



SHOAL CREEK WATERSHED ACTION PLAN

Stakeholders Meeting



The Vision & Project Goal



VISION:

A resilient, healthy and clean Shoal Creek

GOAL:

To identify cooperative, creative solutions to address Shoal Creek's challenges through the development of Shoal Creek's 1st watershed action plan

Partners



**SHOAL
CREEK**
CONSERVANCY



THE MEADOWS CENTER
FOR WATER AND THE ENVIRONMENT
TEXAS STATE UNIVERSITY



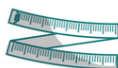
And Shoal Creek Stakeholders

This cooperative project is funded in part by the Texas Commission on Environmental Quality (TCEQ) through a United States Environmental Protection Agency (EPA) grant and the Still Water Foundation.

About the Shoal Creek Watershed



Total drainage area
= 13 miles



Total stream length
= 11 miles



27% in Edwards
Aquifer Recharge
Zone



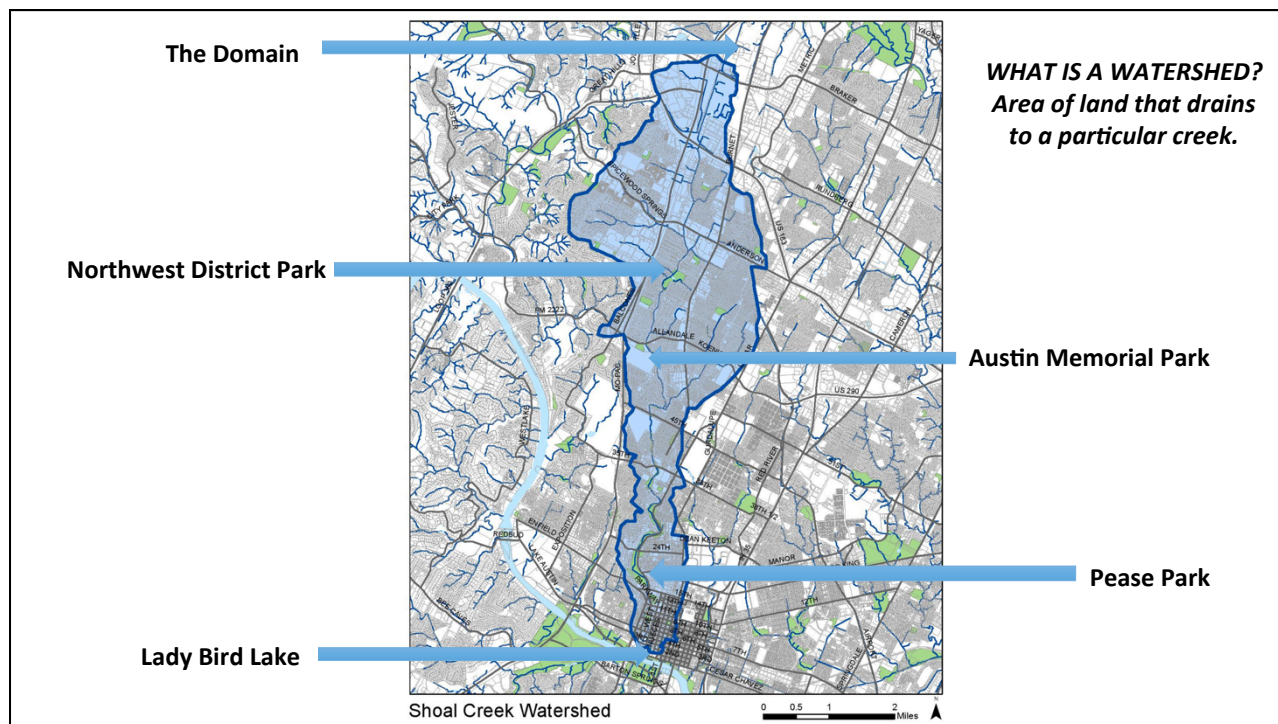
Contains 53%
impervious cover



30% canopy cover



Fully developed,
urban watershed



Challenges: Shoal Creek Watershed



Flooding



Water Quality



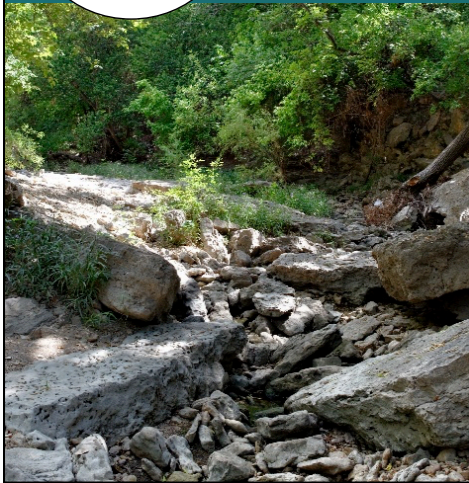
**Diminished
Springflow**



**Erosion & Loss of
Native Habitat**



Water Quality in Shoal Creek



- Middle & Lower Shoal Creek = Top 15 Water Quality Problem Areas in City
 - Middle Shoal Creek-#5
 - Lower Shoal Creek-#12
- Elevated fecal bacteria and nutrient levels
- It flows right to the creek!
 - Only 21% of impervious cover treated by water quality ponds
 - Vegetated buffer (or filter) missing along creek

Scoop that Poop!




