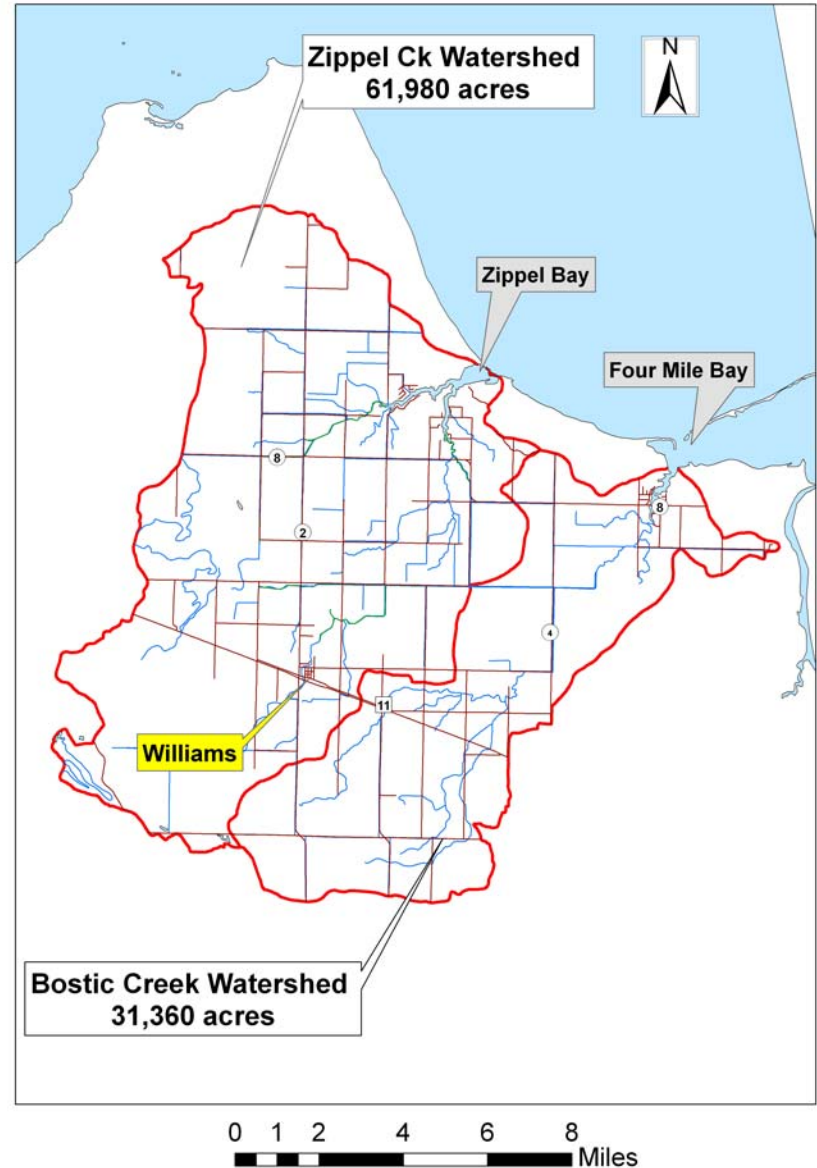


Bostic & Zippel Creeks Watershed Assessment

Zippel & Bostic Creek Watersheds





What is a Watershed Assessment?

