



Environmental Trading Network

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**November 2003 Conference Call
(November 12, 2003; Draft)**

Representatives from the following organizations participated in the conference call: Brown and Caldwell, Nashville, Tennessee (John Ricketts); Environmental Consulting & Technology, inc. (Sanjiv Sinha); Friends of the Potomac River (Dan Nees); Gun Lake Band of Pottawatomi Indians, Michigan (Mike Tenenbaum); Kieser & Associates (Mark Kieser and Andrew Fang); Massachusetts Department of Environmental Protection (Marcia Sherman and Claire Barker); Michigan Department of Environmental Quality (Rick Hobrla); Minnesota Pollution Control Agency (Al Imes and Tim Larson); Pennsylvania Department of Environmental Protection (Andy Zemba); South Nation Conservation, Canada (Dennis O'Grady); US EPA-National Risk Management Research Laboratory-Sustainable Environments Branch (Matt Heberling and Hale Thurston); US EPA-Ohio River (Ginny Kioler); US EPA-Region 10 (Claire Schery); University of Maryland and King & Associates (Dennis King); Virginia Colonial Soil and Water Conservation District (Jim Wallace); and World Resources Institute (Siet Meijer).

Mark Kieser chaired the call.

Credit Bank Model

Mark Kieser informed the conference call that summary of Gerald Talbert's report on National Association of Conservation Districts' Water Quality Trading Nonpoint Credit Bank Model has been sent out as attachment to the ETN email list. The summary is also available on ETN's website at www.envtn.org.

EPA 2004 Watershed Initiative Grants

Mark indicated that the RFP for the 2004 Watershed Initiative grants has been posted on EPA's website and the ETN website has a link to the EPA webpage. This RFP calls specifically for market-based initiatives, particularly water quality trading. Mark asked call participants to discuss potential grant opportunities they are currently pursuing related to the Water Initiative grants. Jim Wallace said that due to the grants' requirement for governor's recommendation and because Virginia does not actively support trading, his SWCD sees little chance in getting nominated. Dan Nees indicated that he is working in West Virginia where carbon and nutrient



trading between power companies and farmers are being studied. The project will involve cattle and chicken manure management and 15 partners, including land trusts, DOT, and the state, have expressed interest of support the project. The state has clearly indicated that it will nominate this project to EPA.

Sanjiv Sinha pointed out that Michigan DEQ's guideline on proposals for the Initiative cites market-based approaches but does not emphasize water quality trading as the EPA guideline does. Rick Hobrla explained that due to budget cuts and a 27% loss of personnel, MEDQ does not have the manpower and expertise to accommodate water quality trading proposals. Mike Tenenbaum indicated that the Gun Lake Band of Pottawatomi in Michigan is working on a proposal of using water quality trading to clean up the Kalamazoo River that is the historic living ground for the band. Mike has talked to MDEQ director Steve Chester and the director welcomes help from outside in reviewing and nominating water quality trading proposals.

Dennis King on his Work on Wetland Mitigation Banking and Nutrient Trading

Dennis' experience and work in wetland mitigation banking, then carbon sequestration, and now nutrient trading have led to his interest in developing credible scoring systems for environmental trades before allowing trades to take place. This is somewhat different than the "learn by doing" approach that is being promoted in many places.

There are five major facts in environmental trading that necessitate such rigorous scoring systems. First, there are no natural markets for environmental credits. All aspects of supply and demand are contrived by regulatory decisions. In essence, environmental markets are not alternatives to regulations, they require regulations to exist. Early interest in wetland mitigation banking in the late 1980's and early 1990's was to keep things simple and just do acre-for-acre trading with no strict scoring. This resulted in an early track record of very bad trades and low quality wetland banks that has undermined public support for wetland mitigation to this day. Environmental trades need to be viewed as three-way trading involving buyers, the sellers and the regulators. Second, strict trade scoring is needed to fend off bad trades, and prevent bad trades from forcing out good trades. Scoring criteria should address the underlying natural resource accounting and must include risk factors to address quality uncertainty. Trade risks that are not assigned to buyers or sellers falls, by default, on the public and eventually the public will notice. Third, there are two camps in terms of how to approach wetland mitigation banking. One favors the learning-by-doing approach and the other prefers getting the rules right first, including scoring criteria. Dennis is in the second camp and thinks those who ignore underlying natural resource accounting to promote trades will kill off trading faster than any other single thing. Fourth, in wetland mitigation banking, and in virtually all environmental markets buyers have no interest in bearing quality risks associated with sellers actions. Sellers, of course, don't want to accept liability either. In Florida, pressure eventually evolved to protect the integrity of wetland trading by requiring all trades to account for time, risk and location. One general problem is that high-level policy makers and their attorneys say they want strict and predictable scoring criteria to manage trades, but attorneys really want more wiggle room and ad hoc negotiations that can be called a "win-win" solution regardless of the environmental outcome. It was eventually wetland scientists who called for strict scoring criteria to try to protect ecological benefits from the political power of wetland permit seekers and wetland bankers from watering down wetland

trades. Finally, there needs to be more attention paid to the words used to describe trading systems. All trading systems are not market based and shouldn't be. Market-based systems are competition with many buyers and sellers determining prices, while highly regulated trading systems are often based on ad hoc negotiated trades or government-set prices. If we want market-style trading we need to "commoditize" wetlands with scoring rules that improve quality of trades in ways that do not increase administration and transactions costs.

