



An integrated strategy to improve Water Quality Management in MN

Major watersheds framework for:
monitoring and assessment,
watershed planning/TMDL's,
and implementation



Affects growth and health of communities, economy

- CWA prohibition on new or expanded discharges to impaired waters
- 546 of 1,405 MPCA-permitted wastewater treatment plants discharge to impaired waters
- Lakeshore properties values rise or fall based on water clarity



Stakeholder process

- Policy Work Group (“Group of 16”)
- Partners Group (“Group of 40”)
- Public Stakeholder sessions (2)



Interests on G16

- Industry
- Municipalities
- Counties
- Watershed districts
- SWCDs
- Agricultural interests
- Environmental advocates
- State agencies
- U of M
- River/Lake groups

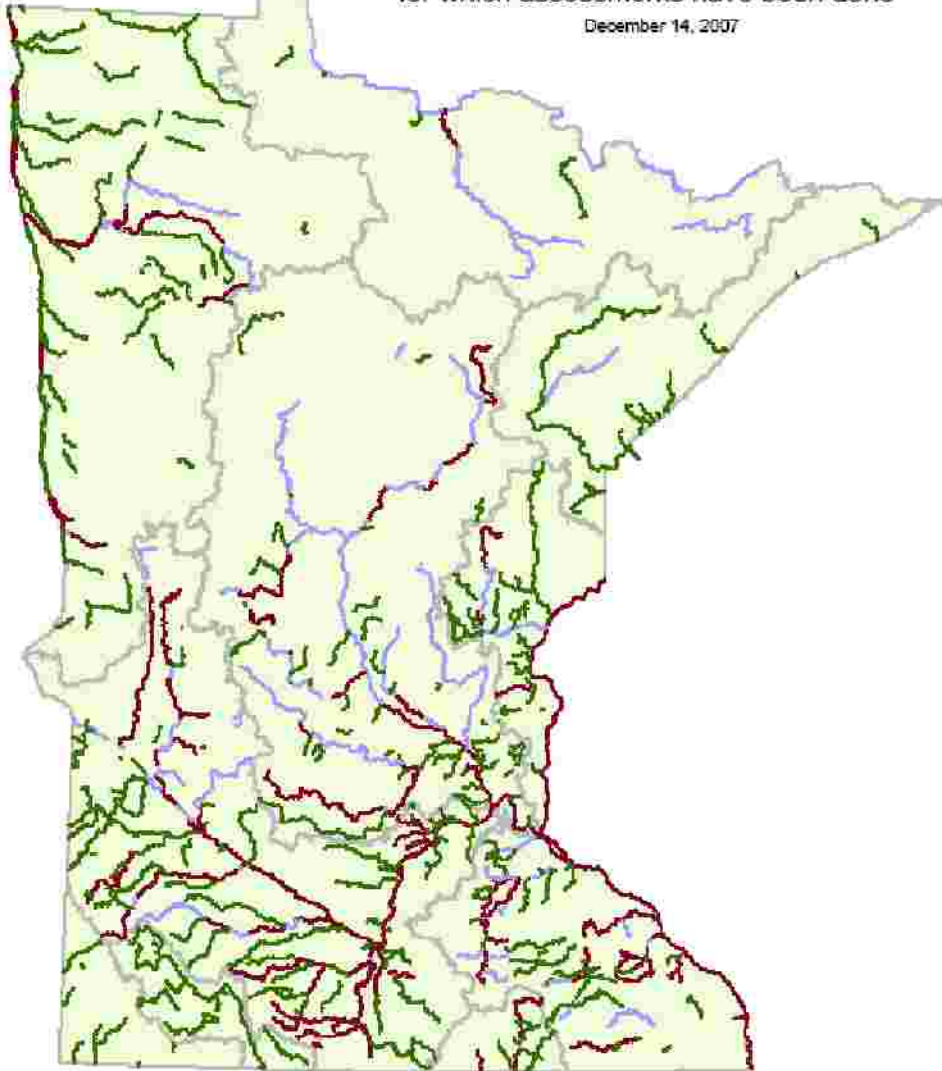


Policy recommendations

- Voluntary options for restoration, not new regulations
- Funding should be for both point and nonpoint sources
- Annual funding need ~ \$75 to \$100 million
- Coordinating council to advise on funding, policy, program

Draft Inventory of All Impaired Streams
for which assessments have been done

December 14, 2007



Legend

— TMDL needed for one or more pollutants

— At least one approved TMDL, still needs additional TMDL approval(s)

— All required TMDLs have been approved or impairment is caused by natural sources

