

# A Plan to reduce bacteria in Dickinson Bayou

## Our waterways contain bacteria?

The State of Texas sets standards to establish whether waterways are safe for recreational activities, such as swimming or wading. Dickinson Bayou and its tributaries (Bensons Bayou, Bordens Gully, and Geisler Bayou) all have bacteria levels that are higher than the state-accepted level. These waterways have been designated as impaired and are not recommended for recreational activities.

## Bacteria comes from many sources

Bacteria comes from many sources, some of these include improper maintenance of wastewater treatment facilities and sanitary sewer systems, failing/unmaintained septic systems, runoff pollution (pet and animal waste), as well as the improper disposal of fats, oils, and grease.

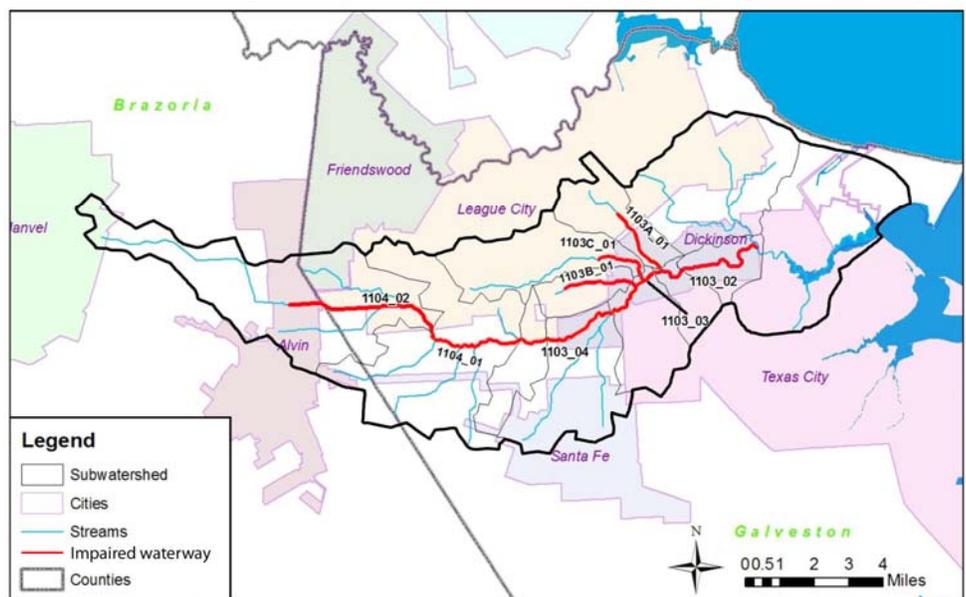
## The Dickinson Bayou Watershed Partnership

The Dickinson Bayou Watershed Partnership, organized by Texas Coastal Watershed Program (Texas Sea Grant / Texas Agrilife Extension Service), in cooperation with the Texas Commission on Environmental Quality (TCEQ) and the Galveston Bay Estuary Program (GBEP), is an innovative gathering of federal, state, local, and private organizations, as well as watershed residents who work together to improve watershed health, integrate watershed management, and make better use of watershed project funding. The partnership focuses on the interrelated issues of water excess (flooding and drainage), habitat, water quality, and land use while educating the communities within the watershed.

## Who Does Bacteria Affect?

Everyone living in the Dickinson Bayou watershed is affected by high bacteria levels and can have an effect on bacteria levels within the bayou and its tributaries. Currently, bacteria levels are too high in the impaired waterways (as mapped to the right); these waterways are not recommended for recreational activities. If the 83,000 people who live in the Dickinson Bayou watershed work together bacteria levels can be decreased, but everyone must do their part.

## Dickinson Bayou Watershed and Impaired Waterways

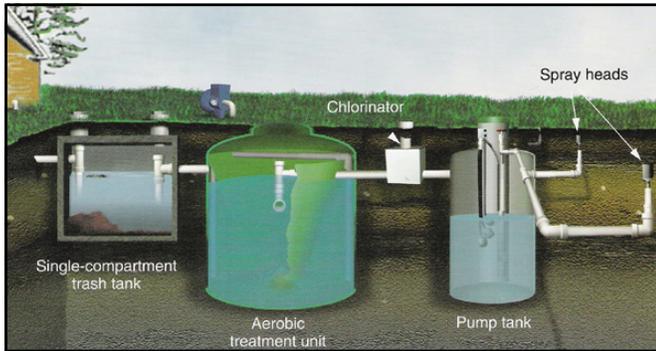


## We are Working on a Plan

To reduce bacteria in waterways, the Dickinson Bayou Watershed Partnership is working on a Bacteria Implementation plan, or I-Plan, offering a variety of water protection activities to be completed by municipalities, industries, land owners, government organizations, and residents. For more information on the Dickinson Bayou Watershed I-Plan go to [www.dickinsonbayou.org](http://www.dickinsonbayou.org).



# I-Plan Activities



The following is a short list of bacteria-reducing activities and strategies for the I-Plan. These activities are organized by bacteria source.

## On-site Sewage Facilities

- Identify failing septic systems and expand homeowner education
- Improve enforcement on failing systems
- Upgrade or fix of failing systems
- Improve maintenance of septic systems
- Incorporate on-site sewage facility inspection criteria into standards for home sale inspections
- Incorporate intense water sampling around areas at high risk for septic system failure

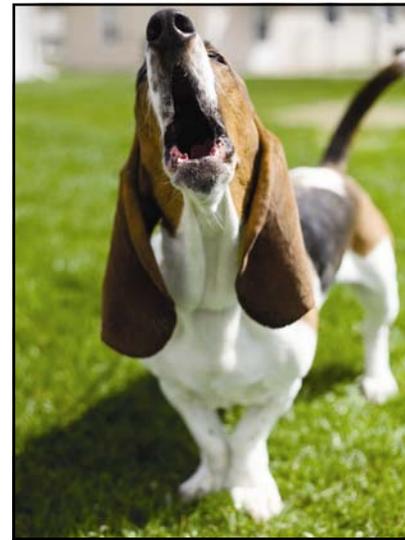


## Wastewater Treatment Facilities

- Increase compliance of wastewater treatment facilities through stricter monitoring
- Allow unannounced inspections of wastewater treatment facilities
- Upgrade or replace plants that are not meeting bacteria effluent limits
- Impose stricter permit limits for bacteria
- Reduce sanitary sewer overflows through better maintenance of lift stations and public education regarding fats, roots, oils, and grease

## Animal Sources

- Increase participation in existing conservation programs for agricultural operations
- Educate pet owners about the importance of proper pet waste disposal
- Install pet waste stations in public areas
- Improve HOA bylaws and city ordinances regarding pet waste disposal
- Reduce feral hog populations
- Promote best management practices for all lands supporting large groups of animals



## Additional Sources

- Restore and repair riparian zones along the bayou and its tributaries
- Preserve and restore natural wetlands
- Construct treatment wetlands throughout the watershed to treat runoff
- Provide demonstrations of and promote instillation of stormwater best management practices including; rain gardens, bioswales, and rain water harvesting

