



Because of this complexity, determining a single cause for high bacteria levels is not possible. However, water quality managers are currently conducting studies to help determine at least the major contributors. When researchers identify these sources of bacteria, water quality managers, residents and those who use Cypress Creek may be able to solve the creek's bacteria problems by implementing such solutions as:

- Analyzing proper Best Management Practices (BMPs)
- Taking appropriate enforcement actions for violations
- Repairing or maintaining failing infrastructure

You can do many things to prevent bacteria from entering Cypress Creek including:

- Reporting leaking sewer lines or sewer overflow to the proper utility district
- Picking up pet waste both at home and in community parks and disposing of it properly
- Keeping your septic system well maintained to avoid leaks and extensive repairs
- Contacting your county extension agent to learn how to best manage cow, horse or other livestock waste

Working together to implement positive changes throughout the watershed will help bring Cypress Creek back into compliance with clean water standards.

Cypress Creek Source Identification Project

To address the bacteria problem in Cypress Creek, H-GAC implemented the "Bacteria Source

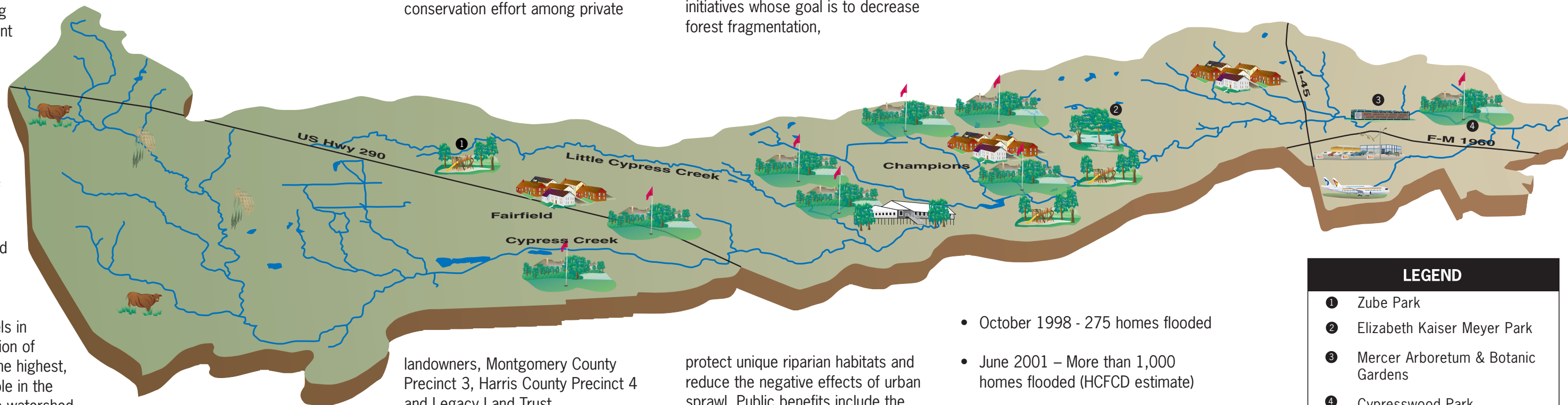
Identification Study" in late 2004. Surveying the entire length of Cypress Creek by canoe and on foot, researchers were able to document and sample inputs to the creek including waste water treatment plant outfalls, storm water outfalls, all tributaries as well as areas immediately upstream and downstream. They discovered a total of 75 flowing sources along the main stem of Cypress Creek and selected 28 for sampling. The study revealed overall highest bacteria levels in the rural, upper portion of the watershed and the highest, single bacteria sample in the middle portion of the watershed issuing from a pipe that drains an ornamental pond containing a large population of waterfowl.

H-GAC will begin working with its Technical Advisory Group to analyze the bacteria sources found in the study and recommend appropriate BMPs. Hopefully, implementation of these initiatives will bring Cypress Creek back into compliance, as its bacteria problems are not severe. If you would like more detailed information about this study, please go to www.h-gac.com/CRP, and click on the Publications and Media link.

