

# 2023 UPPER SAN MARCOS RIVER WATERSHED UPDATES

Mark Enders – Habitat Conservation Plan Manager, City of San Marcos  
March 15, 2023



THE MEADOWS CENTER  
FOR WATER AND THE ENVIRONMENT  
TEXAS STATE UNIVERSITY



*Funding for the watershed is provided in part by the USEPA through the Texas Commission on Environmental Quality*

# AGENDA

1

**TCEQ Contract Updates:  
San Marcos Greenbelt Alliance &  
City of San Marcos Sessom Crk  
Project**

2

**CoSM Sessom Creek Project**

3

**TCEQ Contract Updates:  
The Mermaid Society of Texas**

4

**USACE San Marcos River Ecosystem  
Restoration Project**

5

**Get Involved**

An aerial photograph of a river winding through a lush, green landscape. The water is a deep blue-green, and the surrounding vegetation is dense and vibrant. The text is overlaid on the center of the image.

# **TCEQ IMPLEMENTATION PHASE I- SESSOM CREEK**

# TCEQ IMPLEMENTATION PHASE I OVERVIEW



- Timeline: 6/4/2020 – 2/28/2023
- Main Tasks:
  - Task 3 - Riparian and Upland Restoration
  - Task 4 - Stream Restoration
  - Task 5 - Vegetative Filter Strip
  - Task 6 - Community Trail Plan
  - Task 7 - Education and Outreach



HAYS COUNTY

*Sink Creek*

*Essom Creek*

*Purgatory Creek*

San Marcos

*Willow Creek*

COMAL COUNTY

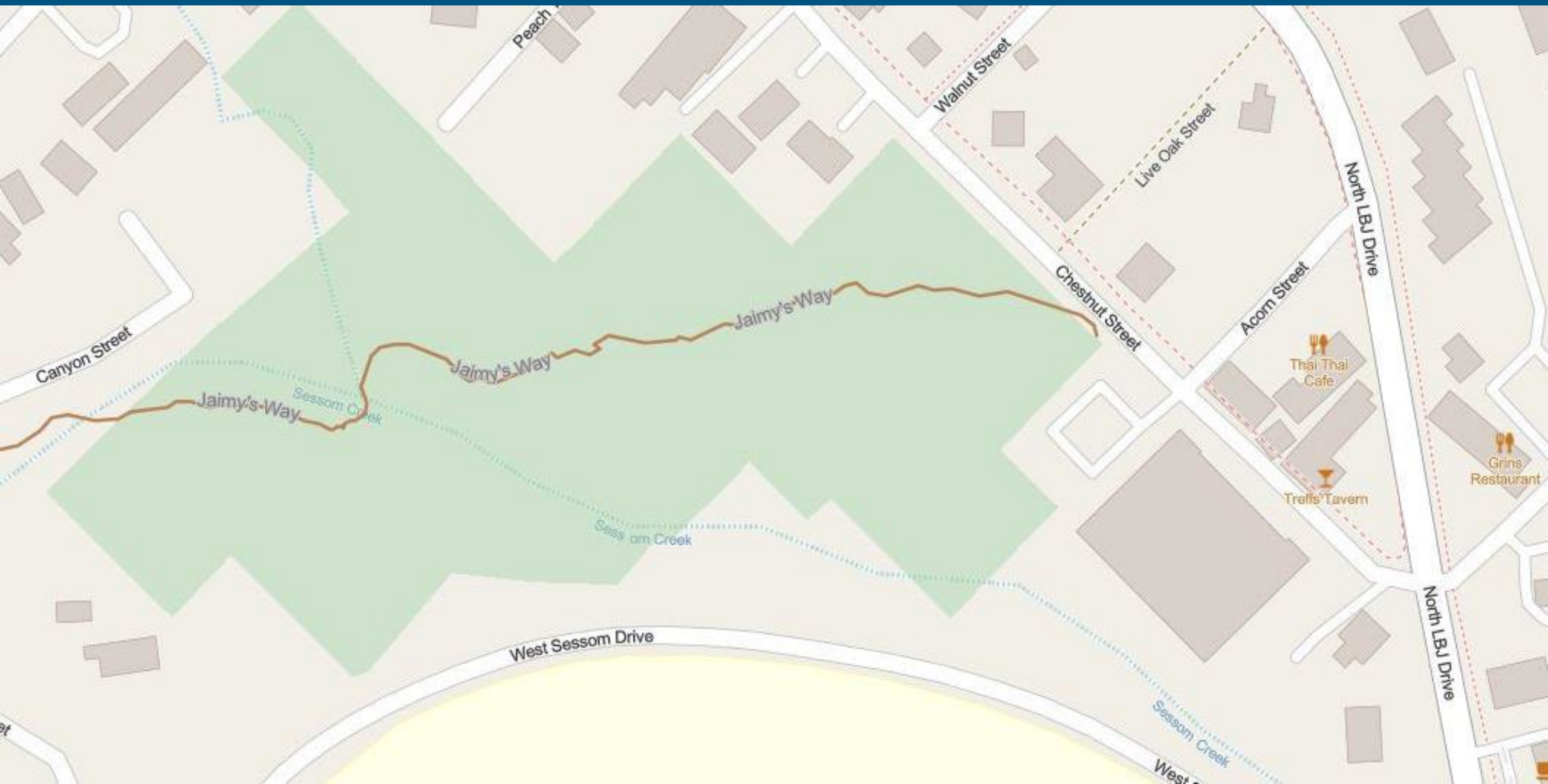
- Main Tributaries
- City Limits
- Purgatory Creek
- San Marcos River
- Sink Creek




