

A photograph of a Texas wetland landscape. In the foreground, a green prickly pear cactus with several yellow and pinkish flowers is prominent. Behind it, there is a body of water with several small, grassy islands. The background shows a flat horizon under a dark, overcast sky. The overall tone is somewhat muted and naturalistic.

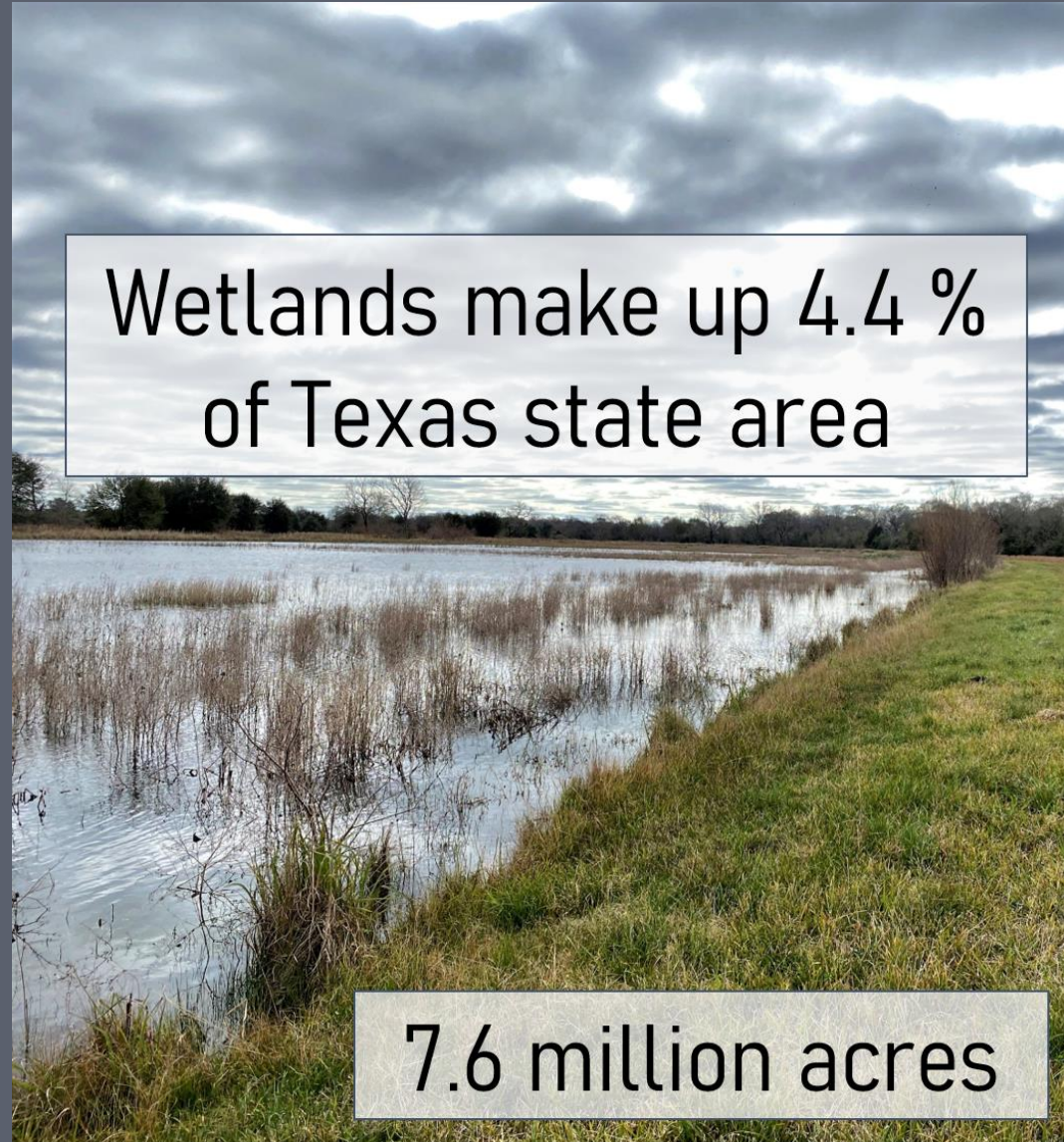
Texas wetlands

Rachel Fern

Statewide Wetland Program Leader
