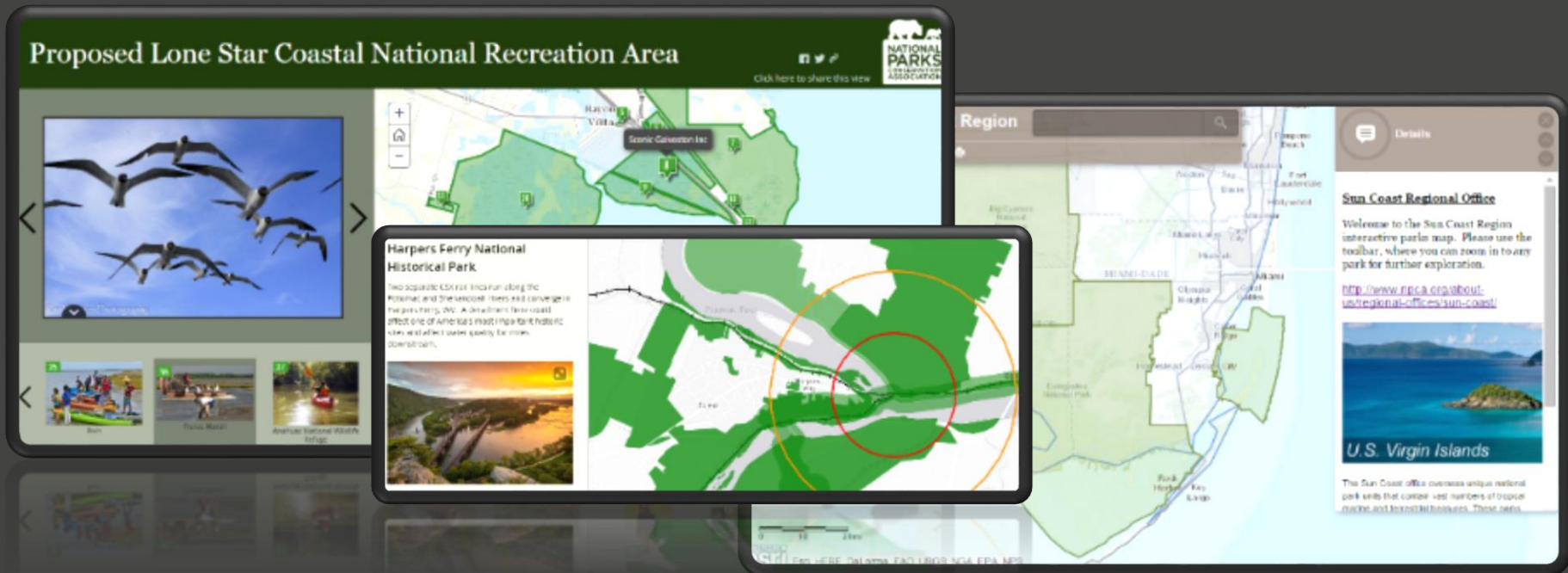


Utilizing on-line mapping tools for partnership engagement



Ryan Valdez, Ph.D.

National Parks Conservation Association



Story Maps

STORY: text, images, video, maps

Honolulu



Geography Bee: A Global Gallery of Pollinators



Ceratina smaragdula, Hawaii

A Beautiful Invasive. *Ceratina smaragdula*, male, captured on Hawaii, Oahu, March 2012. This Asian species has invaded the Hawaiian islands where it thrives in sea of introduced garden plants found at lower elevations on the islands.

A story map



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Plans Gallery Map Scene Help Sign In

ArcGIS

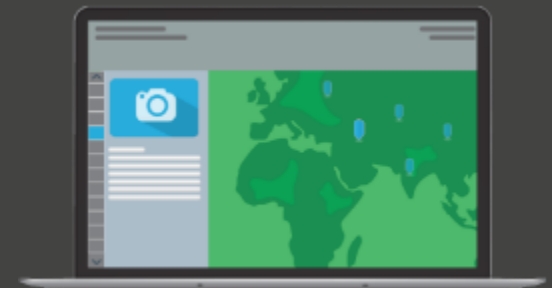
esri

Esri Drought Tracker

International Airports in the U.S.

Solar System Atlas

The Uprooted



<https://storymaps.arcgis.com>



Hawaiian native forest birds
By Pacific Islands Climate Change Cooperative



Conserving Georgia's Nongame Wildlife: 2015
By Georgia DNR Wildlife Resources Division



The Henry's Fork: Recreation and Conservation
By Henry's Fork Foundation, Idaho



Mapping the Impacts of Global Change
By Stanford University



The Trust for Public Land National GIS Team
By The Trust for Public Land



Tapestry of Hope
By Esri Story Maps team



The Mediterranean Basin: the spice of life
By Birdlife International



The University of Virginia Green Guide
By The Office of the Architect, UVa



Changing Face: Europe's land cover in 1900 and 2000
By Richard Fuchs, Wageningen University



Atlas for a Changing Planet
By Esri Story Maps team



Conserving Shorebirds in the Atlantic Flyway
By US Fish and Wildlife Service



2015 Scallop Regulated Areas Story Map
By NOAA Fisheries



Largest Fishes of Chesapeake Bay: a map tour
By Chesapeake Bay Multispecies Monitoring

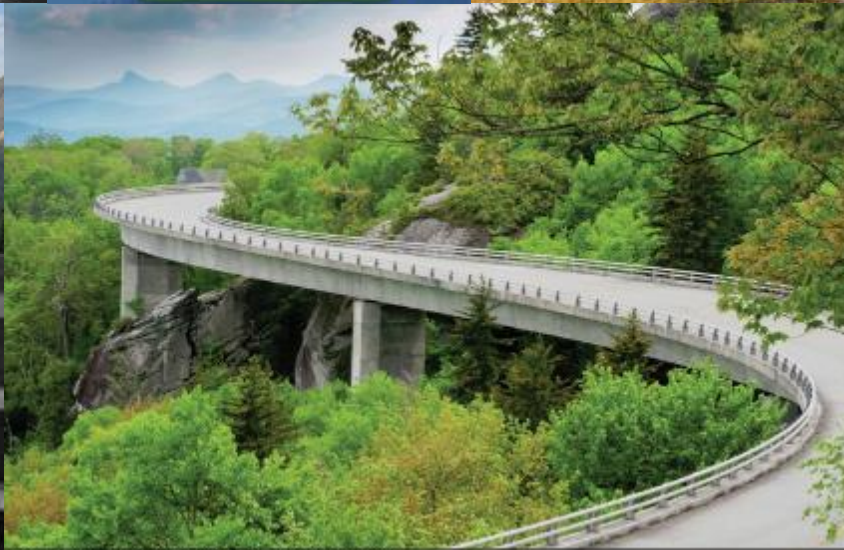


Meet the Yudja, Brazil's Forest Guardians
By World Resources Institute (WRI)



Ottawa Heritage Conservation Districts
By City of Ottawa, Ontario

Innovative story telling



Blue Ridge Parkway near Grandfather Mountain. © Tim Mahiro/Stockphoto

Example:

