

ANNUAL REPORT 2023

A YEAR IN REVIEW



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TEXAS A&M UNIVERSITY
Department of Biological
and Agricultural Engineering

FOR MORE INFORMATION CONTACT:
DAVID W. SMITH
TEXAS A&M AGRILIFE EXTENSION SERVICE
BIOLOGICAL & AGRICULTURAL ENGINEERING
TEXAS 4-H YOUTH DEVELOPMENT
(979) 314-8224
DAVID.SMITH@AG.TAMU.EDU





30 NEW AMBASSADORS

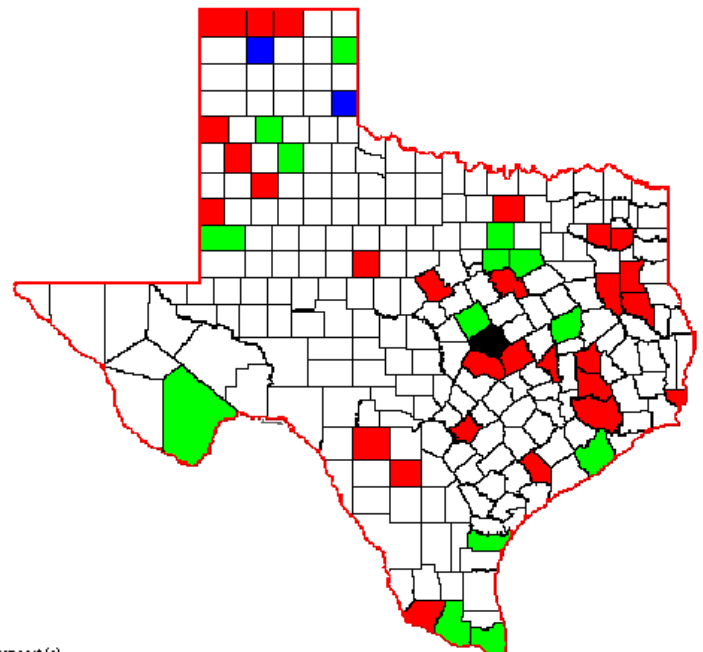
**SINCE 2017, 188 YOUTH
REPRESENTING 80 COUNTIES HAVE
PARTICIPATED IN THE TEXAS 4-H
WATER AMBASSADORS PROGRAM.**

New Tier I Ambassadors (County):

Anna Granadoz (Collingsworth), Mack Alaniz (Jackson), Brecklyn Powell (Collingsworth), Tucker Landry (Hemphill), Brandis Beavers (Dallam), Ethan Spradley (Nacogdoches), Tatum Westbrook (Lubbock), Maggie Mayes (Upshur), Bryce Poling (Harris), Riley Fitzpatrick (Uvalde), Rory Die (Orange), Madison Snow (Ellis), Kaden Gordillo (Tarrant), Aidan Hill (Moore), Ben Webber (Brazoria), Lynnlea Johnson (Swisher), Lynnlee Surles (Frio), Maleigh Morawietz (Brazos), Bubba Moreno (Walker), Sophia Arellano (Cameron), Montana McCarthy (Brewster), Caleb Mannix (Coryell), Randa Jordon (Gaines), Wyatt Beauchamp (Parmer), Norah Pacheco (Ellis), Caroline Wood (Bell), Kadie Cox (Sherman), Pepper Johnson (Brazoria), Kaitlyn Huff (Nueces), Hannah Davis (Denton).

