



*FINAL PROGRAM*

*8th National  
Mitigation & Conservation  
Banking Conference*

**ENVIRONMENTAL  
BANKING & BEYOND**

*offering perspectives from bankers and regulators through interactive sessions ranging from hands-on how-to panels to presentations on emerging market opportunities, technical and scientific issues, and legislative updates.*

*April 18–21, 2005  
The Westin Charlotte  
Charlotte, North Carolina*

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## COSPONSORS

National Association of Conservation Districts  
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## SCHOLARSHIP FUND

*A special thanks to our sponsors of the scholarships that helped those who would not have otherwise been able to attend the 8th National Mitigation & Conservation Banking Conference.*

## SCHEDULE

### Registration/Information Desk

#### Grand Ballroom Promenade, 2nd Floor

Monday, April 18	Noon – 5:30 p.m.
Tuesday, April 19	7 a.m. – 6:30 p.m.
Wednesday, April 20	7 a.m. – 6:30 p.m.
Thursday, April 21	7:30 a.m. – 2 p.m.

### Exhibit & Poster Viewing Hours

#### Grand Ballroom & Promenade, 2nd Floor

Tuesday, April 19	5:30–7 p.m. (Evening Reception)
Wednesday, April 20	Breakfast, Breaks, Evening Reception
Thursday, April 21	Breakfast & Breaks

### Sessions (see Agenda for location of sessions)

Monday, April 18	Primer 101 Workshop (optional)	1–5:30 p.m.
Tuesday, April 19	Field Trips (optional)	8 a.m. – 2 p.m.
Wednesday, April 20	Conference Sessions	8 a.m. – 5:30 p.m.
Thursday, April 21	Conference Sessions	8:30 a.m. – 2 p.m.

## HOTEL

### The Westin Charlotte

601 South College Street, Charlotte, NC 28202

Tel (704) 375-2600 ■ Fax (704) 375-2623

To contact a conference attendee during conference hours, ask for the Mitigation Banking Conference registration desk.

- Walk to – or take the new Trolley line just off the 2nd floor level of The Westin to the city's hottest dining and entertainment district.
- Or walk across the street to “The Green” – a recently completed park that includes an array of restaurants.
- Enjoy a swim in the indoor heated pool, relax in the sauna, or use the 24-hour fitness facility – you can even indulge yourself with a massage treatment.
- Parking: self-parking is \$10 per day/overnight.
- Hi Speed Internet at \$10.95 Per Day in guest rooms.
- Airport Transportation: Taxi currently runs about \$16 for one-way. Airport shuttle currently offered at \$9 one-way; \$16 roundtrip.

A JT&A, inc. Conference  
8th National Mitigation &  
Conservation Banking Conference

# EXHIBITS

**Exhibits will be displayed in the Grand Ballroom and Promenade.**  
Company representatives will be available throughout the conference. Official exhibit viewing times are Tuesday, 5:30 to 7 p.m. during the reception; Wednesday and Thursday during breakfast and breaks, and during the Wednesday evening reception.

## **Buck Engineering, PC**

**Booth 21**

Buck Engineering is an environmental engineering firm with a nationally recognized stream and wetland restoration program. We offer a full range of environmental planning, assessment, design and restoration services.

Contact: Andrea Spangler, Environmental Scientist, Buck Engineering, PC, 1347 Harding Place, Suite 100, Charlotte, NC 28204. Phone: (704) 334-4454; Fax: (704) 334-4492; [aspangler@buckengineering.com](mailto:aspangler@buckengineering.com); [www.buckengineering.com](http://www.buckengineering.com).

## **Compass Environmental, Inc.**

**Booth 23**

Compass Environmental, Inc. is a general contractor providing wetlands mitigation and stream restoration services nationwide. Specialties include both hazardous contamination and functionally degraded wetlands. Major projects include Napa River Flood Control Project in California and Woodrow Wilson Bridge Mitigation Project in Washington, D.C.

Contact: Steve McCann, Vice President, Government Services, Compass Environmental, Inc., 954 West Washington Boulevard, 5th Floor, Chicago, IL 60607. Phone: (312) 515-3456; Fax: (312) 432-3929; [smccann@compassenvironmental.com](mailto:smccann@compassenvironmental.com); [www.compassenvironmental.com](http://www.compassenvironmental.com).

## **EarthMark Companies: Mitigation Services Division**

**Booth 12**

EarthMark Companies: MSD is an environmental development company that is the sponsor and operator of Big Cypress Mitigation Bank and Treasure Coast Mitigation Bank located in South Florida. EarthMark is also the parent company of Mid-Atlantic Mitigation LLC, located in North Carolina that has restoration and mitigation projects throughout the Eastern Seaboard.

Contact: Matt Fisher, Director of Sales & Marketing, EarthMark Companies, 12800 University Drive, Suite 400, Fort Myers, FL 33907. Phone: (239) 415-6200; Fax: (239) 415-6243; [mattfisher@earthmark.us](mailto:mattfisher@earthmark.us); [www.earthmark.us](http://www.earthmark.us).

## **EcoDepot, LLC**

**Booth 26**

EcoDepot is a renewable resource-based company that offers innovative products to the ecological restoration industry. Our patented E-Z Logs,™ TreeMat™ and BioBark™ products are used both internationally and in the Mid-Atlantic region.

Contact: Gerry Hammel, Division Manager, EcoDepot, LLC, 20203 Goshen Road, Suite 393, Gaithersburg, MD 20879. Phone: (301) 252-5537; Fax: (866) 306-1905; [gghammel@ecodepot.biz](mailto:gghammel@ecodepot.biz); [www.ecodepot.biz](http://www.ecodepot.biz).

## **Eco Fabriks: Coir Logs and Coir Matting**

**Booth 25**

Coir logs and fabrics are a 100% biodegradable organic fibre extracted from coconut husks. Their strength and durability protect slopes from erosion and stabilize streambanks. We are a four-generation-old company manufacturing these products in our own facilities in India.

Contact: Stanley Job, General Manager, Eco Fabriks, P.O. Box 8402, Gaithersburg, MD 20898. Phone: (301) 916-6230; [info@ecofabriks.com](mailto:info@ecofabriks.com); [www.ecofabriks.com](http://www.ecofabriks.com).

**Environmental Services, Inc.****Booth 14**

Environmental Services, Inc. is a full-service environmental consulting firm established in 1986. Using the latest technology and technical information, along with years of “on the ground” experience, we serve clients from project conception through completion.

*Contact:* Lee Petitgout, Business Development Coordinator, Environmental Services, Inc., 9600 Southern Pine Boulevard, Suite G, Charlotte, NC 28273. Phone: (704) 523-7225; Fax: (704) 523-7226; lpetitgout@esinc.cc; www.esinc.cc.

**Ernst Conservation Seeds****Booth 29**

Ernst Conservation Seeds grows and supplies wildflower, grass seeds, and plant material, offering over 300 native and naturalized species; also supplies bioengineering materials.

*Contact:* Andy Ernst, Ernst Conservation Seeds, 9006 Mercer Pike, Meadville, PA 16335. Phone: (814) 336-2404; Fax: (814) 336-5191; stacyj@ernstseed.com; www.ernstseed.com.

**Forrest Keeling Nursery****Booth 10**

Our firm has developed a new tree-growing technology called Root Production Method (RPM) to increase tree transplantability, survival (85%) and growth. Trees typically reach 4 to 6 feet tall in the first season with earlier mast production and increased carbon sequestration tonnage.

*Contact:* Jim Nicoloff, Sales Representative, Forrest Keeling Nursery, PO Box 135, Elsberry, MO 63343. Phone: (800) 356-2401; Fax: (573) 898-5803; info@fknursery.com; www.fknursery.com.

**Fuller, Mossbarger, Scott and May Engineers, Inc.****Booth 28**

A full service water resources firm specializing in stream and wetland restoration, our firm developed RIVERMorph® software to facilitate the processing of geomorphic data and assist with the assessment, monitoring and design of streams using natural channel design techniques.

