Evaluating Success:
Measuring, Monitoring, and Tracking

Innovations in Tracking from Region 5

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Improving Implementation

Build Quality TMDLs

Develop Implementation Tracking Tools*

Find Meaningful Indicators* TMDL/Program Effectiveness

Implementation Success

Building Quality TMDLs

Quality vs. Quantity

- Future will demand results = restoration
- Strong implementation planning
  - Cost effectiveness models
  - Social indicators
  - 319 IP model
- Looking for "Ripe" watersheds

Implementation Tracking

EPA
United States
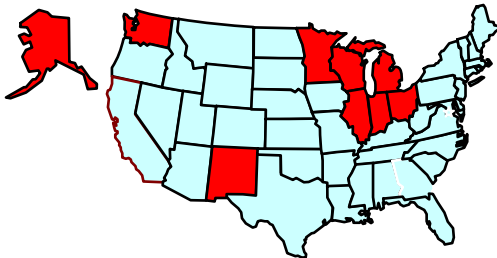Environmental Protection
Agency

Total Maximum Daily Load (TMDL)
Implementation Tracking Needs
Assessment

*Current Status and Future Needs for
States in Regions 5, 6, and 10*

March 2008

Prepared For:

U.S. Environmental Protection Agency
Region 5

Background

- ➢ States expressed need to focus on implementation tracking
  - ✓ Assess progress towards meeting goals
  - ✓ Plan the use of limited resources towards watershed restoration

Project Goals

- ➢ Assess current status of implementation tracking in 9 states
- ➢ Determine each state's tracking needs

Implementation Tracking

Total Maximum Daily Load (TMDL) Implementation Tracking Needs Assessment

Current Status and Future Needs for States in Regions 5, 6, and 10

March 2008

Prepared For:

U.S. Environmental Protection Agency
Region 5

Findings

Next Steps

States' Perspectives on Potential Benefits of a TMDL Tracking System

➤ Review and evaluate progress

➤ Quickly generate reports on progress for EPA, legislature, and public

➤ Provide a central warehouse for all tracking activities

➤ Most states would like EPA to develop tracking tool

➤ EPA and states develop indicators to track implementation

➤ Pilot implementation tracking frameworks

➤ Develop implementation tracking tools
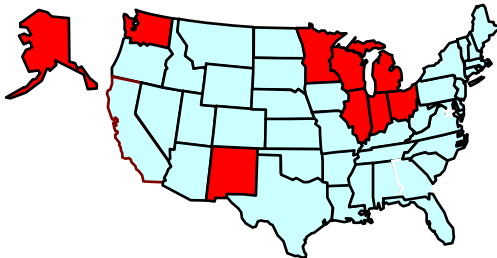
Program Effectiveness