All 2023–2024 Water Ambassadors

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- - 2
- - 3
- - 5



Source: dlymaps.net (c)

CURRENT ROSTER AND COUNTY AFFILIATION

Tier I

Name	County	Classification		Name	County	Classification
Anna Granadoz	Collingsworth	sophomore		Lynnlea Johnson	Swisher	freshman
Mack Alaniz	Jackson	freshman		Lynnlee Surles	Frio	freshman
Brecklyn Powell	Collingsworth	sophomore		Maleigh Morawietz	Brazos	senior
Tucker Landry	Hemphill	junior		Bubba Moreno	Walker	sophomore
Brandis Beavers	Dallam	sophomore		Sophia Arrelano	Cameron	sophomore
Ethan Spradley	Nacogdoches	sophomore		Montana McCarthy	Brewster	freshman
Tatum Westbrook	Lubbock	sophomore		Caleb Mannix	Coryell	junior
Maggie Mayes	Upshur	senior		Randa Jordon	Gaines	freshman
Bryce Poling	Harris	junior		Wyatt Beauchamp	Parmer	freshman
Riley Fitzpatrick	Uvalde	freshman		Norah Pacheco	Ellis	freshman
Rory Die	Orange	freshman		Caroline Wood	Bell	freshman
Madison Snow	Ellis	senior		Kadie Cox	Sherman	sophomore
Kaden Gordillo	Tarrant	freshman		Pepper Johnson	Brazoria	junior
Aidan Hill	Moore	sophomore		Kaitlyn Huff	Nueces	sophomore
Ben Webber	Brazoria	sophomore		Hannah Davis	Denton	junior

Tier II

Andie Saxon	Yoakum	senior		Justin Braune	Guadalupe	junior
Brindle Harper	Lamb	senior		Lucas Moreno	Hemphill	junior
Chase Janke	Coryell	junior		Megan Luna	Brewster	junior
Clay Workman	Leon	sophomore		Mia Salazar	Hidalgo	sophomore
Ethan Averling	Dallas	senior		Olivia Clifton	Rusk	junior
Hunter Fox	Nueces	senior		Sienna Molina	Cameron	junior
Hunter Holder	Burnet	sophomore		Tara Easterling	Moore	sophomore
Jacy Lampe	Collingsworth	sophomore		Texann Ralston	Hansford	sophomore
Jesse Calk	Gaines	senior		Victoria Canales	Bell	sophomore
Joseph Haines	Montgomery	sophomore		Zane Ball	Johnson	sophomore

Tier III

Charlotte Sander	Hidalgo	junior		Lee Barnhill	Fisher	junior
Cone Johnson	Swisher	junior		Madison Olivarez	Starr	junior
Daniel Kernes	Wood	junior		Roert Miller II	Milam	senior
Emma Pool	Johnson	senior		Roxane Islas	Taylor	junior
Hannah Lewis	Hill	junior		Sophia O'Neill	Williamson	junior
Jane Gauntt	Bell	junior				

Tier IV

Emma Canales	Bell	senior		Kyle Workman	Leon	senior
Isaiah Atoe	Tarrant	senior		Sadie Berry	Leon	senior
John Gauntt	Bell	senior		Savannah Bearden	Cherokee	senior
Justin	Hill	senior		Sierra Snowden	Floyd	senior

TIER 1 ACADEMY Trip Highlights:



The Tier I 4-H2O Leadership Academy focused primarily on groundwater management in the High Plains and Panhandle regions. The tour began in San Marcos at the Meadows Center for Water and the Environment. From there, we visited Lloyd-Gosselink, Rochelle and Townsend, KPA Engineers, Clearwater Groundwater Conservation District, Texas Water Development Board, the Southern Ogallala Conservation and Outreach Program, City of Brownfield, High Plains Water District, Samuel Jackson, Inc., Texas A&M AgriLife Research and USDA-ARS, Playa Lakes Outdoor Classroom, North Plains Groundwater Conservation District, and Mesquite Groundwater Conservation District. The academy concluded at John Bunker Sands Wetland Center in Seagoville.



JUNE 11-17
HIGH PLAINS/PANHANDLE

TIER 2 ACADEMY Trip Highlights:



The Tier II 4-H2O Leadership Academy, for second-year water ambassadors, focused on water issues in east Texas and along the Texas Gulf Coast. During the tour, youth learned about water and wastewater treatment, hatcheries and fisheries, wetland restoration, aquatic plants, marine ecosystems, and bays and estuaries. Tour stops included the Texas On-site Wastewater Training Center, Texas A&M Aquaculture Research and Training Center, Texas Water Resources Institute, Galveston Bay Foundation, Long Acres Ranch (Richmond) and Sea Center Texas.



