

H-GAC Watershed Protection Plans

Justin Bower, *Principal Planner*
Houston-Galveston Area Council

Rachel Windham, *Planner*
Houston-Galveston Area Council





Introduction

Regional Challenges



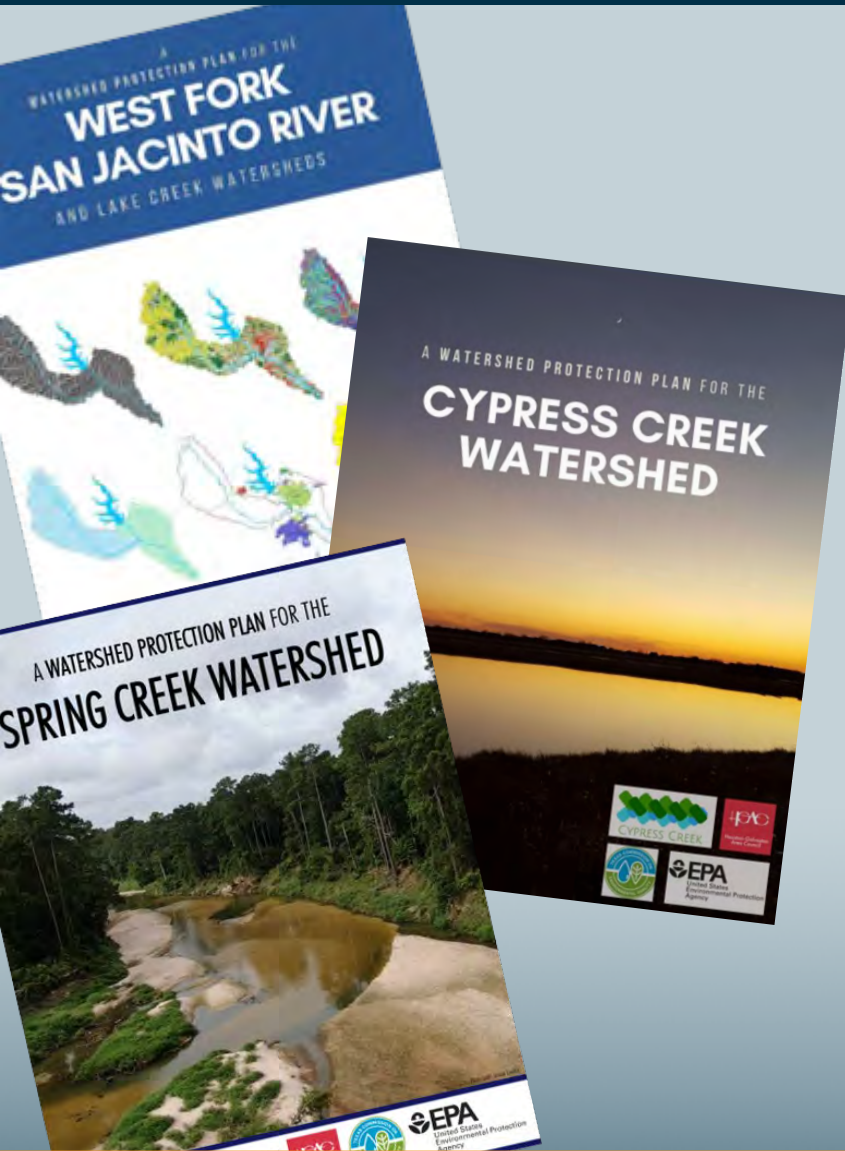
- Water Quality
 - Fecal waste pollution
 - Low dissolved oxygen
 - High nutrient concentrations
- Other Concerns
 - Trash
 - Sedimentation
 - Flooding

Area Watershed Based Plans

- H-GAC among groups working with stakeholders to improve water quality in the region
- Interactive map of regional projects: <https://bit.ly/3nkV3T9>

