

PRESENTED BY EARTHECHO INTERNATIONAL

World Water Monitoring

CHALLENGE

Test. Share. Protect.



2015 YEAR IN REVIEW



TAKE THE CHALLENGE!

The EarthEcho World Water Monitoring Challenge is an international program that equips anyone to better understand and protect their water resources, starting with the simple act of testing their local water and sharing the results. Participating in the EarthEcho World Water Monitoring Challenge is a great first step in creating positive change starting in your own community.

The Challenge provides a relevant and easy entry point to understanding and protecting the water we depend on for our daily needs. The simple action of testing and sharing data about a community's water connects individuals to a growing movement of citizen scientists who are working to conserve and protect water resources around the globe.

GETTING INVOLVED IS EASY,

JUST FOLLOW THESE THREE STEPS:

- 1 **Test** – Check water quality with a simple test kit that may be purchased from the WWMC website
- 2 **Share** – Enter your data online to our international database and share your story and photos with us on social media using @MonitorWater #MonitorWater16
- 3 **Protect** – Now that you've tested your water source use the information and resources available at www.monitorwater.org to make clean water and healthy waterways a priority every day.

TO LEARN MORE, VISIT WWW.MONITORWATER.ORG.

“All living things – plants, animals, and human beings – require clean water. As users of water and citizens of planet Earth, we must take responsibility for our impact on water quality.

Recognizing that education and awareness are important first steps toward action, we challenge you to test the quality of your waterways, share your findings, and protect our most precious resource. ”

– PHILIPPE COUSTEAU, JR.,
FOUNDER,
EARTHECHO INTERNATIONAL





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EXECUTIVE SUMMARY

“People can only protect what they love, but they can only love what they know.”

– PHILIPPE COUSTEAU, SR.

The Earth has a limited supply of fresh water, and our dependency on it means that we must use this resource wisely. Government efforts alone cannot provide the range and variety of information needed to assess water quality in every watershed. Therefore, it is essential that citizens become involved in protecting the health of their local water resources. Recognizing that education and awareness are important first steps toward understanding why it's important to protect this precious resource, EarthEcho International is proud to lead the World Water Monitoring Challenge.

The World Water Monitoring Challenge runs annually from March 22 (the United Nations' World Water Day) through the end of the year. During the 2015 monitoring period, citizens took action by monitoring lakes, streams, rivers, ponds, reservoirs, and other waterbodies for four key water quality indicators: dissolved oxygen, pH, temperature, and turbidity. Some groups went beyond measuring the four indicators and monitored for the presence of macroinvertebrates, such as dragonflies, mayflies, and scuds. Samples were taken on six continents in a range of settings – agricultural, commercial, residential, and industrial.

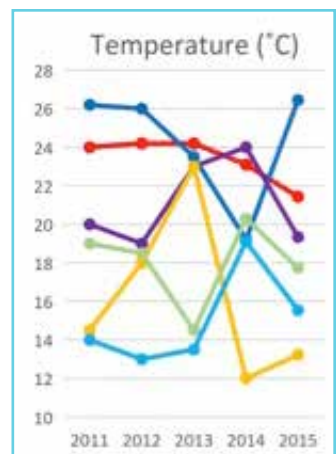
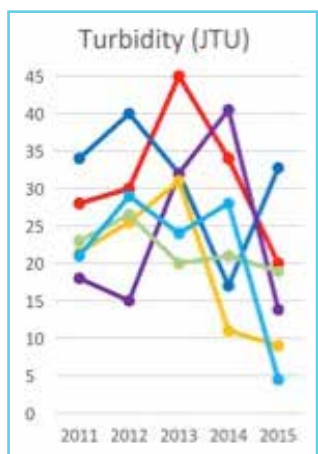
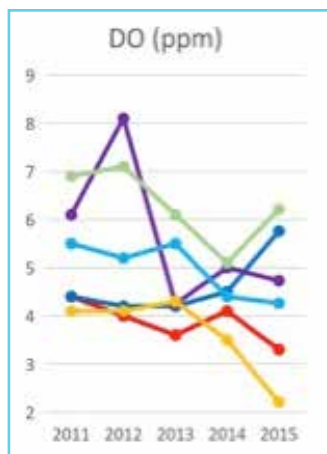
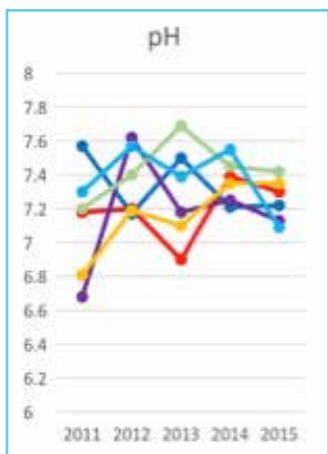
A total of **63,001** people from **31** countries reported participating in the 2015 World Water Monitoring Challenge. Taiwan took top honors for the number of participants, reporting **29,856**, with the United States (**18,564**) and Mexico (**7,710**) ranking second and third. A total of **3,973** monitoring events were logged in 2015. The United States took the lead with **476** unduplicated sites monitored, while Taiwan reported **200** sites and Canada **106**.