JUNE 25-29
GULF COAST

JULY 16-20

YEAR 2023

LOWER RIO GRANDE VALLEY

Third year water ambassadors toured south-central Texas and the Lower Rio Grande Valley where they met with many water industry organizations and professionals. These included the Guadalupe-Blanco River Authority, Headwaters on the Comal, San Antonio River Authority, Texas A&M AgriLife Research and Extension at Weslaco, Lower Rio Grande Valley Water District Managers Association, San Benito Wetlands, and Sea Turtle, Inc. Students learned about irrigation districts, water quality, watershed protection, habitat restoration and agricultural irrigation methods in the Lower Rio Grande Valley.



TIER 3 ACADEMY Trip Highlights:



JULY 30- AUGUST 3

SOUTHWEST



TIER 4 ACADEMY

TRIP HIGHLIGHTS:

Fourth year and graduating water ambassadors participated in the Tier IV 4-H2O Leadership Academy. The tour began with a visit to the San Antonio Water System H2O Desalination Center in Elmendorf, followed by visits with the Upper Guadalupe River Authority, Sutton County Groundwater Conservation District and The Nature Conservancy at Dolan Falls on the Devils River, Middle Pecos Groundwater Conservation District, Comanche Springs, Balmorhea State Park, and the Caverns of Sonora. Topics covered desalination technologies, springs, karst aquifers, flowing wells and water quality monitoring.





Game Design Activity

Students worked in teams to brainstorm, plan and create interactive, water education games targeted to third through fifth grade students. Groups then rotated, played the games, and improved on one another's designs! Game themes ranged from the water cycle to community water systems.

Mock Town Hall Meeting

The town hall focused on the proposed Marvin Nichols Reservoir. Students were assigned to five separate stakeholder groups representing different perspectives and opinions on whether the project should move forward. Each stakeholder group advocated for their position during a mock town hall featuring passionate debate!



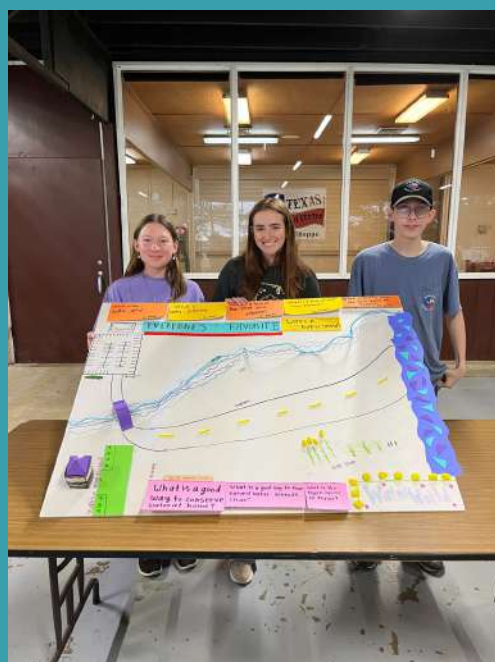
MAY 19-21
CAMP BUCKNER

Spring Retreat

Fall Retreat



**State Water
Planning Activity**



**Community Water System
Model Building**



Costume Party and Dance

Students participated in a state water planning simulation modeled after the Texas process. They also designed and constructed water education models.

OCTOBER 27-29
4-H CONFERENCE CENTER

SENIOR REFLECTIONS



EMMA CANALES
TIER IV AMBASSADOR
BELL COUNTY

"I found my passion for policy my freshman year during our fall and spring retreats. We discussed water law and all the aspects that play a role in it. After that moment, I knew I wanted to pursue a career in water and policy. Not too long afterwards, I was offered the opportunity to attend the State Capital trip where we met with lobbyists and other industry professionals. After one on one conversations with them I knew that this is what I wanted to do. I could not thank the ambassador program enough for offering me these opportunities. After graduation, I plan to attend West Texas A&M University majoring in Agriculture Media and Communications with a minor in Political Sciences in hopes of becoming an agricultural lobbyist."

