



## EDUCATOR'S PACKET

IN PARTNERSHIP WITH

THE ROSEWOOD  
CORPORATION





Dear Educators,

Thank you for all you do to meet the education needs of students across North Texas. You play a vital role in developing future leaders in our region.

The North Texas Municipal Water District (NTMWD) has been providing reliable water services to our region for more than six decades. Water is essential to life, and we take our mission very seriously.

In the last several years, we've worked together with our cities to overcome extreme drought and meet the water needs of our growing region. Public education has been an important part of managing our limited supplies by encouraging the wise use of this precious resource. Part of this success has been through our Water4Otter youth outreach program – teaching students about where their water comes from and encouraging discussions at home about how to save water. You can learn more about this program at [www.Water4Otter.org](http://www.Water4Otter.org).

Another exciting educational resource for our region's schools is the John Bunker Sands Wetland Center in Seagoville. The Center is home to the largest man-made wetland in the U.S. built for the purpose of water supply. The East Fork Water Reuse Project, completed by NTMWD in 2009, was designed to naturally filter flows from the Trinity River and its tributaries before pumping it north to Lavon Lake in Wylie for future treatment and reuse as drinking water.

According to the latest State of Texas Water Plan, over one-quarter of our region's future supplies will come from ongoing conservation and reuse. It's important that we work together to educate our youth about the water cycle and innovative ways to ensure water for our future. The wetland project provides a fun, outdoor venue for teaching scientific concepts, such as biology, chemistry, ecosystems and wildlife habitats.

The Wetland Center team has developed engaging programs for students and educators which have become very popular. We would like to encourage more of the educators within our service area to consider these programs as a part of your curriculum. For the coming school year, we are offering our communities' educators priority scheduling to bring your students for a class field trip at the Center.

Our goal is to increase participation in the cities we serve to ensure this valuable educational resource is being used by those communities who have invested in this key source of our water supply. Enclosed are materials with more details about the project and Wetland Center resources available to you. We hope you will consider incorporating the importance of protecting our water supplies in your curriculum and take advantage of the exciting resources available at the John Bunker Sands Wetland Center. For more details, visit [www.wetlandcenter.com](http://www.wetlandcenter.com).

For more information on our public education programs and opportunities, please contact Helen Dulac, Water Resource Program and Public Education Manager at [hdulac@ntmwd.com](mailto:hdulac@ntmwd.com) or 469-626-4306.

Sincerely,

JENNA COVINGTON  
Executive Director



# Visitors to the John Bunker Sands Wetland Center can enjoy:



- Observation deck and boardwalks into the wetland

- Hands-on field investigations for the whole family

- Photography contests

- Bird walks for both beginning and veteran bird watchers

- Walks and tours on the nature, culture, and history of the wetland

- Educational workshops on the water cycle, wildlife, and water conservation for elementary, high school and college students

- Teacher and youth leader workshops on water systems and the wetland's unique wildlife for SBEC teacher credit

## From Wetland to Faucet

Today, the East Fork Water Reuse Project helps the District supply drinking water to over 1.7 million residents.

By providing nearly the same amount of raw water supplied by Lavon Lake, the wetland enables the District to continue distributing clean water for about a third of penny per gallon.

## THE EAST FORK WATER REUSE PROJECT

### CLEANING WATER NATURE'S WAY

Clean water. It is a key ingredient for life. In semi-arid areas like North Texas, this makes it also one of the most valuable.

Our region's population is expected to double over the next 50 years, and as it does, we must ensure we have the water needed for today and tomorrow.

In 2004, the North Texas Municipal Water District (NTMWD) initiated the East Fork Water Reuse Project to address this critical need. Through careful and innovative planning, the District was able to construct a 2,000-acre wetland, which maximizes supplies by naturally filtering treated wastewater for reuse.

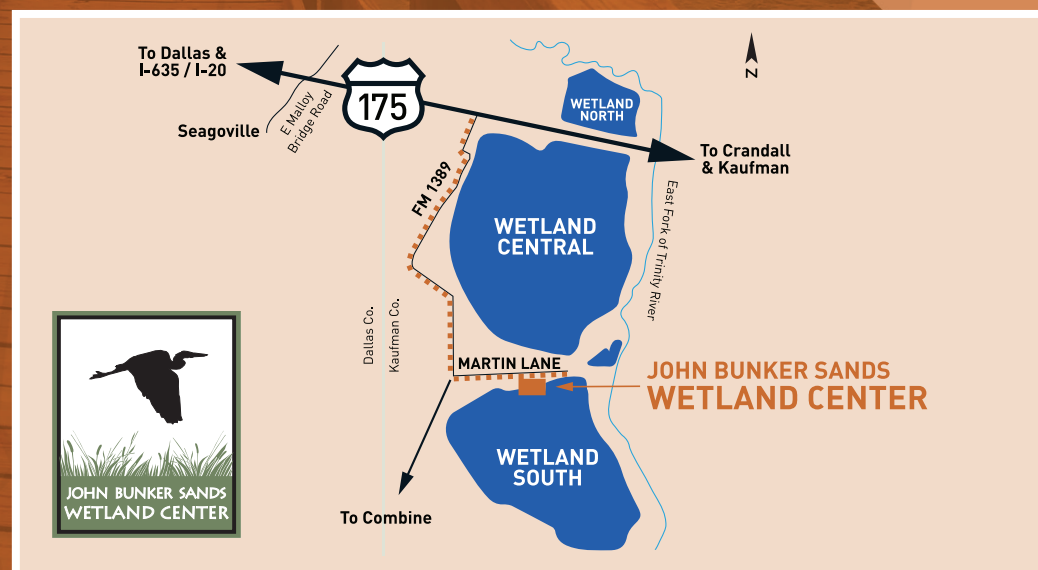
## WANT TO LEARN MORE?

