



## Improving Water Quality in the Houston Ship Channel and Galveston Bay

# A TMDL Project for PCBs

High concentrations of polychlorinated biphenyls (PCBs) in fish tissue can pose a risk to consumers, even at low concentrations. Although their manufacture is now banned, PCBs are extremely persistent in the environment. The Texas Department of State Health Services (DSHS) has consequently issued consumption advisories for areas of the Houston Ship Channel and Galveston Bay.

In October 2001, in advisory ADV-20, DSHS warned people to limit or cease eating all species of finfish due to PCBs in fish. The area covered by ADV-20 is the Houston Ship Channel upstream of the Lynchburg Ferry crossing and all its contiguous waters, including the San Jacinto River Tidal segment below the U.S. Highway 90 bridge.

The DSHS issued ADV-28 in January 2005. People were warned to limit or cease eating speckled trout, also known as spotted seatrout or spotted weakfish. ADV-28 includes the Upper Galveston Bay and the Houston Ship Channel downstream of the Lynchburg Ferry crossing and all its contiguous waters, including Upper Galveston Bay north of a line drawn from Red Bluff Point to Five Mile Cut Marker to Houston Point.

The TCEQ is developing total maximum daily loads (TMDLs) to determine the measures necessary to restore water quality in the ship channel and bay. The goal of a TMDL is to determine the amount (or load) of a pollutant that a body of water can receive and still support its designated uses. The allowable load is then allocated among categories of sources within the watershed, and stakeholders work with the state to develop an implementation plan (I-Plan) to reduce pollutant loads.

Learn more about water quality standards, monitoring, and TMDLs by reading *Preserving and Improving Water Quality*, available on our website at [www.tceq.texas.gov/goto/tmdl/](http://www.tceq.texas.gov/goto/tmdl/).

### Houston Ship Channel and Upper Galveston Bay Watershed

The Ship Channel system is in the San Jacinto River Basin. Its various branches originate in western and northern areas of the city of Houston, and at the Lake Houston Dam on the San Jacinto River. The Ship Channel area has one of the highest densities of petrochemical facilities in the world. Facilities in the area,



and the waterway itself, are important elements in the economic health of the region, state, and nation.

Houston has long been one of the busiest ports in the United States. The channel's production of materials and its inland location have been, and will continue to be, important to the military security of the nation.

The commercial navigation provided by the channel initiated and supported the historic growth of the Houston area economy. The headwater reaches, tributaries, and fringes of both the Houston Ship Channel System and Upper Galveston Bay provide recreational opportunities for residents.

The watershed includes portions of the following political jurisdictions:

- **Counties:** Chambers, Fort Bend, Galveston, and Harris
- **Cities:** Houston, Pasadena, Baytown, La Porte, and Deer Park.

The Houston Ship Channel System consists of 14 classified segments, which together comprise the "enclosed" portion of the Houston Ship Channel with its major tributaries and side bays. This project includes ten of the Ship Channel segments:

- San Jacinto River Tidal (Segment 1001)
- Houston Ship Channel (1005, 1006, 1007)
- Tabbs Bay (2426)      ■ San Jacinto Bay (2427)
- Black Duck Bay (2428)      ■ Scott Bay (2429)
- Burnett Bay (2430)      ■ Barbours Cut (2436)

Also included are three segments not considered part of the Houston Ship Channel system:

- Cedar Bayou Tidal (Segment 0901)
- Upper Galveston Bay (Segment 2421)
- Bayport Channel (Segment 2438)

## Public Participation

In all its projects, the TCEQ seeks to gather opinion and information from people affected by its operations. Due to the lengthy and extremely technical nature of the sampling, analysis, and model development expected with this TMDL project, a stakeholder group was convened in the early stages of the project.

The stakeholder group includes area residents and representatives of nongovernmental organizations, industry, and various local, state, and federal governments. The stakeholder group is also advising the TCEQ about two other closely related projects for PCBs and dioxin in the Houston area.

The Houston-Galveston Area Council (H-GAC) is coordinating public participation, and also coordinating as needed with the Texas Clean Rivers Program Steering Committee and the Technical Advisory Group (TAG) for the San Jacinto River Basin and associated Coastal Basins.

## For More Information

Visit the H-GAC website at <[www.h-gac.com/community/water/tmdl/](http://www.h-gac.com/community/water/tmdl/)> or the stakeholder group page on the TCEQ website at <[www.tceq.texas.gov/water/quality/tmdl/26-houston\\_group.html](http://www.tceq.texas.gov/water/quality/tmdl/26-houston_group.html)>. Or contact one of the following people.

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### TCEQ Regional Office:

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### Public Participation:

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## TMDL Development Status

**Start Date:** September 2006

**Projected End Date:** 2014

**TCEQ Adoption:**

**EPA Region 6 Approval:**

TMDL: Percent Complete

	10	20	30	40	50	60	70	80	90	100
Data Collection										
Assessment										
TMDL Development										
Stakeholder Review										
TCEQ Adoption										

## I-Plan Development Status

**Projected End Date:**

**TCEQ Approval:**

I-Plan: Percent Complete

	10	20	30	40	50	60	70	80	90	100
Plan Development										
Stakeholder Review										
TCEQ Approval										

## Project Highlights

- The TCEQ approved quality assurance plans (QAPPs) for monitoring and modeling in February 2008. The QAPPs have been amended and updated as needed since then.
- Collection of new data began in spring of 2008, and was completed during 2009. Additional sampling to better characterize changes since Hurricane Ike may be needed.