



GREAT LAKES  
ReNEW



ANCHORED BY:

*Current*

# TRANSFORMING WASTE INTO WEALTH

# *Current*

We are a Chicago-based water innovation hub.  
Launched in 2016, we collaborate to:



Grow a circular  
blue economy



Accelerate  
innovation



Solve pressing  
water challenges

# Our Impact To Date



**\$58M**

raised for regional  
water innovation and  
economic  
development



**40+**

watertech startups  
engaged with



**11**

water technology  
pilots launched



**40K+**

people reached  
through events and  
convenings



U.S. National  
Science Foundation

# NSF ENGINES


## INAUGURAL AWARD

### NSF Engines: Great Lakes Water Innovation Engine



GREAT LAKES  
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An aerial photograph of a coastline. The land on the left is brown and textured, with a complex network of waterways and inlets. The water on the right is a deep blue, with some lighter blue areas near the shore. The text is overlaid on the right side of the image.

**CONVENTIONAL WATER  
AND WASTEWATER  
TREATMENT FLUSHES  
VALUABLE RESOURCES  
DOWN  
THE DRAIN AND LEAVES  
HARMFUL  
CONTAMINANTS BEHIND**



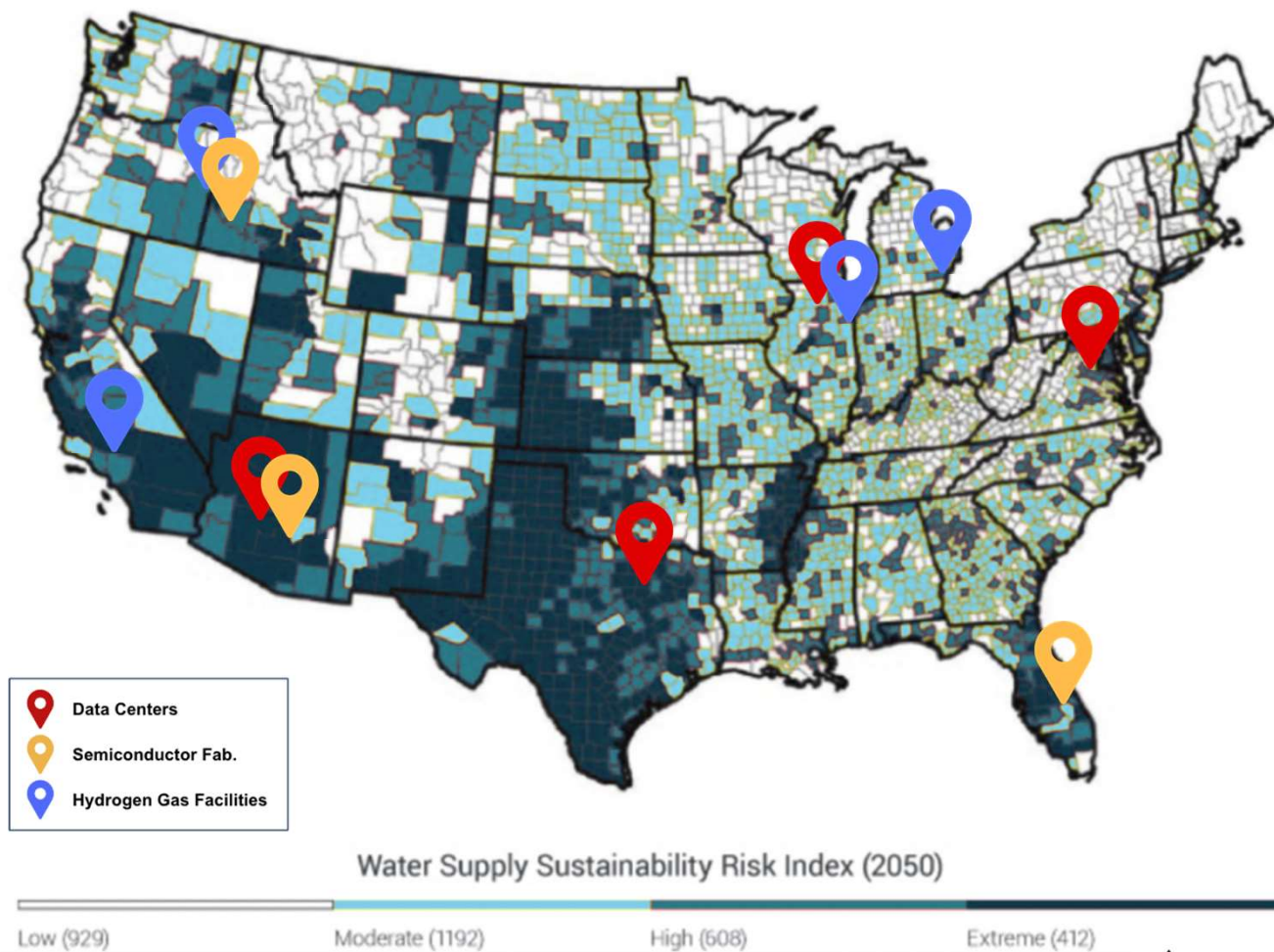
**WATER SECURITY IS  
NATIONAL SECURITY**

