

Can a Chemical Plant and Wildlife Coexist?

DOW CHEMICAL COMPANY CARBIDE COLONY SEADRIFT TEXAS

The "Carbide Colony"

38-ACRE WATERBIRD ROOKERY

LOCATED IN CALHOUN COUNTY

SITS ON THE BARGE CANAL

OWNED BY DOW CHEMICAL CO. - SEADRIFT OPERATIONS





Wetland Structure

- Excavated palustrine emergent wetlands
- Diked/impounded palustrine aquatic beds
- Palustrine forested / shrub wetlands

Vegetation

► The dominant vegetation in the woody zone includes Black willow (Salix nigra), buttonbush (Cephalanthus occidentalis), Baccharis spp., and the invasive Chinese tallow (Triadica sebifera).

► The emergent zone includes California bulrush (Schoenoplectus californicus), common reed (Phragmites australis), cattails, burheads, and arrowheads.

► Open water areas are known to support floating and submerged plants, such as water lilies, pondweeds, and duckweed.

What is Dow doing to Manage the Area? Invasive and Nuisance Species Management

- Chinese Tallow & Chinaberry
- Common Reed
- ► Feral Hogs
- Bulrush & Cattail
- Alligator

Land/Water Management

- Mowing
- Burning
- Dredging
- Trapping and Relocating
- Water Control Structures

Observations & Research

Christmas Bird Count

► 74 species

- ► 3 exclusives
 - Eared Grebe, Rock Pigeon, & Sandwich Tern
- Hosted the Final tally meeting

Rice University Partnership

- 2 Graduate Students
 - Engineer & Ecosystems Management students
 - Multiple Year Studies
 - Project name "Seadrift Constructed Wetlands Living Laboratory Study"
 - Historical data, biodiversity, and flow distribution studies
 - Bird Census

New Education Center

In Plant Lagoon

From Wastewater Lagoon to Stormwater Wetland

- ▶ 1954-Site began operations
- 1984-Discontinued operation of Wastewater Lagoons
- 2000 Waste Management Unit was closed
- 2015-2017-Unit reclassified as Storm Water Management Unit
- 2018-Stormwater wetland completed

How We Constructed A Wetland

- Customized native seed blends drill-seeded in different habitat zones
 - total 212 pounds of 66 native seeds were seeded
- Contoured a shallow channel to enhance plant diversity
- Partially flooded the basin to promote wetland species establishment
- Plant wetland plugs to jump-start site biodiversity
 - 30,000 plugs of 7 native species planted

Site benefits of a Wetland

- Sustainable mechanism to manage stormwater and provide flood control
- Self-sustaining with minimal maintenance required
- Approximately 20 acres of improved habitat for native plant and wildlife species
- Provides educational opportunities
- Cooperation and coordination between managers, ecologist, engineers, construction teams and regulators to complete this project







Partnerships

- The Nature Conservancy
- ▶ US Fish and Wildlife Service
- North American Wetland Conservation Partnership
- Ducks Unlimited & Texas Prairie
 Wetlands Project
- Fort Worth Zoo

'Carbide Colonial Waterbird Management Plan.'

- With funding from EPA and support from the Coastal Bend Bays & Estuaries Program, the San Antonio Bay Partnership was able to partner with staff at the Dow Seadrift Operations on the development
- Management Plan.'
 To provide Dow employees with a list of management recommendations that could be implemented at the Carbide Colony site in order to sustain healthy

of the 'Carbide Colonial Waterbird

colonial waterbird populations and the habitats they depend on.













































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