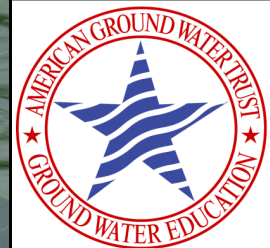


Summer 2018

AMERICAN GROUND WATER TRUST NEWSLETTER



Water issues programs and education since 1986

2018 New England Water Well Association Expo, Marlborough, MA

At the March Expo AGWT staff connected with friends, corporate supporters and met Josh, Travis and Justin, the next generation of groundwater professionals.



A few of our members from Flexcon Industries

Members from Preferred Pump with the AGWT Office Manager



Josh, Travis and Justin Empire State Water Well Driller's Association, Inc.

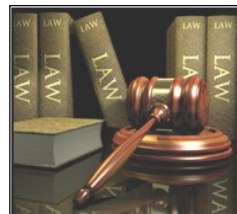
TWO-DAY GROUNDWATER CONFERENCE - ALBUQUERQUE (July 17-18)

State's rights, tribal rights, federal jurisdiction and the complexity of legal issues surrounding the control of groundwater in the west

The AGWT's annual New Mexico groundwater conference will focus on legal issues concerning the development and management of groundwater. It will bring together attorneys, federal and state water-resources managers, engineers, scientists, planners, and water end users to discuss past and current cases regarding primacy and jurisdictional authority. For many states in the Western US, primacy for administration of groundwater is held by the states.



However, recent challenges have brought the extent of state control of groundwater into question. The conference presenter line-up includes eight top water attorneys and fourteen scientists, engineers and water managers from AZ, CA, NM, CO, TX, OK and DC. (www.agwt.org/events) (MCLE credit for attorneys)



Some of our Upcoming Events:

State's Rights and Control of Groundwater
Albuquerque, NM
July 17 & 18

PFAS in Michigan
Grand Rapids
July 26

Riverbank Filtration
Santa Rosa, CA
August 8

Managing Florida's Aquifers
Orlando, FL
September 24 & 25

To exhibit or sponsor at any event call 800-423-7748

www.agwt.org/events

Tribal nations hold some of the best water rights in the West... by Emily Benson High Country News

...But to use them, tribes often must negotiate settlements that need federal approval.



Tens of thousands of people on the Navajo Nation lack running water in their homes. But that could change in the coming years, as the Navajo-Gallup Water Supply Project goes into effect. It is expected to deliver water to the reservation and nearby areas by 2024, as part of a Navajo Nation water rights settlement with New Mexico, confirmed by Congress in 2009.

Three other Native water settlements currently await congressional approval. They arise from federal legal decisions recognizing that many tribes in the West hold water rights that largely pre-date — and therefore override — the water rights of non-Native settlers.

Many tribal nations are currently asserting those rights as a way to ensure economic vitality, affirm sovereignty and provide basic services that some communities lack. In many places, however, Native water rights have yet to be quantified, making them difficult to enforce. Settlement is usually the preferred remedy; it's cheaper, faster and less adversarial than a lawsuit, and can include funding for things like pipelines or treatment plants. With settlements, "the tribes are able to craft solutions that work for them and that can be more flexible than anything that could be achieved through litigation," says Kate Hoover, a principal attorney for the Navajo Nation Department of Justice water rights unit.



Printing and distribution of this issue of the American Ground Water Trust Newsletter has been sponsored by Hose Solutions, Inc., a company founded in 1880 that provides flexible pipes and hoses for groundwater applications world-wide with US Headquarters in Scottsdale, AZ.

TODAY'S STUDENTS ARE TOMORROW'S CITIZENS...

OUR 83rd GROUNDWATER TEACHER PROGRAM HELD IN NEBRASKA CITY, NE

[Over 2,000 teachers and educators in 18 states have been trained]

This was AGWT's third year of partnering with the Kregel Windmill Factory Museum in Nebraska City for the two-day event. Teachers attending the program were from schools in Nebraska, Missouri, Kansas and Iowa.

Nebraska City's water supply is from a well-field on the west bank of the Missouri River. After visiting the wells, teachers toured the Nebraska City Water Works (photo) where the water is treated



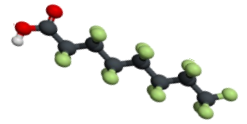
and then pumped to the city's distribution system.

The two-day training program, funded by a grant from the Richard P. Kimmel & Laurine Kimmel Charitable Foundation, provided science teachers with insights and information about wells and groundwater.

