Cleveland
Water Alliance

Fostering Economic Development and Innovation through Northeast Ohio's freshwater assets

The Business Case for Water Innovation

Economic Development * Collaborative Research * Sound Public Policy * Education

- **36%** of global population (2.5 billion people) already live in water-scarce regions
- Risks: **22%** of worlds GDP ($9.4 trillion at 2000 prices) is produced in water-scarce areas
- **39%** of current global grain production is not sustainable in terms of water use
- By 2050 GDP impact moves from **22% to 45%** unless more unless more sustainable water practices are adopted
- **More than half of world's population** will be exposed to severe water scarcity by 2050 (4.8 billion people)
- **49%** of the world's grain production as at risk by 2050 unless more sustainable water practices are implemented
- If water innovation, sustainability and water efficiency is adopted **$17 trillion of GDP is de-risked and 1 billion people de-risked from water scarcity**
- World economic forum, in 2013, lists water scarcity as the 2nd greatest risk to the world market,

Source: LA Times

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Source: Toledo Blade

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Defining a Water Cluster

- What is the cluster solving for
- Metrics and goals: Is success measurable/definable
  - Are the innovating
- Systems approach given uniqueness of water
  - Innovation around: Quality, quantity, transportation, public infrastructure, policy, industry engagement, watershed, history
- Organized vs. built
- Do they feed into regional economic competiveness
  - Job creation outside of their own organization, per capita income, gross regional product, labor force participation

Locations of U.S. Water Clusters and Technology Initiatives

Full map available at www2.epa.gov/clusters-program/clusters-map.

This map is not intended to be comprehensive, and may not include some emerging water clusters.

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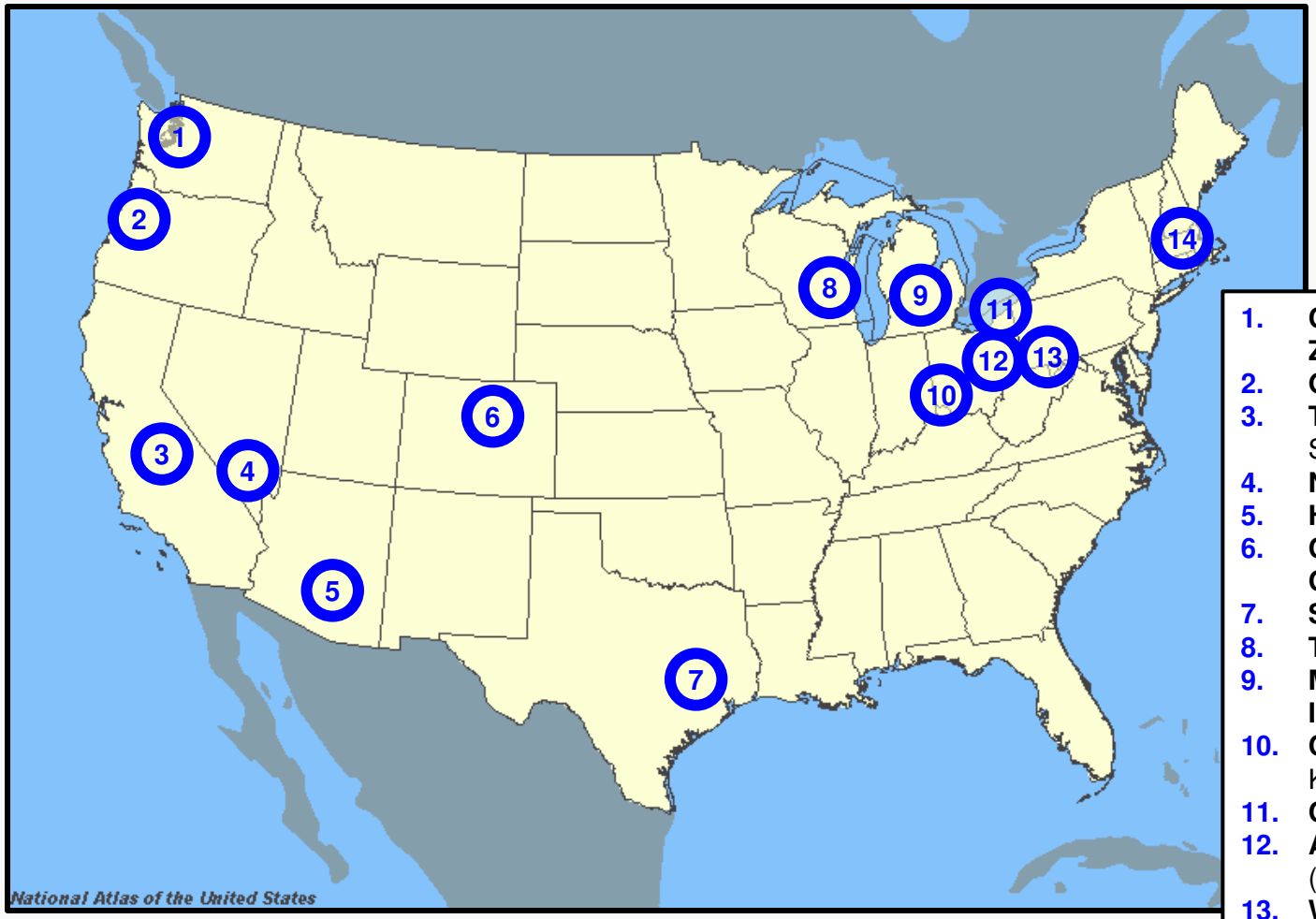

