

# Bogs, Swamps and Sinkholes: An Overview of Wetlands Protection and Regulation

Tracy Hester

Environmental  
Law Fall 2016

---

Sept. 26, 2016



## Definition of “Wetland”

- Wetlands – “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”
- 1987 Wetlands Delineation Manual
- Three conditions:
  - Hydrology
  - Vegetation
  - Hydric soil











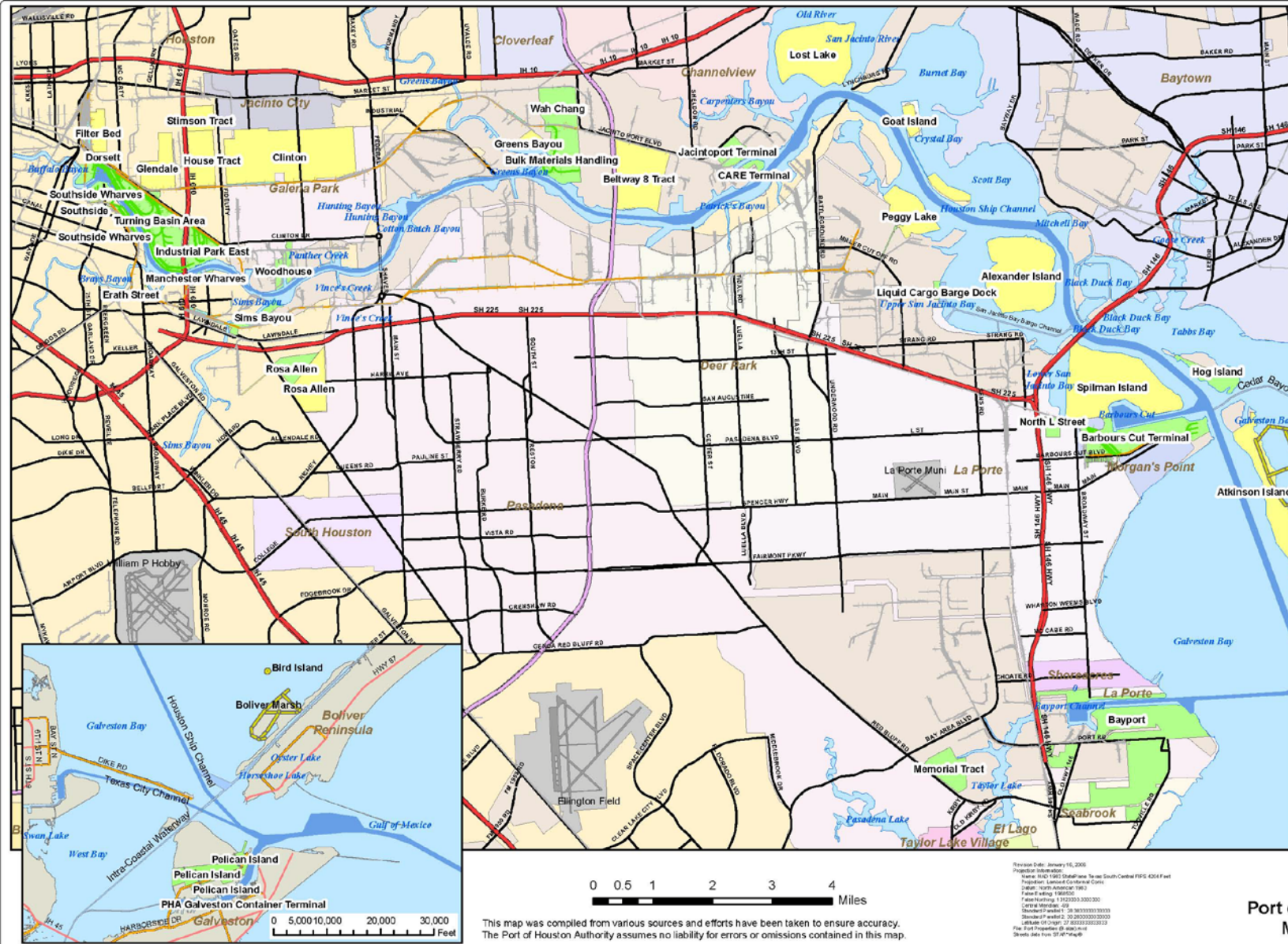
# Section 404

- Congress adopted section 404 in 1972 CWA as a separate permit program for dredging operations (Why?)
- Section 404:
  - Requires all dischargers
  - Of dredge and fill material
  - Into waters of the United States
  - To obtain a permit from the U.S. Army Corps of Engineers
- We've already discussed "waters of the United States" (*Riverside Bayview*, *SWANCC* and *Rapanos*)



