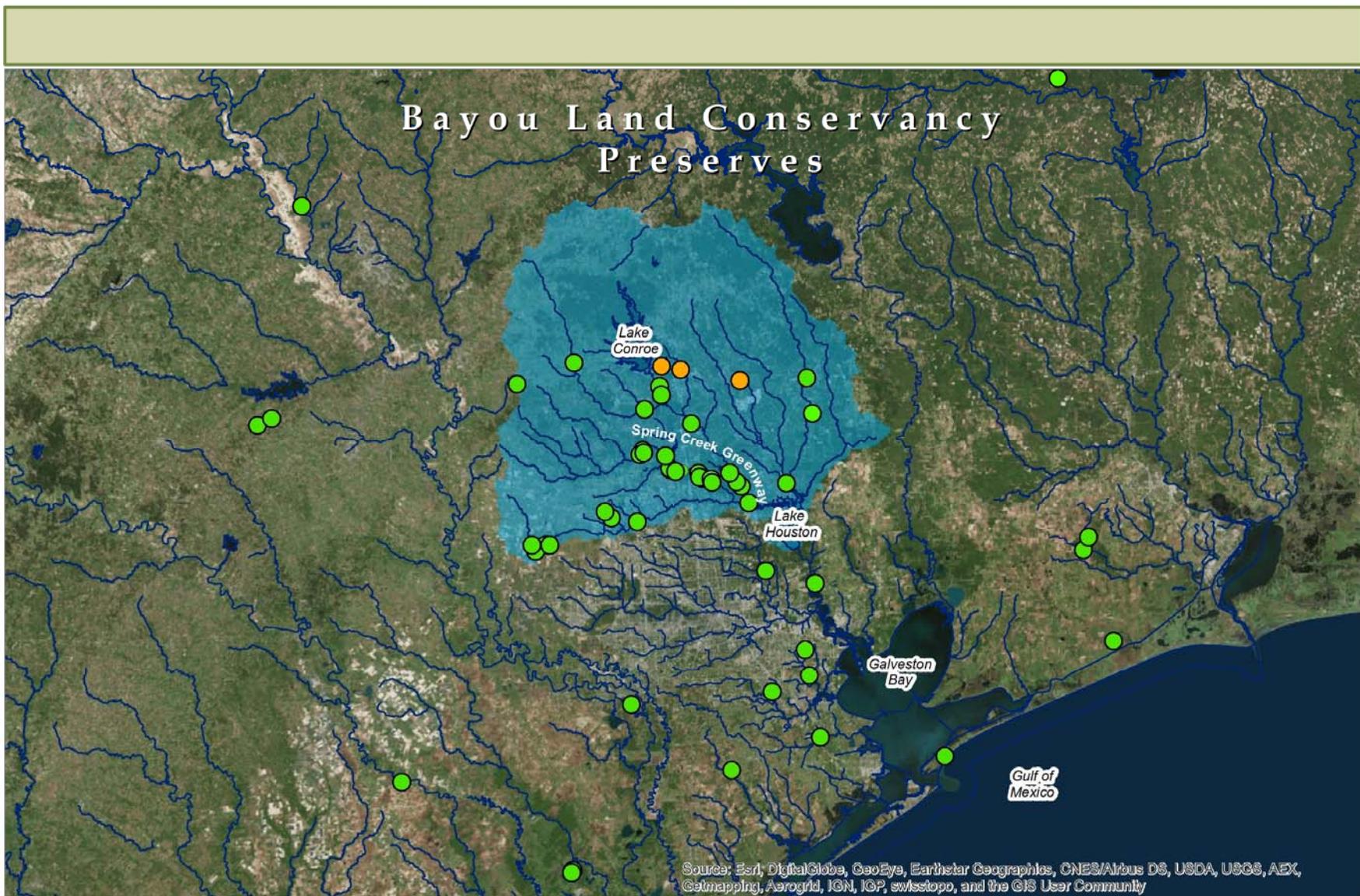


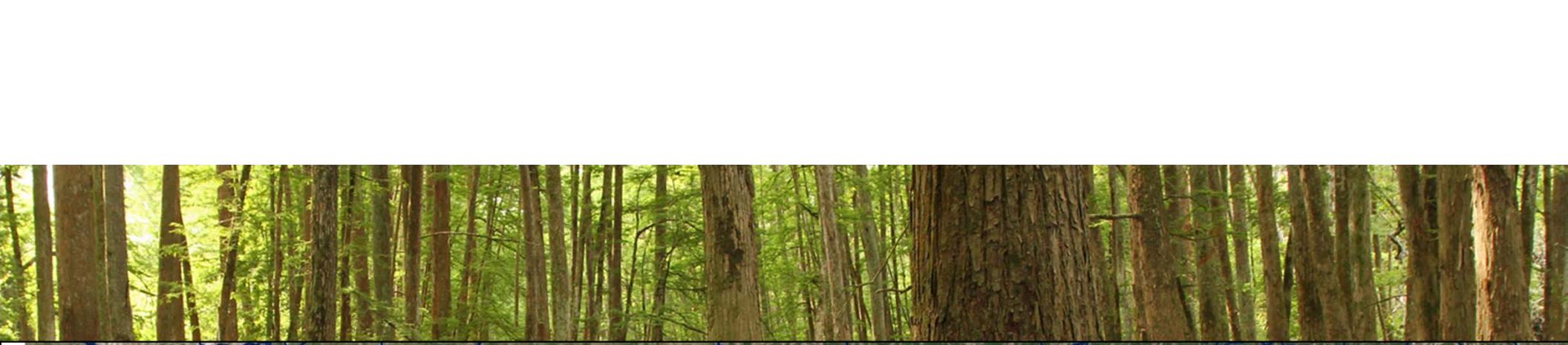


Water Quality Protection: A Watershed Approach

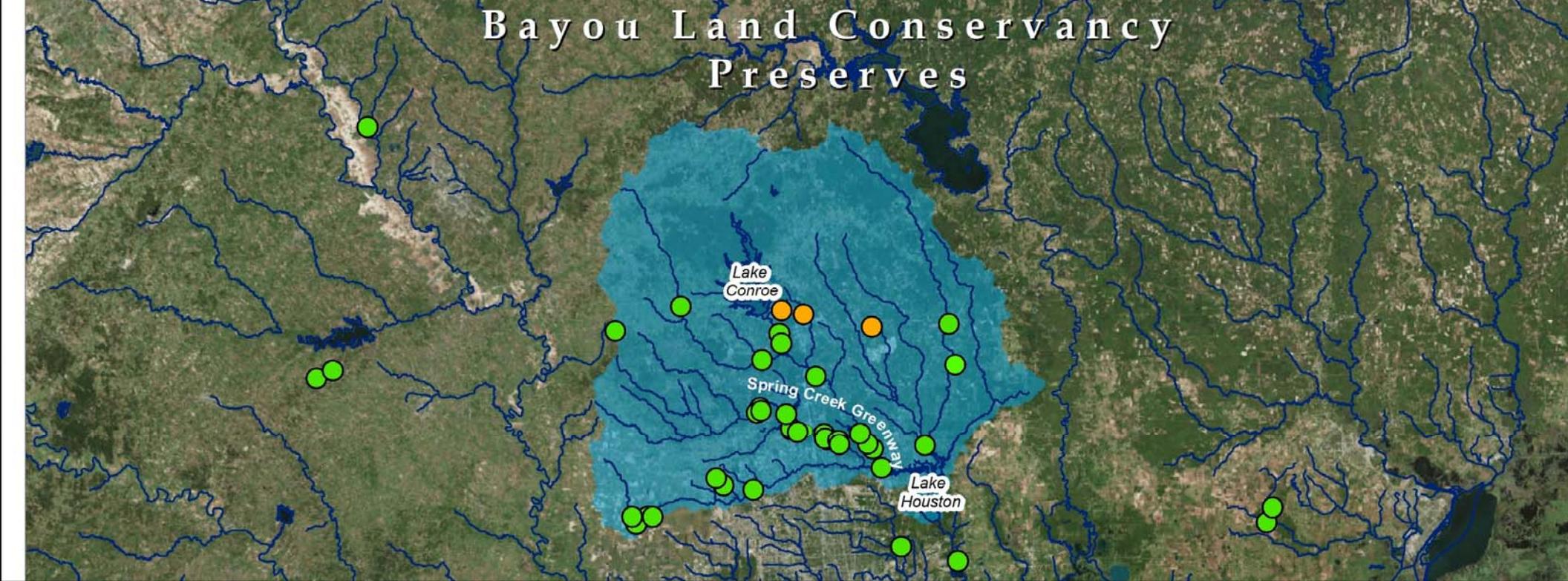
Suzanne Simpson
Stewardship Director
Bayou Land Conservancy







Bayou Land Conservancy Preserves



© Matt Duckingham

Sand and Gravel Mining