Please give us a call if your company or agency is interested in sponsoring a teacher training program. 800-423-7748



PFAS IN MICHIGAN – WORKSHOP
Per- and Polyfluoroalkyl Substances Contamination of Groundwater
Problem assessment and treatment strategies
Grand Rapids - Thursday, July 26th, 2018



- This AGWT Program will discuss:
- Legal basis for regulatory intervention
 - Increased sophistication of water quality testing
 - Case studies of contamination reduction/removal
 - Costs of installation and operation of treatment technologies
 - Economic impacts on impacted groundwater end-users and utilities
 - Summary of latest research findings on health & environmental impacts
 - Legal remedies for recovering treatment costs by utilities / water agencies

This information-exchange opportunity is of particular relevance to well owners, community leaders and water utility managers and their board members in areas affected (or potentially affected) by contamination. It is anticipated that workshop attendance will also include; environmental health officials, property transaction specialists, groundwater industry professionals, water engineers, elected officials and entities with regulatory authority at city, county, state and federal level.

[Register on-line www.agwt.org/events](http://www.agwt.org/events)



RIVERBANK WATER SUPPLY SYSTEMS
MAXIMIZING AMERICA'S ALLUVIAL AQUIFERS
Design, Construction, Operation and Maintenance of Riverbank Water Supply Systems
AN INFORMATION - EXCHANGE CONFERENCE



Hosted by Sonoma County Water Agency

Wednesday, August 8th, 2018

(Optional field tour, afternoon of Aug 7)

An intense one-day information-exchange program about science, design, engineering and operational issues related to extracting groundwater from unconsolidated aquifers using riverbed and riverbank alluvial aquifers to naturally filter the source water.

The program will showcase case studies from experts in design, construction and operation of riverbank filtration facilities in the Western United States. Discussion will include the characteristics of alluvial aquifer hydrogeology and variable hydrology in the west that influences design and operation of riverbank filtration facilities. Presentations will include examples of current research and studies regarding the effectiveness of riverbank filtration to remove pathogens and other contaminants of concern and the rehabilitation of aging infrastructure. [Register on-line www.agwt.org/events](http://www.agwt.org/events)

MANAGING FLORIDA'S AQUIFERS 18th Annual Two Day Conference

Orlando, FL September 24-25, Florida Hotel & Conference Center

1500 Sand Lake Road, Orlando



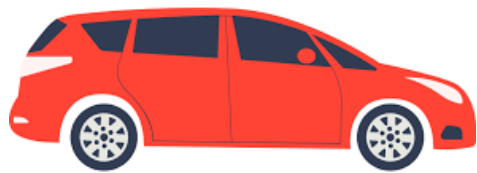
This is the AGWT's 18th annual aquifer recharge program with a focus on Florida groundwater management issues. The event is an essential one-stop-shop for all professionals, end-users and citizens who have an interest in



the management of Florida's aquifers. The program will provide updates on projects and technology innovations and the regulatory framework that allows for the development and the conservation of the state's groundwater for economic and environmental needs. [Registration is open www.agwt.org/events](http://www.agwt.org/events)

Consider donating anything that moves.....

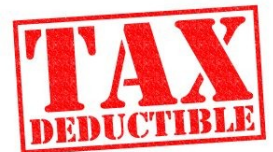
- Do you want to eliminate the time-consuming task of advertising and trying to sell a vehicle or boat yourself?
- High Mileage? Couple of little dings?
- Tired of looking at vehicles sitting on your lawn?
- Are you moving and have too many vehicles to deal with?
- Are fees for boat storage and mooring becoming a burden?



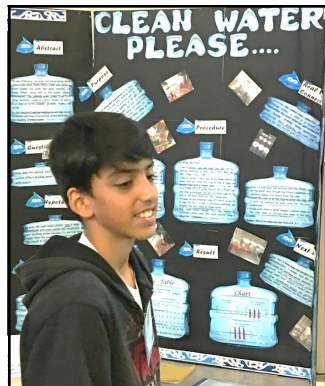
American Ground Water Trust has partnered with Insurance Auto Auctions, Inc. (IAAI) to process your vehicle donation. Your unused or unwanted vehicle is worth cash for support of American Ground Water Trust's programs. All funds raised are used to provide education and training programs dedicated to providing and protecting water resources.

Help us help citizens and communities achieve safe dependable and sustainable water supplies.

Just call 1-800-423-7748 or email DonateDirect@iaai.com - to donate your vehicle to the American Ground Water Trust's education mission. Trained staff will walk you through the simple process, and once the paperwork is complete, arrangements will be made for your vehicle to be picked up at no cost to you. Vehicle donations may provide a larger tax deduction than the money you might receive from a "sale-by-owner" with no hassle!