# HIGH GROWTH INDUSTRIES ARE **THIRSTY**

A single data center  
consumes up to 5 million  
gallons of drinking water  
per day



# WE CAN'T SUSTAIN THE STATUS QUO





# CONTAMINATION

## THREATENS PUBLIC HEALTH

Carcinogenic PFAS have been found in ~45% of U.S. tap water

An aerial photograph of a body of water, possibly a lake or bay, showing significant pollution. The water is a murky, brownish-yellow color, contrasting with the darker blue of the surrounding ocean. A rocky, dark shoreline is visible in the upper half of the image. The text is overlaid on the right side of the image.

**\$70 TRILLION**

**AT RISK BY  
2050**

**WATER RISK IS COSTLY—  
AND RISING**



# FROM WASTE TO WEALTH

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# WASTE



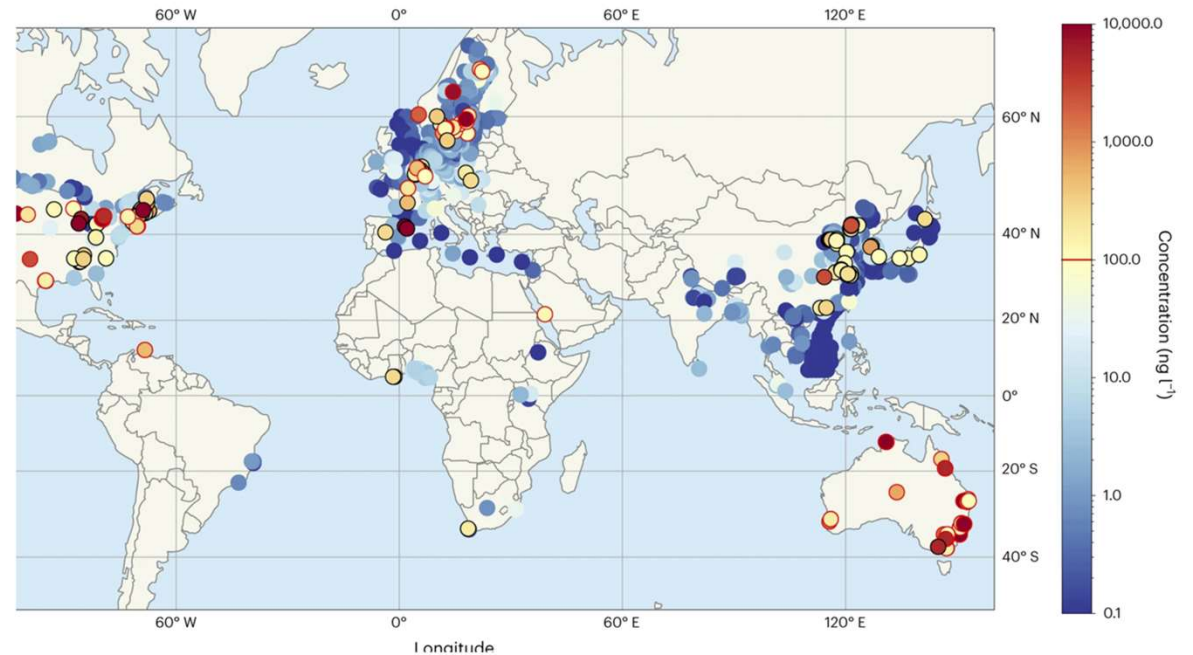
## 'Forever chemicals' found in US drinking water, map shows 'hot spots' of highest levels