Basin

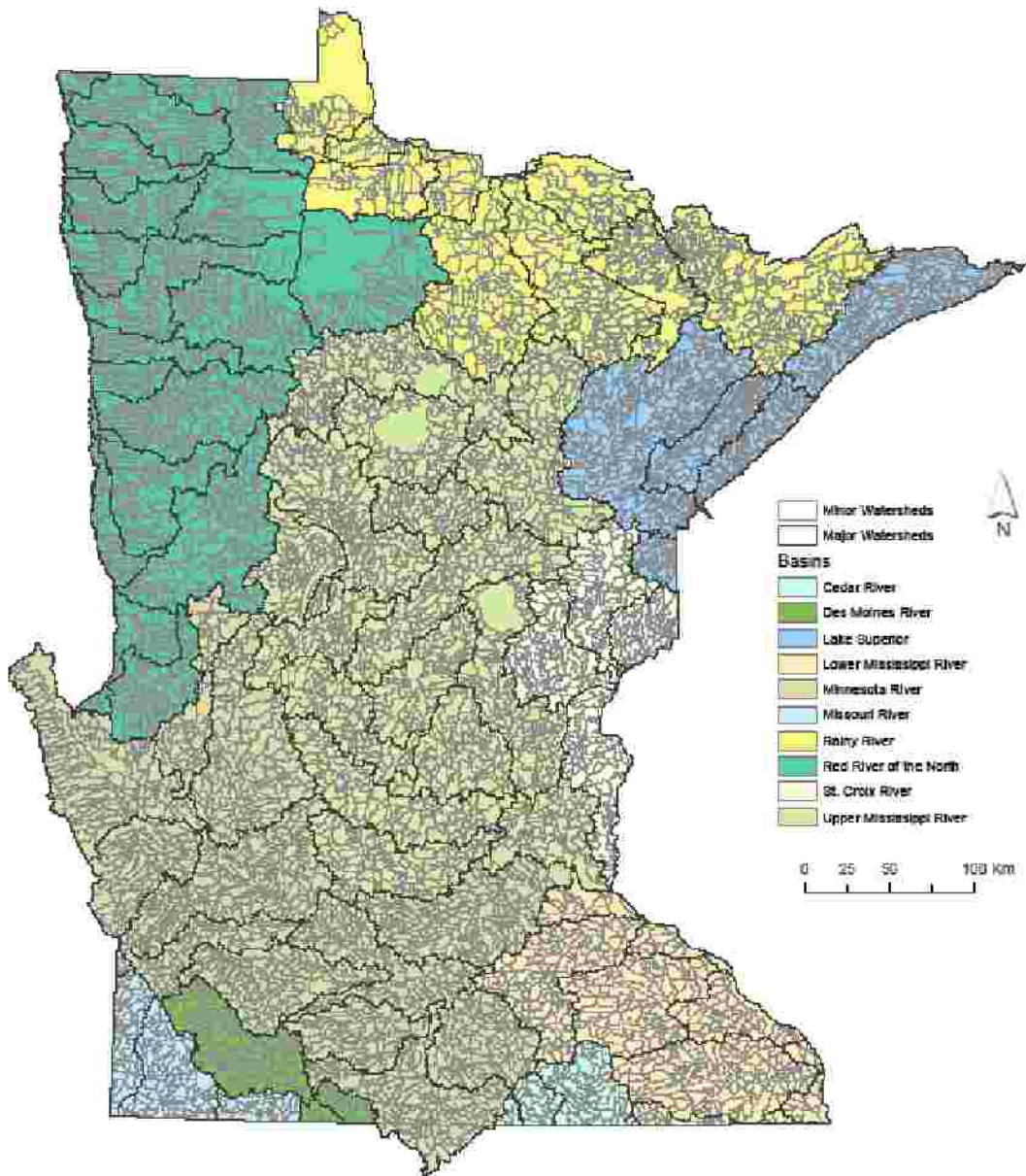


More information about impaired waters is available at http://www.pca.state.mn.us/water/tmdl/tmdl_303dlist.html

Growing pains

- More monitoring will result in more listings
- Complete a TMDL only to return to locality for another
- Current approach has been driven by the Listing process
- Lacks predictability
- Current schedule is out well over ten years