Photo courtesy of Community Impact newspaper

Sand & Gravel Mining



- Sand extraction through an open pit
- Removes topsoil and all vegetation
- Sand usually sold to produce concrete
- Very limited permitting and zero restoration requirements in Texas

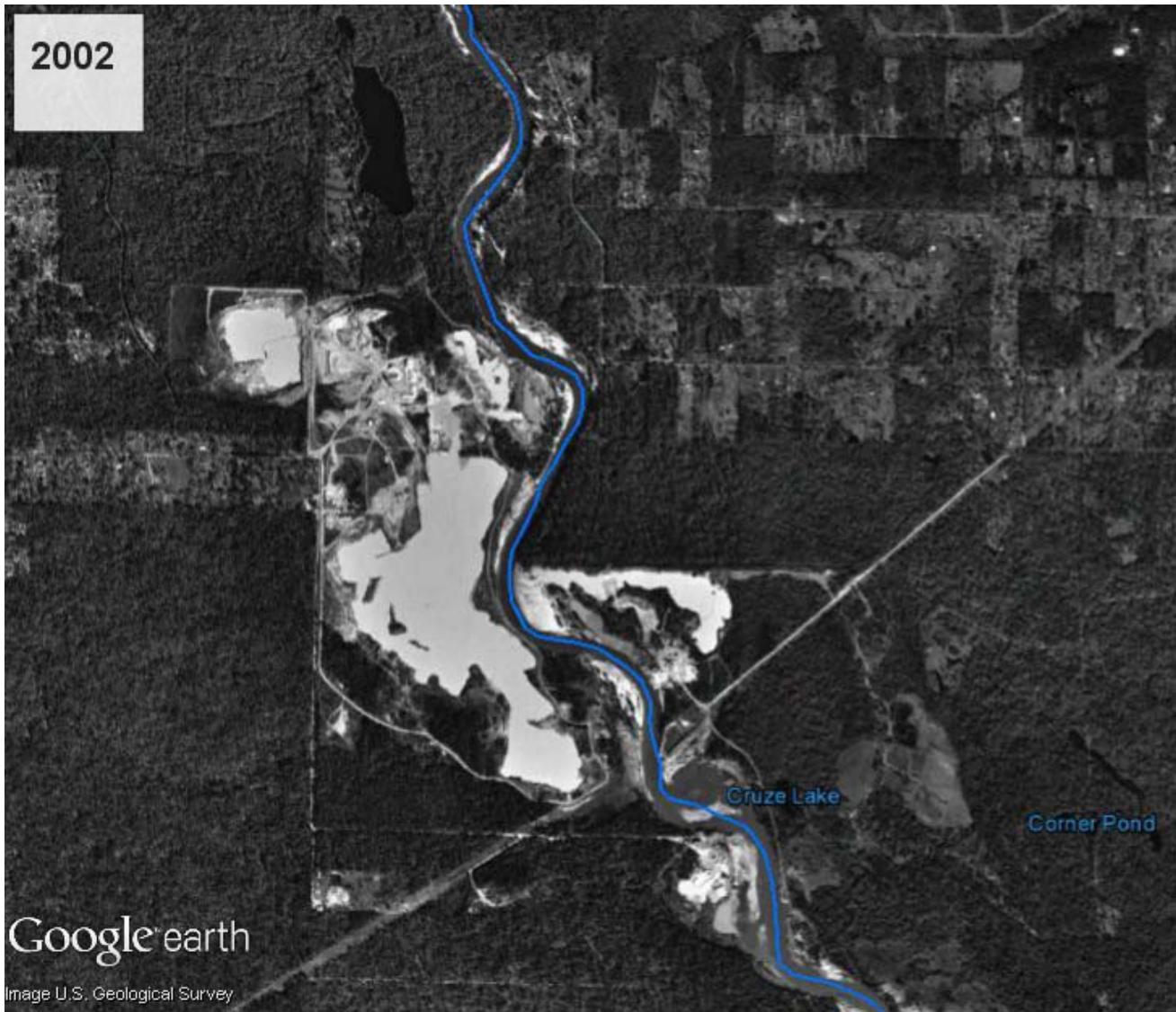
Photo courtesy of Community Impact newspaper