PFAS chemicals can cause serious health risks, experts warn



By **Melissa Rudy** · Fox News

Published April 17, 2024 5:25pm EDT



A study published in the journal *Nature Geoscience* on April 8 found that higher amounts of PFAS (perfluoroalkyl substances) were found in drinking water in certain parts of the U.S. (*Nature Geoscience*)

WEALTH



# Why the market for mopping up 'forever' chemicals is exploding

Synthetic biology startup Allonnia just raised \$30 million more for tech to remediate PFAS.

By Heather Clancy | July 26, 2023 *(Updated on July 24, 2024)*



Allonnia is developing biological organisms for breaking down waste and eradicating the bad stuff. Source: Allonnia

# WASTE

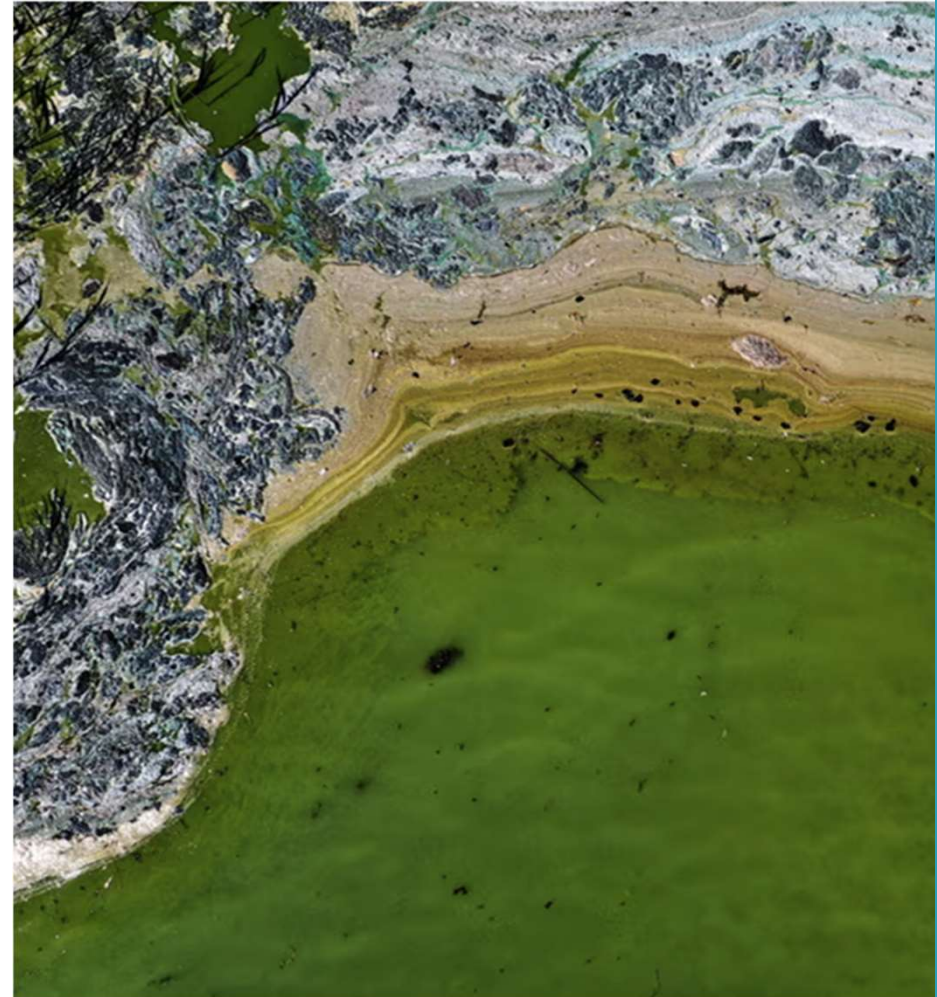
## The Guardian

### Scientists warn of 'phosphogeddon' as critical fertiliser shortages loom

Excessive use of phosphorus is depleting reserves vital to global food production, while also adding to the climate crisis

