

# **St. Croix Watershed Reconnaissance Study**

## **St. Paul District, Corps of Engineers**

### **Compilation of concerns and suggested projects for further evaluation.**

Below is a compilation of concerns and suggested projects for further consideration within the St. Croix Watershed Reconnaissance Study. The list below is based on discussions presented during scoping efforts from 2005. These include the public meetings (July and August 2005), as well as additional meetings with resource agencies and interested stakeholders. The items listed below do not constitute the “final” list of all projects under consideration. Stakeholders can review this list for completeness and suggest additional project ideas, or re-confirm project ideas they may have passed along but do not show up on this list. It should be noted that many suggestions were highly similar, and may fit into the suggestions outlined below. Any additional project ideas should be provided to the Saint Paul District as soon as possible. Contact information for additional ideas is provided at the end of this document. Also note that the listing of an idea below does not constitute what the Corps may or may not be able to carry forward beyond this reconnaissance phase.

### **Nutrient and Sediment Loading Concerns within the Basin**

- Study and identify methods to reduce sediment and phosphorus loading on tributaries of the St. Croix River. Potential tributaries include the Sunrise, Snake, Kettle, Apple, Willow, and Kinnickinnic rivers. Other tributaries can certainly be considered
- Identify appropriate TMDL for St. Croix tributaries. Identify areas of concern
- SWAT modeling on Willow River underway (SC Basin Planning Team). Assist with this effort, and/or perform similar efforts on other tributaries
- Develop one or more Watershed Management Plans
  - Entire Saint Croix Basin
  - Selected Sub Watersheds
  - SubWatersheds of initial interest: Sunrise, Snake, Apple, Willow, Kinnickinnic
  - Assist with "smart development" within areas of projected rapid population growth
- In support of developing watershed management plans, perform appropriate data collection and modeling to evaluate potential control measures for sediment and nutrients
- Consider some type of educational effort on importance of reduction of nutrient and sediment loading
- Consider nutrient reduction banking for subwatersheds
- Perform alumn treatment for lakes with eutrophication problems

## **Concerns / Projects with Dams**

- Rock-ramp fish passage project at Cross Lake (similar to Midtown Dam on Red River -- roller at Cross Lake Dam killed a kayaker last year)
- Fish passage at Gordon Dam
- Identify and address other dangerous dams in basin, especially those that may benefit from fish passage
- Dam Removal at Valley Creek and Old Mill Stream

## **Aquatic Invasive Species Education, Prevention and Management anywhere in the Basin**

- Education programs to teach public the problems with invasive species
- Continued local monitoring for spread of invasive to new areas
- Watercraft inspections for zebra mussels, milfoil and other species
- Conduct integrated invasive species management (e.g., release of beetles for purple loosestrife, burning or herbicides for buckthorn)
- Develop a "rapid response plan" to eradicate small patches of invasives once discovered in a new area
- Use a harvester to control excessive milfoil populations
- Species of concern can include zebra mussels, rusty crayfish, Eurasian milfoil, purple loosestrife, and others. This includes the group of species known as Asian Carp (direct entry into the basin at Prescott). Asian carp concerns could include the use of fish barriers, or other management measures.

## **Bank/Shoreline Erosion**

- Assist/address the following erosion problem areas (examples mentioned)
  - Snake River – heavy bank erosion and sloughing between Cross Lake and St. Croix River. May be other potential sites as well
  - Sunrise River within Wild River State Park about 1/4 mile from St. Croix.
  - Kettle River - about 800 feet of 14' high bank just south of Moose River.
  - Clam River - Erosion at various locations
- Assist with bank erosion throughout tributaries within the basin (improve habitat and reduce sediment loading).
- Assist with lake shoreline erosion protection education (throughout lakes in the basin)
- Assist with shoreline erosion along several locations of Lake St. Croix

## **Flood Protection / Flood Damage Reduction**

- Lake St. Croix Beach and possibly other communities (although none other specifically identified)
  - FEMA has flood proofed 8 or 9 homes
  - Up to 45 homes in flood fringe, thus more flood proofing needed
- Also, need of bankline protection in this area (includes a city park)

## **Habitat Restoration and Protection**

- Wetland Restoration (general, anywhere within basin – still looking for specific project ideas)
- Kinnickinnic River Coldwater Stream Habitat Restoration
- Polk County, WI Coldwater Stream Habitat Restoration
- Riparian lake habitat - restoring habitat impacted by lake shore development
- Use land acquisition and conservation easements to maintain high priority habitat areas. Take advantage of property as it becomes available
- Consider other measures to protect existing high-quality aquatic habitat (integrates with watershed planning, smart development, invasive species management, and other ideas mentioned above)
- Consider measures to protect the federally-listed aquatic species, and their habitat, within the basin (integrates with watershed planning, smart development, invasive species management, and other ideas mentioned above)

## **Stormwater and Wastewater Management**

- Implement the River Falls Stormwater Treatment Concept Plan
- Assist with Wastewater Management Issues for St. Croix County
- Assist with Stormwater Management Issues for Hudson
- Assist with I-94 stormwater drainage problems and its adverse impacts to Long Pond.
- Assist with Stormwater Management Issues for Pine City
- Assist Snake River Watershed Board with Stormwater Management Issues for Hinkley (Mission Creek)
- Assist Snake River Watershed Board with zoning for other stormwater development
- Assist Pine City with wastewater treatment plant upgrades
- Assist with wastewater treatment issues at Askov (problem with treatment ponds).
- Provide assistance throughout watershed addressing septic issues for lake property owners (nutrient loading to lakes).

## **Additional Project Ideas**

- Develop an emergency response plan for toxic spills (throughout basin, but especially at US Highway 8 and State Hwy 70 bridges)
- Develop a plan for addressing other contaminants issues (throughout basin)
- Set up information clearing house for the large amount of past, present and future work done throughout basin
- High water problem on Pokegama Lake following rainfalls (nr. Pine City). Flood bounce on lake about 5-8 feet
- High water problem on Fish Lake (near Stillwater) following rainfalls. Flood bounce on lake about 5-8 feet. Results in shoreline erosion.
- High water problem on other Washington Co. lakes (e.g., Sturgeon, Island and Sand lakes) following rainfalls. Results in shoreline erosion
- Fallen tree and removal of woody debris for recreation on tributaries

## **Contact Information**

Please send additional ideas to the address or number below. Any additional Ideas should be provided by mid-November to receive consideration.

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