2002







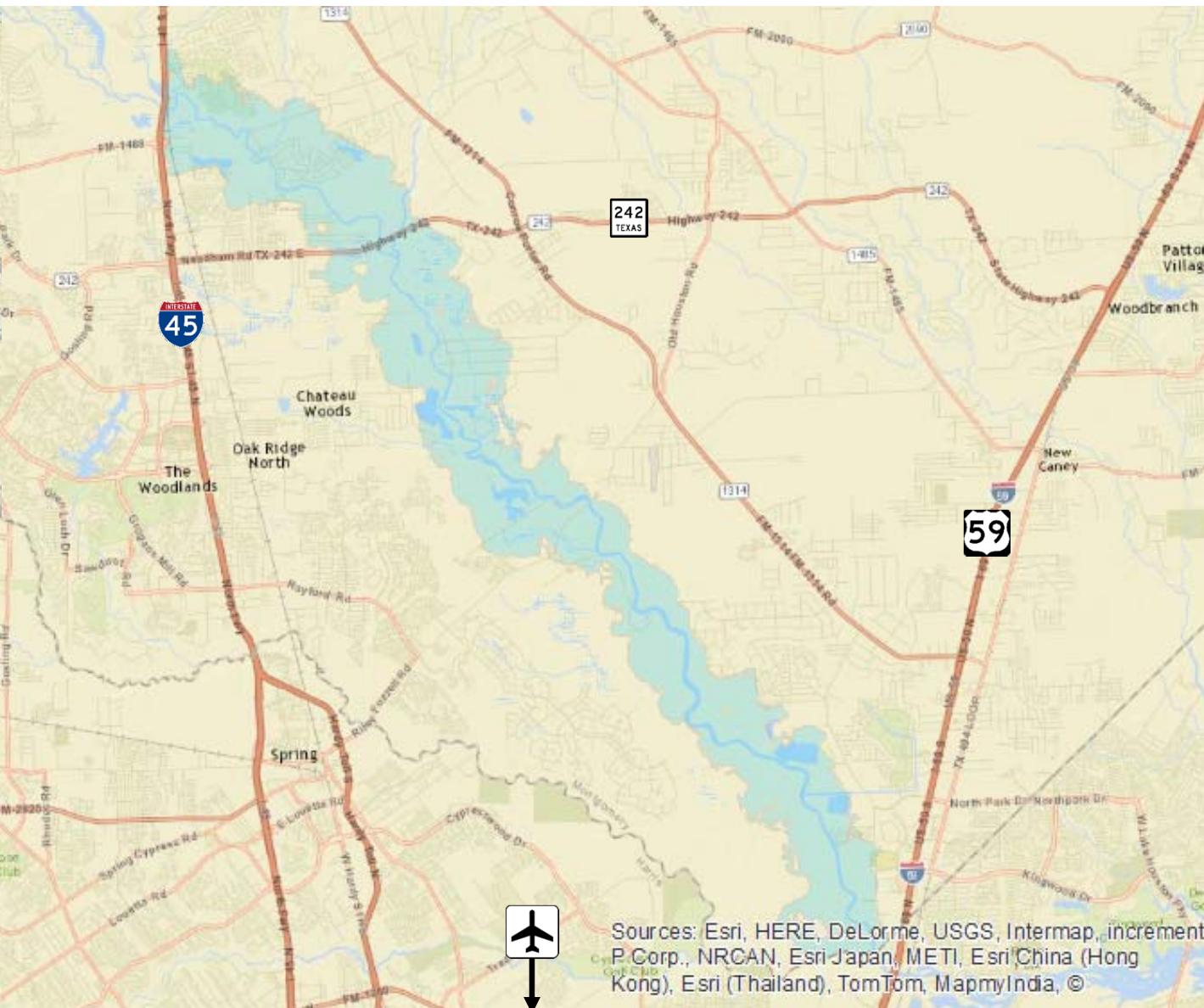


SAND AND GRAVEL IMPACT ANALYSIS

WEST FORK OF THE SAN JACINTO RIVER

1995 - 2014