*Contact:* George Athanasakes, Associate, FMSM Engineers, 1901 Nelson Miller Parkway, Louisville, KY 40223. Phone: (502) 212-5000; Fax: (502) 212-5055; gathanasakes@fmsm.com; www.fmsm.com.

**International Paper South Carolina SuperTree Nursery****Booth 6**

SuperTree Seedling nurseries produce over 60 species of hardwood and pine seedlings for use in wetland creation, restoration, and preservation plantings. Our quality seedlings, excellent service, and delivery options increase planting success rates. Contract growing available.

*Contact:* Mike Arnette, International Paper, 5594 Hwy 38 South, Blenheim, SC 29516. Phone: (800) 222-1290; Fax: (843) 528-3943; mike.arnette@ipaper.com; www.supertreeseedlings.com.

**Loafer Creek, LLC****Booths 8 and 9**

Loafer Creek, LLC puts environmental conservation, water procurement and protection in place at the commencement of the development process. This business philosophy has resulted in Loafer Creek obtaining certification of a 2,400 acre conservation mitigation bank in Butte County. The Loafer Creek mitigation bank model is committed to the principles of sustainability, transparency and accountability, and relies heavily on cutting-edge and innovative technologies. Loafer Creek is positioned to proceed with a plan of smart growth for its more than 25,000 acres of real property situated in the Northern Sacramento Valley.

*Contact:* Angi Orlandella, Technology & Land Coordinator, Loafer Creek, LLC, 8014 Highway 99, Oroville, CA 95966. Phone: (530) 566-1188; Fax: (530) 566-1881; aorlandella@loafercreek.com; www.loafercreek.com.

**Mulkey Engineers & Consultants****Booth 1**

Mulkey is a full-service site/civil engineering and consulting firm with an integrated, multi-disciplinary natural resources team that has successfully implemented many stream restoration and wetland projects using both natural channel design and bio-engineering.

*Contact:* G. Lane Sauls, Senior Program Manager–Mitigation Services, Mulkey Engineers & Consultants, 6750 Tryon Road, Cary, NC 27511. Phone: (919) 851-1912; Fax: (919) 851-1918; lsauls@mulkeyinc.com; www.mulkeyinc.com.

**National Mitigation Banking Association****Booth 5**

The National Mitigation Banking Association brings together leaders committed to a unique concept for restoring and conserving America's natural resources – a concept that unites sound economic programs available exclusively to its members.

*Contact:* Sheri Ford Lewin, Director of Communications and Public Relations, NMBA, 12800 University Drive, Suite 400, Fort Myers, FL 33907. Phone: (888) 272-NMBA; sheri@mitigationmarketing.com; www.mitigationbanking.org.

**North State Aviation, LLC****Booth 27**

An established helicopter service to the stream restoration industry, North State has provided helicopter service for base stream surveys, extensive aerial photography flights for before, during and after restoration projects, and a mitigation banking stream research survey. North State is extremely cost-effective because of its ability for close-up study of difficult to reach areas, quick transition from location to location, and team participation with an experienced, military-trained pilot.

*Contact:* Roger Eckenrod, Manager/Pilot, North State Aviation, LLC, PO Box 8346, Greensboro, NC. Phone: (336) 601-1090; Fax: (336) 329-9117; roger@northstateaviation.com; www.northstateaviation.com.

**North State Environmental, Inc.****Booth 22**

Founded in 1994, North State Environmental, Inc. is a WBE-owned company, dedicated to repairing and restoring North Carolina's urban and rural streams. We are rated among the best environmental contractors in the state. We believe high standards and ongoing training fuel our success.

*Contact:* Stephen Joyce, Landscaping Consultant, North State Environmental, Inc., 2889 Lowery Street, Winston-Salem, NC 27101. Phone: (336) 725-2010; Fax: (336) 725-2405; info@nsenv.com; www.nsenv.com.

**PBS&J – Engineering and Environmental Consulting****Booth 17**

With more than 3,700 employees nationwide, PBS&J is a multi-discipline engineering and environmental consulting firm whose expertise ranges from highway design to NEPA compliance and includes the planning, permitting and development of wetland mitigation areas and banks.

*Contact:* Dennis A. McAfee Jr., Program Manager, PBS&J, 5620 Old Bullard Road, Suite 130, Tyler, TX 75703. Phone: (903) 509-1552; Fax: (903) 509-1599; dmcafee@pbsj.com; www.pbsj.com.

**Pinelands Nursery & Supply VA–NJ–NY****Booth 16**

Wholesale grower specializing in containerized native trees, shrubs and herbaceous species. Supply erosion control products for all restoration and remediation needs.

*Contact:* Don Knezick, President, Pinelands Nursery & Supply, 323 Island Road, Columbus, NJ 08022. Phone: (609) 291-9486; Fax: (609) 298-8939; don@pinelandsnursery.com; www.pinelandsnursery.com.

**Remote Data Systems, Inc.****Booth 13**

Manufacturer of wetland hydrology monitoring instruments and environmental monitoring equipment.

*Contact:* Robert George, Sales Manager, Remote Data Systems Inc., 163 Brunswick Electric Road, Whiteville, NC 28472. Phone: (910) 640-3349; Fax: (910) 640-3828; robertg@rdsys.com; www.rdsys.com.

**Restoration Systems, LLC****Booth 7**

Using the most experienced restoration scientists and ecosystem engineers, Restoration Systems restores and permanently protects historically degraded ecosystems and water resources – acre by acre, landowner by landowner, planted tree by planted tree. Each project provides the maximum sustainable ecological "lift" to a watershed and ecosystem.

*Contact:* George Howard, Vice President, Restoration Systems, LLC, 1101 Haynes Street, Suite 107, Raleigh, NC 27604. Phone: (919) 755-9490; Fax: (919) 755-9492; george@restorationsystems.com; www.restorationsystems.com.

**Robert J. Goldstein & Associates, Inc.****Booth 20**

Since 1885, Robert J. Goldstein & Associates, Inc. has prepared hundreds of EA, EIS, and other environmental documents for North Carolina municipal and county governments and consulting engineers, developed and negotiated mitigation plans, and prepared biological assessments and other reports for federal and state agencies.

*Contact:* H. Ward Marotti, Restoration Specialist, Robert J. Goldstein & Associates, Inc., 8480 Garvey Drive, Raleigh, NC 27616. Phone: (919) 872-1174; Fax: (919) 872-9214; wmarotti@rjgacarolina.com; www.rjgacarolina.com.

**Stantec Stream Restoration Services****Booth 2**

Stantec Consulting Inc. offers a full array of services related to stream and wetland restoration, including: site identification, feasibility studies, restoration plans, design, permitting, construction oversight and post-construction monitoring. Our clients include mitigation bankers, developers, state and local governments, and military installations.

*Contact:* Tim Baumgartner, Scientist, Environmental Management, Stantec Consulting Inc., 801 Jones Franklin Road, Suite 300, Raleigh, NC 27606. Phone: (919) 851-6866; Fax: (919) 851-7024; tbaumgartner@stantec.com; www.stantec.com.

**Tidewater Environmental Services Inc.****Booth 18**

Tidewater Environmental Services Inc. is a natural resources consulting firm specializing in providing innovative solutions to complex environmental issues. Our services include wetland delineation and permitting; wetland enhancement, preservation and restoration; stream classification and restoration; and mitigation banking.

*Contact:* Ross Nelson, President, Tidewater Environmental Services Inc., PO Box 865, Johns Island, SC 29457. Phone: (843) 762-3750; Fax: (843) 762-3795; ross@tidewaterenvironmental.com; www.tidewaterenvironmental.com.

**U.S. Army Corps of Engineers****Booth 15**

See a demonstration of RIBITS, the Regional Internet Bank Information Tracking System developed by the Corps' ERDC's Environmental Laboratory to manage Districts' mitigation banks, support the MBRTs, and serve as technology transfer for mitigation bank developers and customers. RIBITS is now on the Mobile server and will soon be available in Norfolk and Sacramento.