**THE MEADOWS CENTER**  
FOR WATER AND THE ENVIRONMENT



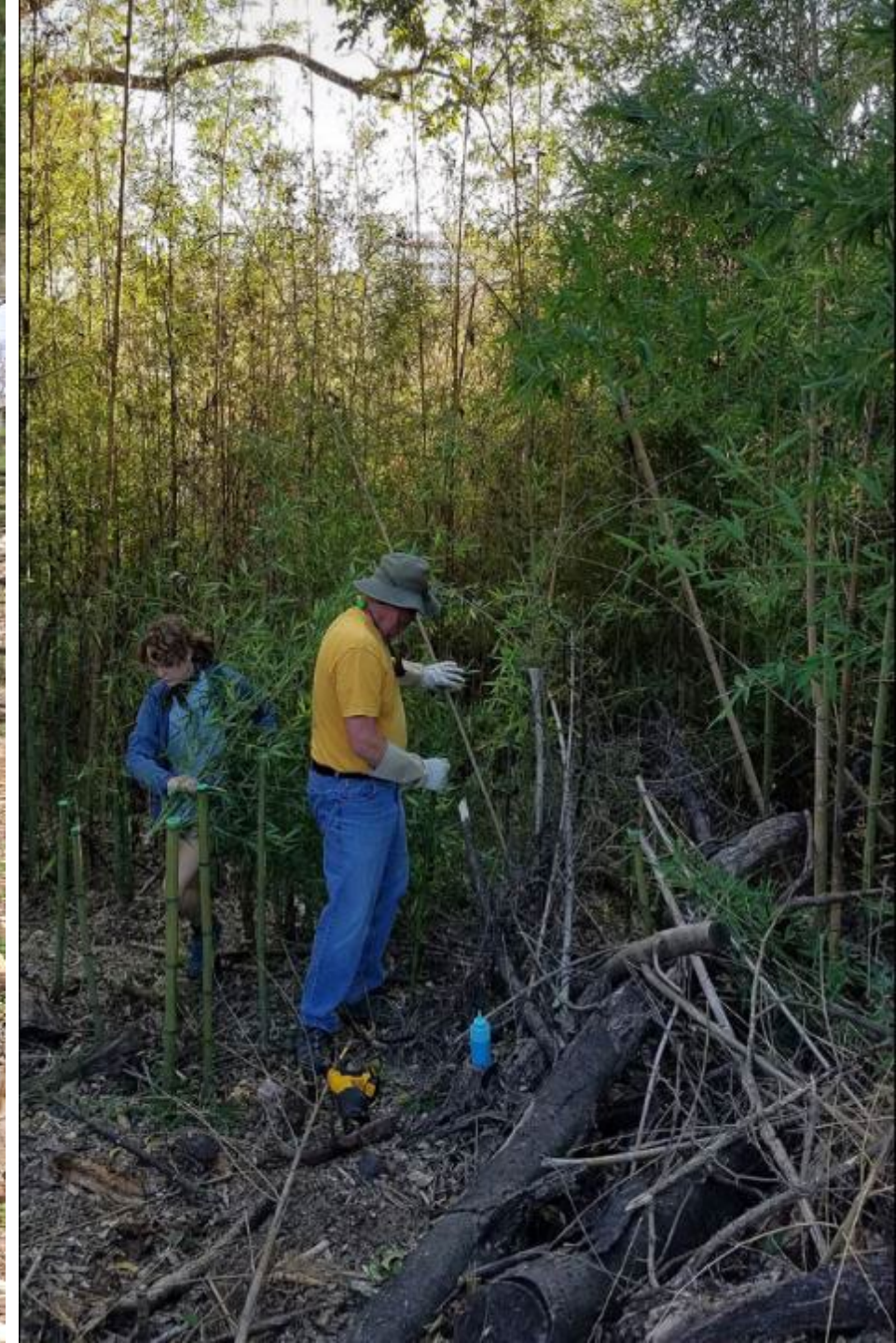
# SESSOM CREEK NATURAL AREA





## TASK 3 - INVASIVE REMOVAL

- ✓ Removed ligustrum, chinaberry, Chinese tallow, paper mulberry, tree of heaven, Japanese honeysuckle...
- ✓ Laid trunks on contour
- ✓ Mulched to capture SW