6TH GRADER WINS FIRST PLACE FOR DISTRICT SPONSORED WATER SCIENCE COMPETITION



American Ground Water Trust Executive Director, Andrew Stone was one of the Judges of the Water Wise Challenge sponsored by Chino Basin Water Conservation District. The competition is for school students who have completed a science or engineering project that is focused on water conservation in Southern California.

CONGRATULATIONS Pranav Arora!
This 6th grader from Bon View Elementary was the 1st place winner in his age-group!

Photographed, along with Andrew and Pranav, are (left) Becky Rittenburg, CBWCD Community Programs Manager and CBWCD Board Vice-president, Margaret Hamilton



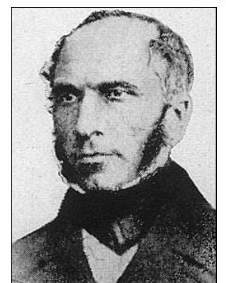
Do you know why this person is important?

His name is Henri Darcy, and although he died back in 1858 every groundwater professional throughout the world owes him a debt of gratitude. Why?

Well, Henri was the person who developed an understanding of the basic principles of groundwater flow that are used every day in groundwater calculations and aquifer models.

While working out the flow rate of water in sand filters for the French City of Dijon water supply he recognized that flow rate through sand was directly proportional to the "head" or water pressure, and inversely proportional to the distance the water had to travel through the sand filter. He noted that different sizes of sand produced different flow rates. These differences in the characteristic of porous sands are today described as hydraulic conductivity.

"Darcy's Law" for groundwater flow is the basic building block of groundwater science.





ABOUT AMERICAN GROUND WATER TRUST
The AGWT mission is to increase awareness about water resources issues, particularly those that involve groundwater.

By convening and organizing conferences, workshops and focused training programs, the AGWT:

- Promotes efficient and effective groundwater management
- Showcases groundwater science and technology solutions
- Increases citizen, community and decision-maker awareness
- Facilitates stakeholder participation in water resource decisions
- Communicates the environmental and economic value of groundwater
- Provides a safe haven to discuss “difficult” issues

If you have suggestions for groundwater topics and issues for which AGWT public education programs can be of assistance, please email: Andrew Stone, Executive Director - astone@agwt.org

**HERMAN BOUWER AWARD:
 DAVID PYNE RECOGNIZED FOR A CAREER FOCUSED ON
 AQUIFER RECHARGE TECHNOLOGY**

The Groundwater Resources Association of California and the Arizona Hydrological Society convened the 2018 Biennial Symposium on Managed Aquifer Recharge, held in March in San Diego. Changing weather patterns are forcing water managers to think creatively about water storage options. Where geological conditions permit, using “space” in aquifers to recharge groundwater is a much better option than building expensive surface reservoirs. One of the pioneers of managed aquifer recharge, (MAR) was the late Dr. Herman Bouwer who had a long career as a scientist working at the USDA Water Conservation Laboratory.



Andrew Stone, American Ground Water Trust (right), presents David Pyne, ASR Systems with the 2018 Herman Bouwer Award

The Herman Bouwer Award is presented every two years at the Biennial Symposium on Managed Aquifer recharge in recognition of a person who has significantly advanced the understanding or utilization of Managed Aquifer Recharge.

Andrew Stone, Executive Director of the American Ground Water Trust, nominated David Pyne, President of ASR Systems, Gainesville, FL, for the 2018 Herman Bouwer Award. In remarks made at the 2018 Award Ceremony, Stone highlighted some of Pyne’s many achievements in advancing the adoption of aquifer storage projects in the US and overseas.

“David Pyne’s professional career in water resources engineering has had a huge impact on the application of aquifer recharge technology and has significantly advanced the understanding and utilization of Aquifer Recharge. With the growth in nation-wide implementation, ASR has become an accepted technical term and for many water professionals throughout the World, the name David Pyne and ASR have now become synonymous.

David has been involved with aquifer recharge projects in at least twenty overseas countries and has given direction and technical input for almost half of the approximately 140 ASR well fields in the US and has been involved with or provided substantial technical guidance during the development of many water supply and aquifer recharge master plans. David has been a tireless advocate for aquifer recharge technology and its many beneficial applications.”

Connect with us!



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AGWT 2018 Scholarship awards will be announced in our next newsletter!

Thank you to our current Scholarship Sponsors!



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