

## 2nd Key Goal Action Items Nature-Based Stabilization Techniques<sup>1</sup>

Gulf-Houston Regional Conservation Plan

**Goal**: Increasing and supporting the region-wide land management efforts to install nature-based stabilization techniques (NBST), see examples below, to 50% of land coverage, waterways, and shorelines by 2040. Striving for all protected/preserved land (currently 15%) and at least 30% of developed land in the region.

## **Tools in the Resilience Toolbox**

- (1) HGAC's Regional Conservation Initiative (https://h-gac.com/regional-conservation)
- (2) user-driven watershed investments,
- (3) water quality and trading offsets, and
- (4) buybacks and water rights programs.
- Public & Private Ecological Restoration Projects: a) Coastal Texas Study ER Projects, b) Gulf-Houston RCP (Working List of Projects, Phase 2), c) Wetland Mitigation Banks
- Houston's Incentives for Green Development
- Identifying desired green infrastructure strategies: NOAA's Green Infrastructure Options to Reduce Flooding and FEMA's Building Community Resilience with Nature-based Solutions
- Capital Improvement Plan (CIP) Process
- Stormwater Utility Fees
- Clean Water State Revolving Fund (CWSRF)

## **Targeted Areas for NBST:**

- Private & Public Lawn replacements: converting lawns/open spaces to native grasslands and trees
- Native Roadsides: abundant, yet overlooked, areas for native grasslands and trees
- Riparian & Utility rights-ofway: creating connectivity for nature-based infrastructure
- Landfills & Brownfields: managing native grassland on capped waste material
- Ranches and pastures: rotational grazing and cover crops







**RCP Working List of Projects**: Houston Wilderness tracks current projects that focus on ecological restoration, rehabilitation and BMPs on current land and future land development. Data is collected from federal, state, county, cities, municipal utility districts (MUD), private & public entities, landscaping, construction and engineering companies to

determine the current stabilization techniques being used in the region. Not only can future land developments integrate NBSTs into the

land-use designs/changes, but current developed lands can also adopt NBSTs and find multiple resilience benefits ranging from flood reduction, erosion control and other stormwater management benefits.

## Types of Nature-based Stabilization Techniques:

- Bioswales & Rain GardensCisterns and Rain Barrels
  - Coastal Wetlands & Dunes
  - Green Infrastructure & LIDs
  - Green Roofs
  - Natural Infrastructure
  - Large-scale Tree Plantings
  - Living Shorelines
- Oyster Reefs
- Permeable Pavement
- Stormwater Planter Box
- Stormwater Wetlands
- Underground Storage
- Vegetated Filter Strips & Swales



