

BEST PRACTICE AREA 14: MISSISSIPPI RIVER CONSERVATION

Vision

The Mississippi River is a landmark that unites the communities of the Joint Planning District through a common focus on water quality, stewardship, water conservation, and recreation.

Background

The Mississippi River is an iconic river that flows through the heart of the Joint Planning District. The people of the Region depend on the River as a drinking water source, a recreational amenity, and a scenic linkage between the Headwaters to the Twin Cities and beyond. The St. Cloud Region is one of the first population centers to use the River as a drinking water source for thousands of people. It is also one of the first population centers to send its treated wastewater down river. The Mississippi River is also a major fishery and provides a significant recreational amenity for the Region. As the major natural resource in the region, the Mississippi River is a major part of the community's identity; and protecting the waters of the River is a major part of building a sustainable Region.

In order to fully protect the Mississippi River, several BPAs will need to be addressed because of the inherent connection of the River with its watershed. Tributaries throughout the region cross multiple land uses, pick up pollutants and nutrients, and deliver them to the river. Over 68,000 people receive drinking water, and over 7,500 homes and several businesses receive power from dams on the river. The connection between other BPAs is engrained in the river's connection to the region, especially BPAs 11 and 12.

Creating healthy landscapes throughout the watershed that include stormwater BMPs and drought tolerant native landscaping will improve the water quality of the river, which will improve the fishery production and recreational user populations, which will expose the dramatic Mississippi scenery to many more people, which will endear the river to more people and lead them to want to protect this resource. Municipal water and wastewater treatment facilities account for up to 50% of the electricity consumed by city governments⁸. Saving on irrigation will lessen the need for water to be pumped, reducing energy demands, saving government money, lessening the release of greenhouse gases, improving air quality, etc.... Protecting water quality of the Mississippi also sets precedence for municipalities

⁸ Lawrence Berkeley National Laboratory Water Energy Technology Team, "Wastewater Treatment and Water Reclamation"





down river that will benefit from the St. Cloud Region's stewardship and leadership in sustainability.

The following goals and initiatives will focus on conservation from the natural resource and water quality perspective. There has been a lot of work previously completed on these issues as outlined in the Mississippi River Renaissance Vision and ongoing development of actions to support that vision.

Goals

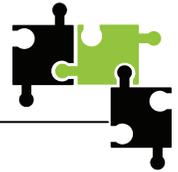
- A. Improve and unify shoreline ordinance standards for the region.
- B. Improve the water quality of the Mississippi River and its tributaries.

Initiatives and Action Steps

The following three initiatives for initial action were identified through public input and reflect local stakeholders' views of which goals would have the most profound effect on moving the Joint Planning District toward sustainability.

1. **Renaissance, Renaissance, Renaissance:** Support and implement goals and practices of Mississippi River Renaissance Project to unite the Joint Planning District in the protection and improvement of this scenic and recreational resource.
 - a. Adopt the final Vision and Actions of Mississippi River Renaissance Project into and update accordingly. In addition, formally acknowledge the Mississippi River Renaissance Project in this Sustainability Plan and in future amendments, education sessions, and education literature. Linking these two initiatives and documents will strengthen both and reinforce that Regional Sustainability is dependent on the health of the Mississippi, and the health of the Mississippi relies on the Joint Planning District Sustainability Plan.
 - b. Maintain at least one member on both the Sustainability advisory committee and the Mississippi River Renaissance advisory committee. Over time this will be important to keep up to speed with both initiatives and evaluate the compatibility of both efforts as they change.
2. **Less is More... Water:** Reduce the use of potable surface water for residential or commercial landscape irrigation by 50% with the long-term goal of reducing by 75% or more.
 - a. **Vegetation:** Encourage the use of low water needs landscaping and "self-watering" landscaping such as raingardens. Choosing the right plant is a major determinant of irrigation need. Traditional turf grass water needs are very high and require a



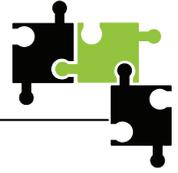


significant investment in irrigation and ongoing water replenishment. Cutting back on overall areas of turf grass that need to be irrigated is an easy way to cut back on irrigation. There are many attractive native and non-invasive drought tolerant perennials and shrubs that have little to no need for supplemental irrigation upon establishment. Many of the following initiatives are similar to initiatives found in BPA 11. A major component of creating healthy landscapes is to balance water needs. Resources such as the Sustainable Sites Initiative contain guidelines, benchmarks, and resources for creating sustainable landscapes - *The Sustainable Sites Initiative: Guidelines and Performance Benchmarks 2009*, from <http://www.sustainable sites.org/>.

- i. Revise any ordinance that would disallow the use of natives or the installation of small scale stormwater management facilities. Model ordinances are available as tools to define native plants as separate from weeds and to separate native landscaping from one that is overgrown in ways that adversely affect human health and safety. Example model municipal ordinances include the following:
 1. Wild Ones – Model Municipal Ordinance, from http://www.for-wild.org/weedlaws/model_ord.html
 2. CR Planning – Ross, Brian Community Resources Planning, Inc., “Model Ordinances for Sustainable Development – Landscaping and Maintenance of Vegetation”, from http://www.crplanning.com/pdfs/susdo6_09/landscaping.pdf
- ii. Reduce high irrigation needs turf grass in new public projects:
 1. Create a policy that only 50% or less of the total landscaped site area of new public projects can be irrigated turf grass. Turf areas above the 50% threshold cannot receive irrigation.
 2. Use low irrigation turf grass alternatives such as buffalo grass or some of the emerging “no mow” fescue based lawn mixes. These alternatives are newer technologies, and inherently higher risk, and could use some public agency initiative and leadership to test, learn from, and educate the rest of the public. The potential benefits could be very high for individual landowners.
- b. Irrigation: In the United States, the average family of four uses approximately 30% of their daily water use on irrigating lawns and gardens. An estimate of up to 50% of irrigation water can be wasted due to overwatering, evaporation, wind, and improper design⁹. Implementing efficient, well designed irrigation systems in

⁹ U.S. Environmental Protection Agency, “Outdoor Water Use in the U.S.”





- iv. Maintain at least one member on the Sustainability advisory committee that is a representative or employee of the Region’s Soil and Water Conservation Districts. Over time this will be important to keep up to speed with multiple initiatives and evaluate the compatibility of various initiatives and funding sources.
- b. Develop a regional crisis delivery system to address emergency or hot topic issues as they arise.
- c. Do not create any new and reduce the number of existing stormwater outfalls to the river, unless absolutely justified and designed to meet best management practices.

General Actions

The following general actions have been identified as measures that will allow the Joint Planning District to move toward the goals for this Best Practice Area that were not selected as “initiatives” above. These actions are based on the input of stakeholders throughout the planning process.

- I. Host alternative shoreline ordinance standard discussion between Local Governmental Units with the goal of strengthening the existing shoreline ordinance on a region wide basis.
- II. Create and support a private, non-profit organization to sustainably balance natural preservation, development and redevelopment, recreation access, and environmental health associated with the Mississippi. The St. Paul Riverfront Corporation could be used as a precedent. The three city river corridor planning process currently underway should be used as a starting point vision for the urban area.
- III. Organize an urban riverfront tour in each riverfront city. Focus on cultural and environmental education/ appreciation. Compare/ contrast cities to see what has worked and not worked.