THE WORLD'S WATER AT A GLANCE

The data on the following pages represent the mean average results for the regions listed in the legend below. Data displayed spans the years 2011 to 2015. Participation data and water quality indicator averages by country and by U.S. state or territory can be found in the appendices of this report.





2015 WORLDWIDE LEADERS

EarthEcho International appreciates the contributions of every person who took part in the World Water Monitoring Challenge in 2015. A full account of each country's participation is located in the appendices of this report. Below is a summary of the numerical leaders in participation, both globally and within the United States.

LEADER IN SITES MONITORED (UNDUPLICATED)	
United States	476
Taiwan	200
Canada	106
Mexico	100
Malaysia	11
Romania	10
All Others	87
TOTAL	990

LEADER IN PARTICIPANTS	
Taiwan	29,856
United States	18,564
Mexico	7,710
Australia	1,822
Canada	1,192
Romania	466
All Others	3,391
TOTAL	63,001





2015 UNITED STATES LEADERS

A full account of each state’s participation is located in the appendices of this report. Below is a summary of the numerical leaders in participation within the United States.

LEADER IN SITES MONITORED (UNDUPLICATED)	
Colorado	69
Florida	54
North Carolina	33
California	32
Georgia	29
Pennsylvania	29
All Others	230
TOTAL	476

LEADER IN PARTICIPANTS	
North Carolina	5,641
Florida	3,607
Colorado	1,739
Iowa	986
South Carolina	943
Massachusetts	746
All Others	4,902
TOTAL	18,564

Total Number of monitoring events logged in the United States in 2015: **1,509**





PROGRAM HOST & SPONSORS

EARTHECHO INTERNATIONAL EarthEcho International – In January 2015, EarthEcho International became the program host of the World Water Monitoring Challenge. EarthEcho International’s mission is to inspire young people worldwide to act now for a sustainable future. The organization was founded in 2000 by siblings Philippe and Alexandra Cousteau in honor of their father Philippe Cousteau Sr., son of the legendary explorer Jacques Yves Cousteau. Philippe Sr.’s belief in “a world where every single child can breathe fresh air, drink clean water, and walk on green grass under a blue sky” serves as our vision to this day. One approach to accomplishing this mission is through the World Water Monitoring Challenge.

SPONSORS/PARTNERS:

The EarthEcho World Water Monitoring Challenge is made possible through the generous support of Xylem, LaMotte, and the Legacy Foundation Fund.

In addition, the following organizations supported the 2015 World Water Monitoring Challenge: Cisco WebEx, Google for Education, Hilton Worldwide, Source for Learning, and Southwest Airlines.



Xylem – On October 31, 2011, Xylem completed its spinoff from ITT Corporation, and began a new chapter as a leading global water technology company with operations in more than 150 countries; a passionate, talented, and experienced workforce; well-known industry-leading brands and water solutions products; 2013 revenues of \$3.8 billion; and a shared commitment to making a difference in communities around the world.

Xylem comprises five growth centers - Transport, Treatment, Dewatering, Analytics, and Applied Water Systems. These businesses are interconnected, anticipating and reflecting evolving needs and sharing their applications expertise to cover every stage of the water cycle.

Xylem is committed to delivering on its tagline, “Let’s solve water,” both through its business and corporate citizenship and social investment program, Xylem Watermark. As part of Watermark’s holistic approach to deliver sustainable water solutions, Xylem is proud to support the World Water Monitoring Challenge and serve as the global sponsor of the Stockholm Junior Water Prize competition.



LaMotte – LaMotte has been a committed leader in providing quality equipment and guidance for water analysis since 1919. Today LaMotte produces a broad line of portable test equipment and custom test kit services. LaMotte is a vital partner in World Water Monitoring Challenge, helping EarthEcho International manufacture and distribute the test kits used throughout the world each year.



