

Connecting people, businesses, and communities through local groundwater education and action, making us all part of the solution for clean, sustainable groundwater.



A Curbside Composting Option New Program Gives Residents Access to Reduce Landfill Contributions

by Catherine Chertudi, City of Boise, Idaho

early 74,000 households now have the opportunity to divert compostable materials from the landfill to a Boise City owned composting facility!

The residential compost collection program was initiated nearly two years ago based upon recommendations from a citizen's advisory committee to reduce wastes sent to the landfill. The idea took flight when the Ada County Landfill completed a year-long study of waste disposed in the landfill. The city discovered that nearly 46% of all residential wastes placed into the landfill were compostable materials.

Realizing that nearly half of our residential wastes could be diverted and used to make a valuable product created the momentum needed to begin discussions to develop a city-wide compost program.

Collecting compostable materials is easy – the issue was having a site to conduct the composting process. For many years, the city had hoped the private sector would develop a regional compost facility, however with the amount of dairy wastes in the area, a residential compost facility was not seen as a high investment priority. Ultimately, the city and our franchised hauler, Republic Services agreed to partner to design, build and operate a composting facility on city-owned property.

The ideal site was found on a portion of the city's Twenty-Mile South Farm which is used to manage biosolids. The selected location is not ideal for farming – due to basalt outcrops and



▶ See COMPOST, p. 4

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Household Water, Sewer Bills Steadily Outpacing Inflation

Residential water and wastewater bills have progressively increased by 5.7 percent annually over the past five years, outpacing average annual income growth (5 percent) and inflation (1.9 percent) and magnifying the financial challenges facing municipal water utilities.

Analysis of the 50 largest metropolitan areas in the U.S. show combined monthly water and wastewater bills averaging \$91.06 (USD), based on standard household consumption by geography, according to a new U.S. Municipal Water and Wastewater Utility Bill Index from Bluefield Research.

With so much focus on water, the impact of sewer charges on household budgets is often overlooked. In 2017, wastewater represented 58 percent of the total average utility bill for U.S. households. However, the disparity across cities is extreme, with monthly sewer bills ranging from \$14.04 in Memphis to a high of \$135.57 in Seattle. Similarly, monthly water bills for customers in Memphis averaged \$15.96 compared to a high of \$92.62 for customers in San Francisco.

"In the absence of an overhaul of federal and state water infrastructure support mechanisms, beyond state revolving funds and pending WIFIA funding, the burden falls largely on ratepayers," said Erin Bonney Casey, Bluefield's director of U.S. municipal water research. "For municipalities, the use of surcharges outside of general rate proceedings, such as Distribution System Investment Charges and Atlanta's Municipal Option Sales Tax, are expected to rise."

Rate structures still vary considerably. Municipal utility rate structures have trended toward tiered pricing structures for residential water rates, while employing a flat-rate or linear price structure for sewer rates. Tiered water pricing structures are the most common mechanism employed to limit the cost of critical water supplies, while charging premiums for higher water usage (e.g. swimming pools, lawn irrigation).

Taking an alternative approach, the City of Philadelphia will launch its tiered assistance program (TAP), an incomebased water rate structure, making the



city the first in the nation to establish water rates based on income. The change stems from Philadelphia City Council's establishment of an Income-Based Water Revenue Assistance Program (IWRAP) in 2015 to ensure water bills are affordable for the city's low-income residents. "This shift is part of a broader national discussion regarding the affordability of water in an era of rising water rates to pay for critical infrastructure improvements," said Bonney Casey.

Protect Your Groundwater Day is September 5: Cap It, Plug It

If you are a private water well owner, there are many ways to protect your water quality. Two of the most important are:

- 1. To make sure your well is properly capped, and
- 2. To properly plug any abandoned wells on your property.

That's why the 2017 theme for Protect Your Groundwater Day, on Tuesday, September 5, is "Cap It, Plug It!"

WHY IS THIS SO IMPORTANT?

A water well provides a direct connection between the what's above

the ground and groundwater in the subsurface.

If an active water well is not properly capped—or if an abandoned well is not properly plugged—it can create a direct pathway for contamination in the same groundwater you and others use for their drinking water supply.

If you own a household well, you are responsible for making sure that your well is properly capped and any abandoned wells on your property are properly plugged.

WHAT MAKES A PROPERLY CAPPED WATER WELL?

