

What makes the San Antonio River Important

Presented to:
American Academy of Environmental
Engineers and Scientists

Presentation by:
Suzanne Scott, General Manger
San Antonio River Authority



San Antonio River, Texas

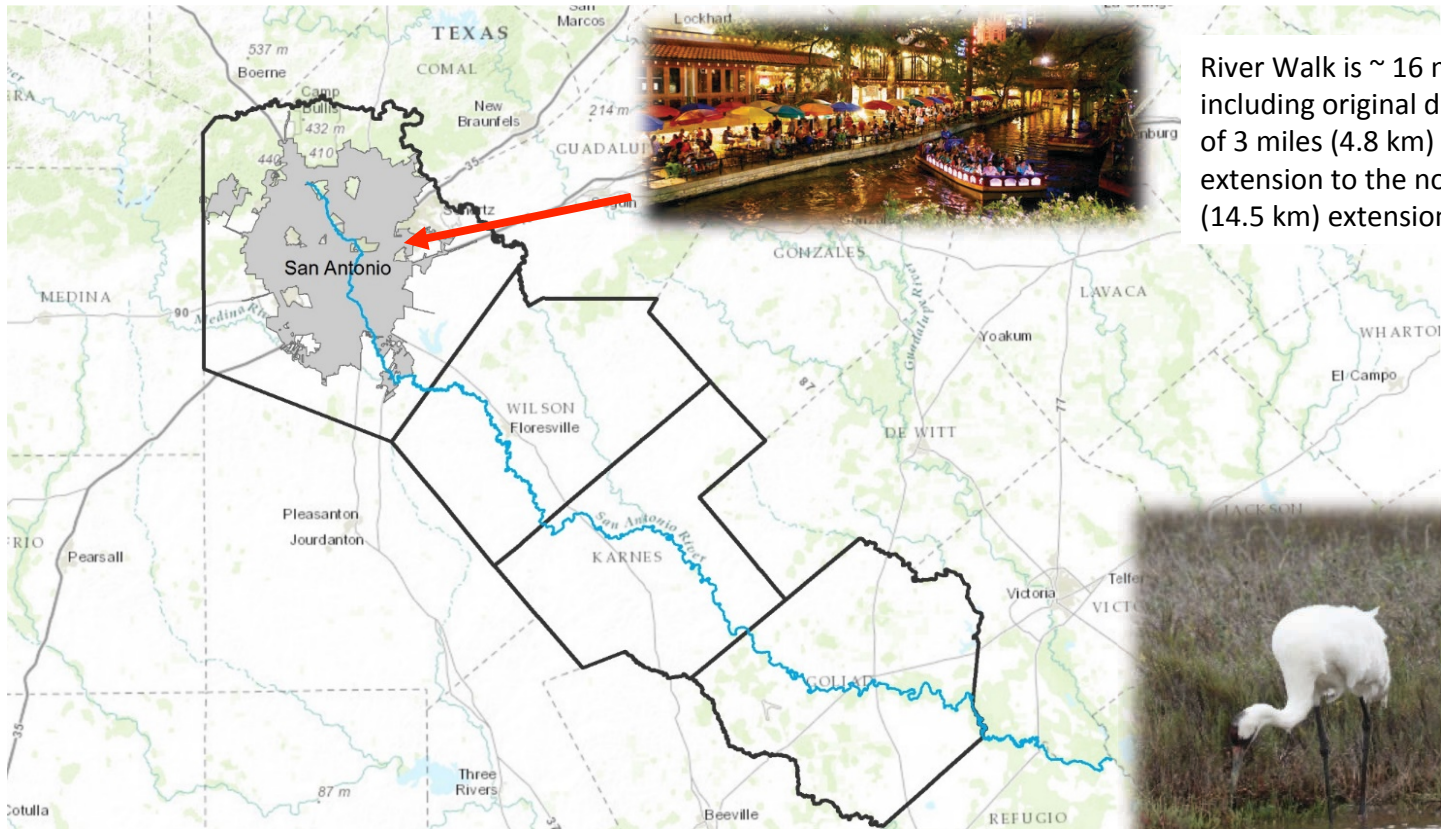


The San Antonio River Authority (SARA) was created by the State Legislature in 1937, then reorganized in 1961 to plan, manage and implement water-related programs and projects within the San Antonio River Basin.



