

IOWATER Snapshots Provide Picture of Water Quality Statewide



**Lynette Seigley
Iowa Department of Natural Resources
Iowa Geological Survey**



*Photo by Clay Smith
Iowa DNR*

- **Established in 1998.**
- **Resides within the Iowa Water Monitoring Program.**
- **Mission: To protect and improve Iowa's water quality by establishing and supporting a statewide volunteer water monitoring program.**
- **On-site Trainings; Testing Equipment; Levels of Monitoring; Quarterly Newsletter; Online Database.**
- **Chemical, Physical, Biological, Habitat Assessments.**



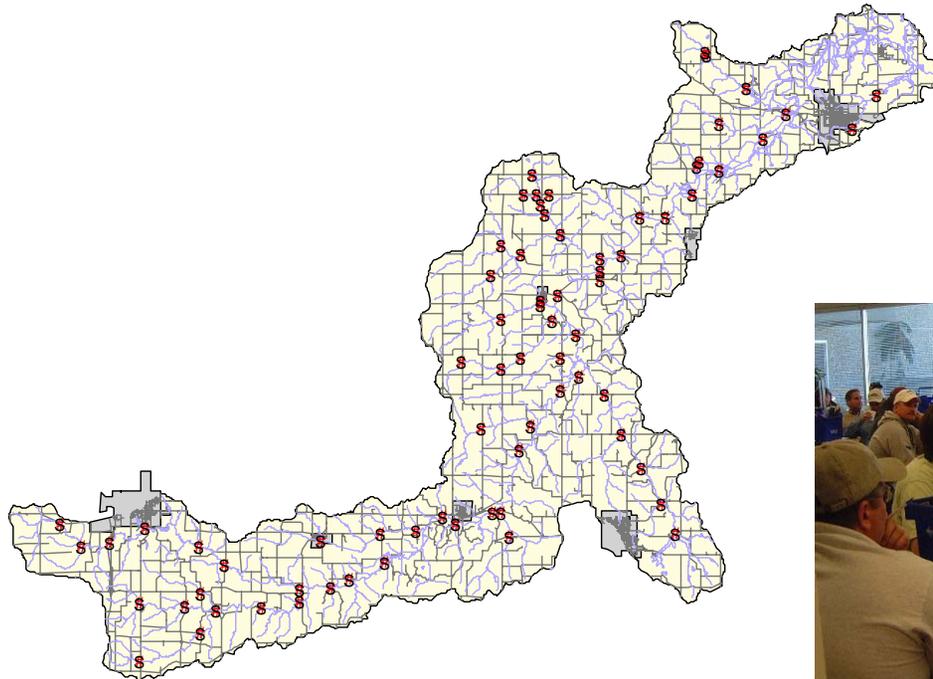
*Photo by Jacklyn Neely
Iowa DNR*



*Photo by Jacklyn Neely
Iowa DNR*

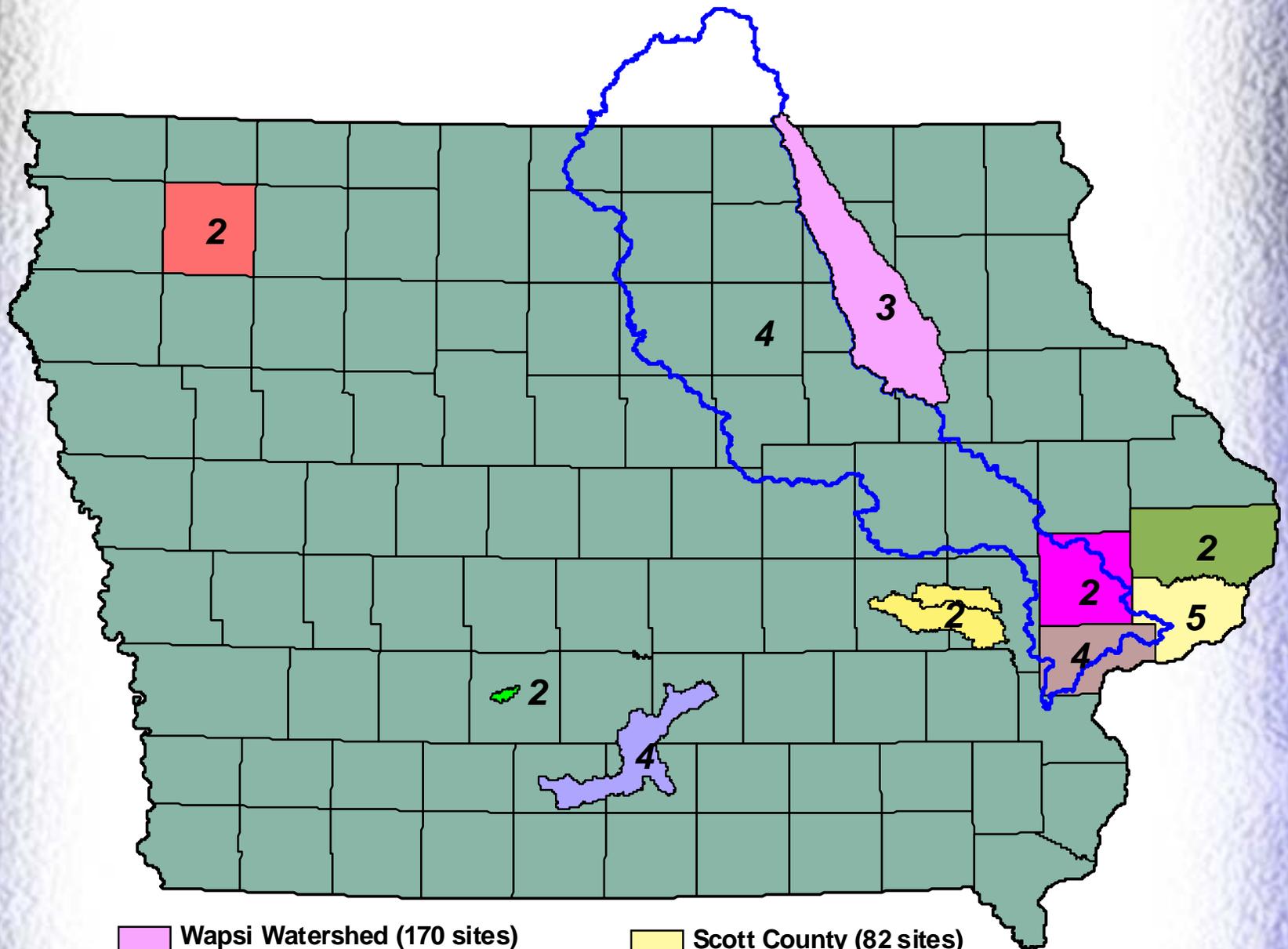
What is a Snapshot Sampling?

