

Winter 2020



AMERICAN GROUND WATER TRUST NEWSLETTER

Water issues programs and education since 1986

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

GROUNDWATER AND WATER WELL INFORMATION FOR MEXICO

Good science and information, packaged as part of an appropriate educational strategy, is the best way to overcome the misinformed and uninformed. The AGWT has a reputation as an impartial honest broker of groundwater information. This was the stated reason for an invitation from National Autonomous University of Mexico for the AGWT to provide technical input about groundwater resources, water well construction and well-field management in discussions about water supply options for the Metropolitan Zone of Guadalajara, León and Los Altos de Jalisco. The basic issue in the deliberations was the economic feasibility of a



groundwater-based solution for additional water supply vs. the proposed multi-billion dollar El Zapotillo Dam. The meetings were attended by local stakeholders, researchers from several universities, staff from the Ministry of Environment and Natural Resources and technical staff from the Mexican Institute of Water Technology. The message from the AGWT team is that educating decision-makers about 21st century groundwater science, well design, drilling techniques and pump technology is essential for good water policy decisions.

The AGWT was represented by Andrew

Stone, AGWT's Executive Director, Fred Rothauge of Hydro Resources and Scott Honeyfield of Parkhill, Smith & Cooper, Inc. The November 2019 meetings took place in Guadalajara and Mexico-City. The direct cost of AGWT's participation was underwritten by the American Association for the Advancement of Science.



CAN AN ECO-FRIENDLY DEICER THAT USES FRUIT PROTECT GROUNDWATER?

Each winter millions of tons of road salts are used on US streets and highways as deicers. The chemicals (principally sodium chloride or magnesium chloride) while good for road safety can have a negative environmental impact on groundwater resources and aquatic species in creeks and streams.



Researchers at Washington State University have developed a more sustainable solution to traditional deicers, using grape skins and other agricultural waste. "I developed technology that could derive green chemicals out of waste materials. Grape skins, like other agricultural byproduct or waste products, are feedstock. We don't use it directly. Instead, it's chemically and biologically broken down by bacteria," said WSU Associate Professor Xianming Shi. The scientists degraded and

fermented grape skins in a process that produces no waste of any kind and determined that the solution outperformed commonly used chemicals and road salts, without damage to concrete, asphalt, and water bodies.

AGWT Issues and Education

PFAS Challenges

Tallahassee, FL
January 8

Water Well & Pumping Technology Workshop

Lakewood, CA
February 18

AGWA & AGWT California Groundwater Conference

Ontario, CA
February 19 & 20

Deep Well Injection Workshop

Miami, FL
March 2 & 3

Northwest PFAS Workshop

Olympia, WA
March 18

Source Water Protection

NH DES and AGWT
Concord, NH
May 14

Groundwater for Teachers

Nebraska City, NE
May 27 & 28

Texas Groundwater Conference

Austin, TX
June 3 & 4

New Mexico Groundwater Conference

Albuquerque, NM
July 20 & 21

Florida Aquifers Conference

Orlando, FL
October 7 & 8

www.agwt.org/events

**For program details, registration and sponsor & exhibit opportunities
and all AGWT education/conference/workshop programs**

GROUNDWATER CONTAMINATION AWARENESS VIA HOLLYWOOD MOVIES

Groundwater is not often featured in Hollywood movies but the release of “DARK WATERS” in late 2019 has increased public awareness of environmental contamination from Per- and polyfluoroalkyl industrial chemicals (PFAS / PFOA). It is estimated that close to 100% of the US population now has traces of PFAS / PFOA in their blood because of the use of these industrial compounds in so many products over the last 50 years. The chemicals have been widely used in domestic products because of their water resistant and stain resistant properties and they have been used extensively in fire-fighting foams. Although no longer manufactured in the US, their negative environmental effects live on as a major challenge for water supply providers.

The basic plot of *Dark Waters* is the true story of how industrial waste from PFAS manufacture was disposed of untreated and infected the water of a small West Virginia community. The trigger for the investigation was the death of cattle on the property adjacent to where the industrial waste was dumped. Mark Ruffalo is the lead actor in *Dark Waters*, he plays the part of Rob Bilott, the Cincinnati lawyer who challenged DuPont over groundwater contamination in West Virginia. *Dark Waters* is not the first movie that has helped increase public awareness about the need to protect aquifers against contamination.

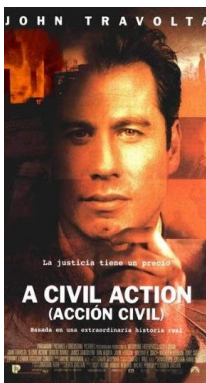
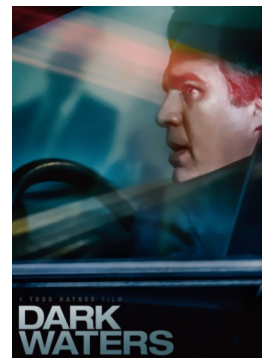
2019

Director:
Todd Haynes

Contaminant:
PFOA / PFAS

Star
Mark Ruffalo

As attorney
Rob Bilott



1998

Director:
Steven Zallian

Contaminant:
**Trichloroethylene
(TCE)**

Star
John Travolta

As plaintiff's attorney
Jan Schlichtmann

The 1998 groundwater contamination movie “A Civil Action” starring John Travolta told the true story of a hard fought court case about environmental pollution that took place at a factory site in Woburn, Massachusetts, in the 1980s. Through this movie, the public was introduced to trichloroethylene, an industrial solvent, that contaminated local aquifers.