**Robin McKie**, *Science editor*

Sun 12 Mar 2023 05:00 EDT



The overuse of phosphorus is creating algal blooms such as the one in the Baltic Sea near Stockholm in Sweden. Photograph: TT News Agency/Reuters

WEALTH

AXIOS

## Des Moines unveils plans for a \$40 million phosphorus recovery plant

Jun 28, 2022 - [News](#)

A \$40 million phosphorus recovery facility will be constructed by the Des Moines Metropolitan Wastewater Reclamation Authority ([WRA](#)) under a plan presented to the city's Urban Design Review Board last week.



Jason Clayworth



The Metropolitan Wastewater Reclamation Authority's main facilities along the 3000 block of Vandalia Road in Des Moines. Photo: Courtesy of the WRA

# WASTE



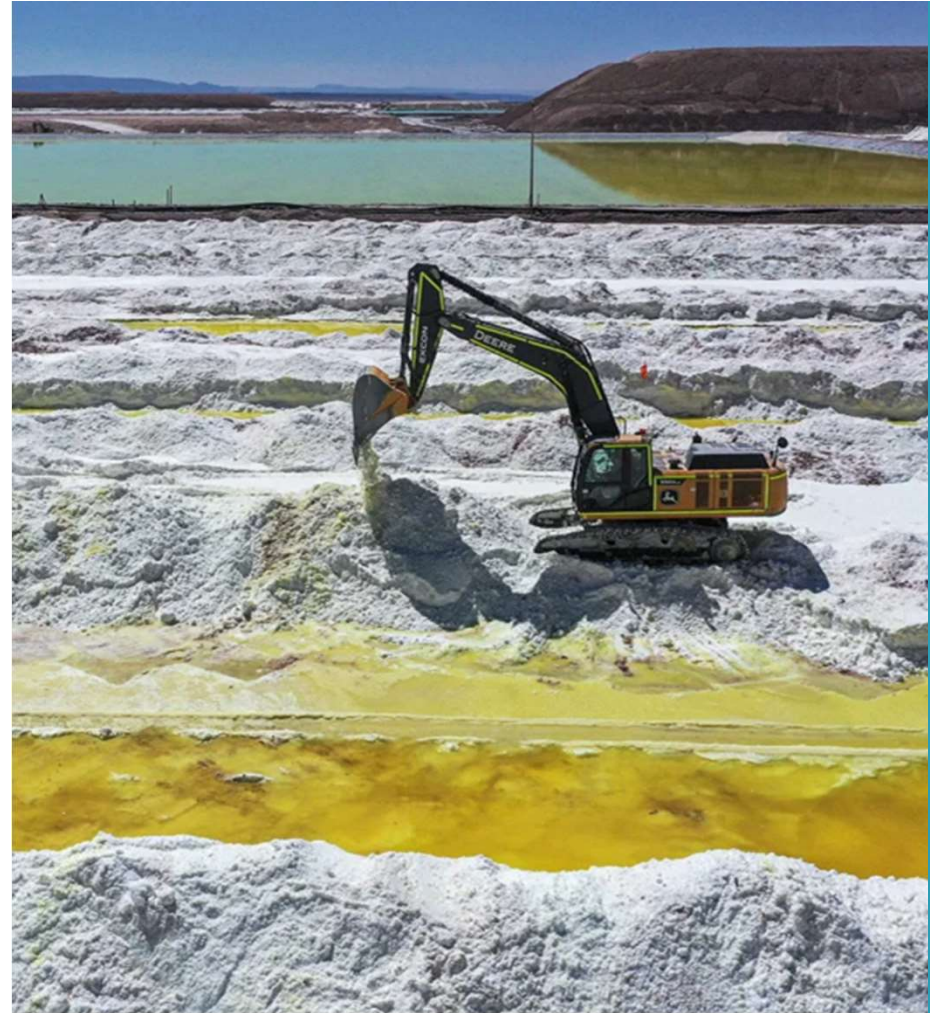
## The world faces a shortage of minerals needed for the energy transition