- Multiple sites throughout a geographic area (county or watershed) are sampled within a short period of time (e.g., three hours).
- Enlistment of volunteers is crucial.
- Reasons for conducting snapshots vary.
- Generally initiated by IOWATER monitors.



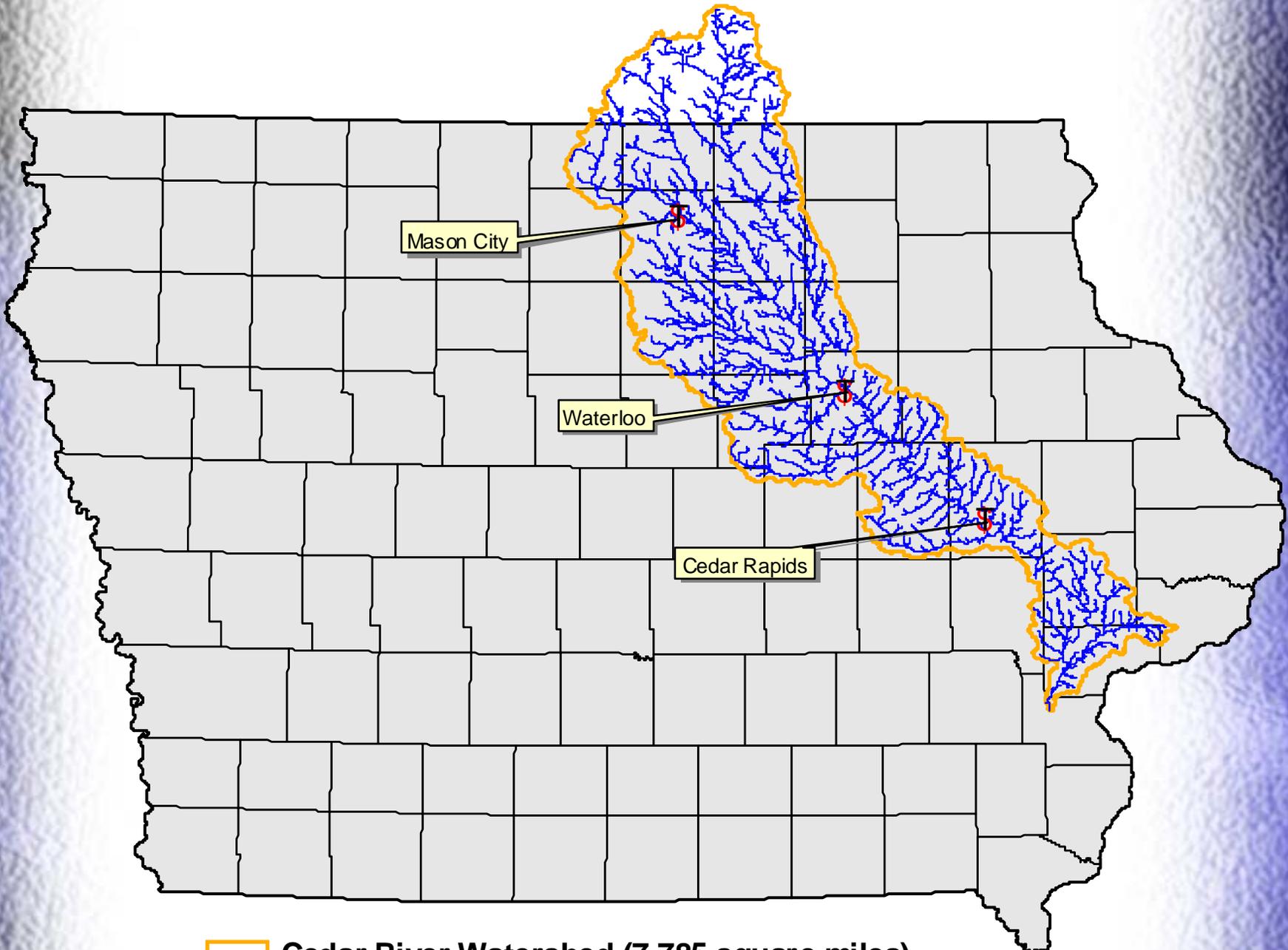
Why Snapshot Samplings?

