Water Technology Innovation

MSSC
Las Vegas, NV
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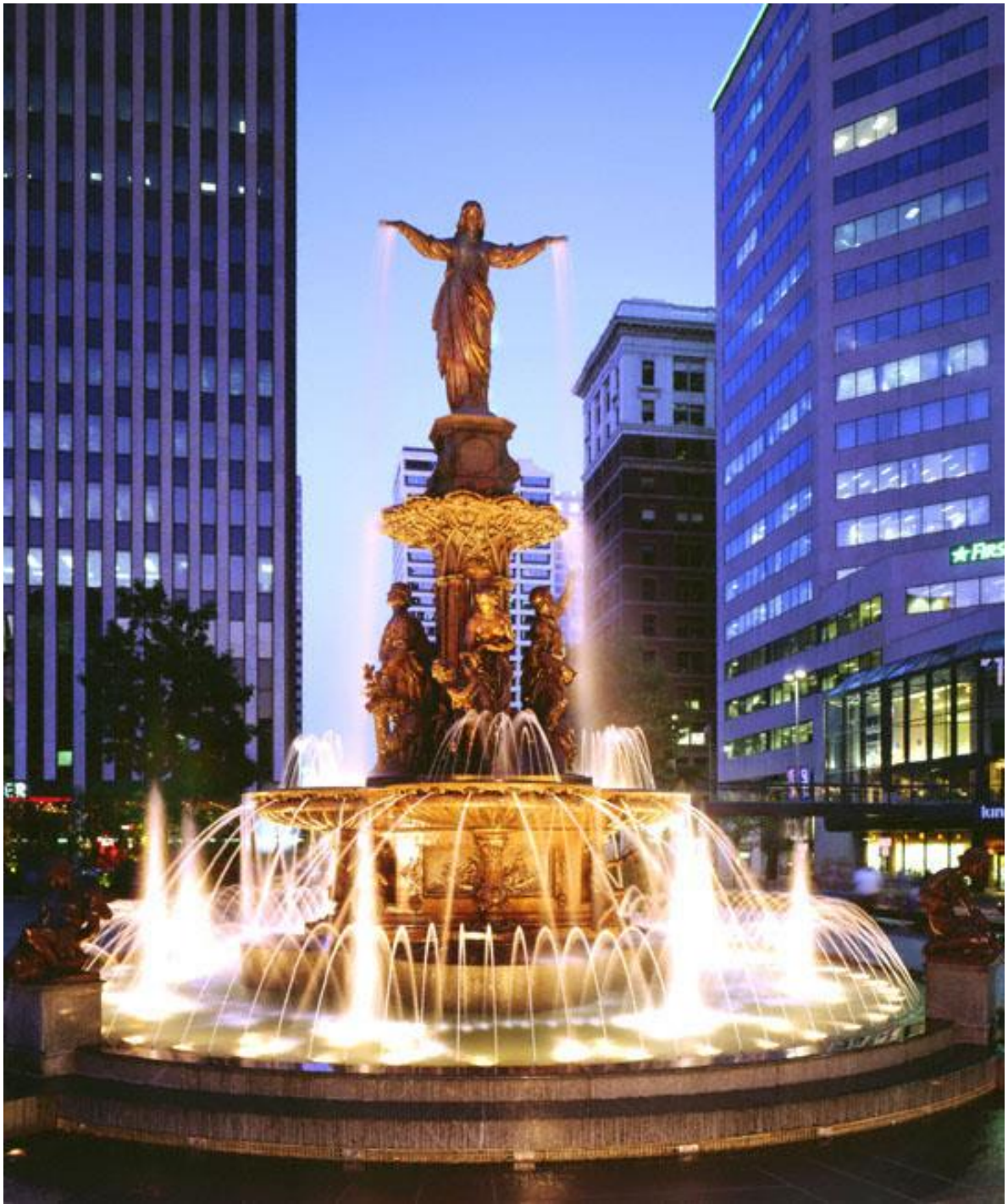
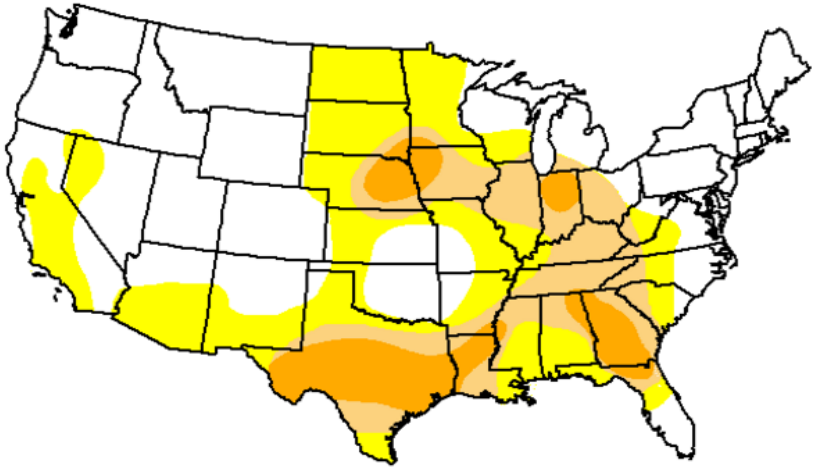


