

# Optimize Water Treatment & Reduce Environmental Impact with Resin Maintenance

Reducing environmental impact has become a key objective for industrial facilities across the U.S. Today, more plant operators are looking at their **water treatment systems** as a strategic opportunity to **cut chemical use, conserve water, and reduce waste**.

One of the most effective ways to achieve this? **Optimize your ion exchange resin performance.**

At **Recirculation Technologies, LLC (RTI)**, we help industrial water plants reach sustainability goals by restoring resin efficiency—reducing the need for regenerations and improving system throughput.

---

## **The Problem: Fouled Resin = Increased Waste**

Over time, ion exchange resin becomes fouled by:

- Organic compounds
- Particulates
- Iron or hardness buildup
- Biological growth

When resin is fouled, it loses capacity and **requires more frequent regenerations** to meet water demands. That means:

- **More chemical use** (acid and caustic)
- **More water consumption**
- **More wastewater generation**
- **Higher energy and operational costs**

In short, fouled resin creates a ripple effect of inefficiency across your water plant—and drives up your environmental footprint.

---

## **The RTI Solution: Resin Sampling & Cleaning**

RTI offers a **comprehensive resin sampling and cleaning program** that helps you restore resin performance and reduce unnecessary regenerations.

**Here's how it works:**

### 1. **Resin Sampling & Lab Testing**

We analyze a sample of your resin to evaluate total capacity, fouling type, and performance degradation.

### 2. **Controlled Test Cleaning**

Our lab uses RTI's **proprietary cleaning protocols** to restore the sample resin and re-test it for throughput and capacity.






### 3. **Performance Comparison & Recommendations**

If post-cleaning results show improvement, we can clean your full resin inventory—**on-site or off-site**—to bring your system back to peak efficiency.

---

## **Sustainability Benefits of Optimizing Resin Throughput**

By restoring resin efficiency, you can:

-  **Reduce the number of regenerations required**
-  **Lower chemical consumption** (less acid and caustic)
-  **Conserve water** during backwash and rinse cycles
-  **Minimize wastewater discharge**
-  **Extend the life of your resin inventory**

This results in a cleaner process, lower operational costs, and a measurable reduction in environmental impact.

---

## **Ideal for Industrial Plants With:**

- Aging or frequently regenerated resin
- Inconsistent water production
- High acid or caustic usage
- Sustainability and waste reduction goals

RTI serves a wide range of industries including **power generation, chemical manufacturing, food & beverage, pulp & paper, and municipal water treatment.**

---

## **Start Reducing Waste Today**

Don't wait for performance to drop further. Let RTI help you **maximize resin efficiency, reduce chemical usage, and meet your plant's sustainability goals.**

 **Call us:** 215-682-7099    **Email:** [sales@rtiservices.com](mailto:sales@rtiservices.com)    **Visit:** [www.rtiservices.com](http://www.rtiservices.com)