Summer 2020

AMERICAN GROUND WATER TRUST NEWSLETTER

Water issues programs and education since 1986

A 501(c)(3) non-profit education organization

"FUNCTIONAL EQUIVALENT OF A DIRECT DISCHARGE"

Supreme Court decision supports the environment in contamination case

At the American Ground Water Trust/Association of Ground Water Agencies Annual California Groundwater Conference earlier this year, there was a discussion session on the implications of the *"County of Maui v. Hawaii Wildlife Fund"* case pending before the US Supreme Court. The case considered whether the Clean Water Act applied to discharges of contaminants through groundwater into navigable waters of the U.S. The question in the case was whether a discharge permit is needed when the pollutant first passes through the soil or groundwater.

On April 27, the US Supreme Court decided the case with a 6-3 majority opinion that polluters cannot dump contaminants into groundwater, which then end up in protected waters. Sewage plants and other industries cannot avoid environmental requirements and must obtain a permit under the Clean Water Act whenever there is the "functional equivalent of a direct discharge" from a point source into navigable waters. David Henkin, a lawyer for the environmental group Earthjustice who argued the case in the high court, said, *"This is unquestionably a win for people who are concerned about protecting clean water in the United States."*

Prior to the ruling, the Lahaina wastewater facility in Maui was disposing of 3-5 million gallons of treated effluent each day via four injection wells. The effluent then mixed with groundwater and migrated to the Pacific Ocean where it polluted beaches and damaged marine ecology.

Two scientific studies: University of Hawaii, Manoa and a U.S. Geological Survey study in cooperation with Hawaii State Department of Health, established hydrologic connections between the municipal wastewater injection from the Lahaina Wastewater Reclamation Facility and the Kaanapali coast on the Island of Maui, Hawaii. The Environmental Protection Agency oversees federal water permitting under the Clean Water Act. The agency had previously claimed that any pollution that moves through groundwater before reaching federal waters does not need a permit. However, the Supreme Court said that the EPA's interpretation would open a loophole allowing industry to avoid the fundamental environmental protection purpose of the Clean Water Act.

AGWT Issues and Education Events

Georgia /Florida PFAS Webinar
August 10

Texas Groundwater Webinar
August 12 & 13

New Jersey Well & Pump Webinar
August 25

New Jersey /Maryland/ Delaware PFAS Webinar
September 2

New England Well & Pump Webinar
September 10

Arizona PFAS Webinar
September 24

Missouri /Kansas PFAS Webinar
September 30

For updates on AGWT programs visit:
https://agwt.org/events

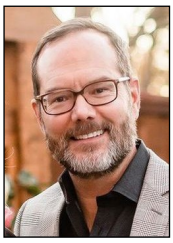
[Photo – Sierra Club Maui]
The Lahaina wastewater facility, Maui, and the Pacific Ocean where injected effluent reached the shore and submarine reefs.

One of the four Class V injection wells at the Lahaina Wastewater Facility, Maui.
[Photo – Sierra Club Maui]

[Photo Aloha Hawaii]
Lahaina, Kaanapali Coast, Maui. The US Supreme Court decision should now protect the shore from wastewater effluent contamination via injection wells.

www.agwt.org/events
For program details, registration and sponsor & exhibit opportunities and all AGWT education/conference/workshop programs

KEVIN McGINNIS NAMED 2021 McELLHINEY DISTINGUISHED LECTURER



AGWT Board Member Kevin McGinnis

American Ground Water Trust Board Member, Kevin McGinnis, President of Cotey Chemical Corporation in Lubbock, Texas, has been selected by the National Ground Water Association to be the 2021 McEllhiney Distinguished Lecturer. Kevin has served on the board of the American Groundwater Trust for 10 years, serving as Board Chairman for three years. This Lecture Series in Water Well Technology was established to promote technical excellence among all the professions involved in protecting and providing groundwater supply.

Each year, a panel of groundwater experts invites an outstanding groundwater professional to share insights and work experiences with the industry. McGinnis' lecture topic will be *"The Good, the Bad, and the Ugly: Innovative Treatment Options for Established and Emerging Water Quality Issues."* The lecture will discuss both new and established processes for drinking water treatment that will enable well drillers, hydrologists, and water system operators to work their way through the maze of water quality uncertainty.

