



ENVIROGEN

DRINKING WATER TREATMENT
ION EXCHANGE FOR
HEXAVALENT CHROMIUM

ION EXCHANGE SYSTEMS

DELIVERING EFFICIENCY & GUARANTEED LONG-TERM VALUE

Envirogen offers a field-proven option for removing chromium from water with our high efficiency ion exchange (IX) systems. With the Environmental Protection Agency's (EPA) drinking water standard set at 100 ppb for total chromium, and California mandating a tighter limit for hexavalent chromium (Chromium-6) at 10 ppb, communities and utilities are in search of reliable, effective strategies to meet these standards.

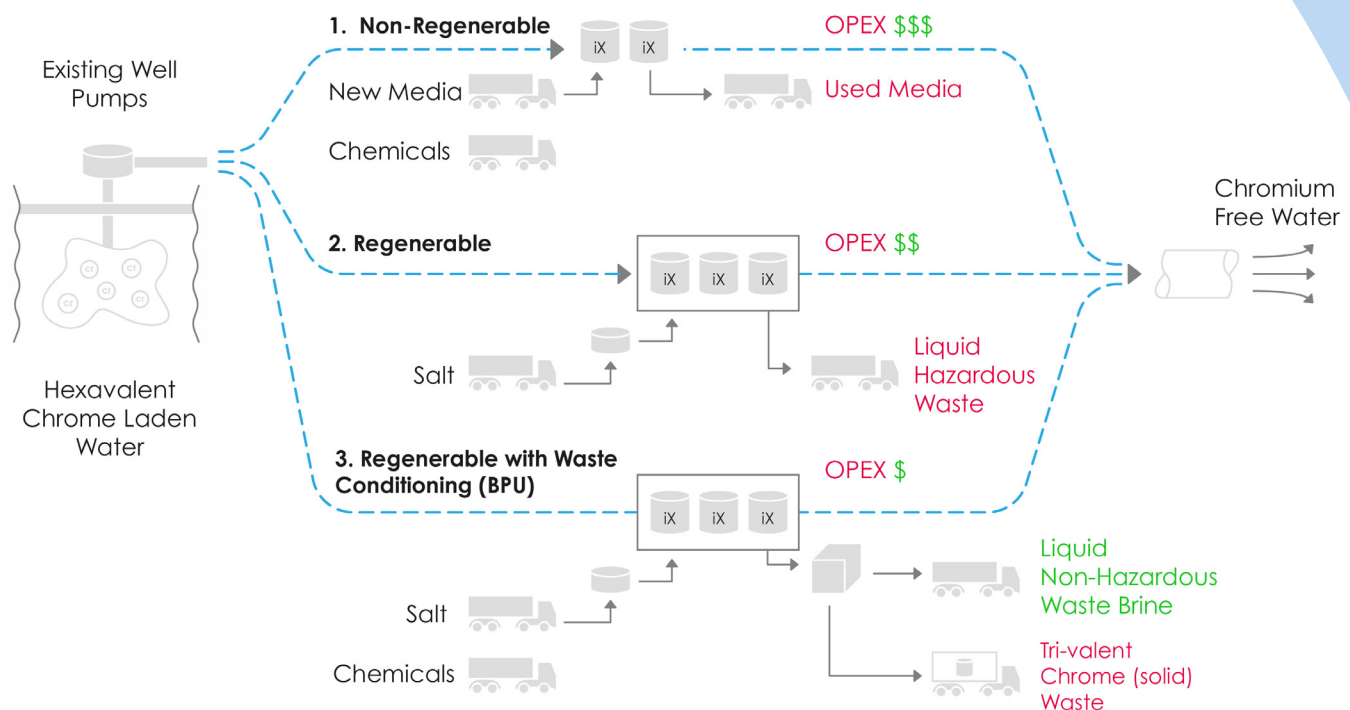
Depending on flow rates, contaminant loading, and hazardous waste handling capabilities, Envirogen offers a range of regenerable ion exchange (IX) solutions that remove hexavalent chromium from incoming streams, along with waste conditioning systems that can be matched to the economics and requirements of a specific site.

Regenerable IX systems:

- SimPACK: 400+ gpm
- MinX: 10-400 gpm

Additionally, we offer a single-pass IX solution, CleanPoint, with a flow rate of 5-500 gpm.

THREE REGENERABLE IX TREATMENT OPTIONS FOR CHROMIUM-6:



This diagram compares three options for treating metal-contaminated water. Regenerable IX systems are displayed as options 2 and 3, with the third option incorporating an additional brine processing unit (BPU). This addition offers extra operational expenditure savings (OPEX), making it the most economically advantageous and sustainable choice due to its non-hazardous waste brine output.