Watershed Boundaries in Minnesota

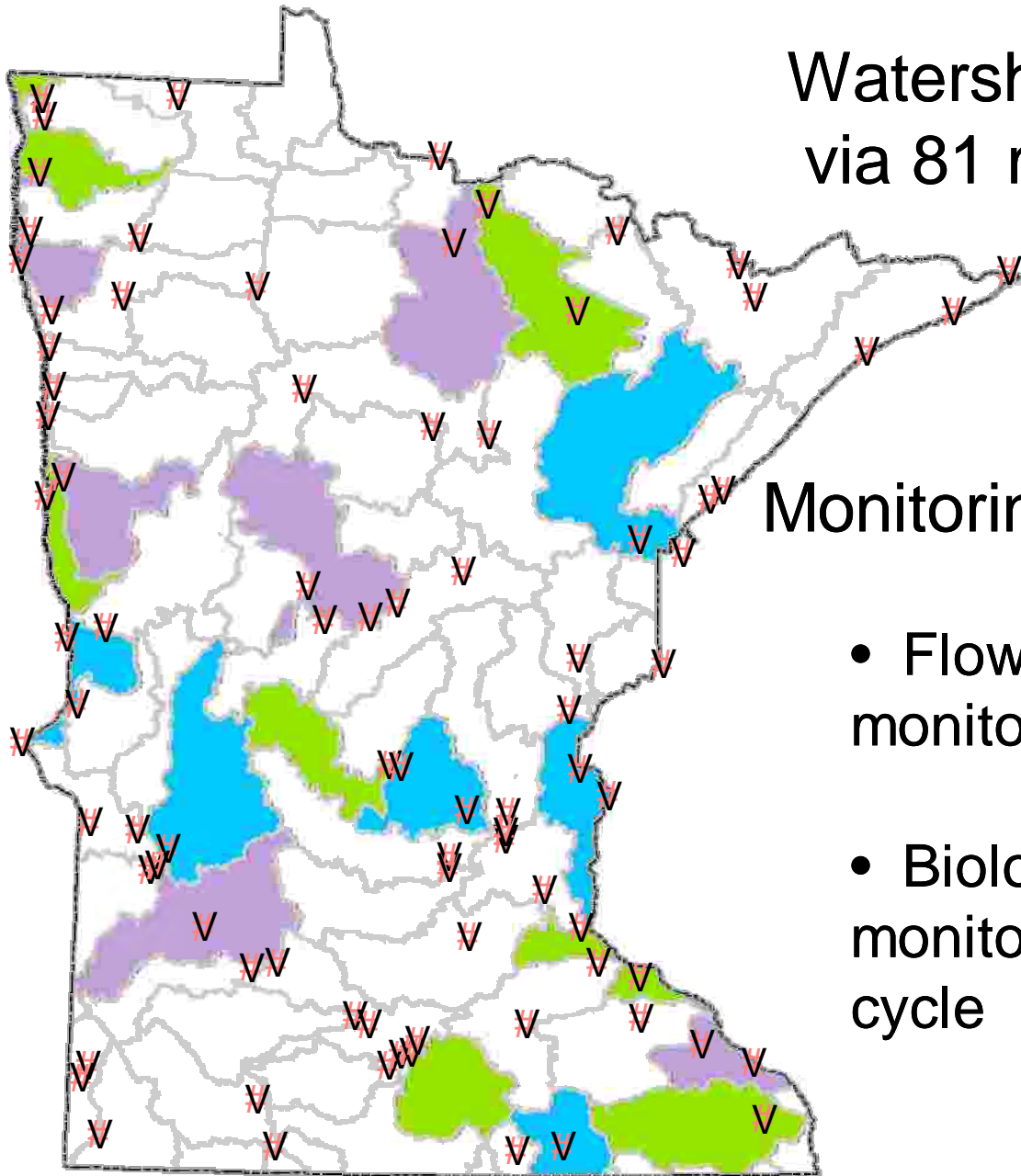


Right scale?