- **Educational tool that can increase public awareness/ involve local community.**
- **Collect baseline data for a geographic area.**
- **Identify “hot spots” and areas for further monitoring; target BMPs.**
- **Variety of testing methods & types of parameters.**
- **Conduct during different times of the year or different flow conditions.**
- **Credibility and quality of data enhanced when IOWATER trained volunteers participate.**
- **Snapshots have been collaborative efforts.**
- **By June 2004, 34 snapshots will have been conducted, including 4 statewide snapshots.**



- Wapsi Watershed (170 sites)
- Cedar River Watershed (78 sites)
- Old Mans/Clear Creek (67 sites)
- Cedar Lake Watershed (16 sites)
- Whitebreast Watershed (74 sites)

- Scott County (82 sites)
- Muscatine County (52 sites)
- Clinton County (37 sites)
- Cedar County (36 sites)
- O'Brien County (100 sites)



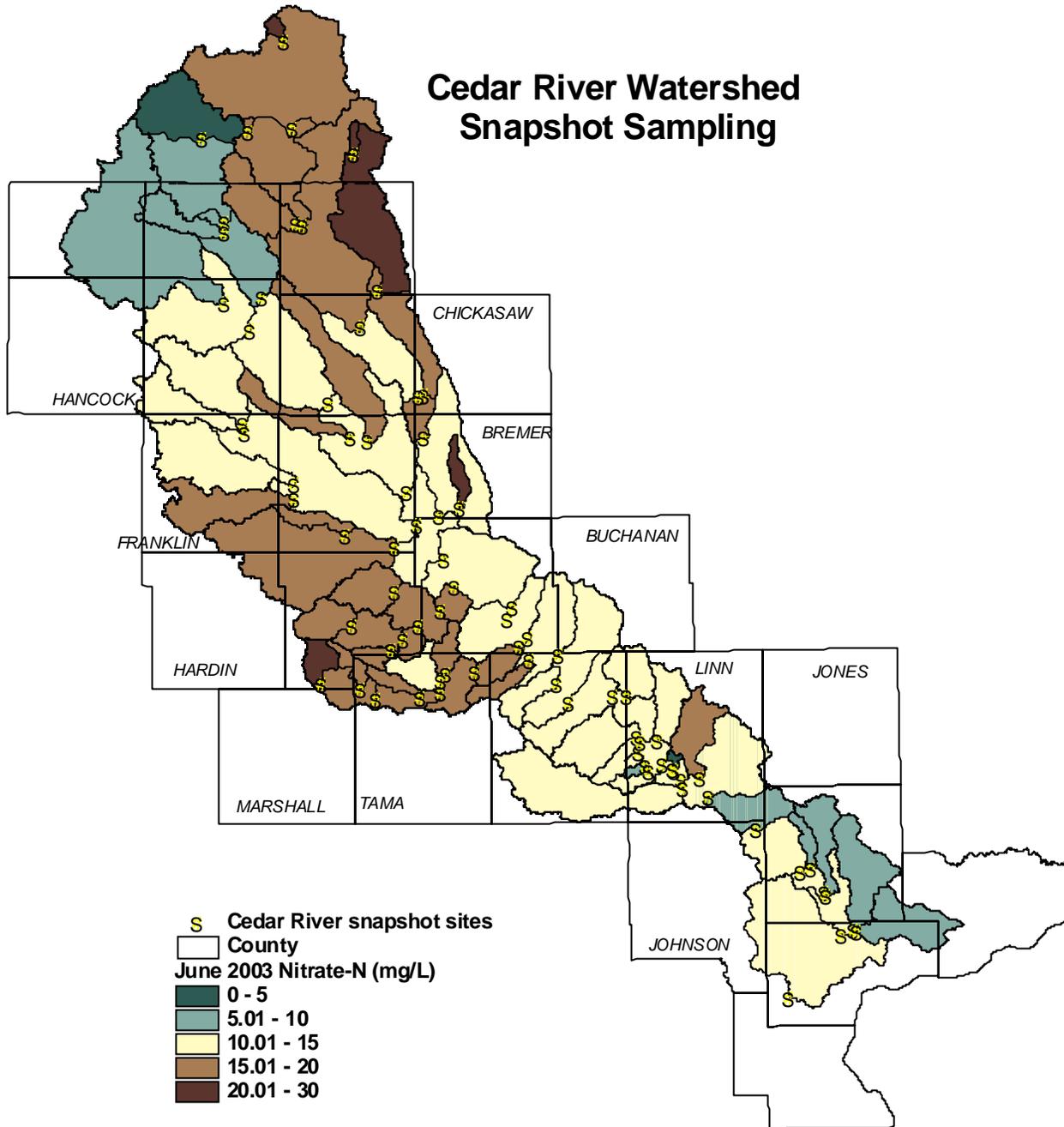
Mason City

Waterloo

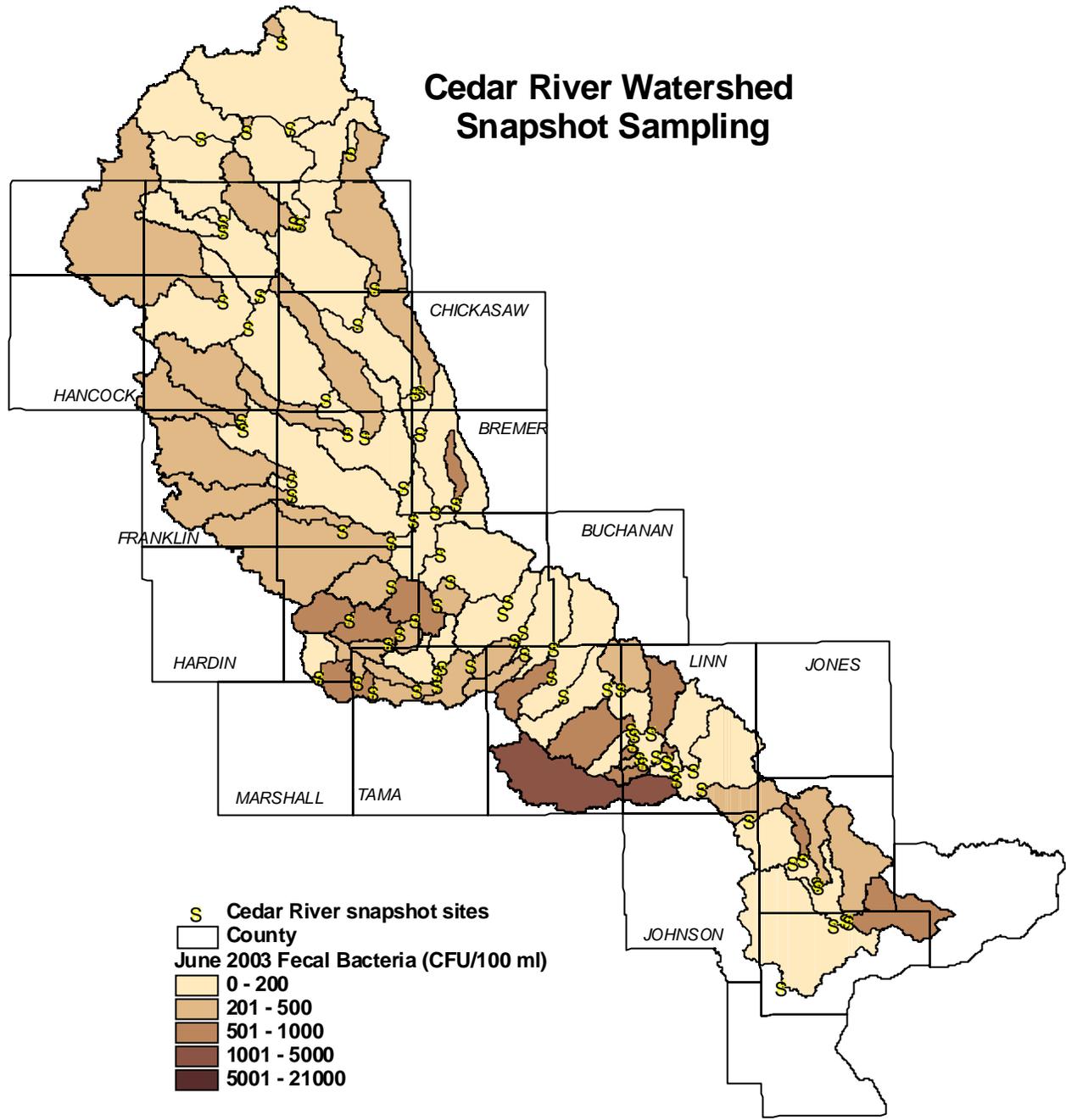
Cedar Rapids

 Cedar River Watershed (7,785 square miles)

