

SAN ANTONIO
RIVER AUTHORITY

RIVER ROAD AQUATIC ECOSYSTEM RESTORATION PROJECT

30% DESIGN PUBLIC INFORMATION SESSION

06 AUGUST 2024
THE DOSEUM, 6-7:30PM





AGENDA

- Welcome
- Project Presentation
- Q&A
- Comment Cards

In the Foyer

Team members are located throughout the room for conversations on:

- Ecosystem restoration, recreational amenities, and project delivery team
- Map for comments and ideas



TONIGHT

- Lots of different views
- Please respect attendees and project staff
- Opportunity for questions
- Comment cards for comments, suggestions, thoughts, ideas
- Mapping exercise for additional comments

Team members are located throughout the room for conversations on:

- Ecosystem restoration, recreational amenities, and project delivery team



The River Road Aquatic Ecosystem Restoration Project

will leverage full federal funding as part of the Current Administration's Initiatives Pilot funded by the Bipartisan Infrastructure Law to implement channel restoration activities, improve fish passage, and mitigate erosion.





HOW TO STAY INFORMED

- Engagement opportunities at each design phase
 - 30%, 60% and 90%
 - Notifications made by mail and on social media
- Project websites include project information and presentations from past meetings
 - [https://www.swf.usace.army.mil/Missions/Civil-Works/Continuing-Authorities-Program/River-Road/River Road Aquatic Ecosystem Restoration](https://www.swf.usace.army.mil/Missions/Civil-Works/Continuing-Authorities-Program/River-Road/River%20Road%20Aquatic%20Ecosystem%20Restoration)
 - www.bexarcip.org/project/river-road-restoration/
- FAQ document is posted on project websites
- Reach out directly to USACE
 - RiverRoadER@usace.army.mil



PARTNERS & STAKEHOLDERS

- US Army Corps of Engineers: Federal Agency
- San Antonio River Authority: Non-Federal Sponsor (NFS)
- Stakeholders:
 - Bexar County
 - Texas Parks & Wildlife (TPWD)
 - Texas Commission on Environmental Quality (TCEQ)
 - City of San Antonio Parks, Public Works and Office of Historic Preservation
 - River Road Neighborhood Association
 - Centro San Antonio
 - Audubon Society
 - Texas Forest Service
 - Tribal Nations
 - Brackenridge Park Conservancy
 - Brackenridge Park Stakeholder Advisory Committee
 - Brackenridge Golf Course
 - And others...

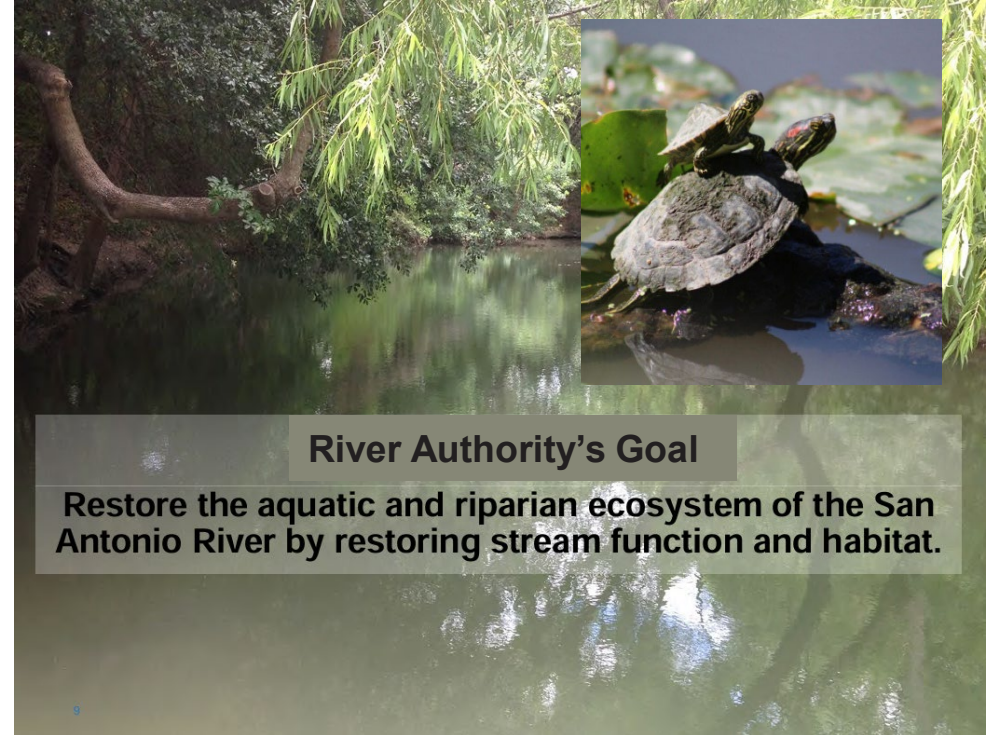


RIVER AUTHORITY'S ROLE

As the Non-Federal Sponsor the River Authority is

- Responsible for real estate property interests and relocations, if required
- Committed to the operations and maintenance of this project including implementation of “adaptive management plan”

