Outcomes from "A Clean Future for the Yahara Lakes: Solutions for Tomorrow, Starting Today" held October 10, 2008 at Monona Terrace in Madison WI

Four concurrent sessions were held at the conference: Community Actions and Partnerships; Green Land, Clean Water: Opportunities in Manure Management; Mud and Crud: Reducing Urban and Rural Sediment and Nutrient Runoff; and Beach CSI: Investigating and Controlling Potential Pollution Sources. Descriptions of each session and resulting recommendations are presented below.

Community Action and Partnerships

Protecting and improving water quality requires management at the watershed level. Since smaller watersheds are part of larger ones, we need organizations and partnerships that work effectively within and between different geographic scales. For example, at least eight "friends" groups (e.g., Friends of Pheasant Branch, Friends of Cherokee Marsh, Friends of Lake Wingra) are active at this "subwatershed" level within the larger Yahara Lakes watershed. These local watershed groups participate in partnerships with organizations focused on larger geographic areas such as the Rock River Coalition and Natural Heritage Land Trust, and with government agencies including towns and cities, Dane County, the State of Wisconsin, and others.

The morning session, *Working from the Ground Up...*, identified opportunities for and challenges to successful partnerships at different scales, using the experience of existing organizations including the Friends of Pheasant Branch, Rock River Coalition, and the Natural Heritage Land Trust. The group identified the characteristics of effective collaborations and networks that allow each group to fulfill their mission and at the same time contribute to the water quality goals at the scale of the entire Yahara Lakes watershed.

The afternoon session, *Working from the Ground Up...and the Top Down*, explored successful models of broad-based community partnerships that bring all stakeholders under an organizational "umbrella" to address complex environmental issues: Watershed Agricultural Council of New York, Chicago Wilderness Trust, and Southeast Wisconsin Watershed Trust. Particpants then considered what components of these models might help us protect and improve water quality in the Yahara Lakes watershed.

Recommendations from this session that were presented at the closing plenary:

- **Authentically engage all key stakeholders**, reaching across diverse interests and seeking common priorities.
- **Build a recognized and respected structure** that will honor and support the passion and commitment found in place-based organizations, and capitalizes on their individual contributions to meet broader goals.
- **Create an umbrella organization** that pools and leverages local resources and capacity, builds on rather than usurps existing organizations, and thus shapes policy, magnifies impacts on decision making, and takes specific actions.

Green Land, Clean Water: Opportunities in Manure Management

The single largest source of nutrients entering the Yahara Lakes is livestock manure. Rather than blaming the farmer, constructive solutions need to be found to manage manure to keep it from escaping from farmland into the lakes, and to address the manure management challenges faced by dairy farmers. This session will explore one potential solution: community manure digesters. While there are no "silver bullets" relative to cleaning up the lakes, this idea may be as close as we can come to a solution that could have a major impact on water quality. This session explored why and how.

The morning session examined community manure digesters from the technical and policy aspects of this approach. Is it possible to design a digester such that it is a win-win for the farmers and lakes, and as a viable source of alternative energy for Capital Region residents? What will it take to get manure digesters into the watershed? Participants explored answers to these and related questions.

The afternoon session explored related questions such as: What are the business aspects of a community biodigester? Farmers, by definition, are independent entrepreneurs, yet they have a long history of farm cooperatives. Can we develop methods and techniques to manage community biodigesters that will work for all farmers, large and small? What role can these installations play in increasing the Capital Region's use of alternative energy? How do we make this happen? How do we fund these innovative ideas such that all benefit?

Recommendations from this session that were presented at the closing plenary:

- **Nutrient commodity exchange:** selling excess fertilizer from community manure digester bi-products to those in need outside of the Yahara watershed. Phosphorus kept inside the watershed would be applied where there is a proven need for it.

- **Integrating urban and agriculture;** creative use of digester bi-products, such as using the heat for a horticultural greenhouse; liquid nutrients to feed algae to produce bio-diesel, and other bi-products such as particle board that is being researched at the Forest Products Lab.