Cedar River Watershed Snapshot Sampling

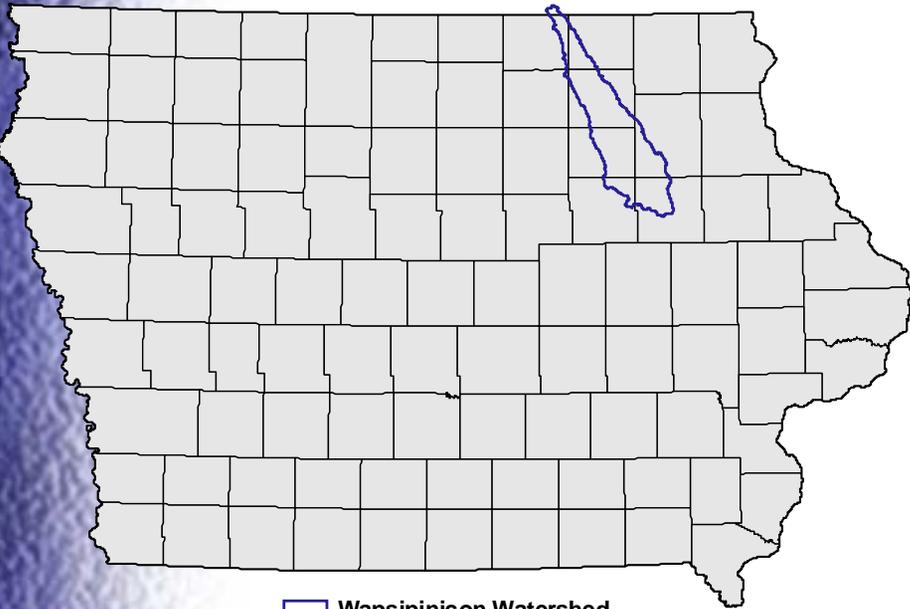


Cedar River Watershed Snapshot Sampling

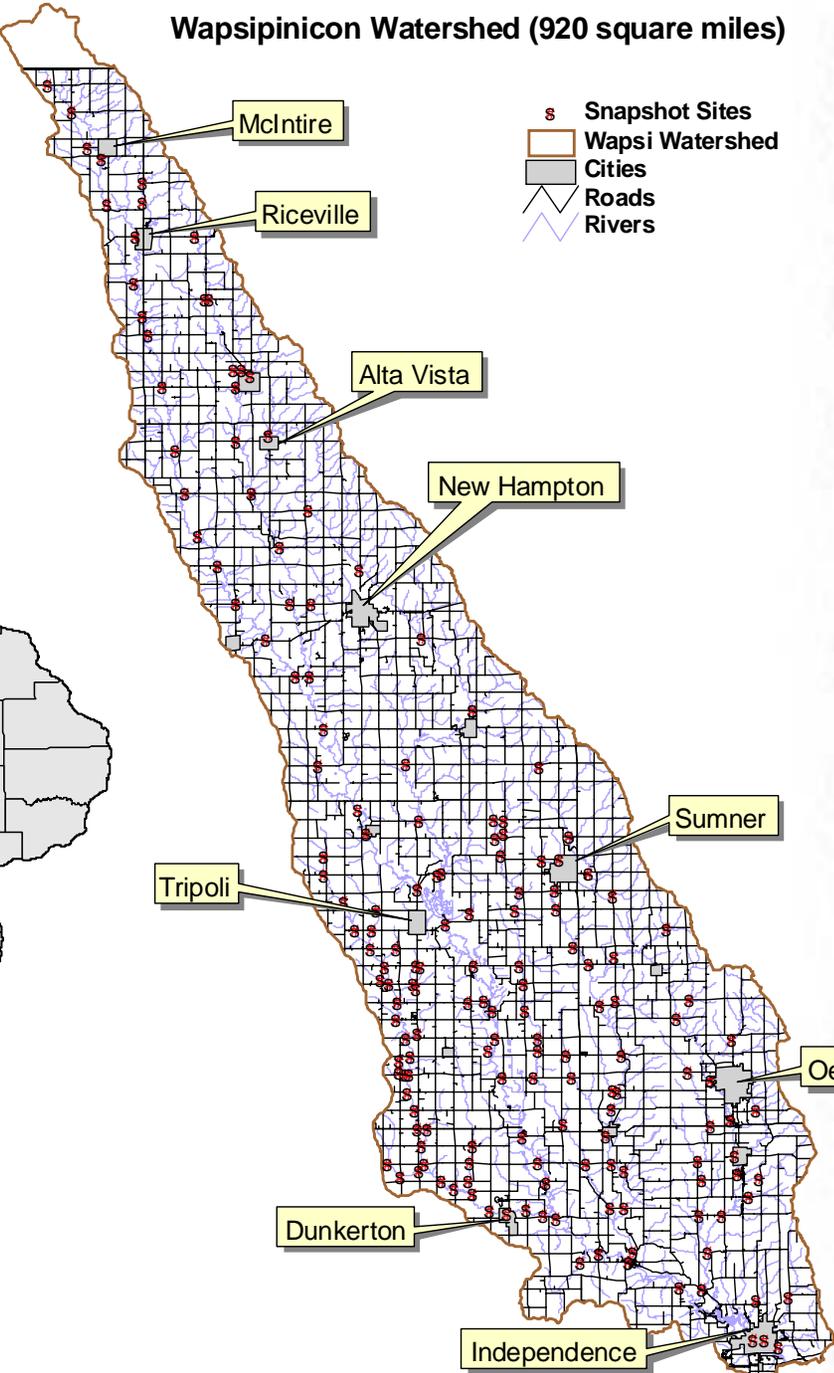


