



**World Water
Monitoring
Day**

07



Year in Review



Table of Contents



Highlights

4



**Coordinators, Sponsors
and Partners**

12



Participation

20



Appendices

26

07

World Water Monitoring Day™ is an international education and outreach program that builds public awareness and involvement in protecting water resources around the world by engaging citizens to conduct basic monitoring of their local water bodies.

An easy-to-use test kit enables everyone from children to adults to sample local water bodies for a core set of water quality parameters including temperature, acidity (pH), clarity (turbidity) and dissolved oxygen (DO). Results are shared with participating communities around the globe through the World Water Monitoring Day™ Web site.

The Water Environment Federation (WEF) and the International Water Association (IWA) coordinate World Water Monitoring Day™ (WWMD™). October 18 was initially selected as World Water Monitoring Day™ in recognition of the anniversary of the U.S. Clean Water Act, which was enacted by the U.S. Congress in 1972 to restore and protect the country's water resources. In 2007, the date was changed to September 18 to facilitate participation in parts of the world where temperatures reach freezing by October 18.

WEF and IWA plan to expand participation to one million participants in 100 countries by 2012.

Executive Summary

World Water Monitoring Day™ is officially observed each year on September 18, which marks the beginning of a month-long period of water quality monitoring ending October 18. Due to the high volume of participants in 2007, the monitoring period was extended until December 18. This date also served as the deadline for reporting data to the WWMD™ database for inclusion in the year's final report.

WWMD™ participants sampled their local lakes, streams, rivers, ponds, estuaries and other water bodies for four key water quality indicators: dissolved oxygen (DO), pH, temperature and turbidity. Some groups also monitored for the presence of certain macroinvertebrates (bugs) such as dragonflies, mayflies and scuds. Samples were taken in a range of settings—agricultural, commercial, residential and industrial—on six continents.

Groups and individuals from 43 countries reported World Water Monitoring Day™ data in 2007—four more than the 39 logged in 2006. Sites in the United States accounted for approximately 63 percent of the 3,544 monitored worldwide. After the United States, Taiwan (444) and Spain (343) led global WWMD™ efforts in the number of sites monitored.

In 2007, 10,636 WWMD test kits were distributed—2,500 more than were distributed in 2006.

A total of 46,117 participants¹ monitored sites worldwide, which represents a 61 percent increase over 2006. Countries where registered participation occurred in 2007 include:

Argentina	Costa Rica	Liberia	Poland
Armenia	Germany	Malaysia	Singapore
Aruba	Iceland	Mexico	South Africa
Australia	India	Mozambique	Spain
Belarus	Indonesia	Namibia	Sudan
Brazil	Iran	Nepal	Swaziland
Cameroon	Israel	Netherlands	Taiwan
Canada	Italy	New Zealand	United Kingdom
Chile	Japan	Nigeria	United States
China	Kazakhstan	Norway	Zimbabwe
Colombia	Kenya	Peru	

The coordinators of World Water Monitoring Day™, the Water Environment Federation (WEF) and the International Water Association (IWA), would like to acknowledge the generous financial and in-kind support in 2007 from primary sponsors the U.S. Geological Survey, the U.S. Environmental Protection Agency, PerkinElmer, ITT Corporation, CH2M HILL and Smithfield Foods.

¹ The coordinators of WWMD™ recognize that a small percentage of participants each year have monitored at more than one site and/or more than one time. Thus, it is likely that this figure is one percent to five percent higher than the actual number of people who monitored. Given this range, the coordinators estimate that between 43,811 and 45,656 individuals participated in WWMD™ 2007.

A Note on World Water Monitoring Day Data

Participation data includes only those sites and countries where participants reported data, not those that registered but failed to report.

07

Highlights



2007 marked the beginning of a period of growth and change for World Water Monitoring Day™. In addition to welcoming some new sponsors (PerkinElmer, ITT Corporation) and partners (Appalachian Trail Conservancy, H2bid.com), the program and its leadership took some important steps toward systemizing WWMD™ resources and identifying emerging areas of need. This work will continue into 2008 when a new and improved WWMD™ database will launch, promising to make the experience as easy as possible for every participant. The following pages include just some of the highlights from 2007.

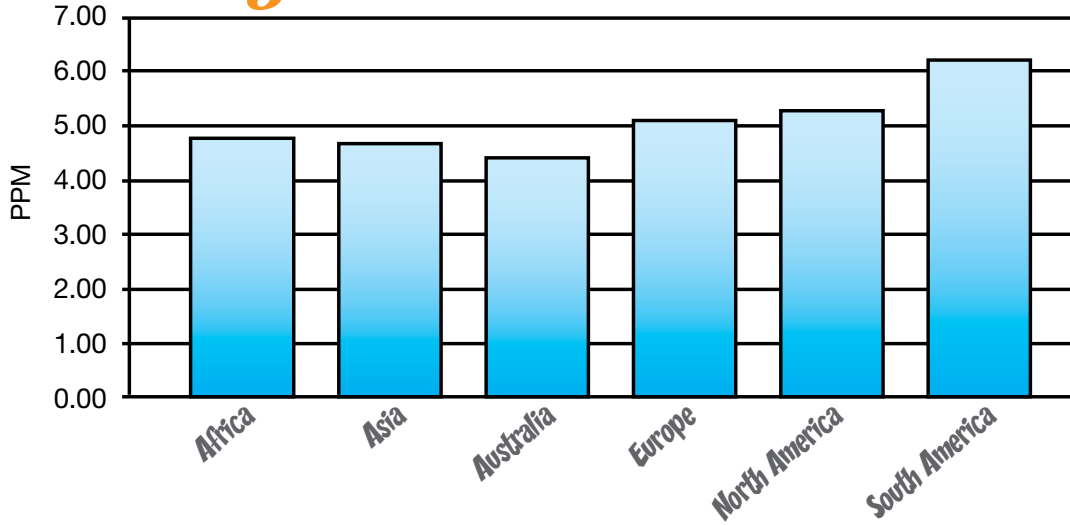
World's Water at a Glance

The following figures represent the results of WWMD™ 2007 for the continents of North America, South America, Europe, Asia, Africa and Australia based upon the four WWMD™ water quality parameters. Please bear in mind that the results reported for World Water Monitoring Day™ *do not*¹ constitute a completely thorough and accurate portrayal of the health of the world's water. More detailed information is available in the appendices of this report.

