

Meeting Summary
MNRG Fall Roundtable Meeting
Champaign, IL
December 11-12, 2008

Meeting Results:

1. Attendees of the MNRG meeting learned about the sustainability efforts of member agencies. Special presentations were made by USFS on the Upper Mississippi River Forest Partnership and by FWS on Natural Resource Partnership efforts in the Upper Mississippi Basin.
2. The Minnesota Statewide Conservation and Preservation Plan was presented by Deborah Swackhamer, University of Minnesota, as a recent example of the value of large-scale planning efforts for natural resources conservation.
3. EPA presented a proposal to MNRG for cooperation on restoring floodplain wetlands in the Upper Mississippi Basin and the proposal concept received support.
4. The MNRG Planning Committee was charged with developing a concept paper for a Strategic Plan for MNRG activities in the Upper Mississippi River Basin.
5. MNRG will develop a statement to support a unifying vision for the Mississippi River.

Meeting Location:

The fall 2008 meeting of the Midwest Natural Resources Group was conducted at the U.S. Army Corps of Engineers Construction and Engineering Research Laboratory in Champaign, Illinois.

Meeting Attendance:

Agency Senior Executives:

Brigadier General Michael Walsh, USACE – Chair
Max Ethridge, USGS – Vice Chair
Ernie Quintana, NPS
Baraht Mathur, EPA
Tom Melius, FWS
Mark Storzer, BLM
Glenn Fulkerson, DOT
Anne Henkelman, USCG

Planning Committee:

David Vigh, USACE, Chair
Norman Grannemann, USGS
Donna Hepp, USFS
Ryan Aylesworth, FWS
John Sowl, NPS
John Perrecone, EPA

Presenters, Panel Members, and Other Attendees:

Mike Prouty, USFS
Dorie Bollman, USACE
Bothl Pituolo, USACE
John Chick, NGRREC
Bill Kruidenier, NGRREC
Stephen Luzzi, FedCenter
Bill Goran, CERL
George Gester, CERL
Dick Gebhart, CERL
Doug Yeskis, USGS
Kevin Greene, EPA
Dick Warner, University of Illinois
Deborah Swackhamer, University of Minnesota
Tex Hawkins, FWS
Melanie Johnson, CERL
Nicholas Josefik, CERL
Tarek Abdallah, CERL

Day 1- December 11, 2008

Welcome and Introductory Comments:

1. Iker Adiguzel, Director of the Construction and Engineering Research Laboratory, welcomed the group to the Lab. This lab was the 2008 Army Lab of the Year.
2. General Walsh, Chair of MNRG, thanked all for attending, outlined MNRG accomplishments, and challenged the agencies to improve interagency coordination on natural disasters, river forecasting, non-structural methods for levee issues, and overall environmental sustainability. He also challenged the group to lay the groundwork for the next 10 years of active MNRG collaboration by developing a more detailed framework for interagency cooperation.
3. Max Ethridge, Vice Chair of MNRG, noted the 10-year history of MNRG and challenged MNRG agencies to enhance sustainable development concepts especially related to water, natural resources for societal needs, and energy. He, too, is looking forward to the next 10 years of MNRG success.

MNRG Agency Overview of Efforts on Sustainable Use of Natural Resources:

1. Army Corps of Engineers – Corps projects incorporate civil works (including military bases) that now emphasize environmental sustainability as well as stewardship of about 2 million acres of property in the Mississippi River Basin. Corps staff are active in many external partnerships such as MNRG, the Hypoxia Task Force, the Levee Boards, and the recently appropriated Corps Navigation and Economic Sustainability Program (possible successor to the Environmental Management Program) to help achieve balance between the economic and environmental aspects of projects and stewardship. Internally, the Corps supports ERDC research labs that focus on sustainable development.