Come explore the wetland and learn more at the John Bunker Sands Wetland Center. To find out about public hours, nature walks/classes, and other special events, visit [www.wetlandcenter.com](http://www.wetlandcenter.com).



*Regional. Reliable. Everyday.*

[www.NTMWD.com](http://www.NTMWD.com)





The District's goal was to use nature—aquatic plants and sunlight—to further filter treated wastewater before adding it to an existing reservoir where it could be cleaned again and delivered for drinking water. This was a much faster and more cost-effective alternative to building another reservoir. The District completed the East Fork Water Reuse Project in 2009. As one of the largest man-made wetlands for water supply, it allows the District to reuse up to 102,000 acre-feet of water annually, enough for half a million people.

The wetland also provides a natural habitat for wildlife and offers visitors unique recreational and education opportunities through the John Bunker Sands Wetland Center.

**Wetland Size:**  
1.4 by 3.7 miles

**Shallowest Water Depth:**  
6-20 inches

**Deepest Water Depth:**  
4-10 feet

# THE NATURAL FILTRATION PROCESS

Treated wastewater released into the river is actually higher quality than the native river water. The combined river water and treated wastewater does, however, still carry sediment, nitrogen, phosphorus and other nutrients.



Three sediment basins, sunlight, millions of native aquatic plants and micro-organisms in the wetland work together to remove the majority of sediment, nitrogen and phosphorus in the water. It generally takes 7-10 days to travel through the wetland. By the end of this natural process, the wetland-filtered water can then be conveyed through a 44-mile long, 84-inch diameter pipeline to Lavon Lake where it mixes with native stream flows into the lake.

# BENEFITS OF THE WETLAND

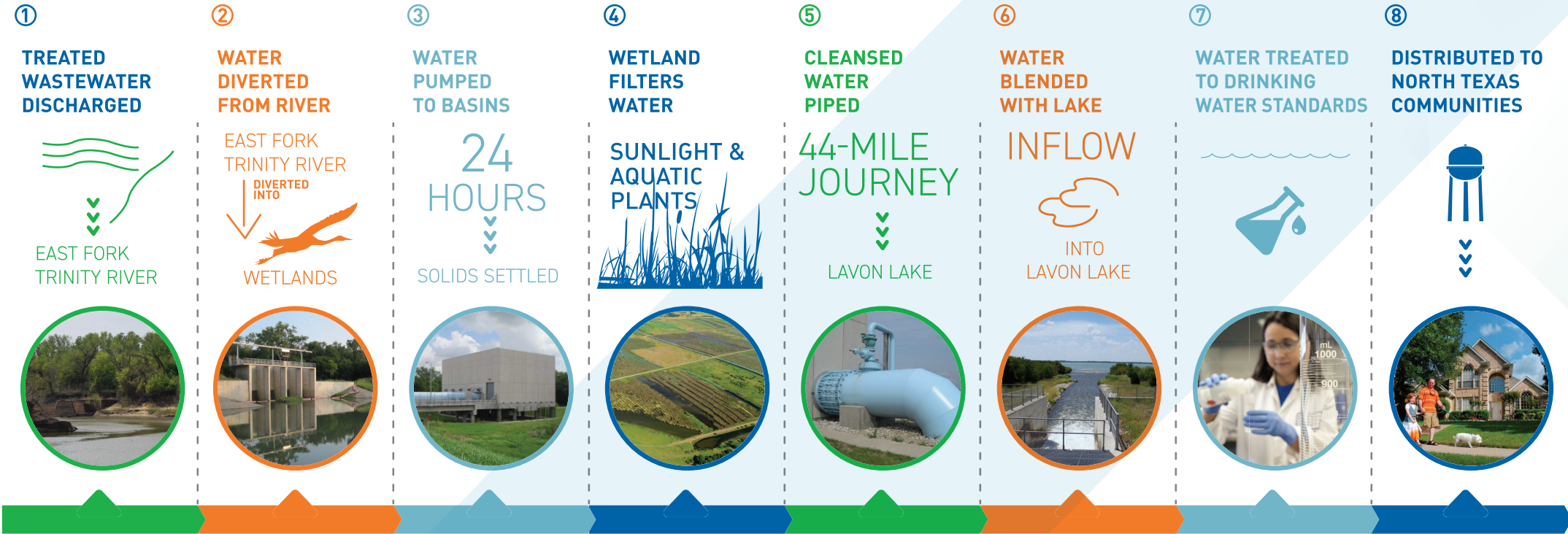
## An Opportunity to Learn and Discover—

While its primary purpose is for water supply, the wetland has also become a thriving wildlife habitat. The wetland is currently home to over 260 types of birds, including a pair of bald eagles that return annually to nest, hatch and fledge their young eaglets. Visitors also have the opportunity to spot and observe a whole variety of land and water animals including deer, opossums, fox, mink, river otters and various reptiles.

The wetland also provides the public a unique amenity for outdoor recreation and enjoyment just outside the DFW metro area. Created as a public-private partnership with The Rosewood Corporation, the John Bunker Sands Wetland Center is located in the middle of the East Fork Water Reuse Project where it offers numerous exploratory, educational, and research opportunities related to the wetland's system, water cycle, wildlife and water conservation efforts.



# THE JOURNEY OF THE WATER





# Teaching About Water Efficiency and Water Stewardship



For simple tips for  
water efficiency and  
conservation, visit  
[NTMWD.com/SaveWater](https://www.ntmwd.com/SaveWater)

## Bridging the Gap Between Water Knowledge and Water Stewardship

**WATER** is more than a quality of life issue  
**LIFE** cannot exist without it,  
Nor can our **ECONOMY**

Clean and safe water is essential to protect public health, our safety and to maintain the quality of life we all enjoy. A reliable water supply supports the economic success of our communities. Conservation and water reuse are key ways the North Texas Municipal Water District (NTMWD) manages a finite supply of water.