*Contact:* Kelly Burks-Copes, Ecologist, Engineering Research and Development Center, Environmental Laboratory, U.S. Army Corps of Engineers, 3909 Halls Ferry Road, Vicksburg, MS 39813. Phone: (601) 634-2290; Fax: (601) 634-3867; kelly.a.burks-copes@erdc.usace.army.mil; https://216.83.232.125/ribits/tracker/ (contact Kelly Burks-Copes for log-on assistance).

**U.S. Environmental Protection Agency****Booth 11**

Through effective implementation of the Clean Water Act, EPA's Wetlands Program works to protect and restore the nation's aquatic resources in partnership with other federal agencies and state, tribal and local governments. EPA also promotes voluntary, local wetland protection efforts to improve the quality of the nation's aquatic resources.

*Contact:* Brian Topping, NNEMS Fellow, U.S. Environmental Protection Agency, Wetlands Division (4502T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Phone: (202) 566-1388; Wetlands Hotline: (800) 832-7828; Fax: (202) 566-1375; topping.brian@epa.gov; www.epa.gov.

**Wetlandsbank™****Booth 3**

Wetlandsbank™ is one of the nation's most respected and successful mitigation bankers, its Pembroke Pines bank having been awarded the Corps' first credit transfers. The firm's affiliate, Mitigation Credit Sales, Inc. sells credits for mitigation banks, and Wetlandsbank seeks partnerships with public or private entities to design, permit, develop, market and operate mitigation banks.

*Contact:* Desmond Duke, Vice President of Business Development, 3215 N.W. 10th Terrace, Suite 209, Fort Lauderdale, FL 33309. Phone: (888) 301-1707; Fax: (954) 462-4131; dduke@wetlandsbank.com; www.wetlandsbank.com.

**Wildlands, Inc.****Booth 4**

Wildlands, Inc. is a habitat development company founded in 1991. We have performed restoration, preservation, and ongoing stewardship of over 20,000 acres of mitigation banks and open space throughout California and in the state of Washington, providing habitat for species ranging from salmon and fairy shrimp to the San Joaquin kit fox.

*Contact:* Kim Batchelder, Marketing Associate, Wildlands, Inc., 3855 Atherton Road, Rocklin, CA 95765. Phone: (916) 435-3555; Fax: (916) 435-3578; kimb@wildlandsinc.com; www.wildlandsinc.com.

**WK Dickson & Co. Inc.****Booth 24**

WK Dickson is a multi-disciplined consulting firm specializing in community infrastructure solutions, including: Transportation Planning & Design, Environmental & Water Resources Engineering, Community Planning & Development, and Geospatial Technology. Headquartered in Charlotte, the firm operates seven offices in North Carolina, South Carolina and Georgia.

*Contact:* Kraig C. Kern, Director of Marketing, WK Dickson & Co., Inc., 616 Colonnade Drive, Charlotte, NC 28205. Phone: (704) 334-5348; Fax: (704) 334-0078; kckern@wkdickson.com; www.wkdickson.com.

**STEERING COMMITTEE**

Les Alderman, EarthMark Companies  
 Ken Bailey, Tetra Tech, FW  
 Fred Bank, Federal Highway Administration  
 Robert Brumbaugh, U.S. Army Corps of Engineers  
 Jason Coccia, The Conservation Fund  
 Craig Denisoff, Wildlands, Inc.  
 Paul Garrett, Federal Highway Administration  
 Chris Hamilton, Natural Resources Conservation Service, USDA  
 H. William Hochheiser, U.S. Department of Energy  
 Palmer Hough, U.S. Environmental Protection Agency  
 George Howard, Restoration Systems, LLC  
 Robert Kessler, CH2M Hill  
 Dan Kohrtdt, Loafer Creek, LLC  
 Daniel Merz, Marsh Resources, Inc.  
 Richard K. Mogensen, EarthMark Companies  
 Steve Morgan, Wildlands, Inc.  
 Michael Ohm, Loafer Creek  
 George Platt, Wetlandsbank, Inc.  
 Michael Rosen, EarthMark Companies  
 Larry Selzer, The Conservation Fund  
 Robert Sokolove, Environmental Restoration, LLC  
 Susan-Marie Stedman, NOAA National Fisheries Marine Service  
 Mark Sudol, U.S. Army Corps of Engineers  
 Judy Taggart, JT&A, inc.  
 Benjamin Tuggle, U.S. Fish and Wildlife Service

# POSTERS

**Posters will be displayed in the Exhibit area in the Grand Ballroom, and will follow the same viewing times as the exhibits.**

## **Conservation Banking as a Tool for Ecological Restoration**

**Poster 1**

The poster will present ecosystem restoration alternatives, including planning strategies for engaging regulators and other interested parties and methods to transition ecological assets to a market system. We will highlight current trends in ecosystem restoration and conservation planning across the country including techniques used in regulatory arenas such as conservation banking, Habitat Conservation Plans (HCPs), settlement trust funds and watershed planning, as well as explore the use of these approaches as mitigation alternatives. Additional consideration will be given to the application of restoration activities to achieve multi-species and ecosystem function conservation. Specific techniques for linking biological losses to units of restoration will be presented, citing recent case studies demonstrating how restoration strategies can be designed and strategically implemented to maximize ecological benefits. Specific topics addressed will include: application under the new section 316b rule of the Clean Water Act, urban watersheds, dam removals, and large scale riverine system ecological restorations under CERCLA.

*Contact:* Bruce DiGennaro, Senior Environmental Planner, Kleinschmidt Associates, 35 Pratt St. Essex, CT, 06426. Phone: (860) 767-5069; Fax: (860) 767-5097; Bruce.DiGennaro@KleinschmidtUSA.com; www.kleinschmidtusa.com.

## **Conservation Banking at the Landscape-Scale: Use of Multiple Biodiversity Service Flows to Reduce Scientific Uncertainty**

**Poster 2**

*Authors:* Doug Bruggeman, Michael Jones, Frank Lupi and Kim Scribner. Department of Fisheries & Wildlife, Michigan State University, East Lansing, MI 48823.

Landscape ecology and conservation banking both present novel scientific and regulatory challenges. A landscape perspective is often required to capture the full conservation value of land. The tools used to study landscapes will be presented and their usefulness for estimating banking credits will be discussed. A method to calculate landscape-scaled credits will be proposed that incorporates the influence of uncertainty and nonlinear biological responses, using the Red Cockaded Woodpecker as an example. A conservation banker could use knowledge of landscape ecology and a species' natural history to maximize the number of credits available in a bank; thus, using scientific information to increase the cost-effectiveness of banking.

*Contact:* Doug Bruggeman, Ph.D. Candidate, Michigan State University, Department of Fisheries & Wildlife, 13 Natural Resources Building, East Lansing, MI 48824. Phone: (517) 974-3277; bruggem3@msu.edu.

## **Land Cooperatives: The Katy Mills Mall Mitigation Project**

**Poster 3**

This poster describes the cooperation between Katy Mills Mall and property owners who allowed wetland mitigation to take place on their properties. The agreements between KMM and the landowners specified that KMM would incur all costs involving construction, monitoring, and maintenance of the mitigation sites until permit requirements are met. Once success is achieved, the landowners will continue to own and be responsible for maintaining their properties. Similar arrangements could be contemplated for mitigation banks as an alternative to buying the land. The poster depicts the unique benefits provided the landowners at each site. At the private landowner site, the land could not be developed because of its proximity to the floodplain; but, the construction of wetland ponds and protection of the land under a conservation easement provided both habitat for migrating waterfowl and financial gain (through payment of the development rights) for the landowner. At the other site, KMM helped the Katy Prairie Conservancy by incurring high construction, maintenance, and monitoring costs the cooperative would normally have had to assume.

