Regulatory Wetland Mitigation: An Overview

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Wetlands in Texas
Background: Rules and Enforcement
Clean Water Act

» Section 404 of the Clean Water Act (CWA)

» Avoidance is preferred

» Sometimes impacts to wetlands/streams is unavoidable
The ‘08 Rule

» Lost function must be replaced

» Framework for enforcing CWA Section 404

» Establishes a preference for the use of mitigation banks
U.S. Army Corps of Engineers

» Regulated by USACE

» Four USACE districts in Texas:
  – Fort Worth
  – Galveston
  – Tulsa
  – Albuquerque
USACE – Fort Worth District

» 179 (out of 254) Texas Counties

» Four of the five most populous counties in Texas
  » Dallas
  » Tarrant
  » Bexar
  » Travis
USACE – Galveston District

» 64 (out of 254) Texas Counties, including all of the coastal counties

» The most populous county in Texas
  » Harris
USACE – Albuquerque and Tulsa Districts
Background: Mitigation from 10,000 feet
Mitigation Methods

» Restoration
» Establishment
» Enhancement
» Preservation
Mitigation Options

» Mitigation Bank

» Permittee-Responsible Mitigation Site

» Other site, funded by an In-Lieu Fee
Mitigation Bank

» Large tract with streams and/or wetlands

» Permittees purchase credits

» Permitted projects eligible if occur in bank’s service area.
Mitigation Bank

» USACE’s preferred option for mitigation when approving impacts

» More “time-tested” and heavily monitored

» Wetlands more likely to succeed in a bank scenario
Other Mitigation Options

» In-Lieu Fee
  – Pay a fee to sponsor who creates or maintains compensatory mitigation sites

» Permittee-Responsible Mitigation Site
  – Restore, establish, enhance, or preserves aquatic resources on impact site or at another site in the same watershed
Quantifying and Qualifying WOUS

- Quantify: Wetland Delineation
- Qualify: Functional Assessment

Using GIS, wetland scientists can get a good idea of what is on site before heading out into the field.
Topographic Maps and Contour Lines
National Wetland Inventory Maps
Aerial Photographs
LiDAR (Light Detection and Ranging)
Texas has more than 14,000,000 mapped wetland acres.

By law, wetlands and streams impacted during development need to be mitigated.

The 2008 Compensatory Mitigation for Losses of Aquatic Resources Final Rule provides a framework for enforcing mitigation laws.

GIS and high-resolution imagery allow planners and consultants to make better siting choices and more efficiently pan for mitigation.