APPENDICES





2015 DATA CAME FROM 31 COUNTRIES!

Algeria

Australia

Bulgaria

Canada

China

Costa Rica

Croatia

Cyprus

Ecuador

Indonesia

Italy

Jamaica

Malawi

Malaysia

Mexico

Mongolia

Netherlands

Nicaragua

Norway

Panama

Puerto Rico

Romania

Russia

Singapore

South Africa

Spain

Sweden

Taiwan

Thailand

United Kingdom

United States





PARTICIPATION & AVERAGES BY COUNTRY

COUNTRY	SITES (UNDUPLICATED)	PARTICIPANTS	TURBIDITY (JTU)	TEMPERATURE (CELSIUS)	DISSOLVED OXYGEN (MG/L)	PH
Algeria	1	84	20.00	16.00	6.00	8.00
Australia	8	1,822	13.82	19.34	4.73	7.13
Bulgaria	1	60	-	14.00	-	7.63
Canada	106	1,192	12.71	14.94	4.83	7.19
China	1	4	0.00	2.00	4.00	8.00
Costa Rica	2	59	0.00	13.50	6.00	7.50
Croatia	1	6	42.00	8.00	9.50	8.50
Cyprus	2	50	40.00	18.00	4.00	7.50
Ecuador	1	1	-	-	-	-
Indonesia	6	432	-	28.17	4.00	7.40
Italy	1	46	0.00	14.00	4.00	8.00
Jamaica	1	1	-	-	-	-
Malawi	1	3	25.00	26.00	5.00	7.60
Malaysia	11	197	28.33	27.33	4.36	7.50
Mexico	60	7,710	4.06	14.64	4.13	7.08
Mongolia	8	46	2.24	8.15	-	7.09
Netherlands	1	16	12.90	16.60	3.30	7.10
Nicaragua	1	8	40.00	28.00	6.00	7.20
Norway	2	94	10.00	8.00	2.00	6.75
Panama	1	15	32.00	5.33	7.00	-
Puerto Rico	1	10	-	-	0.00	7.40
Romania	10	466	2.75	13.98	1.78	7.37
Russia	3	80	31.71	4.57	3.80	7.43
Singapore	1	50	-	-	-	-
South Africa	5	59	19.00	21.60	2.25	7.10
Spain	1	10	-	-	-	7.50
Sweden	1	6	40.00	8.00	4.00	7.00
Taiwan	200	29,856	33.24	26.79	5.77	7.22
Thailand	2	34	40.00	28.00	6.50	7.00
United Kingdom	3	36	37.50	15.00	3.50	7.25
United States	476	18,564	20.27	18.35	6.78	7.48
TOTAL/AVERAGES	919	61,107	21.19	16.09	4.53	7.40



PARTICIPATION & AVERAGES BY U.S. STATE OR TERRITORY

STATE	SITES (UNDUPLICATED)	PARTICIPANTS	TURBIDITY (JTU)	TEMPERATURE (CELSIUS)	DISSOLVED OXYGEN (MG/L)	PH
Alabama	3	114	27.80	18.00	4.40	7.20
Alaska	1	9	0.00	2.00	8.00	7.50
Arizona	1	2	0.00	18.00	-	8.00
Arkansas	4	82	24.67	21.87	5.20	7.55
California	32	393	14.76	17.05	7.01	7.44
Colorado	69	1,739	10.96	14.11	6.57	8.23
Connecticut	2	39	20.00	17.00	5.00	7.00
District of Columbia	6	155	27.86	16.44	5.38	7.29
Florida	54	3,607	3.76	23.27	6.71	7.30
Georgia	29	381	5.78	17.63	8.38	7.23
Hawaii	1	2	50.00	26.00	3.00	7.00
Illinois	3	140	13.75	16.50	7.25	7.38
Indiana	1	1	1.00	18.00	8.80	7.80
Iowa	1	986	3.00	1.00	1.00	12.0
Kansas	28	114	54.38	19.27	2.41	7.69
Kentucky	4	156	32.00	17.60	4.84	6.80
Louisiana	1	40	40.00	30.00	8.00	7.00
Maryland	2	14	-	21.70	4.60	7.15
Massachusetts	13	746	17.57	18.66	5.48	7.07
Michigan	13	46	5.83	23.63	4.00	7.63
Minnesota	11	404	23.14	13.63	6.78	7.87
Mississippi	5	192	33.13	27.50	7.26	6.93
Missouri	1	15	18.50	24.20	8.00	7.40
Montana	2	34	40.00	4.94	17.50	7.19
Nebraska	3	7	16.67	19.67	1.80	8.23
New Jersey	3	65	27.67	12.03	6.00	7.00
New Mexico	16	78	53.69	14.28	6.00	7.49
New York	11	279	15.70	15.80	6.85	6.78
North Carolina	33	5,641	41.61	19.50	8.78	6.93
Ohio	11	184	23.05	12.29	3.84	7.34
Oklahoma	3	11	26.67	13.33	7.33	7.33
Oregon	2	27	30.00	11.50	2.00	7.25
Pennsylvania	29	181	9.06	20.87	6.48	7.46
South Carolina	20	943	9.99	25.81	4.22	7.01
South Dakota	2	17	10.25	14.00	7.68	6.70
Tennessee	11	739	8.92	18.27	4.50	7.10
Texas	2	84	35.77	20.23	5.09	7.05
Utah	1	1	-	7.10	13.75	8.53
Vermont	1	8	0.00	2.50	3.00	7.60
Virginia	8	85	26.12	18.09	3.81	7.44
Washington	10	116	6.45	11.72	4.66	7.47
West Virginia	16	107	6.52	16.05	10.33	7.59
Wisconsin	4	114	32.00	18.74	6.76	7.43
Wyoming	3	418	32.33	22.23	3.22	8.06
TOTAL/AVERAGES	476	61,107	20.96	16.86	6.09	7.49