- Pepin too large
- Some segments are too small

Right pace? Ten year cycle via the 81 major watersheds

Watershed Management via 81 major watersheds



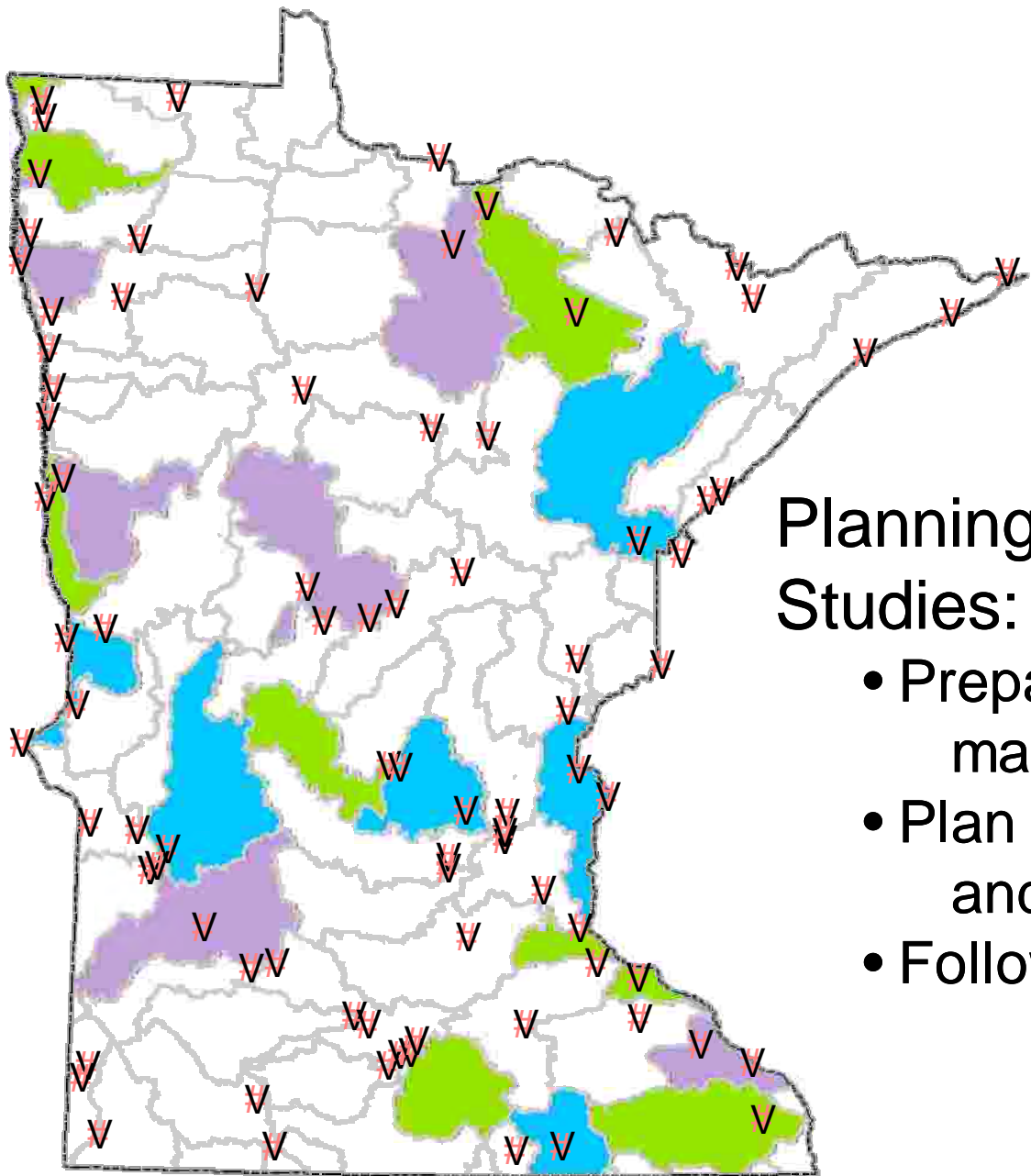
Monitoring and Assessment

- Flow/chemical/load monitoring at 81 outlets
- Biological & physical monitoring rotated on 10 year cycle

