

# Texas Stream Team

Houston-Galveston Area Council Chapter

Working to Protect Our Waterways

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## IN THIS ISSUE

- [Monitor Spotlight](#)
- [Safety Briefing](#)
- [Texas Stream Team Phase I/II Trainings](#)
- [Technical Territory](#)
- [Get More Involved with Partners](#)
- [Regional Litter Projects Updates](#)
- [Galveston Bay Report Card 2017 TST Monitoring Summary](#)
- [TST Training Videos](#)
- [Using the H-GAC Water Resources Information Map](#)
- [Calendar of Events](#)
- [Galveston Bay Action Network Information](#)
- [News from the Region](#)
- [News from San Marcos](#)



## MONITOR SPOTLIGHT - Sheryl Mills

Sheryl Mills spent a lot of time on the family ranch in Schulenburg as a youngster. Water rights, water quality, and weather are concerns for landowners in Texas. As an adult, she felt her charge was to be the best steward possible of our Texas land, to preserve it for her family and the future. That included knowing as much as she could about the rangeland, wildlife, water systems and conditions, and becoming the best caretaker she could be of that land.

After retiring from a career working on corporate information technology projects, she had time to focus on volunteering and wanted to find ways to add as much value to her volunteer projects as possible. To further her goal to be the best steward of her little piece of Texas, she became a master naturalist. That's where she first heard about Texas Stream Team. She's a member of the Gulf Coast Chapter of Texas Master Naturalists, active in the chapter and on the board. To learn more about Texas waters, she earned Texas Waters Specialist certification last year and became an H-GAC Texas Stream Team volunteer water quality monitor.



For now, during most of the week, she lives in Houston, so monitoring a site in Houston was important to help her learn systems and patterns.



Sometimes, the most difficult part about surveying a site is just getting to the site. Hurricanes happen! All kidding aside, it seems like just stating the obvious, but weather events like Hurricane Harvey have a huge, multi-layered impact on Texas waters, and impacted many monitoring sites in the region. Mills monitors Buffalo Bayou at North Eldridge Parkway. She said, "It didn't receive as much rain as some of the others, but it was impacted by the reservoir releases from Barker and Addicks Reservoir. The bayou flooded the surrounding area completely, and many of the homes and businesses are still vacant nine months later."

Another challenge Mills experienced was confidence with testing skills. For the first few months, she worried her results and reports were not going to be accurate. Each month doing testing and seeing patterns develop helps build that confidence. Mills said, "Watching the patterns and being able to note when something seems off or out of the ordinary is pretty cool."

Her advice to new monitors: be methodical, develop a routine, and be prepared to chat a lot. Be methodical - refer to the cheat sheet to not miss or shorten any steps in testing. Develop a routine - get into the habit of checking and prepping gear before heading to the site so things move quickly and efficiently once you get there. Be prepared to chat - her site is on a hike/bike trail, and people are always curious when they see a pair of rubber boots, some gloves, and a bunch of "science stuff." It's a great opportunity to teach (and learn) from people.

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## SAFETY BRIEFING

By Todd Running, Clean Rivers Program Manager

### Comfort in the Field Can Make Your Monitoring Trip Safer



We all like being comfortable. Your monitoring trip should be no different. There are a few things you can do to increase your comfort while conducting your monitoring. If you are comfortable, you won't rush, are less likely to make mistakes, and will be safer. TST veterans offer some advice for making monitoring a more comfortable experience.

***Check the weather forecast and dress appropriately.***

It's no fun to be cold and wet. When monitoring during cold weather, dress in layers so that you can adjust to changing conditions. It's also no fun to be hot, and it is also dangerous. During our summer months

(which sometimes seems like all year), dress in cool clothes that will help shield you from the sun.

