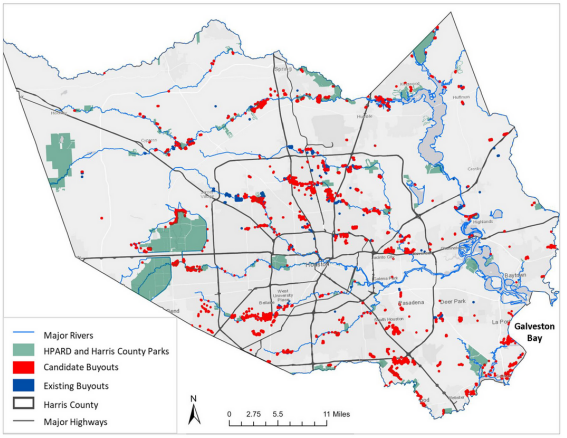
Bioswales in Riverine TUBs

The pioneering **Riverine Targeted Use of Buyouts (Riverine TUBs) Program** is an innovative approach to coastal resilience and hazard mitigation through a long-term strategy for habitually flooded properties that have been purchased and maintained by respective regional counties or municipalities. This project will allow these areas to be enhanced with native grass bioswales, large-scale native tree plantings, replaced coastal wetlands, and other types of **nature-based infrastructure** (NBI). Project partners include the Institute for Disaster Resilient Texas (IDRT), Harris County Flood Control District (HCFCD), NRCS, NFWF, the City of Pasadena, Houston Parks Board (HPB), Resources Environmental Services (RES), and Buffalo Bayou Partnership (BBP).

Intersection of HPARD and Harris County Parks and Candidate Buyouts



Additionally, the Riverine TUBs Program partners are working together to create Best Management Practices (BMPs) for NBI techniques, especially bioswales, that NRCS and other partners can use to advise application of NBI techniques along other riparian corridors and the Texas coast. NBI enhancements and monitoring activities conducted through the Program will help mitigate flooding, improve water and air quality, restore natural habitats, and benefit at-risk communities.

Example: HCFCD demonstration bioswale in Houston

What is a Bioswale?

A native bioswale is a NBI method that mimics natural landscape features to manage, filter and slow down stormwater, and captures non-point source runoff, using native vegetation in a linear, shallow channel designed to maximize the time water spends in the swale and enhance the ecosystem services before flowing into bayous and waterways.

For Volunteers:

HW volunteers have the opportunity to participate in the Riverine TUBs program with volunteer bioswale plantings! Volunteers can expect to plant a diverse array of native grasses in a 1 ft shallow channel. Visit houstonwilderness.org to learn about volunteer opportunities!

Benefits of native grass bioswales:

- Increase infiltration of stormwater in our region's heavy clay soils with the deep root systems of native grasses
- Stabilize soil and prevent erosion of riparian corridors
- Improve water quality by removing pollutants from stormwater
- Enhance habitat quality for native wildlife