Greenway Project

The Spring Creek Greenway Project is a comprehensive effort to preserve and protect 33 miles and approximately 15,000 acres of land located on both sides of Spring Creek in southern Montgomery and northern Harris Counties, as well as

a continuous connection of land along Cypress Creek. The Spring Creek Greenway Project will ultimately encompass floodway,



landowners, Montgomery County Precinct 3, Harris County Precinct 4 and Legacy Land Trust.

floodplain and some upland buffer along Spring Creek between FM 2978 near John Pundt Park on the west side and I-59 on the east side. It will also encompass

The Greenway Project will help protect the important Spring Creek and Cypress Creek Watersheds, as well as enhance water quality flowing into Houston's main water source, Lake



floodway, floodplain and some upland buffer along Cypress Creek from Mercer Arboretum all the way to the confluence with Spring Creek. The project is a unique, collaborative conservation effort among private

Houston. It will also protect the waterways composed of fine, highly erodible sugar sand. Preservation of these corridor properties helps support H-GAC's open space initiatives whose goal is to decrease forest fragmentation,

protect unique riparian habitats and reduce the negative effects of urban sprawl. Public benefits include the protection of important riparian habitat and a low-impact trail system along the creeks for public use. The project will also provide a flood buffer zone for nearby development.

In August 2005, Harris and Montgomery Counties received a \$1 million Regional Texas Parks and Wildlife Grant for the Greenways Project that will be used toward the purchase of land. If you would like more information about the Spring Creek Greenways Project, please call Harris County Precinct 4 or Legacy Land Trust.

Flood Control

Residents of the Cypress Creek Watershed have had to deal with recurrent flooding issues. In the past 20 years, many homes have flooded during major storms. A list of the number of homes flooded in some of these major events is provided here:

- May 1989 - 550 homes flooded
- June 1989 - 270 homes flooded
- October 1994 - 410 homes flooded

- October 1998 - 275 homes flooded
- June 2001 - More than 1,000 homes flooded (HCFCD estimate)

Accompanying urban development, construction of impervious concrete or asphalt surfaces on top of the soil prevents the natural absorption of rainfall and increases both the volume and rate of water runoff flowing into the creek. With continued development, flooding outside the banks of the creek is certain to increase in severity and frequency.

Floodplains are dynamic: they change over time. As development in a watershed increases, the floodplain may become larger. Structures that were once on the edge of a floodplain may be pushed into the floodplain by increased development.

The Harris County Flood Control District (HCFCD) is in charge of flood damage reduction in all the watersheds in Harris County. The HCFCD currently uses several tools for reducing flooding within the Cypress Creek Watershed

including, buying flood-prone houses, implementing regional detention basins, securing flooding easements and acquiring lands for either floodplain storage or future projects.

LEGEND	
①	Zube Park
②	Elizabeth Kaiser Meyer Park
③	Mercer Arboretum & Botanic Gardens
④	Cypresswood Park



Individuals can also take action to help reduce flooding such as developing rain gardens on their properties to slow the runoff of rainwater into the street and/or storm sewers. Contact HCFCD for more information on how to reduce flooding in your area.

Mercer Arboretum & Botanic Gardens

Mercer Arboretum & Botanic Gardens is a Harris County Precinct 4 facility, which is named after the original owners, Thelma and Charles Mercer, who purchased 14.5 acres in the late 1940s as the site for their home and garden.

To address area-wide flooding around Mercer Arboretum & Botanic Gardens, the Army Corps of Engineers channeled Cypress Creek by dredging, making it wider and deeper. Selective clearing has also preserved and enhanced the desirable native trees such as dogwoods, rusty blackhaw viburnum and several species of hawthorns. Several exotic tree species were introduced that are still growing beautifully, including ginkgo, bauhinia, philadelphus, camphor and tung oil.

At the request of the Mercers, Harris County purchased the land in 1974. Since that time, several major expansions in 1984, 1993 and 2000 have added more than 240 acres of land to the Gardens.

Today, Mercer Arboretum & Botanic Gardens boasts more than 250 acres of East Texas piney woods showcasing the region's largest collection of native and cultivated plants. Aldine Westfield Road divides the facility into two special-use areas. The east side is home to the Botanic Gardens with about 20 acres of developed gardens, including herb, ginger, fern, daylily, tropical, bamboo, endangered species collections, color displays and extensive walking trails. The west side of Aldine Westfield is home to the Arboretum itself including an outdoor classroom, picnic area with tables and grills, a barbecue pavilion and three miles of walking trails.