First, not just any covering will do on top of the well casing, that vertical pipe that extends above the ground in your well. A proper well cap should:

- Be bolted or locked, so that it cannot be easily removed,
- Have a rubber seal to prevent anything from infiltrating the well where the cap is joined to the well casing,
- Be in good condition.

A tight-fitting well cap that is not bolted or locked can be jarred loose or removed by someone other than the well owner. Also, a well cap that lacks a rubber seal or is cracked or otherwise broken can allow bugs, vermin, bacteria or other types of contaminants above the ground surface into the well.

Well caps should be installed by a water well system professional, and any well cap maintenance or replacement



should be done by a professional. Also, a well system should be disinfected when a well cap is installed, repaired, or replaced.

How do I properly plug AN ABANDONED WELL?

First, the challenge is to find abandoned wells on your property. Some abandoned wells are obvious while others are not. Survey your property for:

- Pipes sticking out of the ground.
- Small buildings that may have been a well house.
- Depressions in the ground.
- The presence of concrete vaults or pits. Out-of-use windmills.

Other tips for finding old, abandoned wells can be found in:

- Old maps, property plans or property title documents.
- Neighbors.
- Additions to an old home that might cover up an abandoned well.

A water well system professional may do additional checking—including a records check—for more information about abandaned wells.

A water well system professional should always plug an abandoned well using proper techniques, equipment, and materials. The professional should:

- Remove all material from the well that may hinder proper plugging.
 Disinfect the well.
- Then plug the well using a specialized grout that (1) keeps surface water from working its way into the borehole, and (2) prevents water from different subsurface levels from mixing.



The cost to plug a well depends on factors including:

- The depth and diameter of the well
- The geology of the area
- Accessibility to the well, and
- The condition of the well.

For more information, please visit www.ngwa.org.▲

Registration for 2017 Groundwater Foundation National Conference Now Open

The 2017 Groundwater Foundation National Conference is quickly approaching. Be in Boise October 24-26 and join us as we explore "Leading the Way: People, Policies and Practices to Protect and Conserve Groundwater."

Registration is now open! Reserve your spot and save with early bird registration rates through September 1, 2017. Register online today at www.groundwater.org/conference.

The conference is set in the beautiful city of Boise, which is one of the original pilot communities in the Groundwater Guardian program from 1994. It will include a keynote address by Pat Mulroy, former director of the Southern Nevada Water Authority and the UNLV William S. Boyd School of Law in Las Vegas. Bill and Rosemarie Alley will also give a keynote presentation highlighting their new book, "High and Dry: Meeting the Challenges of the World's Growing Dependence on Groundwater." A book signing with the Alleys is planned.

The conference will kick off with an opening reception at the Boise WaterShed Education Centeragenda is packed full of expert speakers sharing their knowledge and experiences related to groundwater protection and conservation. Topics include various groundwater-related reserach, understanding and mitigating risks to groundwater, education as a groundwater protection tool, effective groundwater through policy, and much more.

Registration, a draft agenda, and more conference information can be found on The Groundwater Foundation's website at www.groundwater.org/ conference.

We can't wait to be in Boise in October - join us!

COMPOST, continued from p. 1

rocky ground. However, the site was perfect for composting. About 40 acres have been dedicated to the composting facility which includes a scale, office, receiving and windrow pads. The design incorporates extensive storm water and compost leachate management to protect groundwater. A monitoring plan was also required as part of the site permitting process with the Idaho Department of Environmental Quality and Central District Health Department.

The design and permitting process for the new compost site was nearly 9 months long and required three major revisions to the compost siting application with the Idaho DEQ. Construction of the facility started in April 2017 and will be completed in August. On June 5, 2017 we began delivery of nearly 74,000 wheeled carts to collect the compostable materials and the full cart roll-out was completed July 15th. The first phase of the compost pad opened June 22, 2017 and by July 17 we have already collected and are composting about 1400 tons of yard wastes and kitchen scraps.

The site was designed for about 95 tons per day and we expected to begin with 45 tons per day – we have already seen the results exceed our projections with nearly 66 tons per day collected in the first five weeks of the new program. And, we have reduced trash routes to the landfill by two trucks per day.

The compost process will take about 100 days and the city intends to give back to our customers first – providing free compost and using compost on city properties. Our high-desert soils will benefit from incorporating compost which improves soil and plant health and, most importantly, acts as a sponge to retain water which reduces the need



for frequent irrigation during our hot summer months.