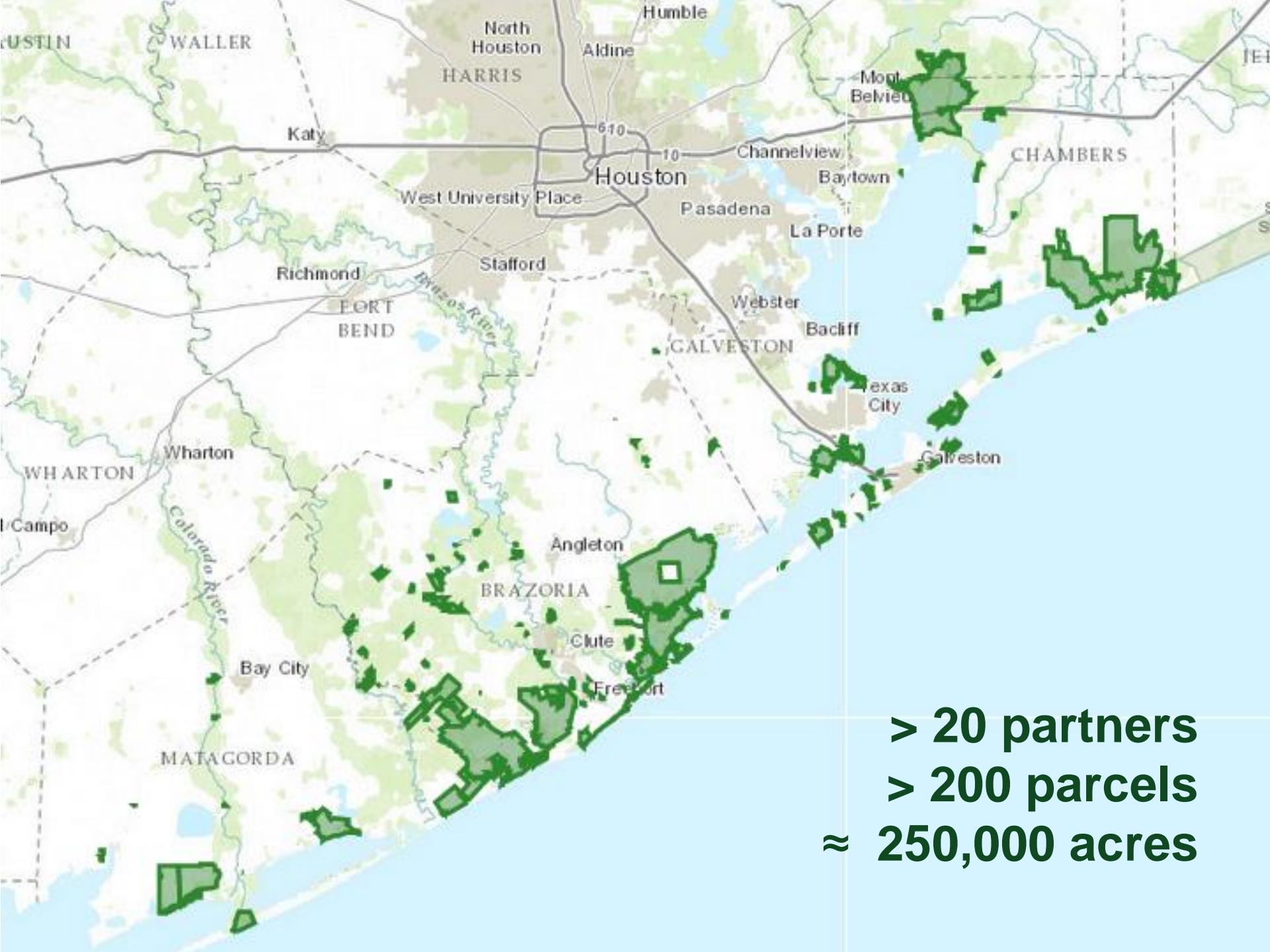
Proposed Lone Star Coastal National Recreation Area



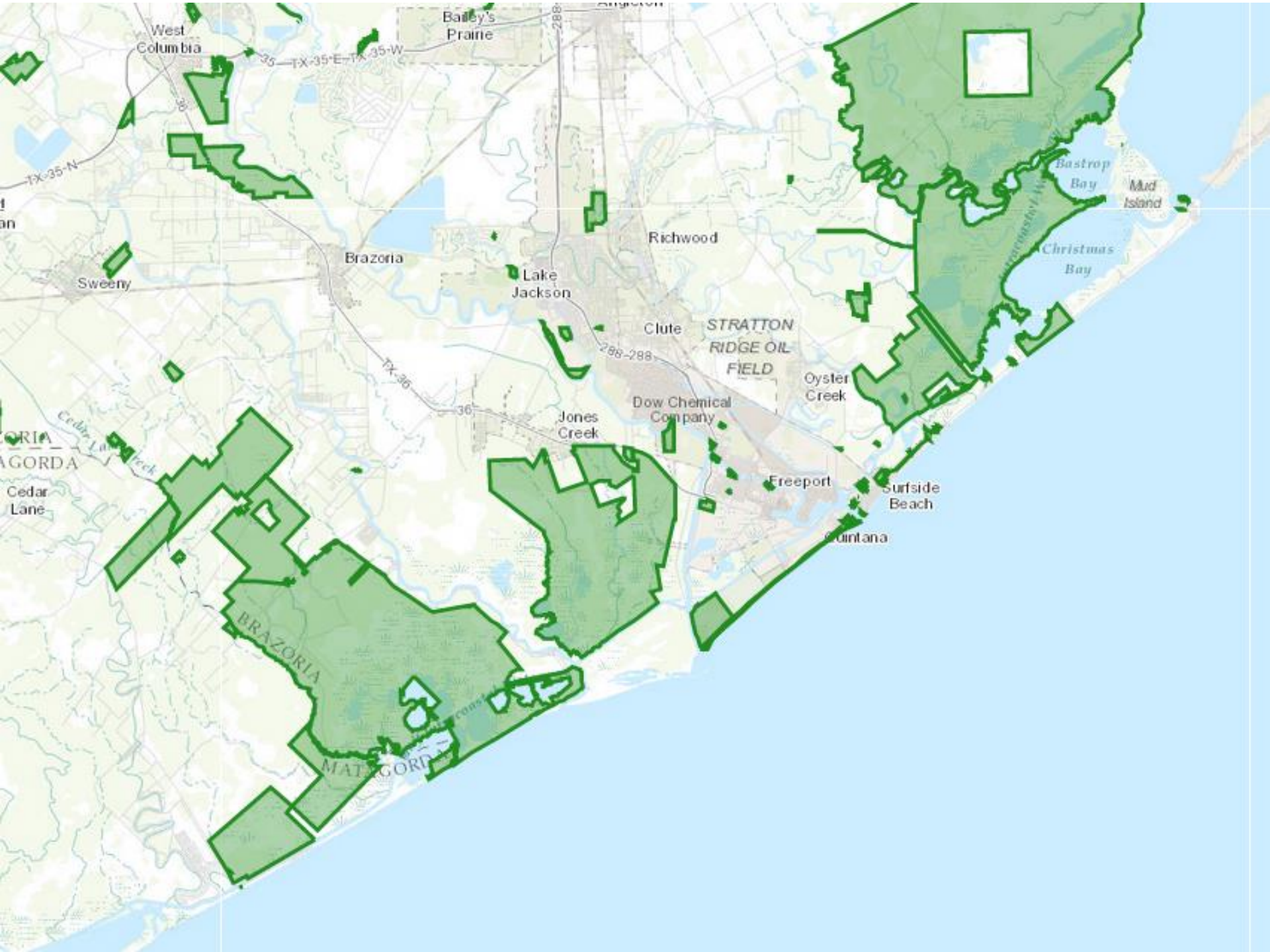
[About the Proposal](#) · [Partner Resources](#)

[Explore Maps](#)

Photo by Bob Howen



> 20 partners
> 200 parcels
≈ 250,000 acres

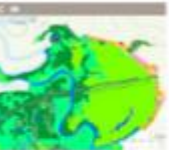








Engineers-Galveston District



Artist Boats



Bay Area Council, Boy Scouts of America



Bay City



Brazoria County



Chambers County



City of Freeport



City of Galveston



Cradle of Texas Conservancy



Galveston Bay Foundation



Galveston Historical Foundation



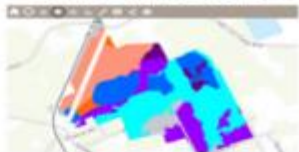
Galveston Island



Galveston Island Bird Observatory



Houston Audubon Society



Lower Colorado River Authority



Matagorda County



Matagorda County Birding Nature Center



Moody Gardens



Palacios Prairie Wetlands



Palacios Prairie Wetlands



Scenic Galveston



Sea Base-Galveston



Texas Historical Commission



Texas Parks and Wildlife Service



Texas Parks and Wildlife Service



Village of Surfside Beach



Habitat Data



Habitat and Species Data



Texas Ecological Systems Database Project

Phase 1 Available Now

Phase 2 Available Now

Phase 3 Available Now

Phase 4 Available Now

Phase 5 Available Now

Natural Regions (color)

- [8 Dec. 4, 2007 100 x 100](#)
- [24 Dec. 4, 2007 500 x 100](#)
- [24 Dec. 4, 2007 750 x 100](#)

Natural Regions with County Outlines

- [8 Dec. 4, 2007 100 x 100](#)
- [24 Dec. 4, 2007 500 x 100](#)
- [24 Dec. 4, 2007 750 x 100](#)

[View all images](#)

Ecological Mapping Systems of TX

NatureServe EXPLORER.