The San Antonio River flows 240 miles (386 km) from its headwaters in highly urbanized San Antonio, Texas (7TH largest US city) through a largely agrarian area to its River. confluence with the Guadalupe The San Antonio River Watershed drains 4,180 square miles (10826 km²) of land.





River Walk is ~ 16 miles (25 km) including original downtown section of 3 miles (4.8 km) and 4 mile (6.4 km) extension to the north and 9 mile (14.5 km) extension to the south



There are at least 73 fish species in the San Antonio River and freshwater inflows into San Antonio Bay support the endangered Whooping Crane.



12,000 Years of Life Along the San Antonio River



Flooding



FLOOD AT SAN ANTONIO, TX
OCT. 13.
C. ST. MARKS
AND HOUSTON ST



INSPIRING ACTIONS FOR HEALTHY CREEKS & RIVERS

The San Antonio River Walk



INSPIRING ACTIONS FOR HEALTHY CREEKS & RIVERS

The San Antonio River Walk



Photos:
Visit San Antonio



INSPIRING ACTIONS FOR HEALTHY CREEKS & RIVERS

San Antonio River Walk: Museum Reach



INSPIRING ACTIONS FOR HEALTHY CREEKS & RIVERS

San Antonio River Walk: Mission Reach

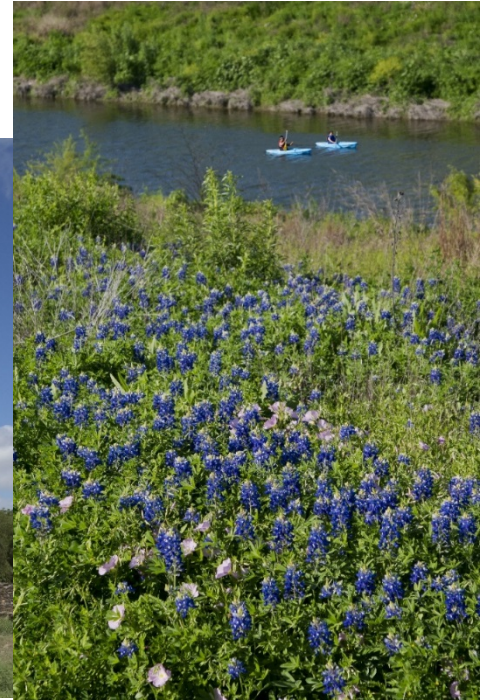


INSPIRING ACTIONS FOR HEALTHY CREEKS & RIVERS

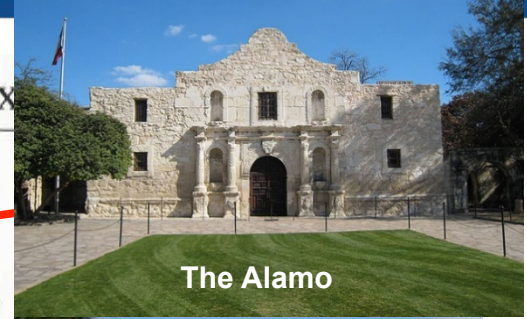
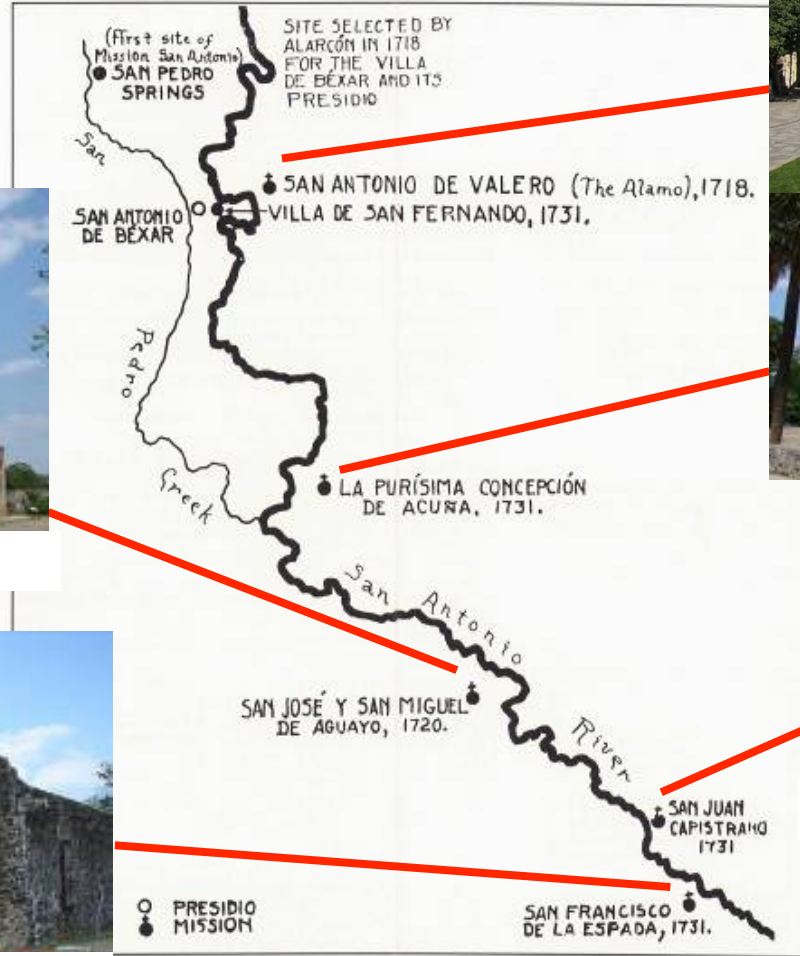