# TASK 3 - SEEDING

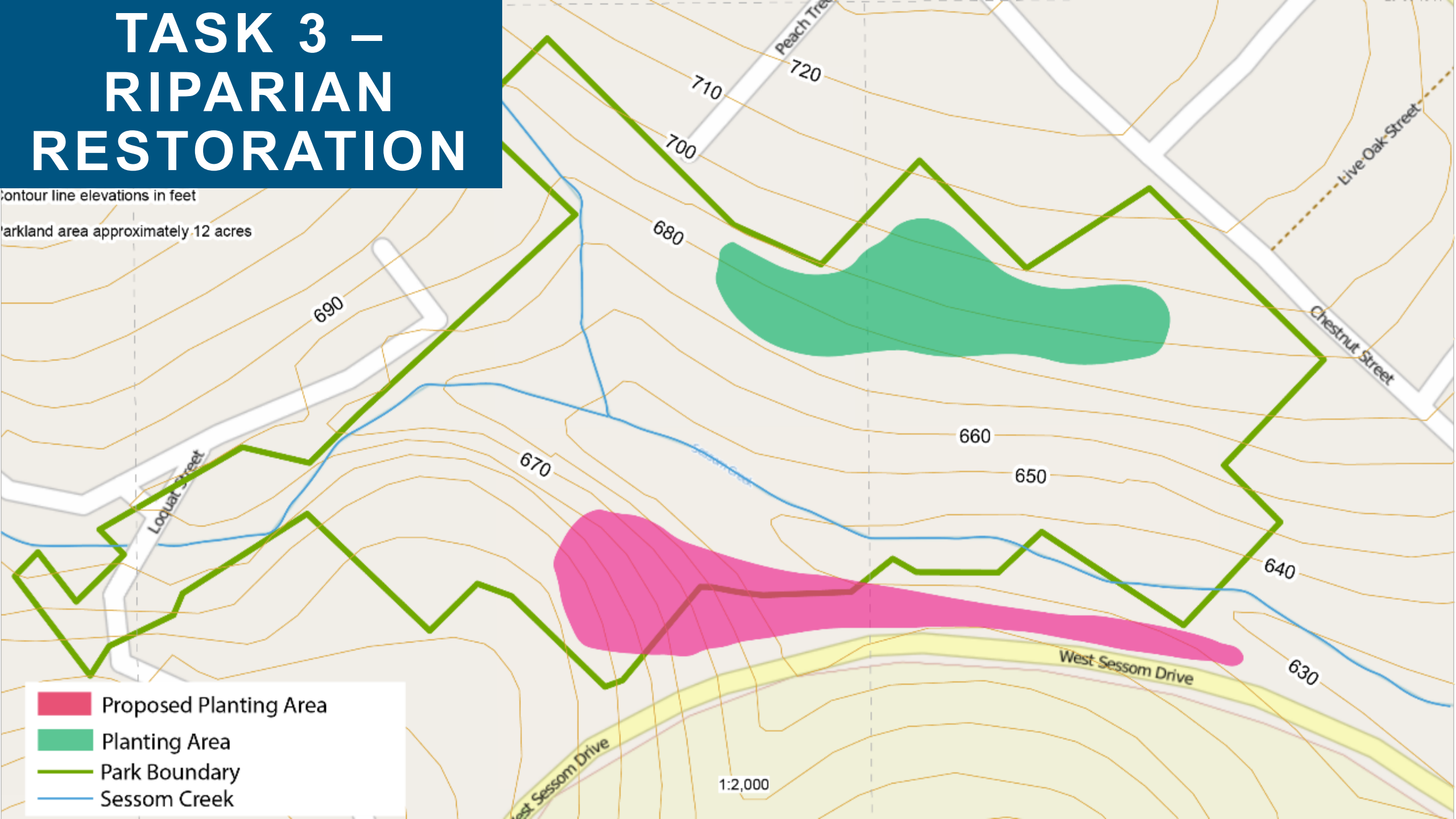
- Site visit with Native American Seed
- Eastern gammagrass
- Shade friendly wildflower & grass mix
- Blackland Prairie and deer resistant mix
- Cereal rye grain – annual cover crop
- Seed slingers were used to broadcast throughout entire project site as prescribed