Continent	DO	pH	Temperature	Turbidity
Africa	4.75	7.88	23.35	28.78
Asia	4.67	7.15	23.04	39.83
Australia	4.41	7.00	17.50	21.82
Europe	5.07	7.35	10.44	6.07
North America	5.31	7.68	18.99	7.44
South America	6.19	7.53	20.01	22.71

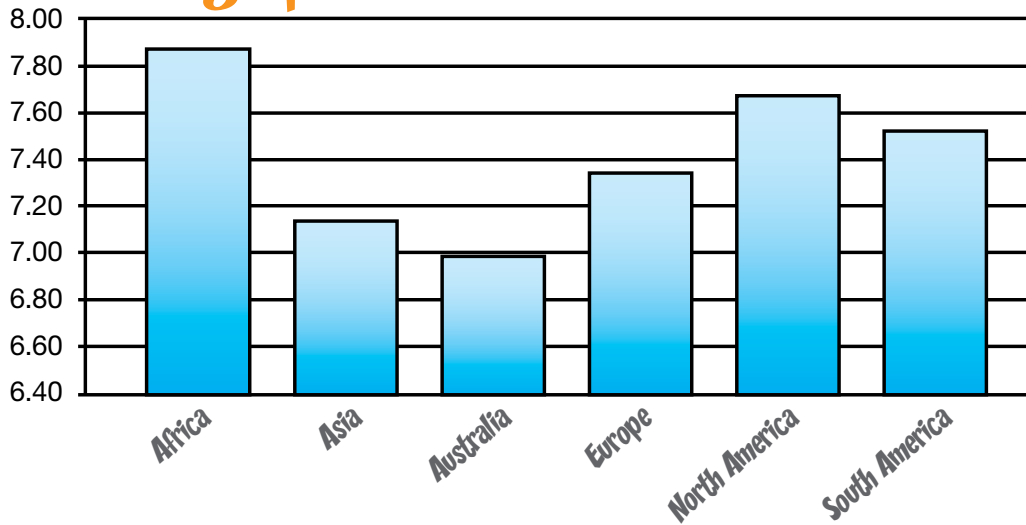
¹ Credible water quality sampling requires using standard quality assurance protocols and is conducted with trained volunteer monitoring groups and professionals around the world.

Average DO

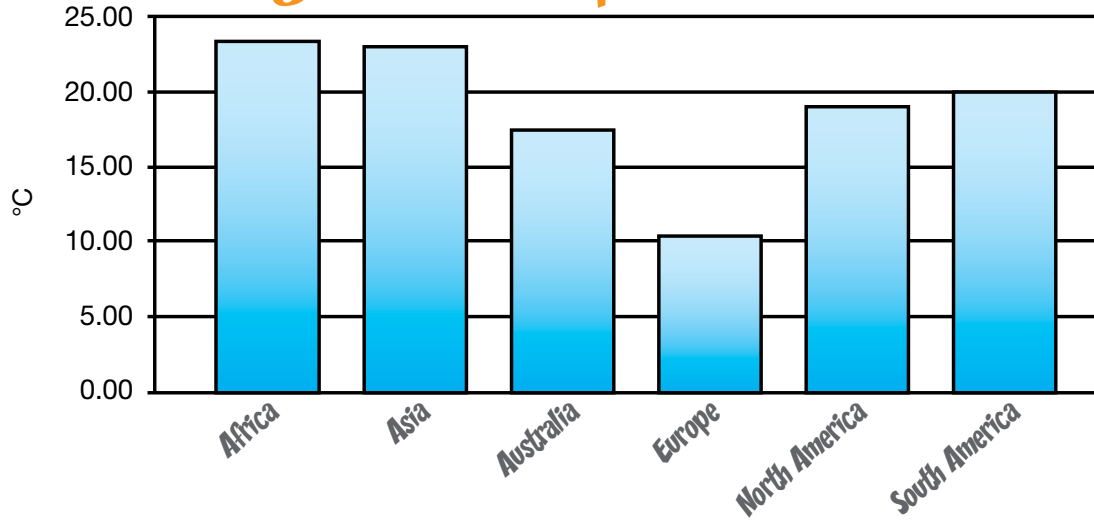


World's Water at a Glance

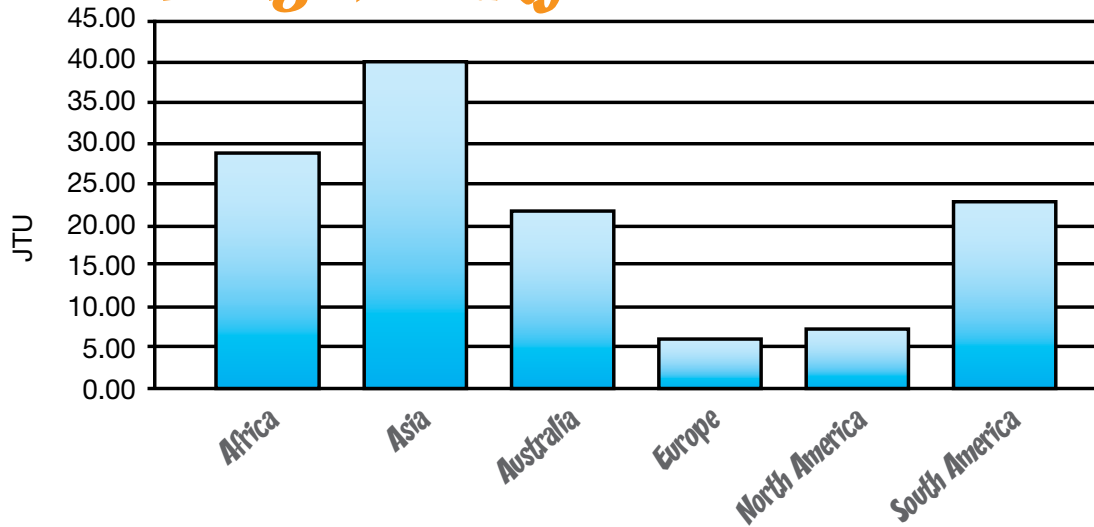
Average pH



Average Water Temperature



Average Turbidity





On Location

Cincinnati, Ohio, USA

Submitted by, CH2M HILL

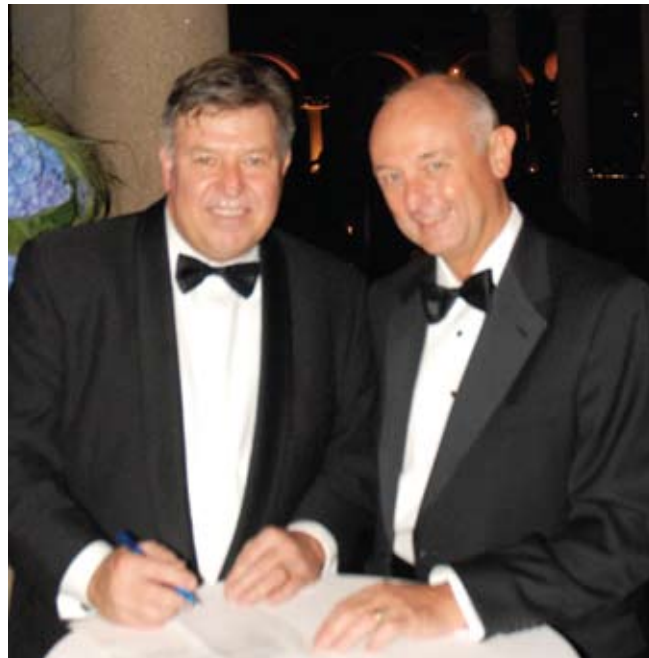
In observance of WWMD™, CH2M HILL employees in Cincinnati, Ohio collaborated with two of CH2M HILL's Community Partner Programs to deliver presentations to seven third grade classes in the Lebanon School District. Employees brought in water samples and allowed the students to test the water for pH, temperature, turbidity and dissolved oxygen using the WWMD™ monitoring kits.