The River Authority is committed to timely and transparent project communication

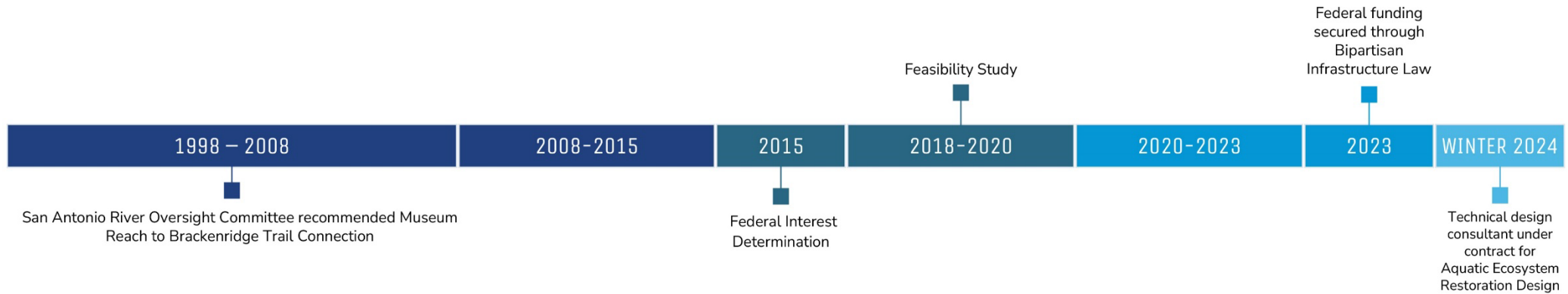


River Authority's Goal

Restore the aquatic and riparian ecosystem of the San Antonio River by restoring stream function and habitat.

