

# Root River Issue Survey

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# Review of September 7, 2010 Meeting

# Issues Identified in the Findings of the Regional Water Quality Management Plan Update and Other Recent Planning Efforts

Impairments related to low dissolved oxygen

Impairments due to fish consumption advisories

High fecal indicator bacteria concentrations

Poor quality fishery upstream of Horlick Dam

Fragmentation of terrestrial habitat

Streambed and streambank erosion

Access to the River

Invasive species

# Features to Consider Incorporating into a Watershed Restoration Plan

- Followed the pattern of the Menomonee River and Kinnickinnic River Watershed Restoration Plans
- Identify a set of focus issues to address over a relatively short time frame
  - Tractable
  - Three to five issues
  - Five year time frame
- For each issue, identify a set of targets to be achieved by the end of the plan period

# Examples of Focus Issues from Menomonee and Kinnickinnic WRPs

- Bacteria
- Nutrients
- Habitat/Aesthetics

What should the focus issues be for a Root River Watershed Restoration Plan?

# Ask the stakeholders

- People who work on land management related issues in the watershed
- Local officials
- Other people with a known interest in regional watershed protection

# Two Part Web-Based Survey

- Part one – identify the issues
  - What is the survey takers relationship to the river/watershed?
  - What does the survey taker feel the major issues are?
- Part two – prioritize the issues
  - Rate each issue on a scale of importance
  - Identify the 5 most in need of immediate attention



# Survey Limits

- Some stakeholders don't participate
- Some issues missed
- Confusion over terminology

# Survey Assists

- New stakeholders made aware
- New issues given a chance to emerge
- Areas of agreement revealed

# Survey Results

## Part 1

- 32 respondents
- 23 live in the watershed (72%)
- 20 work in the watershed (62%)
- 17 engage in outdoor recreation in the watershed (53%)
- 2 fish in the watershed (6%)

# Survey Results

## Part 1

- 318 answers to questions 2 through 6
- Distilled down to 43 issues
  - Vary in level of generality
  - Interrelationships among issues
  - There are several issues that could be considered aspects or components of other issues
  - These were presented for rating in Part 2 of the survey

# Survey Results

## Part 2

- Used the issues identified in Part 1
- 61 responses

# Survey Results

## Part 2

- Three analyses for each issue
  - Question 1—Mean rating
  - Question 1—Percent of responses rating the issue 1 or 2
  - Question 2—Number of times listed in top five issues to address in a plan
  - Removed not sure and no answer before analyzing
- Scores on the handout are sorted by the mean rating
  - Average rating overall was 2.25

# Survey Results

## Part 2

- To examine agreement the issues in each analysis were grouped
  - Six top rated issues for each are shown in purple (6 per analysis)
  - Next six issues are shown in blue
  - Next six issues are shown in green
  - Next ten issues are shown in orange
  - Last 15 issues are shown in red

# Survey Results

## Part 2

- The three methods mostly agree
  - The issues that are somewhere in the top 12 are almost identical among the three analyses
  - The issues that are somewhere in the bottom 15 are almost identical among the three analyses
- Conducted further analysis on the top 15 to see whether there were general themes



# The 15 Most Highly Rated Issues

- Water quality
- Erosion of bed and bank
- Flooding
- Stormwater runoff
- Wetland loss
- Nonpoint source pollution
- Woodland loss
- Development
- Nutrients
- Riparian buffers
- Habitat loss/fragmentation
- Education and public awareness
- Access to the river
- Fishery quality
- Deterioration of parkland

# Theme: Water Quality

- Water quality
- Erosion of bed and bank
- Flooding
- Stormwater runoff
- Wetland loss
- Nonpoint source pollution
- Woodland loss
- Development
- Nutrients
- Riparian buffers
- Habitat loss/fragmentation
- Education and public awareness
- Access to the river
- Energy quality
- Deterioration of parkland

# Theme: Recreational Use

- Water quality
- Erosion of bed and bank
- Flooding
- Stormwater runoff
- Wetland loss
- Nonpoint source pollution
- Woodland loss
- Development
- Nutrients
- Riparian buffers
- **Habitat  
loss/fragmentation**
- Education and public awareness
- **Access to the river**
- **Fishery quality**
- **Deterioration of parkland**

# Theme: State of the Habitat

- Water quality
- Erosion of bed and bank
- Flooding
- Stormwater runoff
- Wetland loss
- Nonpoint source pollution
- Woodland loss
- Development
- Nutrients
- Riparian buffers
- Habitat loss/fragmentation
- Education and public awareness
- Access to the river
- Property quality
- Deterioration of parkland

A Few Things to Think About

# Most of the Same Themes Emerge from the Issues Identified in Recent Planning Efforts

Impairments related to low dissolved oxygen

Impairments due to fish consumption advisories

High fecal indicator bacteria concentrations

Poor quality fishery upstream of Horlick Dam

Fragmentation of terrestrial habitat

Streambed and streambank erosion

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Invasive species

## One of These Did Not Come Out in the Survey

High fecal indicator bacteria concentrations

*Important to address, if increasing access and recreational use opportunities are a focus*

- Some questions had high numbers of “not sure” answers to Question 1
  - Most of these were issues in the red group
  - Two were in the orange group
    - Horlick Dam (remove)—nearly 1/3 of respondents answered not sure
    - Groundwater recharge reductions—about 1/6 of respondents answered not sure



# Some Issues Identified by the Survey are Aspects of Other Issues Identified by the Survey

- Depending on the focus areas and targets, addressing some of these may need to enter into a plan
  - Example: Addressing fishery quality may require addressing fish passage barriers
  - Example: Addressing water quality may require addressing road salt
- So it is important not to ignore these interlinkages
- It will be best to let the survey results inform the choice of focus issues, but not “rule” the choice

The Question Remains:

What should the focus issues be for a  
Root River Watershed Restoration  
Plan?