The presenters Tim McGarity and Penny Brooks had recently returned from Rwanda where they were working on an Engineers Without Borders-USA (EWB-USA) project to provide clean drinking water. These presentations provided an opportunity for McGarity and Brooks to share their Rwandan experiences with the students and to introduce them to WWMD™. Jointly sharing both programs allowed the students to gain a greater understanding of water conservation and appreciation.



WEF and IWA Solidify WWMD™ Partnership

Though WEF and IWA have worked together to coordinate WWMD™ since WEF adopted the program in July of 2006, the two organizations officially sealed this partnership with the signing of an agreement on August 10, 2007. The signing took place rather appropriately during World Water Week in Stockholm, Sweden. With the signing of this agreement, Executive Directors William Bertera (WEF) and Paul Reiter (IWA) (pictured below) formally acknowledged the collaborative nature of the program and recognized both organizations as owners of WWMD™.





On Location

Puerto Rico, USA

Submitted by, CH2M HILL

New WWMD™ Resource Materials Introduced

In 2007, WWMD™ participants had several additional resources available to them—all designed to make their monitoring experience more enjoyable.

WWMD™ DVD Upgraded

With the assistance of sponsor CH2M HILL, the program released a new version of the WWMD™ instructional and promotional videos on DVD. This resource was distributed widely—and free-of-charge—to participants around the world via direct mail and distribution at festivals, fairs, trade shows and other events.

Foreign Language Materials Debut

As the program continues to grow outside of the U.S., the coordinators have witnessed a need for foreign language WWMD™ materials. 2007 marked the debut of Spanish and French language WWMD™ brochures and kit instruction booklets. The brochure and instruction booklet were made available for download from the program Web site. These materials will also be available in Portuguese and Chinese for WWMD™ 2008.

Resources Developed for WWMD™ Event Planners

A host of other resources was also made available for download from the WWMD™ Web site in 2007. Among these were customizable fliers and certificates of participation, a WWMD™ event planner's guide, t-shirt art and much more. Additional resources, such as a children's book about water monitoring, are planned for WWMD™ 2008.

2007 marked the first year that CH Caribe, CH2M HILL's Puerto Rican subsidiary, hosted World Water Monitoring Day™ activities. Employees partnered with the science and math club of Miranda Middle School in Guaynabo to sample the Bayamón and the Guaynabo Rivers.

A presentation was also given to the Environmental Science Group at Ana Delia Flores High School in Fajardo. After the presentation, the students and CH2M HILL employees conducted a monitoring activity at the Fajardo River.

In addition to partnering with schools, many employees conducted water monitoring events with their families. In total, more than 70 participants collected 27 samples from nine waterbodies.





On Location

Michigan City, Indiana, USA

Submitted by, Kathleen Janatik
Indiana Water Environment Association

Knapp Elementary School fourth-graders got a chance to get out of the classroom and get their hands dirty while learning about water quality with Michigan City Sanitary District Chemist Kathleen Janatik during a field trip to the Striebel Pond Flood Control Facility.

Janatik, who is also a volunteer for the Indiana Water Environment Association's Public Education Committee, set up a temporary lab under a pavilion and mentored 70 students on the water cycle, water conservation, wastewater, aquatic organisms and water quality monitoring. Students were grouped into teams and then proceeded to march .75 miles to the small bridge sampling site at Striebel Pond. Each student played a role in the collection of the water sample.

Once they returned to the makeshift field laboratory, each team completed testing for pH, dissolved oxygen, temperature and turbidity. Jodi Wilson, the students' teacher, later assisted students as they reported their findings online at the World Water Monitoring Day™ Web site.



WWMD™ Honored at Clean Water Gala

On September 18, World Water Monitoring Day™ was recognized as an outstanding public awareness program at the Clean Water America Gala Celebration in Washington, D.C. The event, which was a salute to the 35th anniversary of the passage of the U.S. Clean Water Act, was widely attended by members of the U.S. Congress, senior Environmental Protection Agency (EPA) officials, water association and industry leaders. WEF President Mohammad Dahab accepted the award on behalf of World Water Monitoring Day™, and attendees enjoyed a screening of the new, four-minute WWMD™ promotional video.

Steering Committee Convenes for First Time

The WWMD™ Steering Committee works with the coordinators in developing the strategic plan, operational plan and growth goals for the program over a three-year period. The committee is comprised of representatives of the coordinators and members from each major sponsor.

This leadership body met for the first time at WEF headquarters in Alexandria, Va. on August 28, 2007 to discuss the program's goals, marketing and promotion, product development, communication strategies, and the potential for new technologies vis-à-vis the WWMD™ Web site.

The WWMD™ Steering Committee includes:

- Bill Gill, Smithfield Foods
- Benita Best-Wong, U.S. Environmental Protection Agency
- Robert Hirsch, U.S. Geological Survey
- Patrick Karney, CH2M HILL
- Sandy Schiller, PerkinElmer
- Bjorn von Euler, ITT Corporation
- Stephanie Wasco, PerkinElmer



WEF, IWA Launch WWMD™ 2007 on Banks of the Potomac

U.S. Congressman Rep. Jim Moran (D-VA-08) and U.S. EPA's Assistant Administrator for the Office of Water, Benjamin H. Grumbles joined the Water Environment Federation (WEF), the International Water Association (IWA) and over 200 participants on September 18 to kick-off activities for World Water Monitoring Day™ 2007. In his opening remarks, Congressman Moran said that an event such as World Water Monitoring Day™ encourages citizens to be “a little more knowledgeable about their own watersheds and empowered to protect them”.

During the World Water Monitoring Day™ Celebration, students from Kimball Elementary School (Washington, DC), Melvin J. Berman Hebrew Academy (Rockville, Md., USA) and Beth Tfiloh Dahan Community Day School (Reisterstown, Md., USA) performed tests on the Potomac River and visited several educational and interactive displays on a number of water quality issues.

Participating organizations included the Girl Scouts of the USA, the Appalachian Trail Conservancy, the Smithsonian Environmental Research Center, the Jewish National Fund, LaMotte Company, DCWASA, Interstate Commission on the Potomac River Basin, the National Environmental Education Foundation, the Campagna Center and the Alexandria Division of Environmental Quality.



07

Coordinators, Sponsors and Partners



World Water Monitoring Day™'s committed sponsors and partners, along with countless other local schools, civic organizations, volunteer monitoring groups and interested individuals, have helped build a strong foundation for its continuing success. These organizations are serious in their desire to support growing opportunities to educate and involve people from all over the world who show an interest in the health of their local water resources. This diversity of this group as shared on these pages demonstrates the important role water plays in every sector of our society.

2007 Coordinators



Water Environment Federation

Formed in 1928, the Water Environment Federation (WEF; Alexandria, Va.) is a not-for-profit technical and educational organization with more than 33,000 individual members and 81 affiliated Member Associations representing an additional 50,000 water quality professionals throughout the world. WEF and its member associations proudly work to achieve their mission of preserving and enhancing the global water environment.

WEF's mission is the basis for all of its programs and activities. WEF is governed by a member-appointed board of trustees acting on behalf of its membership to advance its mission of providing information, education, and resources to water quality professionals and the public. Visit WEF online at www.wef.org.