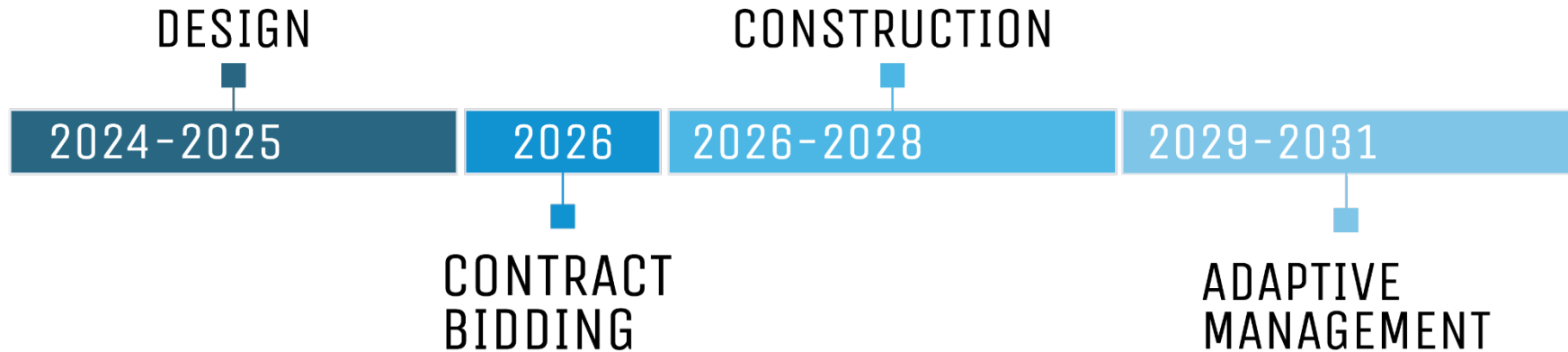


HISTORICAL TIMELINE



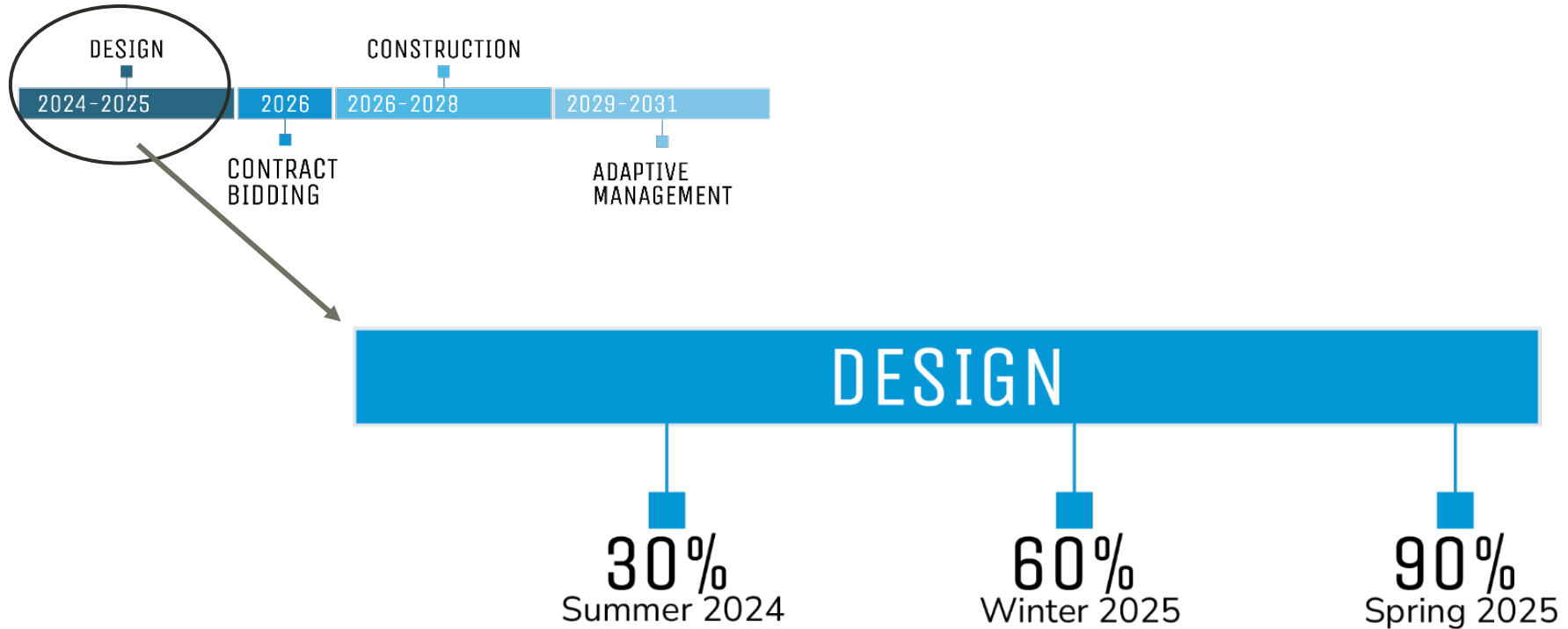


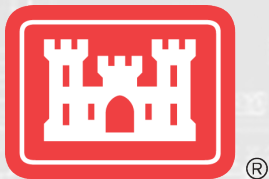
CURRENT BASE PROJECT SCHEDULE





BASE PROJECT DESIGN PHASE SCHEDULE





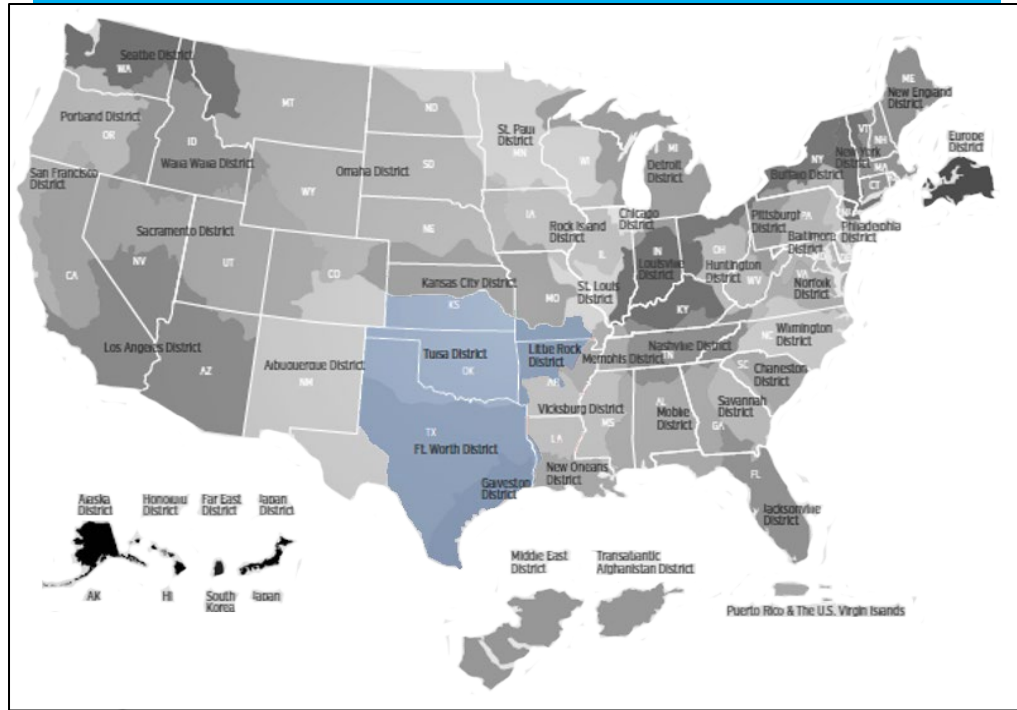
SAN ANTONIO
RIVER AUTHORITY

Danny Allen
Senior Wildlife Biologist
Regional Planning and Environmental Center
(RPEC)

6 Aug 2024



USACE: *BUILDING STRONG*



USACE Vision

Engineering solutions for the Nation's toughest challenges.

USACE Mission

Deliver vital engineering solutions, in collaboration with our partners, to secure our Nation, energize our economy, and reduce risk from disaster.



ECOLOGICAL PROBLEMS AND OBJECTIVES

- Problems
 - Stream degradation due to excessive erosion
 - Stream degradation due to excessive sedimentation
 - Riparian habitat constrained and degraded
- Objectives
 - Restore aquatic ecosystem structure and function
 - Restore and maintain riparian habitat
 - Reduce the erosive threat to the roads that parallel the river