As for nutrient trading, Dennis feels that many middle and high-ranking government officials in fact don't like the idea. For purposes of career advancement they need to say they are in favor, but they find ways to make trading difficult to realize (e.g., high trading ratios and demanding 100% compliance before trade can happen). Rigid credit scoring formula should be developed to account for credit value differences in time and location. However, rules that are too rigid can stop even good trades. In point-nonpoint source trading, equity issues involving the allocation of tradable rights to point and nonpoint sources is also an issue as the two types of sources face very different regulations. On the supply side, nonpoint sources are not regulated partially because it is presumed that we can't measure nonpoint source loads efficiently. However, in nutrient trading, we will need to be able to measure such loads for them to provide valid credits. That's risky to them. On the demand side, point sources will be very reluctant to support the creation of markets that are based on tightening restrictions on them and allowing them to meet commitments by buying credits from nonpoint sources who do not face similar restrictions.

The following are questions, comments, and answers from the ensuing discussion on Dennis' discussion. Except specified otherwise, questions and comments were raised by various conference call participants and the answers were all from Dennis.

Q: Who should bear the quality risk and liability in trading?

A: Risk and liability should be built into the trading system. Brokerage or credit aggregation services, provided by for-profit, not-for-profit, or government institutions, can address risk by consolidating exchanges and developing weather insurance, etc. This risk should be managed centrally in some way that takes advantage of the laws of large numbers. We don't need to check every trade, just make sure they will eventually average out.

Q: In wetland banking, how much can be made by a bank?

A: Here is a real example. It was known that permit seekers would pay at least \$50,000 per acre for a permit to develop an acre of wetland. A 40-acre wetland bank was established to supply this market. It cost the wetland banker \$5,000/ac to buy the land and about \$20,000/ac to create the wetlands (including all the regulatory steps and construction costs). If the bank could trade at a 1:1 ratio, a profit of \$25,000 per acre can be made (\$50,000 less \$25,000). But if the difference in the quality of wetland gained and lost caused regulators to impose a ratio is 2:1, then the profitability is zero (\$50,000 less (\$25,000 times 2)). Bankers and permit seekers have enormous incentives to beat down regulators and water down the scoring criteria to make the trade profitable, and in this and most other cases they were successful. Of course, most of the trades did not result in "no net loss" of wetland function, despite compensation ratios of greater than 2:1.

Q: About the two camps of opinions in trading, which one works better?

A: Learning-by-doing, although not preferred, is not a bad approach as long as the people doing the learning, the trade regulators, understand their roles in making these markets work and are not promoting trading purely on ideological grounds. We should try to do as much trading as possible as long as the public sector is informed and third party quality certification can be done. Note that the quality control needs to be on the basis of the trade (before the fact). Having dozens of people “verifying” the outcomes of past trades, and perhaps showing that they were stupid, is not the same as having people understand before hand whether a trade makes sense or not.

Q: Could a scoring system be applied to nutrient trading?

A: I think simple scoring criteria based on types of activities undertaken, facility or site characteristics, geographic zones, and perhaps seasons could make nutrient credit trades credible in terms of expected environmental outcomes without imposing prohibitively high transactions costs on everyone. Again, some trades will result in outcomes above average and some below, but the law of large numbers, if our scoring criteria make sense, will result in overall good results. We also need to predict accurately load reductions in proposed trades, not only post-implementation audits. However, let’s face it currently governments do not have the budget, skills, technical capabilities, or political support to address these issues. Some type of third-party, an environmental SEC, is needed. And the large established environmental NGO’s who are now just as political as the government agencies will not carry the freight as environmental trade auditors. It will need to be something new.

Pennsylvania DEP’s Request for Information on a Multi-credit Trading Registry

Andy Zemba is with the Office of Water Planning at Pennsylvania DEP. Andy indicated that while having high level support (the Secretary of DEP), Pennsylvania’s trading program lacks resources. The state has used Section 319 funds and some other state funds for trading. DEP now takes the approach of using two parallel tracks at the same time to develop a state trading program: developing trading rules and conducting trading demos. Currently, there is a pilot trading project in the Conestoga River watershed where a heavy agricultural influence on impaired waters is present. This project is centered on nutrient trading but multi-credit and multi-media trading are also being explored. DEP is not sure what multi-credit trading would do and if a multi-credit registry should be developed. That’s why DEP decided to issue an Request for Information (RFI) instead of Request for Proposals (RFP) for the multi-credit registry. This RFI can be found at PA Bulletin (<http://www.pabulletin.com/secure/data/vol33/33-40/1943.html>).

Major questions that DEP wants to get answers from this RFI include but are not limited to the following:

- ?? What’s the level of interest in the multi-credit concept? (Andy indicated that based on the feedbacks so far, this answer is that the level is high)
- ?? What are the qualifications of a third party who is to develop a registry for the state?

- ?? What is needed (electronics, fields, and information, etc.) to develop a registry?
- ?? What are the resource needs to operate and maintain the registry?
- ?? What are the policy issues?
- ?? What are the opinions of the public?

DEP is also interested in knowing how individual programs, such as air and water quality trading, can be overlapped to build a multi-media multi-credit program. For example, do we need to develop an eco-unit to be the common accounting unit in a multi-credit system? Mark Kieser commented that the trading project in the Cheat River in West Virginia is actually sort of looking at the eco-unit issue as trading between improvements from temperature and pH impairments are being considered. Andy indicated that January 2, 2004 is the last day for sending in comments to this RFI.

Andy also asked Mark about the status of the environmental multiple markets paper. Mark indicated that the revised executive summary has been posted on the ETN website. The paper is still in the final stage of revision.

Next Call

Due to the upcoming holidays, the next call is scheduled for 10:30 EST, Wednesday, January 14, 2004.