Do current key Measures tell the restoration story?
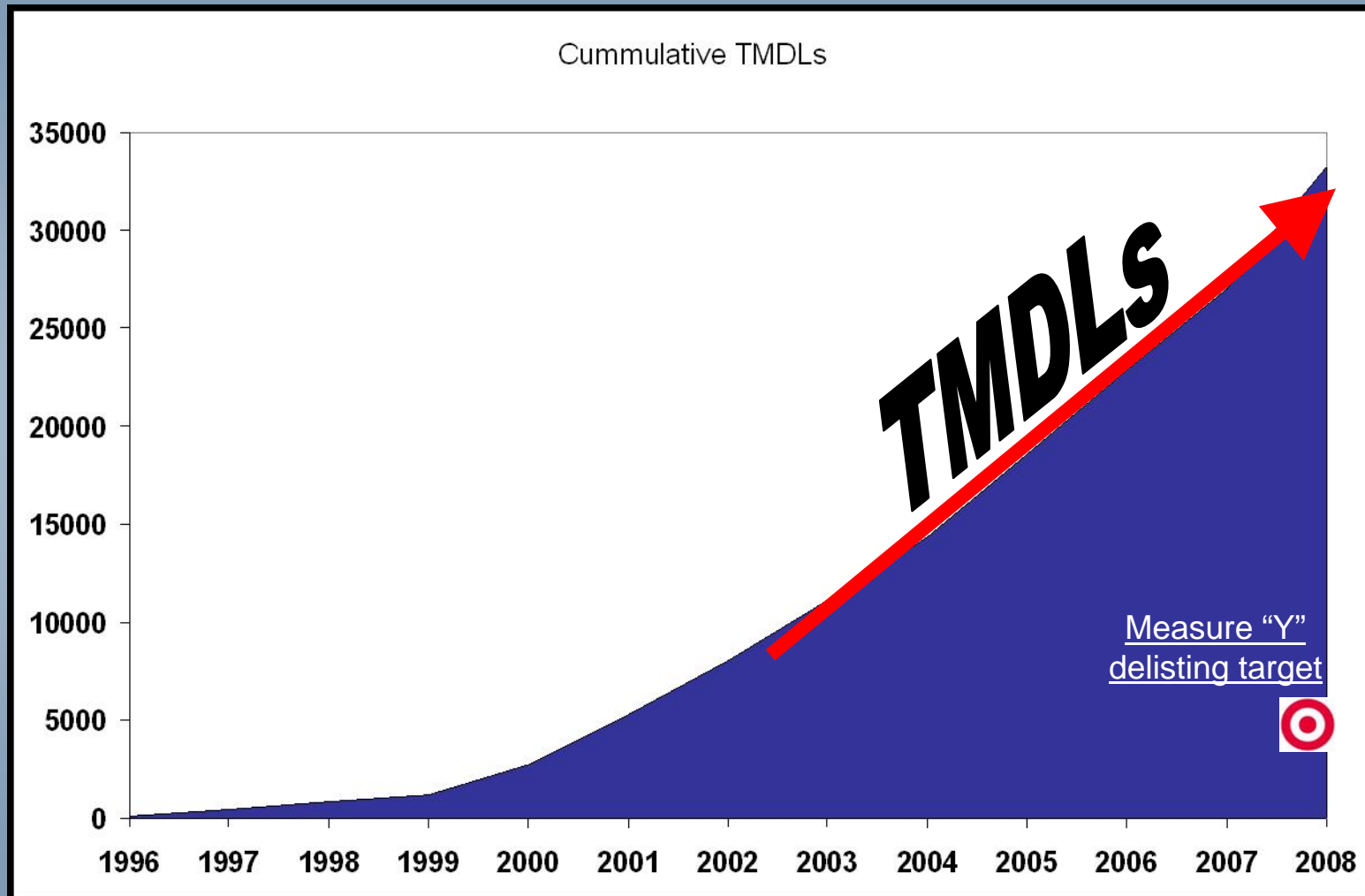
Program Effectiveness

Example "Pipeline" to Restoration

Assessment

- % of watersheds monitored and assessed
- % of stream sites or miles with citizen volunteers

Planning (TMDLs)

- % locally-led TMDLs
- # of watersheds with completed implementation plans

Implementation

- % adoption of key BMPs and permits
- Social indicators behavioral tracking

Restoration and Protection

- % of watersheds meetings WQS
- WQ trends (watersheds, regions, state)