Boise residents are supportive and excited about the new composting program – and their commitment to protecting and conserving our great quality of life is evident in their participation in the new program and the low levels of contamination in the compost carts. Reducing wastes and conserving resources is one of our core values in creating a lasting environment for today and for future generations of citizens in our city.

To learn more, visit www.curbitboise.org.♦



Exclusive for *Aquifer* Readers - Save 15% on the Awesome Aquifer Kit

The Awesome Aquifer Kit is the perfect groundwater teaching tool. Use it in the classroom and beyond to "see" groundwater. The kit's activity guide includes lessons and experiments on groundwater movement, contamination, and more.

Shop at www.groundwater.org/shop and enter coupon code *aquifer15* at checkout.

Offer good through September 30, 2017.

Protecting Water Through Routine Maintenance

GREEN SITE

GROUNDWATER GUARDIAN Green Sites work to maintain their green space with groundwater-friendly practices. Learn more about the program and how to get involved at www.groundwater.org/action/community/green-sites.html.



"Beavercreek Golf Club is owned and operated by the City of Beavercreek. It opened for play in 1996. Environmental stewardship is a top priority, and we have been a Certified Audubon Cooperative Sanctuary since 2014.

The 180 acre golf course is set amongst rolling hills and is comprised of many different ecosystems. The golf course is responsible for handling a lot of storm water from surrounding properties during rain events. Through pond and stream bank naturalization, we are able to filter much of the water before it leaves the property and flows into nearby wetlands.

We have greatly reduced the fertilization totals on property over the last few years. Providing enough fertility for a healthy stand of turf is essential for creating a natural filter, however, we utilize soil and tissue testing to apply fertilizer precisely as its needed as to eliminate or reduce any runoff or leaching.

Being a Green Site is valuable as it ensures proper practices are in place to protect groundwater. Many of the practices that site managers have in place are already beneficial to groundwater. This program ensures that site managers take into account all practices that impact groundwater and make the necessary changes to protect against groundwater pollution. It is also a great certification to show off to all stakeholders.

The best part about my job is being able to see the sunrise every morning. It is certainly a view that never gets old. That coupled with working with nature is a very rewarding experience."

Zach Wike has been the Assistant Course Superintendent at Beavercreek Golf Club for eight years. Find out more about Beavercreek Golf Club by visiting www.beavercreekgolfclub.com or wike@beavercreekohio.gov. Follow him on Twitter at @zachwike.

LAKE TAHOE GOLF COURSE SOUTH LAKE TAHOE, CALIFORNIA Site Manager: Bobby Jaeger, Golf Course Superintendent



"Lake Tahoe Golf Course was built in 1959. The land the Golf Course is on was purchased by California State Parks in the 1980s. From there California State Parks hired American Golf Corporation to manage the property and has since been a huge success, attracting golfers from all over the world.

The Upper Truckee River runs through the Golf Course. It is the largest tributary into Lake Tahoe. It makes the course challenging to play, provides habitat for wildlife, and makes for a scenic golf outing.

We are proud of our very limited use of fertilizers. We never fertilize the rough or native areas. Our tees and fairways get half the text-book recommended amounts of NPK per growing season, and our greens are primarily fed from liquid foliar applications. Thus greatly reducing any chance of run off or leaching into ground or surface waters.

The Green Site program helps educate people in your community about what you do at your property and lets them know about your efforts in environmental stewardship.

The best part of my job is not only working outside in Lake Tahoe and providing great golf conditions for locals and visitors from all over the world, but knowing that my environmental stewardship efforts help in ensuring Lake Tahoe is clear and blue for many generations to come."

Bobby Jaeger has been the Course Superintendent at Lake Tahoe Golf Course for five years. Find out more about Lake Tahoe Golf Course at www.laketahogc.com or super@laketahoegc.com.

JOIN OR RENEW TODAY!

WWW.GROUNDWATER.ORG/ACTION/MEMBER.HTML

The Wistful Recycler by Julie Diegel, Executive Director,

Nebraska Recycling Council

re you a wistful recycler? Have you ever wondered if a certain material was recyclable, and not knowing for sure, put it in the recycling bin anyway? Lesser of two evils, right?

Actually, no. Your hopeful gesture is creating a big contamination problem for recycling processors. And it's sending volumes of materials to the landfill that otherwise would have been recycled.