Texas Parks and Wildlife Department



© Earl Nottingham / TPWD



Wetlands make up 4.4 %
of Texas state area

7.6 million acres



Texas wetland types

COASTAL WETLANDS

Salt water or a combination of salt and fresh water mixed together

Plants that have adapted to changes in salinity

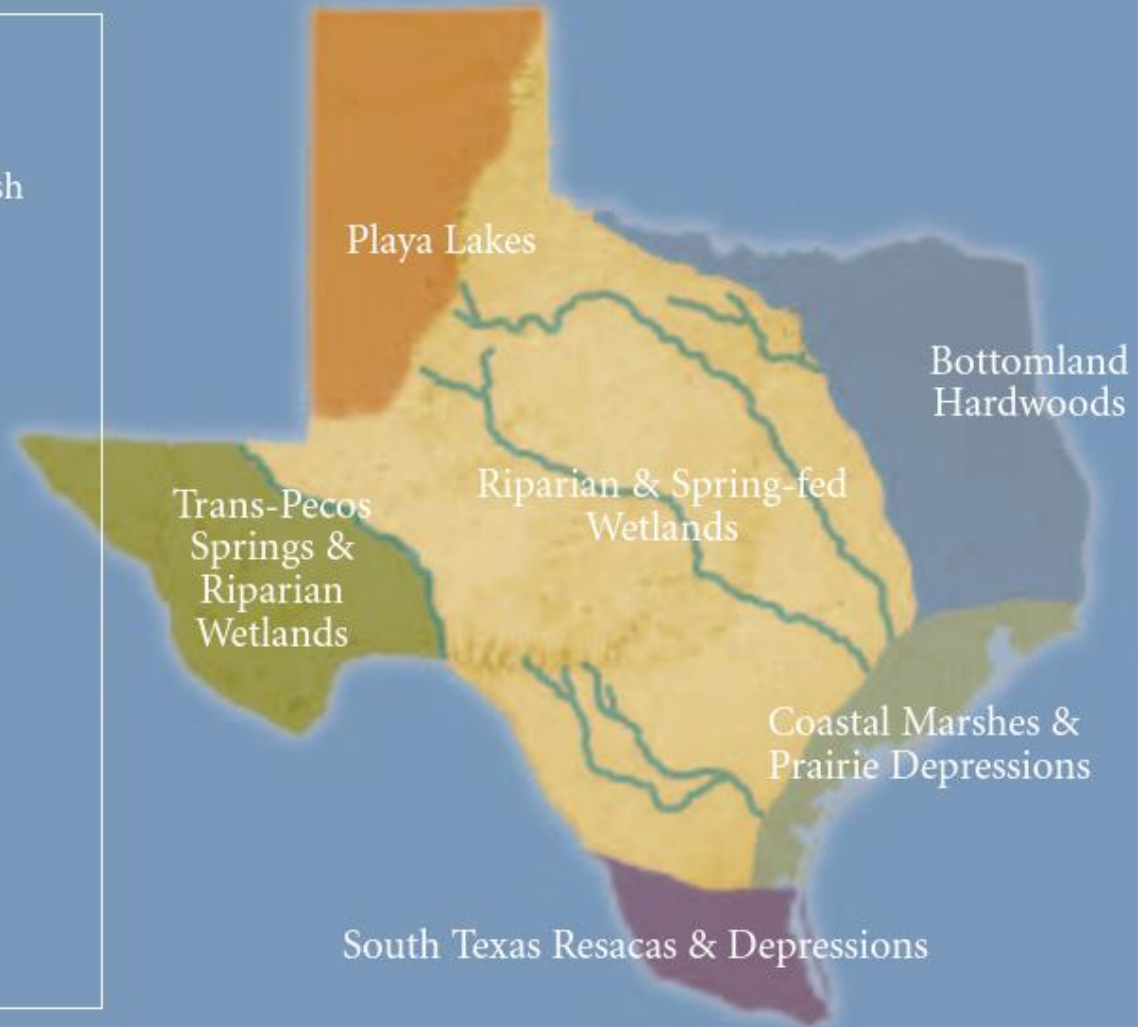
Coastal shorelines, shallow bays and inlets, swamps, marshes, mud flats and deltas