*Contacts:* Carliane Johnson, Ecology and Environment, Inc., 1950 Commonwealth Lane, Tallahassee, FL 32303-3196. Phone: (850) 574-1400; Fax: (850) 574-1179; cjohnson@ene.com; www.ene.com.

## FIELD TRIPS (optional)

**Tuesday, April 19, 2005**

**8 a.m.— Buses depart Stonewall entrance (lobby level) of Westin Hotel.  
A box lunch will be served.**

### **URBAN Mitigation Banking and Stormwater Restoration**

**(8 a.m. to 1 p.m.)**

**1st stop hosted by City of Charlotte**

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**2nd stop hosted by Easement, Grant Assistance & Permitting Solutions**

#### **1ST STOP: Charlotte Mitigation Bank – the Edwards Branch Watershed Improvement Project, Charlotte/Mecklenberg County, North Carolina**

*Hosted by City of Charlotte.* The City of Charlotte has established a mitigation bank for public projects. The Edwards Branch Watershed Improvement Project is one of the first credit-generating projects to be included in the bank. This project includes numerous improvements such as traditional stream restoration and water quality BMPs throughout a one-square-mile watershed. The project will generate stream mitigation credits to offset unavoidable impacts to waters predicted for the City's capital improvement programs.

#### **2ND STOP: Freedom Park Stream Restoration and Greenway Trail (Little Sugar Creek Environmental Restoration Initiative – Phase 2), Charlotte, North Carolina**

*Hosted by Easement, Grant Assistance & Permitting Solutions, Charlotte, N.C.*

This initiative is a joint effort between Mecklenburg County and the N.C. Wetlands Restoration Program to place four new meanders on Little Sugar Creek in Freedom Park. Straightened many years ago, at this point Little Sugar Creek drains almost 9 square miles of basin, including the eastern half of the Charlotte metro area. The NCWRP project is the largest of its kind in the state, placing over 1,500 linear feet of stream on a new alignment as much as 150 feet from its current location. The stream has 15-foot bank heights and 30-foot bottom widths and is being built economically, in spite of moving over 50,000 cubic yards of earthwork, 3,000 tons of boulders, river cobble and cross vanes; and more than 40,000 trees and shrubs. This project is being constructed "in the wet."

### **RURAL Mitigation Banking & Stormwater Restoration**

**(8 a.m. to 2 p.m.)**

**1st stop hosted by Rummel, Klepper & Kahl, LLP (RK&K), Marsh Resources and Catawba Land Conservancy**

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**2nd stop hosted by EarthMark Companies' Mid-Atlantic Region, LLC**

#### **1ST STOP: Marsh Resources Pott Creek Wetland Mitigation Bank Lincoln County, North Carolina**

*RK&K is the prime sponsor with support from Marsh Resources Inc. The site is currently owned by the Catawba Land Conservancy.* The Pott Creek Wetland Mitigation Bank is a 75-acre site in Lincoln County that provides wetland and stream restoration for future North Carolina Department of Transportation road projects in the Catawba River Watershed. Construction began in January 2002 and was completed the following March. Planting was completed in April. Remediation

## FIELD TRIPS (continued)

**Tuesday, April 19, 2005**

construction and replanting were performed in March 2003. The MBI was approved by the Corps in December 2003. Credits are being generated from preservation, enhancement, restoration and creation activities on the site.

### **2nd Stop: Pott Creek II Stream Mitigation Project**

Hosted by EarthMark Companies' Mid-Atlantic Region, LLC. This approximately 94-acre site in Catawba County is a significant stream restoration mitigation project being constructed under contract to the NCEEP. The site is currently used as cattle pasture, giving the cattle direct access to Pott and Rhodes Mill creeks. Over 10,000 linear feet of streams will be restored to mitigate NCDOT impacts associated with future road projects in the Catawba River watershed. Ditches will be filled and/or plugged. A more natural stream channel will be restored for both creeks and several tributaries. Forested and emergent wetlands will also be protected. The entire property will be protected with a conservation easement. Construction began in the summer of 2004 with completion scheduled for early 2005.

## CLEs and CEUs

**CEUs** — a Certificate of Completion — will be provided to each participant upon request. Please ask for one at the Conference Registration Desk. Each day earns the following Continuing Education Units:

Monday, April 18	Primer Workshop	.4 CEUs
Tuesday, April 19	Field Trip	.4 CEUs
Wednesday, April 20	Sessions	.8 CEUs
Thursday, April 21	Sessions	.8 CEUs
<b>TOTAL EVENT:</b>		<b>2.2 CEUs</b>

**CLEs** — The Conference has requested approval for some state CLEs. Should you have an interest in CLEs, please see us at the Conference Registration desk. CLE credits can range from 10 to 24, depending on the particular state.

**Appraisal Institute Members** — If you are a member of the Appraisal Institute, check the web site ([appraisalinstitute.org](http://appraisalinstitute.org)) for the appropriate creditable topic and submit your application for credit directly to the Appraisal Institute. Any questions should be directed to the Appraisal Institute as they do not pre-approve any outside courses.

## PROCEEDINGS

**A special CD-Rom Proceedings of the conference will be provided** to all participants approximately 6 to 8 weeks following the conference. This CD Rom will contain audio of and some hard copy presentations and handouts from presenters.

**New this year!** For you who want the audio from any SESSION right now, you can purchase the audio from any SESSION at a nominal charge – see the Registration Desk.

# CONFERENCE AGENDA

## **MONDAY • April 18, 2005**

- Noon–5:30 p.m. Registration Open *Grand Ballroom Promenade*
- 1–5:30 p.m. **Primer 101 Workshop** *Grand Ballroom A*  
*Facilitated by Robert W. Brumbaugh, Senior Policy Analyst, U.S. Army Corps of Engineers, Alexandria, Va; Craig Denisoff, Vice President, Government Affairs and Greg Sutter, President, Wildlands, Inc., Rocklin, Calif.*  
How-tos of both Mitigation and Conservation Banking are presented in this half-day workshop. Starting with the history of banking, this workshop will address site selection and technical aspects, monitoring and the business of banking (legal, financial, marketing) including walking participant through a banking agreement. Ideal for those new to or exploring an interest in mitigation or conservation banking.

## **TUESDAY • April 19, 2005**

- 7 a.m.–6:30 p.m. Registration Open *Grand Ballroom Promenade*
- 8 a.m.–1 p.m. **URBAN Field Trip** (see page 7 for more information)
- 8 a.m.–2 p.m. **RURAL Field Trip** (see page 7 for more information)  
Buses depart Stonewall entrance (lobby level) of Westin Hotel at 8 a.m.  
Box lunch provided.
- Noon–4 p.m. Exhibitor Set-up *Grand Ballroom*
- 3–5:30 p.m. **Regulators' Forum** *Independence Room*  
*Facilitated by Robert W. Brumbaugh, Senior Policy Analyst, U.S. Army Corps of Engineers, Alexandria, Va.*  
A gathering of regulators involved in mitigation and conservation banking throughout the United States in an effort to share their experiences and address regulatory concerns. Written questions will be developed to be presented to the McGeorge Group during Thursday's lunch. *Session Not Recorded*
- 3–5:30 p.m. **Bankers' Forum and National Mitigation Banking Association Meeting** *Providence III*  
*Facilitated by Craig Denisoff, President, NMBA*  
The National Mitigation Banking Association will hold its annual meeting, with the last part of the meeting devoted to identification of questions to be presented to the McGeorge Group during Thursday's lunch. *Session Not Recorded.*
- 5:30–7 p.m. **Welcome Reception in Exhibit Area** *Grand Ballroom*  
*hosted by Restoration Systems, LLC, Charlotte, NC*

## **WEDNESDAY • April 20, 2005**

7 a.m.–6:30 p.m. Registration Open Grand Ballroom Promenade

7:15–7:50 a.m. Continental Breakfast in Exhibit Area Grand Ballroom Promenade

8–9:30 a.m. **OPENING GENERAL SESSION** Grand Ballroom

**Welcome** – Judith F. Taggart, Chairman, JT&A, inc., Chantilly, Va.

### **The North Carolina Experience – Opportunities in the Ecosystem Enhancement Program**

William D. Gilmore, Director

North Carolina Ecosystem Enhancement Program, Raleigh, N.C.