This year at local Earth Day events, the Nebraska Recycling Council offered a Recycling Challenge. A bag of 13 materials was given to intrepid recyclers to test their knowledge. Two disposal options were presented: one for landfill and one for recycling. (Organics were not included in the interest of simplicity.) Admittedly, there were some "trick" items, such as the Pepsi bottle containing a little bit of soda, and the pizza box with grease spots. Most people placed a high percentage of their materials in the correct bin; however, our little Challenge confirmed what we already know: virtually all of us are confused about what can be recycled and/or how materials should be handled (i.e. rinsed, flattened, emptied, etc.) before recycling. Recycling is not as simple as it once was. For one thing, product packaging has changed. Plastics and mixed materials dominate. Many of these materials are not recyclable, and if they can be, the recycling company that services your home or business may not accept them. There is no universal guarantee of recyclability just because there is a recycling symbol on the packaging.



The automation of recycling processing centers has also complicated matters. Materials moved quickly through a system of conveyors and sensors. Flattened cans can be "read" as paper. Plastic bags jam equipment. Glass shards contaminate paper fibers, making them useless as feedstock for new items. Having said that, these high-tech processing centers and their companions, "single stream" collection bins, have allowed far more materials to be recycled by orders of magnitude, and it is a business model that won't go away anytime soon.

So, let's all step up our game on recycling.

From a grassroots perspective, there is a lot we can do. We can relearn recycling practices and conform to the new reality. We can reject goods packaged in materials that have no place to go except the landfill. We can inform political leaders of the need for packaging standards, and demand new







rules that divert more materials from our taxpayer-funded landfills.

These actions don't all rest on the shoulders of product users, however, and they shouldn't. New standards are needed up and down the value chain. Manufacturers need to keep the end in mind when they design packaging. Retailers should be compelled to "takeback" products and packaging for reuse and recycling. Haulers and processors need to take more responsibility for educating customers by providing ongoing, consistent messaging on what and how to recycle. Haulers should be licensed under strict standards to ensure resources meant for the recycling center are being taken there instead of the landfill.

Uniformity in signage and bin configuration is needed in public spaces and businesses so that recycling can become second nature to all of us. There is no excuse for a stand-alone trash bin without a recycling companion by its side. Color standards are important. Use blue for recycling, black for landfill and green for organics. Container labels should be consistent, with photographic imagery showing exactly what materials belong in each bin. These simple design changes are proven to increase recycling and reduce contamination.

Now, let's move ahead and get on with it. Let me reiterate: let us remember to activate our voices for change, and rededicate ourselves to reduce, reuse, repurpose, recycle, and re-soil (compost) repeatedly!

No more being wistful, no more being stuck, no more excuses.

Septic Systems Found to Be a Source of Emerging Contaminants New Analysis Highlights the Impact of Wastewater Management on

New Analysis Highlights the Impact of Wastewater Management on Drinking Water Quality

new analysis shows that septic systems in the United States routinely discharge pharmaceuticals, consumer product chemicals, and other potentially hazardous chemicals into the environment.

The study, published June 15 in the journal *Environmental Science & Technology*, is the most comprehensive assessment to date of septic systems as important sources of emerging contaminants, raising health concerns since many of these chemicals, once discharged, end up in groundwater and drinking water supplies.

Known as contaminants of emerging concern (CECs), these types of pollutants are frequently detected in U.S. rivers, lakes, and drinking water supplies. However, the U.S. Environmental Protection Agency does not currently regulate them in drinking water. Many emerging contaminants are hormone disruptors. Their presence in the environment has been associated with the feminization of male fish and reduced fertility in other wildlife. Studies in humans have linked some CECs with thyroid disease, developmental disorders, decreased fertility, and even cancer.

"These are chemicals found in the products we use every day, and eventually they make their way down the drain," says Laurel Schaider, an environmental chemist at Silent Spring Institute and the study's lead author. "What's concerning is that we are potentially re-exposed to these chemicals as mixtures through our drinking water and we have no idea what the health effects from those exposures are."

Approximately 20 percent of U.S. households rely on septic systems to process their wastewater. In some parts of the country, the number is much higher. In Cape Cod, Massachusetts, for instance, 85 percent of residents rely on septic systems. Although improperly operated and maintained septic systems are known sources of nutrient pollution and have been associated with disease outbreaks, questions remain regarding the extent to which septic systems in general contribute emerging contaminants to the environment.