We count on water conservation as the source for nearly one-quarter of our future supplies. We do this by providing simple tips for efficient use of our most precious resource inside and outside of your home. Conservation not only helps extend water supplies during frequent Texas droughts, it is also critical to meet future water demands because the population in our service area is expected to more than double in the next 50 years.

Since water projects require significant investment to build and take many years to gain approvals and construct, conservation helps stretch existing supplies for the communities that we serve. When you use water wisely, it allows us to delay costly water projects needed to meet regional water demands. It can also help you manage your monthly water bill. Visit [NTMWD.com/SaveWater](https://www.ntmwd.com/SaveWater) to learn more.

## Education and Outreach

Statewide research indicates that the more a person knows about their water source, the more likely they are to change their water use habits.

NTMWD promotes water stewardship and conservation through local community outreach initiatives and educational presentations. NTMWD offers free virtual or in-person presentations to civic groups, school and corporate organizations covering many topics.

- Lavon Lake as a water source
- Water treatment and delivery
- Watershed protection
- Water quality
- Wastewater treatment
- Water reuse
- The “One Water” concept

Our staff participates in events, festivals and fairs to engage directly with people to answer questions about the value of water and provide tips for conserving water and protecting source water quality. To schedule a presentation or invite us to your event, contact:

**Helen Dulac**

Water Resource Program & Public Education Mgr

469-626-4306

[HDULAC@NTMWD.COM](mailto:HDULAC@NTMWD.COM)



# Water4Otter Brings Water Conservation Education to Your Students



**Meet Otis the Otter, Farah the Fox, and Bob the Bobcat, and learn about Lavon Lake and more things water!**

## Starting the Water Conservation Conversation

History indicates that engaging youth in issues like recycling and protecting animals is effective in elevating household discussion of cause-related issues. However, a 2004 statewide Texas research indicates only 28% of those surveyed know the natural source of their drinking water. Locally conducted research indicates that this is an opportunity for parents and children to talk about water use in their home.

The goal of Water4Otter is to engage children and their families in a conversation about water. Water4Otter is a success! A past post-campaign survey of 3,233 children showed that 78% of students who met Otis went home and reminded their parents to save water.

**RESEARCH INDICATES THAT 92% OF KIDS WOULD RATHER GIVE WATER TO ME AND MY FRIENDS THAN TO THEIR LAWNS.**



## K-5th Grade Water4Otter School Assemblies

A limited number of free school performances for K-5th grades are available each year for those schools in: Allen, Farmersville, Forney, Frisco, Garland, McKinney, Mesquite, Plano, Princeton, Richardson, Rockwall, Royse City, and Wylie.



If you're interested in having Otis, Farah, and Bob out for a free performance at your school, visit [Water4Otter.org/tour](https://www.water4otter.org/tour).

For questions, contact:

**Helen Dulac**

Water Resource Program and Public Education Manager  
North Texas Municipal Water District  
469-626-4306

[HDULAC@NTMWD.COM](mailto:HDULAC@NTMWD.COM)



# Reduce Outdoor Water Waste - Sign Up At WaterMyYard.org



## Know When to Water... And When to Wait!

Since 2012, the North Texas Municipal Water District (NTMWD) has partnered with Texas A&M AgriLife Extension Service (AgriLife) to provide a weather-based tool to assist

homeowners in reducing outdoor water waste caused by over-use of irrigation systems. WaterMyYard.org provides a portal where consumers can subscribe to receive a free, weekly text or email with watering recommendations based on local weather data.

AgriLife maintains and hosts the website, as well as all facets of research-based calculations which are used to derive the weekly watering recommendations subscribers receive. WaterMyYard.org is an award-winning program which has grown in popularity statewide, and is conducted in partnership with water districts, cities, and public utilities.

NTMWD promotes the researched-based landscaping practices from AgriLife in its education and outreach endeavors. These best management practices provide easy ways consumers can maintain healthier lawns and landscape areas while using less water.

To learn more about WaterMyYard.org, contact:

### **Helen Dulac**

Water Resource Program and  
Public Education Manager  
North Texas Municipal Water District  
469-626-4306  
HDULAC@NTMWD.COM

**KIDS CAN ENCOURAGE  
PARENTS & RELATIVES  
TO SIGN UP FOR  
WATERMYYARD.ORG**



## What's That Weird, White Box at the Wetland?

Adjacent to the John Bunker Sands Wetland Center property sits one of the full weather stations used by NTMWD for the Water My Yard program. NTMWD owns 15 full weather stations and 12 rain gauge systems which are part of the program. Each station site has been strategically selected based on microclimate and location within the NTMWD service area.

The weather station provides data readings for rainfall, air temperature, solar radiation, wind speed and wind direction which is transmitted to AgriLife. This real-time data is used to formulate weekly watering recommendations sent to Water My Yard subscribers.

Take the guesswork out of knowing when and how much to water. Find out the precise amount of supplemental water your lawn needs and reduce the chance of lawn problems caused by overwatering. Sign up for this free service at WaterMyYard.org.