### **The National 3-Million-Acre Initiative**

William Leary, Associate Director for Natural Resources

White House Council on Environmental Quality, Washington, D.C.

### **Keynote Address**

The Honorable John Paul Woodley, Jr.

Principal Deputy Assistant Secretary of the Army for Civil Works, Washington, D.C.

9:30–10 a.m. Break in Exhibit Area Grand Ballroom Promenade

10–11:30 a.m. **CONCURRENT SESSIONS**

#### **SESSION 1.**

#### **North Carolina's Ecosystem Enhancement Program**

Providence Ballroom I•II

CHAIR: George W. Kelly, Managing Director, Environmental Banc & Exchange, LLC, Owings Mills, Md.

#### **How the EEP Works**

—◆ Suzanne Klimek, Director of Operations, North Carolina Ecosystem Enhancement Program, Raleigh, N.C.

The Ecosystem Enhancement Program was established in July of 2003 as an environmental program responsible for all of the Department of Transportation's off-site compensatory mitigation. EEP restoration projects are based on a watershed approach, and the program is working toward functional replacement of impacts significantly in advance of road projects. To accomplish these goals, the EEP evaluates DOT-projected impact data in concert with watershed needs to make comprehensive decisions on how to provide the necessary compensatory mitigation. In addition, the EEP works with other agencies and interested parties to review EEP progress and ensure EEP success. Mechanisms associated with these efforts will be described.

## **A Banker's View of North Carolina's EEP – Smooth Sailing?**

→ Richard Mogensen, Director, EarthMark's Mid-Atlantic Mitigation, LLC, Concord, N.C.

Providing offsite, consolidated mitigation under contract to state or private entities is an alternative to mitigation banking. That is the concept followed by North Carolina's Ecosystem Enhancement Program in assuming mitigation responsibilities for NCDOT and many private companies under Section 404 and 401 permits. A part of the NCEEP implementation strategy is to use private mitigation companies to provide "full-delivery" wetland and stream mitigation projects under the Request for Proposal process. Responding to RFPs is a lengthy and sometimes costly endeavor, full of roadblocks, uncertainty and risk. If you can make your way through the process to secure a contract it can be profitable. Mid-Atlantic Mitigation is currently under contract to build two projects for the NCEEP. The process has been difficult, frustrating, risky, lengthy but ultimately rewarding. North Carolina is proceeding with this hybrid in-lieu-fee/mitigation banking program full speed ahead. It remains to be seen if it will become a model for other states or prove less than successful.

## **The Corps' Perspective on the Ecosystem Enhancement Program**

→ David Franklin, Chief, NCDOT Team, Regulatory Division, U.S. Army Corps of Engineers, Wilmington, N.C.

A 2001 process improvement initiative resulted in a profound shift in the way compensatory mitigation for transportation projects would be addressed in North Carolina. Through a Memorandum of Agreement among NCDOT, NCDENR and the Corps of Engineers Wilmington District, the compensatory mitigation responsibility for transportation projects was largely transferred to a newly established division within NCDENR called the Ecosystem Enhancement Program. This presentation discusses the relationship of the EEP to the Corps' regulatory function and includes benefits and challenges.

### **SESSION 2.**

#### **Stream Mitigation & Restoration**

*Providence Ballroom III*

CHAIR: Alex Levy, Ecologist, Federal Highway Administration, Washington, D.C.

## **McLemore Mitigation Bank – The First in Alabama with a Streambank Component**

→ John Wigginton, PWS, Goodwyn, Mills, and Cawood, Inc., Montgomery, Ala.

The 717-acre McLemore Mitigation Bank in Montgomery, Ala. is a family-owned entrepreneurial bank that received final MBRT approval in August 2002. The MMB was the first mitigation bank in central Alabama and the first bank in the state to have a streambank component. The MMB also was the first in the state to use Wetland Rapid Assessment Procedure to determine the number of wetland credits earned and the credits required for mitigating project impacts. The MMB is a bottomland hardwood bank focusing primarily on enhancement and creation of forested wetlands, upland reforestation and exotic species eradication. To date, the MMB has already earned the release of 50% of all wetland credits and 65% of all stream credits. In addition, 15% and 60% of all potentially available wetland and stream credits, respectively, have been sold, despite the fact that no credits are sold to the Alabama Department of Transportation. We intend to share our experiences regarding the MBRT process and impart lessons learned and techniques used in both stream and wetland restoration.

## Update on Stream Mitigation Banking in the Southeast

—◆ Steve Jones, Vice President, Environmental Services, Inc., Stone Mountain, Ga.

Within the last decade nearly all the Corps of Engineers districts in the Southeast have begun to require in-kind mitigation for stream impacts, generating a viable market for stream mitigation. To ensure consistency for bankers, many Districts are providing guidance for implementation of stream mitigation and banking. In contrast, North Carolina has adopted a program that drives the mitigation market and discourages entrepreneurial banking; and Tennessee is establishing a similar program. Regardless of policy and procedures for determining credits, the universally accepted approach for stream restoration across the Southeast is natural channel design, often combined with preservation and buffer enhancements. Typically, stream mitigation is considerably more expensive than wetland mitigation and can require substantial up-front capital investment. Stream restoration also can carry greater liability and risk relative to wetland restoration and, in most cases, is technically more challenging. As in wetland banking, in a highly developing market permitting a stream mitigation bank can be economically viable with the right combination of site, stream types and conditions, and agency formula for credit calculation.

## Dam Removal for Stream Mitigation – North Carolina’s New Guidance

—◆ John Dorney, Program Development Unit Supervisor, Division of Water Quality, North Carolina Department of Environment and Natural Resources, Raleigh, N.C.

Dam removal projects have recently received much attention across the United States and in North Carolina. Most dam removals re-establish flowing aquatic ecosystems and use by anadromous fish such as salmon and shad. In North Carolina, although the N.C. Division of Water Quality and U.S. Army Corps of Engineers often require compensatory stream mitigation for impacts such as culverting or stream relocation, dam removal has begun receiving support. In many cases, removing a dam will restore aquatic life habitat and may then be suitable mitigation for unavoidable stream impacts. A policy developed by a multi-agency team in 2003 has been used to design compensatory crediting for several dam removal projects in North Carolina over the past year. Recently, the multi-agency team revised the policy to provide additional incentive for dam removal in appropriate cases.

11:30 a.m.–1:45 p.m. **LUNCHEON**

Grand Ballroom

### PANEL

#### **Federal Update – What’s Really New?**

MODERATOR: George I. Platt, Principal/General Counsel, Wetlandsbank, Inc., Fort Lauderdale, Fla.

An interactive panel that updates you on what’s really new with these programs and how they all fit together. Question cards will be provided for attendees at each table, and collected just prior to the start of the panel discussion.

- **Meeting the 3-Million-Acre Goal.** Benjamin N. Tuggle, Chief, Division of Federal Program Activities, U.S. Fish & Wildlife Service, Arlington, Va.
- **The National Wetlands Mitigation Action Plan.** Palmer F. Hough, Environmental Scientist, U.S. Environmental Protection Agency, Washington, D.C.
- **DOD Equivalency Regulations.** Dr. Mark Sudol, Chief, Regulatory Branch, U.S. Army Corps of Engineers, Washington, D.C.

2–3:30 p.m.

**CONCURRENT SESSIONS****SESSION 3.****Primer 102: Sales & Marketing***Providence Ballroom I-II*

CHAIR: Ken W. Bailey, Project Manager/Sales &amp; Marketing Specialist, Tetra Tech, FW, Inc., Stuart, Fla.

**A Buyer's Perspective – Why Should I Buy Credits from You?**

→ Jim Yawn, Project Manager, Environmental, Walt Disney Imagineering, Lake Buena Vista, Fla.