2008

2009

2010



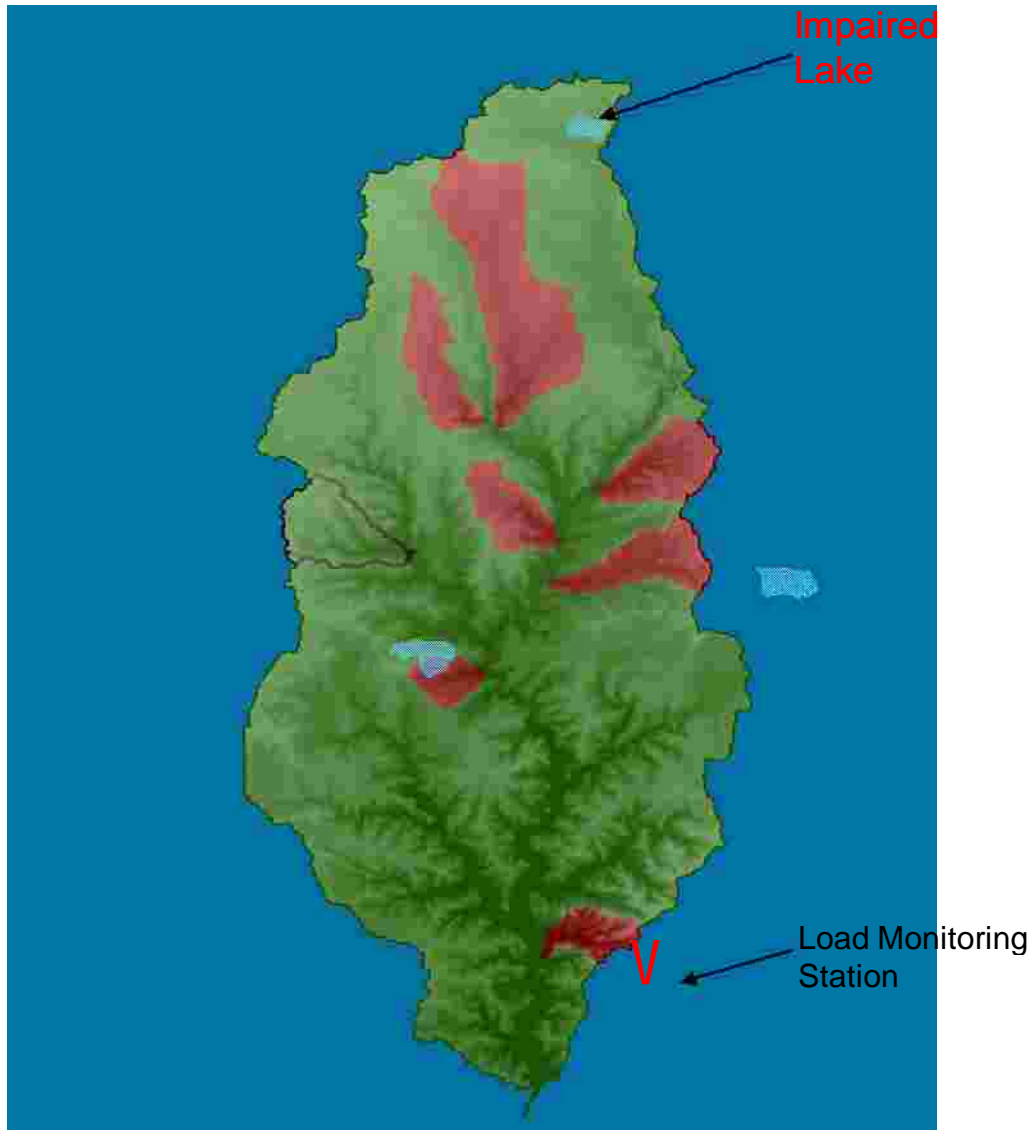
2010

2011

2012

Planning and TMDL Studies:

- Prepare watershed management plan
- Plan covers both TMDL and protection strategies
- Follow same 10-yr cycle