ISAIAH ATOE
TIER IV AMBASSADOR
TARRANT COUNTY

"The most important thing being a Water Ambassadors has taught me is no matter how small of an impact you may make, you can always change someone's life for the better and give them new opportunities and experiences that they too can share with others. After I graduate high school, I plan on studying Fisheries Science and Management at the University of Arkansas Pine Bluff and pursuing a career with a wildlife and fisheries organization as a fisheries biologist."



KYLE WORKMAN
TIER IV AMBASSADOR
LEON COUNTY



"The Water Ambassador program has given me numerous opportunities to practice public speaking and time management, meet new people, and explore possible careers. These skills will help me tremendously in reaching my career goals. Without the program, I would not be the same today. I appreciate all that I have learned about our state's water resources. After high school, I plan to go straight into the workforce or go to trade school."

SENIOR REFLECTIONS



JUSTIN HILL
TIER IV AMBASSADOR
MOORE COUNTY

“This program has allowed me to interact with business professionals in the water industry, exposing me to the opportunities within. I've had the opportunity to meet and build friendships with peers from all across Texas, and attend state-wide leadership and water conferences. I plan on attending Texas A&M University and major in Ag Systems Management.”

JOHN GAUNTT, III
TIER IV AMBASSADOR
BELL COUNTY

“The Water Ambassador program has impacted me significantly. The program pushed me to learn about a subject I was originally not passionate about. This program has opened my eyes to the careers in the water field and has pointed me toward a degree in ag systems with an end goal of working in water law. I will always be grateful for the friendships and lessons this program has given me.”



2023 TEXAS GROUND WATER FOUNDATION SCHOLARSHIPS



**13 former and current
 4-H Water Ambassadors
 received Texas Ground
 Water Foundation
 scholarships.**

- Ava Snelson
- Bailey Halbert
- Carson Manning
- Gabriel Ramthun
- Jalyynn Justice
- Jaxon Grove
- John Jones
- Macy Downs
- Molly McKinney
- Myla Childers
- Riley Calk
- Susan de Clot
Broissia
- Trent Morris

WHERE ARE THEY NOW?

YEAR 2023

MACY DOWNS - WEST TEXAS A&M UNIVERSITY

“One of the strongest choices I made for my future as a high school student was joining the 4-H Water Ambassadors Program. Through the program, I had numerous opportunities for public speaking and education, which led me to pursue a degree in Agricultural Media and Communication. Experiences I had as a Water Ambassador opened doors for me to earn scholarships from groundwater-focused organizations that paid for almost 20% of the cost of my undergraduate education. I remain in contact with many professional connections I made through the program and cultivated my skills for building new ones. Alongside my peers and with the assistance of wise mentors in the 4-H Water Ambassadors Program, I laid the foundation upon which I am crafting my professional career in agriculture.”



RILEY CALK - TEXAS A&M UNIVERSITY

“Joining the Water Ambassadors Program as a junior in high school opened many doors for me regarding my future and career goals. The leadership and networking opportunities within my community and throughout the state continue to serve me today. I have also had the opportunity to work for the program over the last four years as I pursue my bachelor's degree at Texas A&M University. The last six years as an ambassador and student technician have allowed me the opportunity to explore my interests within the water industry while deciding on a career path.”

MADELINE BROWN - MISSISSIPPI STATE UNIVERSITY

“The Water Ambassadors Program gave me a background of scientific knowledge that helped me qualify for a position as a Forest Hydrology lab technician and a job analyzing wildlife camera survey data. Aside from helping me pay for my education, these jobs have allowed me to gain experience and learn more about my chosen field, and opportunities available to me as a college freshman because of what I learned as a Water Ambassador. I am completing an undergraduate degree in Wildlife, Fisheries, and Aquaculture Science at Mississippi State University. After graduation, I plan to earn a master's degree in environmental science and build a career in restoration ecology.”