International
Water Association

International Water Association

The International Water Association (IWA; London (HQ), Den Haag, Singapore, Beijing) is the global network of water professionals, spanning the continuum between research and practice and covering all facets of the water cycle. There are approximately 10,000 individual and 400 corporate members operating in 130 countries, representing the leading edge in their field of specialty.

The ultimate strength and potential of IWA lies in the professional and geographic diversity of its membership – a “mosaic” of member communities including academic researchers and research centers, utilities, consultants, regulators, industrial water users and equipment manufacturers.

IWA is promoting collaboration among its diverse membership groups, and sharing the benefit of the very best of knowledge on water science and management worldwide. Visit IWA online at www.iwahq.org.

2007 Sponsors

The following sponsors made WWMD™ 2007 possible through their generous financial support and participation:



The U.S. Geological Survey

The U.S. Geological Survey (USGS) has the principal responsibility within the federal government to provide the hydrologic information and understanding needed by others to achieve the best use and management of the nation's water resources. To accomplish this mission, the Water Resources Division, in cooperation with state, local, and other federal agencies, systematically collects and analyzes data to evaluate the quantity, quality, and use of the nation's water resources. It provides results of these investigations to the public. The USGS also conducts water-resources appraisals describing the occurrence and availability, as well as physical, chemical, and biological characteristics, of surface and groundwater.

In support of WWMD™ 2007, USGS Water Science Centers hosted conferences, hands-on demonstrations and other fun-filled activities for a multitude of students, citizens, and public officials from the Missouri River in North Dakota to the banks of the Potomac and James Rivers in the eastern U.S. USGS hydrologists and technicians performed stream gage and real-time data demonstrations; water-quality sampling; fish and invertebrate collections; and equipment installations. Presentations and discussions focused on an understanding of stream resources requiring monitoring for stream flow, chemistry, and aquatic organisms. For full details and information about USGS activities in support of World Water Monitoring Day™, visit the Web at www.usgs.gov/homepage/science_features/world_water_2007.asp.



U.S. Environmental Protection Agency

The mission of the U.S. Environmental Protection Agency (EPA) is to protect human health and to safeguard the natural environment — air, water, and land — upon which life depends. For more than three decades, the EPA has been working for a cleaner, healthier environment for the American people. EPA provides leadership in the nation's environmental science, research, education, and assessment efforts by working closely with other federal agencies, state and local governments and Indian tribes to develop and enforce regulations under existing environmental laws.

EPA was again a primary partner of WWMD™ in 2007. Benjamin Grumbles, assistant administrator for the Office of Water, was a featured guest at the official World Water Monitoring Day™ kick-off celebration in Alexandria, Virginia on September 18. EPA employees also assisted with hands-on learning activities at the event. In addition, administrators and staff from several regional EPA offices also developed outreach events, hosted displays, and participated with local groups as they monitored waters throughout September and October.



PerkinElmer

PerkinElmer plays an active role in the stewardship of the planet's most important resources. As part of its newly created EcoAnalytix™ initiative, PerkinElmer is dedicated to improving and protecting the global water supply and broader ecosystem.

PerkinElmer's analytical measurement systems are



On Location

Waterbury, Connecticut, USA

Submitted by, Wanda M. Velez
Woodard & Curran

required to monitor and analyze our water resources in order to ensure that they are safe. PerkinElmer's water quality solutions detect harmful substances in the world's water supply, including trace metal, organic, pesticide, chemical and radioactive contaminants.

PerkinElmer is working with and through customers, local governments and NGOs and the public to generate awareness of topics of importance to global health and wellbeing to people across the world. In an effort to generate awareness about the importance of safe water, as well as to keep laboratories conducting water analysis informed about the water issues and challenges that are at the forefront of our global water resources, PerkinElmer has recently established a partnership with the Water Environment Federation and is a proud sponsor of World Water Monitoring Day™ (WWMD™). For more information, visit www.perkinelmer.com/ecoanalytix.



Engineered for life

ITT Corporation

ITT Corporation is a global engineering and manufacturing company with leading positions in the markets it serves, generating 2006 sales of \$7.8 billion. ITT is the world's premier supplier of pumps, systems and services to move, control and treat water and other fluids. The company is a major supplier of sophisticated military defense systems, and provides advanced technical and operational services to a broad range of government agencies.

ITT also produces electrical connectors, used in telecommunications, computing, aerospace and industrial applications. Further, ITT makes industrial components for a number of other markets, including transportation, construction and aerospace. Based in White Plains, New York, ITT employs approximately 40,000 people around the world.

ITT is a committed partner of and sponsor of World Water Monitoring Day™.

John Reed, head of the science department at Crosby High School in Waterbury, Conn., is leading efforts to educate students about what they can do to protect their local environment. Approximately 20 students visited Hancock Brook as part of Reed's AP Environment class to collect water samples and test them for key water quality indicators.

A number of the students collected data that was posted online and then shared with the world through the World Water Monitoring Day™ Web site. Waterbury's Department of Public Works, in conjunction with environmental consulting firm Woodard & Curran's Cheshire office, sponsored the sampling kits used by the students.

"Through this effort these students are learning about the watersheds in which they live, how watersheds work, and how protecting their waters can have beneficial impacts downstream," said Woodard & Curran Vice President Jay Sheehan, P.E.





On Location

Wexford, Pennsylvania, USA

Submitted by, Barbara Kimbell

Nineteen Girl Scout troops ranging in age from kindergarten through high school participated in North Park Outdoor Skills Day in Wexford, Pa. on September 29. Ninety-two girls and 34 adults participated in the event.

Not only did the scouts fulfill all requirements for their Water Drop Patch, they also earned other Girl Scout badges such as Make the World a Better Place (Daisy), Eco-Action (Brownie/Junior) and From Shore to Sea (Cadette/Senior).

All troops conducted water testing, learned about the benefits of wetlands and went on a scavenger hunt to identify typical species of plants and animals in the park wetlands. They performed a “spongy wetlands” experiment that illustrated what happens to our community when wetlands are destroyed.

Older Junior and Senior scouts taught the younger scouts about environmental issues, playing the “web of life” game or demonstrating the water cycle. The older scouts also designed posters that highlighted the importance of maintaining our wetlands to post in the park for other visitors. All 92 scouts participated in a lake clean-up project.



CH2M HILL

Headquartered in Denver, Colo., employee-owned CH2M HILL is a global leader in engineering, construction and operations for public and private clients. With more than \$5 billion in revenue, CH2M HILL is an industry-leading program management, construction management and design firm, as ranked by *Engineering News-Record* (2007). The firm’s work is concentrated in the areas of transportation, water, energy, environment and industrial facilities. The firm has long been recognized as a most-admired company and leading employer by business media and professional associations worldwide. CH2M HILL has more than 23,000 employees in regional offices around the world.

CH2M HILL is a valued sponsor and partner of WWMD™. The firm’s U.S. employees across the United States celebrated WWMD™ through a variety of outreach events, including school presentations and monitoring events at local rivers, lakes and other water bodies from Southern California to San Juan (Puerto Rico). Additionally, CH2M HILL produced the World Water Monitoring Day™ promotional and instructional videos. Read how individual CH2M HILL offices participated on pages eight and nine of this report.