LandScape America.

Species Quick Search

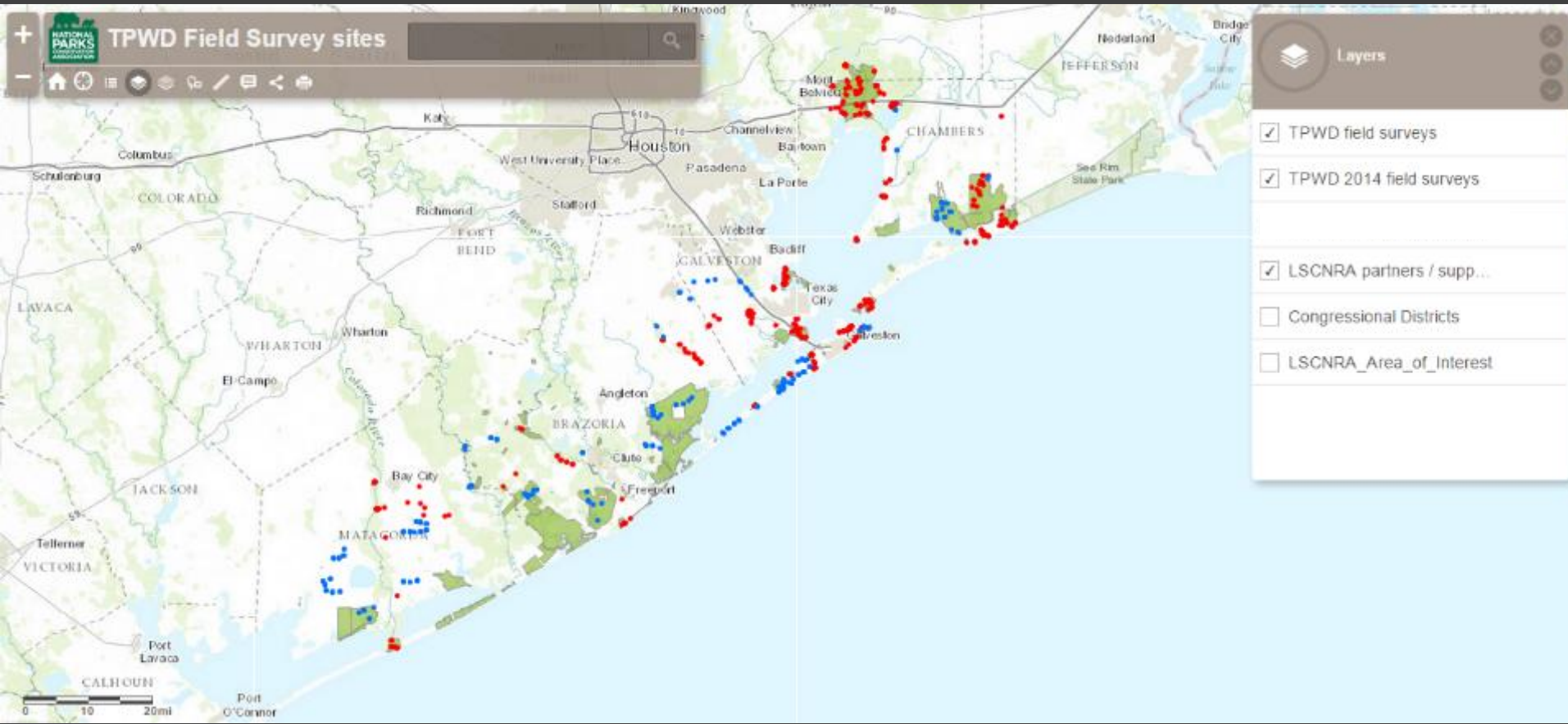
or search Species with the Ecological Communities & States by Name, Taxonomy, Location, or Conservation Status.

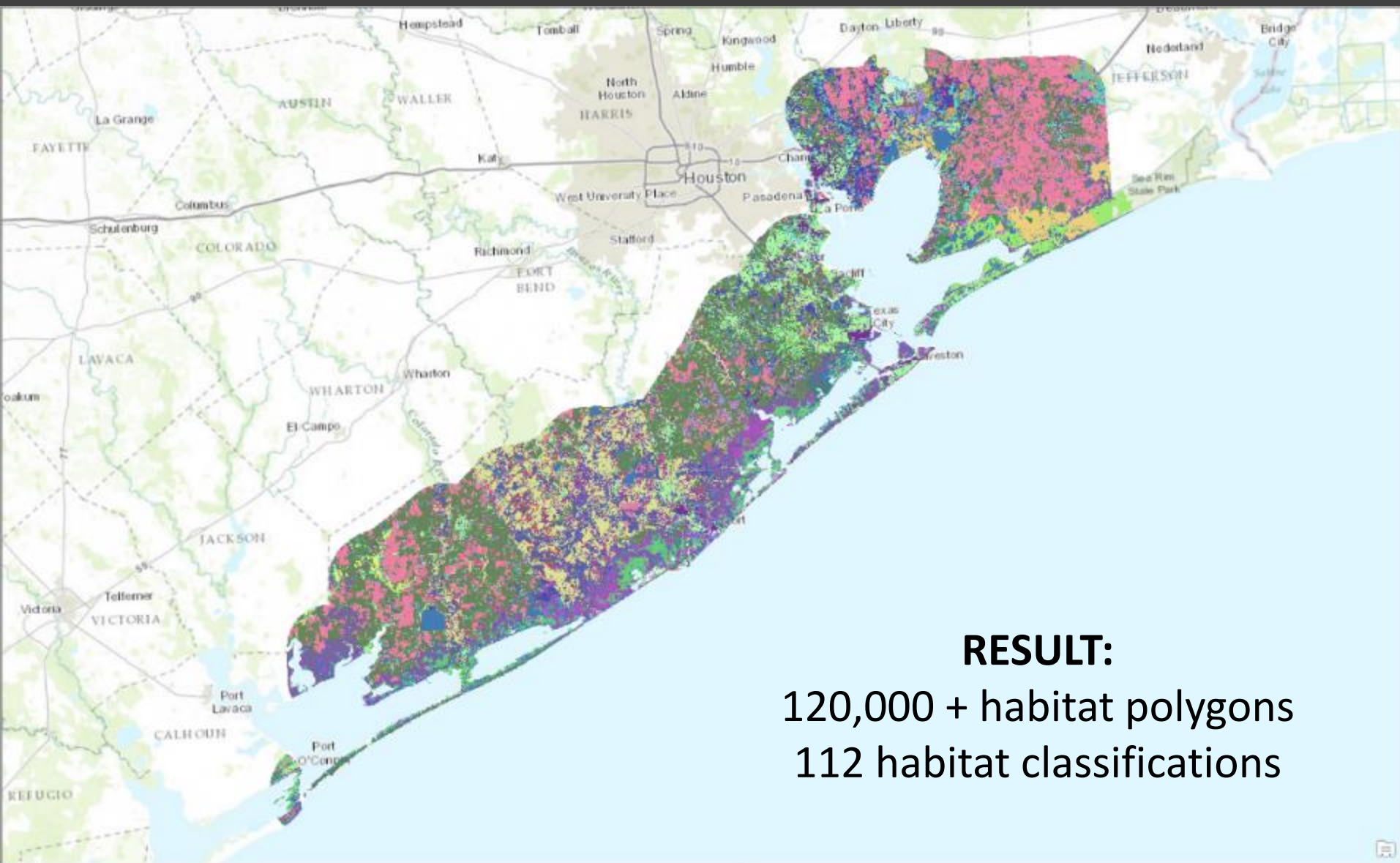
NatureServe Explorer is a product of NatureServe and its natural heritage member programs.

