

# Simi Valley Wastewater Treatment Plant Case Study

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When the City of Simi Valley encountered challenges commissioning its compressed air mixing system, SoCalREN and The Water Infrastructure & System Efficiency Program (WISE) teamed up to provide support. The SoCalREN team connected the City with a peer agency that had successfully installed a similar system, enabling a valuable discussion that helped clarify operational settings and troubleshooting strategies, ultimately helping Simi refine system performance to get the project back on track. This collaboration highlights the power of SoCalREN's network to deliver targeted technical assistance and peer learning across public agencies.

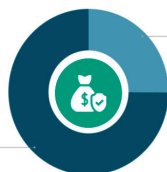
The advanced compressed air mixing system, Environmix, uses timed pulses of air to create efficient circulation in anoxic zones and aeration channels, reducing the need for energy-intensive mechanical mixers. The City also installed an ammonia-based aeration control (ABAC) system, which uses real-time ammonia data to optimize aeration levels and improve nutrient removal. Both technologies mark major steps forward in operational efficiency, energy reduction and sustainability while maintaining treatment performance.

Altogether, these improvements are projected to deliver over 1.5 million kWh in electricity savings and 166 kW in peak demand reduction, translating to more than \$2.1 million in lifetime energy cost savings! The City also received over \$340,000 in incentives through the WISE program, helping to offset installation costs and reward Simi Valley's commitment to sustainability.

By embracing these energy-efficient technologies, the City of Simi Valley continues to lead by example, cutting costs, improving performance, and protecting the environment for generations to come.

## SCE/WISE Incentives

Enviromix  
\$255,000+



ABAC  
\$85,000+

## Project Timeline



**\$2,122,575+**

estimated lifetime bill & maintenance savings



**22% kWh**

reduction in energy use from the project



**1,500,000+ kWh**

lifetime energy savings



**3,795 metric tons GHG**

avoided with lifetime energy reduction



**177 cars**

taken off the road  
lifetime kWh savings greenhouse gas equivalency



*Pictured: The aeration basins at the City of Simi Valley's Water Quality Control Plant post-installation*