SHELBY SLAVINSKI TEXAS A&M UNIVERSITY- CORPUS CHRISTI

“The list of opportunities the program has given me goes without mention; however, I can say having the opportunity to be opened up and see everything firsthand did make a world of difference! From dibbling in ponds and bays, to physically viewing abandoned and flowing wells, to touring wastewater and desalination plants. I am currently attending Texas A&M University in Corpus Christi and majoring in Environmental Sciences. While in Corpus, I will also get the great opportunity to work alongside the Nueces River Authority. In the future, I plan to graduate with a minor in pre-law and transfer to TAMU-College Station for a master's in water law. I hope to either join a water board, river authority, or maybe even start my own firm.”

Former Ambassador Spotlight

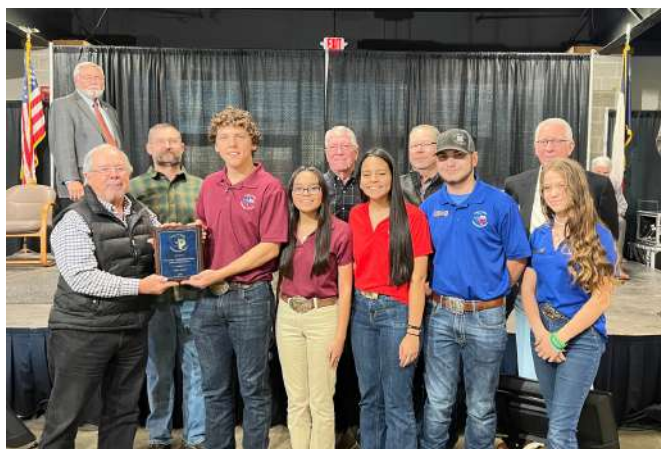


Molly McKinney was selected for the fall 2023 cohort of the Texas A&M Public Policy Internship Program where she is interning for Bose Public Affairs Group. As a public policy intern, Molly tracks legislation and write in briefs for various policy areas including health, environment, and technology. She also covers hearings on the Hill and creates a weekly newsletter that is sent out to partners and staff. Molly served two years as 4-H Water Ambassador in Bexar County, before working four years as a Student Technician for the Texas 4-H Water Ambassadors Program while a Texas A&M University student. Molly graduated from Texas A&M University spring 2023.

Bailey Halbert (right) was selected for the Agricultural and Natural Resources Policy Internship Program at Texas A&M University where she interned for State Senator Lois Kolkhorst during the Texas 88th Legislative Session in the spring of 2023. This rare opportunity allowed Bailey to explore her interest in a policymaking career by serving the constituents of Senate District 18 and impacting the future of Texas. Her service included constituent communications, legislative research, bill analysis, and attending committee hearings in support of the Senator. Additionally, she was the staffer solely responsible for ensuring that Senator Kolkhorst's bills successfully passed the Local and Uncontested Calendar. Bailey was a Brazos County 4-H member, served two years as Texas 4-H Water Ambassador, and is currently a senior at Texas A&M University who plans to graduate spring 2024.



WATER INDUSTRY CONFERENCES



BELL COUNTY WATER SYMPOSIUM
November 14
Belton



TEXAS GROUNDWATER SUMMIT
August 29-30
San Antonio



**TEXAS ON-SITE WASTEWATER
ASSOCIATION CONFERENCE**
March 7
Waco



**TEXAS GROUNDWATER
ASSOCIATION ANNUAL
CONVENTION**
January 25-26
San Marcos

**MILAM & BURLESON COUNTIES
GROUNDWATER SUMMIT**
August 17
Caldwell

AMBASSADOR SERVICE

2,972 HOURS OF REPORTED SERVICE
38,578 EDUCATIONAL CONTACTS
\$94,830 IN VOLUNTEER TIME



Rory Die participated in the 2023 TCEQ Public Drinking Water Conference in Austin.