MN's Clean Water Legacy Act: A New Era of Accountability

- "…establish and report outcome-based performance measures that monitor the progress and effectiveness of protection and restoration"
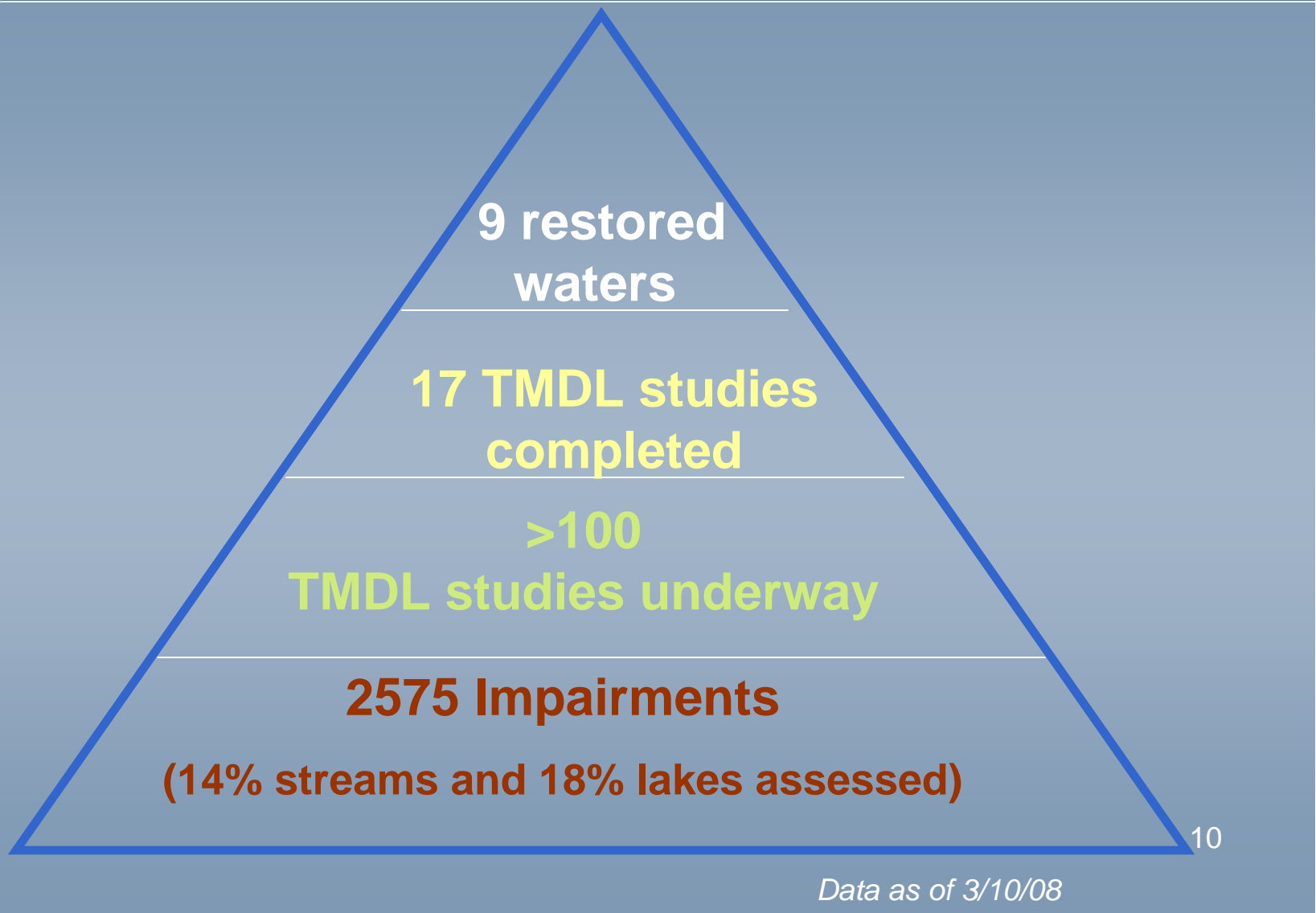
CWLA by the numbers

- **$25 million** for FY07
- **$54 million** FY08-09:
  - Monitoring
  - TMDLs
  - Protection
  - Restoration
  - Staffing