Use the database to easily find:

- scientific and common names
- conservation status
- distribution maps
- images for thousands of species
- life histories, conservation needs, and more.

TPWD field work

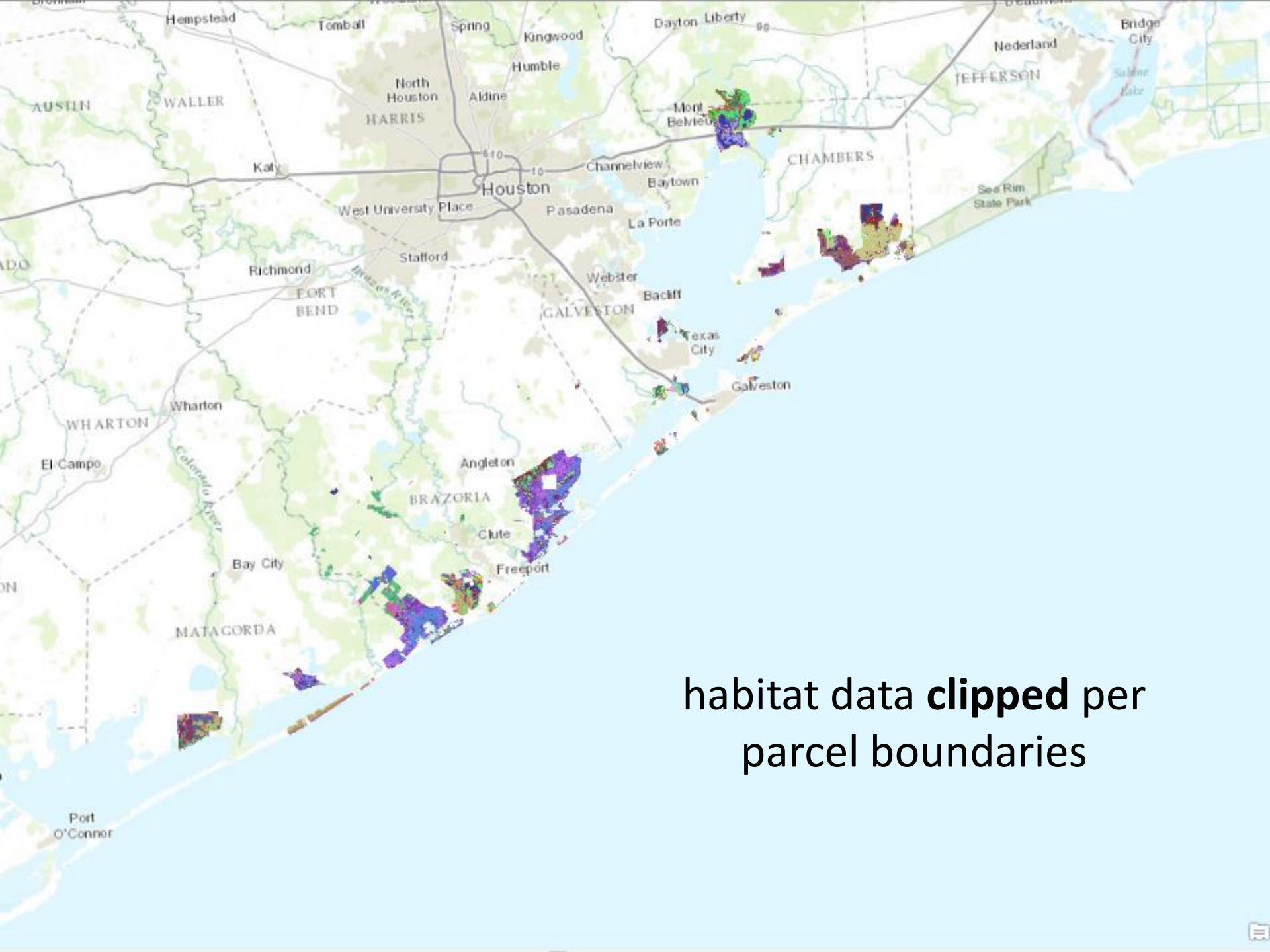




RESULT:

