Market-based Strategies for Ensuring Freshwater Inflows in Texas

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Current reality for environmental flows in Texas

- Only **ten percent** of water rights consider environmental flows
- Senate Bill 3 flows allocation only addresses pre-SB3 water rights
- Currently only Nueces Bay is considered ecologically unsound, yet numerous reaches and sub-bays are affected by freshwater deficiency
- Upstream consumptive use and diversions are increasing
- Result is that instream flows, freshwater inflows will be less reliable
Significant science to build upon

- Nearly all basins and bays have adopted flow standards
- Standards:
  - are a composite of science and stakeholder committee recommendations
  - include subsistence, baseflow and pulse levels for instream flows and freshwater inflows
  - consider benthic, fish species and riparian seeding but not sediment transfer
Unprecedented funding opportunity

Deepwater Horizon Oil Spill Settlements

- Gulf Environmental Benefit Fund
  - Natural Resource Damage Assessment
    - RESTORE Act

Total: $950M

$204 M
$238 M
$508 M

Source: National Wildlife Federation
Tx E Flows Initiative’s goals are twofold

1. Capitalize on Deepwater Horizon Oil Spill funds to launch a water market that benefits bays and estuaries

2. Lay groundwork for ongoing funding for water transactions that protect the environment
Broad funding support

• Harte Charitable Foundation
• Houston Endowment
• LH Holdings, Inc.
• The Meadows Foundation
• The Cynthia & George Mitchell Foundation
• National Fish and Wildlife Foundation
• The Water Funder Initiative
Transaction 1: Freshwater Restoration in Chenier Plain

**Build coastal resilience**
- Use oil spill funding to sustain inflows
- Manage storm surge and erosion

**Adapt infrastructure**
- Cooperate with agriculture to sustain water supplies
- Invest in opportunities to secure e-flows and keep farmers on land

**Restore marshes**
- Increase freshwater flow in the National Wildlife Refuges
- Support restoration in priority Chenier Plain
Transaction 2: Ag/land combo deal

Create refugium
- Dedicate substantial portion of water right to sustain inflows
- Establish refuge for oysters in drought years
- Prevent water export

Transition farming
- Support continued dryland farming
- Find private investment to lower deal cost

Replicable deal
- Leverage private financing to upsize scale of potential deals
Transaction 3: Storage for bay flows

Create refugium
- Reserve storage for dry period inflows
- Accelerate drought recovery for marine species

Timed delivery
- Establish precedent for River Authority cooperation
- Tap into economic development funds for e flows

Replicable deal
- Evidence that infrastructure and e flows can be co-financed
- Risk of greenlighting water development must be managed
Challenges

- Lower basin water rights are highly consolidated
- Oil spill funding wants aquatics + avian benefits
- SB3 science focused on needs, to get funding we need science of benefits
- Need transactors that specialize in types of water and ecologies
Funding Diversification

• Need to look beyond the Gulf, beyond RESTORE

• RESTORE will bring $1 billion over 15 years

• Texas Water Development Board (TWDB) funds $1 billion every 2-3 years

• In 2019, TWDB will allow for permanent or long-term water rights acquisitions to be funded through Clean Water State Revolving Fund, a source of up to $550 million a year
Goals Ahead

• Recruit new transactors
• Provide core funding & technical support
• Test new funding tools
• Define near- and long-term goals for freshwater protection through transactions
• Advance policy adjustments, e.g. requirement to divert water to protect inflows
• Develop monitoring frameworks to ensure water delivery and ecological benefit