Kyle & Clay Workman taught students at Leon Elementary about watershed protection using an EnviroScape Model.



Miranda Jordon, Andie Saxon, & Jesse Calk assisted Southern Ogallala Conservation and Outreach Program at Oil & Ag Day in Gaines County.



Kadie Cox, Brandis Beavers & Texann Ralston assisted North Plains Groundwater Conservation District at Dalhart 4-H Soil Camp.



Caleb Mannix & Chase Janke led a water infiltration demonstration for students at Keep Copperas Cove Beautiful Eco Harvest 2023.

CONTINUING EDUCATION VIRTUAL SEMINARS

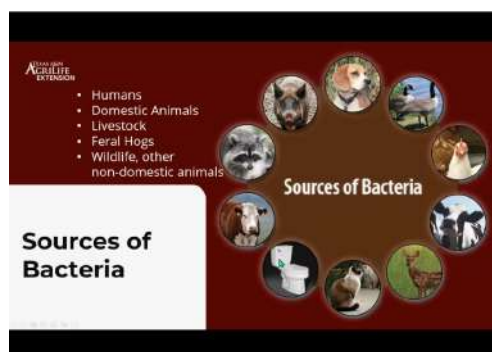


A Watershed Level Approach. Michelle Wood-Ramirez, Tarrant Regional Water District

Eight Zoom seminars provided continuing education on a range of water topics including water quality, college degree options, healthy riparian areas, industrial water treatment and water industry careers.



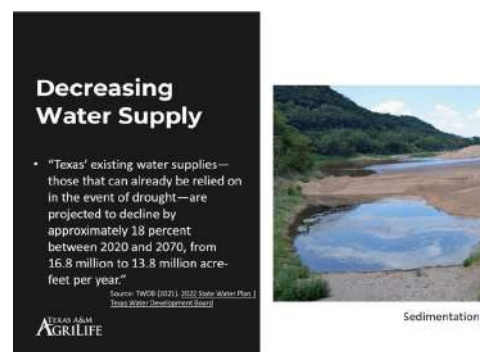
A Sneak Peek into TAMU Biological & Agricultural Engineering and Agricultural Systems Management. Allison Thomason, Texas A&M University



Lone Star Healthy Streams. Leanne Wiley, Texas A&M AgriLife Extension, Soil & Crop Sciences



Water industry career panel. Jenna Covington - North Texas Municipal Water District, Heather Ramsey - San Jacinto River Authority, Jill Garcia - Upper Trinity Groundwater Conservation District, Adeline Fox - Texas Ground Water Association



A Dive into Texas Water Issues. David Smith, Texas A&M AgriLife Extension

Cooling Water Usage

How is water used?

- Industrial water**
- 70% used for Cooling
 - 20% used for Process water and steam generation
 - 10% used for other use

Majority of cooling water is used for indirect cooling

- Heat Exchangers
- Condensers

Demand for Cooling Water has a great effect on World Water Use

- Requires the operator to maximize water savings through reduced wastage

Types of cooling

- Once-Through
- Closed Systems
- Open Recirculating

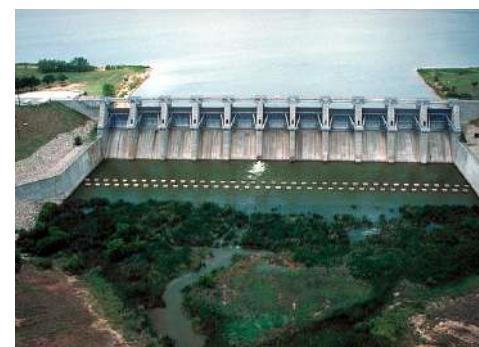


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Industrial Water. Dr. Waynn Morgan, TriMor Consultants, LLC, James Kiolbassa, Baker Hughes



Source Water Protection. Jason Knobloch, Texas Rural Water Association



Water Infrastructure. David Smith, Texas A&M AgriLife Extension

ADVISORY COMMITTEE

**MET MAY 24 &
DECEMBER 7**

COMMITTEE MEMBERS:

THE 4-H WATER AMBASSADORS PROGRAM ADVISORY COMMITTEE CONSISTS OF WATER INDUSTRY, EXTENSION AND EDUCATION PROFESSIONALS.