120,000 + habitat polygons
112 habitat classifications

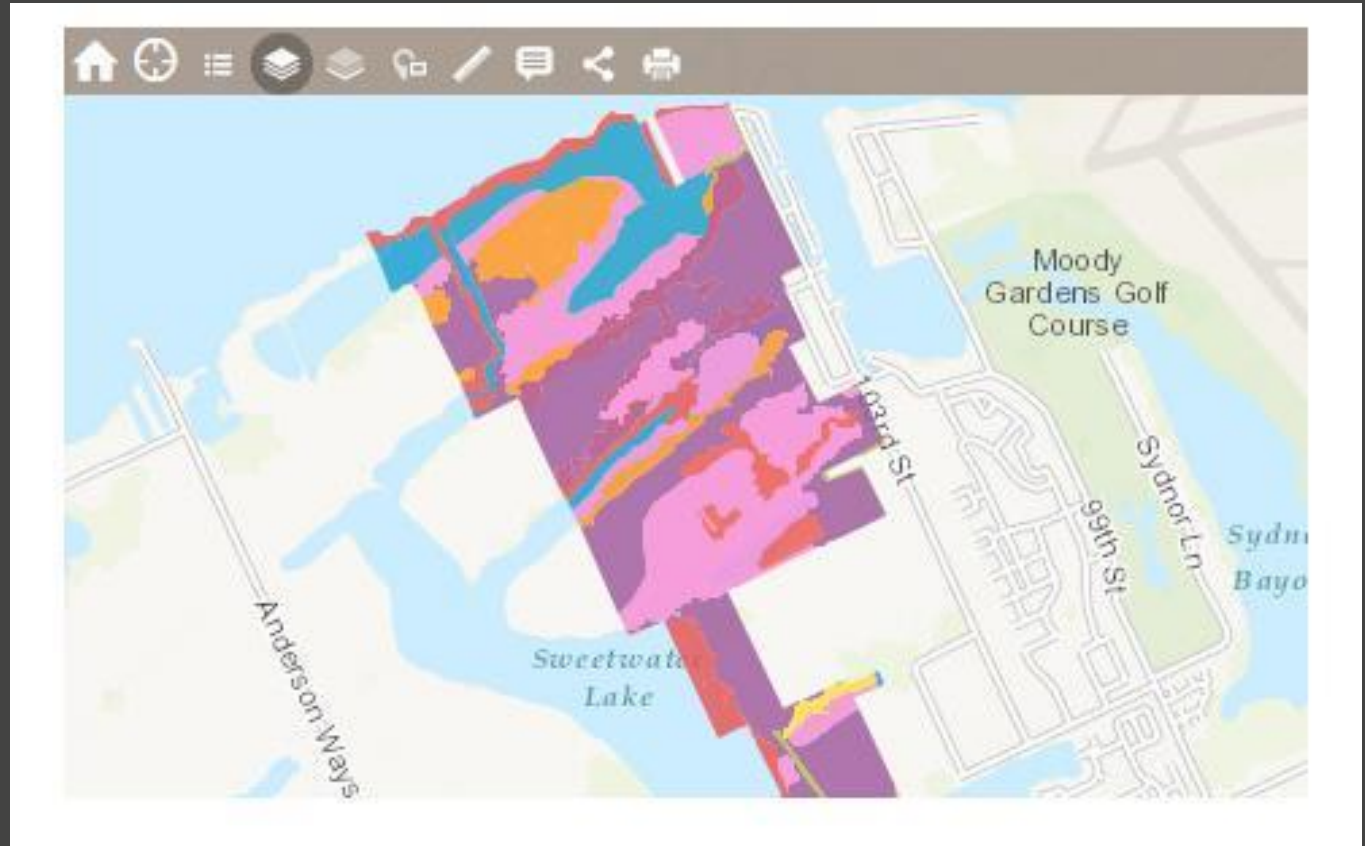
FID	CommonName	Code in Hexadecimal Notation	Color Swatch
0	Active Sand Dune	#CC9900	
1	Barren	#931D00	
2	Central and Lower Coastal: Beach	#FDDFA7	
3	Chenier Plain: Fresh and Intermediate Tidal Marsh	#66CDA4	
4	Chenier Plain: Fresh and Intermediate Tidal Shrub Wetland	#20B2AA	
5	Chenier Plain: Hardwood Fringe Forest	#008B8B	
6	Chenier Plain: Live Oak Fringe Forest	#00FFFF	
7	Chenier Plain: Mixed Live Oak - Deciduous Hardwood Fringe Forest	#7FFFD4	
8	Chenier Plain: Salt and Brackish High Tidal Marsh	#AFEEEE	
9	Chenier Plain: Salt and Brackish High Tidal Shrub Wetland	#00CED1	
10	Chenier Plain: Salt and Brackish Low Tidal Marsh	#5F9EA0	
11	Chenier Plain: Salt and Brackish Low Tidal Shrub Wetland	#4682B4	
12	Coastal and Sandsheet: Deep Sand Grassland	#B0C4DE	
13	Coastal and Sandsheet: Deep Sand Grassland Swale Marsh	#E0E0E6	
14	Coastal and Sandsheet: Deep Sand Live Oak - Mesquite Woodland	#87CEEB	
15	Coastal and Sandsheet: Deep Sand Live Oak Forest and Woodland	#7171E2	
16	Coastal and Sandsheet: Deep Sand Live Oak Shrubland	#00BFFF	
17	Coastal and Sandsheet: Deep Sand Live Oak Swale Marsh	#1E90FF	
18	Coastal and Sandsheet: Deep Sand Shrubland	#6495ED	
19	Coastal Bend: Floodplain Deciduous Shrubland	#4169E1	
20	Coastal Bend: Floodplain Hardwood Forest	#0000FF	
21	Coastal Bend: Floodplain Herbaceous Wetland	#00008B	
22	Coastal Bend: Floodplain Live Oak - Hardwood Forest	#30305F	
23	Coastal Bend: Floodplain Live Oak Forest	#B3E0FF	
24	Coastal Bend: Riparian Deciduous Shrubland	#98E6FF	
25	Coastal Bend: Riparian Evergreen Shrubland	#95B6CE	
26	Coastal Bend: Riparian Grassland	#000053	
27	Coastal Bend: Riparian Hardwood Forest	#1F7DFF	
28	Coastal Bend: Riparian Herbaceous Wetland	#DDEEFF	
29	Coastal Bend: Riparian Live Oak - Hardwood Forest	#4DB8DB	
30	Coastal Bend: Riparian Live Oak Forest	#95FFFF	
31	Coastal: Fresh and Intermediate Tidal Marsh	#31ACC8	
32	Coastal: Mangrove Shrubland	#143D66	
33	Coastal: Salt and Brackish High Tidal Marsh	#333399	
34	Coastal: Salt and Brackish High Tidal Shrub Wetland	#80AAE2	
35	Coastal: Salt and Brackish Low Tidal Marsh	#E2B2FF	
36	Coastal: Sea Oat-eye Daisy Flats	#6695E0	
37	Coastal: Tidal Flat	#006B8F	
38	Columbia Bottomlands: Deciduous Shrubland	#FECDE7	
39	Columbia Bottomlands: Evergreen Shrubland	#FF96E8	
40	Columbia Bottomlands: Grassland	#FF5D93	
41	Columbia Bottomlands: Hardwood Forest and Woodland	#FF23EA	
42	Columbia Bottomlands: Herbaceous Wetland	#E800D8	
43	Columbia Bottomlands: Live Oak Forest and Woodland	#E595FF	
44	Columbia Bottomlands: Mixed Evergreen - Hardwood Forest and Woodland	#E45BFF	
45	Columbia Bottomlands: Riparian Deciduous Shrubland	#E321FF	
46	Columbia Bottomlands: Riparian Evergreen Shrubland	#CF00E6	
47	Columbia Bottomlands: Riparian Grassland	#FE82B4	
48	Columbia Bottomlands: Riparian Hardwood Forest and Woodland	#FF50B8	
49	Columbia Bottomlands: Riparian Herbaceous Wetland	#FF1ABA	
50	Columbia Bottomlands: Riparian Live Oak Forest and Woodland	#E100AC	
51	Columbia Bottomlands: Riparian Mixed Evergreen - Hardwood Forest and Woodland	#FFCCB3	
52	Grass Farm	#EC8600	
53	Gulf Coast: Coastal Prairie	#FF957C	
54	Gulf Coast: Coastal Prairie Pondshore	#FF7E4D	
55	Gulf Coast: Near-Coast Baldcypress Swamp	#FF4716	
56	Gulf Coast: Salty Prairie	#F92F00	
57	Gulf Coast: Salty Prairie Shrubland	#FF5555	
58	Invasive: Evergreen Shrubland	#FFB8A6	
59	Marsh	#FF6A06	
60	Mud Flat	#7F2000	
61	Native Invasive: Baccharis Shrubland	#6B0087	
62	Native Invasive: Common Reed	#9100C0	
63	Native Invasive: Deciduous Shrubland	#B000F8	
64	Native Invasive: Deciduous Woodland	#B331FF	
65	Native Invasive: Huisache Woodland or Shrubland	#E265FF	
66	Native Invasive: Juniper Shrubland	#AE95FF	
67	Native Invasive: Juniper Woodland	#9563FF	
68	Native Invasive: Mesquite Shrubland	#9832FF	
69	Non-Native Invasive: Chinese Tallow Forest, Woodland, or Shrubland	#9900FD	
70	Non-native Invasive: Rose Shrubland	#7A00A3	
71	Non-native Invasive: Saltcedar Shrubland	#3C0033	
72	Open Water	#0066FF	
73	Pine Plantation > 3 meters tall	#98FB98	
74	Pine Plantation 1 to 3 meters tall	#ADFF2F	
75	Pineywoods: Bottomland Baldcypress Swamp	#7FFF00	
76	Pineywoods: Bottomland Deciduous Successional Shrubland	#007F5E	
77	Pineywoods: Bottomland Herbaceous Wetland	#456145	
78	Pineywoods: Bottomland Seasonally Flooded Hardwood Forest	#00FF7F	
79	Pineywoods: Bottomland Temporarily Flooded Hardwood Forest	#009933	
80	Pineywoods: Bottomland Temporarily Flooded Live Oak Forest	#90EE90	
81	Pineywoods: Bottomland Temporarily Flooded Mixed Pine - Hardwood Forest	#32CD32	
82	Pineywoods: Bottomland Wet Prairie	#3CB371	
83	Pineywoods: Disturbance or Tame Grassland	#2E8B57	
84	Pineywoods: Hardwood Flatwoods	#228B22	
85	Pineywoods: Herbaceous Flatwoods Pond	#008000	
86	Pineywoods: Longleaf or Loblolly Pine - Hardwood Flatwoods or Plantation	#006400	
87	Pineywoods: Longleaf or Loblolly Pine Flatwoods or Plantation	#9ACD32	
88	Pineywoods: Pine - Hardwood Forest or Plantation	#003300	
89	Pineywoods: Pine Forest or Plantation	#898D85	
90	Pineywoods: Small Stream and Riparian Herbaceous Wetland	#336600	
91	Pineywoods: Small Stream and Riparian Temporarily Flooded Hardwood Forest	#669900	
92	Pineywoods: Small Stream and Riparian Temporarily Flooded Mixed Forest	#99CC00	
93	Pineywoods: Small Stream and Riparian Wet Prairie	#006600	
94	Pineywoods: Southern Calcareous Mixedgrass Prairie	#00CC39	
95	Pineywoods: Southern Mesic Hardwood Forest	#00FF00	
96	Pineywoods: Upland Hardwood Forest	#304830	
97	Pineywoods: Wet Hardwood Flatwoods	#99FF39	
98	Post Oak Savanna: Live Oak Motte and Woodland	#E0D6CC	
99	Post Oak Savanna: Live Oak Slope Forest	#C2AD99	
100	Post Oak Savanna: Oak - Hardwood Slope Forest	#A38566	
101	Post Oak Savanna: Post Oak - Live Oak Motte and Woodland	#855C33	
102	Post Oak Savanna: Post Oak - Live Oak Slope Forest	#663300	
103	Post Oak Savanna: Post Oak - Redcedar Motte and Woodland	#522900	
104	Post Oak Savanna: Post Oak - Yaupon Motte and Woodland	#3D1F00	
105	Post Oak Savanna: Post Oak Motte and Woodland	#291400	
106	Row Crops	#FBFF15	
107	South Texas: Algal Flats	#D8DA00	
108	Swamp	#7A5200	
109	Upper Gulf Coast: Beach	#FFD966	
110	Urban High Intensity	#A2A2AA	
111	Urban Low Intensity	#CACAD4	