Mission Reach & World Heritage



INSPIRING ACTIONS FOR HEALTHY CRÉEKS & RIVERS



The Alamo



Mission Concepción



Mission San Juan



Mission San José

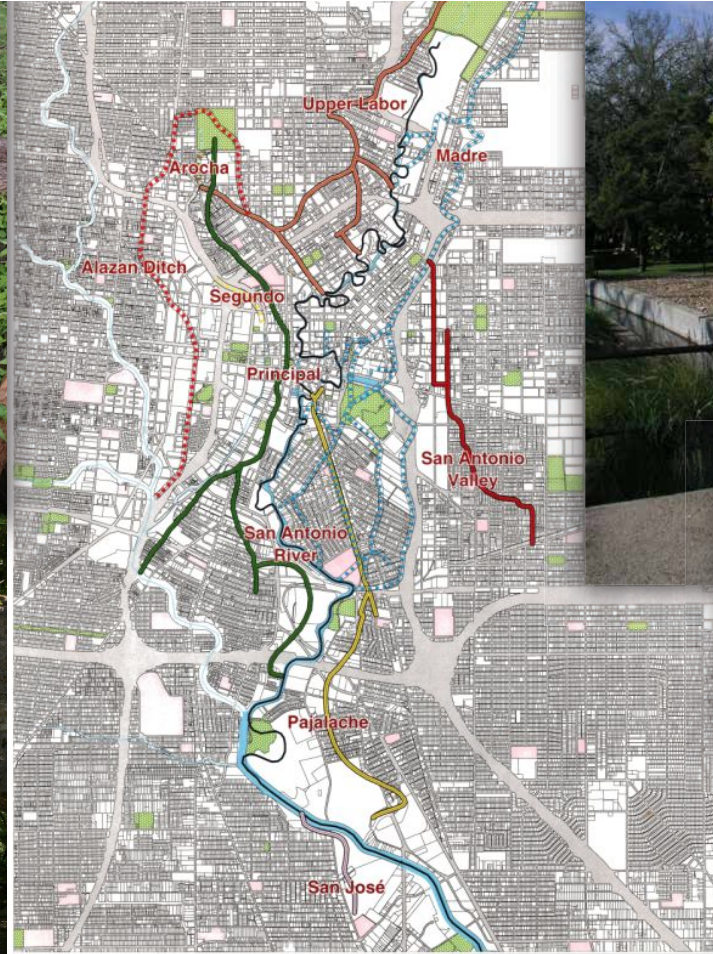


Mission Espada

SAN ANTONIO, 1718-1731



San Antonio Acequias



Top left photo and photos along the right:
City of San Antonio

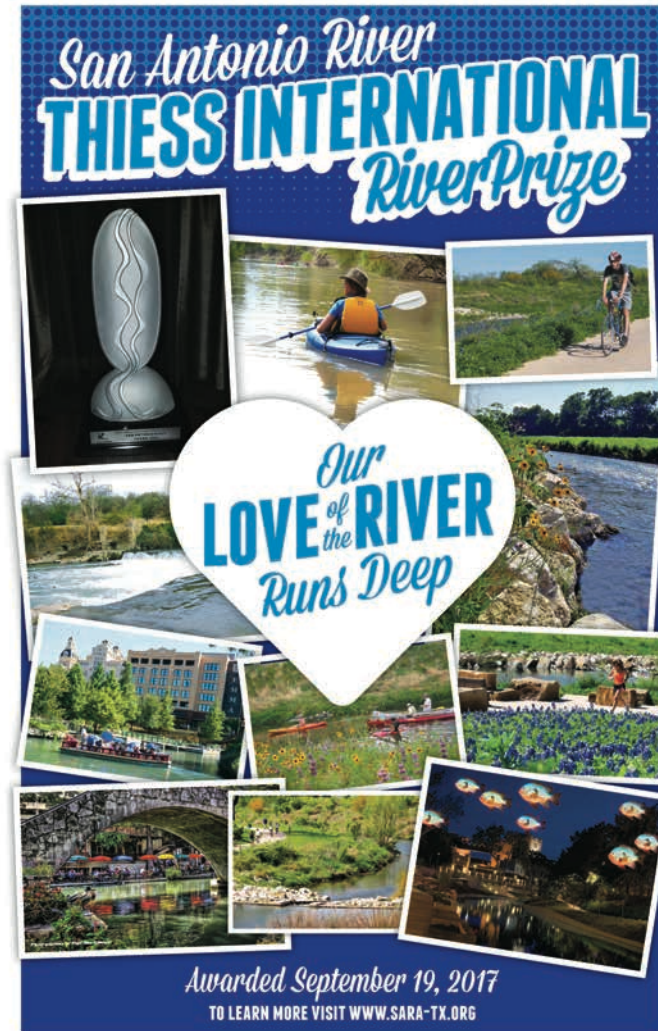


Success Builds Upon Success



INSPIRING ACTIONS FOR HEALTHY CREEKS & RIVERS

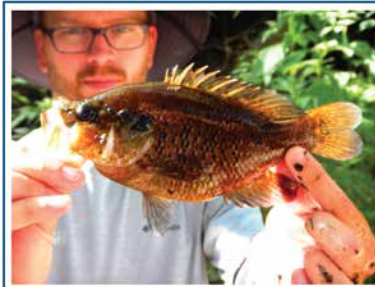
- On September 2017, the San Antonio River was awarded the prestigious Thies International RiverPrize from the International River Foundation
- Previous recipients include the River Rhine, Niagara River, River Thames and the Danube River, to name a few





Clean Rivers Program

- Routine Monitoring
- Fish IBI Monitoring
- Benthic Macroinvertebrate
- 24 hour DO