The screenshot displays the 'Watershed-Based Plans' web application. At the top, it features the title 'Watershed-Based Plans' and a link to 'H-GAC's Resource Page'. Below the title is a descriptive paragraph: 'Watershed-based plans can be categorized into different plan types based on the impairments or concerns of the specific watershed. A watershed protection plan (WPP) is a voluntary, locally-led approach to address state water quality standard (SWQ5)'. Navigation tabs include 'All Watershed-Based Projects' (highlighted in green) and 'Watershed Protection Plans'. A grid of eight project thumbnails is shown, each with a number and a title: 1. Bacteria Implementation Group, 2. Bastrop Bayou WPP, 3. Big Creek Watershed Characterization Report, 4. Caney Creek/Linnville Bayou TMDL/Plan, 5. Cedar Bayou WPP, 6. Chocolate Bayou TMDL/Plan, 7. Cotton Bayou Watershed..., and 8. Cypress Creek WPP. To the right is an interactive map of the Houston area, with various watersheds highlighted in different colors and numbered 1 through 21. The map includes labels for locations like Bryan, College Station, Houston, Sugar Land, The Woodlands, Sam Houston National Forest, and Galveston. A sidebar on the left of the map contains navigation icons for home, zoom in, zoom out, and search. At the bottom right, there is a copyright notice 'Map data © OpenStreetMap contributors' and the H-GAC logo.

Watershed Protection Plans (WPPs)



- Non-regulatory, adaptive management roadmaps
- Data-based strategies enhanced by local knowledge
- Developed by stakeholder partnerships

WPPs Compared to TMDLs

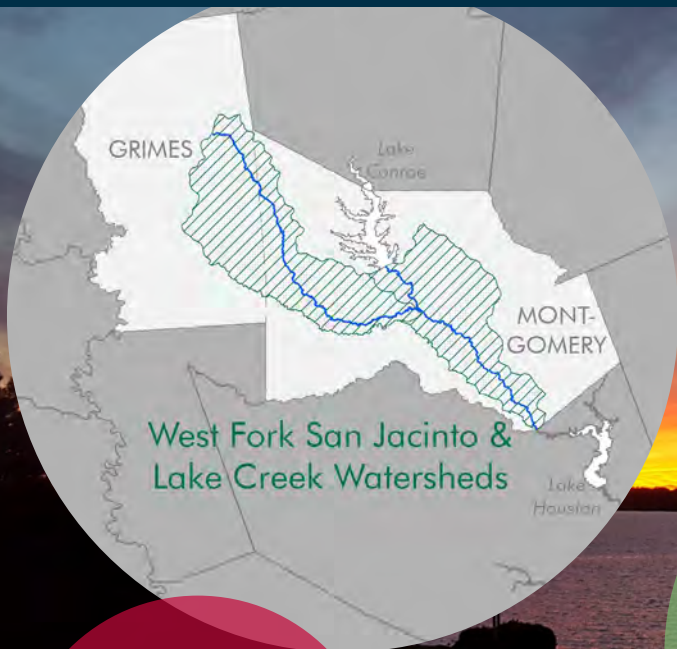
- Final approval by EPA
- No direct impact to wastewater permits
- Can address multiple constituents and local concerns





Case Studies

West Fork San Jacinto - Highlights



Watershed
in transition

Project
completed in
2019

Final WPP draft
approved by
EPA

Implementation
underway

Contact
Justin
Bower for
more!

West Fork San Jacinto - Details



Key Partners

- Bayou Land Conservancy
- County Precincts
- Galveston Bay Estuary Program
- Houston Advanced Research Center
- Lake Creek Greenway Partnership
- Local Business and Industry
- Local City and County Governments
- Local Utility Districts
- San Jacinto River Authority
- Soil and Water Conservation Districts
- Texas A&M University AgriLife
- Texas Commission on Environmental Quality
- Texas Forest Service
- Texas Master Naturalists
- Texas Parks and Wildlife Department
- Texas State Soil and Water Conservation Board
- USDA Natural Resources Conservation Service

Challenges

Rapid development, land use transition

Repetitive flooding

Multiple uses of channel (source water conveyance)

Sand/aggregate mining in channel

Opportunities

Coordination with flood management, water supply

Active municipal/agency programs

Abundant conservation opportunities and activity

Cypress Creek - Highlights



Watershed
in transition

Project
completed in
2021

Final WPP draft
approved by
EPA

Implementation
underway

Contact
Justin
Bower for
more!