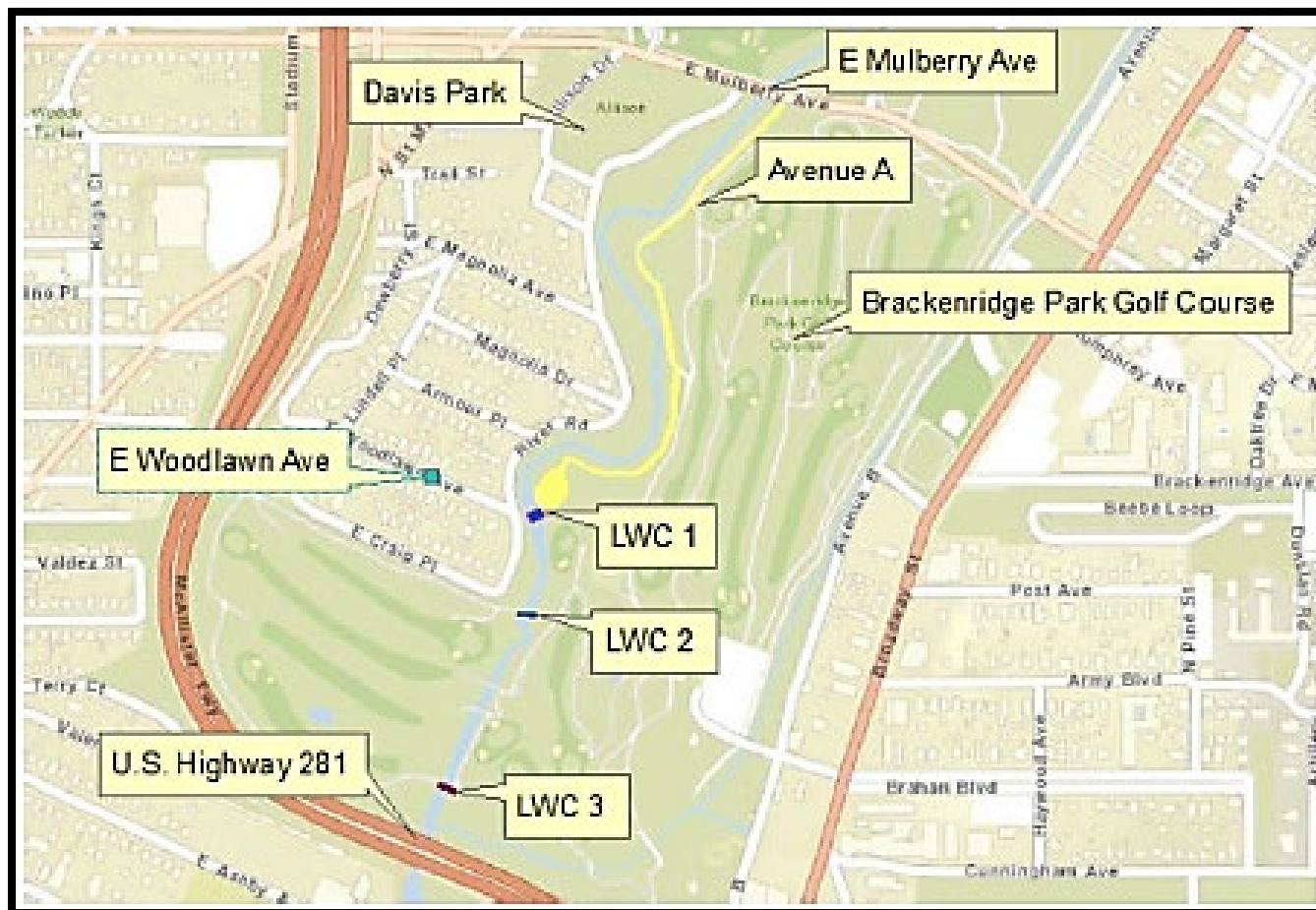


ECOSYSTEM RESTORATION MEASURES

- Removal of low water crossings 1, 2, and 3
- Installation of in-stream structures to balance sediment transport of the site
- Construction of bridges at low water crossing sites
- Removal of Avenue A
- Construction of a trail on the Avenue A side
- Removal of non-native invasive species
- Planting of native plant species



MAP OF PROJECT AREA





CURRENT CONDITION AND EXAMPLE RESTORATION

Figure 1: Existing Erosion
In Project Area

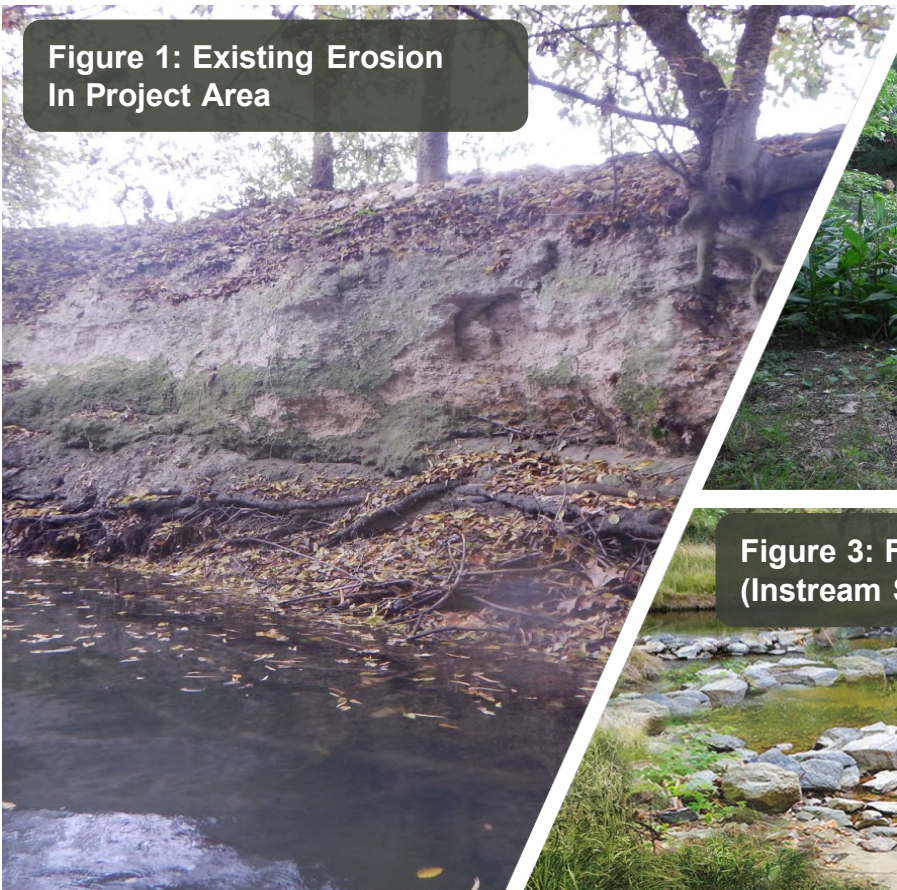


Figure 2: Existing Erosion
In Project Area



Figure 3: FWP Example
(Instream Structures)