***Take advantage of "fixing" your Dissolved Oxygen (DO) sample.*** Remember, after you have "fixed" that DO sample you are free to pack up and go back to your home or office to complete your titration. That will get you out of the cold or heat for at least 10 minutes. Not chasing blowing papers, wiping sweat out of your eyes, or shivering will help you do a better job on your DO titrations. Field observations and all other monitoring tests need to be done in the field.

***Bring something to create a flat, stable surface.***

Bring a five-gallon bucket to carry supplies. Just flip it over for a nice flat surface to work on. It makes it easier to add chemicals to sample bottles, put caps back on reagents, and most importantly, will keep you from adding chemicals to sample bottles and vials in your monitoring kit. The kit provides a nice stable surface, but chemicals that drip and spill into the kit make a mess.

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# TEXAS STREAM TEAM PHASE I/II TRAININGS

Help spread the word by forwarding this email to anyone who might be interested in becoming a volunteer monitor with the H-GAC Texas Stream Team program.

## May 4 - Buffalo Bayou Partnership

9 a.m. to 4 p.m.  
1019 Commerce St., Suite 200,  
Houston, TX

This is a priority training for volunteers who wish to monitor in the greater Houston area. [Registration](#) is required.

Volunteer monitors complete three phases of training using a test kit that measures physical and chemical parameters in water.

Learn more about Stream Team training [online](#) or contact [stream.team@h-gac.com](mailto:stream.team@h-gac.com) or 713-993-2410.



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## TECHNICAL TERRITORY

*By Todd Running, Clean Rivers Program Manager*

### The Power of Numbers



Does the action of one homeowner overfertilizing his/her yard really have an impact on water quality? The answer to that question is, no, it doesn't.

However, repeat that action tens, hundreds, or thousands of times, and the answer is a resounding, yes! That is the difficult part of educating people about water quality. One individual's action of over fertilizing, blowing grass clippings into the storm drain, or not picking up after their dog has no real impact on water quality. It's when those actions occur over and over by many people, a substantial impact on water quality can be achieved.

There are instances when a single person can have a major impact on water quality. One example would be dumping oil in the storm drain. Did you know that one quart of oil can cover the surface area of water the size of an entire football field?! How much water could be polluted if one person dumped the oil from a single oil change (typically five quarts) into the storm drain?

There are currently more than 100 Texas Stream Team volunteer monitors in the H-GAC region. Think about the number of people who could learn more about water quality if every volunteer talked about monitoring activities with just friends and family. The numbers start to get pretty big. You will be amazed how many people are unaware about water quality issues. Your simple conversation can be a real eye opener for some people and will get us one step closer to cleaner water.

If you have any questions, please contact [Todd Running](#).

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## GET MORE INVOLVED WITH PARTNERS

[Adopt-a-Beach](#)  
[Artist Boat](#)  
[Bayou Land Conservancy](#)  
[Bayou Preservation Association](#)  
[Buffalo Bayou Partnership](#)  
[Cypress Creek Flood Control Coalition](#)  
[Exploration Green Conservancy](#)  
[Friends of the River San Bernard](#)  
[Galveston Bay Estuary Program](#)



[Galveston Bay Foundation](#)  
[H-GAC Clean Waters Initiative](#)  
[Japhet Creek](#)  
[Keep America Beautiful](#)  
[Keep Texas Beautiful](#)  
[Take Care of Texas](#)

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## REGIONAL LITTER PROJECT UPDATES

### Trash Summit

Regional entities, organizations, and residents concerned about reducing litter in the region's waterways will hold a Trash Summit meeting from 9 a.m. to 3 p.m. **Thursday, May 9** at the Houston Zoo Brown Education Center.

Participants will review the status of the draft action plan and hear updates from groups working on litter and debris removal, prevention, and research.

It's not too late to become part of the process. Learn more about the [Action Plan](#) and [register](#) for the event.



