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



Observation deck and boardwalks into the wetland

Hands-on field whole family



- beginning and veteran
- Walks and tours on the nature, culture, and history of the wetland
- water cycle, wildlife, and water conservation for elementary, high school and college students
  - workshops on water systems and the wetland's unique wildlife

Bird walks for both

Educational workshops on the

Teacher and youth leader for SBEC teacher credit

### WANT TO LEARN MORE?

TV LLE TO WEST



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.

## MUNICIPAL

Regional. Reliable. Everyday.

www.NTMWD.com

## THE **EAST FORK** WATER REUSE **PROJECT**

# 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.

a quarter penny per gallon.

From Wetland to Faucet

Today, the East Fork Water Reuse Project helps the District supply drinking water to over 1.6 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 only

## CLEANING WATER

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**

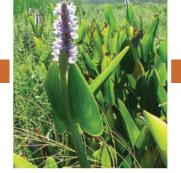
Treated wastewater released into the river is actually higher quality than the native river water. The combined river water and treated wastewater does, however, still carry sediment, nitrogen, phosphorus and other nutrients.

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 JOURNEY OF THE WATER



1







2







WATER **PUMPED TO BASINS** 

SOLIDS SETTLED



**WETLAND FILTERS WATER** 

**SUNLIGHT & AQUATIC** 



#### **(5)**

**CLEANSED WATER** PIPED

44-MII F **JOURNEY** 





#### 6

**WATER BLENDED WITH LAKE** 

INFLOW

LAVON LAKE



WATER TREATED **TO DRINKING** WATER STANDARDS COMMUNITIES







**DISTRIBUTED TO NORTH TEXAS** 





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.