FRESHWATER WETLANDS

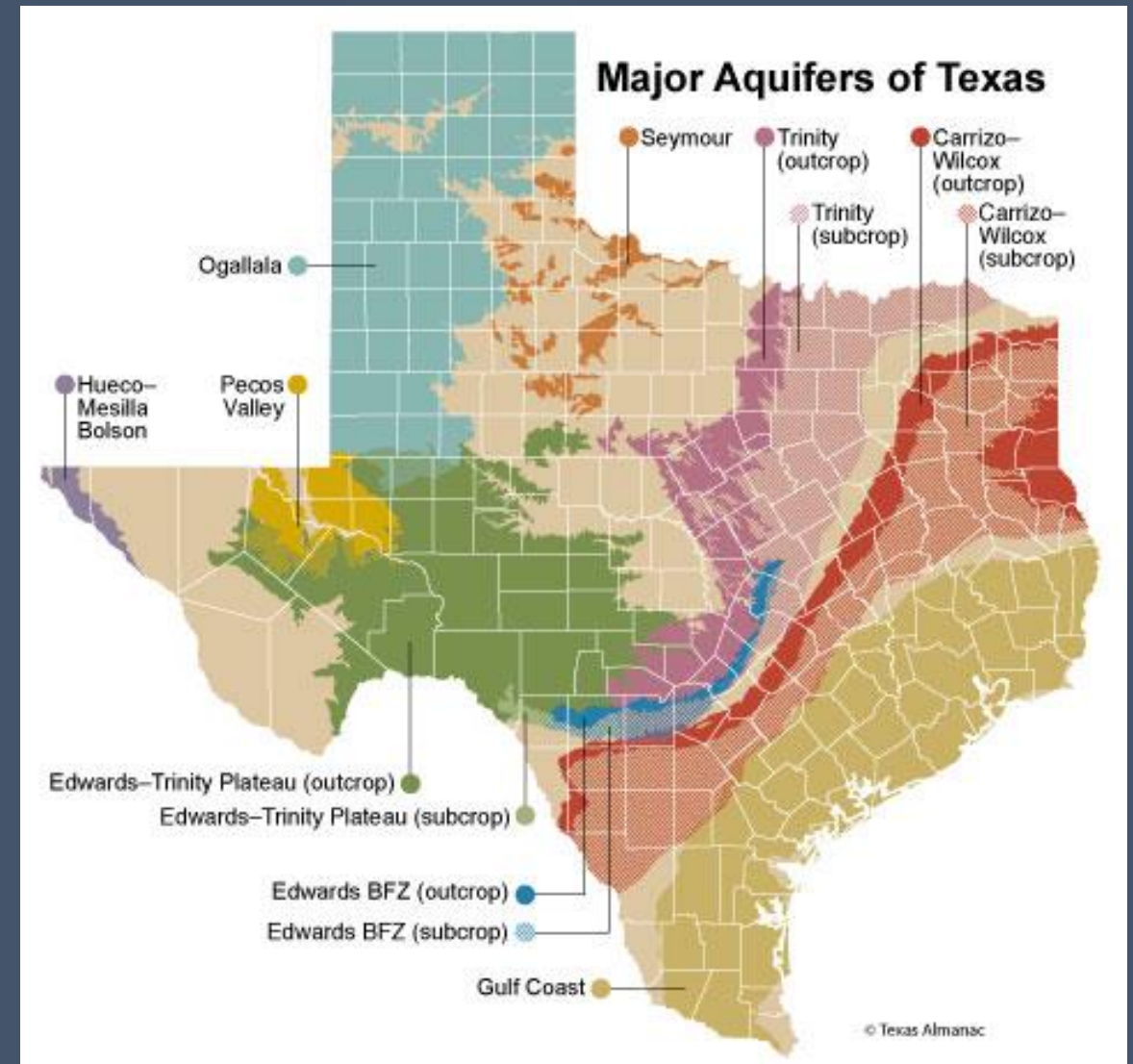
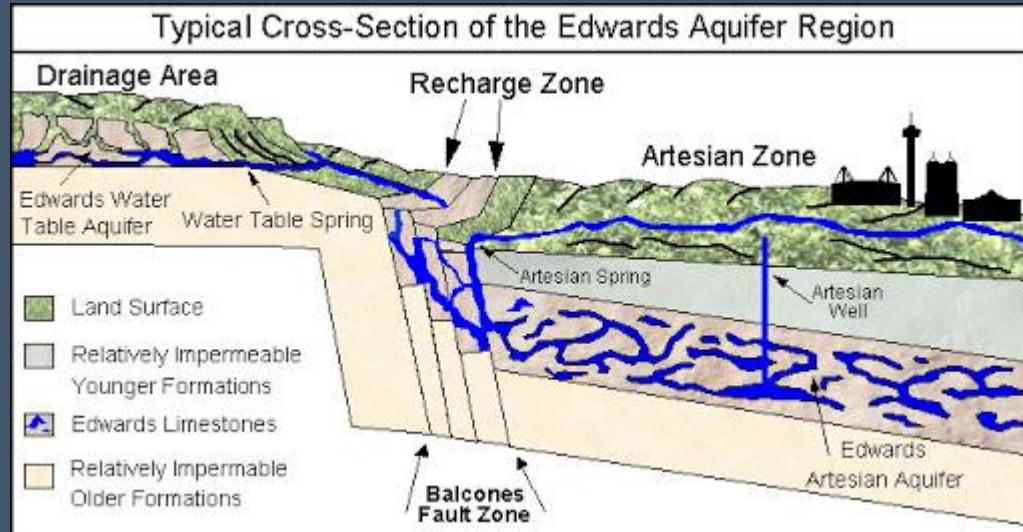
Rainfall, springs, rivers and other sources

Plants that survive fluctuating water conditions

Riverbanks, streamsides, lake shores, floodplains, bottomlands, marshes, seeps, ponds and swamps



