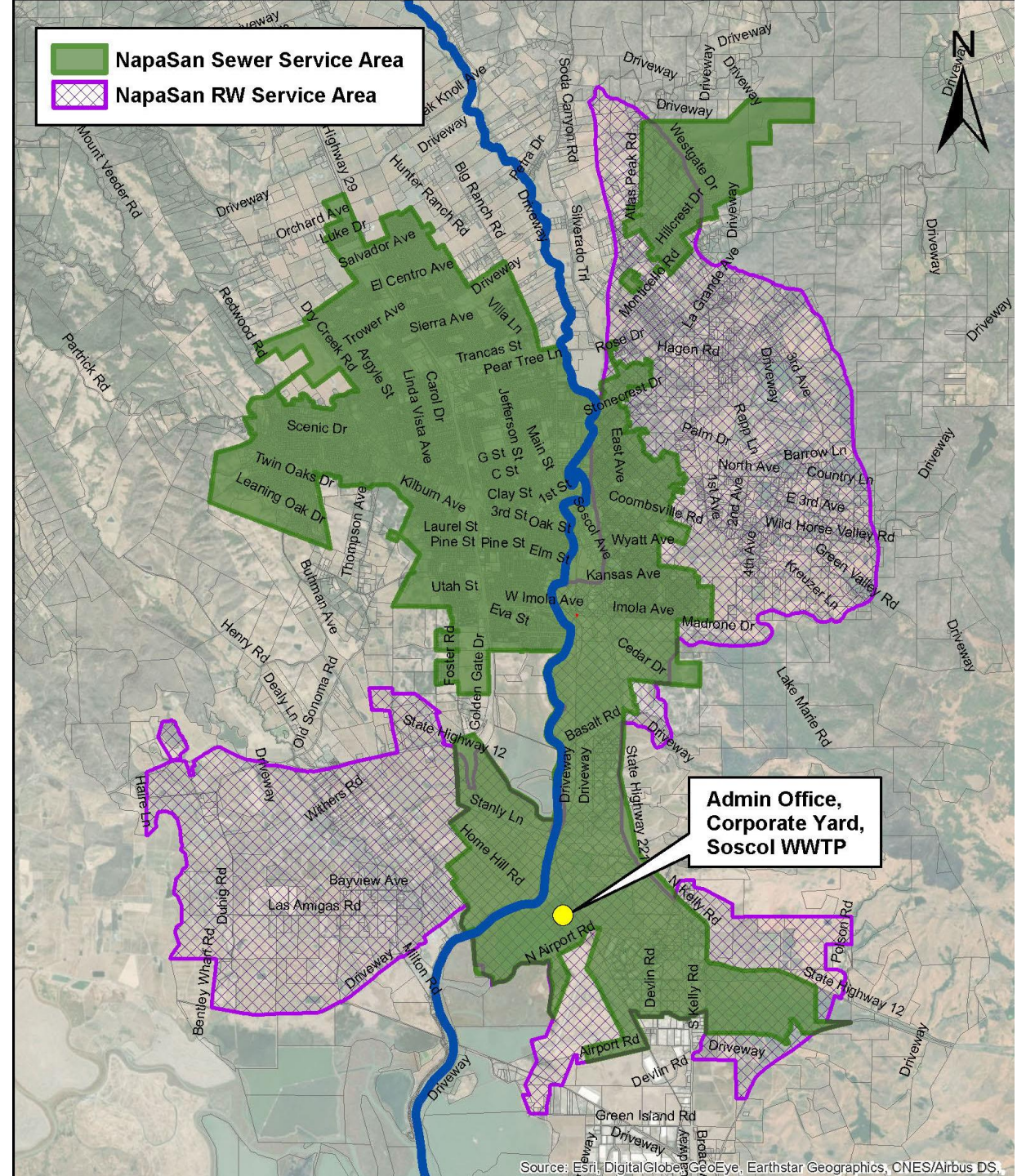


The Basics

- **Founded in 1945**
- **Serves 83,300 customers**
- **Average flow of 10 mgd**
- **270 miles of sewer mains**
- **27 miles of recycled water mains**
- **38,000 service connections**

