Wetland and Conservation Banking in the US: Lessons Learned and Possible Application to Carbon Offsets

ABA Section of International Law: Can Carbon Offsets Save the Rain Forest (and other Ecosystems)?

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**PERSPECTIVE**

- Viewpoint of practitioner that has developed, financed and sold over $80 million in environmental credits

- Entrepreneur that has participated in over 100 projects resulting in the restoration and enhancement of over 50 miles of stream, 6,000 acres of restored wetlands, and the protection of 7,300 acres 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 Water Quality Fund for the Chesapeake Bay and Member of the Maryland Climate Change Commission (Mitigation Work Group)

- Advisory Group to Business for Biodiversity Offsets Program (BBOP) (international)
POSSIBLE APPLICATION TO CARBON OFFSETS

- Application of concepts to Restoration (afforestation and reforestation); Preservation (REDD); and Management Practices (Improved Forest Management, no-till)

- Is there an opportunity to translate certain practices/procedures from wetland and conservation banks to carbon offsets?

- Is there an opportunity to forward sell with adequate protections?

- How can offsets correlate with reasonable investment periods?
## SELECTED MARKET SNAPSHOT OF WETLAND AND CONSERVATION MARKETS

<table>
<thead>
<tr>
<th>Ecosystem Market</th>
<th>Current Size (US$ per annum)</th>
<th>Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulatory Driven Ecosystem Offsets (including US Wetland Mitigation Banking)</td>
<td>Between $1.3 – 2.2 billion/year driven by US Clean Water Act, Section 404 and Federal Power Act. EIA regulations are developing in a variety of countries.</td>
<td>589 wetland and stream banks (182 banks pending)</td>
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<tr>
<td>Regulatory Driven Species Offsets (including US Conservation Banking)</td>
<td>$200 million in the USA. Programs 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.</td>
<td>96 conservation banks (20 additional banks pending)</td>
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</tbody>
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Source: Madsen, Becca; Carroll, National; Moore Brands, Kelly, 2010 - “State of Biodiversity Markets Report: Offset and Compensation Programs World Wide.”
Market drivers by Clean Water Act goal of “no overall net loss” of wetland acres and functions announced in 1989. Applies to streams as well.

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

Three forms of mitigation: 1) permittee-responsible mitigation; 2) mitigation banks; 3) payment to in-lieu funds. Last two mechanisms are referred to as third-party mitigation, since responsibility and liability for completion is transferred to a party other than permittee.

New regulations effective June 9, 2008, seeks to promote one standard for mitigation. “Preference” for mitigation banking.
Mitigation banking involves – The restoration, enhancement or preservation of an environmental asset; the conversion of resources into marketable credits based on a credit ratio; the sale of credits to offset impacts to similar resources within a service area.

File prospectus or concept plan with the Interagency Banking Team (“IRT”)

Obtain approval under Mitigation Banking Instrument (“MBI”) process takes 1-3 years.

MBI is a legal instrument that identifies the following:
- credit ratio
- credit release schedule
- service area
- financial assurances
- easement placement
- credits
- performance standards
- monitoring and maintenance
- force maejure
- endowment obligations

Performance Standards
- Wetlands – hydrologic and vegetative
- Streams – Structural integrity, overbank flooding, vegetative buffer

Conservation Easement and bonding must be in place before credits may be sold.

Hunting, recreation and selective timber harvest might be continued.
• Execute MBI, IRT Approval of Plan, Delivery of Financial Assurances, Recordation of CE and delivery of Title Opinion: 15%

• Site Construction, submission of as-builts: 15%

• 1st yr monitoring: 5%
• 2nd yr monitoring: 10%
• 3rd yr monitoring: 10%
• 4th yr monitoring: 10%
• 5th yr monitoring: 10%
• 6th yr monitoring: 10%
• 7th yr monitoring: 15%
Endangered Species Act and state counterparts

California Guidance: 1995

Federal Guidance: Department of the Interior 2003

Federal Recovery Credit Guidance: July 31, 2008 (applies to federal agencies)

96 Conservation Banks (20 additional pending)

82 banks are in California; 1 in Washington; 1 in Oregon; 1 in Utah; 1 in Colorado; 1 in West Virginia; 1 in South Carolina; 3 in Florida; 2 in Arizona and 3 in Texas, (covering 82 threatened or endangered species)

94% are preservation; 91% based on acres of habitat; 65% have greater credit ratios of 1:1; 44% adjacent to existing protected habitat; 66% allow for multiple uses (hiking, hunting, fishing, cattle grazing)

Bank owners include: Timber companies, NGO’s; family ranches and municipalities

* Source: "The Experience of Species Conservation Banking in the United States", Jessica Fox, April 2005
CONSERVATION BANKING MARKET

- Primarily in California and West where there are strong state counterpart laws.
- Three primary forms of mitigation: Conservation Banking; Habitat Conservation Plans; and Ad Hoc Mitigation. Habitat Conservation Plans may be project specific or regional.
- Process: Conservation Bank Enabling Agreement which includes Resource Management Plan (Interim and Long-Term); Financial Assurances; Easement; and Endowment of Management Plan (non-wasting endowment).
- Mitigation metric: habitat or sustainable population of species. Depends on recovery objectives of the species.
- Less homogenous currency due to multiple species with different recovery needs (i.e., Fairy Shrimp, Red Cockaded Woodpecker, Golden Cheek Warbler, Salmon, Burrowing Owls, Swainson Hawk, Kit Fox, Heelsplitter Mussel, Cheat Salamander, Gopher Tortoise, Scrub Jay, Indiana Bat).
- Ecosystem marketplace – www.Species.com (template outlining credits, credit location and availability) (due out this Fall).
• Important to promote afforestation / reforestation in addition to preservation of forests for carbon offsets. Concept of forward crediting with adequate protection is an approach that should be considered for carbon offsets.

• Use 5 to 10 years for crediting and monitoring of restoration projects. This monitoring period can be a proxy for the overall project “trajectory for success.”

• Financial assurances and staggered release of credits provide additional safeguards.

• Insurance also possible through reservation of total offsets or through paying into reforestation fund.

• Possible use of non-wasting endowments, such as in conservation banking, is also another vehicle.

• There is a need to understand investors needs and a reasonable investment cycles.

• For preservation, much can be learned about easements and appropriate language. This includes reservation in legal documents of other ecosystem services that may be sold in other markets.
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