Groundwater recharge



Wildlife habitat



Wetland basics

Wetland functions

Types of wetlands

Trends

Take homes

Storm protection

Natural Barriers Can Protect Shorelines

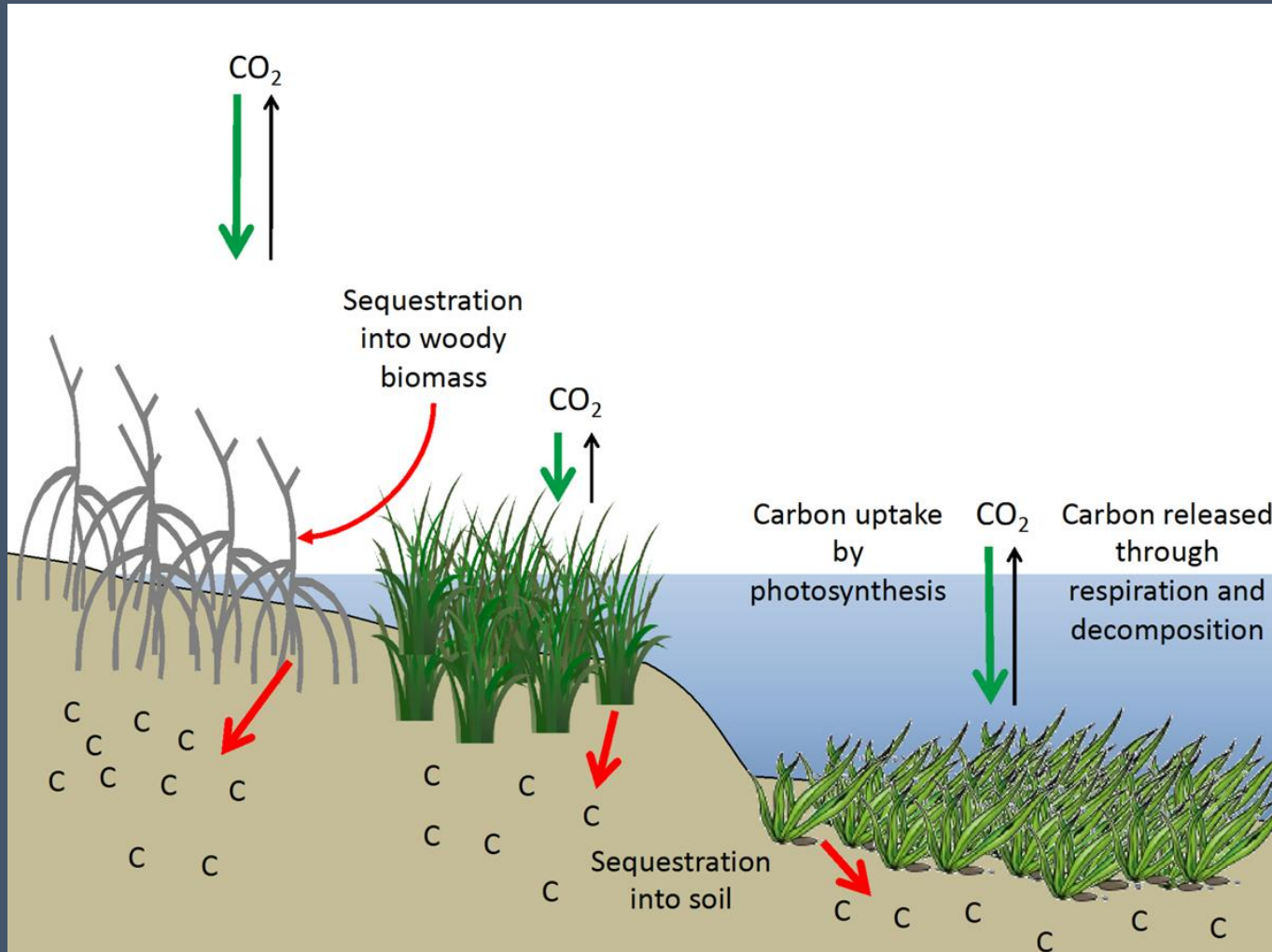


Storm surge of 23 feet in the Gulf Coast area has the ability to inundate:

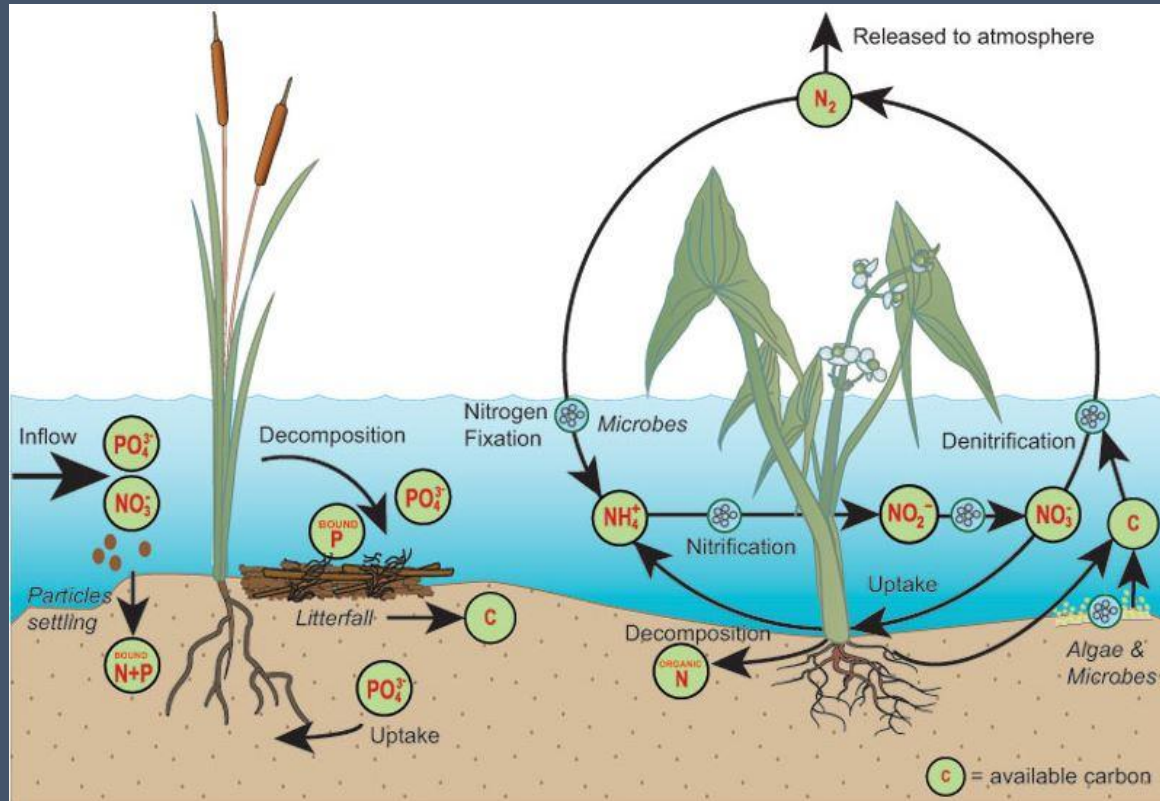
67% of all gulf coastal counties 50% of rail miles 29 Airports