Service Areas

- 21 mi² sewer service area
- 26 mi² recycled water service area



What We Do

Wastewater



Recycled Water



Biosolids

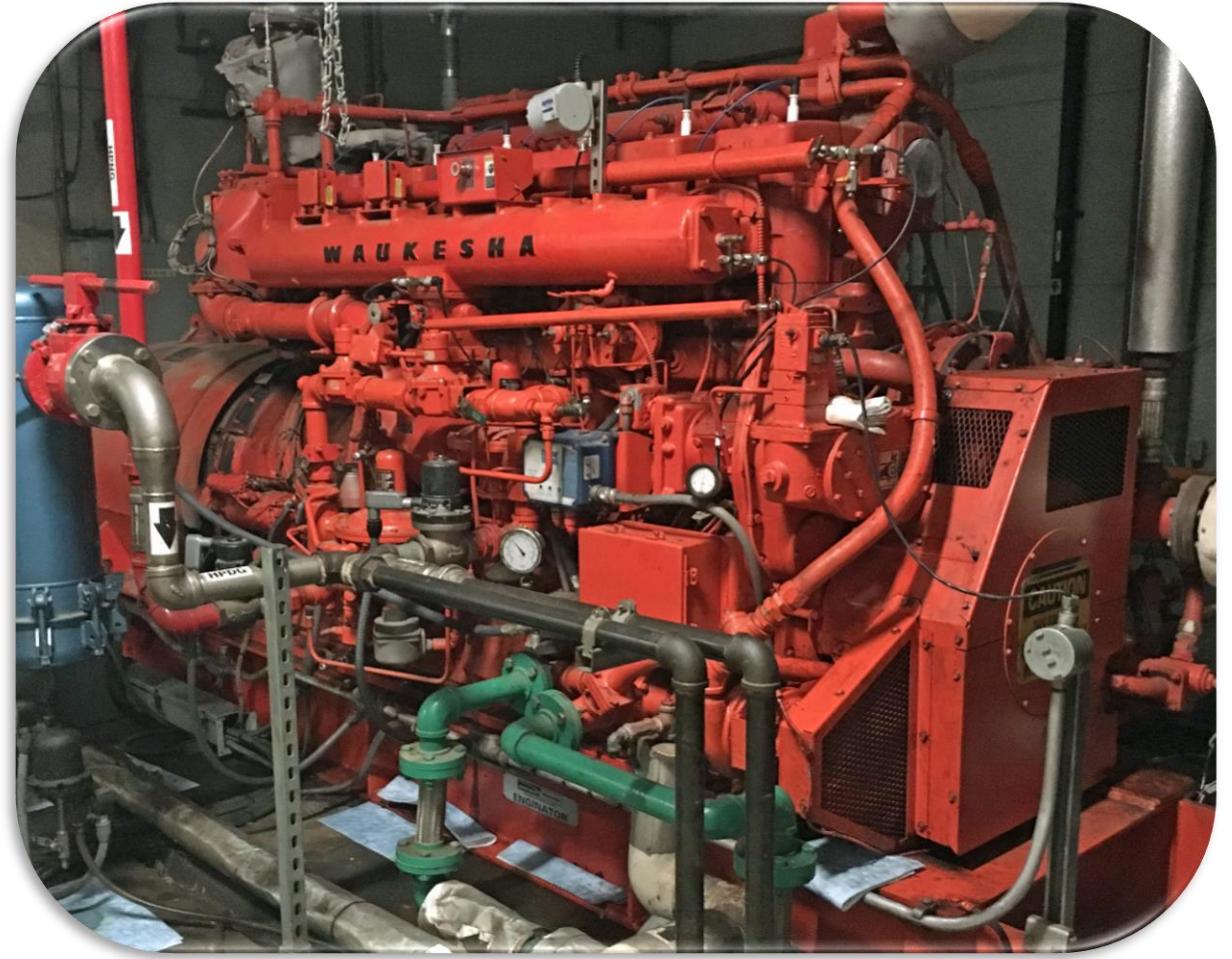


Did You Know?

Approximately 50% of the power needed to operate the facility is self-generated.

Biogas

- Capture methane from anaerobic digester
- Co-gen system installed with digester in 2001
 - 40% of operational needs
- FOG receiving station
 - Increased gas production by 38%



Solar Power

- **1 MW solar array**
- **Installed in 2016**
- **Brings energy generation on-site to 50%**





Coming up next.....

Linear Generator

- **Mainspring linear generator**
- **Run on biogas**
- **GHG emission reduction**
- **Operational in late 2023**
- **Brings self-generated energy to 70%**



Image from Mainspring Energy

Floating Solar

- Partnering with Ciel et Terre
- 20 MW solar array
- Floats on wastewater ponds
- ~100 acres of pond surface





Questions?

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