**Know More.  
Water Less.**





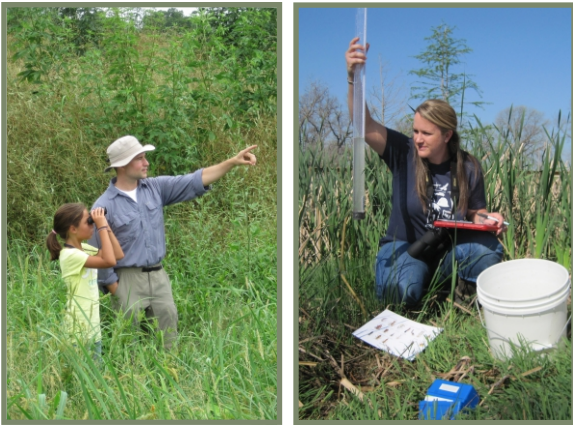
**View a YouTube video for educators about the  
John Bunker Sands Wetland Center**

<https://youtu.be/UDPGPZVFN28>



## Education & Research

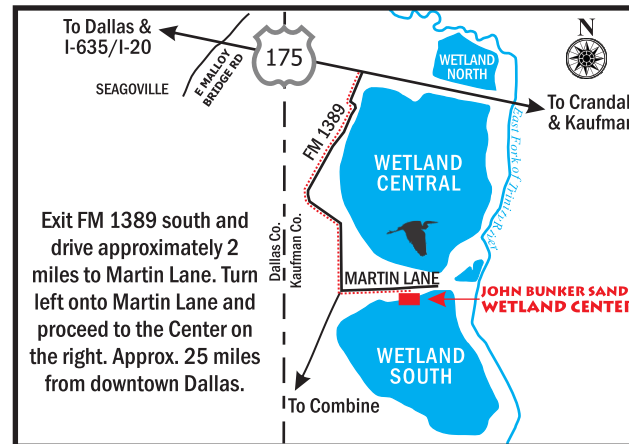
The Wetland Center has partnered with regional school districts, wildlife and conservation organizations, and research institutions, to develop premier environmental education programs. The education programs focus on wetland ecology, plant ecology, bird migrations and water conservation. Research conducted at the Wetland Center encompass wetland ecology, aquatic and terrestrial ecology and wildlife conservation.



The unique environmental education programs of the Wetland Center give students an opportunity to observe and collect data for research projects. This scientific inquiry method provides real life experience using field and laboratory investigations to solve problems and make informed decisions.



### Directions to the Center



### Public Hours

**Tuesday - Friday 9am - 4pm**

**Saturdays 7am - 4pm**

Admission: \$5 Adults \$4 Seniors 60+,  
Children 12 & under free

### Education Programs

Call or email for more  
information.

Find Us On



@jbswetlandcenter

Follow Us On



**John Bunker Sands Wetland Center**

655 Martin Lane · Combine, TX 75159

**972-474-9100**

contact@wetlandcenter.com

**www.wetlandcenter.com**



John Bunker Sands Wetland Center's mission is to educate the public and provide research opportunities in the areas of water reuse, quality, supply; wildlife conservation; and wetland systems.

**655 Martin Lane  
Combine, TX 75159**

**www.wetlandcenter.com**



## The Wetland Center & Boardwalk



The John Bunker Sands Wetland Center provides opportunities for research, education, wildlife observation, and community gatherings within a comfortable, environmentally-conscious building.

The 5,400 square foot facility includes an exhibit and gallery hall; a research lab for use by research groups to study the wetland plants and animals; a classroom for hands-on 4th-12th



**Southview of the John Bunker Sands Wetland Center**

grade educational programs; and an observation deck to view the wetland. The Center also has a catering kitchen to accommodate larger events, and private sleeping quarters for research students. A granite pathway leads visitors to a boardwalk extending into the living wetland. The boardwalk allows students and visitors to observe and study the wetland plants and wildlife habitat.

The Wetland Center is located on the Rosewood Seagoville Ranch property in Kaufman County. It is a non-profit 501c3 created by the partnership of the The Rosewood Corporation and the North Texas Municipal Water District.



## History & Land Stewardship



**John Bunker Sands  
1948 - 2003**

The mission of the Wetland Center extends the legacy of the late John Bunker Sands, a land steward, who directed the creation of over 2,100 wetland acres in the 1980's and 1990's on Rosewood Ranches properties in Kaufman, Henderson, Ellis, and Navarro counties, Texas. Bunker adopted the holistic resource management practices which promoted land stewardship insuring a commitment to manage and improve the natural resources of the land for future generations. He applied them to the Rosewood Ranches to not only supply additional recreational opportunities, but to increase environmental diversity, improve the health of natural resources and the prosperity of the ranches. The constructed wetlands included seasonal emergent wetlands, scrub shrub and flooded bottomland hardwood forest providing diverse habitat for wildlife. Several of the original wetlands occurred at Rosewood's Seagoville Ranch, the site of the Wetland Center and the East Fork Water Reuse Project.



## East Fork Water Reuse Project



East Fork Wetland



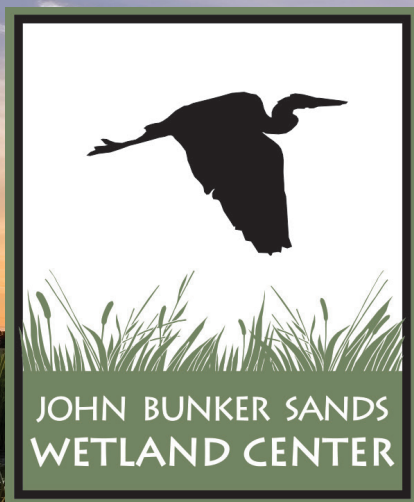
Intake Structure

The late John Bunker Sands conservation legacy and the vision of the North Texas Municipal Water District have sprouted into a unique and natural solution for supplying clean water to the growing population of North Texas. The East Fork Water Reuse Project was funded and constructed by the North Texas Municipal Water District (NTMWD) and designed by Alan Plummer and Associates Incorporated.