Cypress Creek - Details

Key Partners

- Bayou Land Conservancy
- County Precincts
- Cypress Creek Flood Control Coalition
- Galveston Bay Estuary Program
- Harris County Flood Control
- Houston Advanced Research Center
- Katy Prairie Conservancy
- Local Business and Industry
- Local City and County Governments
- Local Utility Districts
- Soil and Water Conservation Districts
- Texas A&M University AgriLife
- Texas Commission on Environmental Quality
- Texas Forest Service
- Texas Master Naturalists
- Texas Parks and Wildlife Department
- Texas State Soil and Water Conservation Board
- The Nature Conservancy
- USDA Natural Resources Conservation Service

Challenges

Development expanding west

Need for riparian restoration

Hydrologic impacts of flooding

Districts are primary form of management

Opportunities

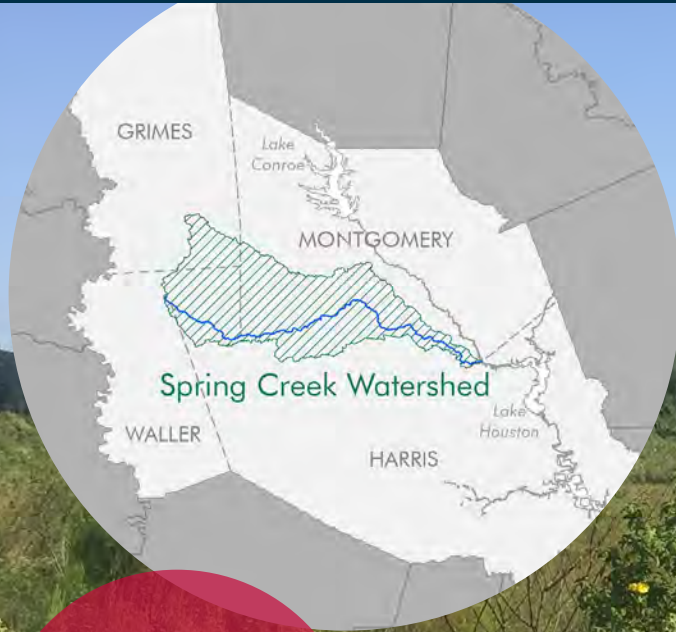
Plan for water quality/stormwater management

Active forestry partners and conservation groups prioritizing tree plantings

Promote existing agricultural programs

Coordinate with flood management efforts

Spring Creek - Highlights



Watershed
in transition

Project will
complete in
late 2021

WPP draft with
TCEQ en route
to EPA for
approval

Planning
implementation

Contact
Rachel
Windham
for more!

Spring Creek - Details

Key Partners

- Bayou Land Conservancy
- Bayou Preservation Association
- County Precincts
- Galveston Bay Estuary Program
- Harris County Flood Control
- Houston Advanced Research Center
- Local Business and Industry
- Local City and County Governments
- Local Utility Districts
- Soil and Water Conservation Districts
- Texas A&M University AgriLife
- Texas Commission on Environmental Quality
- Texas Forest Service
- Texas Master Naturalists
- Texas Parks and Wildlife Department
- Texas State Soil and Water Conservation Board
- USDA Natural Resources Conservation Service
- Woodlands GREEN