Atmospheric regulation



Bio-filtration



Nursery habitat



Wetland basics

Wetland functions

Types of wetlands

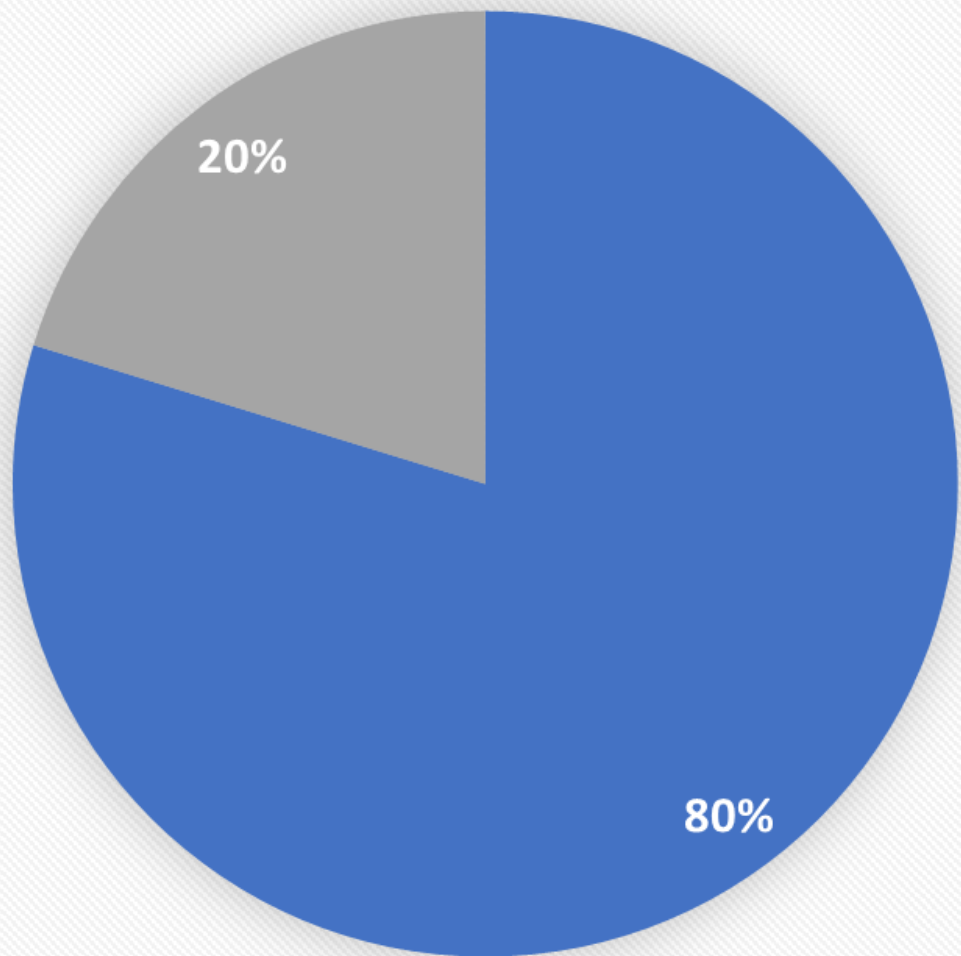
Trends

Take homes

Socio-economic



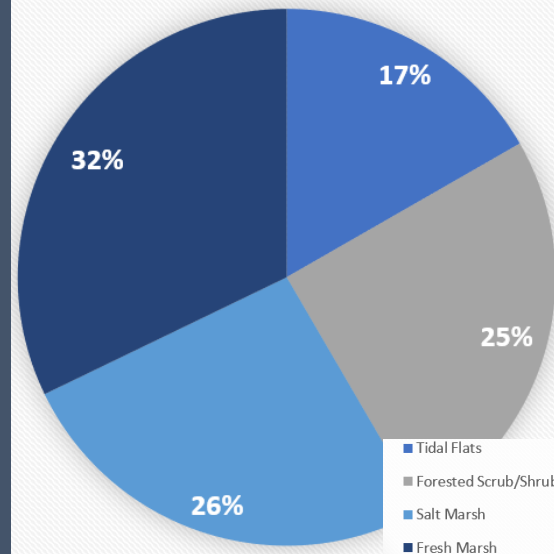
Texas Wetlands



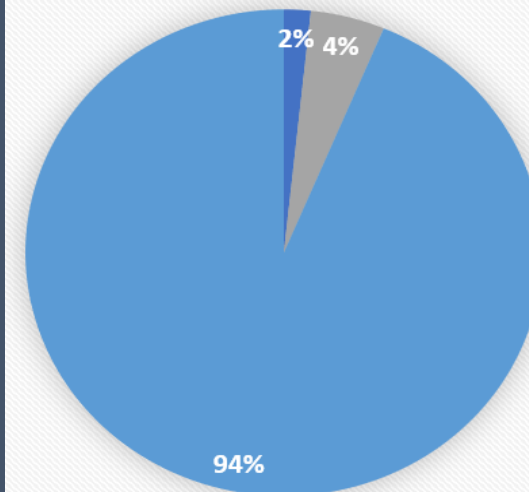
■ Inland

■ Coastal

Coastal Wetlands



Inland Wetlands



■ Swamps ■ Playas ■ Bottomlands

Wetland basics

Wetland functions

Types of wetlands

Trends

Take homes

Forested wetlands

Swamps

Marshes

Seeps

Oxbow Lakes



Forested wetlands

