

INSTITUTIONAL

Campus-Wide Treatment Changes Lead to Big Savings



- **Decrease risk** with less hazardous chemical handling
- **Boost efficiencies** with higher performing water quality that eliminates downtime
- **Grow profits** by evaluating CapEx that saves on OpEx
- **Protect your investment** with real-time monitoring and remote system adjustment
- **Upgrade performance** with the continuous improvement model of the Earthwise Standard of Care



PROJECT CONSULTING

Our Certified Water Technologists survey and identify water opportunities throughout the facility, with the goal of reducing the water footprint, minimizing risk and cutting operating expense.

Earthwise considers ways to improve efficiency, extend equipment life, reduce chemical consumption and provide remote system performance monitoring.

Earthwise Proven Process

The process starts with a complete mechanical and system survey of the facility.

Our partners in industrial hygiene, safety and environmental services offer an additional dimension of expertise.

Initial Plant Survey

- Define piping networks
- Consult OEM guidelines

Standard of Care

- Over 100-point service inspection
- Managed by a VP of Compliance & Waterborne Pathogen Control

Independent Lab Work

- Obtain and analyze data
- Generate a plant formulary and determine what type of system to implement

Sampling and Testing

- Conducting biological and deposit analysis
- Photo Documentation

Customized Solutions

- Follow ISO manufacturing and services guidelines
- Full technical services with 24/7 remote monitoring and emergency response

CASE STUDY

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PROJECT BACKGROUND

- A university with five independent cooling systems, four steam boilers and forty closed loop systems seeks safety and water savings in their current operations
- Current operations makeup over 11M gallons of water per year and consume 2,000 gallons of chemistry in the cooling tower and boiler systems
- Earthwise was called in to evaluate operations and look for opportunities to make the systems operate more efficiently and reduce risks to operators

EARTHWISE APPLIED SOLUTIONS

Concentrated Chemistry Products

Our operations team evaluated the demands of the university systems and the space being used by the current program and decided that concentrated water treatment chemistry products would be a great solution for the campus.

Concentrates are similar to the inhibitors we typically see delivered in large drums, only with greater benefits in a smaller package. Concentrates:

- Reduce the space needed for your water treatment program, replacing bulky drums with 1 to 5-gallon containers that feed a lower dose of more concentrated product
- Cut the number of deliveries and overall shipping costs by reducing the water being trucked around the country
- Reduce the risk of injury to operators transporting and handling drums of 85% water
- Are specially formulated for shelf stability and use a touchless fitment cap to ensure no contact with the product
- Come in small easy to handle plastic jugs or collapsible vacuum bags in cardboard containers that can be recycled in your regular bins

Results

The university saw immediate improvements in water usage with Earthwise's recommendations.

The specially formulated concentrated products allowed them to increase the water cycles of concentration in their systems, saving over 1M gallons of makeup water per year. This translates to \$6,000 in water savings.

Treatment chemicals were reduced from 2,000 gallons to only 285 gallons per year. This translates to 15,000 pounds less water being trucked around the country – a significant impact on the university's carbon footprint.

These significant savings came with the support of the Earthwise Technical Service Representatives and Account Managers who ensure systems are running optimally and will for years to come. Their expertise in finding hidden water and energy savings are bringing more improvements and reducing operations costs for the campus.



	Realized OpEx Savings
Gallons of Water Saved	1,035,800 Gallons
Gallons of Hazardous Chemistry off the Floor	1,702 Gallons
Pounds of Water Saved from Shipping	14,987 pounds
Water Use Savings	\$6,500.00
Shipping Savings	\$6,000.00

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