Smithfield

Smithfield Foods

Smithfield Foods is the world’s largest pork processor and hog producer, with revenues approaching \$13 billion in fiscal 2007. In the United States, the company is also the leader in turkey processing, cattle feeding and several packaged meat categories, as well as the fifth-largest beef processor.

Smithfield Foods has been a supporter and sponsor of World Water Monitoring Day™ for several years. In 2007, employees from 17 Smithfield subsidiary operations in 12 states, Poland and Romania worked with hundreds of volunteers to collect and test water samples from local waterways. As in past years, company representatives teamed with local schools, youth organizations and local government officials to learn more about water quality and the factors that influence it.

Smithfield Foods is committed to becoming the most trusted leader in the livestock production and meat processing industries. The company’s participation in World Water Monitoring Day™ is just one facet of that commitment. For more information on Smithfield’s environmental and corporate social responsibility programs, please visit www.smithfieldfoods.com.

Partners

A number of organizations and agencies partnered with WWMD™ coordinators and sponsors to promote and implement WWMD™ in 2007. These included:



Appalachian Trail Conservancy

The Appalachian Trail Conservancy (ATC) is a volunteer-based, private nonprofit organization dedicated to the conservation of the 2,175-mile Appalachian National Scenic Trail, a 250,000-acre greenway extending from Maine to Georgia. The organization's mission is to ensure that future generations will enjoy the clean air and water, scenic vistas, wildlife and opportunities for simple recreation and renewal along the entire Trail corridor.

As part of its new Trail-wide initiative MEGA-Transect, ATC became a World Water Monitoring Day™ Partner for the first time in 2007. This partnership presents a valuable opportunity to spread the word about the unique water resources along the Appalachian Trail. In 2007, ATC members logged nearly 900 participant visits to over 200 sites (in 14 states) along the Trail.



Girl Scouts of the USA

The Elliott Wildlife Values Project supported World Water Monitoring Day™ through its Linking Girls to the Land partnership in several ways during 2007. By taking part in the program, Girl Scouts:

- Discovered and explored their local water resources. They developed scientific monitoring skills that enabled them to determine how healthy their water source is, as well as think critically about their own values and how it impacts them.
- Connected with others locally and globally by teaming up on a world-wide effort.
- Took action by sharing their results and experiences locally and via the worldwide database. Girls also inspired awareness about water quality monitoring and positively impacted the health of the rivers, lakes, estuaries and other water resources.

In addition, Girl Scouts worked toward earning the Get with the Land and Water Drop patches. A new WWMD™ brochure was also developed to promote the event with Girl Scouts.



On Location

Hong Kong, China

Submitted by, Fanny Wong

In celebration of the 10th anniversary of the establishment of the Hong Kong Special Administration Region (HKSAR) and the 40th anniversary of the commissioning of the Plover Cove Reservoir, IWAHK organized the World Water Monitoring Day™ ceremony in Hong Kong at this scenic spot on October 14. The Water Supplies Department of HKSAR aimed to enhance public awareness of clean water resources and review the history of the reservoir for students. This is the fourth consecutive year that IWAHK has organized World Water Monitoring Day™ in Hong Kong to promote the importance of water conservation and water resources to students.

About 250 students from 30 secondary schools conducted quality testing of Hong Kong's water resources. Under the guidance of a chemist from the Water Supplies Department, the students used WWMD™ kits to conduct tests on samples taken from the Plover Cove Reservoir. The event was co-hosted by the Education Bureau, Environmental Protection Department and Drainage Services Department of HKSAR. Mrs. Carrie Lam, the Secretary for Development of HKSAR, officiated the ceremony.





On Location

Poland

Submitted by, Jerzy Żygis
ANIMEX Group, part of the Smithfield Group

WWMD™ in Poland was organized by ANIMEX Group, part of the Smithfield Group, on September 18. Events took place simultaneously in eight cities where ANIMEX plants are located—Szczecin Dabie, Morliny, Itawa, Suwałki, Elk, Starachowice, Opole and Dębica.

The events lasted between two and four hours with 17-80 people in attendance at each site. Most of the participants were students from local secondary schools who were accompanied by their teachers. A total of 272 students participated. In addition to the school groups, representatives from the various ANIMEX facilities, local authorities, media and other observers attended the WWMD™ festivities.

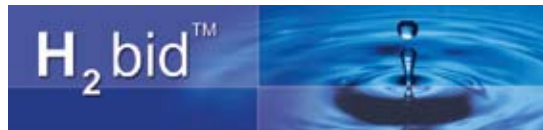
Each event began with a welcoming message to guests delivered by a local dignitary. As part of the message, participants were introduced to World Water Monitoring Day™, the role of

Continued on page 19



Girl Scouts participated from 23 U.S. states and Puerto Rico, as well as three global Girl Scout committees—Japan, Kazakhstan and Malaysia. Records show that 110 monitoring sites were registered and over 1,200 Girl Scouts (over 400 more than 2006) participated in this year's WWMD™.

A new pilot was developed with the Nebraska Water Environment Association (NWEA) that targeted the five councils in Nebraska. NWEA offered free water monitoring test kits and educational resources to the councils. GSUSA anticipates an even higher level of participation from Nebraska Girl Scouts in 2008, and hopes to replicate this model with WEF Member Associations and Girl Scout councils in other states.



H2bid.com

H2bid.com is an online global procurement exchange for the water industry, which provides a clearinghouse for water utility contract opportunities. With a core interest in water, H2bid.com is excited to be a World Water Monitoring Day™ partner. As a new partner, the company focused on promoting WWMD™ to high schools in and near Detroit, Mich., as well as to users of its online service via a link from the company homepage.

Through the coordinating efforts of H2bid.com's representatives, Glenn Oliver and Lynette Mitani, several Detroit-area high schools participated in WWMD™ in 2007. The participation of one school, Roeper Upper School, was featured in a local newspaper. Students from the "Roeper Green Crew" tested the water in the Rouge River Branch in Booth Park. H2bid.com has already started to identify more metro Detroit community groups and schools for WWMD™ 2008. Annually, H2bid.com expects to increase the exposure and participation of WWMD™ throughout Southeast Michigan.



Jewish National Fund

Since 1901, Jewish National Fund (JNF) has been the caretaker of the land of Israel, on behalf of its owners—Jewish people everywhere. Through a grant of the USDA Forest Service to JNF's Israel Advocacy and Education Department, JNF provided 234 WWMD™ monitoring kits to 106 schools in the United States and 200 kits to schools and science learning centers throughout Israel, enabling thousands of students to participate in World Water Monitoring Day™ 2007.

JNF was also a proud partner of the official World Water Monitoring Day™ kick-off celebration in Alexandria, Va. on September 18. Participating on behalf of JNF were 50 eighth-graders from the Melvin J. Berman Hebrew Academy and a class of fourth-grade students from Beth Tfiloh Dahan Community School. JNF also sponsored a learning and activity station that featured its educational newsletters, a water worksheet for students to calculate their water usage, tips for reducing usage and much more.

In Israel, the Ministry of Education Science Department also promoted World Water Monitoring Day™. The Ministry took an active role in mentoring participating schools and enhancing their education materials in order to better integrate the schools' water testing activities into the greater science curriculum. For more information on JNF and our involvement in World Water Monitoring Day™, visit the JNF website at www.jnf.org or contact education@jnf.org.



