

Wetland and Conservation Banking
9 SFI Annual Conference: Ecosystem
Dialogue

Environmental Banc & Exchange
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Nashville, Tennessee

viewpoint of practitioner that has developed, financed
over \$80 million in environmental credits

Entrepreneur that has participated in over 100 projects
for the restoration and enhancement of over 50 million
square feet of restored wetlands, and the protection
of critical species habitat, forest and buffer

President of National Mitigation Banking Association

Participant in Nutrient Trading Task Forces in Chesapeake Bay
including serving on the Advisory Committee of the

Ecosystem Market	Current Size (US\$ per annum)	Potential Size- 2010 (US\$ per annum)
Ecosystem Driven Ecosystem (including US Wetland Banking)	Over \$3 billion driven by US Clean Water Act, Section 404 and Federal Power Act. Unknown offset value under EIA regulations in developing countries.	\$4.5 billion
Ecosystem Driven Species (including US Banking)	\$370 million in the USA. Program just begun in Australia and possibly similar programs in France, Regulatory offsets apparently being required in Uganda, Holland Switzerland Columbia, South Africa, UK and Mexico.	>\$300 million
Resource Damage	\$87.7 million in US alone. EU issued directive that may require resource restoration.	\$100 million
Heritage Conservation and Biodiversity	\$3 billion – just flora and fauna oriented programs (not including water and soil	\$4 billion

market drivers by Clean Water Act goal of “no net loss” of wetland acres and functions announced in 1990. This goal applies to streams as well.

From 1989 to 1995, mitigation process was ad hoc. Guidance was issued in 1995, which promoted mitigation through private sector.

Three forms of mitigation: 1) permittee-responsible mitigation banks; 2) mitigation banks; 3) payment to in-lieu funds. Mechanisms are referred to as third-party mitigation. Responsibility and liability for completion is transferred to party other than permittee.

New regulations effective June 9, 2008, seeks to

ation banking involves – The restoration, enhancement
environmental asset; the conversion of resources into
l on a credit ratio; the sale of credits to offset im
rces within a service area

prospectus or concept plan with the Interagency Banking

n approval under Mitigation Banking Instrument (“MB
ears

is legal instrument that identifies the following:

- credit ratio
- credit release schedule
- service area
- financial assurances
- easement placement
- credits
- performance stand
- monitoring and ma
- force maejure
- endowment obligat

rmance Standards

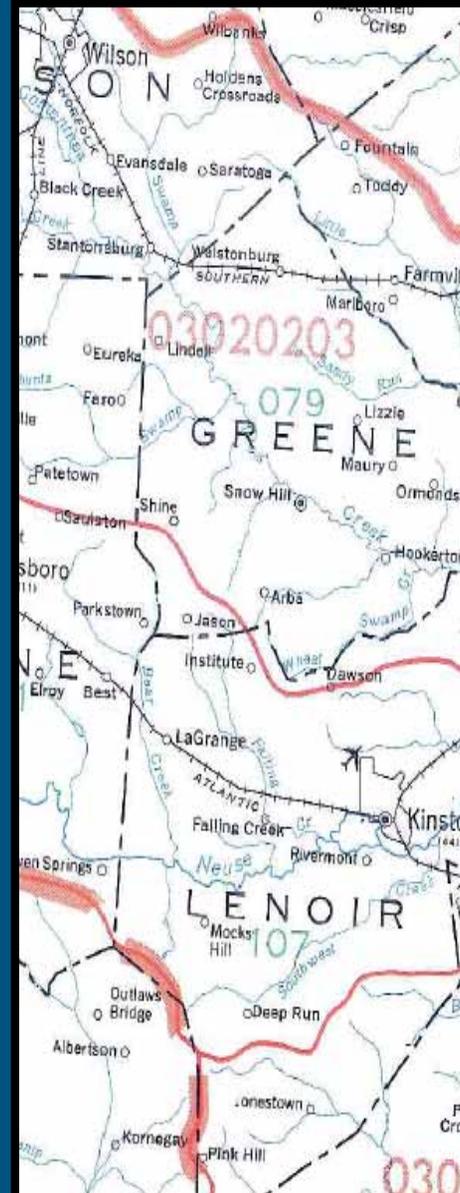
Wetlands – hydrologic and vegetative

it sequencing still take place –
l, minimize, mitigate

cts must be within service area of
as outlined in MBI – very limited

y Corps makes case-by-case
mination to determine if credits
otable: in-kind, on-site

its must be released and available
stent with credit schedule



Example - Wetland and Stream Mitigation

Carolina

Acres of restoration of bottomland hardwood forest and 11,800 linear feet of restoration of meandering coastal stream.