# TASK 3 – RIPARIAN RESTORATION

Contour line elevations in feet

Parkland area approximately 12 acres



Proposed Planting Area

Planting Area

Park Boundary

Sessom Creek

# TASK 3 - LIVE PLANTINGS

## Planted:

- 20 Turks Cap
- 15 Lacey Oaks
- Mountain Laurel

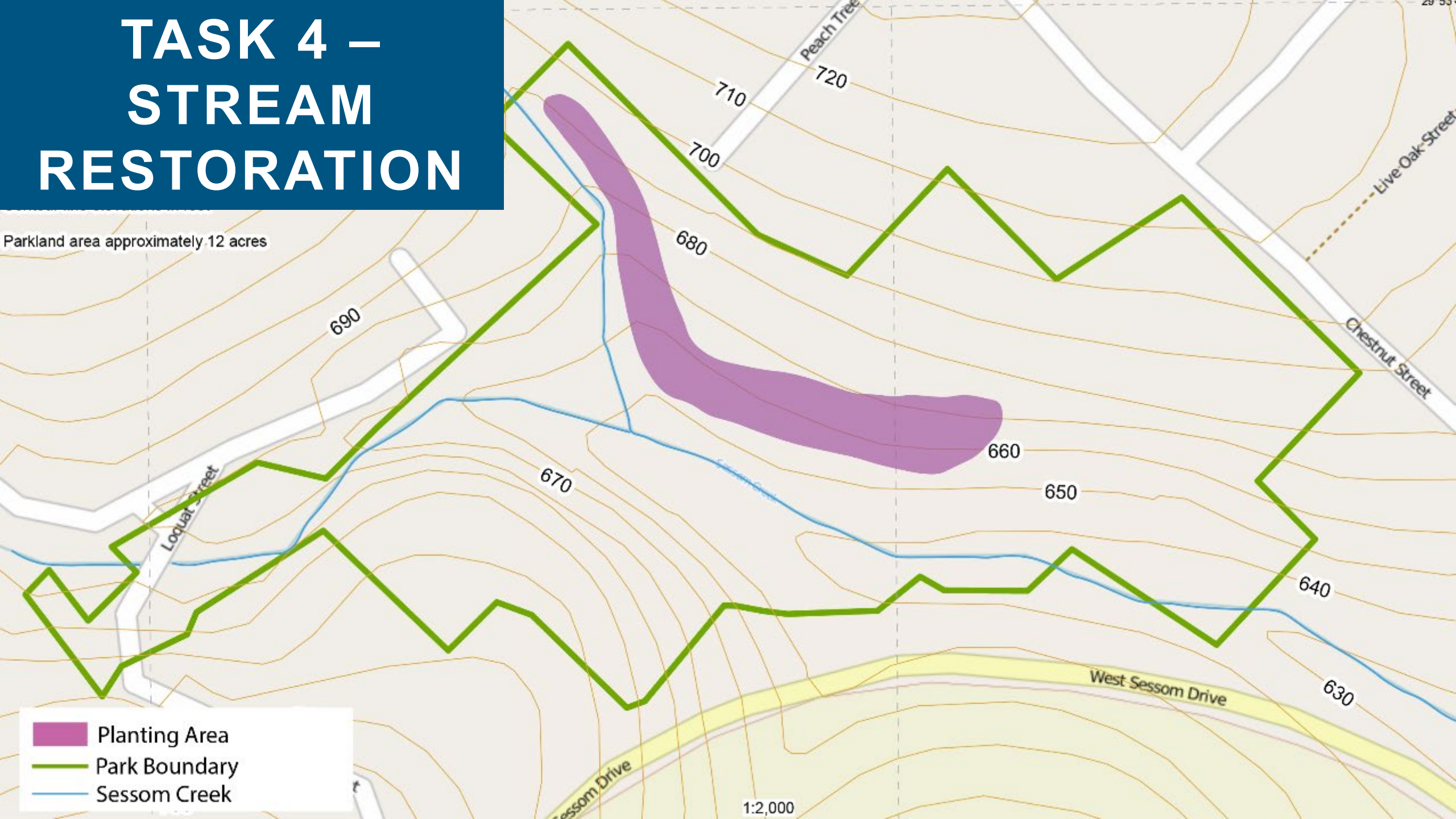
## Future Plantings:

- Live root plugs on steep slope by Sessom Drive



# TASK 4 – STREAM RESTORATION

Parkland area approximately 12 acres




- Planting Area
- Park Boundary
- Sessom Creek



# PLANTING OF WINDMILL TRIBUTARY



**TASK 5 –  
SEDIMENT  
CONTROL  
BERMS**

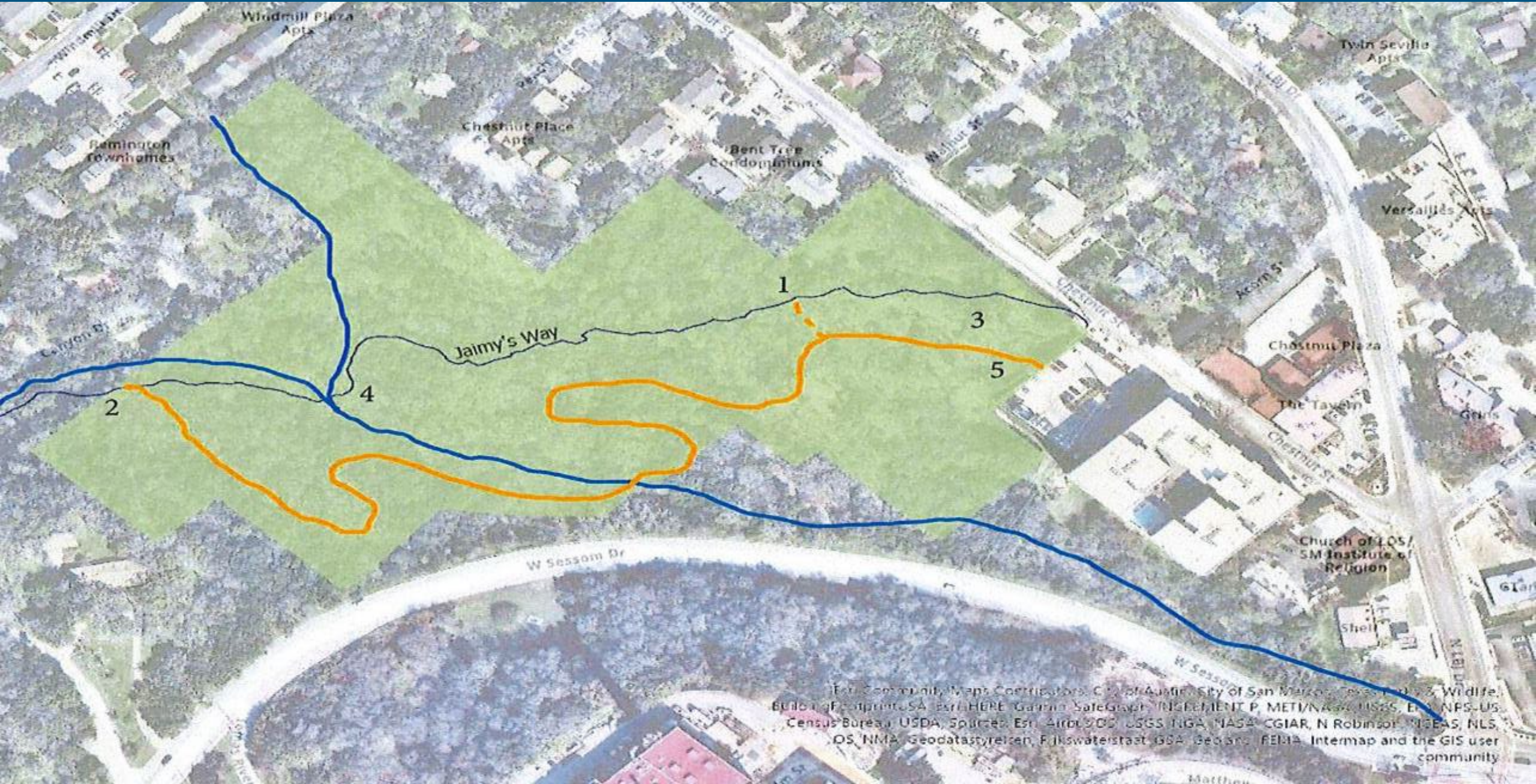


## TASK 5- SEDIMENT CONTROL BERMS

- ✓ Used trunks of invasive trees
- ✓ Wove trunks together
- ✓ Filled gaps with mulch and branches
- ✓ Built a double layer of VFS in the most extreme runoff site