1. **Clean Urban Water Technology Zone** (Tacoma, WA)
2. **Oregon Water Cluster**
3. **The BlueTechValley** (Central and San Joaquin Valleys, CA)
4. **Nevada Center of Excellence**
5. **H2OStream** (Tucson, Arizona)
6. **Colorado Water Innovation Cluster** (Fort Collins, CO)
7. **Surge Accelerator** (Houston, TX)
8. **The Water Council** (Milwaukee, MI)
9. **Michigan Water Technology Initiative**
10. **Confluence WTIC** (SW Ohio/N Kentucky/SE Indiana)
11. **Cleveland Water Cluster** (NE Ohio)
12. **Akron Global Water Alliance** (Akron, OH)
13. **Water Economy Network** (Pittsburgh, PA)
14. **New England Water Innovation Network** (Massachusetts)

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Cluster Initiative: grow and drive regional economic innovation and prosperity around the value of Northeast Ohio's freshwater assets

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Source: Plain Dealer Archives

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The Making of a Water Cluster - Partners

George Gund Foundation

GE Water & Process Technologies

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Innovation in Action

- Kurtz & Port: Bed load interceptors in Cuyahoga

  At the forefront of Stormwater BMP supply and implementation, Kurtz Bros., Inc. provides Hydro Clear Bioretention Soil, rooftop growing media, permeable paving supplies and design guidance

- ABS: Sorbent for Nutrient Loading

  Ag/Stormwater: Organic Compounds, pesticides, herbicides, oils, greases, alcohols, and other organic contaminants.

- MAR Systems: Sorbent for Industry

  Media that is used to remove contaminants in wastewater from a wide variety of applications including temporary remediation and long-term treatment solutions including selenium

- GLBio: **Biomimicry water ph.d program** with Avon Lake Regional Water, U. Akron, Lorain County Community College, NASA, and CWA

- Splashlink: Technology Solutions - Web based marketplace for water industry

PORT CLEVELAND

CLEVELAND-EUROPE EXPRESS
GREENEST ROUTE BETWEEN EUROPE & NORTH AMERICA'S HEARTLAND

Within 500 miles
An 8-hour drive
50% of all U.S. households
43% of U.S. population
56% of U.S. Fortune 500

GREAT LAKES REGIO

» 4TH LARGEST GLOB
» LARGER ECONOMY T

PORT OF CLEVELAND HIGHLIGHTS

» 80 ACRES

» LIFT CAPACITY
- 2 mobile harbor cranes with 60-ton capacity
- 1 heavy lift stationary crane with 150-ton capacity

» 300,000 SQ.FT. OF INSIDE STORAGE CAPACITY
- Overhead crane with 30-ton lift capacity

» FOREIGN TRADE ZONE GRANTEE #40

» IMMEDIATE SPACE FOR

» 7 USABLE E DRAUGHT

» FIRST MAJ

» IMMEDIATE ACCESS TO

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Thank you!

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