## “Dredge and fill materials”

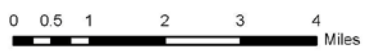
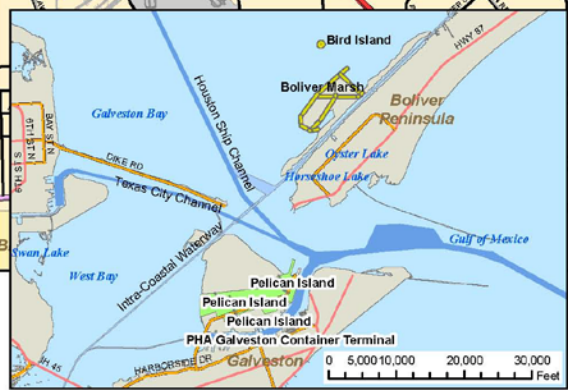
- “Dredge” – “material that is excavated or dredged from the waters of the United States” (33 C.F.R. sec. 323.2(c))
- “Fill material” – “material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a water body” (33 C.F.R. sec. 323.2(k))
- Question – how does the Section 404 program interact with other federal environmental statutes?
  - Hazardous dredge materials? (40 C.F.R. 261.4(g))
  - Discharge of “fill” or “pollutant”? *Coeur Alaska, Inc. v. Southeast Alaska Conservation Council*



- Legend**
- Port of Houston Authority Property
  - Credged Material Placement Areas
  - PHA Railroad ROW
  - PHA Galveston Container Terminal
  - Offshore Credged Material Levee
- Railroad**
- PHA
  - PTRA
  - Other
- Street Type**
- Shp Channel
  - Shallow Channels and Intra-Coastal
  - Freeway
  - Tollway
  - Major
  - Tunnel



Location Map



This map was compiled from various sources and efforts have been taken to ensure accuracy. The Port of Houston Authority assumes no liability for errors or omissions contained in this map.

Revision Date: January 16, 2006  
 Project: Information  
 Title: PHA 1985 Data/Map. To use South Central FIPS 4204 Feet  
 Projection: Lambert Conformal Conic  
 Datum: North American 1983  
 False Easting: 1565000  
 False Northing: 1702200 3000 3000  
 Contour Interval: 0.0  
 Scale: 1:62500  
 Standard Parallel 1: 29.262833333333  
 Standard Parallel 2: 29.262833333333  
 Central Meridian: 95.0  
 False Easting: 1565000  
 False Northing: 1702200 3000 3000  
 Units: Feet

Port of Houston Authority  
Map of Properties



Part of Salveston  
Part of Salveston Properties Company Under Lease under Option Agreement  
Part of Salveston Authority



## *Coeur Alaska, Inc. v. Southeast Alaska Conservation Council (2009)*

- Gold mine operation in southern Alaska
  - Planned to dispose of slurry in Lower Slate Lake
  - 4.5 million tons of tailings, raise lakebed by 50 feet
  - Dam the lake and isolate it from other surface waters
  - Water treatment system for ultimate discharges downstream
  - Total loss of fish and aquatic biotic community
- Slurry – “pollutant” or “fill”? Purpose of placement relevant?
- CWA Section 402(a) permit authority vs. Section 404
  - New source performance standard under CWA 306(e)?





## *Coeur Alaska* (cont'd)

- Regas Memorandum
  - Given *Chevron* deference?
  - Directly addresses Lower Slate Lake
  - Holding? (4-2-3)
- Justice Kennedy's conclusion – deference to regulatory interpretation set out in Regas memorandum
- Justice Breyer's concurrence – deference to classification of specific material at issue



## Wetlands permitting

- Section 404(e) – authorized “general permits”
- “Nationwide Permits”
  - 26 permits initially
  - Cover categories of activities, including road building, remediation work, and other routine activities
  - NWP 26 – filling in of “isolated” wetlands
    - Limited to 10 acres in 1984
    - 3 acres in 1996
    - .1 acre in March 2000
    - Expired in June 2000; subsumed into other NWPs
- NWPs reissued in 2012 – now 52 permits, incl. new renewable energy NWPs