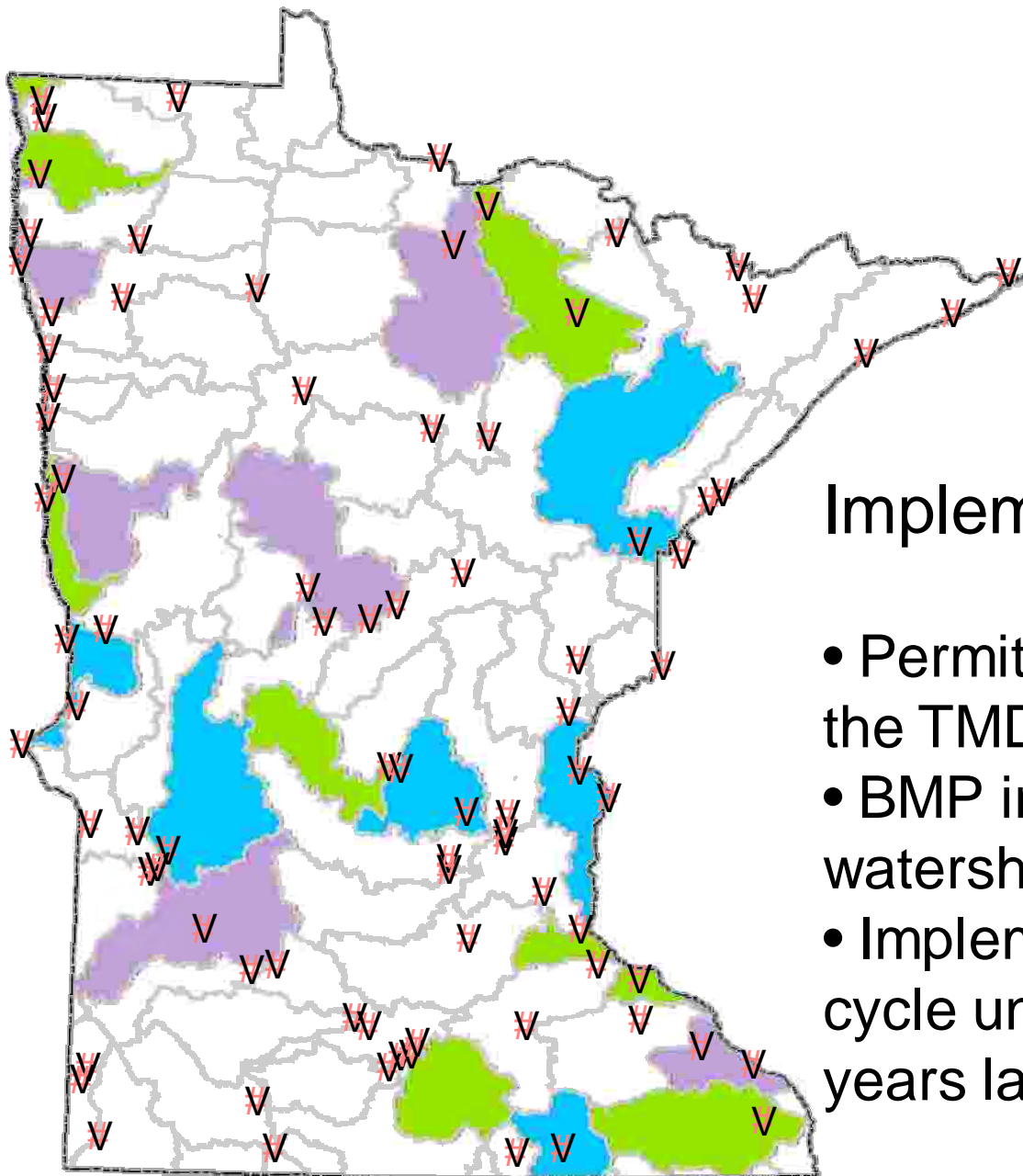


Watershed Management Plan

**a TMDL for impaired
subwatersheds**

**protection strategy
for unimpaired
subwatersheds**

(integrates both)