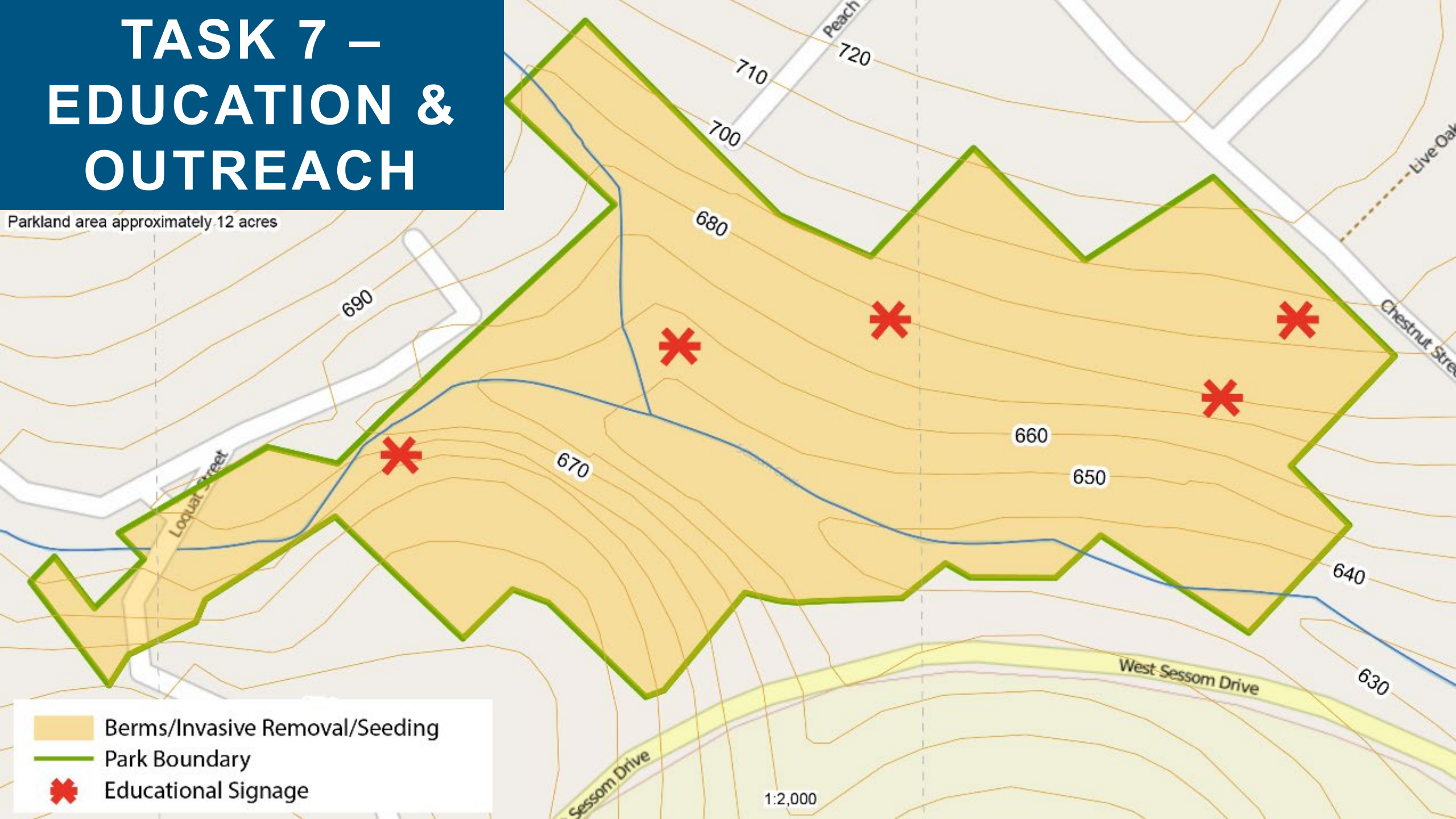
# TASK 6 – COMMUNITY TRAIL PLAN





Trail Community Maps Contributors: City of Austin, City of San Marcos, Texas Parks & Wildlife, Esri, Esri/PrintUSA, Esri/HERE, Garmin, SafeGraph, INDEPENDENT P, METI/NAI, NISGS, Esri, NPS-US, Census Bureau, USDA, Spitzer, Esri, Airphoto, USGS, NGA, NASA, CGIAR, N Robinson, NISGS, NLS, OS, NMA, Geodatasystemen, Fjkwaterstaat, GSA, Geonix, FEMA, Intermap and the GIS user community

# TASK 7 – EDUCATION & OUTREACH

Parkland area approximately 12 acres



-  Berms/Invasive Removal/Seeding
-  Park Boundary
-  Educational Signage

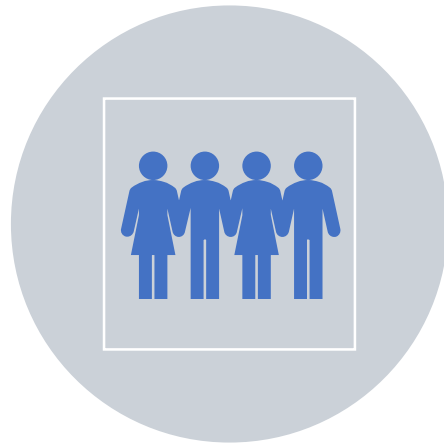
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# ACCOMPLISHMENTS