The world is facing a shortage of the minerals needed to make the electric vehicles, wind turbines, solar panels, and other clean energy technologies essential to ending its reliance on fossil fuels.



By [Anna Cooban](#), CNN

🕒 3 minute read · Published 6:54 AM EDT, Fri May 17, 2024



The lithium mine of the Chilean company Sociedad Química Minera in the Atacama Desert, Chile, seen in September 2022. Martin Bernetti/AFP/Getty Images

WEALTH


# Inside Climate News

Fossil Fuels

## Pennsylvania's Fracking Wastewater Contains a 'Shocking' Amount of the Critical Clean Energy Mineral Lithium

A new study estimated there is enough lithium in the state's wastewater to meet up to 40 percent of domestic needs.



By Kiley Bense   
May 29, 2024




A fracking drilling pad operates in the Marcellus Shale formation near Robinson Township, Pa. Credit: Robert Nickelsberg/Getty Images

A satellite image of Earth, showing a portion of the Western Hemisphere. The landmasses are in shades of brown and tan, while the oceans are in various shades of blue. The text is overlaid on the right side of the image.

# SELECTIVE SEPARATION

TO RECOVER VALUABLE RESOURCES  
AND REMOVE HARMFUL  
CONTAMINANTS

A satellite image of the Great Lakes region, showing the brown, textured land of the surrounding continents and the swirling, vibrant blue waters of the lakes. The text is overlaid on the right side of the image.

# A MOONSHOT MOMENT FOR THE GREAT LAKES



# OUR MISSION



**Spur circular  
economy  
transition**

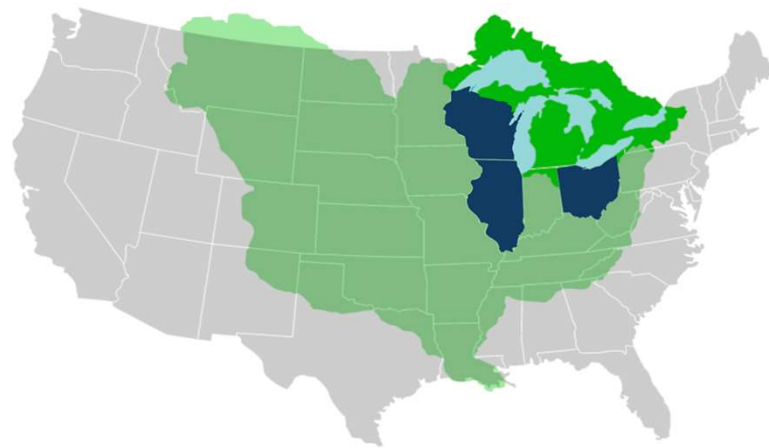


**Invent and  
commercialize  
selective separation  
technologies**



**Attract & retain  
water-intensive  
industries**

## REGION



- Mississippi watershed
- Great Lakes watershed
- ReNEW partners
- Nascent Phase Region of Service



