

## Watershed Management and Water Resource Sustainability

### Program Value Summary



“The more we apply EPRI information, the more valuable EPRI becomes. In the Watershed Management area EPRI helps us to understand how to conduct water quality trading activities and work cooperatively together with other entities” says Keith Hanson, Environmental Compliance Specialist, Minnesota Power Company. “Greatest value is achieved by using EPRI’s work on a customized basis, applying it in our organization and taking advantage of the influencing power of the advisory structure to guide the direction of specific research and development projects.”

### **Q: What do you see as the greatest challenges in the area of watershed management and water resource sustainability management for your company today?**

A: Increasing regulations such as the implementation of the mercury emission standards (Clean Air Act) and drinking water standards (Clean Water Act) are affecting watershed management and water resource sustainability management on a state-specific basis.

The Environmental Protection Agency (EPA) released a draft 500-day water quality plan in December 2003 that promoted watershed protection; watershed permitting and water quality trading between point and non point sources as a cost-effective tool to restore watershed integrity; support watershed partnerships to achieve clean water; and ensure implementation of Total Maximum Daily Loads (TMDLs).

This plan has increased and accelerated watershed regulatory, planning, and management activities by government agencies. Industry and other stakeholders need the benefit of technical tools and knowledge provided by the Electric Power Research Institute’s (EPRI’s) watershed program to effectively participate in and respond to these local, state and federal government activities.

More broadly than TMDLs, there is common agreement that the watershed approach is necessary and valuable when it comes to addressing watershed and water resource management issues. In addition, it is important to recognize that a watershed plan is not a one-time endeavor but needs to be frequently modified in response to changing environmental, social, and economic conditions.

EPRI gives our company the opportunity to influence the development of research topics and to address these changing conditions and therefore helps us to comply with federal regulations and measure facilities improvement. There is no other institution in the United States other than EPRI that has the credibility in the industry to help their membership reduce operations costs, anticipate policy changes, and provide proven decision-support tools that integrate solutions for members, regulators, and other stakeholders.

The projects in EPRI's program are complementary and integrated around a watershed theme. The resolution of most watershed and water sustainability issues will require a combination of results from two or more of the projects.

**Q: How has Minnesota Power benefited from the involvement in EPRI's Watershed Management and Water Sustainability program?**

A: EPRI's Tailored Collaboration process creates the greatest individual value to our company by addressing the needs of the Great Lake System and new regulations commanded by the Great Lake Initiative that contain strict mercury standards regulations.


EPRI will continue to help us apply developed and tested products that support risk-based strategies in order to retain a cost-effective balance between environmental goals and costs of compliance.

Because water body impairments will have far-reaching implications for economic development, environmental policy, land use, and facility operations within thousands of watersheds, this program could yield significant economic benefits as a result of its efforts to inform watershed and facility regulatory, compliance, and management decisions.

The U.S. Environmental Protection Agency (EPA) estimates the total cost to the regulated community of the 2000 Total Maximum Daily Load (TMDL) rule to be between \$1 billion and \$3.4 billion over ten years. Industry analyses estimate costs to be between \$20 billion and \$80 billion, with costs to the electric sector as high as \$17 billion, according to the Edison Electric Institute. These estimates do not include specific pollutant controls and cleanups (e.g., air emissions and sediments) that may result from TMDLs, nor do they include economic impacts associated with imposed growth and development limits. By promoting consensus and risk- and market-based management strategies within individual watersheds, the program helps achieve the economic and environmental goals of facility owners, the public, and other stakeholders—with facility-specific savings ranging from tens of thousands to tens of millions of dollars. Several large electricity companies, numerous government agencies (including EPA), and other stakeholder groups throughout the U.S. have participated in applications of the Watershed Analysis Risk Management Framework (WARMF) created and demonstrated by the EPRI program

**CONTACT INFORMATION** For more information, contact the EPRI Customer Assistance Center (EPRI CAC) at 800.313.3774 (askepri@epri.com).

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