Flooding in Shoal Creek

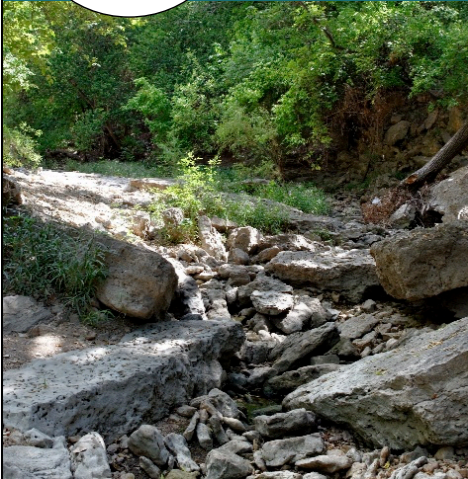


- Flash flood alley + highly developed watershed
- History of floods: 1915, 1960, 1981, 2013, 2015
- Since 1981, over \$65 M spend on mitigation
- Today:
 - Lower Shoal Creek = worst flooding problem in Austin
 - Approx. 265 structures at risk of flooding in 100-year event
 - Approx. 40 roadways at risk of overtopping by more than 6 inches in 100-year event
 - Approx. 13 identified localized flood problem areas
 - City's Lower Shoal Creek Flood Mitigation Study underway


100-year event = 1% chance of happening each year



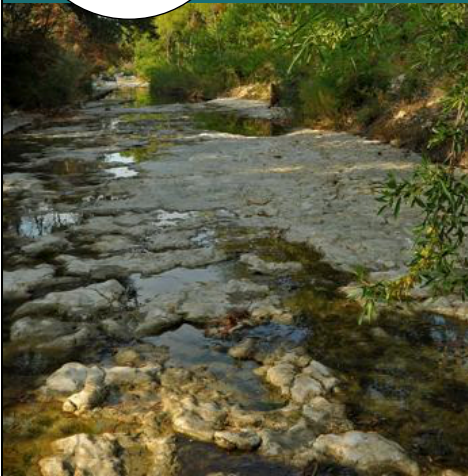
Erosion in Shoal Creek



- Lots of Fast Water + Lack of Vegetative Buffers = Erosion!
- Threatens property, stream stability, water quality, utilities, drainage infrastructure and native habitat
- How Shoal Creek ranks?
 - 3rd most erosion sites in the City
 - 3 of Top 15 Problem Erosion Reaches in Austin



Diminished Spring Flow in Shoal Creek



- Numerous springs identified along Shoal Creek and still finding more!
- Changes with urbanization:
 - Reduced water quality in springs
 - Loss of flow in the creek (base flow)
 - Spring can dry up
 - Some springs increase in flow (urban leakage)
- Additional studies needed to identify opportunities for restoration



What is a Watershed Action Plan?



- *In short:* A community-developed plan to address these challenges & create a clean, resilient and healthy watershed
- What does it include?
 - Challenges (Watershed Characterization Report)
 - Solutions (Management Measures & Practices)
 - Implementation Schedule
 - Partner Roles & Contributions
 - Technical & Financial Assistance Needs
 - Monitoring Plan & Adaptive Management Strategies
 - Education & Outreach Plan
 - Partnerships & Stakeholders

Watershed Action Plan Timeline

Winter 2018: Kickoff Stakeholder Engagement (today!)

Summer 2018: Draft Characterization Report (challenges)

Summer 2019: Draft Watershed Action Plan (solutions), Final Characterization Report

2020: Final Watershed Action Plan Report

Today - 2020: Stakeholder Engagement & Public Outreach and Education





Shoal Creek Stakeholder Committee

- Stakeholder engagement is key!
- Purpose:
 - Provide insight about public concerns and values, institutional knowledge
 - Help bridge scientific research and community-driven efforts
 - Help develop the Watershed Action Plan, identify issues, goal and solutions
- Structure:
 - Inclusive, open and welcoming to all
 - Bi-monthly meetings
- Steering Committee – subset voting body



Working Groups

- Purpose:
 - Delve into particular topics in detail
 - Set long-term goals; identify concerns, causes, standards in place and areas for improvement
 - Provide recommendations
- Four Working Groups:
 - Water (includes flood, water quality, springs)
 - Land Stewardship (includes upland, floodplain)
 - Education & Outreach
 - Implementation
- Open and welcoming – Interested?



How You Can Get Involved

- Attend Stakeholder Committee Meetings
- Join a Working Group
- Recruit other stakeholders to get involved
- Stay informed:
www.shoalcreekconservancy.org/watershedplan
- Take action today:
 - Volunteer on the Creek – Saturday, March 3
 - Become a Citizen Scientist
 - Visit the table before you leave



Small Group Discussion

- 30-minute facilitated discussion
 - Express your concerns and ideas
 - Identify others to involve
 - Share how you want to get involved
- Fill out the questionnaire

But First...

Who's in the room with us today?



Thank you

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