Swamps

Marshes

Seeps

Oxbow Lakes



Forested wetlands

Swamps

Marshes

Seeps

Oxbow Lakes



Non-tidal marshes



Tidal marshes



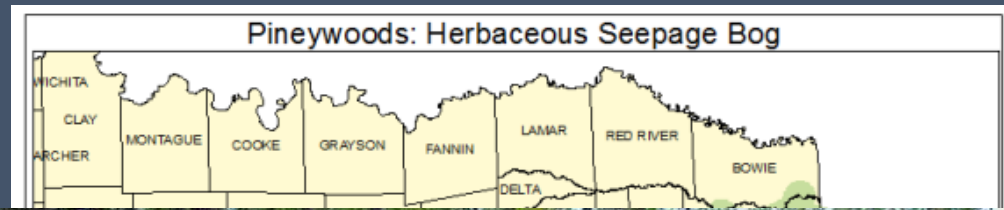
Forested wetlands

Swamps

Marshes

Seeps

Oxbow Lakes





Wetland basics

Wetland functions

Types of wetlands

Trends

Take homes

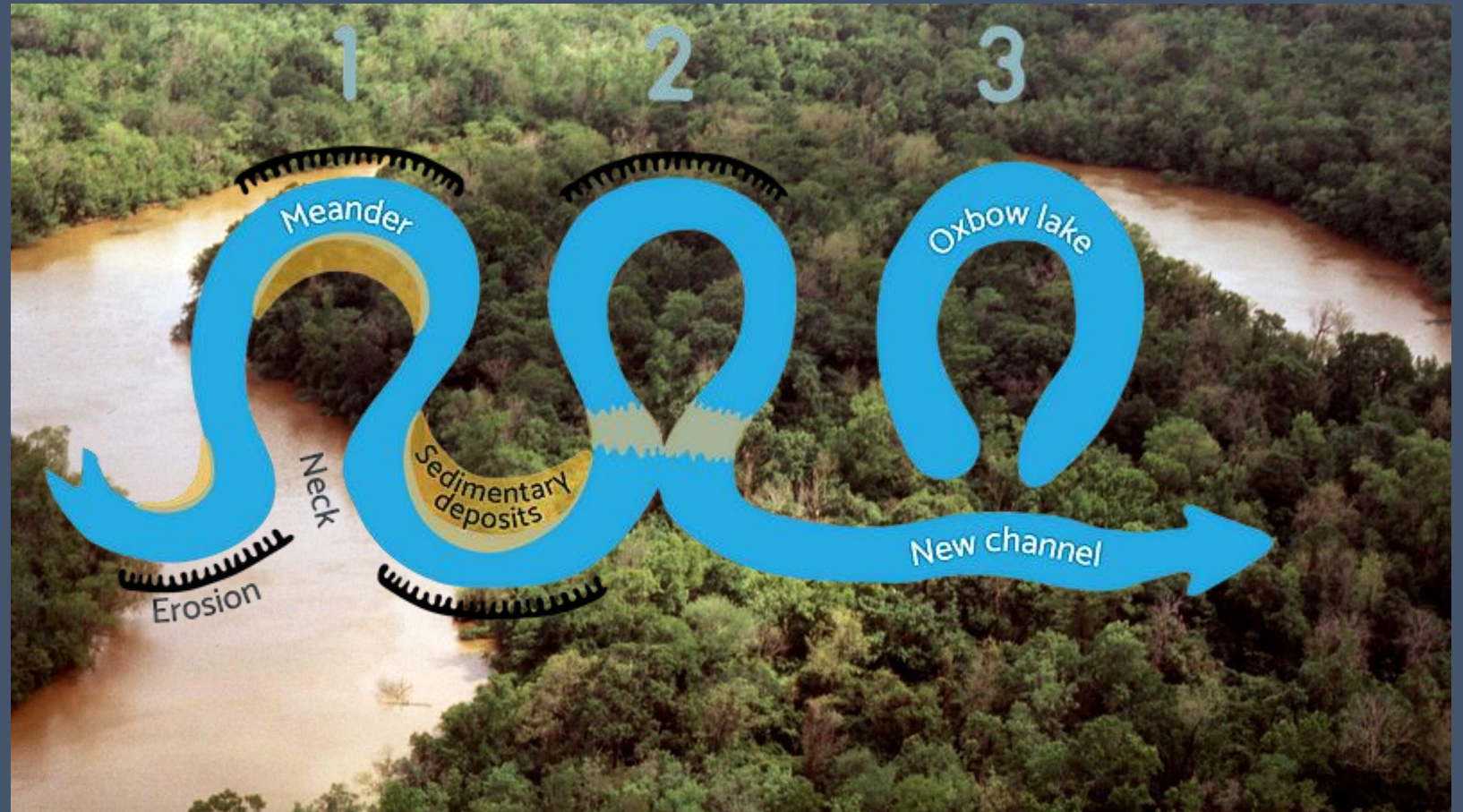
Forested wetlands

Swamps

Marshes

Seeps

Oxbow Lakes



Large-scale trends



There are less wetland acres now than before. The wetlands I know about are half the size they used to be!