To assess the effectiveness of septic systems at removing such contaminants, Schaider and her colleagues conducted a meta-analysis of 20 different studies on septic systems, creating the most comprehensive dataset on emerging contaminants commonly discharged into the environment. The researchers identified 45 contaminants in total. These include pharmaceuticals, personal care product ingredients, chemicals in cleaning products, flame retardants, hormones (both natural and synthetic), and other common substances such as caffeine.

It's also important that PEOPLE FOLLOW GUIDELINES FOR MAINTAINING THEIR SEPTIC SYSTEMS TO MAKE SURE THEY'RE IN GOOD WORKING ORDER." --LAUREL SCHAIDER, LEAD AUTHOR

In the analysis, Schaider found that septic systems do a decent job at removing commonly found compounds and chemicals such as acetaminophen, caffeine, and alkyphenols—a common group of ingredients used in cleaning products.

However, they're much less effective at removing other contaminants. Chemicals that tend to slip through include TCEP, a carcinogenic flame retardant, an anti-epilepsy drug called carbamazepine, and the antibiotic sulfamethoxazole.

"In high density areas where you have a large number of homes with their own septic systems, these systems are likely the primary source of emerging contaminants in the groundwater," says Schaider.

That becomes especially problematic, Schaider says, when these

residents also rely on private, shallow groundwater wells for their drinking water, as is often the case in states like Massachusetts, Delaware, Florida, Maryland, New Jersey, and New York.

The study also compared treated wastewater from conventional septic systems with that from centralized wastewater treatment plants and found similar levels of contaminants. This suggests that switching from septic systems to a centralized sewer system may not completely address problems of emerging contaminants entering the environment.

According to Schaider, the best way to protect drinking water quality is to keep septic systems away from areas that supply local drinking water wells. "It's also important that people follow guidelines for maintaining their septic systems to make sure they're in good working order," she says. "And avoiding household products with harmful ingredients by switching to safer alternatives can make a real difference."

Funding for this study was provided by the Commonwealth of Massachusetts and charitable donations to Silent Spring Institute.

Silent Spring Institute, based in Newton, Mass., is a leading scientific research organization dedicated to uncovering the links between chemicals in our everyday environment and human health, with a focus on breast cancer prevention. Founded in 1994, the Institute is developing innovative technologies to accelerate the development of safer chemicals, while translating its science into policies that protect health. For more information, visit www.silentspring.org.

REFERENCE:

Schaider L.A., K.M. Rodgers, R.A. Rudel. 2017. Review of Organic Wastewater Compound Concentrations and Removal in Onsite Wastewater Treatment Systems. Environmental Science & Technology. doi:10.1021/acs. est.6b04778.



Training Teachers, Engaging Students Water Education Leaders for Secondary Science (WELS²) Workshop Trains Over 30 Educators

by Sara Brock, The Groundwater Foundation

he Water Education Leaders for Secondary Science (WELS²) Program is a collaborative educational project between the University of Nebraska – Lincoln (UNL) Science Literacy Program, Daugherty Water for Food Global Institute, and The Groundwater Foundation. The 18 month-long project provides Nebraska high school and middle school teachers with the training, materials, and experiences to support comprehensive food, energy, and water education.

The arrangement of the project consists of two focused educational experiences for the teachers, one held the summer of 2017 and a follow up in 2018, as well as observations of classrooms and collected student work from the newly developed groundwater units and lessons in the 2017-2018 academic year.

WELS² kicked off with a professional development workshop held on UNL's East Campus June 12-16, 2017. More than 30 teachers and graduate students learned new tools surrounding science, and particularly groundwater, education. This initial workshop was a focused collaboration between UNL and The Groundwater Foundation. Cory Forbes, Ph.D., Associate Professor and Coordinator for the Science Literacy Initiative and Jane Griffin, President of The Groundwater Foundation, directed the week's overarching goals, ensuring that The Groundwater Foundation's online groundwater modeling program and physical groundwater model, the Hydrogeology Challenge and Awesome Aquifer Kit respectively, were

featured as classic representations of the types of models and model-based teaching that were the focus of the workshop. Tina Vo, Ph.D. candidate with the Department of Teaching, Learning, and Teacher Education and Sara Brock, Program Manager with The Groundwater Foundation, coordinated content learning activities and facilitated discussions around curriculum development. Approximately half of the participants completed the worksholp for graduate course credit as part of NRES 898 - Teaching and Learning Water Systems.