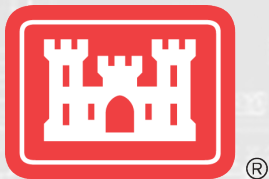
ECOLOGICAL BENEFITS

- Low water crossing removal/Instream structures
 - In combination with the installation of instream structures, will balance the sediment transport dynamics of the river.
 - Create a more diverse aquatic ecosystem by restoring the natural pool/riffle/run sequences in the river.
- Removal of Avenue A
 - Provides room to widen the riparian width by planting native riparian trees and woody vegetation along the eastern bank of the river.
 - Planting of native riparian trees on west bank and where invasive species occur.



RECREATION

- Avenue A will be replaced with a trail set back from the river
- Bridges will be constructed at low water crossing removal sites to provide connectivity
- Fishing access points
- Bird viewing location
- Access controls



SAN ANTONIO
RIVER AUTHORITY

MHZ JV

Jim Wilson, Project Engineer
Brian Clay, Landscape Architect

6 Aug 2024

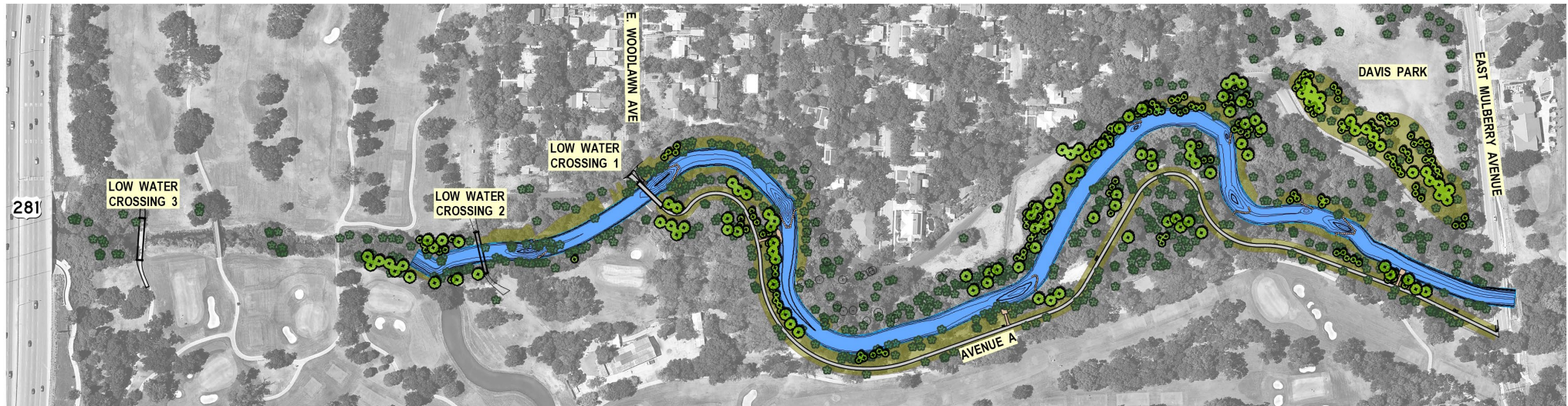


EXISTING CONDITIONS









PROPOSED CORRIDOR LAYOUT



LEGEND

-  EXISTING TREE
-  PROPOSED NATIVE TREE
-  SAN ANTONIO RIVER
-  PROPOSED NATIVE SEEDING





PROPOSED PLANT PALETTE

CANOPY TREES

- BUR OAK
- BLACK WILLOW
- BALD CYPRESS
- CEDAR ELM
- PECAN
- MONTEZUMA CYPRESS



UNDERSTORY TREES

- TEXAS REDBUD
- GUAJILLO
- HONEY MESQUITE



SHRUBS

- BUTTONBUSH
- TEXAS LANTANA
- TEXAS SAGE



FORBS

- LITTLE BLUESTEM
- SIDEOATS GRAMA
- GREEN SPRANGLETOP
- TEXAS CUPGRASS



FULL PLANT PALETTE WILL BE ADAPTED FROM
NATURAL CHANNEL DESIGN PROTOCOL (2015),
SARA SHORTGRASS SEED MIX AND SARA
TALLGRASS SEED MIX IN COORDINATION WITH THE
SAN ANTONIO RIVER AUTHORITY