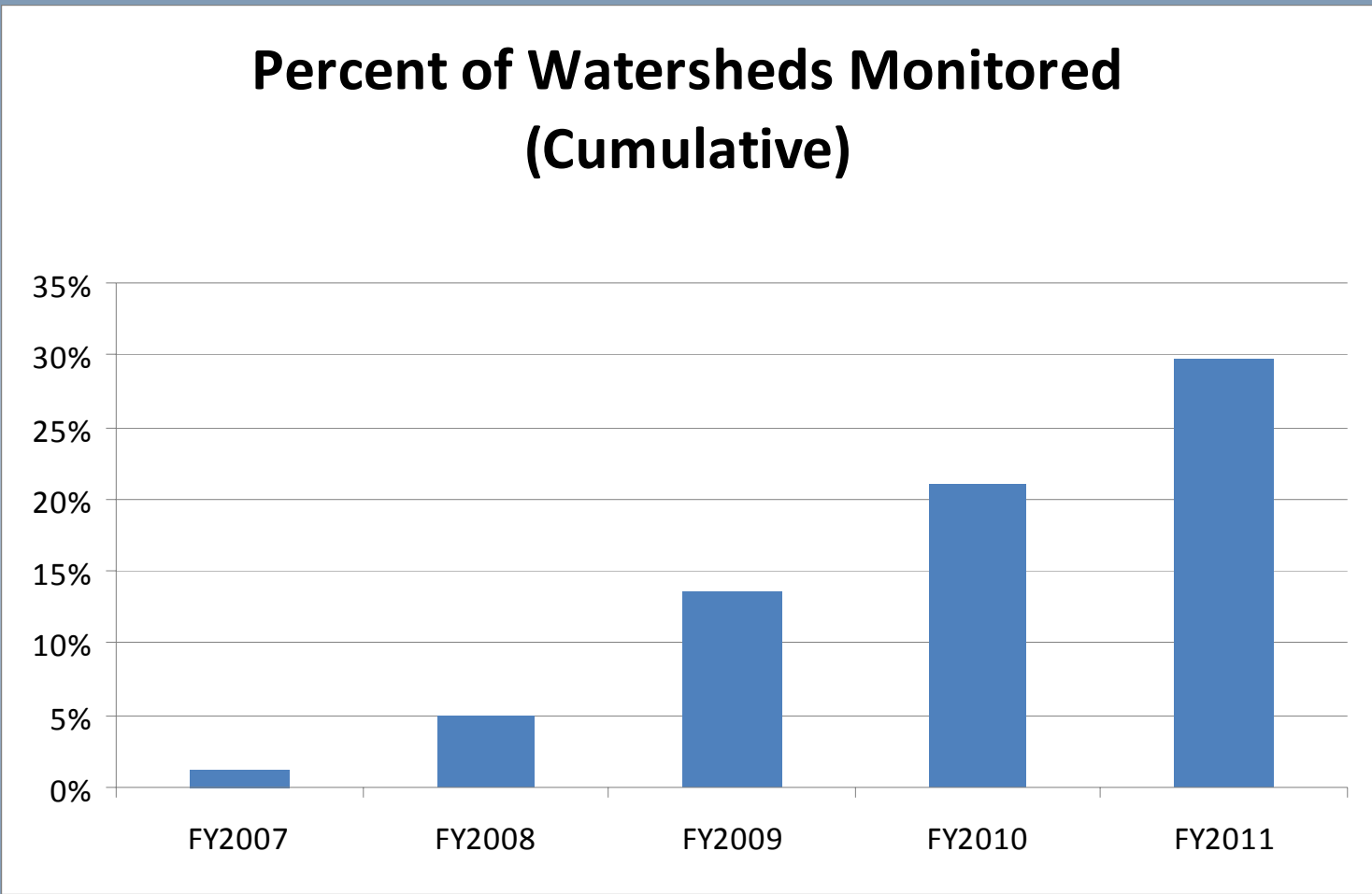- **$91 million per year:** proposed Constitutional Amendment