Watershed Profile

Area

306 Square Miles

Rainfall

Approximately 46 inches per year

Elevation

310 feet at the headwaters to 60 feet at the mouth

Geology

Sedimentary formations consisting of materials deposited by water

Soils

Clay and silt, locally sandy; poorly drained

Major Ecoregion

Western Gulf Coastal Plain

Vegetation

Coastal Short Grass Prairie

Cities

Houston, Humble, Cypress

Tributaries

Little Cypress Creek
Snake Creek
Mound Creek
Faulkey Gully
Turkey Creek
Numerous unnamed stormwater ditches

Aquifers

Gulf Coast

Issues

Flooding, elevated bacteria levels

Developments

Fairfield
Champion Forest

Parks

Zube Park
Elizabeth Kaiser Meyer Park
Cypresswood Park
Mercer Arboretum & Botanic Gardens

Golf Courses

Waller Sky Lakes
Blackhorse
Cypress Lake
Long Wood
Cypress
Treeline
Glenloch Farms
Raveneaux Country Club
Northgate Forest Country Club
Cypresswood Country Club

No matter where we live or

work, we are always in a

watershed – an area of land

that drains to a particular

creek, river, bayou or lake.

Understanding our role in

watershed management is

critical to the protection of

our waterways, floodplains

and drinking water, as well

as our recreational and

fishing areas.

Watershed

As our population grows, so do the risks to our waterways from activities in the watershed.



Tin Hall - the oldest reception hall in Texas.

Photographs Courtesy of Houston-Galveston Area Council

Contacts

For more information about your watershed, please contact the following:

H-GAC
www.h-gac.com
(713) 627-3200

TCEQ – Region 12
www.tceq.state.tx.us
(713) 767-3500

Harris County Precinct 4
www.hcp4.net
(281) 353-8424

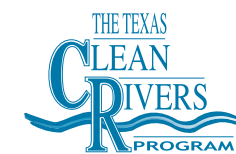
Harris County Agricultural Extension Program
www.harristex.tamu.edu
(281) 855-5600

Legacy Land Trust
www.llt.org
(713) 524-2100

Mercer Arboretum & Botanic Gardens
www.hcp4.net/mercer
(281) 443-8731

Bayou Preservation Association
www.bayoupreservation.org
(713) 529-6443

Harris County Flood Control District
www.hcfcfd.org
(713) 684-4000



09/05

Cypress Creek is a highly diverse watershed – with rural land uses near the headwaters and highly urban land uses found throughout the remainder of the watershed.

Cypress Creek Watershed

The headwaters of Cypress Creek originate at the confluence of Snake Creek and Mound Creek in Eastern Waller County. The creek runs a total of 53 miles, first flowing south to the Harris County boundary, then northeast to join Spring Creek near Humble. The watershed drains approximately 310 square miles, making it the largest watershed in Harris County.

History

The earliest inhabitants of the Cypress Creek Watershed were the Patiri Band of the Atakapan Indians. In the 1840s, German immigrants settled along Cypress Creek where the first school house in Cypress was built in 1884. Today, Cypress-Fairbanks Independent School District is the second-largest school district in the State of Texas. In the 1940s, farming and raising dairy cattle predominated throughout the watershed until the oil boom of the 1970s, which prompted large-scale sales of land to developers. In fact, *The Wall Street Journal* reported at the time that the FM 1960 area was the fastest growing residential community in the United States. Today, the western end of the watershed remains mostly rural whereas the eastern end is highly developed.

Water Quality

Unfortunately, Cypress Creek appears on the “Impaired Waters List” because of bacteria levels that exceed the state standard for contact recreation. Swimmers must avoid contact with creeks suffering from elevated bacteria levels because of increased risk of illness or infection. Bacteria may come from many different sources throughout the watershed, including:

- Sewage treatment overflows
- Failing septic systems
- Illicit stormwater connections

- Sanitary sewer leaks

- Stormwater runoff from yards, parks, parking lots, streets, farms and ranches