Wapsipinicon Watershed (920 square miles)

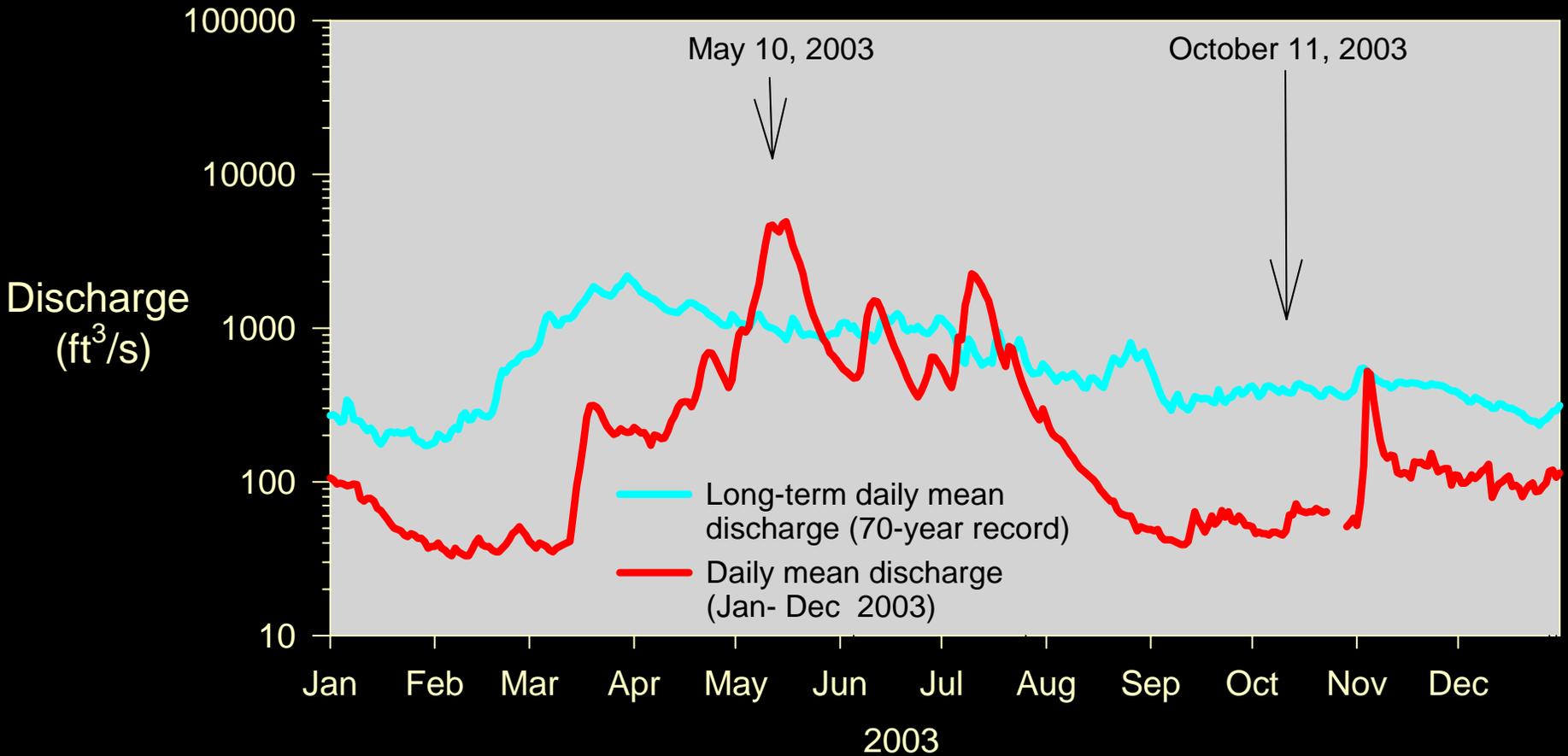
- s Snapshot Sites
- Wapsi Watershed
- Cities
- Roads
- Rivers