2017

Clean Rivers Program
San Antonio River Basin
Highlight Report

Watershed Characterizations for the Upper San Antonio River, Salado Creek and Upper Cibola Creek Watersheds



SARA Stream Monitoring

- Routine Monitoring
- Mussel Surveys
- River Recreation Website Monitoring
- Lower Basin Intensive Surveys



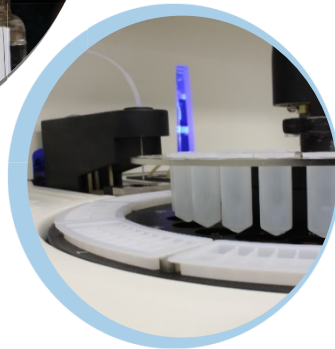
SARA Regional Environmental Laboratory

Accredited by TCEQ NELAP in Feb 2008



Sample Types

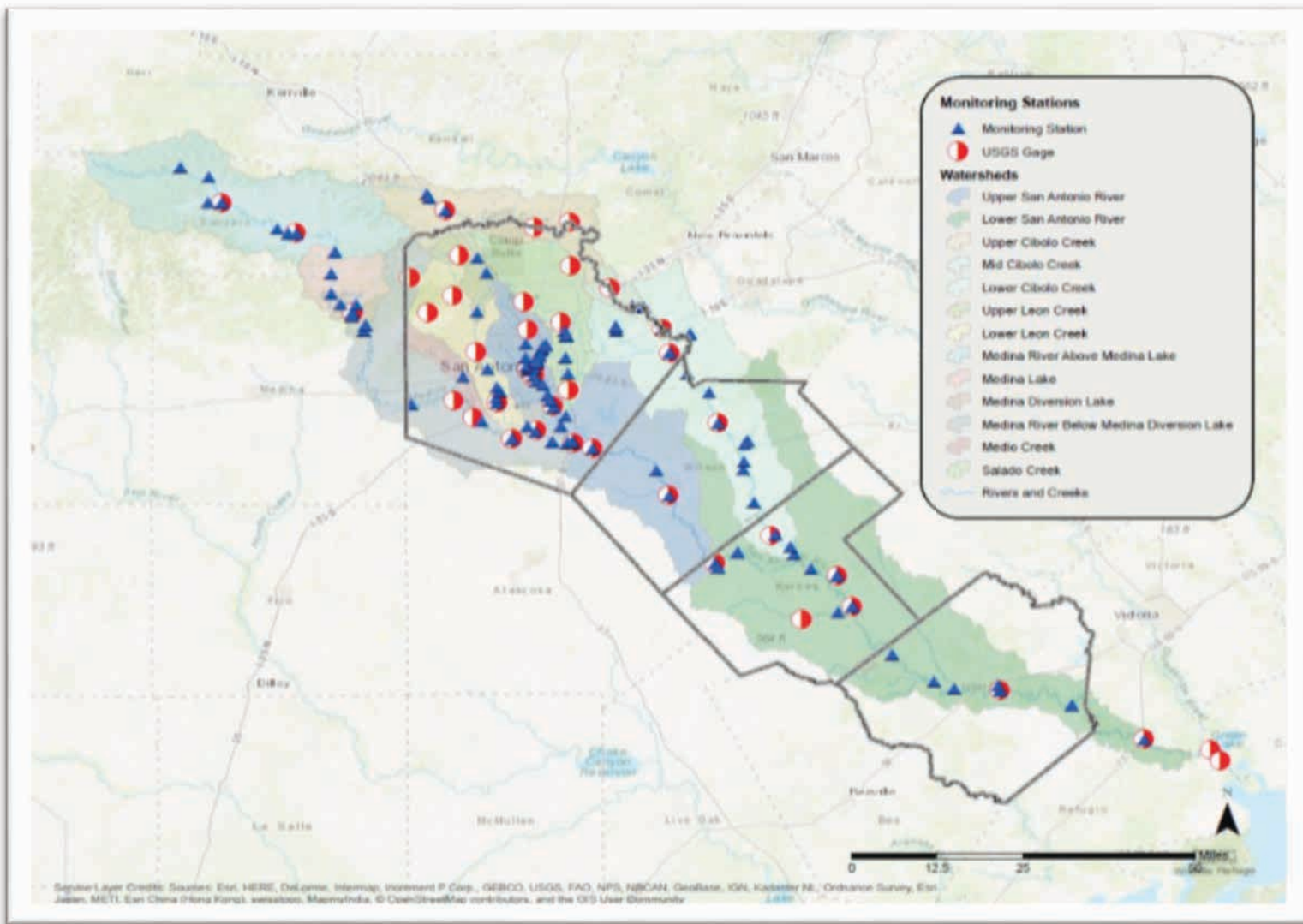
- Drinking Water
- Wastewater
- Surface Water
- Sediment