U.S. Drought Monitor
CONUS



January 4, 2000
(Released Thursday, Jan. 6, 2000)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	49.00	51.00	23.35	9.45	0.00	0.00
Last Week	-	-	-	-	-	-
3 Months Ago	-	-	-	-	-	-
Start of Calendar Year 1/4/2000	49.00	51.00	23.35	9.45	0.00	0.00
Start of Water Year	-	-	-	-	-	-
One Year Ago	-	-	-	-	-	-

Intensity:

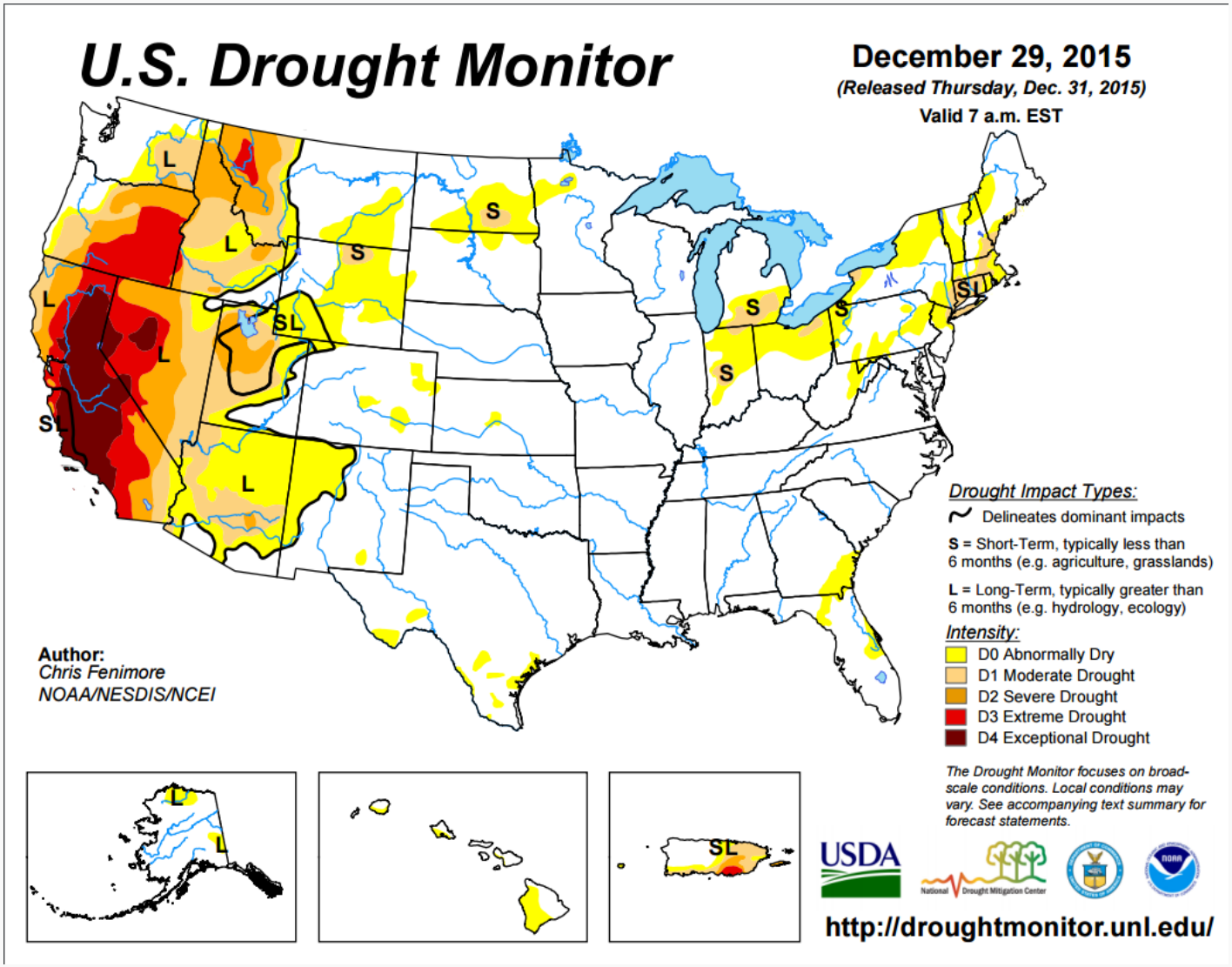
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author(s):
Staff
National Drought Mitigation Center