The East Fork Water Reuse Project is a natural process that diverts a percentage of water each day from the East Fork of the Trinity River into a 1,840 acre man made wetland where the water is cleansed by nature, not machinery. After 7 to 10 days in the wetland, a pump station then transports the cleansed water underground through a 43 mile pipeline north to Lavon Lake for storage, blending, treatment, disinfection, and delivery for municipal water supply.







# WE LOVE A WILD CLASSROOM

EXPLORE | DISCOVER | LEARN



Immerse your students in premier environmental education programs at the John Bunker Sands Wetland Center (Wetland Center). Specializing in AP Environmental and Aquatic Sciences.

All programs are STEM driven, field study based, and TEKS correlated.

## 4<sup>TH</sup>-5<sup>TH</sup> GRADE EDUCATIONAL PROGRAMS

Wetland Ecology

Birds: The Nesting Generation

Wasting Water is Weird:  
Water Conservation

Wildlife Ecosystems

## 6<sup>TH</sup>-12<sup>TH</sup> GRADE EDUCATIONAL PROGRAMS

Wetland Plant Ecology

Wetland Ecology

Blue Gold: Path to  
Water Conservation

Programs can be scheduled Tuesday-Friday. For more information on **available dates**, **pricing**, and to **schedule a field study** at the Wetland Center **contact Linda Dunn, Education Manager at 972-474-9100 or [ldunn@wetlandcenter.com](mailto:ldunn@wetlandcenter.com)**.

Lack funding? Apply for the **David Keith Sands Education Fund** or the **Lyda Hill Foundation Scholarship** at [wetlandcenter.com](http://wetlandcenter.com).

Since 2010 the Wetland Center has been educating students about the wetland and their importance to water quality and conservation, and wetland ecosystems. It is the perfect location for students to come and learn about these topics through immersive hands-on field investigations.

Students will experience water reuse and conservation, collecting macroinvertebrates, identifying plants, analyzing water quality, identifying bird life, and much more!







## WHAT TEACHERS ARE SAYING...

"The content was **engaging**, taught at a **high level**, and covered many of the major components the students **need to know** about wetland ecology and water quality testing. I certainly appreciate the **insight** of the instructors. They were able to challenge the students' **critical thinking skills** while providing meaningful opportunities for students to **explore and enrich** their learning."

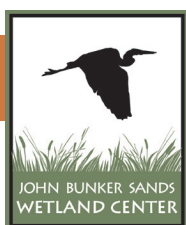
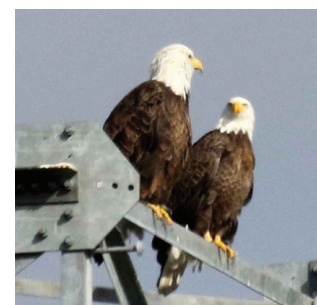
—AP Environmental Science/Biology Teacher, Wakeland High School

"Many thanks for another amazing field trip! Your site is our favorite due to your **unbelievable grounds**, your personnel and your willingness to **supplement and add to our curriculum**. Your staff were so in tune with the classes and worked in the new material skillfully, yet were so aware of the students' level and used class interests to make more connections! This doesn't happen on other field trips where the program is canned and the teachers are not personally engaged in the lesson."

—4th Grade Teacher, The Lamplighter School

## PLAN YOUR TRIP TODAY AND EXPERIENCE:

- **2,000-acre** man-made wetland, known as the East Fork Water Reuse Project— providing water for approximately 1.7 million people in North Texas
- **24 wetland plant species** that naturally filter river water and improve water quality
- **250+** bird species and abundant wildlife, including a nesting pair of bald eagles
- **10+ miles** of hiking and biking trails
- Education for **ALL**



655 Martin Lane, Seagoville, TX 75159 | 972.474.9100 | [wetlandcenter.com](http://wetlandcenter.com)

SPECIAL THANKS TO OUR PARTNERS



THE ROSEWOOD  
CORPORATION





# John Bunker Sands Wetland Center Educational Agreement Form

Education Group: \_\_\_\_\_ Todays Date: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Email: \_\_\_\_\_

Address: \_\_\_\_\_ City/State/Zip: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Date of Program: \_\_\_\_\_ Arrival/Departure Times: \_\_\_\_\_

Program Title(s): \_\_\_\_\_ Grade Level: \_\_\_\_\_

Thank you for scheduling a field study with the John Bunker Sands Wetland Center. Below is the breakdown of our fees, our program guidelines and cancellation policies.

*Please read thoroughly, then sign below and return this contract along with deposit by: \_\_\_\_\_*

*You may call and give us a credit card number to keep on file so we can hold the date of your program if sending a check is more difficult. Otherwise the check is due by the due date.*

	Estimated Number	Total Amount
Program Details		
# of Students (\$8.00/person) Minimum 10 students or \$80.00		\$
# Teachers/Chaperones (\$8; one free/10 Students)		\$
# Parents (\$8.00)		\$
Total		\$
Less \$_____ Non-refundable Deposit	Program _____ day	-\$
Total		
Balance Due		\$

A signed copy of this contract and a \$\_\_\_\_\_ non-refundable/transferable deposit must be received by the date indicated.

