

**YOUR CLEAN WATER PARTNER**

**STRATEGIC WATER MANAGEMENT CONSULTANTS**

For more than a decade, Earthwise Environmental has been changing the way businesses use water treatment technologies to reduce cost and eliminate hazards.

We offer you a level of expertise and continuity of service not offered by other companies, with services that include:

- All-inclusive monthly or quarterly water management program
- On-site monitoring of your water treatment systems
- Customized training at your site

Work with us and you work with a partner that's completely invested in your business. To get started, call 630-475-3070.



**earthwise environmental inc**

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**CASE STUDY**  
HOSPITAL CENTRAL PLANT

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**THE PROBLEM:** One of the largest teaching hospitals in Illinois maintains 2,000 tons of cooling, with a central chilled water loop of more than 100,000 gallons. Positive Legionella counts were encountered in the cooling towers, as well as corrosion in the chilled water system.

Following an in-depth investigation, the Earthwise Environmental team uncovered leaks in the chemical feed stations and insufficient biocide levels. The hospital had no Legionella control program, filter change schedule, or corrosion control program in place. In addition, the chilled loop pH was measured at 5.3, 10+ PPM iron, with no ability to buffer pH.

**THE SOLUTION:** The Earthwise Environmental team took the following steps to correct the problem:

- Custom-designed a new feed and control system
- Installed dual Legionella-specific biocide program and testing
- Implemented a 24/7 pH-based monitoring and control capability
- Installed a weekly program of service calls
- Custom fabricated a product designed to raise and buffer pH to 9.0
- Implemented a "step-down" filter approach from 25-10-5 micron to three micron
- Switched to silica-based corrosion inhibitor for multivalent protection

**SUCCESS STORY:** The Earthwise Environmental Solution resulted in a number of successes:

- Reduction in liability from hazardous chemicals
- Improvement in Legionella test results (90% positive)
- Reduction in labor costs thanks to 24/7 monitoring
- Savings in capital replacement costs due to long-term protection of chilled piping system
- Reduction in labor costs of frequent filter changes
- Increase in efficiency at heat transfer resulted in lower energy costs



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**FOOD MANUFACTURING PLANT**

**THE PROBLEM:** A large bakery goods manufacturer reported severely scaled boiler tubes, with steam and condensate return line piping heavily compromised by scale and corrosion products. As a result, scale on the boiler tubes was causing energy costs to skyrocket. In addition, frequent boiler shutdowns were caused by boiler water carryover, resulting in lost production time.

Following an in-depth investigation, the Earthwise Environmental team determined that solutions were understood and understood, leading to hardware infiltration into boilers. The team found that chemical feed points were placed in the wrong location, and the chemical feed lines were not properly protected. In addition, the steam and piping in different areas had different return lines were plugged. As a result, condensate return lines were plugged. As a result, condensate return lines were plugged. As a result, condensate return lines were plugged.

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**OF THE ICEBERG**

Earthwise Environmental has an average of two decades of experience in water treatment technologies. We know about plant applications, commercial and industrial, in a wide range of industries, including food processing, pharmaceuticals, and chemical plants. And we know the ins and outs of water treatment technologies. Our expertise and continuity of service not only help you prevent and solve water treatment problems, but encompass all aspects of your water treatment system.

On-site service to ensure that water treatment systems are performing up to expectations

Customized training seminars to fit your needs – at no charge, at your site, and at your convenience


In addition, we can put in place generic Web-based applications for monitoring your system. Using universal applications that you own and control, you can conduct 24/7 monitoring of your plant and receive e-mail notifications with real-time data about water quality and levels.

**LOOKING BEYOND THE WATER'S EDGE**

At Earthwise Environmental, we're always investigating new technology. In fact, we're at the forefront of new product development. Our access to industry associations gives us access to the raw material manufacturer's technology, personnel, and laboratory services for finding new alternatives to existing chemistries. In fact, we're now beta-testing several non-chemical water treatment devices that show promise for the future.

**REALITYCHECK** Water systems, cooling towers, evaporative condensers, hot water systems – even decorative fountains and swimming pools – are breeding grounds for Legionella. We can help.

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To find out more about how Earthwise water management consultants can help you with your water management, call 1-630-475-3070 today.  
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