BAYOU LAND CONSERVANCY



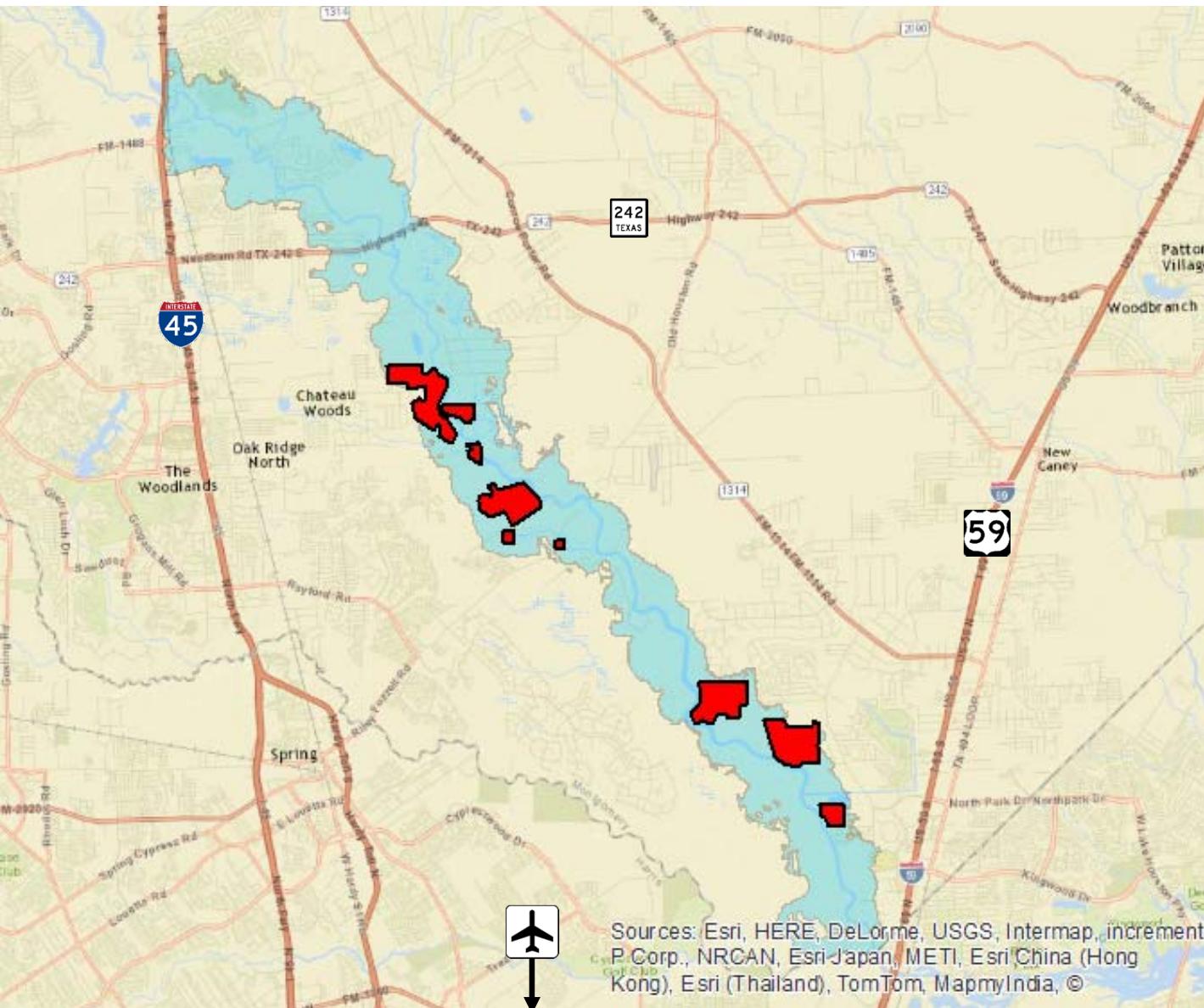
Area of Floodplain Examined:
17,742 acres

1995

Impact:

7.38%

1,308.54 acres

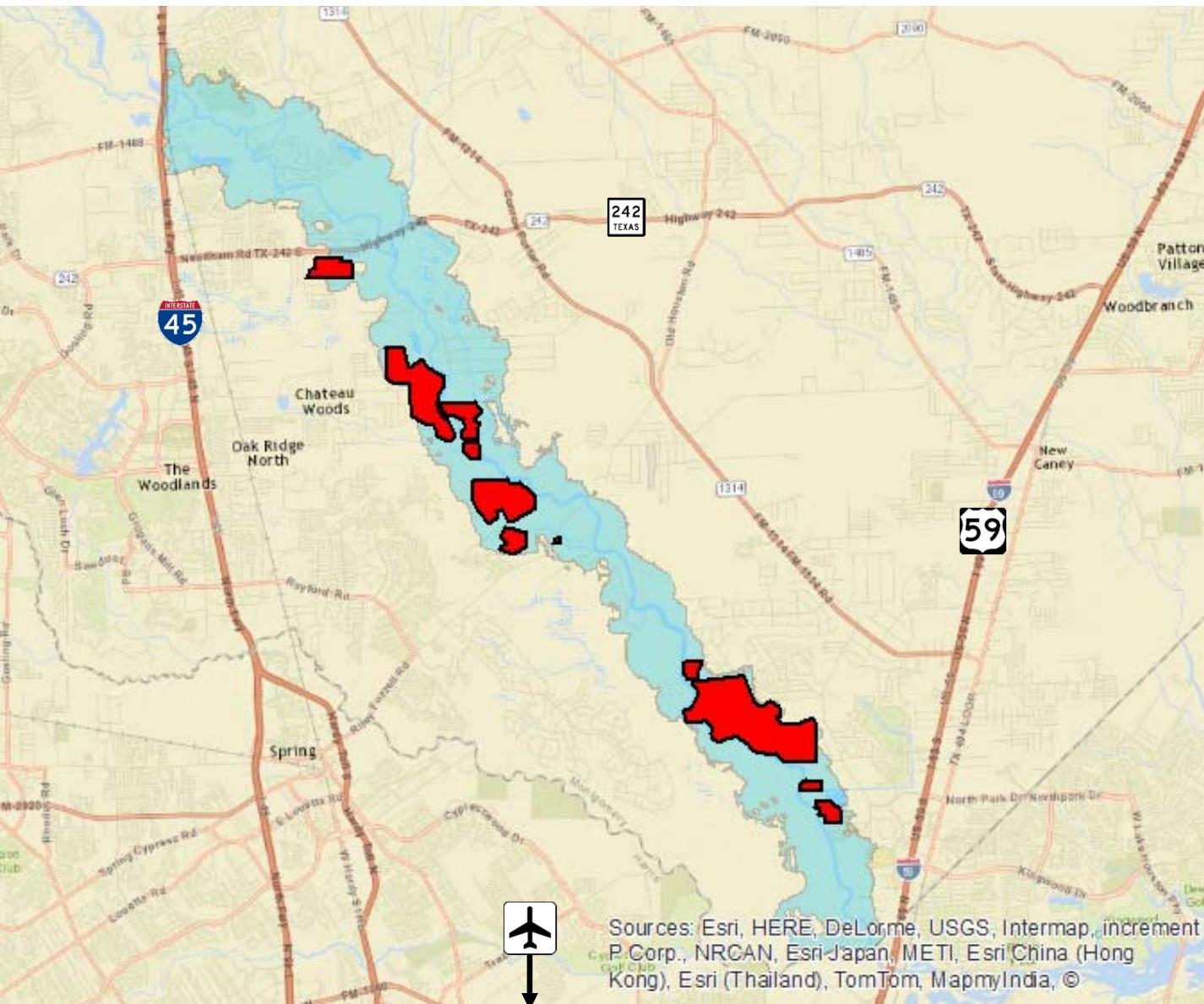


2000

Impact:

12.68%

2,249.77 acres

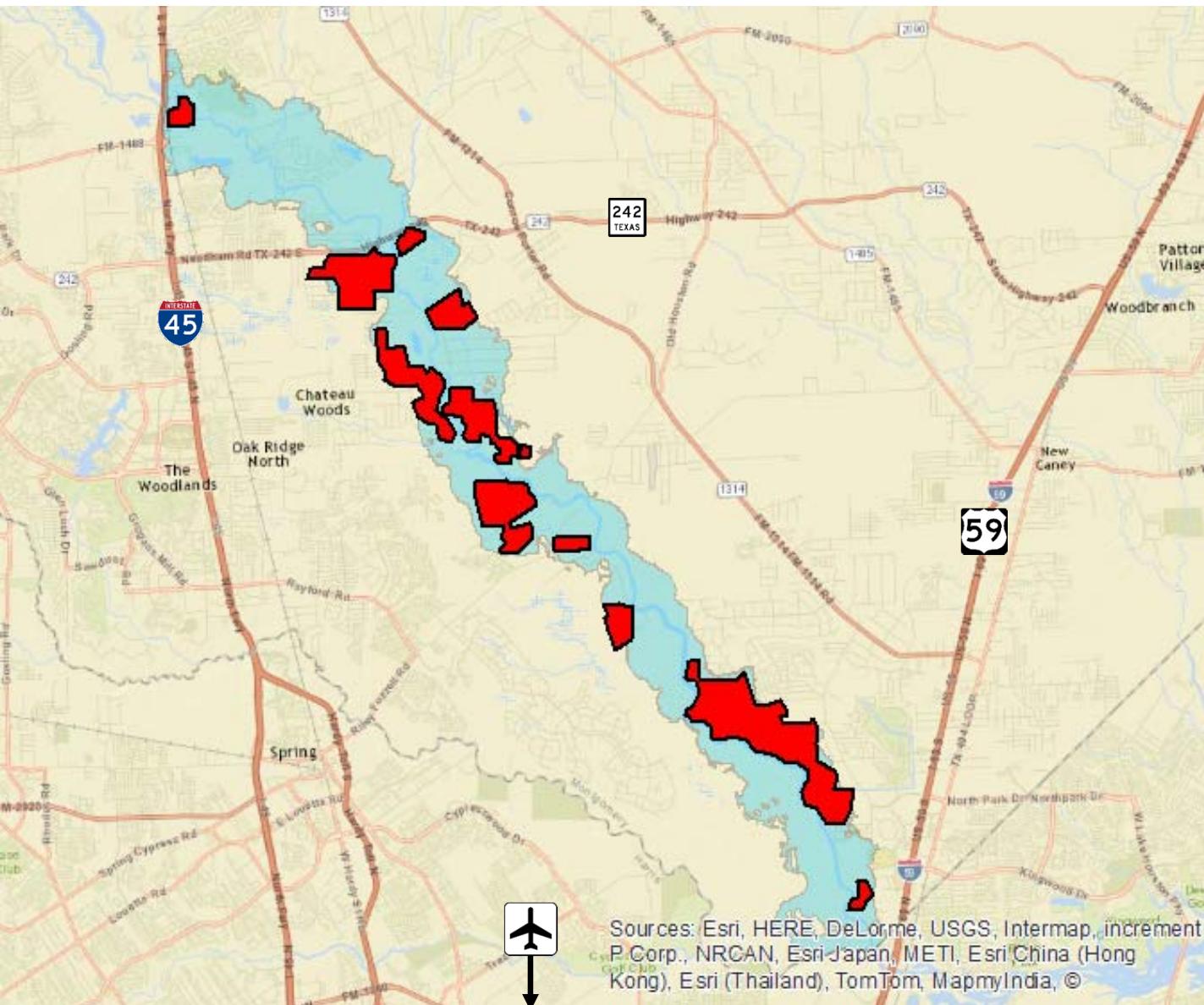


2010

Impact:

19.67%

3,489.33 acres

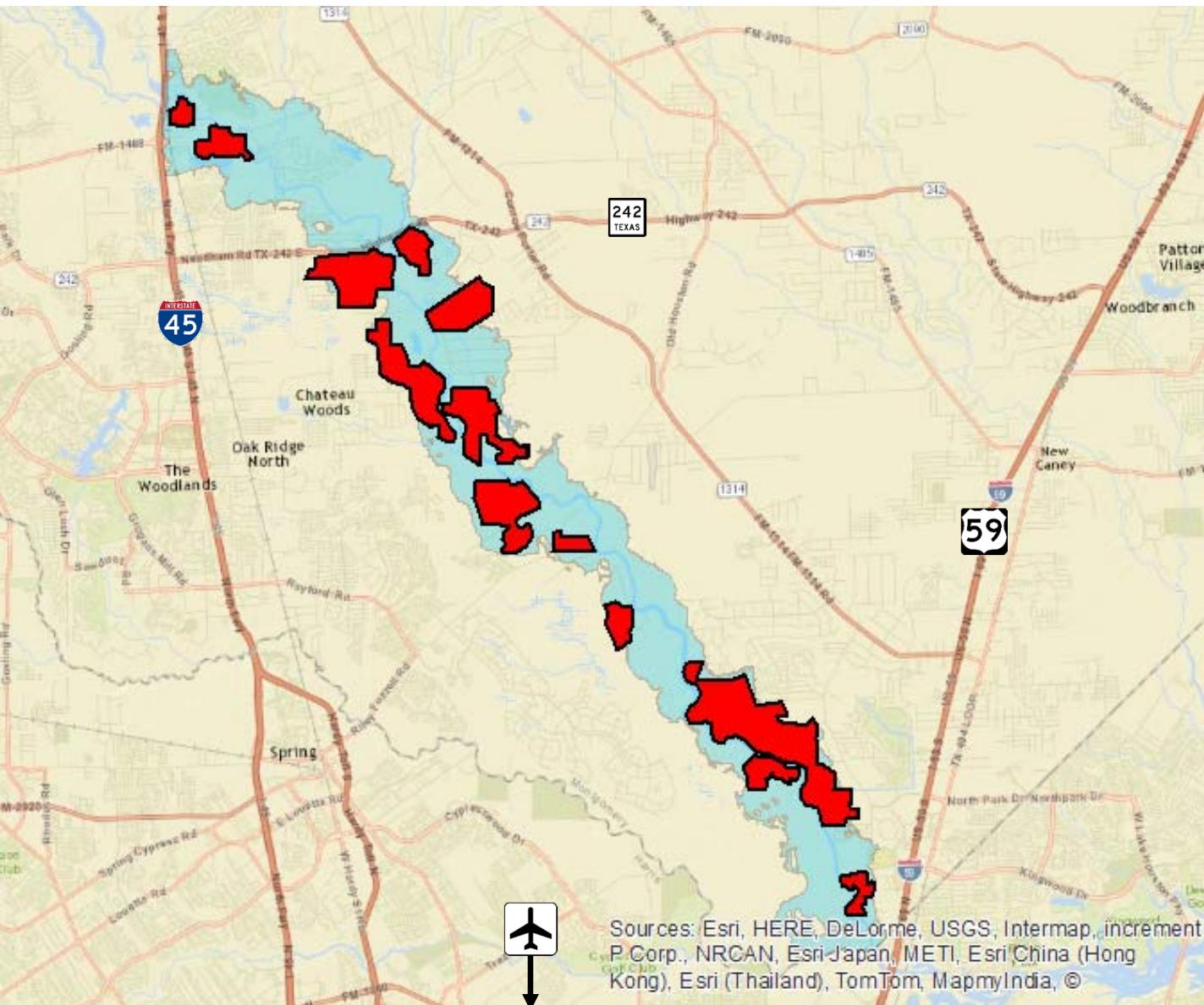


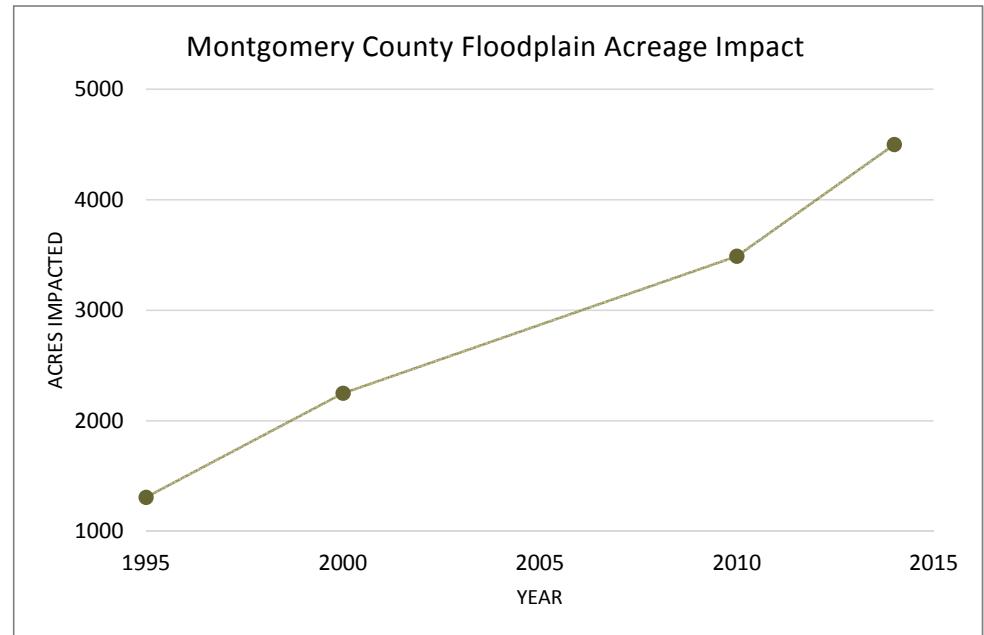
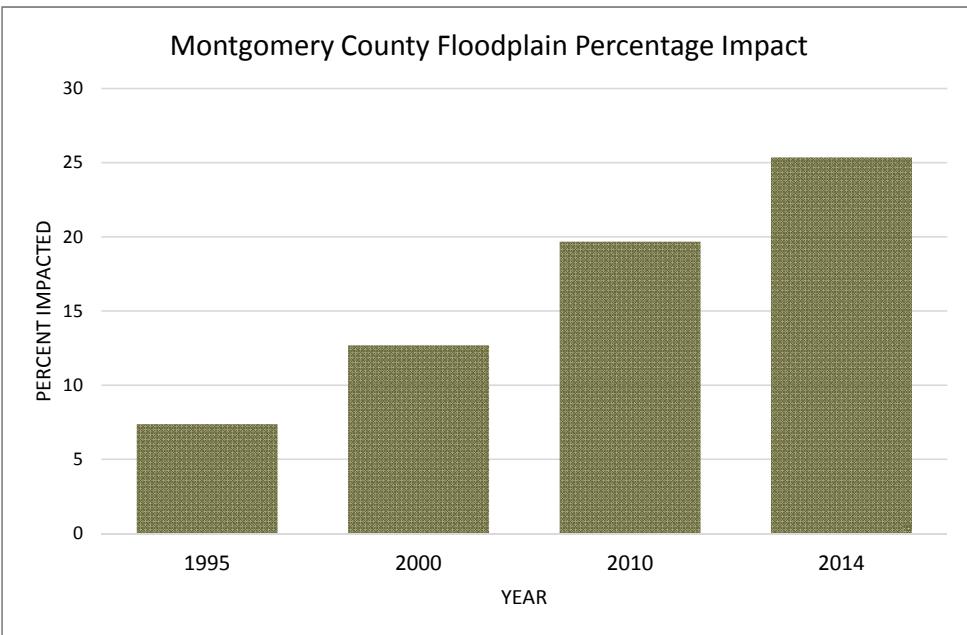
2014

Impact:

25.36%

4,449.54 acres





WEST FORK SAN JACINTO RIVER NEAR HUMBLE

Universal Time (UTC)

20Z Apr 17 20Z Apr 18 20Z Apr 19 20Z Apr 20 20Z Apr 21 20Z Apr 22 20Z Apr 23 20Z Apr 24 20Z Apr 25



----- Graph Created (3:49PM Apr 20, 2016) ----- ● Observed ----- ■ Forecast (issued 3:06PM Apr 20)

HMMT2(plotting HGIRG) "Gage 0" Datum: 0'

Turbidity



Photo courtesy of Community Impact newspaper

Turbidity