Circa 1990



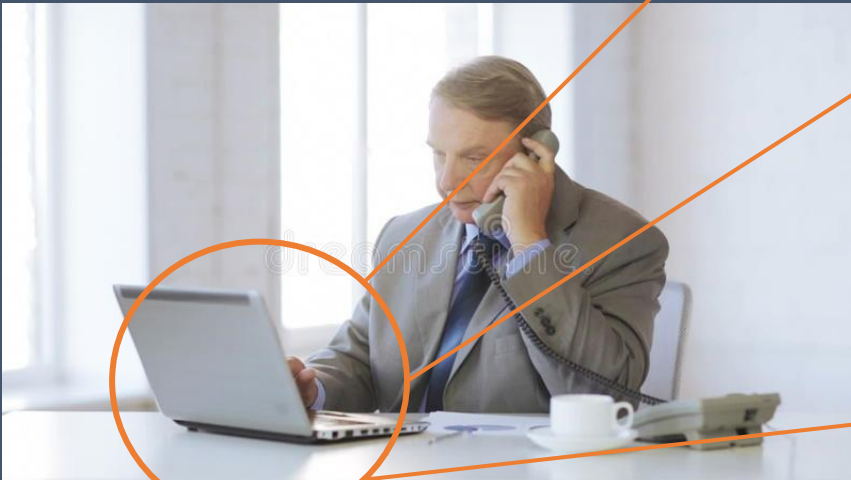
That's alarming!

Present day

early 1980's indicated that some areas of eastern and southeastern Texas had wetland increases, and some areas had decreases (R.G. Frye, Texas Parks and Wildlife Department, **written commun.**, 1985). The FWS has reported, on the basis of U.S. Forest Service

The playa lakes of the High Plains have been affected by tense cultivation and irrigation for the last 50 years. It has been estimated that about 90 percent of the playas have been modified (W.W. Wood, U.S. Geological Survey, **written commun.**, 1994),

acres) to forested plantation. Commercial timber operations in southeast Texas have emphasized the growing of Loblolly and nonnative Slash Pine for production of pulp for paper, lumber and plywood for building, and pressure-treated fenceposts, pilings, landscape timbers, etc. (G. Spencer **pers. comm.**). There is a growing export



early 1980's indicated that some areas of eastern and southeastern Texas had wetland increases, and some areas had decreases (R.G. Frye, Texas Parks and Wildlife Department, [written commun.](#), 1985). The FWS has reported, on the basis of U.S. Forest Service

The playa lakes of the High Plains have been affected by intense cultivation and irrigation for the last 50 years. It has been estimated that about 90 percent of the playas have been modified (W.W. Wood, U.S. Geological Survey, [written commun.](#), 1994),

acres) to forested plantation. Commercial timber operations in southeast Texas have emphasized the growing of Loblolly and nonnative Slash Pine for production of pulp for paper, lumber and plywood for building, and pressure-treated fenceposts, pilings, landscape timbers, etc. (G. Spencer [pers. comm.](#)). There is a growing export

[\[HTML\] Texas coastal wetlands: status and trends, mid-1950s to early 1990s](#)

DW Moulton - 1997 - [books.google.com](#)

... on the **status** and **trends** of **coastal Texas wetlands** in accordance with the **Coastal Wetlands**

... This report presents data that estimate the extent (status) of **Texas coastal wetlands** in the ...

☆ Save [Cite](#) [Cited by 100](#) [Related articles](#) [All 4 versions](#) [↗](#)

[\[BOOK\] National water summary on wetland resources](#)

JD Fretwell - 1996 - [books.google.com](#)

... an often-overlooked **water resource-wetlands**. It gives a broad overview of **wetland resources** and includes discussions of the scientific basis for understanding **wetland** functions and ...

☆ Save [Cite](#) [Cited by 116](#) [Related articles](#) [All 4 versions](#) [↗](#)



