



arose a need for a large, long-range, and dependable supply of fresh water. The construction of the San Jacinto Dam, completed in 1953, was not only designed to provide a dependable yield of 150 million gallons per day but to also fulfill municipal, industrial, recreational, mining, and irrigation purposes. Construction of the water purification plant was completed in 1954.

The opening of Houston's Intercontinental Airport in the 1960's resulted in continued growth in the area with the communities of Kingwood and Forest Cove beginning to fill in the watersheds' southern area. The watershed is very rural and is covered in deciduous forest and palustrine (marshy) forested wetlands with pastureland dominating the most northern section.

**Water Quality**

Water quality is the physical, chemical and biological characteristics of water. Drinking water purity, safety of human contact, and ecosystem viability are all used to characterize water body health. The Texas Commission on Environmental Quality (TCEQ) is responsible for assessing and maintaining the ecological health of streams throughout Texas. Historically, data indicated that no substantial concerns existed for these streams, which are tributaries to Lake Houston. However, as urban development increases the possibility of negative changes to water quality and biological conditions also increases.

TCEQ has listed both Caney Creek and Peach Creek as not meeting their contact recreational use due to

elevated levels of bacteria. Elevated levels of bacteria likely stem from sources such as intermittent municipal collection system overflows, failing septic systems, pet waste, wildlife, avian populations, and farms and ranches scattered throughout the watershed. High concentrations of bacteria are observed when bacteria are transported from their source by rain water and washed into local streams.

Determining a single cause for high bacteria levels is difficult because there are such a large number of potential sources. It will take an effort by water quality managers, residents, and other stakeholders to help solve the problem. Water quality managers are currently conducting studies to help determine major contributors of bacteria to the watershed. When these sources are identified a number of solutions may be implemented which include:

- Utilizing Best Management Practices (BMPs)
- Using appropriate enforcement actions if violations are found
- Repairing and maintaining failing infrastructures

- Developing watershed management plans

What can YOU do to prevent bacteria from entering your watershed?

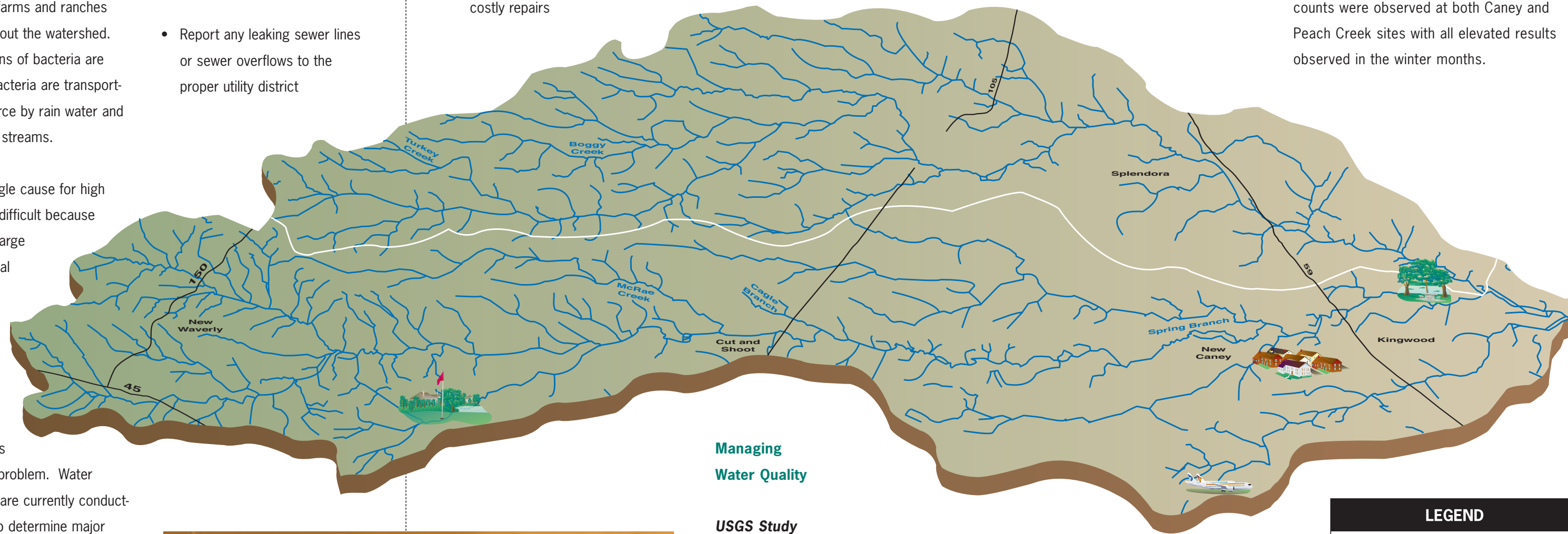
- Report any leaking sewer lines or sewer overflows to the proper utility district

- Pick up and properly dispose of pet waste at home and in community parks
- Perform routine maintenance of septic systems to avoid leaks and costly repairs

- Contact your local county extension agent to learn how to best manage cow, horse or other livestock waste

water quality, and biological data were collected to provide a better understanding of how they interact and affect the riparian ecosystem.

algal populations reduces dissolved oxygen leading to noxious conditions, fish kills, and other aquatic stresses. Results of nutrient data show no exceedances above the state screening level. Elevated E. coli bacteria counts were observed at both Caney and Peach Creek sites with all elevated results observed in the winter months.