2011

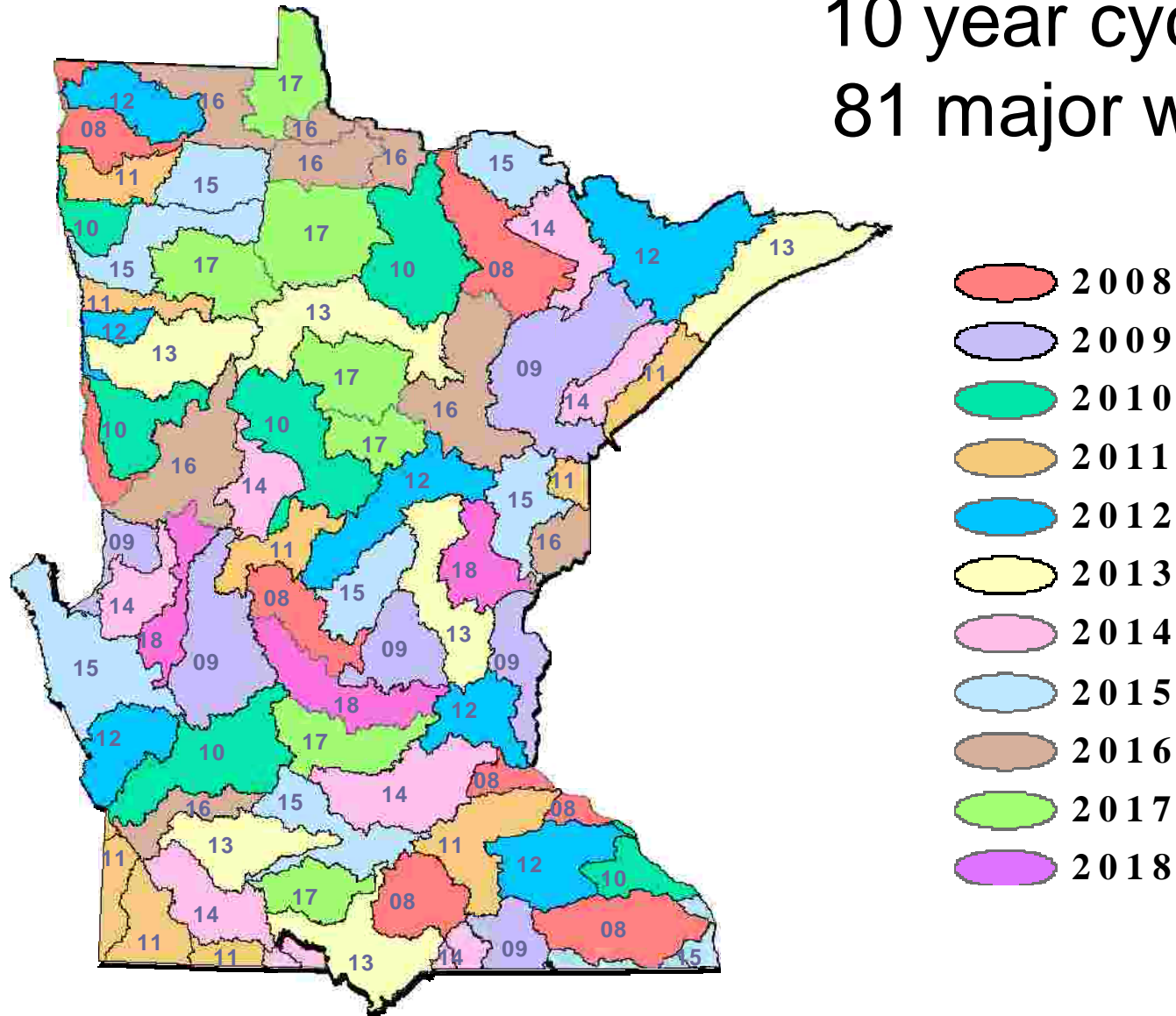
2012

2013

Implementation

- Permit requirements follow the TMDL
- BMP implementation follows watershed management plan
- Implementation continues cycle until plan updated 10 years later

10 year cycle through 81 major watersheds



Watershed Management via 81 major watersheds

Pros

- Get through all watersheds in 10 years
- Integrates impaired/unimpaired into a single management plan.
- Preventative approach
- Watershed focus
- Impaired waters list isn't the driver
- Predictable cycle
- Engage everyone in the watershed
- It's a plan people can understand
- Predictable path
- Starts an ongoing cycle of management and evaluation
- Can integrate source water protection

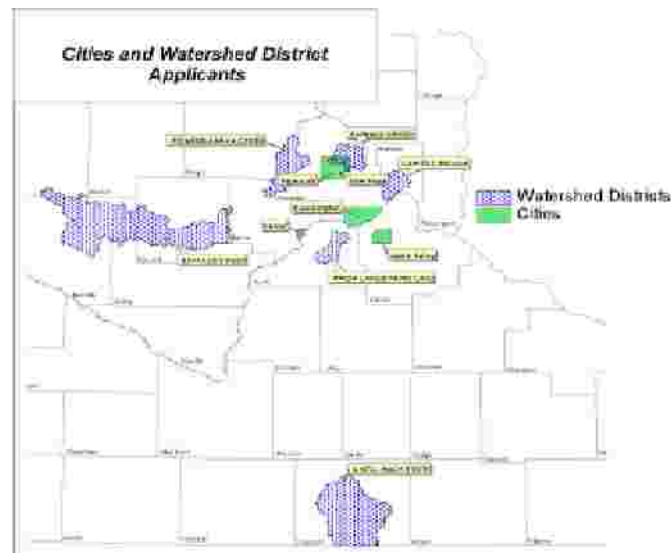
Cons

- Some watersheds wait 10 years
- Will take a couple years to transition to this approach
- Depends on long term stable funding
- Unusual events could disrupt cycle