# Wetlands Permitting Process

- Exemptions: farming, forestry, and ranching (Section 404(f)(1))
  - Conversion to use “not previously subject” (Section 404(f)(2))
  - Importance of agriculture: “Swampbuster” program, Wetlands Reserve Program
- EPA guidelines for Section 404 permit review:
  - No practicable alternative which would be less damaging
  - Not cause significant degradation of U.S. waters
  - Minimize potential adverse impacts on aquatic ecosystem
  - Not violate state water quality standards
- EPA has veto authority (section 404(c)), but rarely used
  - State role – section 401 certification authority



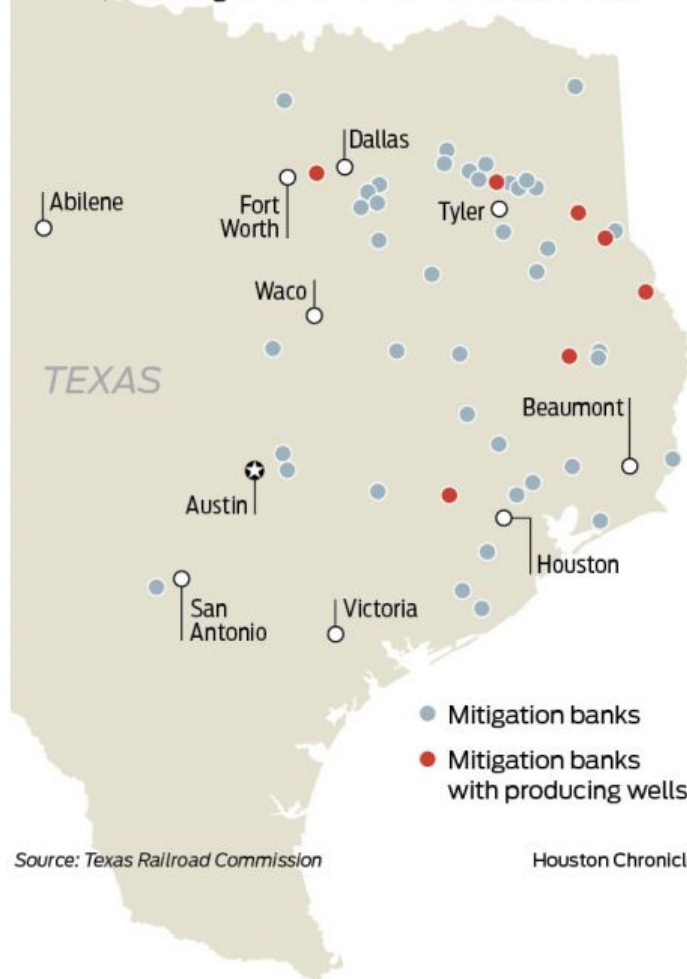
## Wetlands mitigation

- Hierarchy for mitigation of wetlands losses:
  - *Prevent*
  - *Minimize*
  - *Mitigate (or compensate)*
- Mitigation banking
  - EPA-Corps regulations issued in April 2008
  - Preferred options: banking, “in-lieu”, site mitigation by permittee
  - Watershed approach
  - Concerns
    - “Apples and oranges” – not all wetlands are the same
    - Fragmentation
    - Poor follow-through



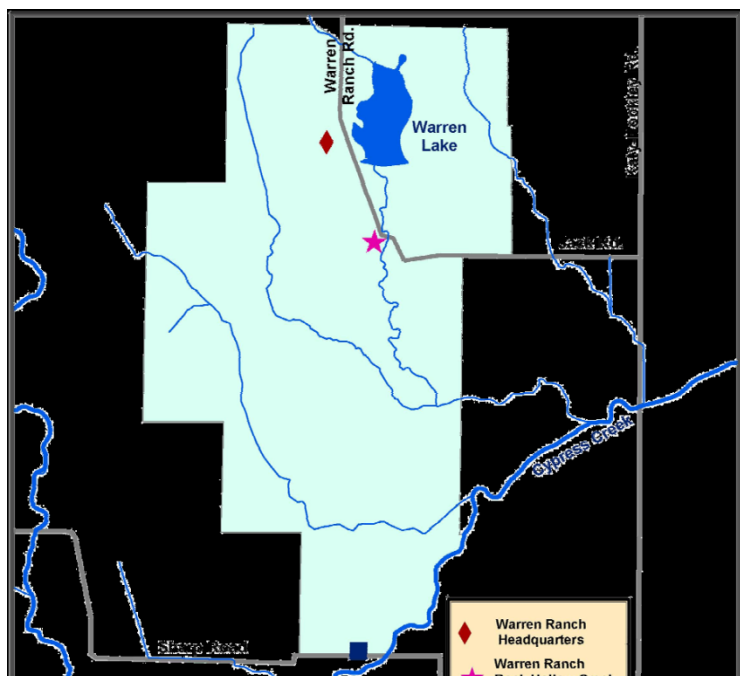
## Wetlands preserves with active well sites

There are 49 operating wetland and stream mitigation banks in Texas. Seven have producing gas or oil wells, according to Texas Railroad Commission data.