Wetland basics

Wetland functions

Types of wetlands

Trends

Take homes





s City

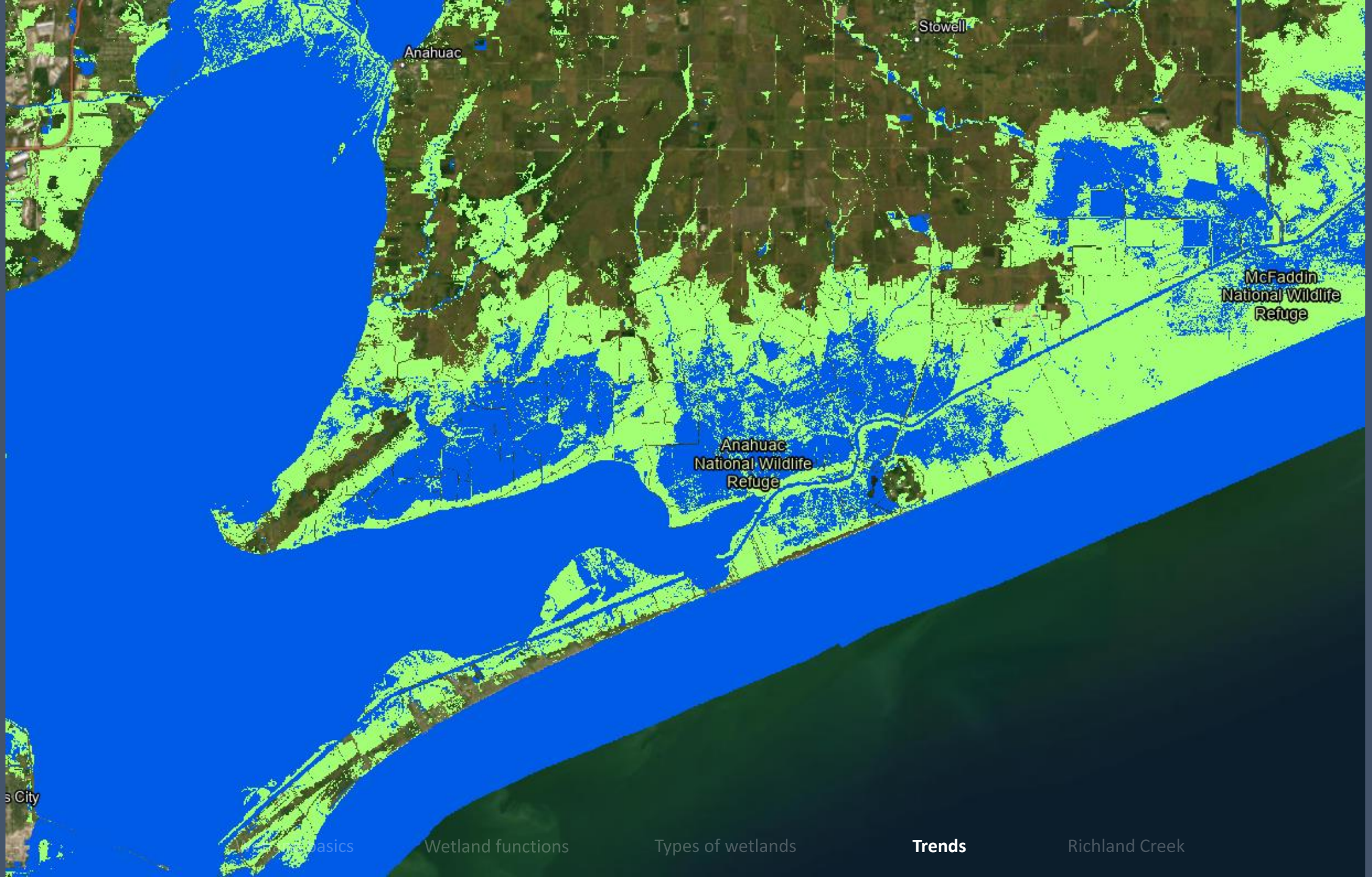
Basics

Wetland functions

Types of wetlands

Trends

Take homes



Anahuac

Stowell

McFaddin
National Wildlife
Refuge

Anahuac
National Wildlife
Refuge

s City

Basics

Wetland functions

Types of wetlands

Trends

Richland Creek



as City

Wetland basics

Wetland functions

Types of wetlands

Trends

Take homes

Wetland Conservation Programs



Some take homes

Texas has the 5th largest number of wetland acres in the US

Most being inland and in east Texas

Very diverse wetland types

Riparian, marsh, swamp, forested, bogs/seeps

Trends are difficult to define

Much of the loss due to development and damming

Future includes threats from sea level rise, development, and changing weather patterns

TPWD works with many partners to provide landowners the tools to be responsible wetland stewards

Some take homes

Texas has the 5th largest number of wetland acres in the US

Most being inland and in east Texas

Very diverse wetland types

Riparian, marsh, swamp, forested, bogs/seeps

Trends are difficult to define

Much of the loss due to development and damming

Future includes threats from sea level rise, development, and changing weather patterns

TPWD works with many partners to provide landowners the tools to be responsible wetland stewards

Some take homes

Texas has the 5th largest number of wetland acres in the US

Most being inland and in east Texas

Very diverse wetland types

Riparian, marsh, swamp, forested, bogs/seeps

Trends are difficult to define

Much of the loss due to development and damming

Future includes threats from sea level rise, development, and changing weather patterns

TPWD works with many partners to provide landowners the tools to be responsible wetland stewards

Some take homes

Texas has the 5th largest number of wetland acres in the US

Most being inland and in east Texas

Very diverse wetland types

Riparian, marsh, swamp, forested, bogs/seeps

Trends are difficult to define

Much of the loss due to development and damming

Future includes threats from sea level rise, development, and changing weather patterns

TPWD works with many partners to provide landowners the tools to be responsible wetland stewards

Some take homes

Texas has the 5th largest number of wetland acres in the US

Most being inland and in east Texas

Very diverse wetland types

Riparian, marsh, swamp, forested, bogs/seeps

Trends are difficult to define

Much of the loss due to development and damming

Future includes threats from sea level rise, development, and changing weather patterns

TPWD works with many partners to provide landowners the tools to be responsible wetland stewards

A photograph of a coastal wetland. In the foreground, a green cholla cactus with yellow flowers grows among tall, dry grasses. The background features a body of water with several small, grassy islands. The sky is overcast and grey.

Contact me

Rachel.Fern@tpwd.Texas.gov
737-218-3955