Testing Capabilities

- Bacteria
- Nutrients
- Metals
- Bacterial Source Tracking





Source Layer Credits: Suezco, Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeBCO, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, Mapbox, © OpenStreetMap contributors, and the GIS User Community



Instream Flows Verification



Golden Orb Mussel
Picture by Clint Robertson
TPWD



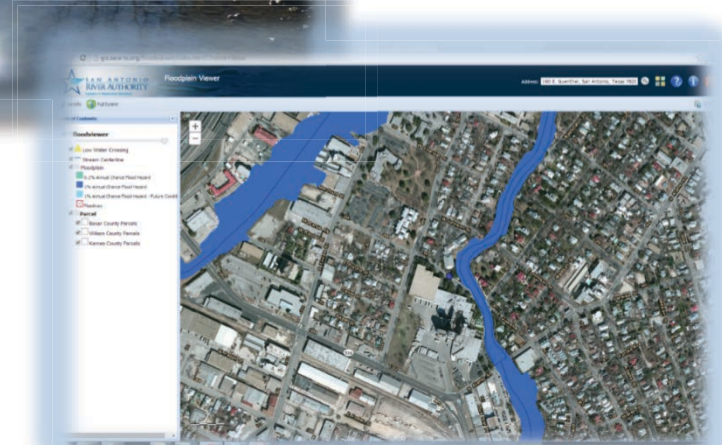
Bay and Estuary Support



Holistic Watershed Master Planning

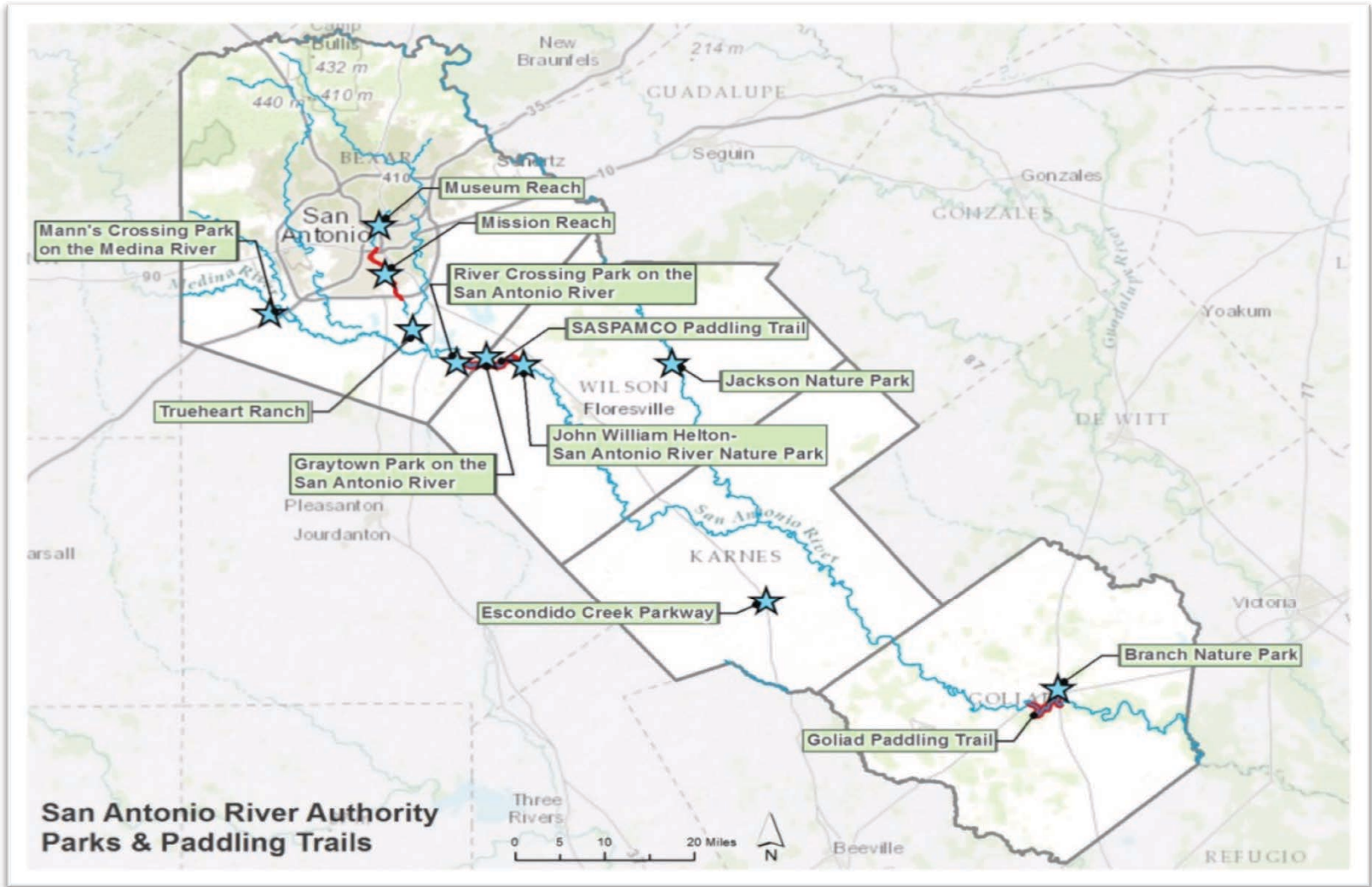


Photo: San Antonio Express-News



Nature Based Parks





**San Antonio River Authority
Parks & Paddling Trails**



- San Antonio has the largest recycled water system in the U.S.
- Recycled water is also used to maintain adequate environmental flow in the river.



Photo: Google Maps

San Antonio Water System
Dos Rios Water Recycling Center



Photo: saws.org



The Problem Now



Photo: gordonenergy.com/erosion-control-silt-fences.php



Photo: hrwc.org/author/riclawson



Photo: deeproot.com/blog/blog-entries/urban-runoff-negatively-impacts-stream-biodiversity



Photo: acogok.org/Programs_and_Services/Water_Resources/Storm_Water.asp



Best Management Practices (BMPs)



Stormwater Capture



Green Roof



Permeable Pavers



Rain Garden



Vegetated Swale



Stormwater Wetland



Citizen Participation and Events



Public Events

FREE

PLANETS IN THE PARK

Saturday, February 11, 2017
6:00 p.m. - 8:30 p.m.
John William Helton -
San Antonio River Nature Park
15662 FM 775, Floresville, TX 78114



Fun family program that brings the expertise and telescopes of the San Antonio Astronomical Association for a close look at astronomical features. Plus, free photo opportunities with out of this world characters!

For more information contact SARA's Recreation Team at (210) 302-3222, parks@sara-tx.org or toll free at (866) 345-7272.
*Weather Permitting






FREE

SNAKES in the PARK

SATURDAY, MARCH 25, 2017
9:30 a.m. - 11:30 a.m.