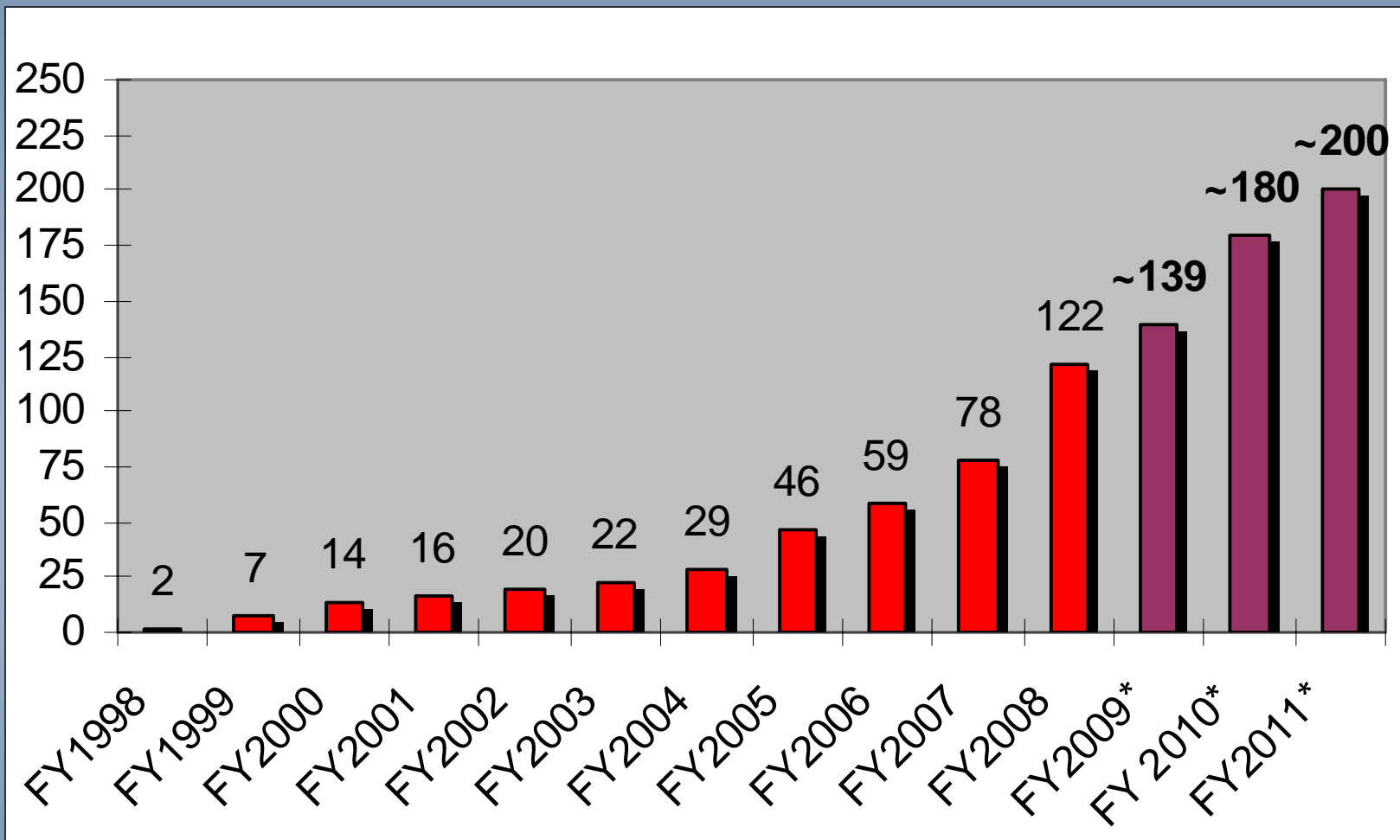# Progress to Date in Developing TMDL Studies in Minnesota

9 restored waters

17 TMDL studies completed

>100 TMDL studies underway

2575 Impairments

(14% streams and 18% lakes assessed)

Data as of 3/10/08

Monitoring ramp-up due to CWLA Funding

Percent of Watersheds Monitored (Cumulative)