The lecture series is named for William A. McEllhiney, the 1948 founding president of the National Ground Water Association. Typically, this annual lecture series is delivered at groundwater association professional meetings throughout the US that are attended by geologists, well contractors, groundwater regulators, water operators, equipment manufacturers etc.

[Information from: THE AQUIFER—A PUBLICATION OF THE GROUNDWATER FOUNDATION www.groundwater.org | Spring/Summer]

TEXAS GROUNDWATER WEBINAR—AUGUST 12 & 13, 2020

The AGWT Annual Texas Groundwater Conference is now a 2-day webinar!

In Cooperation with The Texas Water Development Board

This webinar is for engineers, scientists, planners, water-resource managers, agency professionals and attorneys to share up to date information regarding the challenges, feasibility, regulatory concerns and the economic and environmental benefits of water management strategies for Texas.

WEBINAR PRESENTATIONS

Wednesday, August 12 (8:15am – 12:30pm)

- ➔THE ROLE OF GROUNDWATER IN INTERREGIONAL WATER PLANNING IN TEXAS
  Scott Honeyfield, PE, Principal, Parkhill Smith & Cooper, Inc., Amarillo, TX
- ➔LONG TERM WATER PLANNING STRATEGIES FOR TEXAS
  Kathleen Jackson, Director, Texas Water Development Board, Austin, TX
- ➔THE CASE FOR A 'HYDROVASCULAR' GRID IN THE PERMIAN BASIN
  Gabriel Collins, PhD, Baker Institute for Public Policy, Rice University, Houston TX
- ➔GROUNDWATER AVAILABILITY: PROSPECTS FOR IRRIGATED AGRICULTURE IN TEXAS
  Steve Walthour, General Manager, North Plains Groundwater Conservation District, Dumas, TX
- ➔TEXAS CROSS-BOUNDARY WATER MANAGEMENT STRATEGY: CLOUD-BASED DATA SHARING AMONG GROUNDWATER CONSERVATION DISTRICTS
  Charles Dunning, PG, PhD, Vice President Business Development, Wellntel, Milwaukee, WI
- ➔AQUIFERS OF THE SOUTHERN HIGH PLAINS
  Andrew Teeple, Hydrologist, USGS Texas Water Science Center, Austin, TX
- ➔GROUNDWATER QUALITY ISSUES IN TEXAS AQUIFERS
  Bridget Scanlon, PhD, Senior Research Associate and Robert Reedy, PhD, Research Scientist Associate, Bureau of Economic Geology, The University of Texas at Austin, Austin, TX

Thursday, August 13th (8:15am – 12:30pm)

- ➔TEXAS WATER DEVELOPMENT BOARD: UPDATE ON TWDB GROUNDWATER ACTIVITIES
  John Dupnik, PG, Deputy Executive Administrator, Texas Water Development Board, Austin, TX
- ➔THE ROLE OF NATURAL AND ARTIFICIAL RECHARGE IN SUSTAINABLE GROUNDWATER MANAGEMENT IN TEXAS
  Gretchen Miller, PhD, PE, Associate Professor, Zachry Department of Civil & Environmental Engineering, TAMU, College Station, TX
- ➔CONCEPTUALIZATION, MAPPING, AND MODELING THE MILANO FAULT ZONE IN THE CENTRAL PORTION OF THE CARRIZO-WILCOX AQUIFER
  Steven C. Young, PhD, PG, PE, Principal Geoscientist, INTERA Inc., Austin, TX and Thomas Ewing, PhD, PG, Owner, Frontera Exploration Consultants, San Antonio, TX
- ➔MAPPING KARST IN TEXAS BY GEOPHYSICAL METHODS
  John Jansen, PG, PGp, PhD, Senior Geophysicist and Hydrogeologist, Collier Consulting, Stephenville, TX
- ➔BRINGING BACK COMANCHE SPRINGS
  Robert Mace, PhD, PG, Executive Director and Chief Water Policy Officer, Meadows Center, Texas State University, San Marcos, TX
- ➔HOW SCIENCE AND STAKEHOLDERS ARE SHAPING SUSTAINABLE GROUNDWATER MANAGEMENT IN CENTRAL TX
  Vanessa Puig-Williams, JD, Director, Texas Water Program, Environmental Defense Fund, Austin, TX
- ➔THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT (SGMA) - WHAT ARE THE PROSPECTS FOR MANAGING IRRIGATION PUMPING TO ACHIEVE LONG-TERM SUSTAINABILITY OF CALIFORNIA'S GROUNDWATER?
  Tony Morgan, PG, CHg, Market Leader Water Planning & Development, Geo-Logic Associates, Santa Barbara, CA