**Managing Water Quality**

**USGS Study**

To better understand the effects of urban development, the U.S. Geological Survey (USGS), in cooperation with H-GAC and TCEQ, conducted a systematic watershed monitoring study to characterize water-quality conditions on Lake Creek, Peach Creek, and Caney Creek tributaries to Lake Houston. The watersheds of these streams are similar, dominated by forests and forested wetlands. Streambeds are predominately sand and gravel with isolated pockets of silt and clay. Hydrologic,

In 2004 the USGS conducted continuous in-stream monitoring for basic water quality parameters including water temperature, specific conductance, dissolved oxygen, and pH. They tested additional water samples for nutrients; ammonia, nitrates, and phosphates. These nutrients can enrich a water body which leads to higher rates of plant growth and wide spread algal blooms. Death and decomposition of

The USGS also documented the types and numbers of fish and micro-organisms to determine the biological diversity of the water bodies. Fish and benthic-macroinvertebrate community structure and stream-habitat conditions were used to determine a score comparing biological components with habitat sur-



veys. Higher scores equate to higher aquatic life use. The scores for Peach Creek and Caney Creek indicate a high aquatic life use.

**Parks**

**Lake Houston Park**

Lake Houston Park is a beautiful, lushly forested park with nature trails perfect for spot photography, nature study, and bird watching. The park is comprised of nearly 5,000 acres located thirty miles north of Houston. The park is situated at the confluence of Caney Creek and the East Fork of the San Jacinto River, straddling the Harris-Montgomery County line.

Park camping facilities include several walk-in campsites complete with fire ring, tent pad, picnic table, and grill. Running water is available along with shower buildings and restrooms located near each campground. Lake Houston Park offers hiking, biking, and equestrian trails along with various water activities. Ponds are located well off the beaten path surrounded by pines and cypress with an abundant animal population.





### Watershed Profile

**Area**  
Caney Creek - 222 square miles  
Peach Creek - 151 square miles

**Rainfall**  
Approximately 62 inches per year

**Elevation**  
Caney - 377 feet at the headwaters to 42 feet at the mouth  
Peach - 433 feet at the headwaters to 53 feet at the mouth

**Geology**  
Sedimentary formations consisting of material deposited by water

**Soils**  
Clays, silts and local sands. Poorly-drained, tight clays

**Major Ecoregion**  
South Central Plains

**Vegetation**  
Loblolly Pine, Oak, Pecan and Willow

**Cities**  
Kingwood  
Forest Cove  
New Waverly  
Cut and Shoot  
New Caney  
Splendora

**Tributaries**  
McRae Creek  
Boggy Creek  
Turkey Creek  
Spring Branch  
Cagle Branch

**Issues**  
Elevated bacteria levels

**Parks**  
Sam Houston National Forest  
Albert Sallas Park  
Lake Houston Park  
Montgomery County Park

**Golf Courses**  
Texas National Country Club  
Roman Forest Country Club

No matter where you live, work or play, you 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.

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



### Contacts

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

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

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

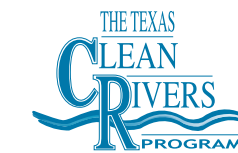
TCEQ Region 12  
www.tceq.state.tx.us  
(713) 767-3500