- Using field/ditch inventories and existing data determine:
 - Sediment Sources (where is it coming from)
 - Sediment Sinks (where does it deposit)
 - Economic Impacts of Soil Loss/Deposition
 - Environmental Impacts

Inventory Items

➤ Ditches

- Visual assessment – vegetation / slumping
- Surveys – shape and slope
- County maintenance records

➤ Land Use

➤ Cropland

- Crop, Residue Management, Slope

➤ Soils

➤ Topography

➤ Hydrology

- Rainfall and Stream flow

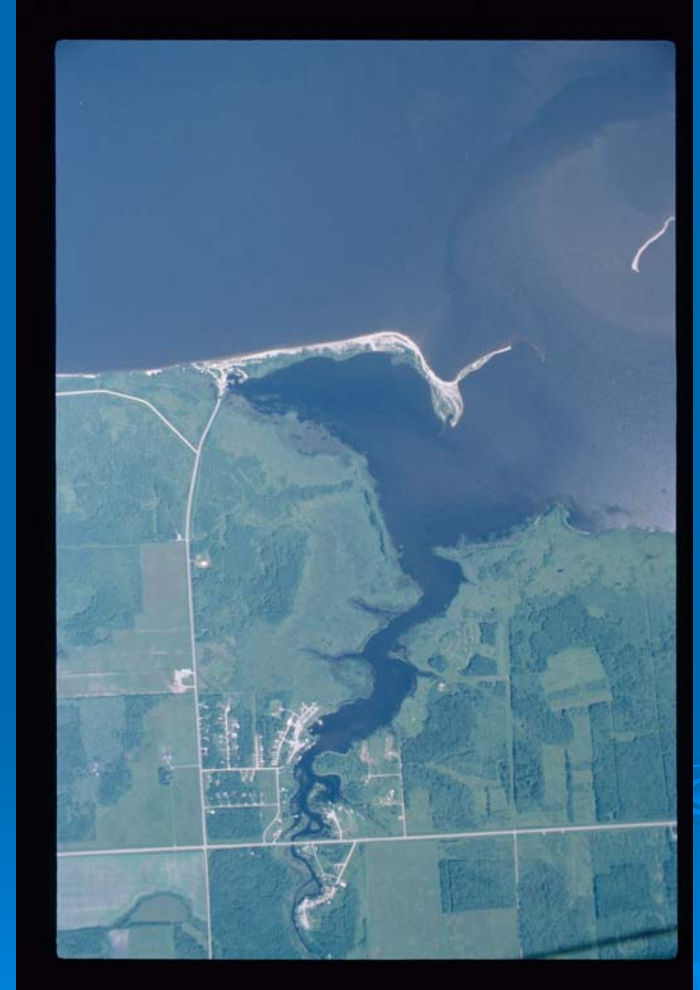
➤ Other

- Zippel Bay Sediment Cores
- Dredging Records
- Recreation User Days

Sediment Budget

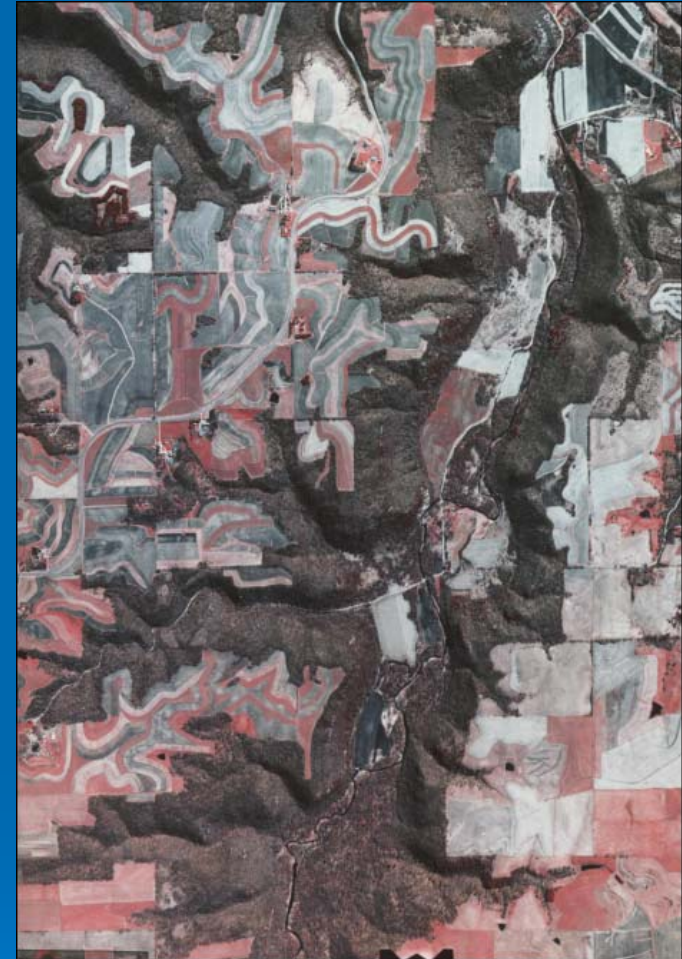
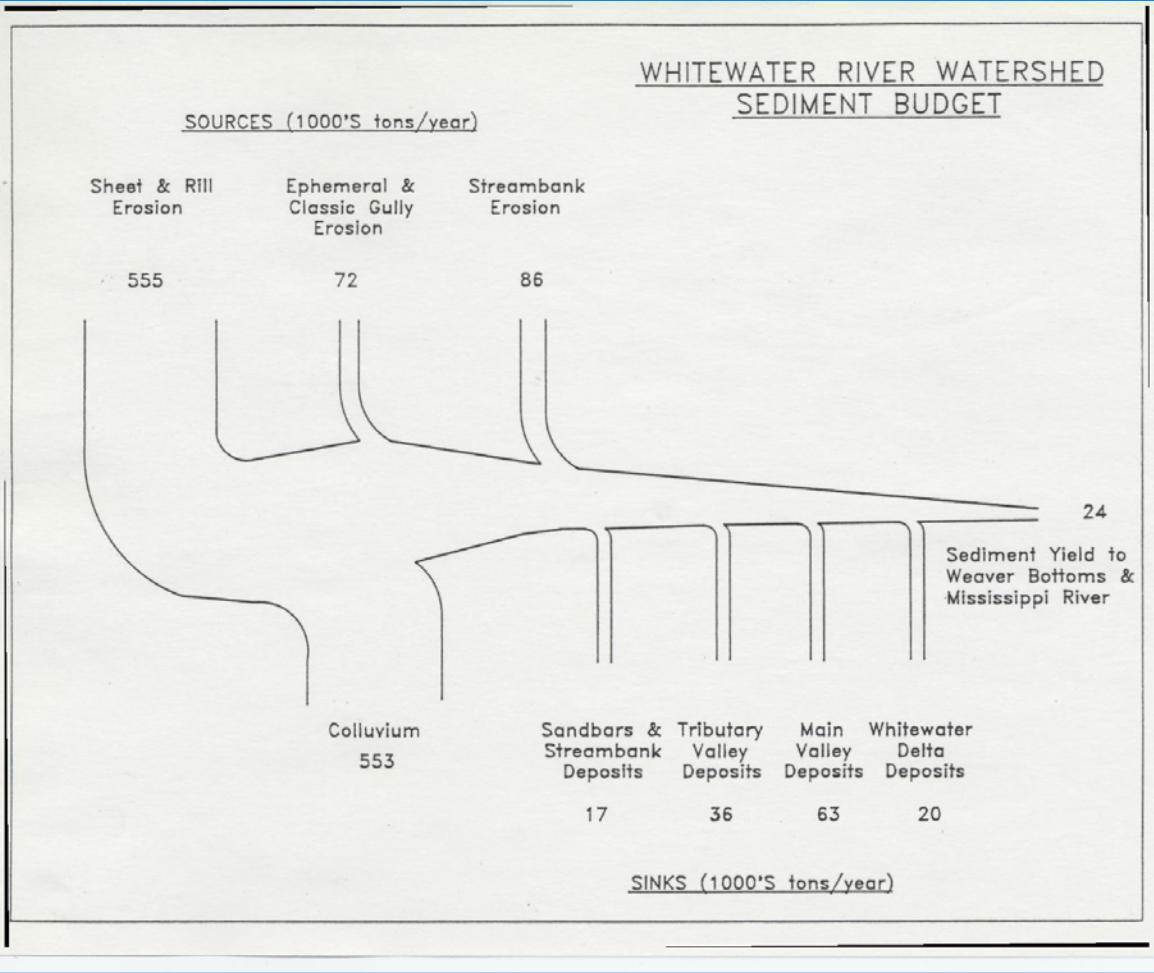