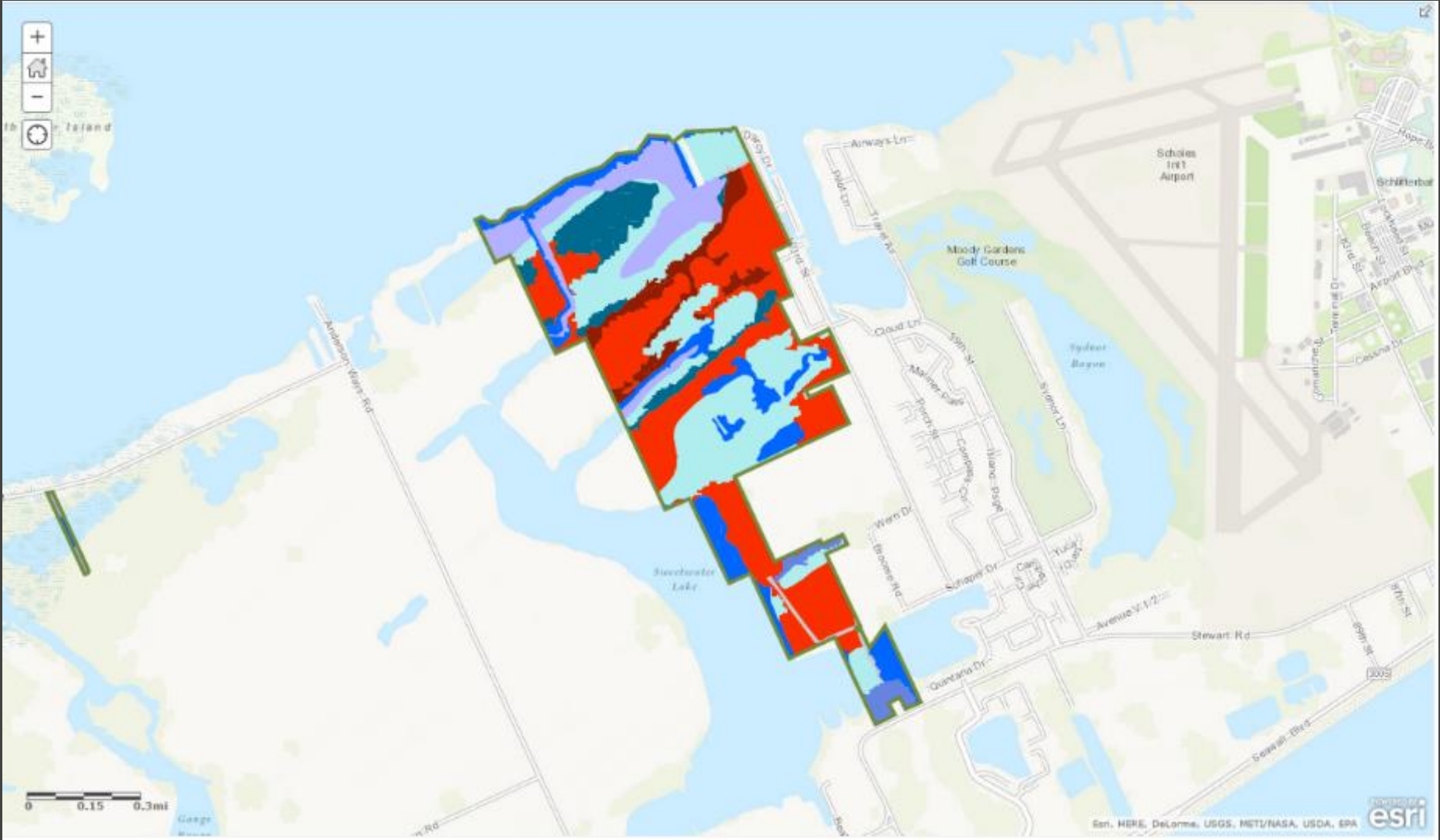


habitat data **clipped** per
parcel boundaries

Out of the box template

- home
- my location
- legend
- layers
- basemap
- overview
- measure
- details
- share
- print








Main

TPWD [More info](#)
 Habitat Type
[Link](#)

Habitat Type Photos (Click on the photo below to go to the complete album for more photos!)

Veg ID: 5,607; Coastal: Salt and Brackish Low Tidal Marsh



[Zoom to](#) [Get Directions](#)



- Wetland Web**
- Wetland Ecology
 - Texas Wetlands
 - Restoration Services
 - Freshwater Marshes
 - Phragmites
 - Basin Wetlands
 - Saline and Brackish Marshes
 - Wetland Functions and Values
 - Wetlands and Wildlife
 - Wetland-Related Links
 - Wetland Conservation
 - TPWD Publications
 - Texas Wetland Newsletter
 - Wetlands Assistance Guide for Landowners
 - Texas Wetlands Conservation Plan
 - Wetland Regulation
 - etc. etc.

Saline and Brackish Marshes

Saline (salty) and brackish (somewhat salty) marshes occur along the Gulf Coast of Texas and are complex and highly productive ecosystems, containing a variety of plant and animal species that are specially adapted to fluctuations in salinity, water levels, and seasonal temperatures. Marshes along the Gulf Coast receive an abundance of silt from the major rivers that traverse Texas, and the plants that reside in saline and brackish marshes help protect the aquatic life in Gulf Coast bays by filtering sediment and pollutants from overland flow.



Invasive, exotic plant species such as the Chinese tallowtree (*Toxicaria adpressa*) can significantly alter coastal native wetland habitats in a short amount of time, if not controlled. Photo courtesy: Jennifer Kay, TPWD 2004, Angeline Coates

The health and abundance of Gulf Coast marshes has a direct impact on economically significant species such as shrimp and crab, in addition to providing habitat for numerous species of migrating birds.

Related Links:

[Texas Coastal Wetlands Guidebook](#)





Main
 TPWD More info
 Habitat Type
 Link

Habitat Type Photos (Click on the photo below to go to the complete album for more photos!)