- Refers to amount of total suspended solids (TSS) in the water
- High turbidity blocks sunlight to river bottoms, impacting floral and faunal populations
- Suspended solids are costly to remove and reduce the quantity of available drinking water

Photo courtesy of Community Impact newspaper

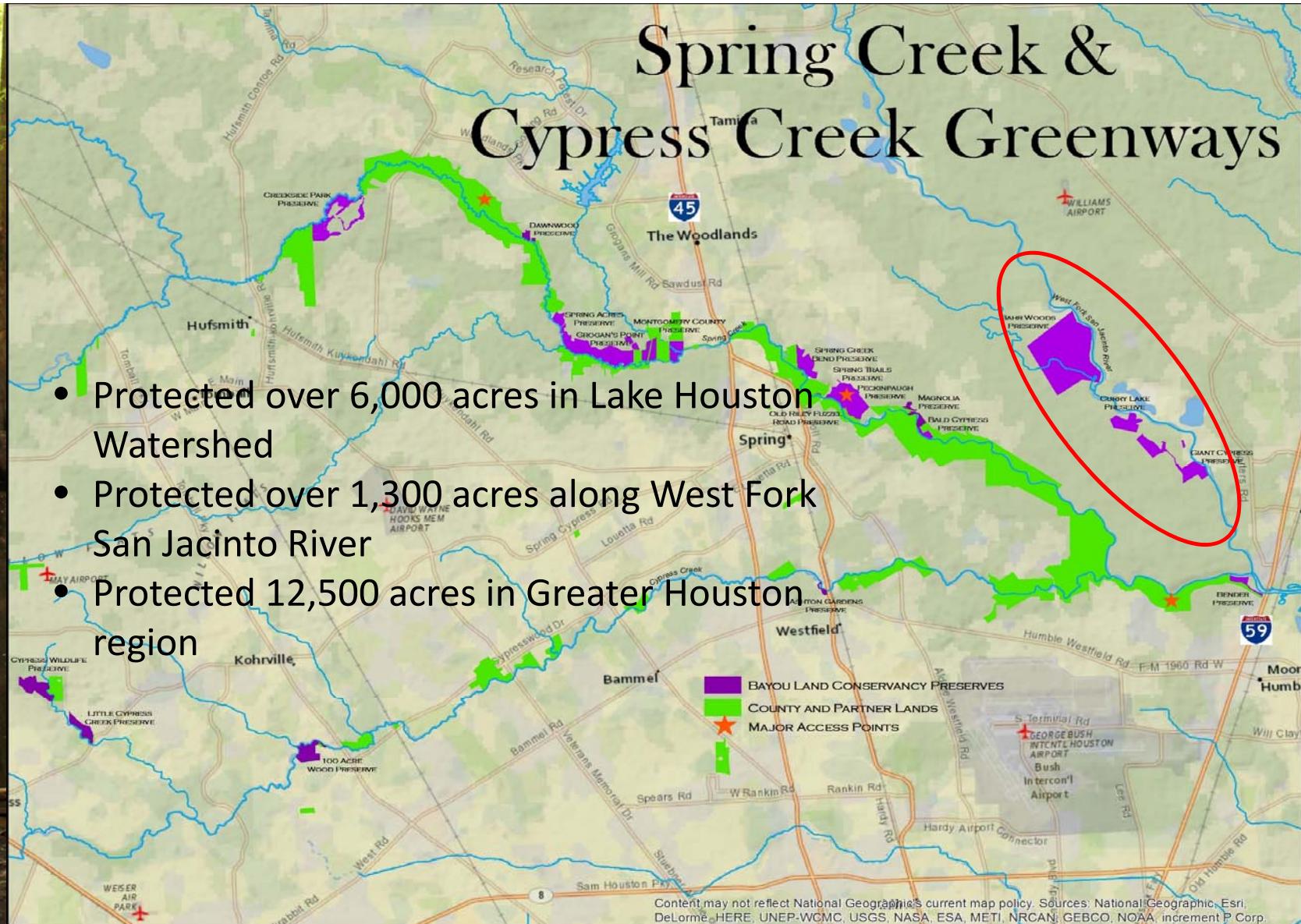
A photograph of a swampy forest. Numerous tall, thin cypress trees stand in the water, their trunks and gnarled roots exposed above the surface. The water reflects the surrounding greenery. The scene is dense with trees, creating a textured, vertical pattern.