http://droughtmonitor.unl.edu/

The National Drought Mitigation Center | 3310 Holdrege Street | P.O. Box 830988 | Lincoln, NE 68583–0988
phone: (402) 472–6707 | fax: (402) 472–2946 | **Contact Us**


U.S. Drought Monitor
December 29, 2015
(Released Thursday, Dec. 31, 2015)
Valid 7 a.m. EST
Author:
Chris Fenimore
NOAA/NESDIS/NCEI
Drought Impact Types:
Delineates dominant impacts
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)
Intensity:
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought
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USDA
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http://droughtmonitor.unl.edu/

The Business Case for Water Innovation

66% of businesses identified exposure to water risks

…with financial impacts as high as **$2.5 bn US.**…

…Water stewardship offers clear benefits to at-risk companies

Source: CDP -https://www.cdp.net/en-US/Pages/HomePage.aspx

Water Technology Innovation

FATHOM™

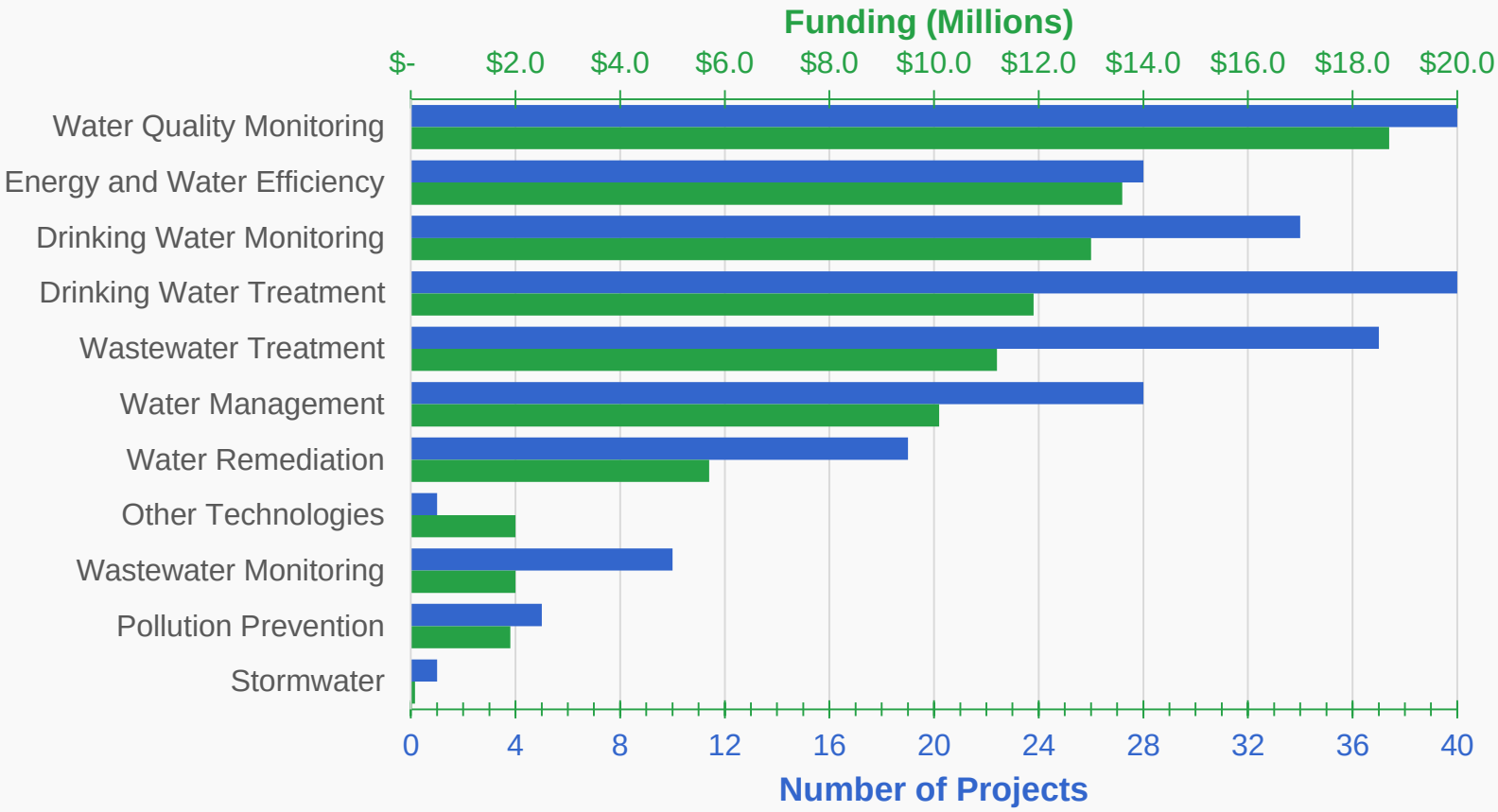
AQUAPORIN

aquisense technologies

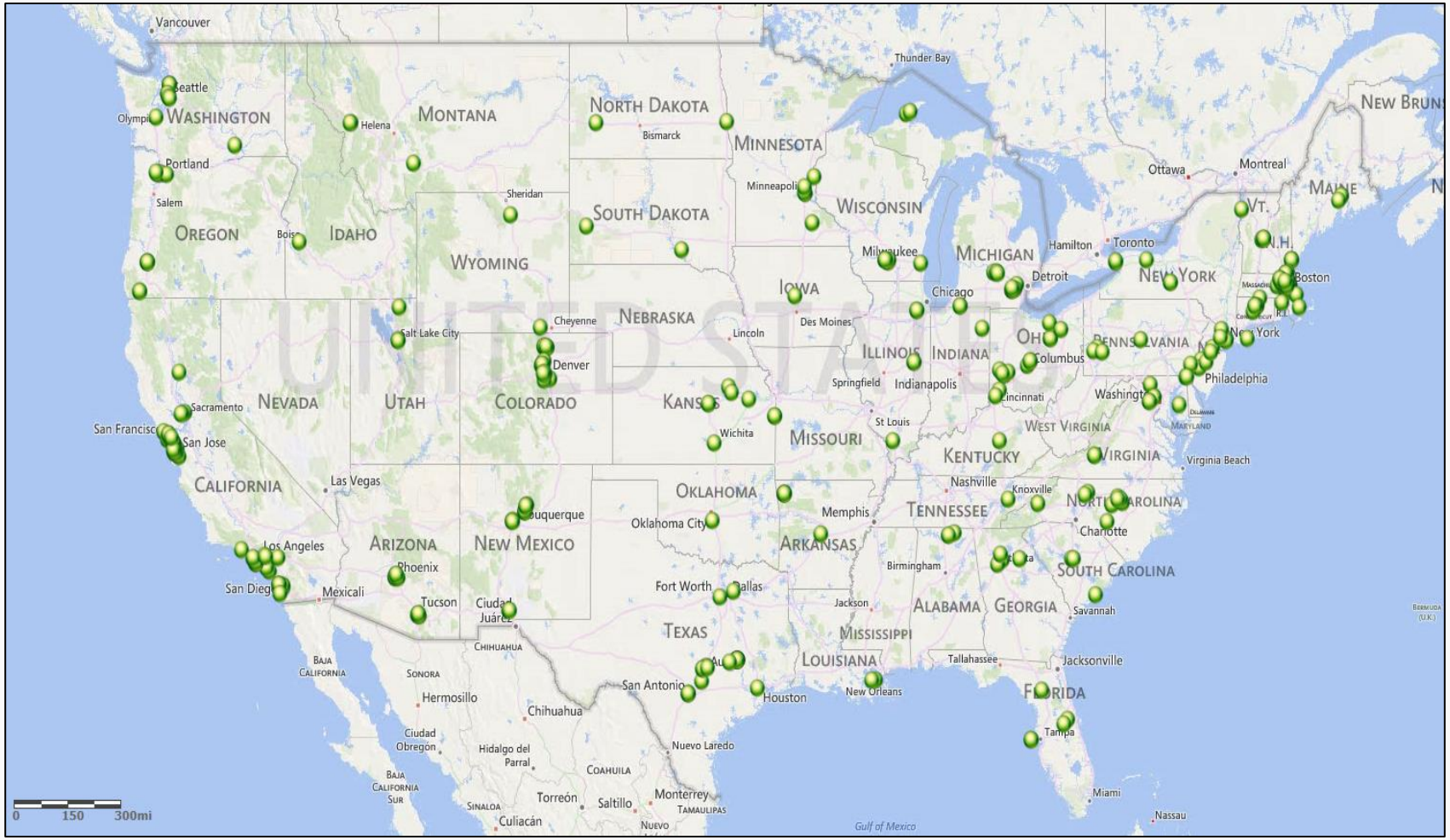
Which agencies fund SBIR awards for water technology? (2012-14)