LaMotte Company

A leading manufacturer of portable test equipment for lab and field, LaMotte Company specializes in hand-held colorimeters, turbidity meters, liquid and tablet reagent systems, test strips and field test kits. Applications include water/wastewater, food/beverage processing, boiler/cooling tower water, swimming pool/spa water, environmental applications and environmental education.

LaMotte has manufactured and distributed over 40,000 World Water Monitoring Day™ test kits since the program's inception in 2001. LaMotte Company was founded in 1919 and is located in Chestertown, Md. on Maryland's Eastern Shore.



National Association of Clean Water Agencies

NACWA represents the interests of the country's wastewater treatment agencies, true environmental practitioners that serve the majority of the sewered population in the United States and collectively treat and reclaim more than 18 billion gallons of wastewater each day. NACWA maintains a key role in the development of environmental legislation and works closely with federal regulatory agencies in the implementation of environmental programs.

Smithfield Foods as a primary sponsor of the program and the goal of ANIMEX Group to propagate water cleanliness and good environmental stewardship.

The students at each plant were given a lecture and instruction by a representative from a local environmental protection agency such as the Province Environment Protection Inspectorates and the Wigry National Park in Suwałki. Following a demonstration, the participants were able to tests their own samples.

"The students were very pleased that they had a chance to [conduct] the research themselves," said Jerzy Żygis, environmental manager for ANIMEX.

Following the monitoring activity, students completed an ecological quiz. ANIMEX Group provided prizes for the high scores, which included small gifts and certificates. To conclude each event, participants were treated to a hot snack and beverages.





07

Participation

World Water Monitoring Day
世界水監測日 20

Ms. Carol LAM, JP
Executive Director

World Water Monitoring Day

World Water Monitoring Day

WWMD™ data was reported from participants in the following countries:

Argentina	China	Italy	Nepal	Spain
Armenia	Colombia	Japan	Netherlands	Sudan
Aruba	Costa Rica	Kazakhstan	New Zealand	Swaziland
Australia	Germany	Kenya	Nigeria	Taiwan
Belarus	Iceland	Liberia	Norway	United Kingdom
Brazil	India	Malaysia	Peru	United States
Cameroon	Indonesia	Mexico	Poland	Zimbabwe
Canada	Iran	Mozambique	Singapore	
Chile	Israel	Namibia	South Africa	

Numerical Summary

Forty-three countries participated in World Water Monitoring Day™ 2007, and 46,117 participants¹ reported data from a total of 3,544 sites.

Monitored Sites

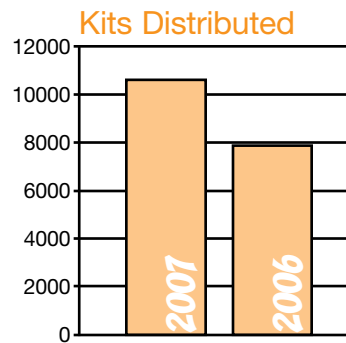
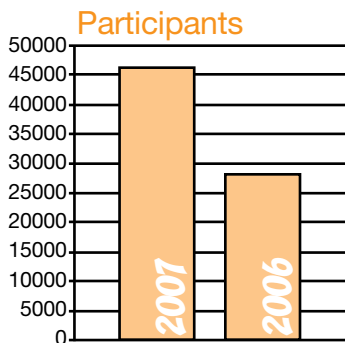
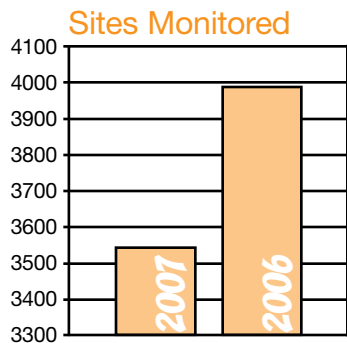
3,544	Total Sites Monitored
1,287	International
2,257	United States

Participants

46,117	Total Participants
24,396	International
21,721	United States

Test Kits Distributed

10,636	Total Kits
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¹ The coordinators of WWMD™ recognize that a small percentage of participants each year have monitored at more than one site and/or more than one time. Thus, it is likely that this figure is one percent to five percent higher than the actual number of people who monitored. Given this range, the coordinators estimate that between 43,811 and 45,656 individuals participated in WWMD™ 2007.



On Location

Windhoek, Namibia

Submitted by, Harold Zauter
Department of Water Affairs & Forestry

Namibia is one of the driest countries in the world. It is situated in Southern Africa on the Atlantic Ocean. About 1.9 million inhabitants live in an area of 824,000 km². Deserts or desert-like landscapes occupy much of the country (the Namib Desert along the Western Coast and Kalahari in the East). In North Central Namibia, the famous Etosha Pan forms a closed inland basin, occasionally provided with rainwater through the Cuvelai drainage system. Namibia is an arid to semi-arid country—evaporation rates greatly exceed the precipitation rates.

With a situation such as this, all-season (perennial) rivers are only found along the borders—Kunene, Kavango, Zambezi in the North and Oranje in the South. Ephemeral rivers are found inland and runoff occurs as direct response to heavy rainfall. During the rainy season, from October to April, these rivers transport water for a variable amount of time—for some hours, some days or some weeks. In some years, there is not enough water or runoff to make the rivers flow.

Continued on page 23

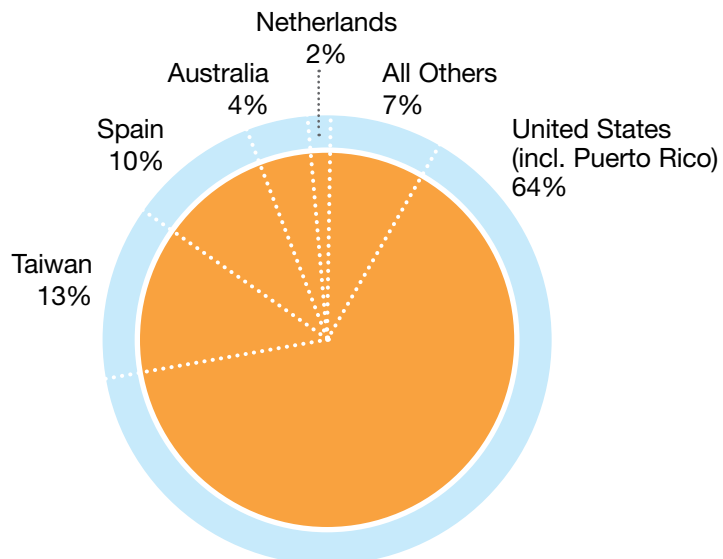


International Leaders in World Water Monitoring Day™ 2007

The coordinators of WWMD™ appreciate the contributions of each and every person who took part in the program this year. A full account of each country's participation will be available online at www.WorldWaterMonitoringDay.org in the spring of 2008. WEF and IWA would, however, like to acknowledge numerical leaders in participation both internationally and within the United States.