SIMPACK AND MINX

HIGH-EFFICIENCY REGENERABLE IX SYSTEMS

Envirogen SimPACK (>400+ gpm) and MinX (10-400 gpm) regenerable ion exchange systems are multi-bed, PLC controlled treatment concepts that use multiple resin vessels depending on the flow, operated in parallel, each in a different stage of the treatment/regeneration process. Each vessel can be operated until contaminant breakthrough without reducing treated water quality, thereby allowing maximum bed utilization through longer run times before regeneration. This results in decreased salt usage, lower waste production and lower operating costs.



Envirogen's SimPACK (Left) and MinX (Right) regenerable IX systems, delivered as a containerized solution.

WASTE MANAGEMENT & CONDITIONING - BRINE PROCESSING UNIT (BPU)

Envirogen's regenerable IX systems are designed for on-site regeneration using a concentrated brine solution to restore depleted resin. An extremely low volume of waste brine allowed by these systems is a key factor in managing lifecycle costs for treatment. For hexavalent chromium applications, a Brine Processing Unit (BPU) can be added to further optimize the process by precipitating the hexavalent chromium from the waste brine stream.

By integrating the BPU, you can:

- Minimize the potentially hazardous nature of the brine stream.
- Further reduce the overall volume of waste generated, helping to manage lifecycle treatment costs more effectively.

In addition to offering this waste-reducing option, Envirogen provides ongoing support with regulatory compliance and helps address any regulatory challenges, ensuring optimal system performance.



An Envirogen Regenerable Ion Exchange System

[CLICK TO WATCH VIDEO](#)

<https://bit.ly/envirogen-simpack>

CLEANPOINT

SINGLE PASS IX SYSTEM

Envirogen offers the CleanPoint non-regenerable ion exchange system, specifically designed for low- to moderate-flow applications (5-500 gpm). These modular or skidded systems are highly adaptable to meet specific requirements and are ideal for point-of-entry (PoE) applications or situations where low contaminant loading levels are anticipated. Featuring non-regenerable ion exchange media that is disposed of after exhaustion, CleanPoint simplifies operations and maintenance. Additionally, these systems are fully automated, minimizing the need for operator attention.

FEATURES AND ADVANTAGES

ENVIROGEN ION EXCHANGE

- Fully warranted performance guarantees for long-term reliability
- Low energy requirements
- Rapidly deployable
- Remote water monitoring communication system
- Continuous flow
- NSF approved materials
- Residuals management
- Low life cycle costs, with O&M programs available

For Regenerable IX:

- Automated sequencing ensures very low waste rates below <0.5%
- On-site regeneration
- No pH adjustment required

LIFE CYCLE COST ASSURANCE PROGRAMS

CUSTOMIZED, FLEXIBLE SOLUTIONS & SUPPORT PROGRAMS

Envirogen's strength lies in our unique combination of technology expertise, process development, design capabilities, and extensive operational experience. This synergy, supported by our lifecycle assurance programs, allows us to deliver highly efficient water and wastewater treatment solutions proven at hundreds of sites worldwide. Our holistic approach to asset management helps clients make informed decisions, optimize resources, and enhance financial sustainability over the full lifecycle of their assets.

We stand behind our systems with a performance guarantee, ensuring optimized life-cycle costs. Understanding that these costs are site-specific and influenced by factors like flow rate, operations, and water chemistry, our tailored solutions address each client's unique needs. Our flexible approach helps manage compliance risks and allows clients to focus on their core business. Additionally, with a range of O&M programs, Envirogen further reduces costs while extending the reliability and life of system investments, confidently guaranteeing long-term project outcomes.

ABOUT ENVIROGEN

Envirogen is a leading international provider of water and wastewater treatment solutions. We solve complex challenges relating to water availability and quality, and help our customers to increase productivity, reduce costs and meet environmental and sustainability targets.

We do this through offering:

- Best in class water and wastewater treatment and process filtration technology
- Expertise in design, project management and engineering
- Market-leading manufacturing and servicing capabilities



NORTH AMERICAN HEADQUARTERS

Envirogen Technologies
700 Rockmead Drive, Suite 100
Kingwood, TX 77339
T: 713.609.1691
E: info@envirogen.com

UK HEADQUARTERS

Envirogen Group
Unit 9, Wimsey Way, Alfreton Trading Estate
Alfreton, Derbyshire, DE55 4LS
T: +44 (0) 1773 441029
E: enquiries@envirogengroup.com

EUROPEAN HEADQUARTERS

Envirogen Technologies bv
Penningweg 71, 1507 DG Zaandam, The Netherlands
T: +31 75 204 7200
E: NLinfo@envirogengroup.com

We have a network of regional sales and service teams worldwide:

UK and Europe: UK, The Netherlands, Germany, France, Italy.

USA: Texas, Tennessee, New Jersey, California, Nevada.

For further details, visit our website or contact our main office locations above.

www.envirogen.com

Follow **Envirogen Technologies, Inc.** on [LinkedIn](#) 