AMERICAN GROUND WATER TRUST SCHOLARSHIP OPPORTUNITIES AND SPONSORS

We encourage entry level college students intending to pursue a career in the field of groundwater to apply for an American Ground Water Trust Scholarship.
Application Deadline: July 30, 2020 — https://agwt.org/content/scholarship-opportunities

Thank you to our current Scholarship Sponsors:

If you are interested in offering a scholarship in your company name, please contact AGWT. We will administer the program, advertise the scholarship and select award winners. The amount funded for a scholarship is awarded in full.

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Purolite is a leading developer, manufacturer and supplier of ion exchange, adsorbent and specialty resin technologies. Headquartered in Pennsylvania, USA, we have ISO 9001 certified manufacturing facilities globally and operate five dedicated R&D centers. Established in industries such as municipal, industrial and groundwater treatment, Purolite ensures that our customers meet state and federal regulatory guidelines and stay ahead of the curve for keeping water systems safe. Purolite has designed, developed and commercially tested special ion exchange resins for groundwater purification.

www.purolite.com

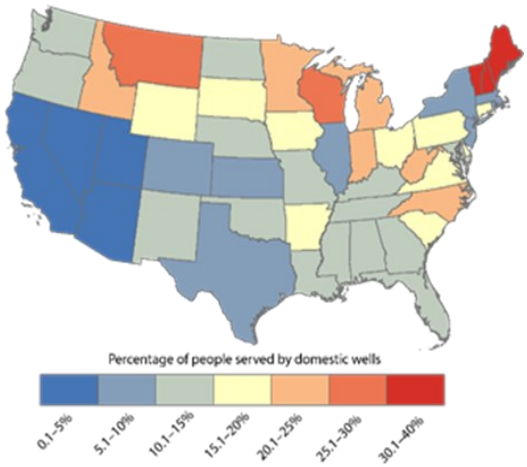
Purolite is a sponsor of AGWT's PFAS education programs

TOMMY BUSSELL – FIRST BOARD CHAIRMAN OF THE AMERICAN GROUND WATER TRUST

Tommy Bussell, President of Bussell & Sons, LLC, Tomball, Texas, passed away on April 2. He was 86. He was one of the founder members of the American Ground Water Trust and its first Board Chairman. Tommy was a water well drilling entrepreneur. He built his first drill rig in1952 and throughout his career he was active with several businesses involved with water well construction for domestic, commercial and industrial systems.
Texas Governor Preston Smith appointed Tommy to serve on the Texas Water Well Drillers Board where he served for 12 years. He was active in a volunteer capacity at state level and nationally. He served in many board positions, including President of the Texas Groundwater Association (originally the Lone Star Water Well Association) and was the 1997 President of the National Ground Water Association (at that time, known as the National Water Well Association).
Thanks to the vision and foresight of Tommy Bussell and the other founder members, the American Ground Water Trust continues to actively pursue the mission of creating programs and partnerships to promote and provide objective and inclusive education on groundwater issues.

DOMESTIC WELL LOCATIONS IN THE UNITED STATES

Nearly 40 million people in the United States rely on a domestic well for drinking-water. A new USGS report illustrates where domestic (private) wells are located and how many people are using them, based on the results of a 2019 USGS study.
The report displays interactive maps that allow the user to view the percentage of people by state using domestic wells. The new research uses population data from the two most recent censuses (2000 and 2010) to project the population relying on domestic wells for the years 1990 to 2010. The number of people using domestic-well water in the contiguous U.S. is estimated to have increased 1.5% from 1990 to 2000 from 36.70 to 37.25 million people and to have increased slightly from 2000 to 2010 to 37.29 million people. Although the number of people has grown, as a percentage of the population it has decreased, from 16.4% in 1970 to an estimated 12.2% in 2010.