Stream structures were used to control bed grade, promote riffles and reduce stress on stream

Approximately 1200 shrubs were planted to the stream bank and 100 new hardwood and shrub stems were planted.



ELEMENTS

Policy goals and strict
enforcement

Transition to uniform mitigation
standards

Streamlined certification process of
mitigation process

Mitigation easily understandable
factors (Compensation ratio
times impact)

Understandable metrics



Endangered Species Act, Conservation Banking Guidelines
(Department of the Interior) (Based on California)

“no net loss” requirement. Primarily present
significant management requirements.

- ESA - Section 7 – federal agencies - “jeopardy”
- ESA - Section 10 – private parties - “incidental take”

The primary forms of mitigation: conservation
that conservation plans; and ad hoc mitigation
conservation Plans may be project specific or regional

Process: Conservation Bank Enabling Agreement with
Resource Management Plan (Interim and Final)
Management and Endowment of Management Plan

arily in California and West where there are
interpart laws and broad drivers

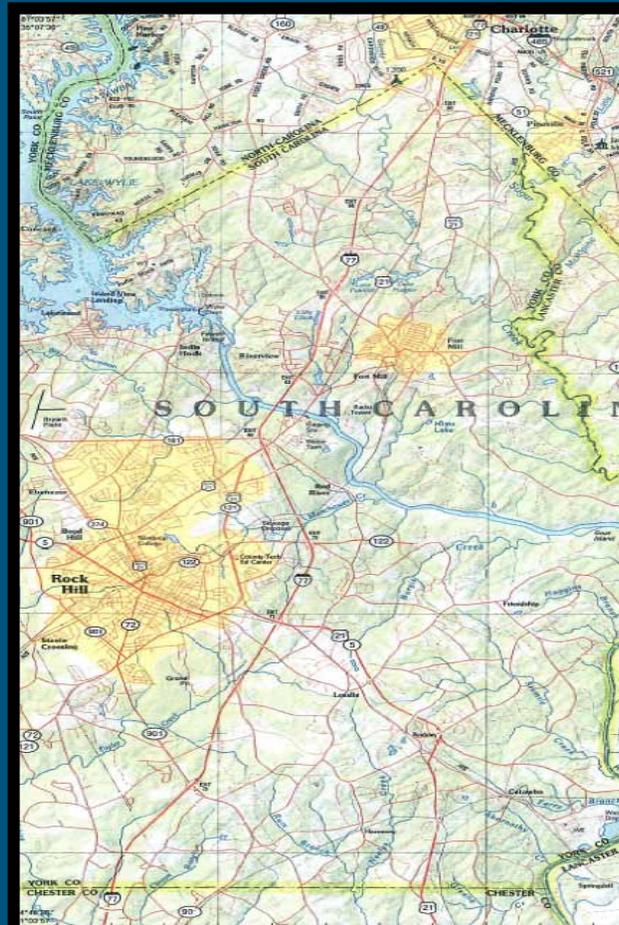
igation concept for endangered species less
ands within statutory and regulatory framework
' concept is not as pronounced

ability in enforcement leads to uncertainty in ma

itat Conservation Plans can create a fra
orting banking or may undercut banking by pro
fees

homogenous mitigation metrics due to multiple

es
es Conservation Strategy
Location & Description
Structure
ce Area
t Release Schedule
Resource Management Plan
t Purchase Process and
ers



Water transparency – Regional Internet Bank Inform
em and Speciesbanking.com are helping identify histor
markets. Information may be imperfect, due to limited c

ply in market is not static and is hard to discern; a
ed, it will eliminate certain less sophisticated suppliers.

gation standards may be variable and regional (ev
latory standard in wetlands; species is less clear).

ne-based and localized market. Pricing not readily
lized.

ability in enforcement, which is the heart of the reg

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