### Trash Free Waters



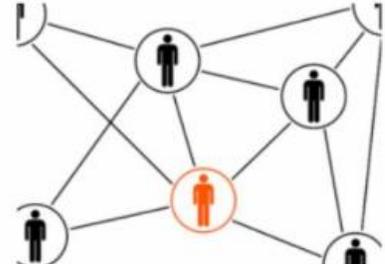
#### ADOPT-A-SPOT

Lend a hand.



#### LIST A PROPERTY

Know a site that needs some help?



#### BECOME A PARTNER

Create a partnership with us.

Great news - the lower Galveston Bay watershed has been added to the [Trash Free Waters Adopt-A-Spot Online Mapping Tool Project](#).

Click around the interactive adopt-a-spot [online mapping tool](#) to find available adopt-a-spots in your area. When you click on the spot, it tells you who to contact to adopt or foster it.

This region needs to begin [populating the tool](#). Please encourage governments and organizations who deal with litter and illegal dumping issues to add information to the tool.

The tool was originally created by a diverse group of stakeholders within the Trinity River Basin basin to foster a litter-free environment by enabling community leaders to promote and track trash removal activities in their region. The plan is to make the tool a state-wide program.

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## GALVESTON BAY REPORT CARD 2017 TST

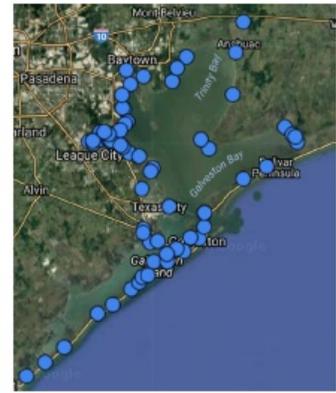
# MONITORING SUMMARY

In 2017, the Galveston Bay Foundation's TST volunteer water quality monitoring team collected and analyzed 615 water samples from 66 sites around Galveston Bay.

These samples were collected by 70 different volunteer monitors who sampled for air and water temperature, dissolved oxygen, pH, salinity, water transparency and depth, as well as general field observations.

[Click here](#) to view their 2017 Water Quality Year-in-Review.

Contact [Lindsay Nolan](#) at GBF for more information.



## TEXAS STREAM TEAM TRAINING VIDEOS



Feeling a bit unsure about a testing procedure. You can always quickly review TST testing procedures with [Texas Stream Team YouTube videos](#) about dissolved oxygen fixation, titrating the fixed dissolved oxygen sample, field observations, measuring pH, calibrating conductivity meters, and measuring conductivity.



## REVIEW YOUR DATA ON THE H-GAC WRIM

The [Water Resources Information Map](#) (WRIM) displays H-GAC's Clean Rivers program water quality data. Data are available from Clean Rivers program professional monitors and TST volunteer monitors. A new Advanced tab allows for improved search functionality by specific site for monitoring, on-site sewage systems, and other water quality issues.

TST monitoring data are updated on the 15th of each month.



## CALENDAR OF EVENTS

What's Going on in the Galveston Bay Watershed?