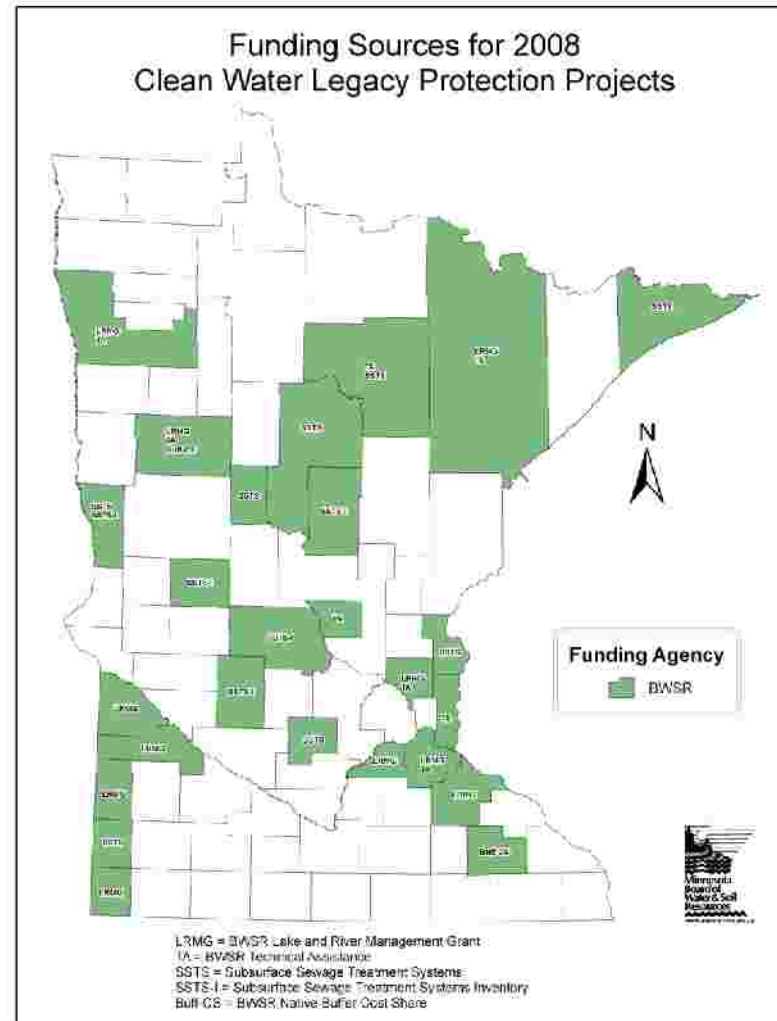
FY07 CWL Applications

Successful Applicants

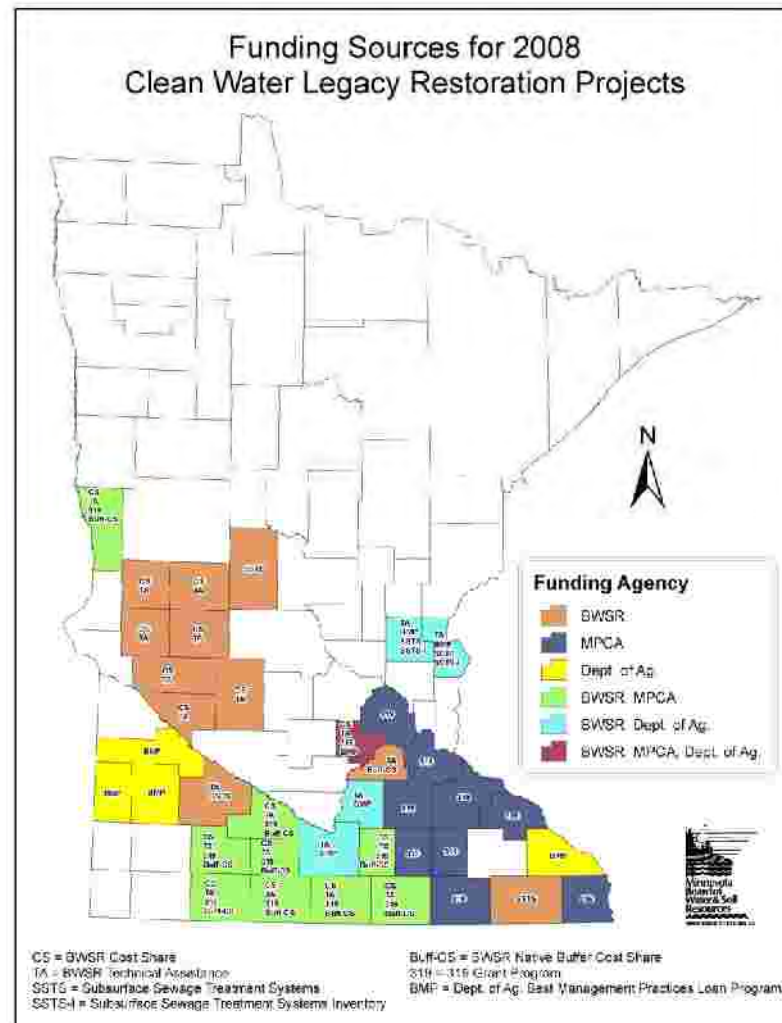
- 53 Awards (180 applicants)
- \$8 million (\$44M requests)



Protection Project Distribution-FY 08



Restoration Project Distribution FY 08



CWL Accomplishments to Date

- 11 streambank and gully stabilizations
- 32 lakeshore stabilization and restorations
- 19 sediment basins, ponds
- 37 bio-retention features
- 17 manure management practices
- 4,000 acres of native buffers and filter strips
- 95 alternative drainage tile intakes
- 90 side inlets installed
- 15 miles of ditch buffer & runoff control