A STRATEGY for REALIZING the ECONOMIC VALUE of the ECOLOGICAL CAPITAL of the GREATER HOUSTON REGION
Human well-being
Material needs, health, security, social relations, “quality of life”

Ecosystem Services

Products

Regulating Services

Cultural experiences

Supporting
(Natural processes that maintain other ecosystem services)

Ecological Capital

Adapted from 2010 Ecological Footprint Atlas
2nd most diverse ecological capital in US, but .... what’s it worth?
Prairie Systems

croplands
hunting
flood protection
Columbia Bottomlands

- timber
- fuel
- oxygen
- bird watching
- climate stability
Post Oak Savannah

cattle grazing lands
wildflower viewing
pollination
Piney Woods

Big Thicket

- medicines
- hiking & camping
- water purification

Trinity Bottomlands
Marshes, Bays & Estuaries

- Oysters
- Kayaking
- Storm surge protection
Galveston Bay’s “mom & pop” seafood industry:
$77 million / year ecological capital
Galveston Bay’s small business-dominated tourism industry:

$4 billion / year ecological capital
Upper TX Coast ecological capital:

Potential #1 bird watching destination in US

48 million birdwatchers in USA
$36 billion in direct expenditures
$82 billion in total economic value
Generated 671,000 jobs

Generated $11 billion in federal, state and local tax revenues
Galveston Bay’s marshes and wetlands: $35 billion ecological capital ???
Timber generates $30 billion in economic impact for Texas
Trails are #1 amenity cited by potential homebuyers

National Association of Homebuilders survey
Nature based recreation

2007 Participation by Activity, All Americans Ages 6 and Older

- Softball
- Baseball
- Soccer
- Birdwatching
- Day Hiking
- Paddling

Lake Houston drinking water = 3X treatment costs
1342 wastewater treatment plants (Rhode Island has 19)
Big Thicket

2005

Harris County

Ecoregion Area: 662.2 square miles
Undeveloped Area: 497.4 square miles
% Undeveloped: 75.1%

Land Use Classification: Not Developed
Open Water
Counties within Study Area

2035

Harris County

Ecoregion Area: 662.2 square miles
Undeveloped Area: 313.3 square miles
% Undeveloped: 47.3%

Land Use Data adapted from HGAC material
see http://mapbook.h-gac.com/land_use_land_cover.htm
2010 population = ~ 3000 sq mi footprint
2050 population = 
~ 5700 sq mi footprint 
(41%)
2050 worst case scenario
We need to know:

1. Where is our most valuable ecological capital?
2. How much is our ecological capital worth?
3. Who benefits from its economic value?
4. What is our strategy for protecting that value?