TMDL Project Ramp-up due to CWLA Funding

10 year cycle through the 81 majors watersheds

Legend

- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
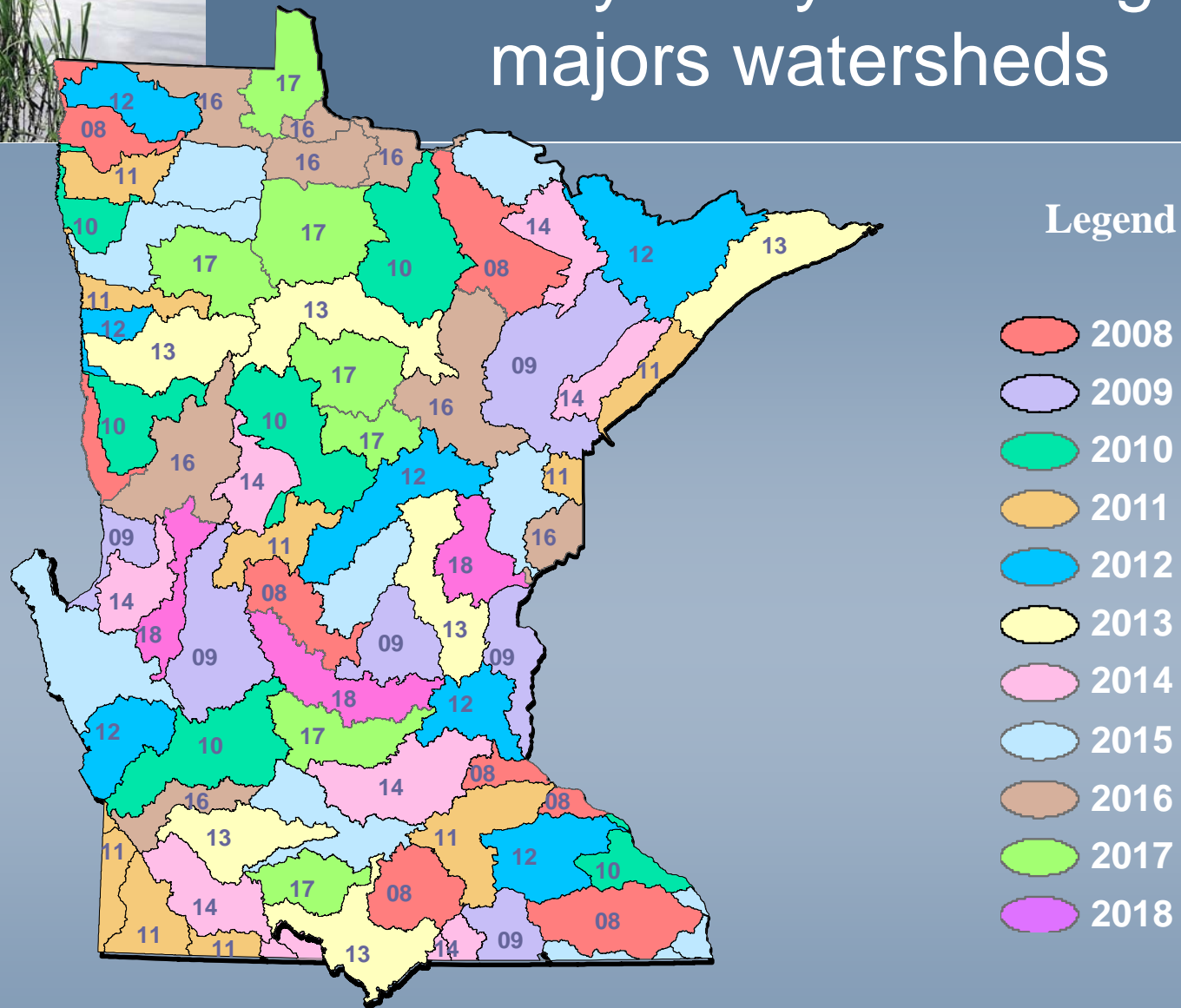
Developing Program Effectiveness Framework

- Interagency Workgroup for developing Program Effectiveness Framework
  - Led by University of Minnesota
  - Participants:
    - State Agencies
    - Federal Agencies
    - Consulting Community
    - University of Minnesota
    - Clean Water Council

Program Effectiveness Framework

Goals

- effectively communicate progress and goals achieved
- report on watershed, regional, and statewide scales
- communicate results
- support adaptive management
- **track assessment, TMDL, Implementation and protection efforts**

Program Effectiveness Framework

- 3 Draft Frameworks Developed
- Challenges:
  - **Scale:** statewide, regional, watershed, project
  - **Time:** progress over short-medium-long term
  - **Simplicity:** assessment, TMDLs, restoration, protection, social indicators
  - **Communication:** crafting message appropriate for the audience

Key Elements of Program Effectiveness Framework

■ Measurement Categories:

- ■ **Organizational Performance**
- ■ **Partnerships/Leveraging**
- ■ **Social Indicators**
- ■ **Environmental Outcomes**

Clean Water Legacy Act
Effectiveness Tracking Framework

"Measure Category"				
Geographic Scale	*Organizational Performance*	*Partnerships/ leveraging*	*Environmental Indicators*	*Social Indicators*
State				
Region/ Basin				
Major Watershed (8 digit HUC)				
Project Subwatershed Political Boundaries AUID Other				

For each measure…

1. **Timeframe (short, medium, or long term)**
2. **Who collects the data?**
3. **Is the measure an output or outcome?**
4. **What part of the Impaired Waters process is this a part of?**
   - **A. Monitoring and Assessment**
   - **B. TMDL/watershed planning**
   - **C. Implementation**
      1. non-regulated (non point source)
      2. regulated (point source)
5. **Protection or Restoration?**