Land developers' mitigation needs vary, and over time can change for many reasons. Hear how one large landholder has met those needs through a combination of on-site mitigation, owner-developed offsite mitigation and mitigation banking options. What is the developer's greatest concern? What provides him the greatest value? Besides cost, what are significant influencing factors in deciding on mitigation? Permitting time and/or regulatory preference? Mitigation risk? Why are public, private and non-profit partnerships so important? How can you influence the process? Learn this and more!

**What a Developer Considers (a Consultant's View)**

→ David L. John, PE, CEP, WS, CEO and Chairman of Miller Legg &amp; Associates, Inc., Engineers and Planning, Fort Lauderdale, Fla.

A consultant has a duty to provide a candid and accurate assessment of the developer client's mitigation alternatives. If they provide faster, quicker, more efficient and sometimes more economical result and have the certainty desired by the developer, then mitigation banks become a plausible alternative to other types of mitigation. The importance of being earnest and certain is critical. Factors that influence a developer's decision will be addressed.

**How to Successfully Market Your Bank**

→ Sheri Ford Lewin, Vice President, Mitigation Marketing, LLC, Orlando, Fla.

Learn specific tips of the trade from a marketing professional. Examples of sales strategies and tactics that have worked – and learn why they worked – what is it that you can do when selling credits that convinces a developer to buy from you. And conversely, what are the marketing strategies and tactics you should avoid.

**SESSION 4.****Case Studies***Providence Ballroom III*

CHAIR: Robert N. Kessler, Director of Mitigation Banking, Global Water Business Group, CH2M Hill, Gainesville, Fla.

**Deep Creek Wetlands Mitigation Bank**

→ Jean Manuele, Field Office Manager, U.S. Army Corps of Engineers, Raleigh, N.C.

Deep Creek Wetland & Stream Mitigation Bank is a 70.5-acre site located in Yadkin County, N.C. Agency coordination began in July 2001, with the MBI finalized on February 18, 2003. The MBRT approved 30.4 acres of restoration, 12.1 acres of creation of bottomland hardwood forests, and restoration of 5,540 linear feet of an unnamed tributary

to Deep Creek. Construction was completed in the summer of 2003, resulting in 46.41 acres of restoration and creation, and 5,733 linear feet of stream restoration. The first year of monitoring met success criteria and the second year is currently under review.

## **Municipal Umbrella Banks – Needs and Concerns in the Savannah District**

—◆ Phillip D. Sacco, Wetland Ecologist, CH2M Hill, Atlanta, Ga.

**W**atershed assessments conducted by all regional utilities that plan to develop new sources for wastewater discharge and/or water treatment or to increase the capacity of an existing facility in the Atlanta metropolitan area identified substantial degradation of county streams. Although several counties are now taking measures to restore degraded streams, cost often limits their ability to achieve their goals. To offset these costs, CH2MHILL prepared a single user umbrella mitigation bank with a commercial component for two counties. To develop the Draft Mitigation Banking Instrument and establish success criteria, CH2MHILL evaluated the operation and potential for success/failure of existing umbrella banks in the area, and conducted a needs assessment to estimate the demand for credits by both county and commercial users. CH2MHILL also estimated the potential credits that could be generated and conducted a cost/benefit analysis to determine if the current demand for credits and the cost to generate the credits will result in revenue. Although the MBRT is considering the bank, land ownership and associated cost remain primary concerns for the future of municipal mitigation banks in the Savannah District.

## **Development and Implementation of a Successful Wetland Mitigation Strategy for Dulles International Airport**

—◆ Michael Hackett, Airport Planning Engineer, Metropolitan Washington Airports Authority, Dulles, Va.

**I**nitial environmental impact assessments in the 1990s for construction of two additional runways and related projects at Dulles International Airport identified 212 acres of wetland impacts, requiring up to 362 acres for mitigation. The Metropolitan Washington Airports Authority decided in 2001 to pursue a turnkey operation, whereby mitigation would be completed before credits were needed for construction. The Airport Authority requested technical and price proposals that fall, and contracts were awarded in the spring of 2002 to deliver 200 wetland mitigation credits. One contract was awarded Marsh Resources, Inc., which did not have a mitigation bank in the service area and therefore would have to pursue an aggressive design and construction schedule to meet the credit delivery schedule. This presentation will outline the process by which the Airport Authority developed its turnkey mitigation strategy, and the approach that Marsh Resources implemented to successfully deliver 88 credits on two mitigation sites within a very short time frame. Site selection methods and design techniques that resulted in 100% credit release after one growing season will be presented.

3:30–4 p.m.

Break in Exhibit Area

Grand Ballroom

4–5:30 p.m.

**CONCURRENT SESSIONS****SESSION 5.*****Banking Opportunities in Agriculture****Providence Ballroom I-II*

CHAIR: Christopher Hamilton, Program Manager, Natural Resources Conservation Service, U.S. Department of Agriculture, Washington, D.C.

**Sacramento River Ranch Integrated Habitat-Agriculture Project**

— Steve Jacoby, Senior Conservation Planner, Wildlands, Inc., Rocklin, Calif.

The 3,682-acre River Ranch is located at the confluence of the Sacramento and Feather rivers, the geographic center of the most important wildlife corridors in the Sacramento Valley and a vital location for flood control and water uses in the region. Wildlands Inc. has purchased the River Ranch to preserve its agricultural viability and enhance its wildlife habitat and flood capabilities – a concept known as Integrated Agriculture. The unique topography, hydrology, soils and historic uses of the River Ranch will define the farming and habitat management practices for its future. For example, acreage that historically flooded and supported marshlands could serve the same ecological function when planted to rice; marginal farmlands could be restored to natural habitat. Habitat restoration and farming practices will be designed to benefit rare, threatened or endangered species and encourage resident and migratory fish and wildlife. River Ranch will also play an important role in protecting lives and property during floods. Wildlands' vision for River Ranch embraces wildlife, preserves its historic agricultural heritage, provides for public safety, and is collaborative, interdisciplinary and innovative.

**Partnership Model for Bankers? Success in New York's Hudson Valley**

— Rene VanSchaack, Executive Director, Greene County Soil & Water Conservation District, Cairo, N.Y.

In 2000, the Greene County Industrial Development Agency acquired 206 acres to create the "shovel ready" Greene Business and Technology Park. By 2002, the project had stalled because (1) it lacked a cohesive environmental strategy, and (2) a citizen had filed suit against the Agency. While grassland habitat favored by the Northern Harrier Hawk (a threatened species) was of primary concern, wetland impacts, stormwater and other issues were also raised. Greene County Soil & Water Conservation District was asked to assist in outreach to project opponents and to help develop an effective environmental impact strategy as well as assist in the overall process. The final mitigation strategy for the proposed business park includes elements important to the mitigation and conservation banking process, such as an inclusive advisory committee, development of a local nonprofit land trust to hold and manage the conservation lands long term, establishment of a volunteer Northern Harrier monitoring project to evaluate the success of the conservation lands, and other facets.

## **A Resource for Bankers – Connecting at the Local Level**

—♦ Krysta Harden, Chief Executive Officer, National Association of Conservation Districts, Washington, D.C.

Conservation districts are the local connection to landowners—the ones who ultimately control much of the nation’s land and water resources. As the local gateway to the technical and financial assistance needed to conserve, protect and manage our natural resources, conservation districts have for more than 70 years been in the business of helping landowners get conservation on the land. Whether it’s wetlands or wildlife banks, nutrient trading or carbon credits, conservation districts are ideally positioned to help bankers promote innovative, market-driven approaches to natural resources protection.

### **SESSION 6.**

#### ***New Opportunities in the States***

*Providence Ballroom III*

CHAIR: Robert W. Brumbaugh, Senior Policy Analyst, Water Resources Institute, U.S. Army Corps of Engineers, Alexandria, Va.

## **New Opportunities for Mitigation Banking in New England**

—♦ Seth Shortlidge, Shareholder/Director, Gallagher, Callahan & Gartrell, Concord, N.H.