JACKSON NATURE PARK

9284 County Road 401, Stockdale, Texas

Join the San Antonio River Authority and the South Texas Amphibian & Reptile Society for an educational program featuring live snakes from the South Texas area!
Kid's craft included!

For more information, please contact SARA's Recreation Team at 210-302-3222 or parks@sara-tx.org.






FREE Saturday, April 8, 2017
Mission County Park

FOOD 6030 Padre Drive
San Antonio, TX 78214

11 A.M. - 5 P.M. LIVE MUSIC




www.MissionReachFlotillaFestival.org



CITIZEN SCIENCE ★ WORKSHOP ★

Citizen scientists, like you, help the San Antonio River Authority (SARA) answer some very important questions about our San Antonio River. No experience is necessary to come learn how to become a citizen scientist for SARA. This fun, hands-on, and simple workshop will give anyone the ability to help us get more eyes on the water and collect insightful data about the San Antonio River's Museum Reach and Mission Reach. While the workshop does utilize the FREE and well-renowned iNaturalist (www.inaturalist.org) smartphone application, you do not need to have a smartphone to be a SARA Citizen Scientist. Participants will learn about SARA's goals with citizen science, how to use the smartphone technology and record data, and how to identify wildlife with a simple step-by-step approach. SARA will have binoculars and guides for the activities.



Limited space available! Sign up or inquire further with Carrie Merson, cmerson@sara-tx.org or by phone (210)302-3282.

Date: Saturday November 15, 2014

Time: 10a.m. - Noon

Location: SARA Offices, 100 E. Guenther, San Antonio, TX 78204

Please be prepared to walk at a slow pace, outside, for approximately 40 minutes along the San Antonio River's paved trails. Smartphone or tablet technology strongly encouraged but not necessary.



INSPIRING ACTIONS FOR HEALTHY CREEKS & RIVERS



www.SARA-tx.org


The screenshot shows the homepage of the San Antonio River Authority. At the top left is the logo, a blue star with a wave inside, and the text "SAN ANTONIO RIVER AUTHORITY" with the tagline "Leaders in Watershed Solutions" below it. To the right of the logo are social media icons for Facebook, Twitter, Instagram, YouTube, and LinkedIn. Below the logo is a horizontal navigation menu with the following items: "About SARA", "Major Initiatives", "Flood Management", "Public Services & Resources", "Environmental Sciences", "Education", and "Financial Transparency". The main content area features a large aerial photograph of a river flowing through a lush green forest. Overlaid on the bottom of this image is a dark grey banner with the text "Get to Know Us" in white. Below this banner is a white button with the text "About Us" and a right-pointing arrow. Below the banner are four columns, each with an icon and a title: 1. A red calendar icon above the title "Upcoming Events". 2. A blue water drop icon above the title "LID & Sustainability". 3. An orange group of people icon above the title "Watershed Wise". 4. A green leaf icon above the title "River Recreation". Each column has a short paragraph of text below the title.

SAN ANTONIO RIVER AUTHORITY
Leaders in Watershed Solutions


About SARA | Major Initiatives | Flood Management | Public Services & Resources | Environmental Sciences | Education | Financial Transparency

Get to Know Us


[About Us](#)

- 


Upcoming Events

Find all of our upcoming events, public meetings and educational opportunities
- 

LID & Sustainability

Learn about low impact development and sustainability best management practices
- 

Watershed Wise

Learn about volunteer opportunities and how you can help at home or at work to do your part
- 

River Recreation

From cycling to paddling to event reservations, learn more about river recreation



INSPIRING ACTIONS FOR HEALTHY CREEKS & RIVERS

Contact Information

Suzanne Scott
General Manager
sbscott@sara-tx.org
210-302-3613

San Antonio River Authority (SARA)
www.sara-tx.org



@sanantonioriver