Agency	Total Funding (Millions)	Number of Projects
DOE	$26.9	45
NSF	$20.2	54
USDA	$10.3	34
NIH	$9.0	23
DOD	$8.9	23
EPA	$7.8	38
NASA	$4.9	16
NOAA	$1.8	11
Total	**$90.0**	**244**

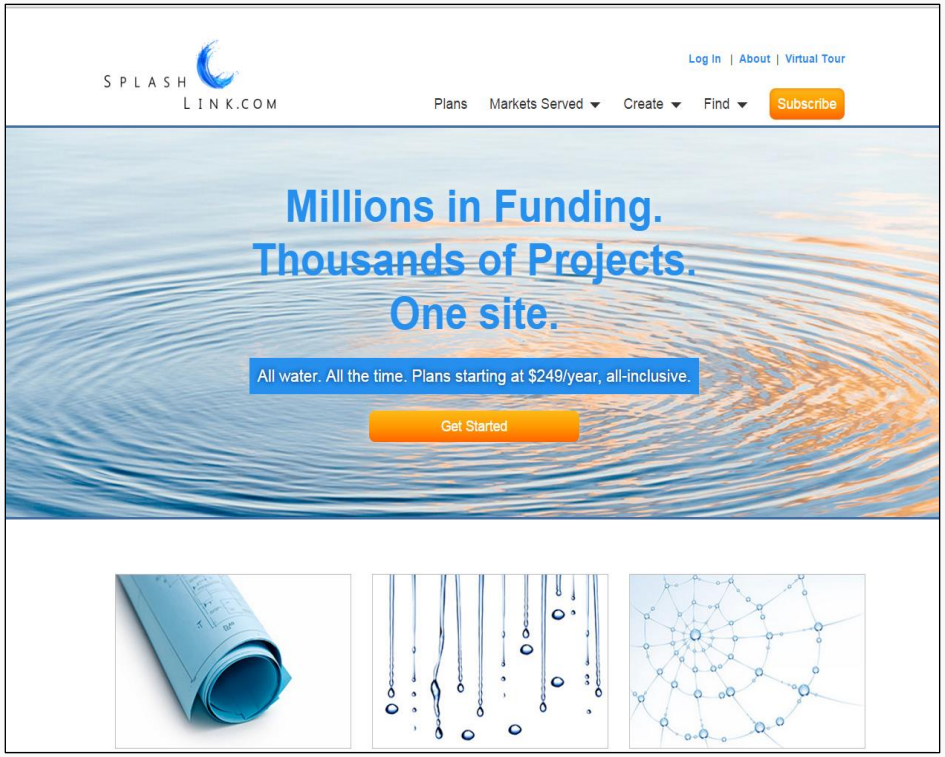
What kinds of technologies get funded? (2012-14)



Where are SBIR awardees? (2006-2012)