Julia Roberts’ portrayal of Erin Brockovich in the 2000 movie of the

2000

Director:
Steven Soderbergh

Contaminant:
**Hexavalent
chromium**

Star
Julia Roberts

As environmental
activist
Erin Brockovich



same name, brought hexavalent chromium into the realm of public concern about drinking water quality. The Brockovich movie involved accusations of health problems related to groundwater contamination from toxic waste that the company, Pacific Gas and Electric, was allegedly improperly and illegally dumping in Hinkley, California.

THE AMERICAN GROUND WATER TRUST AND PFAS

The American Ground Water Trust has taken a leading role in providing insight and information about the current issues of PFAS / PFOA contamination. AGWT workshops and conference sessions on the topic have been held throughout the US, in Cincinnati, OH, Grand Rapids, MI, Sacramento, Montclair, Fresno and Bakersfield, CA, Pittsburgh, PA, Mount Laurel, NJ, Phoenix, AZ, Albuquerque, NM, Denver, CO, Westford, MA, and Orlando and Tallahassee, FL.

A special session on PFAS is scheduled for the Groundwater Conference in Ontario, CA on February 19th, 2020. The keynote presenter at the conference will be attorney Rob Bilott, who was one of the first to warn about PFAS and whose action against DuPont is the basis for the movie *Dark Waters*. Rob’s Feb 19th keynote presentation topic is:

**“THE 2005 DUPONT CLASS ACTION SETTLEMENT IN WEST VIRGINIA WAS JUST THE START.
THE MAGNITUDE OF THE LEGACY PFAS PROBLEM NATIONWIDE IS STILL BEING UNRAVELED.”**

For details about the February 19-20 Groundwater Conference in Ontario, CA, visit www.agwt.org.

Rob Bilott, JD, Attorney, Partner, Taft Law, Taft Stettinius & Hollister LLP, Cincinnati, OH

Robert is a partner in Taft’s Environmental, Litigation, and Product Liability and Personal Injury groups. For more than 29 years, Rob has handled a wide variety of highly complex environmental matters and related toxic tort litigation for a diverse array of clients, including the nation’s first cases involving PFAS drinking water contamination. To date, Rob has secured benefits in excess of \$1 Billion for clients impacted by PFAS contamination, including through key leadership positions in the nation’s first class action, personal injury, medical monitoring, and multi-district litigations and trials. In 2017, Rob received the international Right Livelihood Award, also known as the “Alternative Nobel Prize,” for his decades of work on PFAS issues. Rob is the author of the book, “Exposure: Poisoned Water, Corporate Greed, and One Lawyer’s Twenty-Year Battle against DuPont.” Rob has a Juris Doctor degree from the Ohio State University College of Law.



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: June 1, 2020 — (details on AGWT website)

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.

AGWT CORPORATE SUPPORTER CORNER

FEATURING...



Schneider Water Services (SWS) is a family owned and operated drilling company based in St Paul, Oregon. SWS specializes in the construction and service of commercial, industrial, residential and municipal water wells. The company began in 1945 as a local pump and irrigation equipment dealer and has grown into a nationally known comprehensive water systems service provider of water wells, pumps and water treatment equipment. SWS currently employs five full time drillers, licensed in Oregon, Washington & Idaho, with a combined drilling experience of over 100 years.

In addition to providing well services throughout the Northwest, SWS has a long tradition of hydrophilanthropy by supporting water supply projects in disadvantaged communities throughout the world.

<http://www.seidc.com/>

PRESTIGIOUS AWARD FOR AGWT CORPORATE MEMBER Daniel Stephens, Founder and Principal Hydrologist of Daniel B. Stephens & Associates, Inc. (DBS&A), has been inducted as a member of the National Academy of Engineering.

Dr. Stephens is recognized internationally for his innovations in vadose zone and groundwater hydrology, which have contributed substantially to scientists' understanding of vadose zone and its role in replenishing and protecting our aquifers. He grew DBS&A into a \$17-million corporation with seven offices in New Mexico, California, Colorado, and Texas. In 2015, DBS&A became a wholly owned subsidiary of Geo-Logic Associates (GLA) with a combined 28 offices and more than 250 employees offering multidisciplinary geologic, engineering, water, and environmental consulting to provide solutions to challenges for landfills, mines, contaminated sites, municipal projects, natural resources, and water resources. Congratulations!!!



Photo credit National Academy of Engineering



AMERICAN GROUND WATER TRUST RECOGNIZES OUR 2019 \$1,000+ SUPPORTERS

Amtrol Inc.
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Cotey Chemical Corporation
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George Moss
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GZA Geoenvironmental, Inc.

Hydro Resources
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JACOBS Engineering Group Inc.
Larry Sollod
Layne Christensen, A Granite Company
NH Water Well Association
PowWow Energy, Inc.
Preferred Pump & Equipment LP
Purolite Corporation
Reclaim Water Services
ResinTech Inc.
Roscoe Moss Company
SGS North America Inc.
SL Environmental Law Group
Stetson Engineers
Water Replenishment District
WellIntel, Inc.
Western Municipal Water District
Worthington Industries (AMTROL)
Xylem - Goulds Water Technology



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 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 event
- ◆ Hosting a program for teachers (We have trained over 2,000)
- ◆ Sponsoring a scholarship in the name of your company/organization
- ◆ Underwriting specific direct costs such as:
Computers, website maintenance, printing, travel, etc.

Connect with us in 2020

AGWT Events



Follow us on Facebook



Our water well video "How a Water Well is Drilled" has now reached over 3.5 million views on YouTube.



Printing and distribution of this issue of this American Ground Water Trust Newsletter has been sponsored by Cotey Chemical Corp., Lubbock, TX
"Solving Water Well Production Problems Since 1949"

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