- Accounting for all sources and sinks of sediment:



Sources – Sinks = Sediment to Lake of the Woods

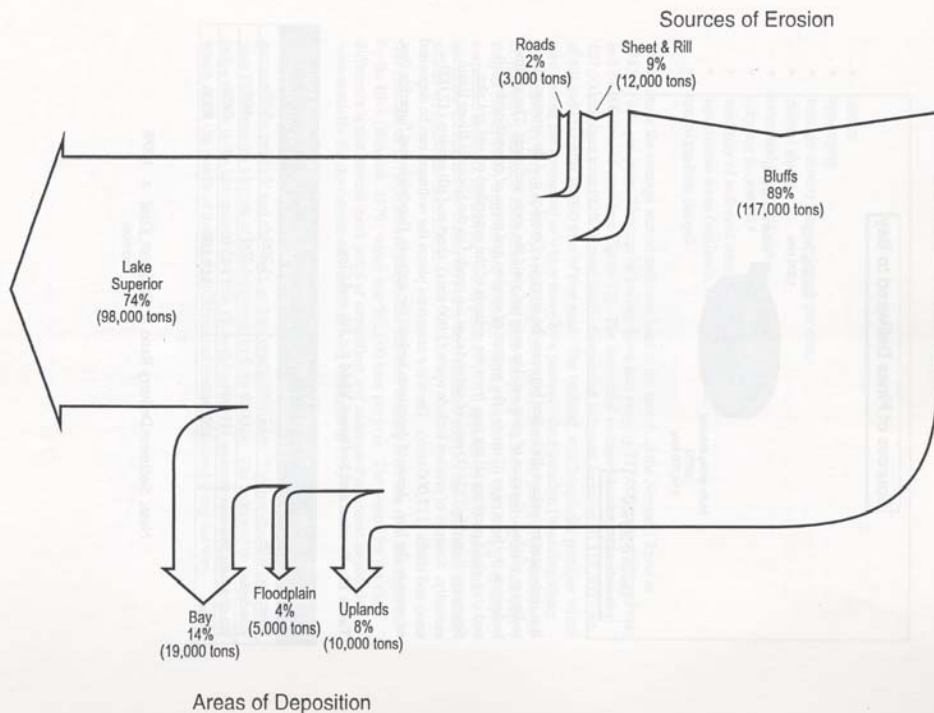
Whitewater River Sediment Budget



- 321 sq mi
- 58% Cropland
- Sediment Delivery = 3.4%



Figure 16: Sediment Budget for Fines (Silt and Clay)
Nemadji River Basin



Nemadji River Sediment Budget

- 433 sq mi
- 69% Forested
- Sediment Delivery = 81%

Reducing Sedimentation Damages

➤ Assessment will also include:

- Estimated impacts of upland practices (cover crops/residue mgt/land cover)
- Estimated impacts of ditch improvement (grade control, reshaping)

➤ Impacts include both monetary and environmental

Schedule

Field Inventories:

- July 2009 → July 2010

Data Analysis/Modeling:

- January 2010 → April 2011

Write Report:

- May 2011 → July 2011

Public Meetings

- August 2010 (? interim informational meeting ?)
- August 2011 – Present Final Report

Precipitation Measurement Volunteers

- Daily Rainfall Amounts
- Rain Gage and Recording Sheets Provided
- Data would be used to calibrate hydrology models





Questions?