- **Create a community development authority** to coordinate public and private investment, in community digesters and in the market opportunities provided by those digesters.

Mud and Crud: Reducing Urban and Rural Sediment and Nutrient Run-off

Runoff from both urban and agricultural lands contributes to excessive sediment and nutrients in the Yahara Lakes. However, there are major differences in the way in which these lands are managed and in the regulatory, financial, and social factors affecting their management. In urban areas, management practices are required for new developments, installed and managed on public lands by municipalities, and encouraged as voluntary activities for homeowners and businesses. Agricultural runoff controls involve a mix of voluntary and required practices that are installed and maintained on private property by individual landowners, with cost-sharing and

technical assistance from multiple levels of government. Compared to urban areas, the potential for reducing runoff from agriculture lands is greater and the incremental costs of reducing equivalent amounts of sediments and nutrients is lower. Yet, agricultural producers considering new controls face additional constraints beyond financial considerations. This all sets up some interesting possibilities.

The morning session described the urban and rural sources of runoff to the Yahara Lakes and the regulatory, financial, and social factors affecting their control. The afternoon session explored innovative approaches for reaching across the watershed to find workable, joint solutions.

Recommendations from this session that were presented at the closing plenary:

- We know the level of control required, and we know in general how to reach it (science gives us the tools).
- To develop specific management practices, efforts must be tailored to specific, unique sites. This requires staff, resources, and dollars.
- Agriculture is a primary focus of any efforts. Any agricultural efforts require cost-share. The major challenge—what are innovative funding mechanisms?
- Nutrient trading – from urban/agricultural interactions? From a TMDL process?
- We must make better use of existing monies that are available.
- Implement multiple-benefit practices.
- Climate change money will be available for conservation efforts
- Bioenergy: in sensitive areas, we could be using perennial crops to produce bioenergy…less money to put in buffer.
- Pressing needs: must implement a policy that determines cost
- Development of new partnerships is key — how do we reach new stakeholders that are essential to the success of these efforts?
- Innovative funding sources for conservation is the dominant issue—what do you see as options for funding these solutions?
- Is there a role for a non-governmental broker between urban and rural interests? (Brokering between agricultural/urban sectors requires determination of what sort of mechanism we will use.)

Beach CSI: Investigating and Controlling Potential Pollution Sources

Local public health officials are monitoring beaches to minimize water-borne illness. To manage risks from pathogens and toxins, they have closed beaches on the Yahara lakes due to bacterial contamination, presence of cyanobacteria (blue-green algae), and other factors that pose risks to the health of swimmers. These periodic closures have led the Wisconsin Department of Natural Resources to propose placing several Dane County beaches on the US Environmental Protection Agency's impaired waters list.

The morning session reviewed the situation at City of Madison beaches, where City staff have a long-term record resulting from regular beach monitoring. Audience members heard background remarks to frame beach issues and provide some historical context, received an overview of

local beach water quality over time, and learned about findings of an EPA-funded data collection and monitoring project at selected beaches.

The afternoon session focused on using comprehensive sanitary surveys to identify and reduce pollution sources at beaches, and included case studies from Great Lakes beaches in Racine and Door County, and inland beaches in Vilas and Oneida Counties. The afternoon session concluded with identifying next steps in overcoming challenges for implementing additional innovative practices locally.

Recommendations from this session that were presented at the closing plenary:

- **Comprehensively evaluate potential pollution sources** at beaches (the EPA-developed Beach Sanitary Survey is an excellent tool) and develop a beach master plan. Reducing impacts from urban geese is as a key component of implementation.

- **Create a beach group involving all stakeholders and jurisdictions** to foster political will and funding resources to achieve goals. Recognize the importance of education in informing and advancing public and political will.

- **Recognize that healthy, sustainable beaches have social, political and economic value.**