PROPOSED INVASIVE PLANT REMOVAL

INVASIVE TREES

- CHINA BERRY
- CHINESE TALLOW



INVASIVE SHRUBS

- GLOSSY PRIVET
- VITEX



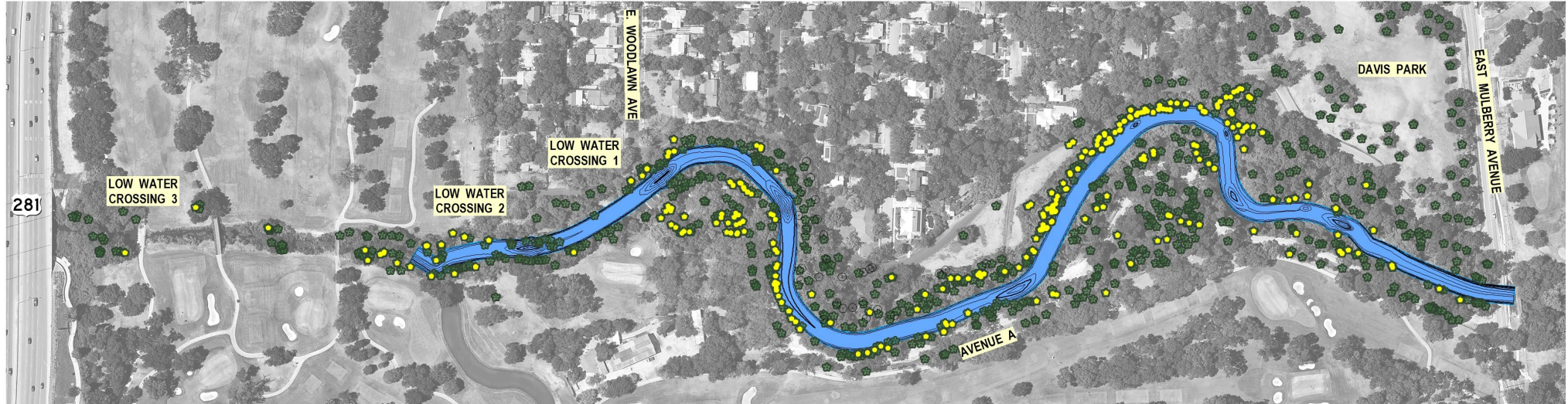
FORBS/AQUATIC

- GIANT CANE
- ELEPHANT EARS
- HYGROPHILA










EXISTING INVASIVE PLANTS



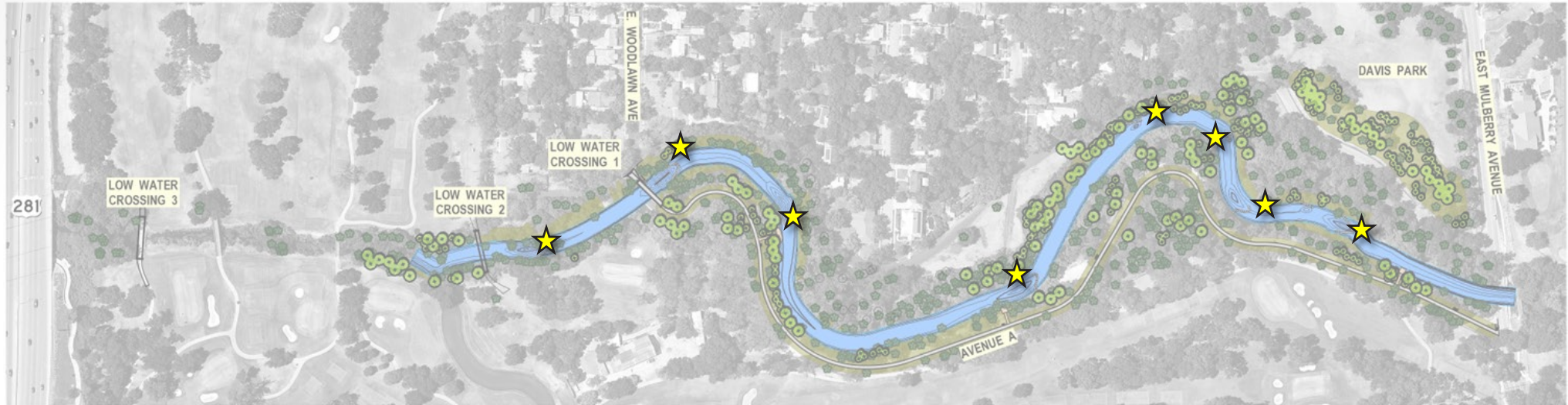
LEGEND

-  INVASIVE TREE
-  EXISTING TREE
-  PROPOSED NATIVE TREE
-  SAN ANTONIO RIVER
-  PROPOSED NATIVE SEEDING





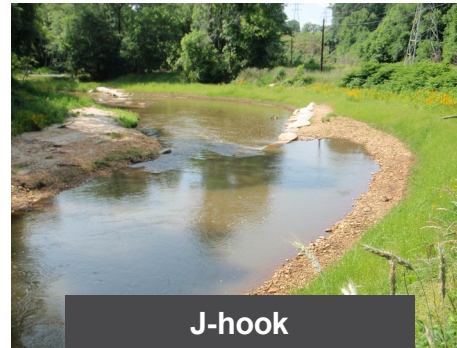
PROPOSED STREAM RESTORATION



★ STREAM
RESTORATION
STRATEGIES



Cross Vane

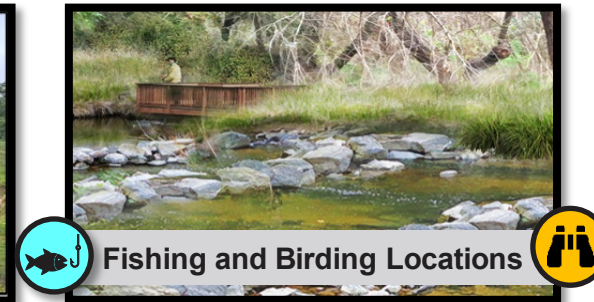
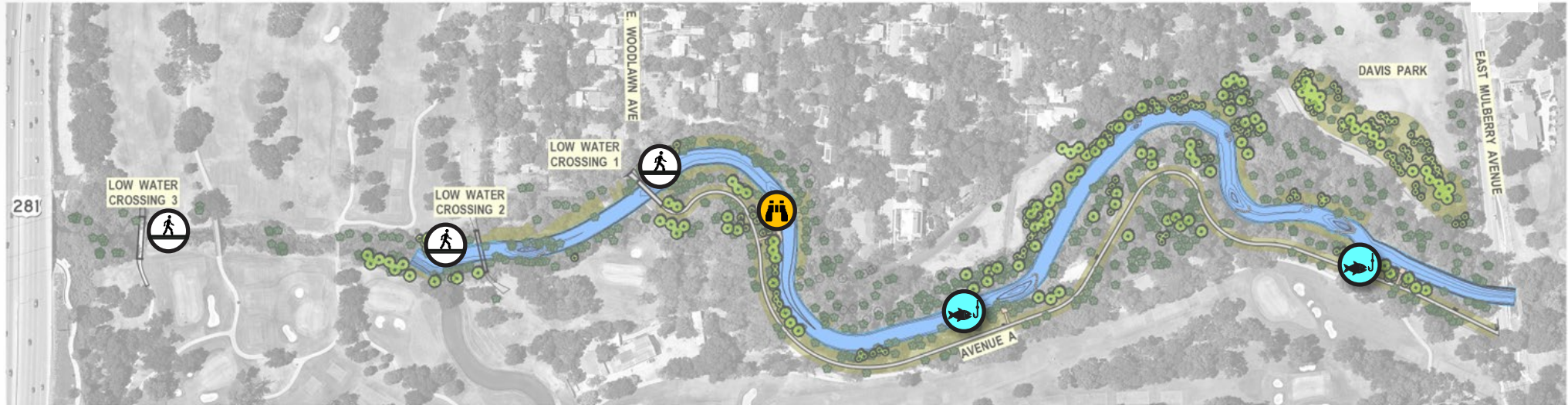