Wapsipinicon Watershed

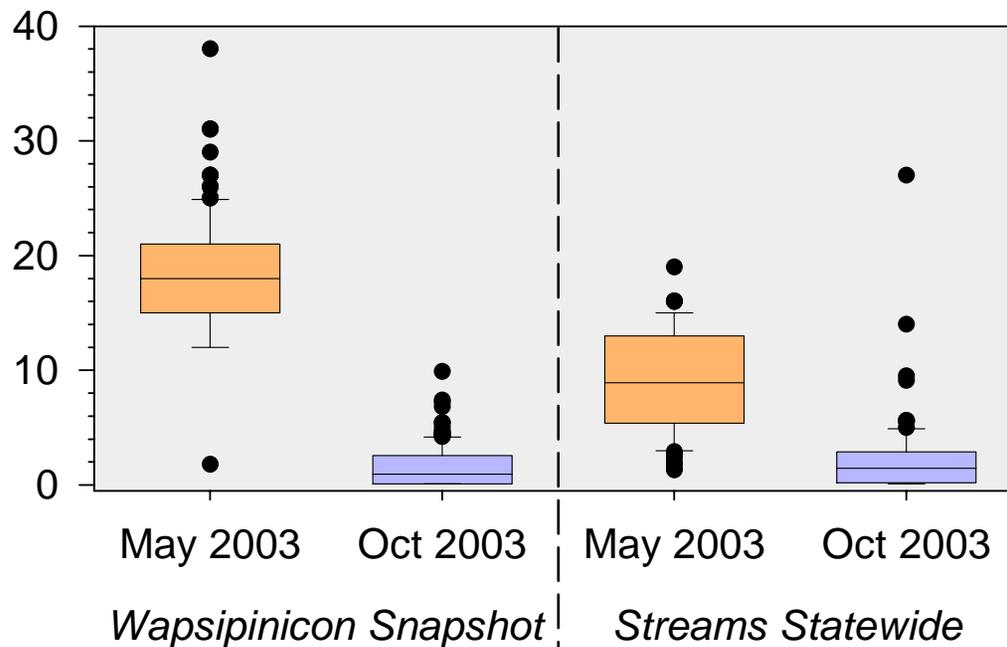


Wapsipinicon River near Independence

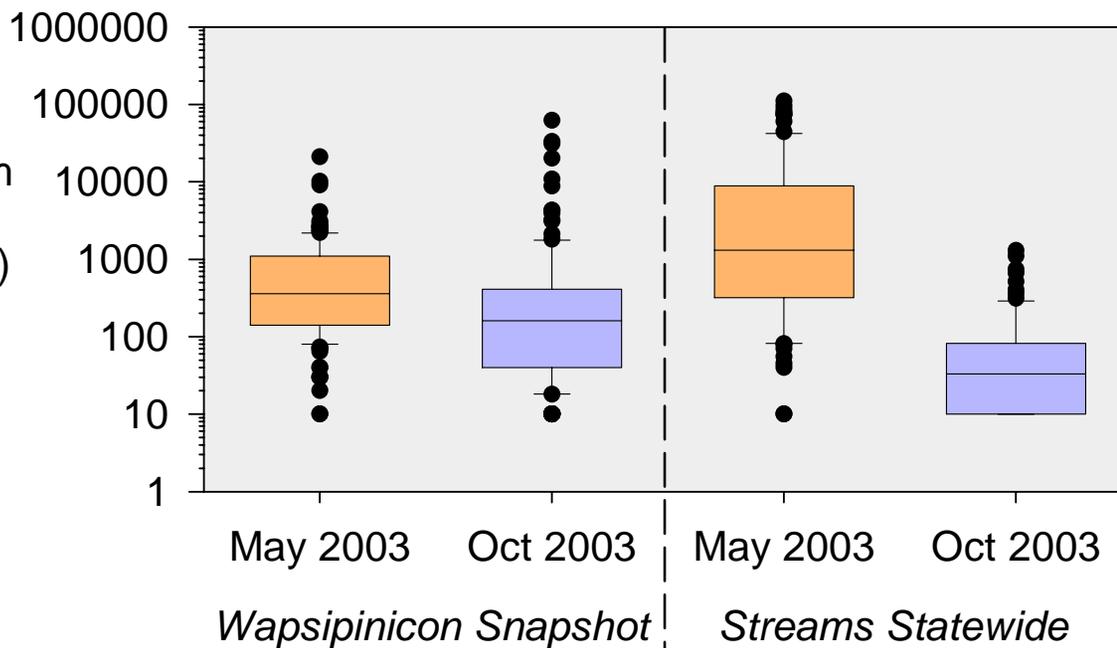


Source: <http://ia.usgs.gov> (U.S. Geological Survey, Iowa District)