**Deposit can be made by check, or we can keep a credit card on file.**

*If the contract has not been received and/or no contact has been made by your group by this date, JBS Wetland Center reserves the right to cancel your reservation.*

**\*\*Total cost of program is due by check, credit card, or cash upon arrival of the program date\*\***

**Please be sure to read our Program Policies below regarding changing participant numbers and program cancellation**

## REVISIONS TO PARTICIPANT NUMBERS

Program fees are based upon the number of students and adults you indicated would attend the program. This information is essential for scheduling staff and purchasing supplies. If you need to revise the number of students or adults in your group, please give us 14 days notice so that we can make any necessary programming adjustments. ***Fees will be calculated on the number of participants two weeks prior to the program date.***



## **CANCELLATION POLICY**

The Wetland Center requires 30 days notice of any intent on your part to cancel the program. Prior notice is required so that we can afford other organizations the opportunity to schedule a program. ***Without such notice, we must consider the fee payable in full, regardless of whether or not the program occurs.***

## **WEATHER POLICY**

***Programs will occur rain or shine and are rarely cancelled or rescheduled due to weather.*** If weather forecasts suggest rain or other inclement weather on the day of the program, it is the responsibility of the school to have the students and adults dress appropriately for the weather. In extreme weather situations (thunder and lightning, extremely high winds, and/or extreme temperatures) the Wetland Center reserves the right to cancel the program. In these situations, all attempts will be made with the school to reschedule the program. If a mutually acceptable date cannot be found, the school will not be liable for program fees. The safety of the students and program participants is our top priority.

## **SCHOOL GROUP BEHAVIOR AND PARTICIPATION EXPECTATIONS**

***Please review with your students and chaperones before your JBS Wetland Center visit.***

- JBS Wetland Center Programs are field ***studies***, not field ***trips***. Please ensure that students are aware that they will be involved in a science class and will be expected to conduct themselves accordingly.
- ***Discipline is the responsibility of the students, teachers and/or chaperones.***  
Students that cannot be controlled will be asked to wait in the visitors center with a chaperone.
- ***JBS Wetland Center educators / naturalists are professionals in the environmental education field*** with much to offer your students. They are expected to treat all visitors with consideration and respect. In return, students, teachers, and chaperones are expected to treat our educators / naturalists with consideration and respect.
- ***Teachers and chaperones are expected to be active participants in the JBS Wetland Center program.*** We make every effort to have small group sizes in our field classes, however, sometimes groups are larger than preferred and it is very important that teachers and chaperones help facilitate programs and maintain group control.
- ***Please respect the wildlife, natural surroundings, nature center, and fellow students. Voices should be kept low when around the wildlife, on the boardwalk or other areas where wildlife is present.***
- ***Please do not sit on boardwalk rails, enter the wetland without permission or touch wildlife.***
- ***Please do not pick or damage any plants.***

**I have read the JBS Wetland Center Teacher and Chaperone Information for field studies and have reviewed with my group the above behavior and participation guidelines. I understand and agree to the JBS Wetland Center's expectations, cancellations and billing policies. *(electronic signature is fine)***

Group Leader's Signature \_\_\_\_\_ Date \_\_\_\_\_

Please contact me if you have any questions regarding your reservation or the information contained within this contract. We look forward to working with you to create the best learning experience possible.

Linda Dunn, Education Manager  
972-474-9100  
[ldunn@wetlandcenter.com](mailto:ldunn@wetlandcenter.com)

655 Martin Lane  
Seagoville, TX 75159  
[www.wetlandcenter.com](http://www.wetlandcenter.com)





## 4<sup>th</sup> & 5<sup>th</sup> Grade Field Studies, Education Programs, Fees & Schedule



**Wetland Ecology** - During this hands-on field study, students will be briefed on different types of wetlands, the three factors that make a wetland, and how to explore and gather data in the wetland. Field and lab studies will include water quality testing, macro invertebrate collection and identification, and soil survey and plant identification.

**Birds – The Nesting Generation** - During this hands-on field study, students will focus on behavioral and physical adaptations of birds, their inherited traits and how these characteristics are used to enhance their survival. Bird identification, bird adaptations, use of binoculars and field guides, and review of migration patterns are also discussed.

**Wasting Water is Weird** – A Lesson on Water Conservation - During this lesson students will learn that water is a non-renewable resource. They will make informed choices about water conservation, after participating in hands-on activities that focus on the urban water cycle, human water consumption and water reuse of the wetlands.

**Wildlife Ecosystems** – During this lesson students will explore the wetland habitat learning about its ecosystem and how organisms interact with one another. Adaptations, food webs, and energy flow through trophic levels will be discussed. Through field studies, students will learn techniques to observe various animal patterns, and use their observations to make determinations about wildlife and the health of the wetland ecosystem.

*For a more in-depth description of programs and TEKS correlations go to:  
[www.wetlandcenter.com](http://www.wetlandcenter.com)*

**Special Notes:** Programs are tailored to both your needs as a teacher and to the arrival & departure times. Please have students dress appropriately for a field study: Sturdy shoes that can get wet, long pants and sun protection. There are no food concessions at the Center.

**Program Schedule:** Tuesday – Friday

**Fees:** \$8.00 per student  
\$8.00 per adult  
1 adult free for every 10 Students

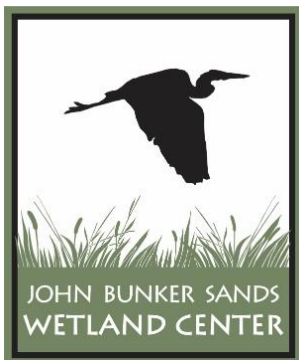
**For more information  
or to schedule a field study contact:**

Linda Dunn, Education Manager  
655 Martin Lane  
Combine, TX 75159  
[ldunn@wetlandcenter.com](mailto:ldunn@wetlandcenter.com)  
[www.wetlandcenter.com](http://www.wetlandcenter.com)  
972-474-9100

**Full Day Programs** – Student Limit 120

9:30 – 10:00	Arrival & Orientation
10:00 – 11:30	Program Block 1
11:30 – 12:00	Lunch
12:30 – 1:30	Program Block 2
1:30	Departure





## Middle School Field Studies Educational Programs, Fees & Schedule

The Wetland Center offers field studies for Middle School (6<sup>th</sup>-8<sup>th</sup> grade). Each program is an in-depth field study and will last the entire visit – Please choose one.