J-hook



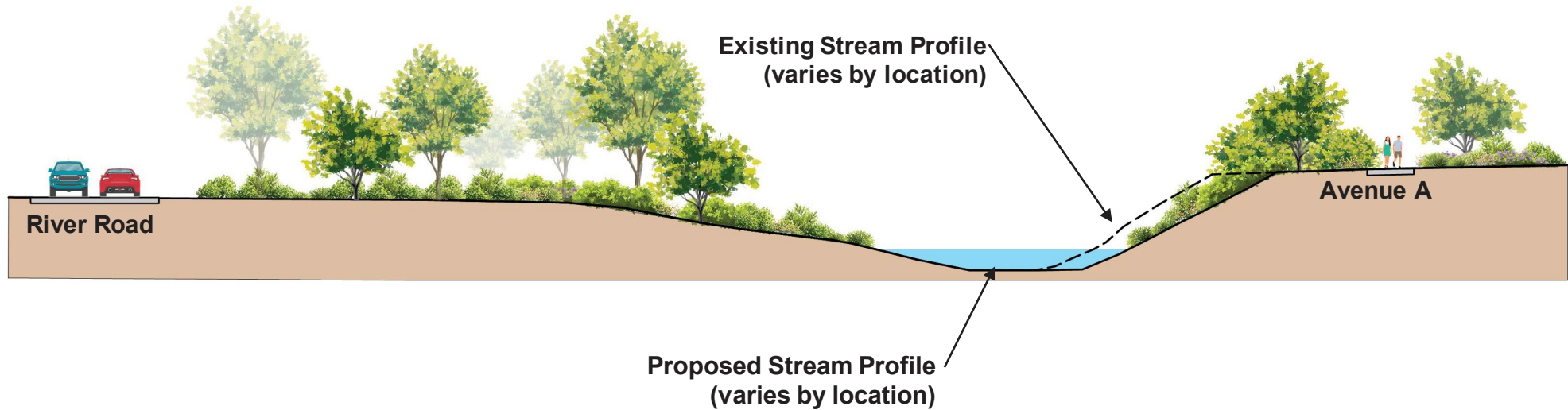


PROPOSED AMENITIES



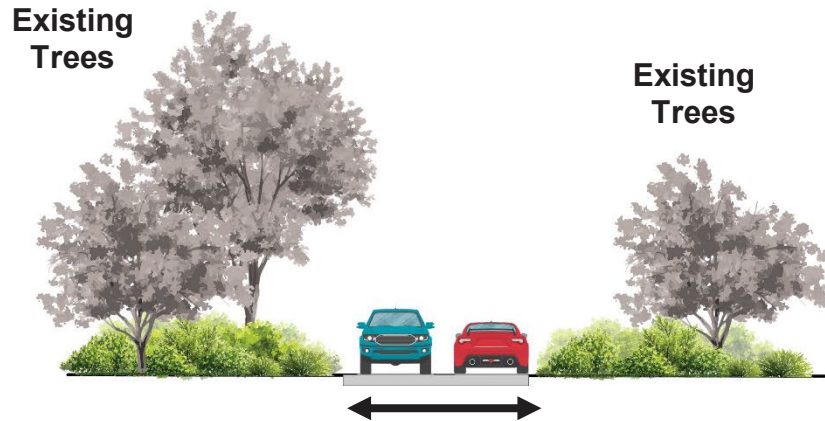


STREAM TYPICAL SECTIONS

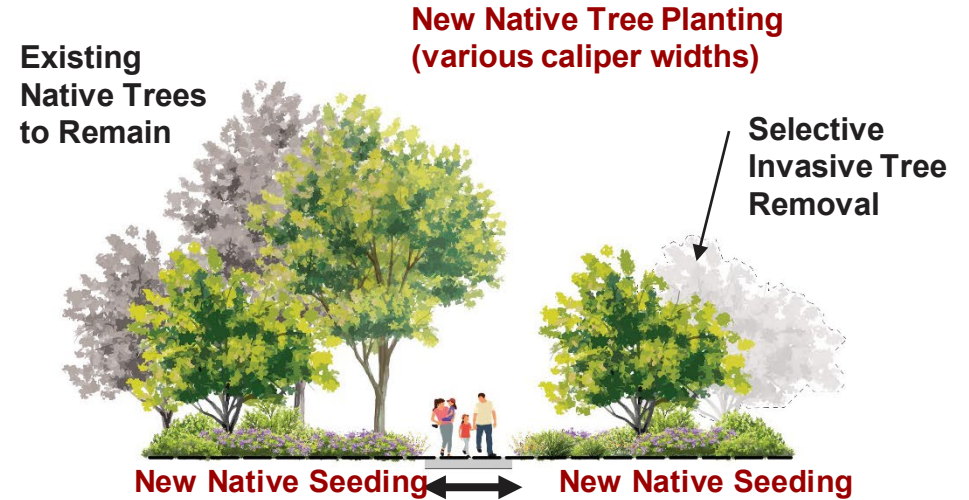




AVENUE A



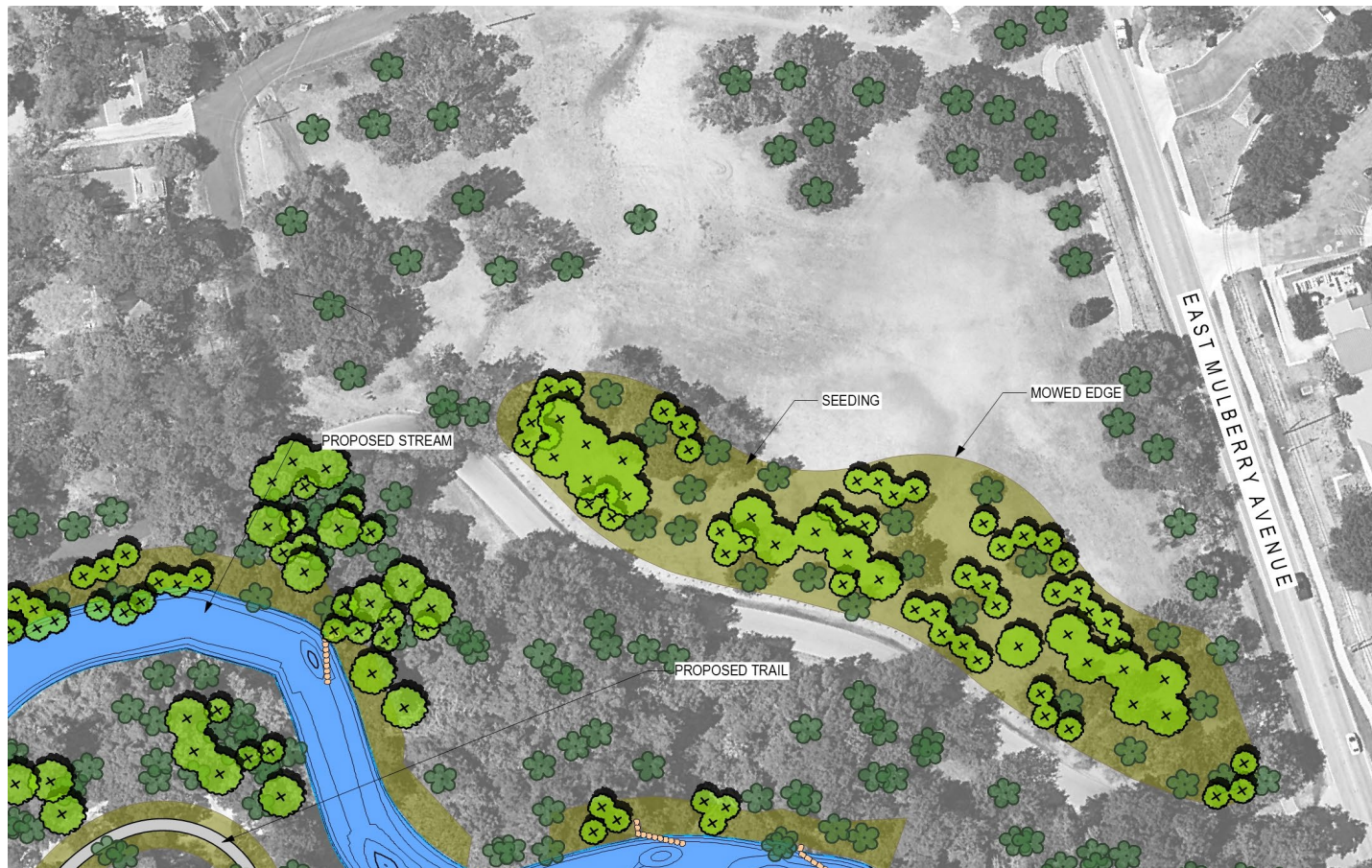
EXISTING



PROPOSED



CONCEPTUAL DAVIS PARK IMPROVEMENTS





QUESTIONS & ANSWERS

**FOR QUESTIONS SPECIFIC TO TODAY'S
PRESENTATION, PLEASE LINE UP BY THE STAFF
WITH A MICROPHONE.**

**CARDS ARE AVAILABLE FOR COMMENTS,
THOUGHTS AND IDEAS.**