Number of Sites Monitored

United States (and Puerto Rico)	2,257
Taiwan	444
Spain	343
Australia	146
Netherlands	56



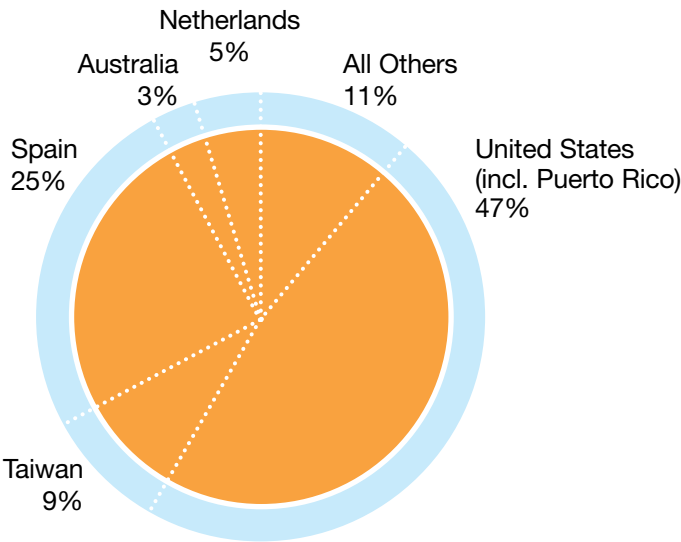
Rainfall predictions are always a hot topic. Rainfall events are happy moments—nobody would refer to them as “bad weather”!

Namibians participated in World Water Monitoring Day™ (WWMD™) for the first time in 2007. Fifty students, between the ages of 11 and 13, from Deutsche Höhere Private School in Windhoek went out to discover Avis Dam east of the city. Dams filled with rainwater from last rainy season are the only surface water bodies that can be visited in the months of September and October, which represent the end of the dry season.

At Avis Dam these fifth-grade students accompanied by two teachers and a geologist of the Ministry of Agriculture, Water and Forestry tested five basic indicators of water quality. They used the WWMD™ test kits to look at dissolved oxygen, acidity (pH), temperature and turbidity. Additionally, aquatic life such as small fishes, crabs, tadpoles and insect larvae were observed as these too are indicators of relatively good water quality. The students had a lot of fun and learned much about the high value of water in Namibia and worldwide.

Number of Participants

United States (and Puerto Rico)	21,721
Spain	11,607
Taiwan	4,263
Netherlands	2,120
Australia	1,409





On Location

Jakarta, Indonesia

Submitted by, FORKAMI

On December 9, FORKAMI (Indonesian Communication Forum for Drinking Water Quality Management) together with USAID's Environmental Services Program (ESP-USAID), PAM Lyonesse Jaya, PT. Thames PAM Jaya and WATER (Water & Sanitation Network) celebrated World Water Monitoring Day™ on the Kalimalang River along with hundreds of students and community stakeholders.

Mentoring the community on water quality aspects is part of a series of activities designed to develop awareness of the importance of monitoring local water resources and catchments. In conjunction with the monitoring activity, three training series focusing on environmental leadership were held from September until December.

During the celebration, students were grouped and led by field facilitators (FORKAMI's volunteers) in the collection of water samples. By using the test kit, each student took a turn measuring the four basic parameters—pH, dissolved oxygen, temperature and turbidity. The students also searched for macroinvertebrates (aquatic insects). Their findings were all indications of good water quality. While the students conducted the monitoring tests, other participants followed up their results from the previous training series and participated in team-building games.

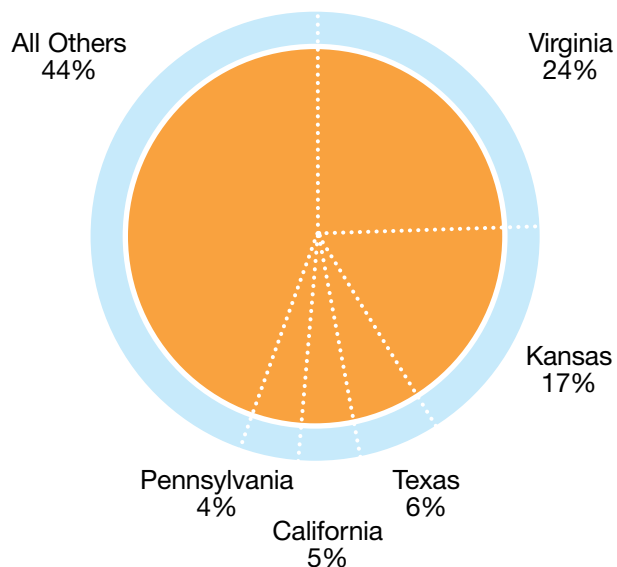


U.S. Leaders in World Water Monitoring Day™ 2007

The following states are commended for their leadership in WWMD participation in 2007.

Number of Sites Monitored

Virginia	548
Kansas	377
Texas	130
California	104
Pennsylvania	98





On Location

Spain

Submitted by, Gamaliel Martínez
ADECAGUA

WEF Member Association ADECAGUA (Asociación para la Defensa de la Calidad de las Aguas) was a proud partner of World Water Monitoring Day™ for the first time in 2007. Between September 18 and December 10, ADECAGUA organized monitoring activities all over Spain with the financial and technical support of the country's Ministry of Environment.

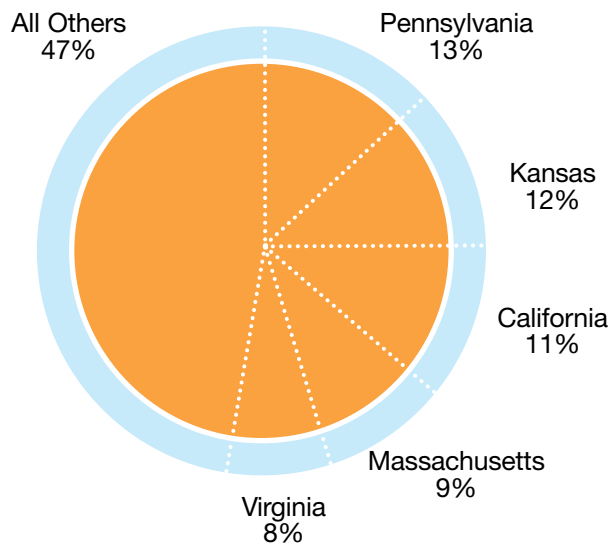
2,000 volunteers participated in WWMD™ with ADECAGUA. Participating groups included: 35 associations, 34 schools, eight town and city councils, four universities and two environmental centers. A total of 395 test kits were distributed.

Over 200 sites were monitored throughout the country, mainly near Madrid, Barcelona and Valencia. At each site, samples were tested for temperature, pH, dissolved oxygen and turbidity. In some cases biological analyses were performed by skilled specialists.

ADECAGUA expresses its gratitude to the Ministry of Environment for its technical and financial support of this tremendous first effort and hopes that these activities have made hundred of people aware of the importance of their local water bodies.

Number of Participants

Pennsylvania	2,806
Kansas	2,709
California	2,416
Massachusetts	1,879
Virginia	1,669



07

Appendices



The following figures represent the results for 2007 based upon the four WWMD™ water quality parameters. These are listed by country and U.S. state/territory. Please bear in mind that the results reported for World Water Monitoring Day™ do not constitute a completely thorough and accurate portrayal of the health of the world's water. Credible water quality sampling requires using standard quality assurance protocols and is conducted with trained volunteer monitoring groups and professionals around the world.