Nitrate+
Nitrite-N
(mg/L)



Fecal Coliform
Bacteria
(CFU/100 ml)

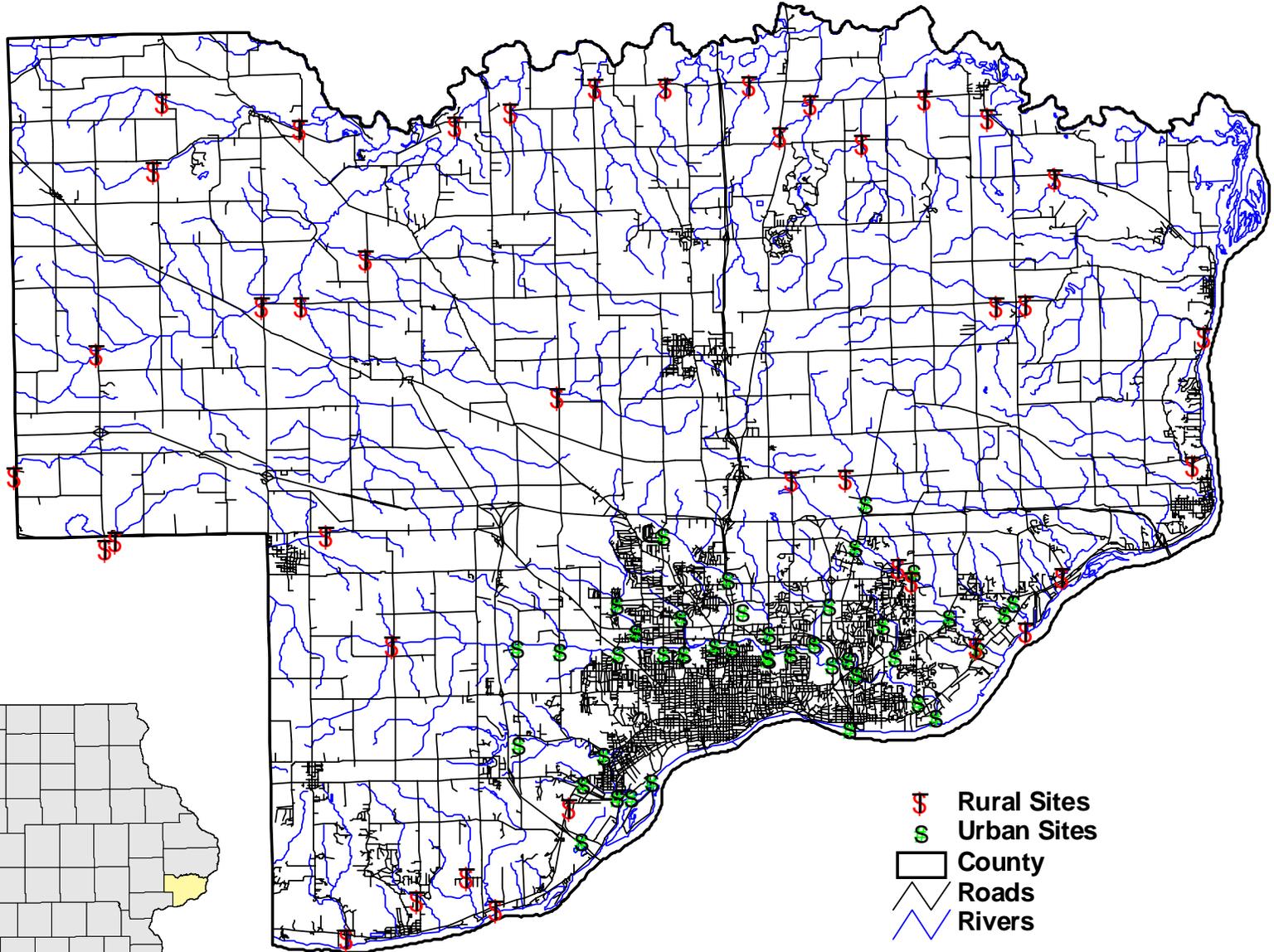


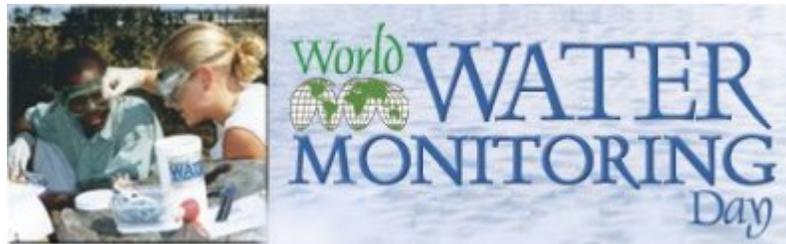
Storm Water Phase II BMPs

(Best Management Practices)