The workshop's purpose was to introduce models-based teaching and a socio-scientific issues (SSI) based approach to groundwater instruction in Nebraska in a unified way to teachers with diverse teaching experiences

PROGRAM SPOTLIGHT

and student populations. Nebraska contains the largest portion of one of the biggest aquifer systems in the world and constantly faces threats of depletion and contamination. Using It's Debatable! Using Socioscientific Issues to Develop Science Literacy K-12 by Dana L. Zeidler and Sami Kahn and Models-based Science Teaching by William Schwenck Gilbert, discussion topics ranged from crosscurricular connections to Nebraska's College and Career Science Standards as well as the Next Generation Science Standards and it included what units have looked like in other contexts. Teachers got the opportunity to share, question, and clarify the scaffolding they will use to introduce their students to Nebraska's pressing groundwater issues in a manner reflective of their complexity.

▼ The Hydrogeology Challenge was included in the workshop as a teaching tool to introduce students to groundwater computer modeling and groundwater concepts.



The Hydrogeology Challenge, a featured tool of the workshop, is an online program developed by The Groundwater Foundation as a way to present a simple model of the complex, dynamic movement of groundwater. The program allows users to manipulate certain aspects of a wellfield before asking them to calculate how groundwater moves under those conditions. It requires functional content knowledge of topics such as porosity, conductivity, and water table configuration, which students have the opportunity to learn hands-on with the Awesome Aquifer Kit, The Groundwater Foundation's other featured tool. The program asks students to correctly calculate three key figures: flow direction, gradient, and horizontal velocity.

While teachers have the opportunity to end the unit with the understanding that water flows underground, advanced classrooms can utilize the next step called the Applied Knowledge Scenario. Throughout the workshop, teachers stressed the importance of relevance of curriculum to students' lives and used the given work time to develop customized scenarios that would meaningful to their students with current political, geographical, and social issues. The scenarios ask students to provide evidence-backed arguments to persuade decision makers on issues surrounding pollution and development and accepts that there may be many possible solutions to one problem. Students would be empowered to refine their own scientific literacy, decisionmaking, and apologetics.

Sara Cooper, Science Education Specialist at the Nebraska Department of Education, spoke for an afternoon about the new Nebraska College and Career Ready Standards for Science. The teachers interacted with a sample groundwater unit, drawn up specifically for the workshop by Sara. The neatly listed associated crosscutting concepts, science and engineering practices, and disciplinary core ideas afforded the teachers flexibility when they later incorporated the standards into their lesson plans.

With Sara's explanation of the new standards and the modular take on SSI and groundwater education, the teachers walked away from the workshop with content activities, lessons, supplemental materials, and a network of motivated individuals who care deeply about educating their students about groundwater. The next step is to implement the new groundwater curriculum into the 2017-2018 academic year. Dr. Forbes and Vo will receive student work and, in some cases, observe the classrooms and conduct student interviews to measure understanding and retention. They will also receive feedback on what, from this summer's workshop, was helpful to the instructors during the school year and get ideas for focused topics during the 2018 summer workshop.

Like this past workshop, the 2018 professional development will be a focused collaboration this time between Dr. Forbes at UNL's Science Literacy Department and Dr. Nick Brozovic, Director of Policy at the Daugherty Water For Food Institute and Associate Professor of Agricultural Economics at UNL. Teachers who have participated previously in the WELS² program will be given a priority invitation to do a research experience with UNL, through registration for additional science teachers will be open in the next few months. Not only will teachers gather and analyze data in a lab setting, but it is also likely that they will be able to collect meaningful samples from across Nebraska, assisting in ongoing research projects and conservation efforts. The WELS2 program indicates a shift in the view towards science education for the purposes of developing critical thinking and logical decision making. The participants involved in the 2017 workshop expressed excitement at the prospect of continuing and expanding the education of their students as well as themselves in the controversial yet crucial subject of groundwater.

▼ Groundwater Foundation President Jane Griffin and Program Manager Sara Brock demonstrate using the Awesome Aquifer Kit in the classroom.





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A New Look

The Groundwater Foundation is beginning to unveil a new logo and new look. Watch for the new logos make their debut and see the Foundation's new, more modern look. The Groundwater Guardian and Green Site program logos (did you notice page 5?) are also getting a facelift. Tell us what you think - email info@groundwater.org.