**Wetland Ecology:** During this hand-on field study, students will be briefed on the different types of wetlands, three factors that make a wetland and how to explore and gather data in the wetland. Field and lab studies will include water quality testing, macroinvertebrate collection and identification, soil survey and plant identification.

**Plants – The Workhorse of the Wetland:** During this field investigation, students will learn the role of plants in a wetland. Students will use a key to identify plants, collect samples, and identify plant structure, adaptations, and functions that help them live and survive. Plant collection and the use of plant presses are part of this class.

*For a more in-depth description of programs and TEKS correlations go to:  
[www.wetlandcenter.com](http://www.wetlandcenter.com)*

**Special Notes:** Programs and the arrival and departure times are tailored to your needs as a teacher. Please have students dress appropriately for a field study – Sturdy, closed toed shoes that can get wet or muck boots, long pants, sun protection and bug repellent. Please bring your lunch - there are no food concessions at the Center.

**Fees:** \$8.00 per student  
\$8.00 per adult  
(1 adult free for every 10 students)

**Program Schedule:** Tuesday - Friday

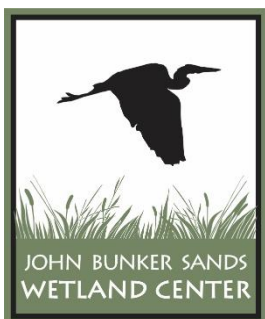
9:30 am – 10:00 am	Arrival & Orientation
10:00 am – 11:30 am	Program Beginning
11:30 am – 12:00 pm	Lunch
12:00 pm – 2:00 pm	Program Conclusion

**For more information or to schedule a field study contact:**

Linda Dunn, Education Manager  
655 Martin Lane  
Combine, TX 75159  
[ldunn@wetlandcenter.com](mailto:ldunn@wetlandcenter.com)  
[www.wetlandcenter.com](http://www.wetlandcenter.com)  
972-474-9100







## High School Field Studies Educational Programs, Fees & Schedule

The Wetland Center offers field studies for High School (9<sup>th</sup> – 12<sup>th</sup>). Each program is an in-depth field study and will last the entire visit – Please choose one.

**Blue Gold – A Path to Water Conservation:** The focus of this class is on water conservation and reuse as it relates to the urban water cycle. Water issues as they relate to both global challenges and the challenges facing Texas will be discussed. The program ends with a tour of the conveyance pump station, the last step in the wetland filtration process.

**Wetland Ecology:** During this hand-on field study, students will be briefed on the different types of wetlands, three factors that make a wetland and how to explore and gather data in the wetland. Field and lab studies will include water quality testing, macroinvertebrate collection and identification, soil survey and plant identification.

**Plants – The Workhorse of the Wetland:** During this field investigation, students will learn the role of plants in a wetland. Students will use a key to identify plants, collect samples, and identify plant structure, adaptations, and functions that help them live and survive. Plant collection and the use of plant presses are part of this class.

*For a more in-depth description of programs and TEKS correlations go to:*  
[www.wetlandcenter.com](http://www.wetlandcenter.com)

**Special Notes:** Programs and the arrival and departure times are tailored to your needs as a teacher. Please have students dress appropriately for a field study – Sturdy, closed toed shoes that can get wet or muck boots, long pants, sun protection and bug repellent. Please bring your lunch - there are no food concessions at the Center.

**Fees:** \$8.00 per student  
\$8.00 per adult  
(1 adult free for every 10 students)

**Program Schedule:** Tuesday - Friday

9:30 am – 10:00 am	Arrival & Orientation
10:00 am – 11:30 am	Program Beginning
11:30 am – 12:00 pm	Lunch
12:00 pm – 2:00 pm	Program Conclusion

**For more information or to schedule a field study contact:**

Linda Dunn, Education Manager  
655 Martin Lane  
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972-474-9100



# DAVID KEITH SANDS EDUCATION FUND

Thanks to the generosity of the David Keith Sands Education Fund, we are pleased to offer qualifying schools admission /transportation scholarships for field studies to the John Bunker Sands Wetland Center. DKS scholarships are available to schools whose financial situation might otherwise exclude them from visiting the Wetland Center. To apply for funds, please verify that your school meets the eligibility criteria below, and email the application to [ldunn@wetlandcenter.com](mailto:ldunn@wetlandcenter.com).

## Eligibility Requirements

- Scholarships are available to schools that demonstrate a financial need.
- The requesting teacher and school principal must sign the completed application.
- Schools may not apply more than one time per academic year.
- An Education Agreement form must be included with the application.
- All applications must be turned in by January 31 for the Spring semester and September 30 for the Fall semester.
- All applicants will be notified via email once acceptance is determined.

## Scholarship Guidelines

- Bus funds will be used to reimburse expenses only; no advances will be given. *Please contact your transportation service center and provide an estimated dollar amount on the attached application.*
- Program funds will be deducted from the program cost amount listed on the educational agreement form.
- The DKS Education Fund is a professional scholarship organization. Please fill out your form as you would when asking for funds from such an organization.
- Any additional information you would like to send via email regarding your visit to the Center for the committee to review is welcome.

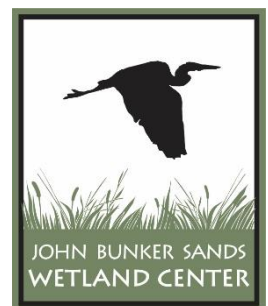
## Process for Reimbursement

Funds will not be reimbursed unless the following items are submitted within **one month** of the date of the field trip. All forms listed below are included in the fund confirmation packet.