Results by Country

Country	Total Sites	Total Participants	Average DO (PPM)	Average pH	Average Temperature (°C)	Average Turbidity (JTU)
Argentina	4	102	8.00	7.92	20.33	41.67
Armenia	1	25	8.00	7.50	14.00	40.00
Aruba	7	202	4.15	8.13	29.91	23.60
Australia	146	1409	3.79	7.00	17.67	8.09
Belarus	2	12	8.60	6.00	9.00	0.00
Brazil	22	325	7.07	6.62	20.12	3.10
Cameroon	3	24	4.00	7.89	24.00	35.56
Canada	15	141	6.86	7.58	14.26	6.00
Chile	18	322	6.75	7.98	12.06	5.49
China	2	285	2.00	4.00	23.50	40.00
Colombia	3	64	2.17	7.00	14.26	2.78
Costa Rica	4	19	6.83	6.95	20.24	17.66
Germany	3	6	4.00	8.00	4.00	35.56
Iceland	16	312	4.87	7.26	4.13	38.68



Country	Total Sites	Total Participants	Average DO (PPM)	Average pH	Average Temperature (°C)	Average Turbidity (JTU)
India	5	84	4.00	7.93	27.33	34.93
Indonesia	1	400	4.50	7.25	29.00	100.00
Iran	6	46	4.00	6.78	15.72	13.33
Israel	5	173	7.11	6.61	19.89	20.00
Italy	4	79	6.43	7.32	14.41	0.00
Japan	6	130	6.50	6.85	17.67	5.83
Kazakhstan	1	10	6.00	8.00	18.00	100.00
Kenya	17	109	4.21	7.06	19.55	47.95
Liberia	1	6	4.00	8.00	32.00	0.00
Malaysia	4	594	4.00	7.24	23.51	40.00
Mexico	10	266	4.46	7.80	29.44	7.24
Mozambique	6	90	4.22	7.89	28.00	20.00
Namibia	4	63	6.93	8.51	21.53	33.39
Nepal	46	199	5.96	7.30	25.80	0.00
Netherlands	56	2120	6.68	7.03	13.85	1.03
New Zealand	4	78	5.03	6.99	17.33	35.56
Nigeria	12	119	4.19	7.84	28.38	40.00
Norway	2	4	3.00	7.10	0.00	0.00
Peru	3	20	4.53	7.60	21.60	100.00
Poland	8	272	4.00	7.92	16.75	1.67
Singapore	35	170	4.14	8.01	30.79	41.52
South Africa	10	56	6.40	7.09	17.86	10.83



Country	Total Sites	Total Participants	Average DO (PPM)	Average pH	Average Temperature (°C)	Average Turbidity (JTU)
Spain	343	11607	4.26	7.83	12.37	15.67
Sudan	1	30	4.70	8.30	26.00	99.00
Swaziland	2	80	10.26	7.80	20.80	13.60
Taiwan	444	4263	4.09	7.13	25.77	40.25
United Kingdom	4	74	5.50	7.92	11.33	1.67
United States (+P.R.)	2257	21721	5.13	7.67	17.56	9.68
Zimbabwe	1	6	4.00	8.38	21.17	8.33
TOTALS	3544	46117	4.59	7.64	19.61	14.72

Results by U.S. State/Territory

State	Total Sites	Total Participants	Average DO (PPM)	Average pH	Average Temperature (°C)	Average Turbidity (JTU)
Alabama	9	18	7.74	7.70	23.70	31.36
Alaska	7	12	9.24	6.97	7.43	4.20
Arizona	17	458	5.54	8.04	15.59	6.43
Arkansas	6	21	4.90	7.28	21.93	14.44
California	104	2416	5.50	7.68	15.45	3.47
Colorado	31	929	6.98	7.83	15.13	36.07
Connecticut	7	72	3.90	7.63	16.69	3.33
Delaware	4	23	1.83	8.25	16.17	3.33



State	Total Sites	Total Participants	Average DO (PPM)	Average pH	Average Temperature (°C)	Average Turbidity (JTU)
District of Columbia	2	29	4.33	7.75	27.56	4.44
Florida	78	879	8.05	7.92	25.66	3.63
Georgia	21	117	4.79	7.90	17.96	5.17
Hawaii	2	96	6.00	7.75	25.00	0.00
Idaho	1	9	4.00	8.00	14.00	0.00
Illinois	33	271	7.69	8.00	20.36	8.21
Indiana	63	1013	7.07	7.06	20.41	11.43
Iowa	15	88	4.78	8.07	17.95	40.20
Kansas	377	2709	5.14	7.94	20.56	41.16
Kentucky	5	102	4.66	7.75	21.29	39.55
Louisiana	8	104	4.25	7.12	25.78	38.19
Maine	29	152	6.60	6.99	15.49	4.89
Maryland	48	535	5.03	7.16	19.14	14.09
Massachusetts	65	1879	6.37	6.99	19.45	3.86
Michigan	16	224	4.47	7.19	16.03	1.04
Minnesota	4	117	5.80	8.09	-4.77	23.64
Mississippi	4	205	4.04	7.54	23.75	37.00
Missouri	53	125	6.53	7.88	22.78	10.86
Montana	27	313	4.31	7.82	9.23	7.41
Nebraska	32	298	4.29	8.00	16.50	37.64
Nevada	9	21	5.83	5.55	5.38	0.00
New Hampshire	3	14	5.83	7.11	13.17	17.78



State	Total Sites	Total Participants	Average DO (PPM)	Average pH	Average Temperature (°C)	Average Turbidity (JTU)
New Jersey	50	315	5.87	7.59	16.91	3.34
New Mexico	5	78	4.00	7.03	-6.56	65.13
New York	72	349	5.21	7.67	17.86	8.71
North Carolina	53	237	6.60	7.08	19.48	5.69
North Dakota	1	8	8.00	9.00	18.00	0.00
Ohio	41	353	6.05	7.69	20.00	9.20
Oklahoma	7	17	7.62	7.88	25.85	38.33
Oregon	9	71	6.19	7.36	11.93	4.81
Pennsylvania	98	2806	7.68	7.15	15.58	3.11
Puerto Rico	24	210	4.18	7.86	27.82	34.78
Rhode Island	0	0	--	--	--	--
South Carolina	9	81	4.44	7.83	21.37	17.04
South Dakota	12	372	5.41	8.03	15.25	35.29
Tennessee	42	292	4.63	7.86	17.60	5.95
Texas	130	870	7.42	7.84	24.64	16.90
Utah	2	24	8.00	8.50	19.00	290.00
Vermont	6	82	4.22	6.42	11.62	0.00
Virginia	548	1669	7.83	7.02	17.47	6.51
Washington	48	355	6.67	7.27	11.78	1.45
West Virginia	3	40	5.79	7.60	21.45	4.44
Wisconsin	11	79	5.68	8.05	17.38	33.09
Wyoming	6	164	4.48	7.79	11.02	26.67
U.S. TOTALS	2257	21721	5.13	7.67	17.56	9.68

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