Veg ID: 5,607; Coastal: Salt and Brackish Low Tidal Marsh



Zoom to Get Directions




flickr You Photos Groups

← Back to album list See in Original

Habitat Type Photos:

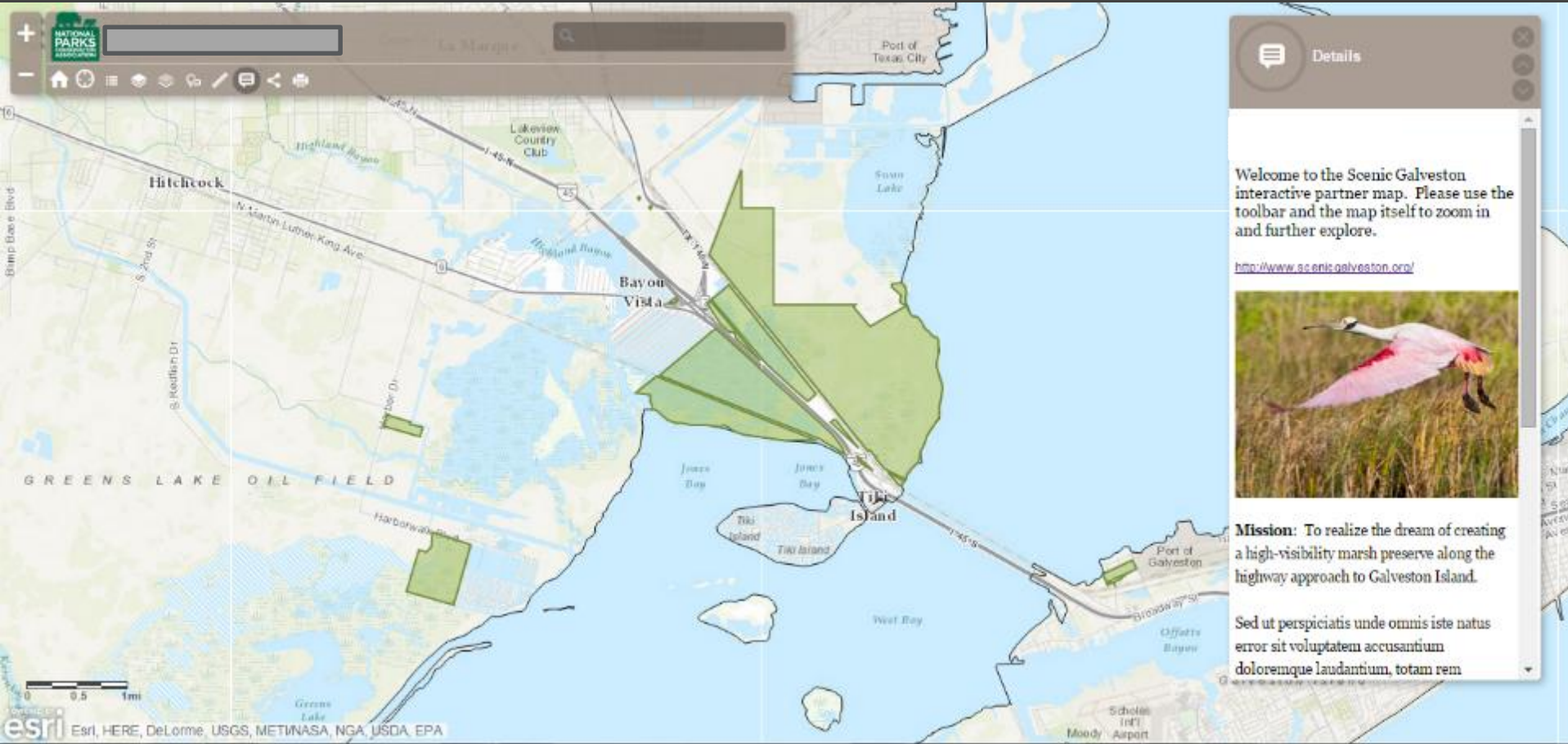
This album contains photos of different habitat types within the land parcels of Galveston Bay Foundation

47 photos
 By Landmark Systems




Scenic Galveston.

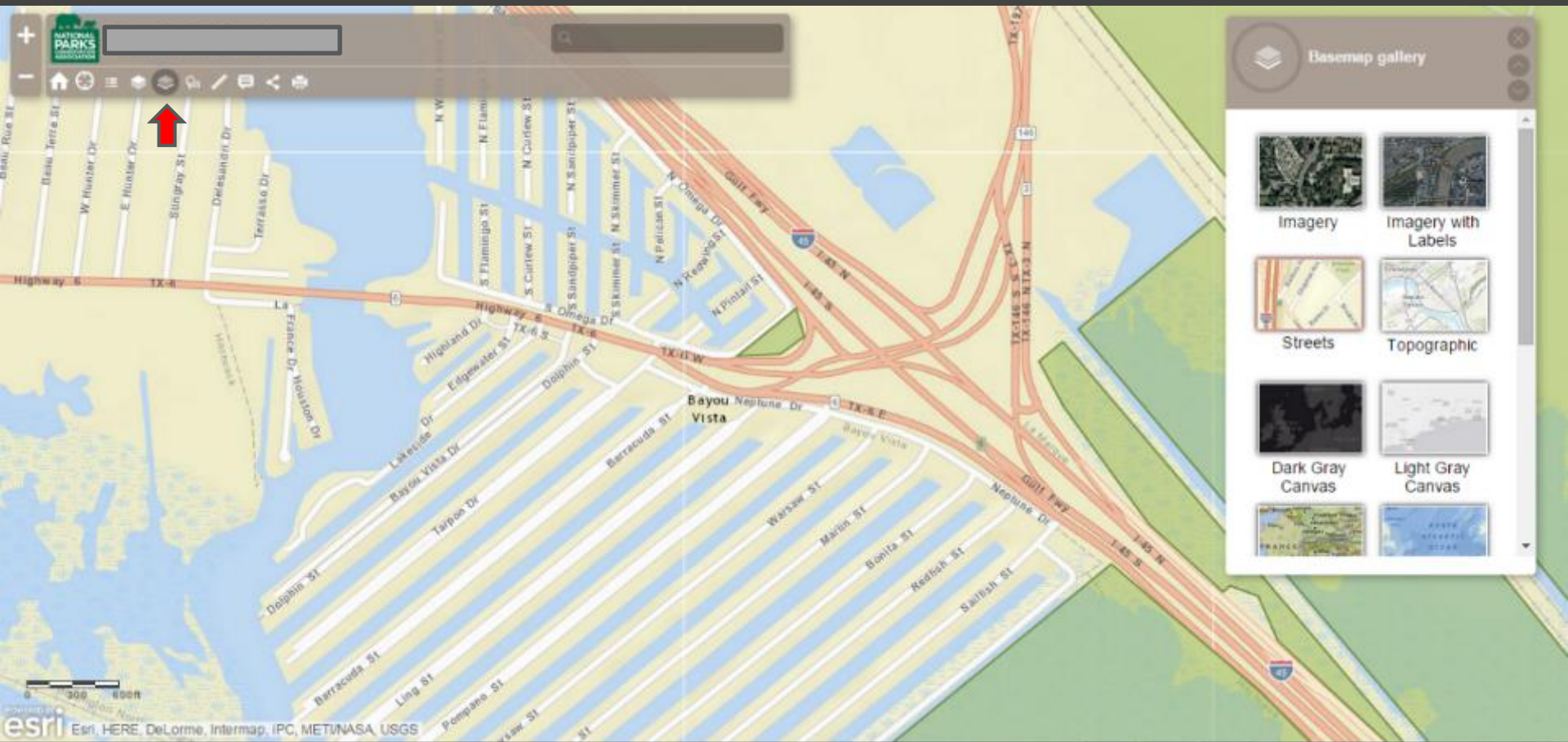
Private interactive map for each partner (i.e. Scenic Galveston).



Layers: check the layers you want to see.



Base maps: change your base maps to your liking (i.e. street view)



HIGH resolution: updated high resolution basemaps, provided by ESRI



Overlay layers: change the base layer to see real imagery, overlay with habitat

The screenshot shows a GIS interface with a map of a coastal area. The map features a base layer of real imagery and several overlaid habitat layers. A cyan-colored boundary outlines a specific area, and a purple-colored area represents a different habitat type. A popup window displays the following data for the selected area:

FID	112
Veg_ID	2,207
CommonName	Gulf Coast: Salty Prairie
LULC	15
Slope	0
Riparian	0
EcoName	SALTY PRAIRIE
MoRAP_ID	0
US_L4CODE	34h
US_L4NAME	Mid-Coast Barrier Islands and Coastal Marshes
US_L3CODE	34

The interface includes a search bar at the top, a toolbar with various navigation and editing tools, and a 'Layers' panel on the right. The 'Layers' panel shows the following layers:

- TX GLO species ID sites
- Scenic Galveston
- LSCNRA Affiliated Sites
- TX GLO Habitat Classific...
- TX_GLO_leasing_propert...
- TPWD_Habitat_data
- County Boundary

The bottom left corner of the map shows the Esri logo and the text 'Powered by DigitalGlobe, GeoEye, Microsoft'.