Montgomery County  
www.co.montgomery.tx.us  
(936) 336-4558

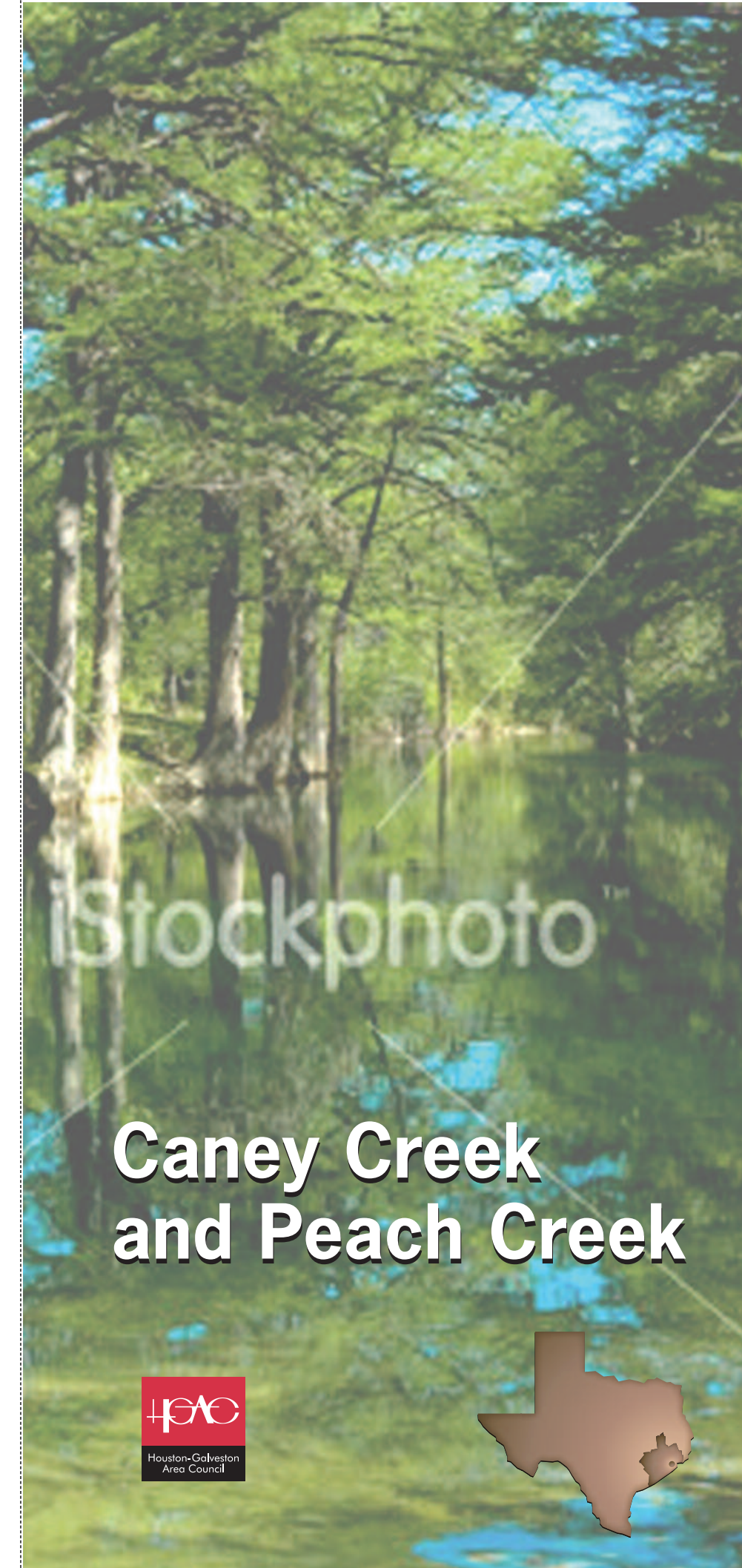
Harris County Flood Control District  
www.hcfdc.org  
(713) 684-4000

San Jacinto County  
www.co.san-jacinto.tx.us/ips/cms

Harris County Precinct 1  
www.co.harris.tx.us/comm\_lee/  
(713) 755-6111



09/05



# Caney Creek and Peach Creek



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## Caney Creek and Peach Creek Watersheds

Caney and Peach Creek watersheds are located in southeastern Texas, approximately 40 miles north of Houston. The headwaters of Peach Creek originate just east of the Walker-San Jacinto County line and north of SH 150. The southern most extent of the watershed is the confluence of Peach and Caney Creeks, approximately three miles from Lake Houston. The headwaters of Caney Creek originate just east of New Waverly and north of SH 150 in Walker County. The southern most extent runs through the entire length of Montgomery County to the confluence with the East Fork of the San Jacinto River before entering Lake Houston at Kingwood in Harris County.

### History

A major period of expansion began in the 1870s with the construction of several railroads marking the beginning of the great lumbering boom. Commercial lumbering had begun prior to the Civil War, but access to the river hampered efforts to utilize the area's rich timber resources. Over the next four decades most of the areas thick pine forests had been deforested which permanently transformed the landscape and economic base into raising livestock and farming.

In 1932, the area experienced a dramatic change in economics when oil was discovered in south central Montgomery County. The discovery of the Conroe oilfield immediately triggered a tremendous oil boom and within days thousands of fortune-seekers, wildcatters, roughnecks, and financiers, flooded the area. The Conroe oilfield was once the third largest in the United States. By the 1990s, the field that reestablished the Gulf Coast region as an oil province reported cumulative crude production of over seven-hundred million barrels. As Houston's population grew to more than one million in 1950 there