While mitigation banking has gained wide acceptance in many regions of the country, New England has lagged behind. During the past decade only one wetland mitigation bank has received state approval and no wetlands mitigation bank has received federal approval. While this history has discouraged mitigation bankers from entering the New England market, a changed regulatory environment in several New England states coupled with high potential demand for off-site mitigation credits may provide unique opportunities for developing mitigation banks in New England in the future. This presentation will review (1) previous attempts to develop federal and state approved mitigation banks in New England and (2) new state regulatory structures that may encourage mitigation banking in the future; and provide critical information regarding a region that has been largely ignored by mitigation bankers in the past.

## **Opportunities for Improving Mitigation Banking Program Efficiency and Effectiveness in Washington State**

—♦ David Martin, Project Manager, U.S. Army Corps of Engineers, Vancouver, Wash.

The Washington state MBRT faces challenges in implementing its mitigation banking program, particularly in responding to an influx of bank proposals that reflects strong public interest in mitigation banking and demand for additional compensatory mitigation opportunities. By 2006, the MBRT expects to have at least 10 mitigation bank proposals to evaluate, including several multi-site proposals. The MBRT is trying to streamline the process by consolidating federal mitigation banking procedures with the state’s developing mitigation bank certification program, developing a two-document approach to mitigation bank approval that would pair an MBI with a separate legal contract in the form of an MOA, and developing umbrella mitigation bank agreements to facilitate multi-site banks. The MBRT is also encouraging urban mitigation banks and seeking greater participation by the federal agencies that administer the Endangered Species Act.

## Thinking Outside the Box – Regional Planning for Banking in Florida

— H. Clark Hull, Jr., Director, Environmental Resource Permitting, Southwest Florida Management District, Brooksville, Fla.

Pasco County, located in the Tampa Bay area of west-central Florida, is one of the fastest growing counties in one of the fastest growing states in this country. Preservation of wildlife corridors connecting large tracts of publicly owned land has been identified as a watershed management goal to protect publicly owned core habitat areas within the county. Given the absence of alternative mitigation options in Pasco County's rapidly developing watersheds, preservation and restoration of these corridors present an opportunity for the mitigation banking industry to fulfill a watershed need while satisfying a strong demand for mitigation credits. Establishment of mitigation banks within these corridors is recognized as a mutually desirable goal by developers and regulatory agencies. A strategy has emerged to accomplish this goal, including: (1) identification of specific areas where mitigation banks are deemed desirable; (2) advertising the desirability of these areas for mitigation banks; (3) encouraging private landowner participation in the process, either as willing sellers or mitigation partners; and (4) obtaining commitment by regulators to actively engage with prospective bankers to make the process work.

5:30–7 p.m.      **Reception in Exhibit Area**      Grand Ballroom  
*hosted by Loafer Creek, LLC, Oroville, CA*

### THURSDAY, April 21, 2005

7 a.m.–2 p.m.      Registration Open      Grand Ballroom Promenade

8–8:30 a.m.      Continental Breakfast in Exhibit Area      Grand Ballroom

8:30–10 a.m.      **CONCURRENT SESSIONS**

#### SESSION 7.

#### **Standards & Sustainability**

Providence Ballroom I-II

CHAIR: Palmer Hough, Environmental Scientist, U.S. Environmental Protection Agency, Washington, D.C.

## Using Technology to Set Standards & Ensure Sustainability

— Michael K. Ohm, Attorney to Loafer Creek, LLC, Bell Boyd & Lloyd, LLC, Chicago, Ill.

The definition of a wetland, its current condition and its temporal evolution is extremely subjective. For mitigation banking to become scientifically sound, and therefore legally supportable, it will require the establishment of quantitative and reproducible standards that establish defensible means of evaluating natural resources. Loafer Creek is currently working on the technology to deliver those standards. The wetlands standards Loafer Creek is developing will have two basic requirements: (1) they will be of map-quality accuracy and

(2) they will uniquely identify the land cover type. The work will also be largely automated, greatly reducing the expense of such mapping and, importantly, the subjective nature of the image-map. Only by reducing the subjective component can acceptable standards be established. Loafer Creek will describe the system it is developing for the monitoring and management of its own mitigation bank, which includes the use of an aerial platform and state-of-the-art remote sensing devices. Our presentation will outline our intended methodology and present preliminary results on the mapping accuracies we are attaining. Ultimately, a plan will be presented to offer these standards to the Mitigation Banking community.

## **Local Lands Conservancy — Ensuring Perpetuity**

—♦ Davis Cable, Executive Director, Catawba Lands Conservancy, Charlotte, N.C.

**F**orever is a long time. Land trusts are charged with the perpetual obligation to steward conservation easements and fee-owned lands, but few are adequately prepared. How are land trusts preparing for this awesome responsibility? A basic business model for a local land trust will be presented, including criteria for land protection project selection, baseline and monitoring due diligence, and methodologies for funding stewardship endowments. The benefits of involving the land trusts early in the mitigation process will be stressed. Several innovative techniques for funding future stewardship and legal defense expenses will also be presented.

## **Endowments – Who Holds Them and What’s the Cost?**

—♦ Sherry Teresa, Executive Director, Center for Natural Lands Management, Fallbrook, Calif.

**T**his presentation will focus on the types of stewardship funding for banking programs, primarily perpetual or non-wasting endowments. Although endowments can be used effectively to provide long-term funding for bank sites, any organization that uses them needs to be aware of the risks and benefits. While endowments can protect funds from fluctuating government budgets, they must be protected against inflation and third party lawsuits. Who invests the endowment greatly affects the amount of money needed to establish the endowment to meet annual stewardship requirements. Government agencies are often limited in their ability to invest in certain financial instruments and hold long-term funds. Nonprofits may not have the financial experience and expertise to invest funds. Also, investment guidelines and manager fees vary widely. The Center currently manages over \$30,000,000 in mitigation funds; of that, over \$26,000,000 is in endowments for 53 preserves. We will discuss the risks of market fluctuations, forecasting, timing of credit sales to endowment contributions, investment strategies and lessons learned from our experiences and others we have worked with.

## SESSION 8.

**Emerging Markets – Water Quality***Providence Ballroom III*

CHAIR: Katie McGlynn, Marine Habitat Resource Specialist, National Oceanic & Atmospheric Administration, Silver Spring, Md.

**A Watershed Approach to Urban Needs**

— Mary C. Murray, Senior Project Specialist, ENTRIX, Inc., Mooresville, N.C.

The Edwards Branch Watershed Improvement Project is a comprehensive watershed management approach to addressing urban stormwater issues related to both water quantity and quality. The City of Charlotte will receive approximately 11,600 linear feet of stream restoration credit for a holistic watershed improvement approach. Charlotte has established an umbrella stream and wetland mitigation bank to manage the mitigation credits associated with the Project and other future restoration projects. The Project is located in a headwater (less than one square mile), built-out (circa 1940), urbanized (41% impervious) watershed in the Briar Creek portion of the Little Sugar Creek basin in Charlotte. Project components are expected to address the aquatic habitat, water quality and biological integrity. In July 2004 the MBRT approved both the MBI and proposed credits for the Project and another large urban stream restoration project. This presentation will review the accepted credit proposal, including the success criteria, monitoring program, release schedule, and cost analysis of watershed improvements vs. traditional stream restoration techniques.

**Exploring Synergies Between Wetlands Mitigation Banking and Water Quality Trading**

— Lynda J. Hall, Office of Wetlands, Oceans & Watersheds, U.S. Environmental Protection Agency, Washington, D.C.

Water quality trading and wetlands mitigation banking share some fundamental attributes as market-based approaches that work within a Clean Water Act regulatory context to achieve an environmental objective, typically through control actions taken at a different location than the originating impact. This presentation will explore the many potential synergies between wetlands mitigation banking and water quality trading.