**29** VOLUNTEER  
WORKDAYS



**212** VOLUNTEERS



**747** VOLUNTEER  
HOURS



**16.5** ACRES OF NON-  
NATIVE INVASIVES  
REMOVED

# CoSM SESSOM CREEK WASTEWATER COLLECTION SYSTEM RELOCATION

- Wastewater lines suspended over the creek
- In 2021-2022, the City of San Marcos removed the suspended portions and bored new lines under the bottom of the creek



# CoSM EAHCP SESSOM CREEK STREAM RESTORATION PROJECT

- As part of the Edwards Aquifer Habitat Conservation Plan, the City is implementing a stream restoration project in Sessom Creek
- Includes bank stabilization, run-on control and native plant restoration. Phase I to be completed in May 2023.



# WEBSITE RESOURCES

[WWW.UPPERSANMARCOSRIVER.ORG](http://WWW.UPPERSANMARCOSRIVER.ORG)

An aerial photograph of a river winding through a lush, green landscape. The water is a deep blue-green, and the surrounding vegetation is dense and vibrant. The text is overlaid on the center of the image.

# **THE MERMAID SOCIETY OF TEXAS**

# TASK 7 - YOUTH ECO PROGRAMS

## MERMAID CHATS & SPLASH PATCH

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- **Mermaid Chats program** - K- 2<sup>nd</sup> grade education focused on river stewardship, endangered and indigenous species identification, and environmental consciousness. Features Mermaid Maya, a “Superhero” of the San Marcos River and surrounding waterways.
- **Mermaid SPLASH program** - 3<sup>rd</sup>-5<sup>th</sup> grade education patch program using the Mermaid Society pillars of SPLASH - Stewardship, Preservation, Local, ARRRT, Sustainability, and Heritage.



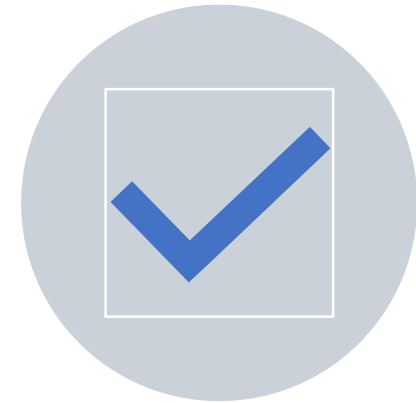
# ACCOMPLISHMENTS



**16** EDUCATION AND  
OUTREACH EVENTS



**2,728** EDUCATIONAL KITS  
DISSEMINATED



**151** SPLASH PATCHES  
DISSEMINATED

A person wearing a face mask and a blue t-shirt is sitting on a chair on a stage, playing an acoustic guitar. To their right, another person wearing a mask and a purple dress is sitting on a chair, possibly singing. The stage is set with various items including a table, chairs, and a sign. In the foreground, a large group of people, mostly children, are sitting on the floor, watching the performance. The entire image has a blue tint.

