



# **Advance Science and Engineering Expertise and Data**

September 26, 2019

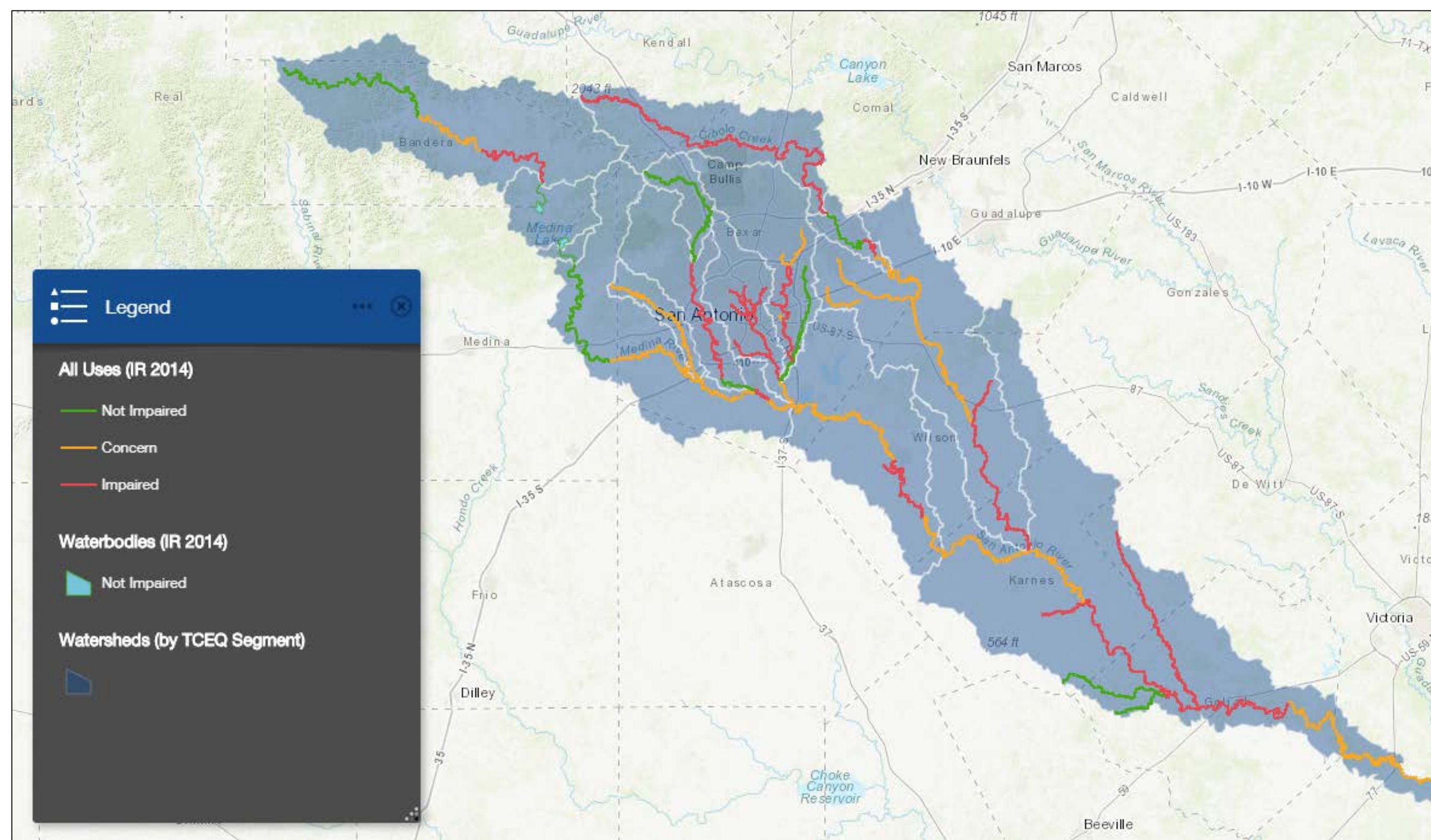
# Outline

- Advance Science and Engineering Goal Overview
- Objectives
- Closing Projects
- Strategic Direction/Opportunities
- Accelerated Projects



# Advance Science and Engineering Expertise and Data

Through research data, tools and models, SARA will continue to serve as the lead agency providing technical and science based information and solutions to advance our mission.



# OBJECTIVES

- Target investments to maintain SARA's technical leadership in flood, water quality and ecosystem modeling, mapping and analysis, and watershed master planning.
- Advance the capability for consumers to easily access and use models, data and master plans through development of tools.



# Closing Projects

Fiscal Year 2018/19:

- 1) Basin Assessment Mapping and Analysis Tool
- 2) Mid/Lower Cibolo Creek WPP\*
- 3) Stormwater Training and Tools



# Closing Projects

## Fiscal Year 2019/20:

- 1) Cooperating Technical Partner (CTP) USAR FY16
- 2) Digital Data and Model Repository (D2MR)
- 3) EDYS San Antonio Bay Model Development
- 4) H&H Study – Borrego to Medio
- 5) Inflow Scenarios for San Antonio Bay Modeling Project 2018
- 6) Laboratory Management Software Replacement
- 7) USGS LSAR Ground water Surface Water Interaction Modeling
- 8) Watershed Master Plans Integration



# Highlighted Projects

- 1) Watershed Master Plans Integration
- 2) Predictive Flood Modeling
- 3) Floodplain Remapping 2018 – Leon, Salado and Medina Watersheds
- 4) Site-Scale Model Development



# FY19 Summary

Implement SARA  
Master Plans used by  
external stakeholders

- Master Plans Integration





# FY20 Milestones

## Watershed Master Plans Integration/Reporting:

- 1) Reporting function for high level communication
  - i. Prototype developed by October
  - ii. Stakeholder input in October/November
  - iii. Data and file organization to support reporting through March
- 2) Coordination w/stream restoration, water quality modeling and Green Stormwater Infrastructure programs/projects



# FY19 Summary

Develop new and update existing flood management models

- Predictive Flood Modeling



# FY20 Milestones

## Predictive Flood Modeling:

- 1) Data collection for building the model
- 2) Interface and configuration and predictive tool development
- 3) Complete interface mock-up with live, measured input data



# FY19 Summary

Develop new and update existing flood management models

- Floodplain Remapping



# FY20 Milestones

## Floodplain Remapping:

- 1) Complete Leon and Salado survey – August
- 2) Draft hydrology for review
- 3) Draft floodplain mapping
  - i. Medio – March
  - ii. Salado – May
  - iii. Leon – early FY21



# FY19 Summary

Develop new and update existing water quality models

- Site-Scale Modeling



# FY20 Milestones

## Site-Scale Model Development:

- 1) Site-scale modeling pilot discussion pending
  - i. Performance of pilot study and recommended direction of project moving forward will help solidify a path for future application



# QUESTIONS?