May 4	Texas Stream Team Phase I & II Volunteer Monitoring Training <a href="#">Get more information and register online.</a>
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May 5	On-site Sewage System Homeowner Education Course (Mont Belvieu) <i>Get more information and register <a href="#">online</a>.</i>
May 5	Wetland Planting at Exploration Green Nature Park in Clear Lake <i>Email <a href="mailto:mcedwards@tamu.edu">mcedwards@tamu.edu</a> for information and to RSVP.</i>
May 8	Texas Water Resources Institute Riparian and Stream Ecosystems Workshop - Tres Palacios and Lower Colorado River Watersheds (Bay City) <i>No cost. Get more information and register <a href="#">online</a>.</i>
May 9	Trash Summit Meeting (Houston Zoo) <i>Get more information and see the agenda <a href="#">online</a>.</i>
May 12	Galveston Bay Foundation Rain Barrel Workshop (Pearland) <i>Bakfish Brewing Co. Cost is \$35 and <a href="#">preregistration</a> is required.</i>
May 14	H-GAC Parks and Natural Areas Roundtable Field Trip (Josey Lake Park, Bridgeland) <i>Get more information and <a href="#">preregistration</a> is required.</i>
May 15	Texas Water Resources Institute Urban Riparian and Stream Restoration Workshop (The Woodlands) Cost is \$100, includes materials and lunch. <i>Get more information and register <a href="#">online</a>.</i>
May 16	H-GAC Clean Waters Initiative Workshop <i>Get more information and the agenda <a href="#">online</a>.</i>
May 19	On-site Sewage System Homeowner Education Course (Bayou Vista) <i>Get more information and register <a href="#">online</a>.</i>
May 19	Wetland Planting at Exploration Green Nature Park in Clear Lake <i>Email <a href="mailto:mcedwards@tamu.edu">mcedwards@tamu.edu</a> for information and to RSVP.</i>
June 3	Galveston Bay Foundation Rain Barrel Workshop (Houston) <i>Saint Arnold Brewery Cost is \$35 and <a href="#">preregistration</a> is required.</i>
June 5	Bacteria Implementation Group Spring Meeting <i>Get more information and RSVP <a href="#">online</a>.</i>
July 14	Galveston Bay Foundation Rain Barrel Workshop (Baytown) <i>Cost is \$35 and <a href="#">preregistration</a> is required.</i>

The Buffalo Bayou Partnership offers a regularly-scheduled assortment of walking tours, boat rides, history tours, and the famous Waugh Colony Bat Tour. Learn more about these events at [www.buffalobayou.org](http://www.buffalobayou.org).

## HAVE YOU DOWNLOADED GALVESTON BAY ACTION NETWORK PHONE APP?

Be the eyes on area waterways - alert the appropriate authorities to pollution using the Galveston Bay Action Network (G-BAN) smart phone app.

Reporting more than a dozen types of pollution while out in the field is so easy.

Just download the app at the [Apple Store](#) or [Google Play](#).

Learn more about G-BAN at the Galveston Bay Foundation [website](#).



## NEWS FROM THE REGION

RIVER, LAKES, BAYS 'N BAYOUS TRASH BASH



Trash Bash is the recipient of the 2018 Texas Environmental Excellence Award in the civic/community category. The award, presented by the Texas Commission on Environmental Quality, celebrates bold efforts to preserve and protect the Texas environment.

The 25th consecutive Trash Bash was held on March 24. More than 85 tons of trash were collected at 14 locations, a 40 percent increase over the past two years and a nine-year high, due in large part to Hurricane Harvey. Nearly 3,600 volunteers also gathered 356 tires and about a ton of recyclable materials while cleaning 158.5 miles of shoreline.

Since 1994, more than 109,000 volunteers have cleaned up 2,274 tons of trash and 11,065 tires from waterways of the Galveston Bay watershed.

Save the date to join thousands of volunteers on **Saturday, March 30, 2019**, for the next Trash Bash. Learn more about [Trash Bash](#).

## CLEAN RIVERS PROGRAM

### ***Basin Highlights Report***

The [2018 Basin Highlights Report](#) will be available to the public as an interactive online application by the end of May. This year's report is characterization of the Chocolate Bayou Tidal, Chocolate Bayou Above Tidal, and Houston Ship Channel/Buffalo Bayou Tidal watersheds. View past reports [online](#).

Contact [Todd Running](#) at 713-993-4549 for information about the [Clean Rivers Program](#).

## CLEAN WATERS INITIATIVE WORKSHOPS

The Clean Waters Initiative (CWI) program offers workshops that help local governments, landowners, and residents develop effective strategies to reduce pollution in area waterways. Contact [Kathy Janhsen](#) at 713-993-2423 for information about [CWI workshops](#).

The next CWI workshop is from 2 to 4 p.m. **Wednesday, May 16** at H-GAC, Conference Room B/C, Second Floor. The topic is Municipal Separate Storm Sewer System (MS4) Permits and will include presentations on monitoring and collecting floatables, good housekeeping for permits, and more. [Registration](#) is requested.