# WEBSITE RESOURCES

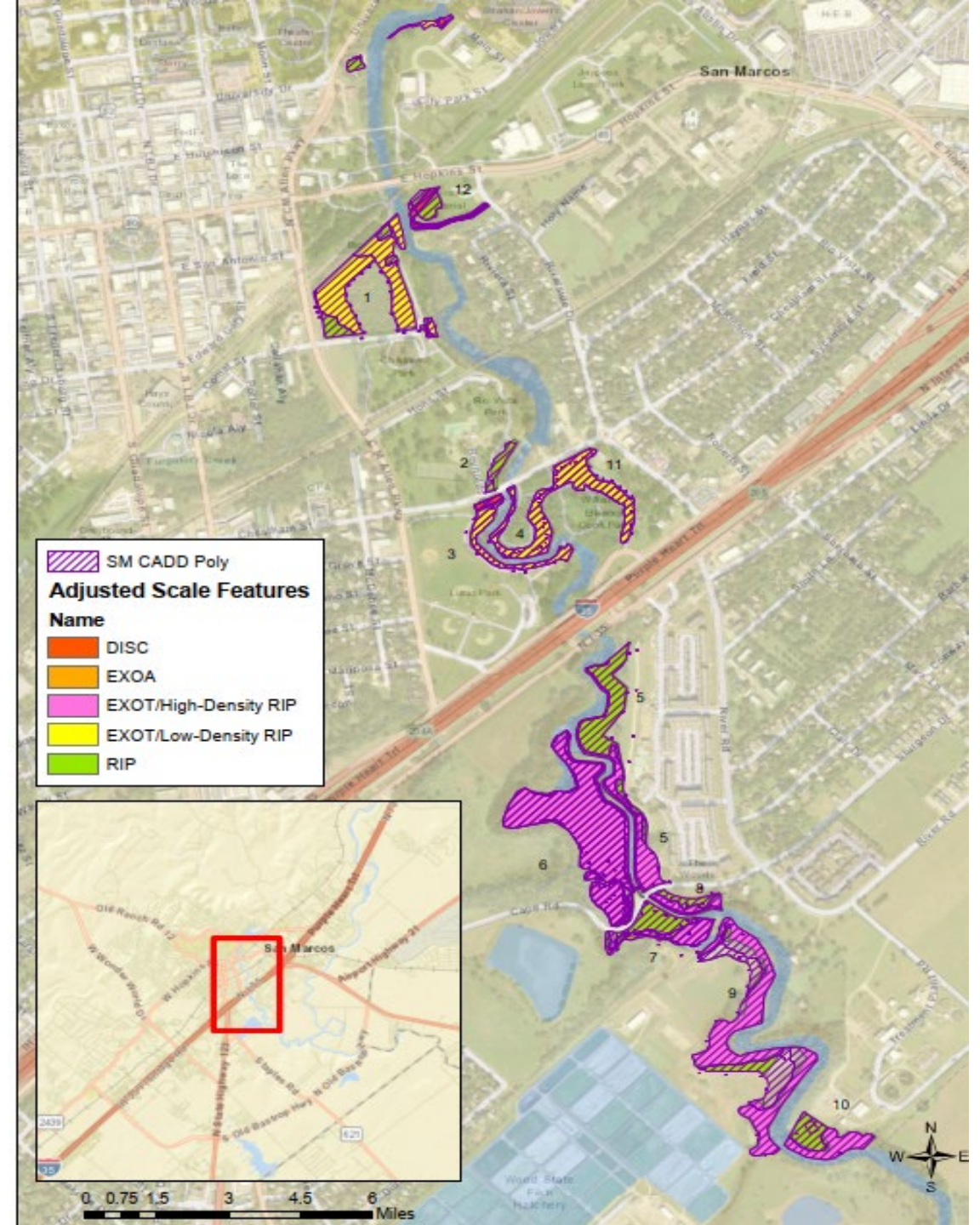
[WWW.MERMAIDSOCIETYSMTX.COM/YOUTH-PROGRAMMING](http://www.mermaidsocietysmtx.com/youth-programming)



# US Army Corps of Engineers- San Marcos River Ecosystem Restoration Project

Project involves:

- Removal of non-native riparian and littoral vegetation
- Planting of native vegetation
- Stormwater outfall improvements



An aerial photograph of a forest with a winding path, overlaid with a semi-transparent blue gradient. The text "GET INVOLVED" is centered in white, bold, uppercase letters.

**GET INVOLVED**



# SMGA & CITY OF SAN MARCOS NATURAL AREA VOLUNTEER OPPORTUNITIES

<https://www.signupgenius.com/go/30e084ba8ae2ca7fc1-habitat>



# TEXAS STREAM TEAM COMMUNITY SCIENCE WATER QUALITY MONITORING PROGRAM

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- Upcoming Trainings:

- E. coli Bacteria: April 8, 10–2
- Standard Core: April 9, 10–2
- Standard Core: May 13, 10–2
- Standard Core: June 11, 10–2

Email [RiverRangers@sanmarcosriver.org](mailto:RiverRangers@sanmarcosriver.org) to RSVP

[WWW.TEXASSTREAMTEAM.ORG](http://WWW.TEXASSTREAMTEAM.ORG)

A blue-tinted photograph showing several people engaged in an outdoor activity, likely removing invasive plants. They are gathered around tables and bags of vegetation in a grassy area near a body of water. The text 'INVASIVE REMOVAL VOLUNTEER DAYS' is overlaid in large white letters.

# INVASIVE REMOVAL VOLUNTEER DAYS

[RACHEL@SANMARCOSRIVER.ORG](mailto:RACHEL@SANMARCOSRIVER.ORG)

# KEEP SAN MARCOS BEAUTIFUL

- Monthly Hot Spot Clean Up
- Adopt-a-Spot
- Annual Great Texas River Clean Up – Fall Cleanup

EMAIL AMY THOMAIDES FOR MORE INFORMATION:  
[ATHOMAIDES@SANMARCOSTX.GOV](mailto:ATHOMAIDES@SANMARCOSTX.GOV)

# THANK YOU!

Mark Enders

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512-757-2136

[www.UpperSanMarcosRiver.org](http://www.UpperSanMarcosRiver.org)

An aerial photograph of a dirt path winding through a dense, lush green forest. The path is light brown and contrasts with the vibrant green foliage. The trees are tall and thin, creating a textured canopy. The lighting is soft, suggesting a misty or overcast day.

**PHOTO ARTIST  
CREDITS**

Andrew Shirey  
Jennifer Idol