Measure: measure any distance you want by creating a line



Pop ups: learn more by clicking on the map!

The screenshot shows a web-based map interface with a toolbar at the top left. The map displays a colorful habitat map of a coastal area, with various colors representing different habitat types. A pop-up window is open over a specific area, displaying information about TPWD Habitat Classification, NatureServe Comprehensive Report, and Habitat Type Photos. A 'Details' panel on the right side of the map provides a URL (<http://scenicgalveston.org/>) and a list of resources including TPWD County Contacts, TXNDD: Texas Natural Diversity Database, and RTEST: Rare, Threatened, and Endangered Species of Texas by County.

TPWD Habitat Classification [More info](#)
NatureServe Comprehensive Report [More info](#)

Habitat Type Photos (Click the photo below to go to the complete album for more photos!)

Vegetation ID: 5607; Coastal: Salt and Brackish Low Tidal Marsh

<http://scenicgalveston.org/>

Welcome to the Scenic Galveston interactive partner and supporter map. Please use the toolbar and the map itself to zoom in and further explore.

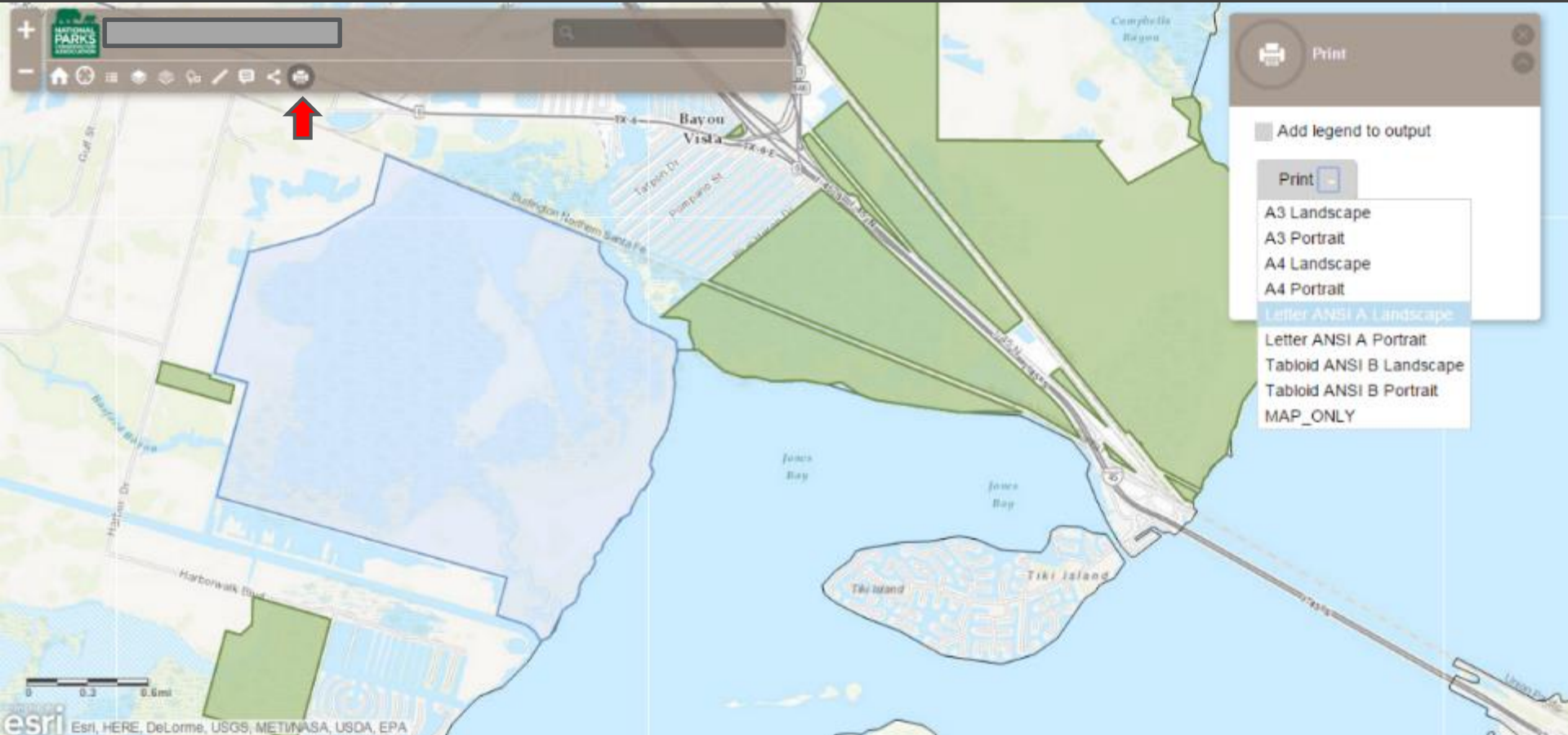
- [TPWD County Contacts](#)
- [TXNDD: Texas Natural Diversity Database](#)
- [RTEST: Rare, Threatened, and Endangered Species of Texas by County](#)

esri Esri, HERE, DeLorme, USGS, MET/NASA, USDA, EPA

Share: Send the map you just made to another partner



Print: Print the map you just made – via PDF.



Supportive Regional Map: context

Facebook Twitter Edit

LSCNRA Affiliated Sites

Houston Audubon Society

Official Website

Status:

Mission: To advance the conservation of birds and positively impact their supporting environments.

Esri, HERE, DeLorme, Intermap, USGS, NGA, USDA, EPA, NPS



Santiago de Cali



Water Quality

A story map
Water & Climate Resilience

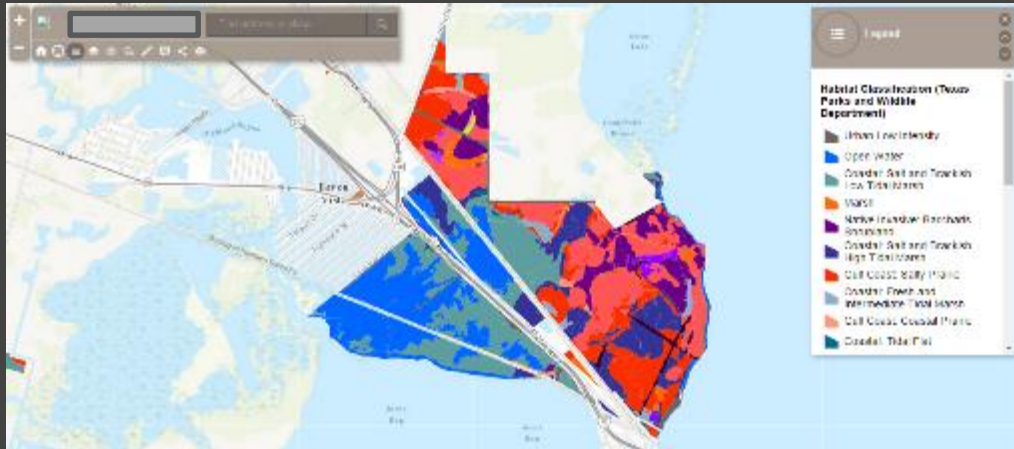
Water Quality

Increased air and water temperatures will impact the quality of rivers and lakes. Climate change combined with nutrient pollution lead to large-scale ecological degradation, in places such as the Chesapeake Bay, fisheries and coastal economies are being directly impacted by agricultural and urban activity in the furthest extent of the watershed.



Actions are being taken to reduce sediment, nutrient, and contaminant loads at the source. Quality assessments and climate-resilient strategies are aimed to protect runoff and groundwater quality.

Partner engagement



- *Communication with partner*
- *Product deliverable – a mapping resource*
- *Personalize – future needs*
- *Private access – sharing between partners*
- *Simple, on-line, easy to use*
- *Empowering; learning from partners*

thank you

Ryan Valdez

rvaldez@npca.org