What Can We Do?

- Conservation
- Legislation
- Restoration

Spring Creek & Cypress Creek Greenways

- Protected over 6,000 acres in Lake Houston Watershed
- Protected over 1,300 acres along West Fork San Jacinto River
- Protected 12,500 acres in Greater Houston region





Legislation

- Bayou Land Conservancy pushed for and helped pass new legislation on sand & gravel mining
- All aggregate production operations (APO) must now register with TCEQ
- Registration must be renewed annually

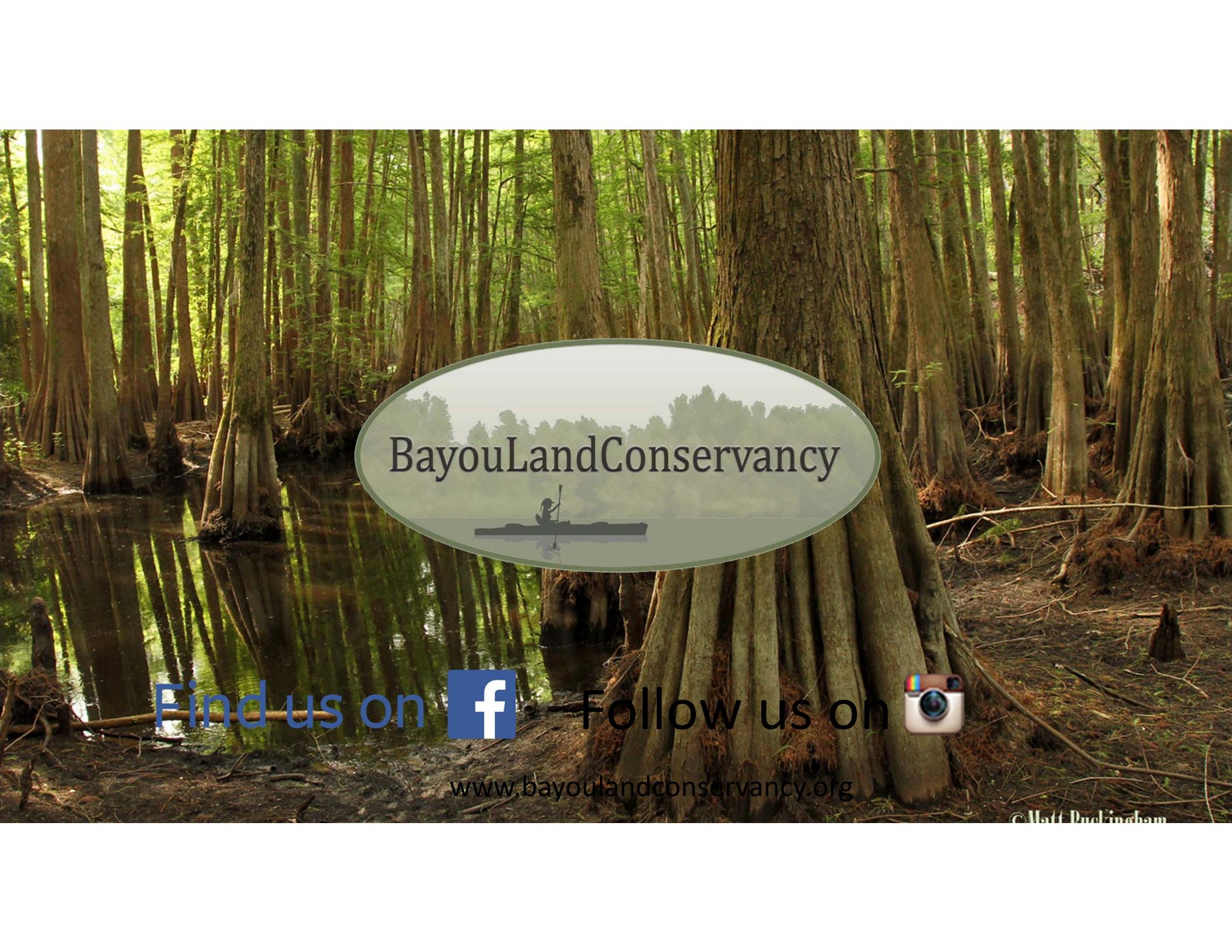
Restoration

- Partnering with HCFCD to restore an abandoned sand & gravel pit along Spring Creek
- Will serve as litmus test for other APO restoration projects in Houston



Source: Iowa Dept. of Agriculture and Land Stewardship

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BayouLandConservancy



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