## PARTNERS



## TRACK RECORD

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SINCE 2016

RAISED \$58M+

LAUNCHED 11  
PILOTS

SUPPORTED  
40+ STARTUPS

# EARLY WINS



**COLLABORATING  
TO COMPETE**



**INVESTING IN  
BREAKTHROUGH  
R&D**



**PREPARING A  
WORKFORCE**



**BUILDING  
INNOVATION  
INFRASTRUCTURE**

# CURRENT INDUSTRY CONSORTIUM MEMBERS



exelon<sup>SM</sup>





# CONNECTED TESTBED NETWORK





# gener8tor

 GREAT LAKES INNOVATION  
ACCELERATOR

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**\$13.4M**

NOAA Award

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**4**

Year  
Timeline

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**12**

Total Cohorts

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**60**

Startups  
Supported

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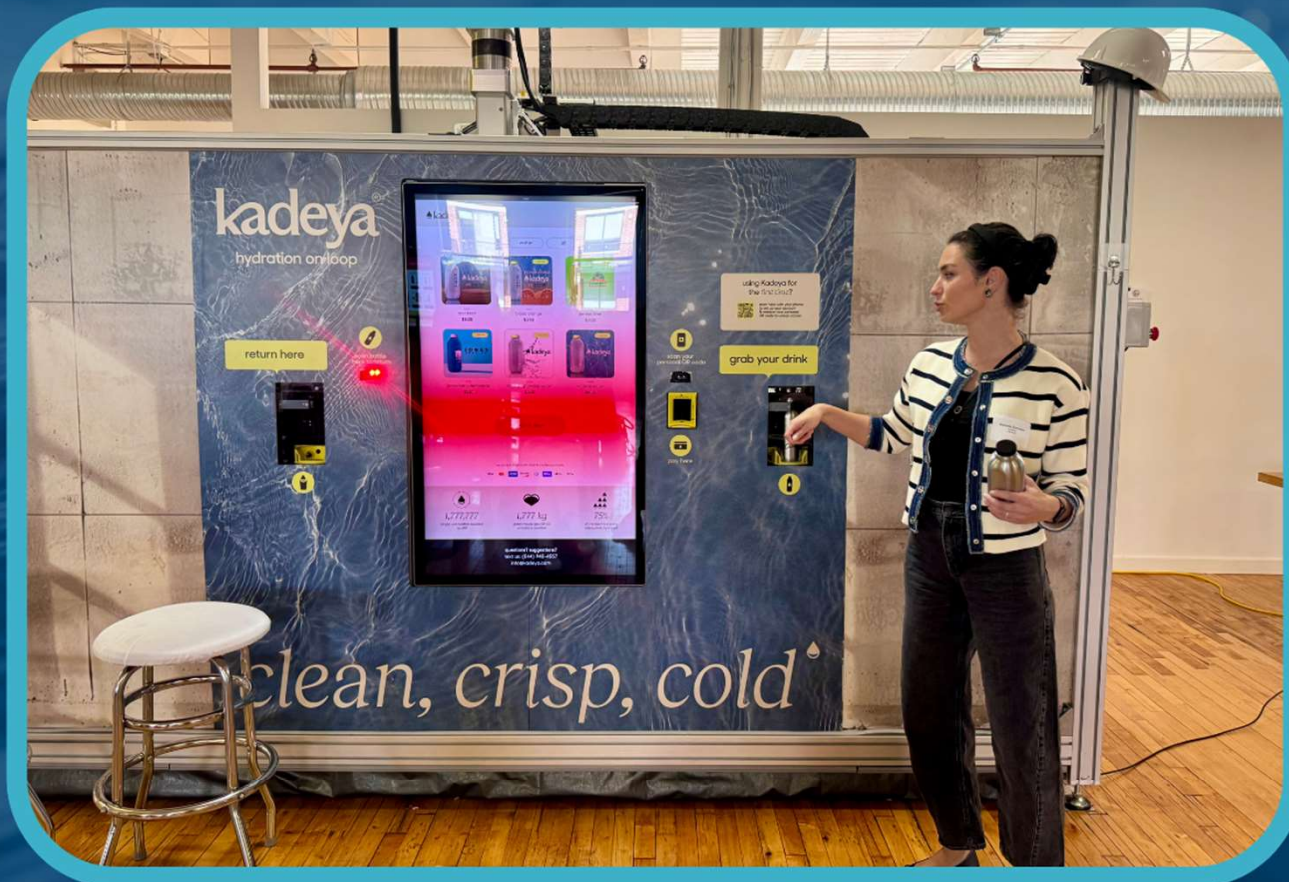
**\$100k**

