

CASE STUDY

# CITY OF SANTA ANA

*The City of Santa Ana, California Achieves Greater Resiliency, System Safety and Improved Economics by Generating Water Disinfectant On-Site*



## OVERVIEW

The City of Santa Ana occupies over 60 neighborhoods within Orange County, California. It was incorporated in 1886 and is now the eleventh largest city in California. With over a century to flourish, it has become the powerhouse of government operations in Orange County.

Santa Ana hosts a diverse community with over 30,000 different businesses. It is located in the heart of the county. Due to its central location, within 30 minutes, you can get to most Southern California destinations.

Like many water providers in southern California, Santa Ana sources their water from the nearby Metropolitan Water District's network of groundwater wells.

On any given day, the average demand of water reaches nearly 43 million gallons of water across 45,000 service connections spanning over 480 miles of distribution lines.

Needless to say, the city has a major responsibility to provide its 325,000+ residents with the best water possible despite the extreme complexity of their system. As such, Santa Ana's two main priorities are always to:

- Improve system efficiency
- Ensure the safety of their operations staff

## SITUATION

Santa Ana was not new to the concept of on-site hypochlorite generation when they came across Microclor<sup>®</sup> OSHG. It was present in fourteen of the City's well sites and had worked well for many years. However, they knew their system was outdated and was coming to the end of life.

The team was in search of a better, newer system that would meet their current needs and grow as the city would over time. They also wanted to ensure they were leveraging all the benefits a modern day OSHG system could provide. This is what led them to Microclor<sup>®</sup> OSHG.

*Santa Ana is ranked among the nation's top 5 best highest quality and best tasting tap water. The City also placed 4<sup>th</sup> in the "Best Municipal Water" category at the annual Berkley Springs International Water Tasting competition.*

# APPROACH

The experienced operational staff at Santa Ana began their exploration of new systems by carefully examining alternatives to designs that were currently in place in addition to reviewing what they liked about upgraded systems they had added to their fleet through the years.

The net result was to invest in the Microclor® OSHG system for all fourteen locations where OSHG systems were currently installed. The fourteen Microclor® OSHG systems were purchased with control panels that provided connectivity and control with the City's SCADA system.

The systems were a combination of 40, 60 and 100 pound-per-day systems.

# RESULTS

- Gave adequate coverage for all 14 of their well sites throughout the city, while also being flexible enough to adapt to flow rates of different productivity levels.
- The introduction of the Microclor's smaller, vertically-oriented cells can be fully cleaned and drained in-place, resulting in a smaller installation footprint and less operating time needed for maintenance cleanings.
- Provided the city a new system with modern technology that could effectively replace their old systems, while still providing the excellent water quality that comes with OSHG.



A Microclor® OSHG system installed at the Walnut Well in Santa Ana.

# CONCLUSION

Once the fourteen new Microclor® systems were installed and tested, the operators were thrilled to finally have a suitable replacement for their outdated OSHG systems.

The Microclor® OSHG system provided the City exactly what they were looking for: a cost-effective, efficient, and easy-to-manage alternative that could keep up with modern technology and provide clean water to their residents for years to come.

In addition, the Microclor® OSHG system had a much smaller footprint than their previous systems.

*“The Microclor® OSHG systems are a safer, cost-effective and easier to maintain alternative to our previous OSHG systems. OSHG continues to be an excellent technology for our multiple and dispersed well-sites.”*

Juan Ramirez, Water Services Production Supervisor, City of Santa Ana, California

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