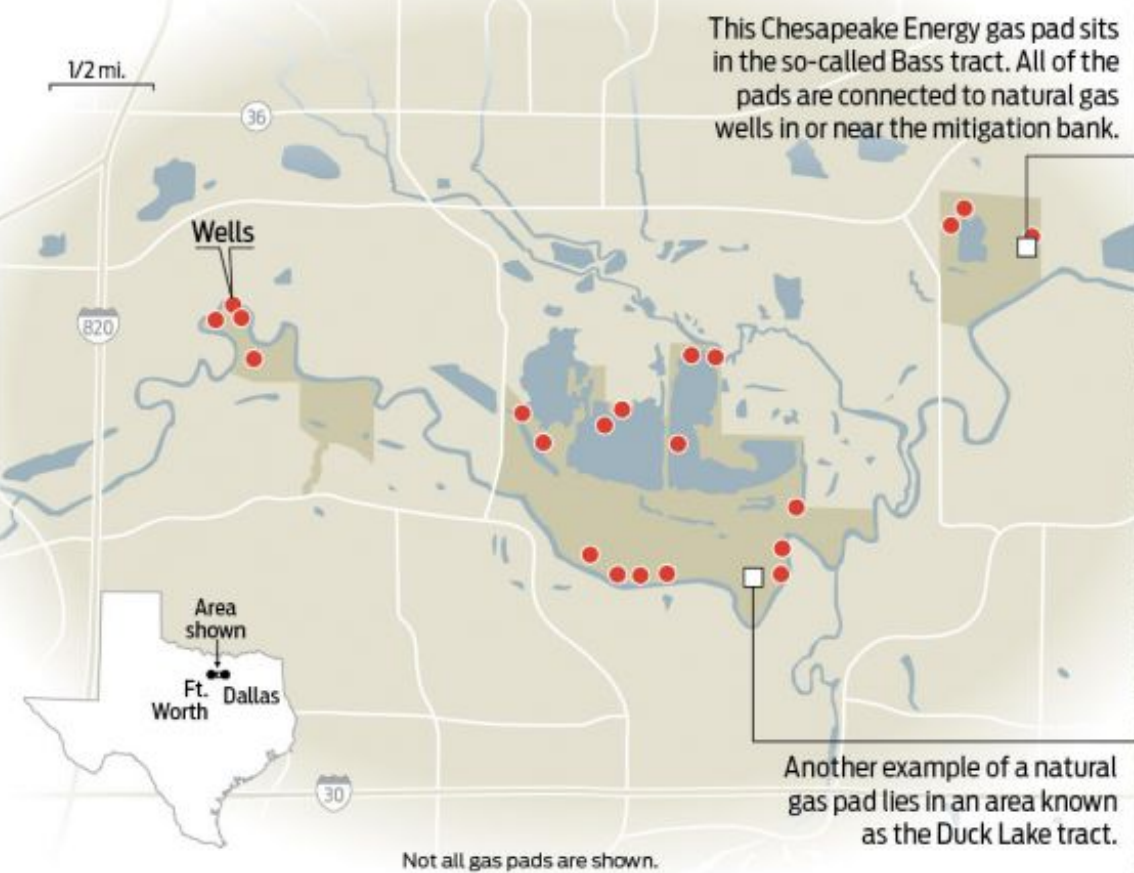
Source: Texas Railroad Commission

Houston Chronicle



# Natural gas wells in regent's wetlands preserve

Companies and public agencies that need a federal permit to destroy wetlands during construction can pay owners of so-called "mitigation banks" to create and restore wetlands. The U.S. Army Corps of Engineers authorizes and oversees these banks. One mitigation bank --in Tarrant and Dallas counties -- is run by Wallace Hall, a member of the UT System Board of Regents. It has 36 permitted wells; 17 are producing natural gas.



Not all gas pads are shown.



Sources: Railroad Commission of Texas, Army Corps of Engineers records

Photos: Gary Coronado / Houston Chronicle



**Questions?**

Professor Tracy Hester  
University of Houston Law Center

[tdheste2@central.uh.edu](mailto:tdheste2@central.uh.edu)  
713-743-1152 (office)