## TOTAL MAXIMUM DAILY LOAD PROJECTS

### ***Bacteria Implementation Group***

The [Bacteria Implementation Group \(BIG\)](#) will hold its spring meeting from 1 to 3 p.m. **Tuesday, June 5**, at H-GAC, Conference Room B/C, Second Floor. The group will review implementation carried out in 2017 for the [2018 Annual Report](#) and evaluate the [BIG I-Plan](#) to consider any changes during the fifth year of implementation. Get more information and RSVP [online](#).



BACTERIA IMPLEMENTATION GROUP

### ***Coastal Basin Bacteria Reduction Projects***

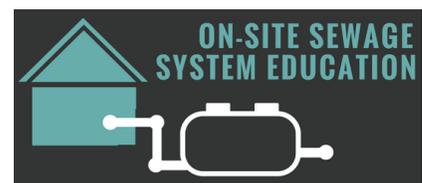
H-GAC, in coordination with TCEQ, continues to address bacteria impairments and concerns in the San Jacinto-Brazos Coastal Basin ([Basin 11](#)) and Brazos-Colorado Coastal Basin ([Basin 13](#)). H-GAC is working with local stakeholders in Chocolate Bayou in Basin 11 to identify bacteria sources and select reduction measures to draft a TMDL Implementation Plan. In Basin 13, H-GAC will coordinate with Caney Creek stakeholders to begin to identify bacteria sources and solutions. Caney Creek stakeholders will meet **Tuesday, May 15**, in Bay City.

Contact [Steven Johnston](#) at 832-681-2579 for information about TMDL projects and meetings.

## ON-SITE SEWAGE SYSTEM PROJECTS and FUNDING OPPORTUNITIES

On-site sewage system homeowner education courses are being offered from 9 a.m. to noon on [May 5 in Mont Belvieu](#) and [May 19 in Bayou Vista](#). Register by clicking on the date/location you prefer.

This course is designed to instruct homeowners on the basics of septic system and onsite sewage facility (OSSF) maintenance and visual inspection. Homeowners will receive an overview of both



conventional and aerobic systems, information on inspection and maintenance, and learn about resources to help repair or replace failing systems. This course does not provide for or allow homeowners to inspect their own aerobic system in place of a maintenance contract.

**H-GAC has money available for repair or replacement of failing systems.** Contact [Will Merrell](#) at 713-993-4594 for information about the courses or qualifications for funding opportunities for repair and replacement.

## **WATERSHED PROTECTION PLANS**

### ***West Fork San Jacinto and Lake Creek WPP***

Stakeholders in the West Fork San Jacinto River and Lake Creek watersheds are identifying voluntary solutions to water quality issues in these areas. Along with elevated levels of fecal bacteria in the water, stakeholders are evaluating other pollutants, including excess levels of nutrients (nitrogen and phosphorus compounds), trash, and sediment in the water. A draft watershed protection plan will be submitted for stakeholder review in early May. Feedback and participation is welcome and appreciated. For more information on the project, please visit [www.westforkwpp.com](http://www.westforkwpp.com).

### ***Cedar Bayou Watershed Partnership***

The Cedar Bayou Watershed Partnership is a group of local residents, governments, businesses, and community groups implementing voluntary solutions to deal with water quality issues in the Cedar Bayou watershed. Located in eastern Harris County and western Chambers and Liberty Counties, the Cedar Bayou watershed passes through Dayton, Mont Belvieu, Baytown, and nearby areas, and its water quality can impact these local communities.

The partnership will host a variety of education and outreach opportunities in coming months, including a workshop on financial and technical resources for agricultural producers and landowners, and on-site sewage system homeowner education courses. For more information, visit [www.cedarbayouwatershed.com](http://www.cedarbayouwatershed.com).