- *Public Education & Outreach on Storm Water Impacts*
- *Public Involvement / Participation (volunteer monitoring)*
- **Illicit Discharge Detection & Elimination**
- **Construction Site Storm Water Runoff Control**
- **Post-Construction Storm-Water Management in New Development & Redevelopment**
- **Pollution Prevention / Good Housekeeping for Municipal Operators**

Scott County Snapshot Sampling Sites





October 18, 2002

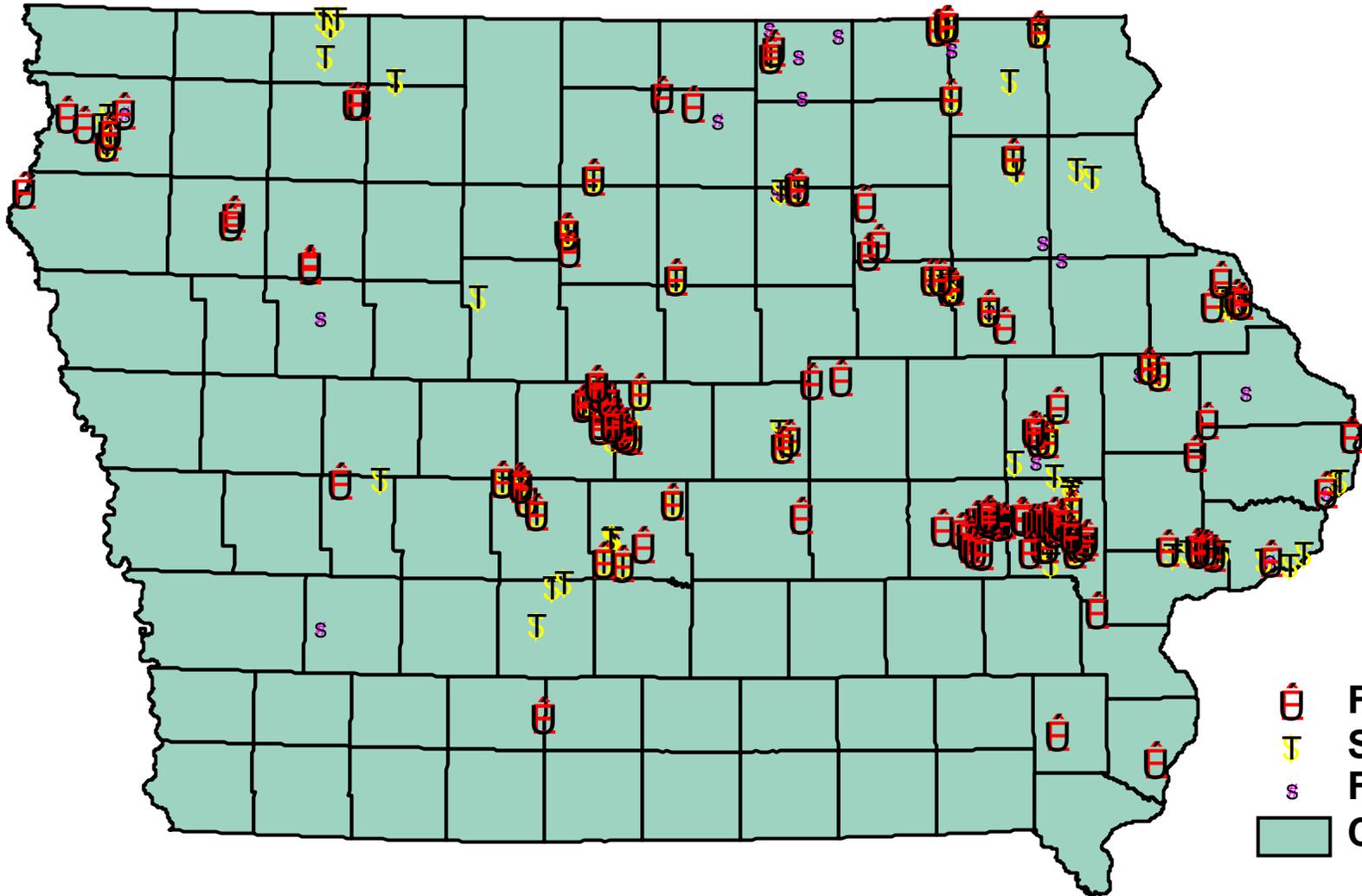
October 18, 2003

- **IOWATER Statewide Snapshots**
 - Provide a statewide picture of water quality.
 - Way of re-energizing IOWATER monitors.
 - Oct. 18, 2002; May 24, 2003; Oct. 18, 2003; May 15, 2004
 - Results provided to participants.





IOWATER Statewide Snapshots



-  Fall 2003
-  Spring 2003
-  Fall 2002
-  County

Benefits of Snapshots

- Engages local residents in monitoring in their backyard.
- Provides an educational experience for those unfamiliar with water monitoring.
- Identifies areas for additional monitoring.
- Collects data on a scale that could not be done otherwise.
- Monitoring begins to provide an answer to the question, “What is the quality of water?”