**Restoring Flow Regimes and Ecosystems in the Great Lakes through Environmental Markets — Preliminary Results of a Survey**

— Mark S. Kieser, Acting Chair, Environmental Trading Network, Kalamazoo, Mich.

A conservation-based decisionmaking standard for water consumption in the entire Great Lakes basin under the multi-state and provincial agreement of Annex 2001 (Council of Great Lakes Governors, 2004; [www.cglg.org](http://www.cglg.org)) provides a driving force for market-based solutions in the basin. A project team led by the Environmental Trading Network is investigating opportunities to build markets for restoring natural flows and ecological restoration associated with public works/infrastructure, low impact development, public water supply, water withdrawals, environmental profit centers and ecological service district concepts. The study hypothesizes that water use demand, when combined with other environmental markets, will support public and private ecological restoration investments to address an array of environmental, land use and water withdrawal issues. Environmental market-like transactions will be developed based on case studies in Wisconsin, Indiana, Michigan, Ohio and New York to test the hypothesis. The presentation will focus on preliminary results of the case studies.

10–10:30 a.m. Break in Exhibit Area

Grand Ballroom10:30 a.m.–Noon **CONCURRENT SESSIONS****SESSION 9.****Tracking Progress**Providence Ballroom I-II

CHAIR: John Ryan, President, Land and Water Resources, Rosemont, Ill.

**The Past, Present and Future of Wetlands Credit Sales as a Market-like Regulatory Policy**

—♦ Paul Scodari, Senior Economist, Institute for Water Resources, U.S. Army Corps of Engineers, Alexandria, Va.

This presentation will provide an overview of a working paper that (1) reviews the evolution of the wetlands credit sales program developed to support the federal wetlands permit program, (2) explains how regulatory rules for the permit program in general and the credit sales program in particular have prevented development of robust (area-specific) markets in credit trading, and (3) identifies an alternative institutional structure that would apply market-like principles to expand the quantity and lower the prices of quality-assured credits.

**The Experience of Species Conservation Banking in the United States**

—♦ Jessica Fox, Senior Associate, EPRI Solutions Environment Division, Palo Alto, Calif.

The ability to receive financial gains for protecting habitat on private property may provide the incentive necessary to proactively protect endangered species in the United States. While conservation banking is nearly a decade old, this is the first comprehensive report detailing the biological, financial, and political experience of conservation banking in the United States. By contacting agencies, non-government organizations, and bank owners, we compiled comprehensive accounts of the experiences of current bank owners. Financial motives drove the foundation of 91% of banks and most are breaking even or better. Increasing information sharing, decreasing the time to establish agreements, and reducing bureaucratic challenges can further increase the amount of private property voluntarily committed to banking. Although many ecological uncertainties remain, conservation banking seems to be offering at least a partial solution to the conservation/development conflict over biodiversity.

**Best & Worst Banks – Preliminary Findings of a National Survey**

—♦ Royal C. Gardner, Vice Dean and Professor of Law, Stetson University College of Law, St. Petersburg, Fla.

This presentation gives the preliminary findings of a mitigation banking case study that examines the “best” and “worst” mitigation banks across the United States. The purpose of conducting the study is to examine whether the mitigation banks perceived to be the “best” (or the “worst”) share similar characteristics: what makes a great (or poor) mitigation bank and why—in hopes that the study will offer some lessons that can be used to improve the effectiveness of compensatory mitigation in the future.

**SESSION 10.****Conservation Banking***Providence Ballroom III*

CHAIR: Jason Coccia, Mitigation Manager, The Conservation Fund, Arlington, Va.

**U.S. Fish and Wildlife Service Conservation Banking Update**

— Kenneth Sanchez, Assistant Field Supervisor, Endangered Species, U.S. Fish and Wildlife Service, Sacramento, Calif.

**G**ain insight on what's happening in conservation banking since the U.S. Fish and Wildlife Service issued its Guidance for the Establishment, Use, and Operation of Conservation Banks in May 2003. The Service encourages conservation banks for species listed under the Endangered Species Act of 1973, to offset adverse impacts to such species resulting from federal actions. Conservation banking is a tool for use with ESA sections 7 (formal consultation) and 10 (habitat conservation plan). The goal is to establish banks that produce conservation benefits for listed and other at-risk species and contribute to their recovery, while providing project applicants with economically feasible options for minimizing and mitigating the adverse impacts of their projects to such species. We provide an update of the Service's conservation banking program, and describe some recently approved banks that extend our program.

**Utilizing Species Recovery Plans for Conservation Banking: The San Joaquin Kit Fox Recovery Effort**

— Craig Bailey, Regional Manager, Central California Office, Wildlands, Inc., Visalia, Calif.

**T**he Endangered Species Act directs the Secretary of the Interior and the Secretary of Commerce to develop and implement recovery plans for species of animals and plants listed as endangered or threatened unless such plans will not promote the conservation of the species. The goal of this process is to stop or reverse threats to the listed species and ensure long-term survival. Some recovery plans include conservation and mitigation banks as part of the recovery strategy. To maximize the benefits of conservation and mitigation banks, these projects should implement or contribute to specific recovery actions, especially those related to habitat restoration or land conservation. For the San Joaquin kit fox, conservation banks can make significant contributions to the land acquisition and protection recovery tasks listed in the Recovery Plan for Upland Species of the San Joaquin Valley, including the conservation of core population areas and key linkages.

**Timber and the Red-cockaded Woodpecker**

— Craig W. Hedman, Manager, Forestry, Ecology & Water Resources, International Paper Southland Forest, Bainbridge, Ga.

**I**nternational Paper owns approximately 5 million acres of land in the southern United States within the historic range of the endangered red-cockaded woodpecker; 18 groups were living there by 1996. At that time, International Paper began investigating ways to proactively work within the Federal Endangered Species Act, eventually (by 1999) developing an innovative Habitat Conservation Plan in partnership with Environmental Defense, the U.S. Fish and Wildlife Service, and the Georgia Department of Natural Resources. Under this plan, International Paper's management responsibility for the 18 groups can be transferred over time to a red-cockaded woodpecker population center at the company's Southlands Forest in southwest Georgia, with potential links to other populations. In most situations, Habitat Conservation Plans are an end point for private landowners. For International Paper, our HCP turned what was formerly considered a liability into an asset for the company.

Noon–2 p.m.

**LUNCHEON**Grand Ballroom**PANEL*****The "McGeorge Group" — Regulators, Bankers & Environmentalists Face Off!***

**F**ast-moving Q&A panel with direct answers and comment. McGeorge is bringing back a new panel to this year's conference that will address questions submitted by you – attendees will have the opportunity to submit questions before or on Day 1 of the conference (Wednesday) for this panel to answer. The McGeorge Group may also address questions presented by the Regulator and Banker Forums.

**McGeorge:** George Howard, Vice President, Restoration Systems, Raleigh, N.C.

- **Federal Agency:** The Honorable George S. Dunlop, Deputy Assistant Secretary of the Army for Civil Works, Washington, D.C.
- **Banker:** John Ryan, President, Land and Water Resources, Rosemont, Ill.
- **Environmental:** Patricia White, Transportation Associate, Defenders of Wildlife, Washington, D.C.
- **Academic:** Royal C. Gardner, Vice Dean and Professor of Law, Stetson University College of Law, St. Petersburg, Fla.

2 p.m.

Adjourn

**GREETINGS TO RAMSAR MEMBERS**

**W**e are pleased to welcome members of the U.S. National Ramsar Committee (USNRC) who are holding their annual meeting during the Conference. The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. There are presently 144 Contracting Parties to the Convention, with 1,422 wetland sites, totaling 123.9 million hectares, designated for inclusion in the Ramsar List of Wetlands of International Importance. For more information on RAMSAR and the USNRC, visit [www.ramsar.org](http://www.ramsar.org) and [www.ramsarcommittee.us](http://www.ramsarcommittee.us).

Please remember to fill out your Evaluation Forms and drop off at Registration Desk or send in to JT&A, inc.





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