Procurement Innovation



Examples of Water Utility Innovation

Policy Innovation

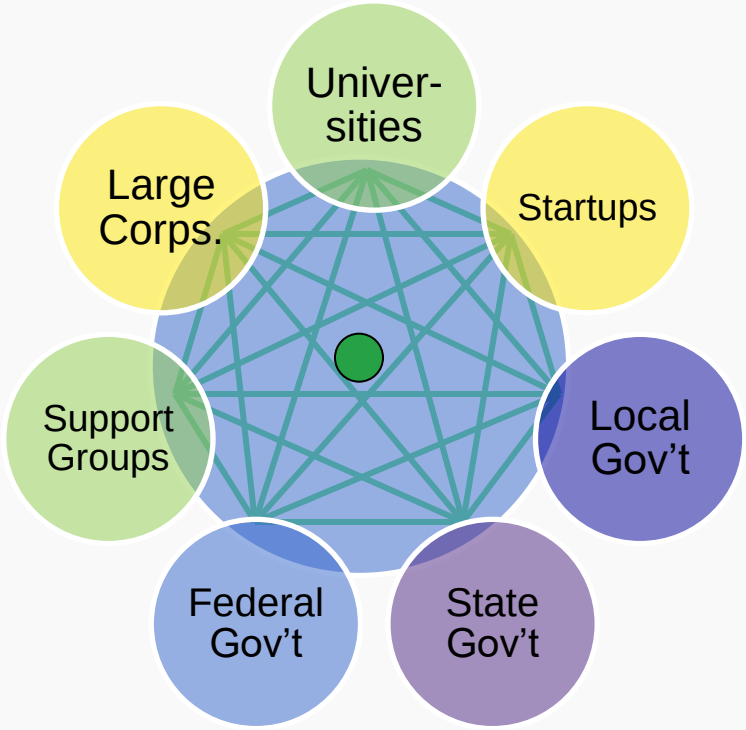
Finance Innovation

Community Based Water Innovation

The Cluster Concept

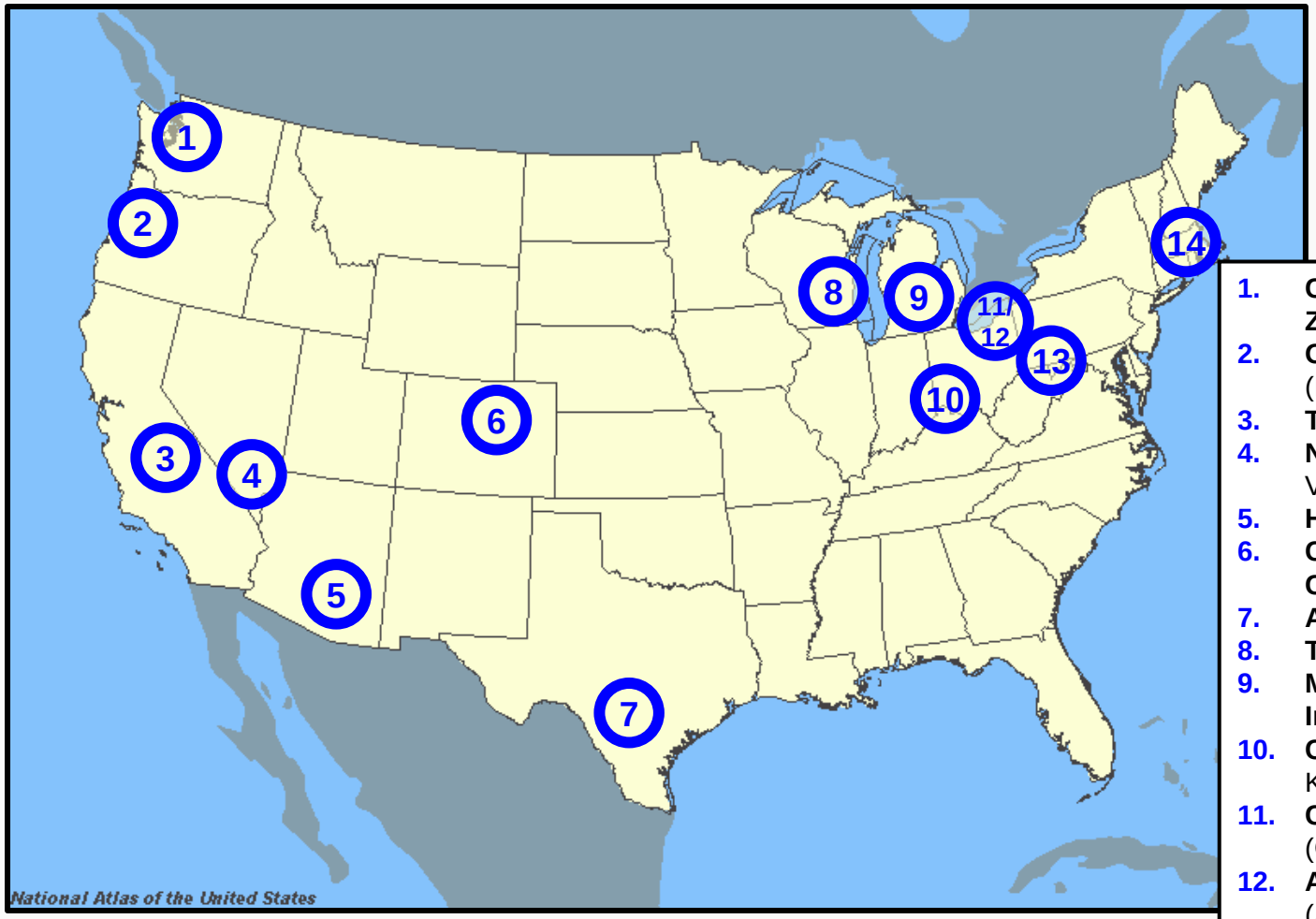
Clusters are **dense, regional networks** of companies and other groups in the same industry.