### ***Mill Creek Watershed Protection Plan***

H-GAC was contracted by Texas A&M University AgriLife Extension Service to conduct water quality monitoring in the Austin County Mill Creek watershed to support implementation of best management practices as part of the Mill Creek Watershed Protection Plan. The initial round of sampling was conducted in April. Eight sites will be monitored six times between April and December 2018. For more information about the watershed protection plan, visit <https://millcreek.tamu.edu/watershed-protection-plan/>.

Contact [Justin Bower](#) at 713-499-6653 for more information about [watershed protection plans](#).

## **COASTAL COMMUNITIES EDUCATION & OUTREACH PROGRAM**

H-GAC has a program to help small communities in coastal watersheds inform residents about steps they can take to reduce pollution in local waterways. The project complements existing watershed protection plans and bacteria reduction projects in the region by supporting residential outreach and education.



The four areas of emphasis are pet waste; fats, oils and grease; on-site sewage system maintenance; and litter/illegal dumping abatement. Services provided include print, web, and social media messaging, promotional give-away items, booths at events, school/community programs/presentations, and more as individual communities participate in a needs assessment with H-GAC staff.

Contact [Becki Begley](#) at 713-993-2410 or visit [www.coastalcommunitiestx.com](http://www.coastalcommunitiestx.com) to see how to get your small coastal community involved.

## **HOUSTON AREA URBAN FORESTS**

Trees and forests provide a wealth of benefits to communities, including cleaner air and water, lower temperatures, and flood reduction. The Houston Area Urban Forests project identifies goals and priority projects to expand and diversify area urban forests. A draft regional framework document exploring these issues based on needs identified by local partners is available for [review](#).

Contact [Justin Bower](#) at 713-499-6653 or visit [www.houstonforests.com](http://www.houstonforests.com) for more information.

# NEWS FROM SAN MARCOS

## TEXAS + WATER

The Meadows Center, *Texas Water Journal*, and the Texas Water Resources Institute, (part of the Texas A&M University System) teamed up to launch *Texas+Water!* The first issue was released on March 22, in celebration of World Water Day. Building on the former *Trib+Water* newsletter, *Texas+Water!* is the go-to-source for timely, insightful information concerning water issues in Texas. [Subscribe](#) here.

## ID CARDS

TST identification cards are available for volunteer monitors. If you would like an ID card, please request it [via email](#). Once the request is logged, your monitor ID number will be checked against the state TST database, and address verified.

The ID card is mailed to your address.

## NEWSLETTER

TST has a statewide newsletter, *Headwaters*. Be the first to know about the latest news, services, and volunteer opportunities. See past issues and sign up for [email delivery](#). [Submit](#) your events to the statewide TST calendar.

## PADDLERS PROGRAM

[Paddlers](#) collect data from new or hard-to-reach locales. Kayakers and canoeists can collect higher quantities of data at more locations, improving understanding of water quality issues in lakes, rivers, streams, estuaries and bays. To learn how to get involved, call 512-245-1346, email [txstreamteam@txstate.edu](mailto:txstreamteam@txstate.edu), or complete an [online form](#).

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### ABOUT THE NEWSLETTER

Email [Becki.Begley@h-gac.com](mailto:Becki.Begley@h-gac.com) or call 713-993-2410 with questions, comments, calendar items, or suggestions for future H-GAC Texas Stream Team newsletters or to join the H-GAC Texas Stream Team Newsletter mailing list.

H-GAC is the regional organization through which local governments consider issues and cooperate in solving area wide problems. We invite you to subscribe to the [Community and Environmental Update](#), a monthly e-newsletter to keep you informed about the many community planning, economic development, and environmental planning programs going on at H-GAC.

*Texas Stream Team at The Meadows Center for Water and the Environment* at Texas State University is dedicated to understanding and protecting the 191,000 miles of Texas waterways. For more information, contact [TxStreamTeam@txstate.edu](mailto:TxStreamTeam@txstate.edu).