2. Fish and Wildlife Service – Internally, FWS staff are conducting a number of operational greening initiatives including 5 LEED certified centers at field locations. The Service is promoting the use of “Green Corridors” to help link refuges and generally promote conservation at the landscape-scale. The Service is committed to systematically applying principles of “Strategic Habitat Conservation” to all conservation planning the agency is engaged in throughout the Midwest Region, including work being done on all 54 national wildlife refuges in Region 3. Strategic and five-year action plans are being finalized to support sustainable operations and identify the appropriate role for the Service in addressing and mitigating the ecological affects of climate change. FWS emphasizes project/program planning, implementation, and adjustment by using the slogan “Plan-Do-Learn”. FWS emphasized that it is important to ask the right questions and to make adjustments to management actions as new data and information become available (adaptive management) in order to achieve successful and sustainable natural resource management.
3. National Park Service – To help operate National Park Service managed property for the long term, sustainability goals are established for each Park and evaluated as part of an environmental audit. Because preservation is an important part of Park Management, some NPS issues have a different focus than other natural resource agencies. Externally, Park Service personnel provide opportunities to engage the public on sustainable natural resources management. Monitoring of natural resources in the Parks is a key component for sustainable operations. Two examples are: 1) a forest integrity study for all National Park property in the Midwest and 2) leadership in the Great Lakes Regional Collaboration strategy to restore and protect the Great Lakes.
4. Environmental Protection Agency – As a regulatory agency, EPA has placed more emphasis on human health issues related to sustainable development than many other federal agencies. Over the longer term, EPA actions have resulted in much improvement in factors affecting human health. Sustainability is a recently added focus for the agency. Enforcing regulations for clean air and water are critical parts of sustainable development but, generally have a different character. Over time, many aspects of EPA’s regulatory work have come to more fully incorporate ecosystem function as a key element of the regulations. For example, the Great Lakes Water Quality Agreement now includes more aspects of ecosystem function than when it was originally adopted.
5. Coast Guard – Aquatic Invasive Species are the principle natural resources sustainability issue for the Coast Guard. A new invasive in the Great Lakes is introduced about every 9 months on average. The most specific concerns are regulation of ballast water. A recent court ruling requires EPA to regulate ballast in coordination with the Coast Guard. A complicating factor has been passage of state regulations on ballast water by Michigan, Wisconsin, and Minnesota. Four hundred and one ballast-water discharge permits have been issued for Great Lakes vessels. The Coast Guard also conducted a safety study of the electric barrier to fish movement near Chicago.
6. Forest Service – Sustainability is a facet of all Forest Management Plans as part of both the State and Private Forest Branch and the National Forest system which has about 12 million acres in the northern Midwest. The Forest Service recently held a Sustainable Forest Products conference to emphasize the need for sustainability related to forest resources. Externally, the need to sustainably manage forests has resonated in some parts of the private sector. For example, some companies have adopted policies that require

use of forest products only from sources that have certified sustainable operations. Climate change planning is also a vital part of all management plans.

7. Bureau of Land Management – BLM has oversight of public surface lands for management and conservation mostly in the western U.S. An interesting fact is that BLM oversees mineral and energy leases on a subsurface area of 39 million acres in the eastern U.S. and 700 million acres nationwide. Many times, people who own the surface rights to land do not realize that they do not own the subsurface rights. Managing leases for minerals and energy requires an understanding of the environmental consequences of allowing the lease.
8. Federal Highway Administration – FHA determines the surface impacts of transportation systems and works to promote sustainable ecosystems related to transportation. Because the use of federal highways is the source of a large percentage of greenhouse gas generation, about 28%, the Highway Administration has created a new headquarters office on sustainable transport and climate change. Within this office, a Sustainability Exchange Work Group was formed to help evaluate demand for fuel and for more ecosystem friendly and efficient highway development. Use of carbon sequestration by managing vegetation in the right-of-way is also being explored.
9. U.S. Geological Survey – USGS provides science support for sustainable development as part of its core mission. USGS does not regulate or manage any lands as do many other resource agencies. The general science themes are: 1) Understanding Ecosystems and Predicting Ecosystem Change which includes work on large river systems, the Great Lakes, and water-quality studies and monitoring; 2) A Water Census of the United States which includes surface- and ground-water availability and use; 3) Energy and Minerals Assessments; 4) the Role of Environment and Wildlife in Human Health; and 5) Climate Variability and Change.