- **Clusters contribute to the growth of *existing* industries**
  - Industries participating in a strong cluster register higher growth of wages and innovation (as well as higher employment growth)
- **Clusters contribute to the creation of *new* industries**
  - New industries are more likely to emerge if the can integrate into an existing cluster, or if related or neighboring clusters are strong
- **Strong clusters contribute to the overall growth of the region**
  - Strong traded clusters in a region contribute to the employment growth of other traded and local activities in that region



Source: Delgado/Porter/Stern, 2012, 2014, "Clusters, Convergence, and Economic Performance," NBER and Research Policy

Locations of U.S. Water Clusters

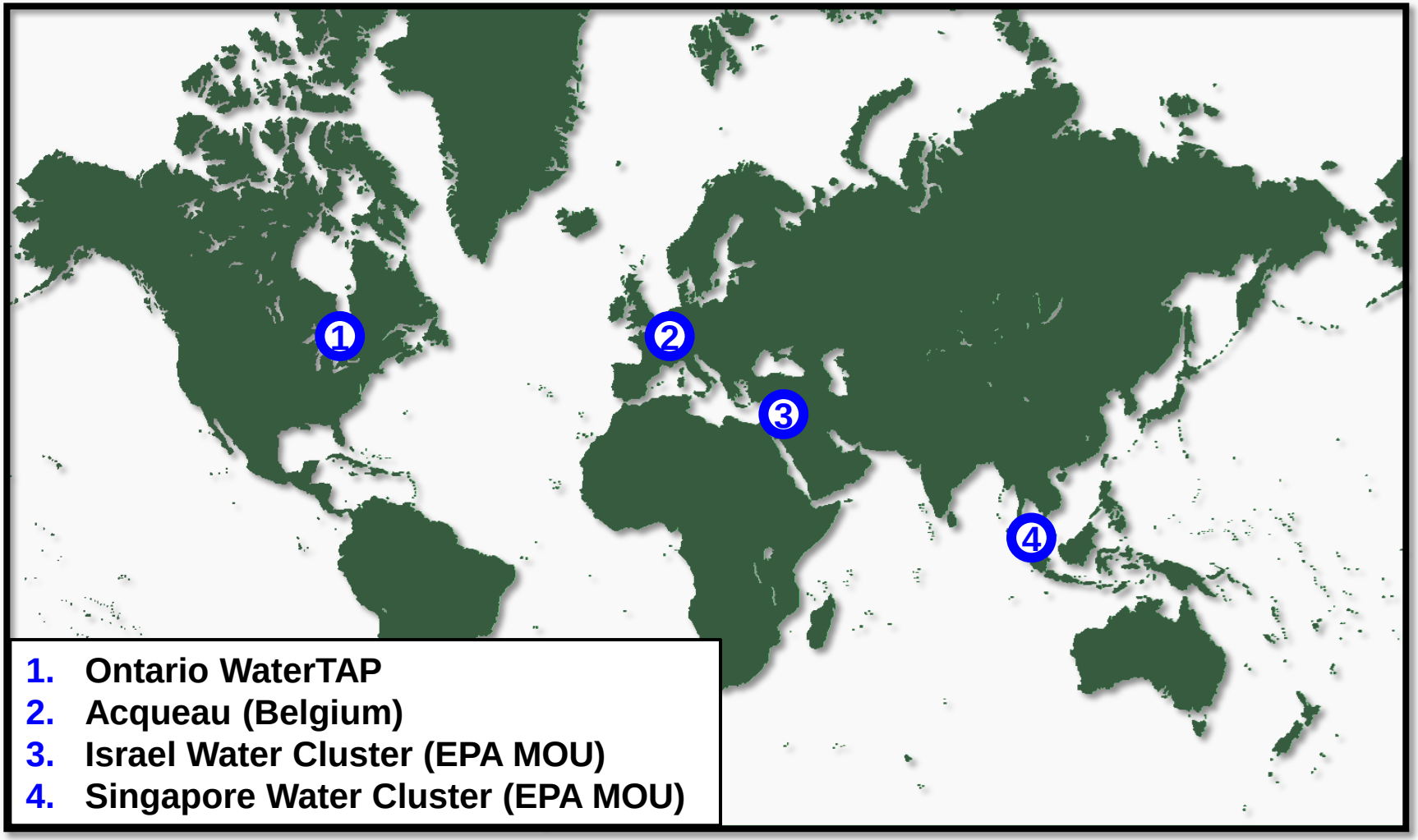


1. **Clean Urban Water Technology Zone** (Tacoma, WA)
2. **Oregon Water Tech Innovators** (Portland, OR)
3. **The BlueTechValley** (Fresno, CA)
4. **Nevada Center of Excellence** (Las Vegas, Nevada)
5. **H2OStream** (Tucson, Arizona)
6. **Colorado Water Innovation Cluster** (Fort Collins, CO)
7. **Accelerate H2O** (San Antonio, TX)
8. **The Water Council** (Milwaukee, MI)
9. **Michigan Water Technology Initiative**
10. **Confluence WTIC** (SW Ohio/N Kentucky/SE Indiana)
11. **Cleveland Water Alliance** (Cleveland, Ohio)