Non-Dilutive  
Per Startup

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**100+**

Introductions  
Per Startup



Current

 **CHICAGO**  
WATER WEEK  
MAY 4-10, 2025

**SBA WOSB**  
Woman Owned Small Business



# ENSPIRED

## SOLUTIONS®

***FOREVER CHEMICALS GONE FOREVER®***



Enspired Solutions co-founders  
Denise Kay and Meng Wang



**CURRENT AND mHUB  
JOIN FORCES TO  
LAUNCH SUSTAINABLE  
WATER TECH  
ACCELERATOR**



**GREAT LAKES ReNEW**  
GREAT LAKES WATER INNOVATION ENGINE

*Current*



More Info +  
Roadmap Registration



bitly

# Mining Water Tech Pilot Pathway Program



# Water Tech Opportunities in Mining



## RESOURCE RECOVERY

Waste streams in the mining sector often contain dissolved metals and trace amounts of valuable elements. We are looking for technologies that economically recover critical mineral resources from water containing low concentrations.



## WATER EFFICIENCY

More mining projects are being built in water-scarce regions. We are looking for technologies that efficiently use water, reducing the mining industry's freshwater intake through water recycling and reuse.



## MINE WATER TREATMENT

Water contaminated through contact with mining activities poses a threat to the environment and local communities. We are looking for solutions for the treatment and management of mine-influenced water.

# PILOTING BLUE JOBS

Building on Current's Blue Jobs Action Plan for Illinois (2022),  
identifying five major workforce pathways in water:

## PATHWAYS



Lead  
service line  
replacement

Water,  
wastewater  
operations

Manufacturing  
in/for the  
water sector

Climate  
resilient  
infrastructure

Wastewater-  
based  
epidemiology  
and public  
health



# THE STAKES

A close-up photograph of parched, cracked soil in shades of brown and tan, illustrating the theme of water scarcity.

**INDUSTRIAL FLIGHT  
FROM WATER SCARCE  
REGIONS**

A photograph showing a soldier in full riot gear, including a helmet and visor, standing in front of a crowd of people. The scene is dimly lit, suggesting a night or low-light environment.

**RISING RESOURCE  
CONFLICT**

A photograph of a protest where individuals are holding large plastic water jugs and signs. One visible sign reads "SAFE WATER! IT'S ALL I WANT!". The scene is overlaid with a blue tint.

**MILLIONS SUFFER  
LONG-TERM HEALTH  
EFFECTS**

A photograph of an industrial facility with several smokestacks emitting thick, dark plumes of smoke into a grey, overcast sky.

**SUPPLY CHAIN  
DISRUPTIONS &  
ENERGY TRANSITION  
FAILURE**

# VISION 2034

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**Circular Water  
Economy**



**Global  
Competitiveness**



**Regional & U.S.  
Prosperity**

# LOCAL SOLUTIONS FOR GLOBAL CHALLENGES



BUILT IN THE GREAT  
LAKES



MADE FOR THE  
WORLD



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