Mike Prouty, USFS, described the Upper Mississippi River Forest Partnership. Major points of the presentation are as follows:

- State and private forests constitute 93% of forested land in the Eastern U.S. and 2/3 of all forests nationally, therefore, partnership efforts are essential for successful forest management
- Forests play important roles in maintaining water quality and habitat
- The Upper Mississippi River Forest Partnership builds on existing organizations such as the in the Driftless Area and the Riverhills Restoration Projects
- Roles of the States are critical to successful forest management
- A challenge for the Partnership is how to use a few small projects to catalyze large-scale changes in habitat and sustainable use of resources
- The Partnership emphasizes that because we all have a stake in the way the river is managed, working together is a key to successful management

Tex Hawkins, USFWS, described U.S. Fish and Wildlife Service efforts on Natural Resource Partnerships. Major points of the presentation are as follows:

- Tex showed an excellent short film on the Upper Mississippi River titled “River of Life and Wonder.” One point of the film is the interaction of people with the River – in many ways, the River is a reflection of the people that interact with it and vice versa.

- Because so much of the wildlife population is outside of the FWS refuge system, these populations cannot be successfully managed only on refuges. This illustrates the need for partnerships among wildlife managers and private land owners to improve wildlife populations.
- Tex described FWS and other partners' restoration at Weaver Bottoms and the Whitewater River as an example of a successful partnership for wildlife management and other natural resources issues
- Discussion about the appropriate size of federally sponsored projects followed the presentation
- Tex also warned of negative effects of watershed groups working in isolation and that Federal agencies should work to prevent this when possible

Senior leaders met during lunch. No notes are available.

The afternoon session began with an **overview of tools and examples for MNRG** to use to improve work on sustainable use of natural resources in the Midwest.

1. Richard Gebbart described work at the Construction and Engineering Research Laboratory (CERL) to sustainably manage military ranges and lands. He stressed the use of cost effective approaches. A sustainable ecosystem loses about 1 ton of soil per acre per year, on Army ranges loss rate is currently at about 3 tons but improving. Topics discussed included erosion control, dust control, roads and trails, land rehabilitation, invasive species (especially terrestrial invasives), and berms.
2. Deborah Swackhamer, Water Resources Institute at University of Minnesota, described a Statewide Conservation and Preservation Plan for the entire state of Minnesota. The Plan consists of inventory and assessment of demographics, ecosystems, climate change, public health, conservation strategies, and trend analyses that was organized by about 100 scientists, professional staff, and citizens in conjunction with all state agencies and some federal agencies. The Plan was formulated by first reviewing all existing plans in the Department of Natural Resources, Minnesota Pollution Control Agency, and the Minnesota Department of Agriculture. The Plan covers issues related to air, water, land, wildlife, fish, and recreation. Drivers of change for these issue areas include soil erosion, nutrients, toxic chemicals, habitat loss, hydrology, and aquatic invasive species, among others. GIS coverages were prepared for habitat loss, land-use practices, transportation, energy use, and distribution of toxics. From these coverages, illustrations of critical lands, issues related to land and water, sustainable development, integrated planning, and economic incentives were prepared. Recommended practices were illustrated to show benefits to air quality, water quality, terrestrial habitat, and soil and land quality to help resource managers make policy decisions. Priority maps were developed for specific issues such as sturgeon restoration and wetland threats. Recommendations were developed for habitat, energy, land use, transportation, and forestry management. Examples of the recommendations are as follows for habitat protection/restoration: 1) protect priority habitat, 2) protect critical shorelines, 3) improve connectivity of habitat, 4) protect shallow lakes, 5) protect wetlands and promote wetland restoration, 6) enhance critical habitat, 7) keep water on the landscape, 8) review and analyze drainage policies, 9) restore land and aquatic habitat, and 10) restore nearshore habitat. The Minnesota

Statewide Conservation and Preservation Plan integrates resource planning across the disciplines and gets rid of stovepipes.