12. **Akron Global Water Alliance** (Akron, OH)
13. **Water Economy Network** (Pittsburgh, PA)
14. **New England Water Innovation**

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.

International Water Clusters



1. Ontario WaterTAP
2. Acqueau (Belgium)
3. Israel Water Cluster (EPA MOU)
4. Singapore Water Cluster (EPA MOU)

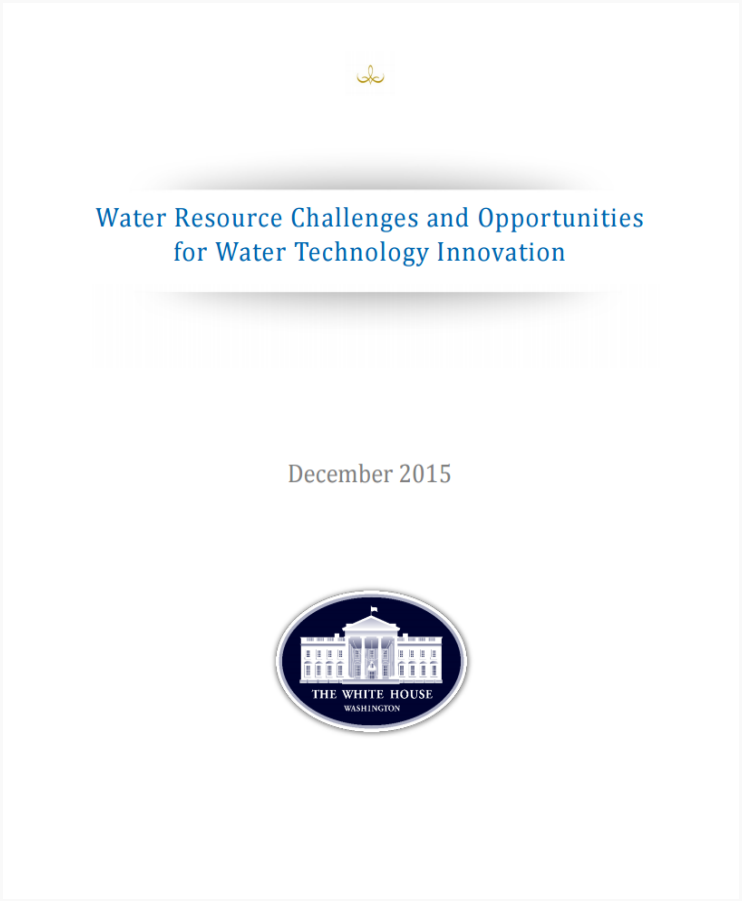
White House Water Innovation Strategy

- on March 22, 2016, the United Nation's World Water Day, the Administration will bring representatives from Federal, State, regional, local, and tribal governments together with private sector and other stakeholder groups to the White House to discuss ways in which the public-private water innovation strategy is making progress in this important area.

- Releasing a new report that lays out the water innovation strategy.

    - **Boosting water sustainability and long-term water security by increasing use of water-efficient and -reuse technologies.**

    - **Promoting and investing in breakthrough research and development (R&D) that will reduce the price, energy costs, and emissions requirements of new water supply technology to achieve "pipe parity" in the next decade.**



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http://www.epa.gov/clusters-program