Knowing the location of domestic wells and the populations they serve can aid in optimizing groundwater-quality testing to help ensure safe drinking water in domestic wells nationwide. For instance, knowing where a high density of domestic well use overlies potentially corrosive groundwater could help focus water-quality testing for lead.

Link to report: https://ca.water.usgs.gov/projects/USGS-US-domestic-wells.html

And, https://www.sciencebase.gov/catalog/item/5b9fffe6e4b08583a5c2779e

WHY IS WATER WET?

According to Richard Saykally, Professor of Chemistry, University of California, Berkeley, California, water is wet because of ***strong tetrahedral hydrogen bonding***. OK!.... If you want an explanation of the physics and chemistry of water, check the link:

http://nautil.us/issue/25/water/ingenious-richard-saykally

AMERICAN GROUND WATER TRUST

AGWT's mission is to increase awareness about water resource issues, particularly those that involve groundwater

By convening and organizing conferences, workshops, webinars 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

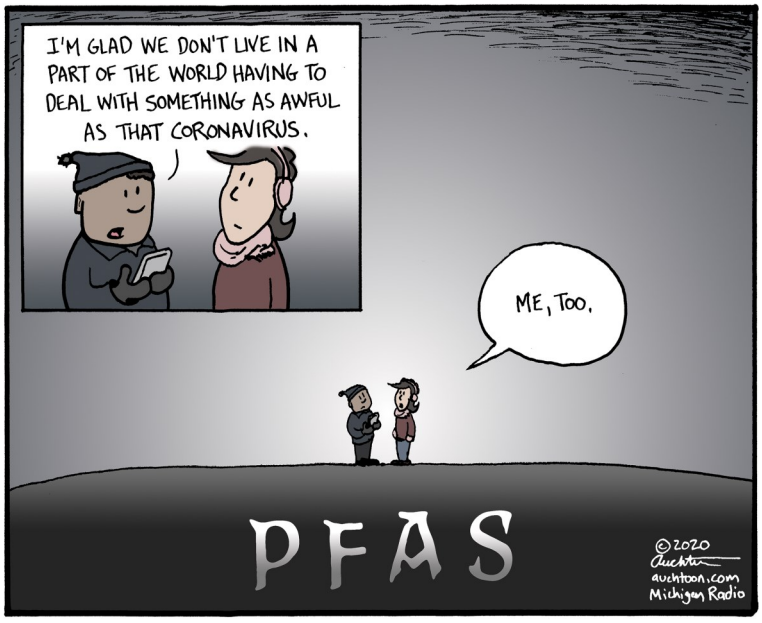
WAYS TO SUPPORT GROUNDWATER EDUCATION

AGWT has been providing objective information about groundwater and water resources for over 30 years. Because it is a hidden resource, groundwater is often misunderstood and undervalued. The AGWT mantra is "science as the basis for policy." In local, state and national issues regarding water policy, allocation authority and protection regulations there can sometimes be an atmosphere of exaggeration and spin from vested interests. In framing the issues for our education programs and in inviting presenters, the AGWT strives to maintain balance and inclusion of all points of view.

Some of our educational outreach is grant funded, but in order to meet our mission and provide an independent voice over groundwater issues, we also rely on the generosity of individuals and companies. You can help increase our educational impact in several different ways.

- Becoming an individual or corporate member
- Sponsoring and exhibiting at an AGWT program or event
- Sponsoring our Newsletter
- Hosting a program for teachers (We have trained over 2,000)
- Sponsoring a scholarship in the name of your company/organization
- Underwriting specific costs such as: Computers, website, printing, travel, etc.
- Anything that moves…. American Ground Water Trust has partnered with Insurance Auto Auctions, Inc. (IAAI) to process your vehicle donation. Your unused/ unwanted vehicle is worth cash for support of American Ground Water Trust. All funds raised are used to provide education and training programs dedicated to providing and protecting water resources. Call 800-423-7748 to donate your vehicle to support the American Ground Water Trust's education mission.

https://agwt.org/content/support-agwt



AGWT Events Page

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If your company or organization would like to sponsor a future AGWT Newsletter, please contact catherine@agwt.org

(The electronic version has a nation-wide circulation of over 30,000)