3. William Goran, USACE Center for Advancement of Sustainability Innovations (CASI), discussed sustainability efforts related to army base operations. The topics include: 1) greenhouse gas emission calculations on bases, 2) sustainable regional land-use and water-use planning for 2010-2030, 3) low-impact development for base housing, 4) low-impact development for all base functions including water quality and local power options such as MicroGrids, and 4) ecosystem services to offset the effects of training.
4. Steve Luzzi, Director of FedCenter, described activities of the Center, which is a consortium of Federal Agencies whose purpose is to support environmental, transportation, and energy-related activities within the member agencies mainly related to EMS. A large number of databases and tools are available through FedCenter to assist with this task. Scientists and engineers at FedCenter work on regulatory, guidance and policy across all groups including lessons learned and measuring effectiveness. Environmental cleanup and sustainability of natural resources are important issues for the FedCenter.
5. John Chick, National Great Rivers Research and Education Center (NGRREC), described the education and research efforts that are part of Lewis and Clark Community College in Godfrey, IL. The Illinois Natural History Survey at the University of Illinois is also an important part of the NGRREC work which includes aquatic ecology and Long-Term Ecological Monitoring for the Mississippi River. A sustainable Mississippi River meeting is scheduled for August 10-13, 2009 in Collinsville, IL.

After a tour of the CERL facilities, MNRG participants adjourned for the day.

Day 2 – December 12, 2008

A panel of experts discussed possible **options for MNRG natural resource sustainability implementation.**

1. Dick Warner, University of Illinois Office of Sustainability – made the following points: 1) to be effective we need to overcome the distributed nature of our culture, 2) the Midwest could become the energy capital of the world if it can balance use of coal, corn, and soybeans with sustainable use of water, 3) federal agencies must work together guided by science to sustain production of food and energy without exploiting water resources. Balanced water, food and energy represents an ecosystem.
2. Bill Kruidenier, NGRREC – recommends that MNRG agencies take a more holistic approach to Mississippi River issues since it is so important to the Nation and is the third largest watershed in the world. They are developing a data base of information at NGRREC for use by river scientists.
3. Bill Goran, CERL – made the following suggestions: 1) we have a long way to go to understand sustainability issues especially the “water/energy nexus,” 2) a vision of the Upper Mississippi River is needed to put projects into an ecological assessment framework, 3) it is hard to match up planning across a large area because so much planning is done and implemented at the local level, 4) coordination is being done for some types of data but, for the most data or databases, the information remains in

isolation of other data, 5) maps of certain types of information are needed (for example, maps of impervious surface area), 6) NRCS is an important MNRG agency and their involvement in natural resources planning in the Upper Mississippi is essential, and 7) issues related to listed and endangered species are often contentious and need multi-agency involvement. He made the point we have 5% of the world's population in the U.S., but use 25% of the world's natural resources – that needs to change.

4. Kevin Greene – emphasized the following: 1) green government especially energy, buildings, and purchasing, 2) many who think of greening our society do not think of ecosystems, 3) the most interesting initiatives are local and regional such as the Cool Cities Initiative, and 4) Federal agencies need to be aware of local groups and issues and strategically share data. He supported regional sustainable projects and emphasized a bottom-up strategy. Need to get people together.

Melanie Johnson, Nicholas Josefik, and Tarek Abdallah, The Fuel Cell Team, -- made a short presentation on fuel cell technology. Two common fuels used to generate electricity are propane and hydrogen gases. Cost effectiveness and improved technology being actively explored. The basic technology has been proven. Dodfuelcells.com presents conclusions of CERL research to date.

Barahat Mathur, Bill Franz, and John Perrecone, EPA, -- presented a draft proposal to MNRG on reconnecting the Upper Mississippi River with the floodplain where possible. The proposal outlined redesigned levees that would allow flow in and out of the floodplain under some higher flow conditions. Appropriate re-vegetation could be grown in the reconnected areas. The proposal was discussed at some length and there was general support but also the need to better define the issues and the proposed role for MNRG. EPA was to go back and more fully develop the proposal for presentation at the spring senior leaders meeting.

There was a short discussion about the next meeting but no final decision was made on this topic.

The meeting was adjourned.