- Itemized, **paid** receipt of bus costs, including the school's name; bus fees are not to exceed the estimated amount.
- Request for Reimbursement form.

For more field study and scholarship information, visit [www.wetlandcenter.com](http://www.wetlandcenter.com).

If you have questions, please call us at 972-474-9100 or email [ldunn@wetlandcenter.com](mailto:ldunn@wetlandcenter.com).







## SCHOLARSHIP APPLICATION

The David Keith Sands Education Fund provides up to \$300 in scholarships funds for up to 60 students to attend the John Bunker Sands Wetland Center or to offset transportation costs. To be considered, all applications must be turned by the dates listed on the guidelines page. ***An Education Agreement form must be included with applications.*** All applicants will be notified by email regarding the outcome of their application. Two scholarships are given per academic semester.

School Name: \_\_\_\_\_ Date: \_\_\_\_\_

School Address \_\_\_\_\_

School Phone: \_\_\_\_\_ District: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Contact Phone: \_\_\_\_\_

Email Address: \_\_\_\_\_

Grade Level: \_\_\_\_\_ # of Students: \_\_\_\_\_ Adults: \_\_\_\_\_

Is your school a Title 1 school? (Circle one) YES ☐ NO ☐ Not Sure ☐

The funds will be used for (Circle one): Buses ☐ Program Fees ☐ Both ☐

If being used for buses, please list the estimated amount for the buses: \$ \_\_\_\_\_

Why is this scholarship necessary for your school to attend?

How will a field study at the Wetland Center benefit your students?

How will you prepare you students for a field study to the Wetland Center?



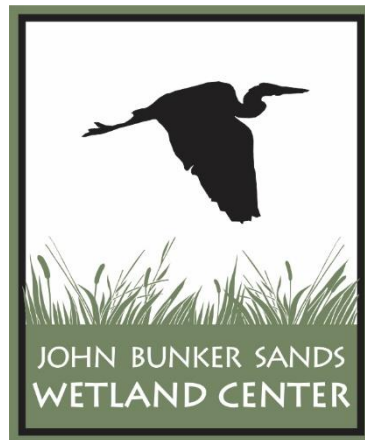
How will you incorporate the material learned at the Wetland Center into your curriculum?

**Teacher's Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

**Printed Name** \_\_\_\_\_

**Principal's Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

**Printed Name** \_\_\_\_\_





LYDA HILL  
FOUNDATION

## SCHOLARSHIP APPLICATION

Thanks to the generosity of the Lyda Hill Foundation, we are pleased to offer qualifying schools admission /transportation scholarships for field studies to the John Bunker Sands Wetland Center. Funds are available to title one schools located in Dallas County, whose financial situation might otherwise exclude them from visiting the Wetland Center. To apply for funds, please verify that your school meets the eligibility criteria below and email the application to [ldunn@wetlandcenter.com](mailto:ldunn@wetlandcenter.com).

### Eligibility Requirements

- Scholarships are available to Title one schools located in Dallas County.
- The requesting teacher and school principal must sign the completed application.
- Schools may not apply more than one time per academic year.
- All applications must be turned in by January 31 for the Spring semester and September 30 for the Fall semester.
- A site visit and/or phone interview is required for this scholarship. Applicants will be notified via email to set-up phone call/site visit with education manager.
- All applicants will be notified via email if they are awarded the scholarship.

### Scholarship Guidelines

- This is a reimbursement grant. Schools will be required to pay costs upfront. After completion of the field study, the amount of the scholarship will be reimbursed to the school.
- Bus funds are part of the reimbursement; no advances will be given. *An invoice for bus expenses will be required. Contact your transportation department for an estimate or invoice for expenses.*
- The Lyda Hill Foundation grant is a professional scholarship organization. Please fill out your form as you would when asking for funds from such an organization.
- Any additional information you would like to send via email regarding your visit to the Center for the committee to review is welcome.

### Process for Reimbursement

Funds will not be reimbursed unless the following items are submitted within **one month** of the date of the field trip.

- Itemized, **paid** receipt of bus costs, including the school's name.

For more field study and scholarship information, visit [www.wetlandcenter.com](http://www.wetlandcenter.com). If you have questions, please call us at 972-474-9100 or email [ldunn@wetlandcenter.com](mailto:ldunn@wetlandcenter.com).



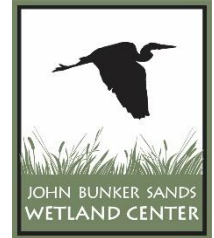




LYDA HILL  
FOUNDATION

## SCHOLARSHIP APPLICATION

The Lyda Hill Foundation grant provides up to two thirds of the total cost in scholarship funds for up to 60 students to attend the John Bunker Sands Wetland Center to off-set program and transportation costs. To be considered, all applications must be turned in by the dates listed on the guidelines page. All applicants will be notified by email regarding the outcome of their application. Five scholarships are given per academic semester.



School \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip Code \_\_\_\_\_

School Phone: \_\_\_\_\_ District: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Grade Level: \_\_\_\_\_ # of Students: \_\_\_\_\_ #Adults: \_\_\_\_\_

Is your school a Title 1 school? YES NO

Is our school located in Dallas County? YES NO

Please list the estimated amount for the buses: \$ \_\_\_\_\_

Please state why this scholarship would be necessary for your school to attend.

How will a field study at the Wetland Center benefit your students?

How will you incorporate the material learned at the Wetland Center into your curriculum?

**Teacher's Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

**Principal's Signature** \_\_\_\_\_ **Date** \_\_\_\_\_