MEMBERS MEET TWICE A YEAR TO REVIEW PROGRAM ACTIVITIES AND PROVIDE ADVICE TO ENHANCE VISIBILITY, BUILD SUPPORT AND EXPAND PROGRAM IMPACT.

1. Adeline Fox—Guadalupe-Blanco River Authority
2. Jay Bragg—Texas Farm Bureau
3. Jill Garcia—Upper Trinity Groundwater Conservation District
4. Michelle Wood-Ramirez—Tarrant Regional Water District
5. Whitney Ingram—Texas A&M AgriLife Extension
6. Sinclair Newby—Johnson County Special Utility District
7. Roxanna Reyna—Texas A&M AgriLife Extension
8. Julia Stanford—Texas Alliance of Groundwater Districts
9. Megan Lamb—Brazos Valley Groundwater Conservation District
10. Michelle Cooper—Southern Ogallala Conservation & Outreach Program
11. Stephanie Keith—Middle Trinity Groundwater Conservation District
12. Dirk Aaron—Clearwater Underground Water Conservation District
13. Justin Saenz—Lone Star Groundwater Conservation District
14. Riley Calk—Former 4-H Water Ambassador, Student Technician
15. Joshua Jones—Former 4-H Water Ambassador, Student Technician

PROGRAM SPONSORS

Industry sponsors are essential to the success of the program! This funding is used to cover costs for the summer leadership academies/retreats as well as educational resources and tools for water ambassadors.

Visit our website for full list of current sponsors or to become a sponsor.

<https://www.texas4hwaterambassadors.com/sponsors>

IN 2023, 61 INDIVIDUAL SPONSORS CONTRIBUTED \$87,000 TO SUPPORT THE PROGRAM!

The Texas 4-H Water Ambassadors program is funded through private sponsorships and in-kind support. Funds are used solely for the mission and objectives of the Texas 4-H Water Ambassadors Program. Thanks to all sponsor organizations for their support!



Sponsorships are made to the Texas 4-H Youth Development Foundation—a 501(c)(3) nonprofit organization. Donations to the Foundation are tax deductible to the fullest extent allowed by law.

2024 APPLICATIONS & DATES

MARCH 15, 2024

APPLICATIONS OPEN

MAY 1, 2024

APPLICATIONS CLOSE

MAY 10, 2024

**APPLICANTS NOTIFIED
OF ACCEPTANCE STATUS**

JUNE 1, 2024

\$300 PARTICIPATION FEE DUE

JUNE 9-15, 2024

TIER I 4-H2O LEADERSHIP ACADEMY

- Through an application process, up to (30) high school youth are selected from across Texas to serve as 4-H Water Ambassadors. Those chosen will participate in a Tier I 4-H2O Leadership Academy – a multi-day tour of Texas aimed at exposing youth to a wide diversity of water issues.
- Following the Academy, youth commit to a minimum of (40) hours of water education and service in their communities. Those who complete their service commitment may continue as 4-H Water Ambassadors in successive years until they graduate high school
- Year 2 (Tier II), year 3 (Tier III), and year 4 (Tier IV) 4-H Water Ambassadors participate in 4-H2O Leadership Academies which focus on a different region of Texas. They renew their annual education and service commitment during their remaining terms of service.

HOW TO APPLY



VISIT OUR WEBSITE:

<https://www.texas4hwaterambassadors.com/application>



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**KEEP UP WITH US
ON SOCIAL MEDIA**