Challenges

Development expanding west

Majority of pollution from pet waste

Aging/failing OSSFs in Tomball area

Need for agricultural plans

Need for conservation

Opportunities

Plan for water quality/stormwater management

Active community partners prioritizing pet waste management and education

Focus area for remediation

Priority area for the TSSWCB

Active conservation groups, availability of natural (riparian) areas



New Projects

Clear Creek - Highlights



Densely developed watershed

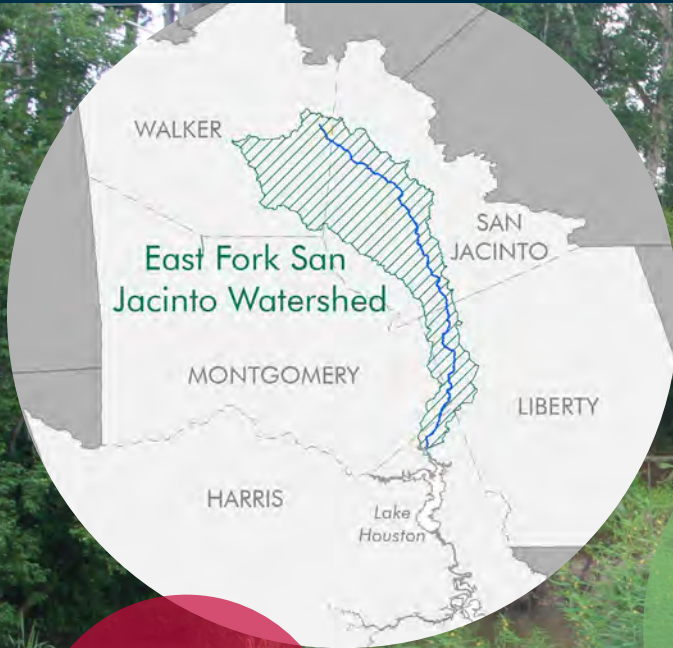
Project initiated in early 2021

Beginning technical analyses and planning for public meetings

Collaborating with efforts already underway

Contact Justin Bower for more!

East Fork San Jacinto - Highlights



Primarily
rural
watershed

Project will
initiate in
2022

Seeking
information on
efforts already
underway

Reaching out to
stakeholders to
gauge water
quality priorities

Contact
Justin
Bower for
more!



Coordination

Role of the BIG

- Support implementation
- Connect with key partners
- Share with stakeholders



Discussion



- What are your ideas for implementing WPPs?
- How can WPP development and implementation align with the BIG?
- Are there any other contacts we should coordinate with?

POLL QUESTION 1:

Do you live in/work in/represent any of the watershed areas discussed today?

- Yes
- No

POLL QUESTION 2:

Which of the watershed areas discussed today is closest to your residence/workplace? (Select multiple.)

- East Fork San Jacinto River
- West Fork San Jacinto River
- Lake Creek
- Spring Creek
- Cypress Creek
- Clear Creek

POLL QUESTION 3:

Are you interested in assisting with
WPP implementation?

- Yes
- No

POLL QUESTION 4:

If yes, what focus areas would you be interested in receiving or sharing more information about?

(Select multiple.)

- Onsite sewage facility (OSSF) remediation
- Wastewater treatment facility (WWTF) discharge management
- Pet waste management
- Managing impacts from agriculture and livestock
- Remediating wildlife and invasive species impacts
- Outreach and education
- Trash management
- Coordinating with stormwater management
- Coordinating funding opportunities
- Other (include in chat)

POLL QUESTION 5:

Are you interested in receiving information about the new watershed planning project on Clear Creek?

- Yes
- No

POLL QUESTION 6:

Are you interested in receiving information about the new watershed planning project on East Fork San Jacinto River?

- Yes
- No

Contact Information

Justin Bower


Principal Planner

 713.499.6653

 justin.bower@h-gac.com

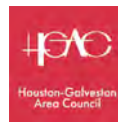
Rachel Windham

Planner

 713.993.2497

 rachel.windham@h-gac.com

www.westfork.weebly.com • www.cypresspartnership.com • www.springcreekpartnership.com



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