Example measure

"# and % of 8-digit HUC watersheds monitored and assessed"

Category: *Organizational Performance*

1. Short term to long term
2. State (PCA)
3. output
4. Monitoring and Assessment
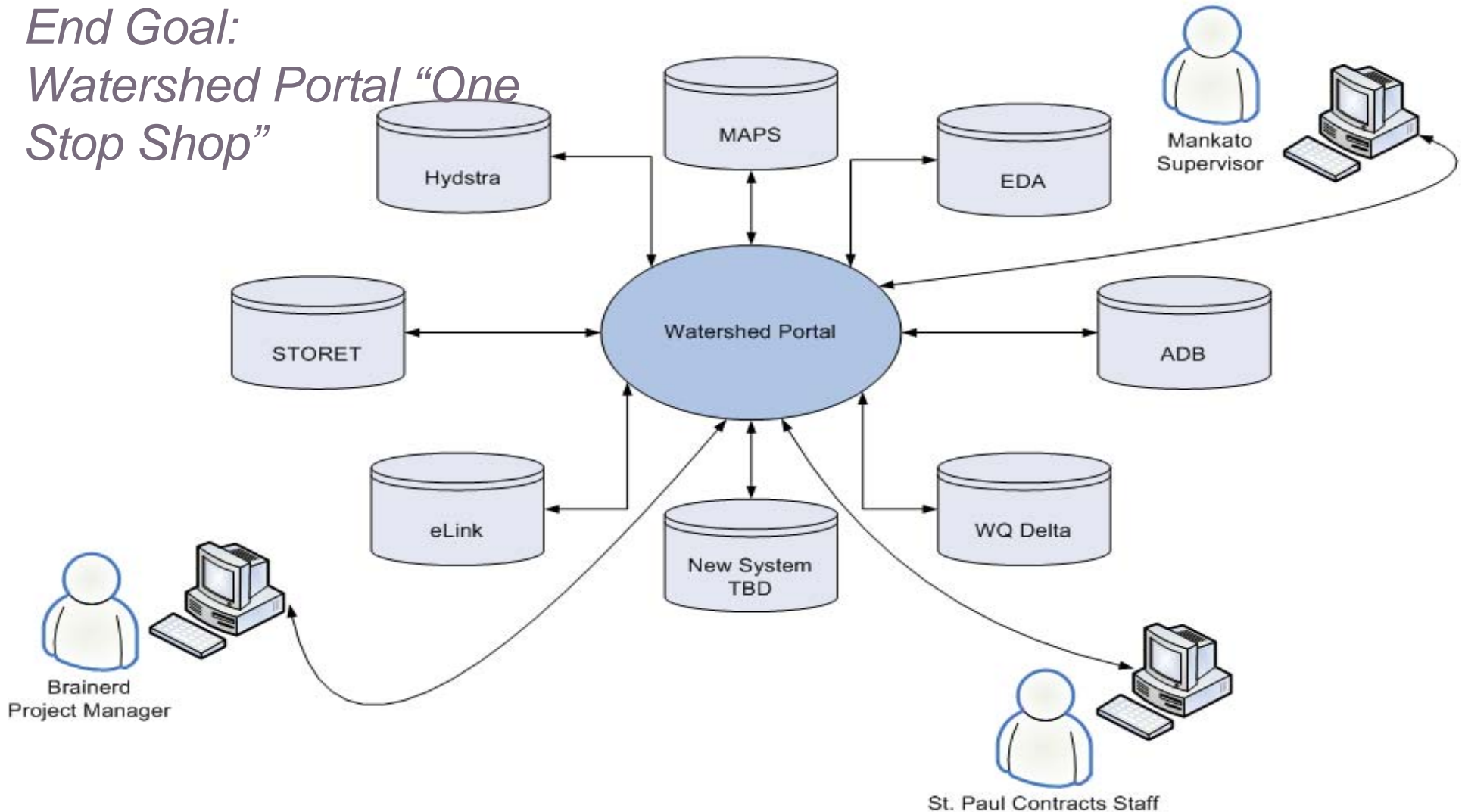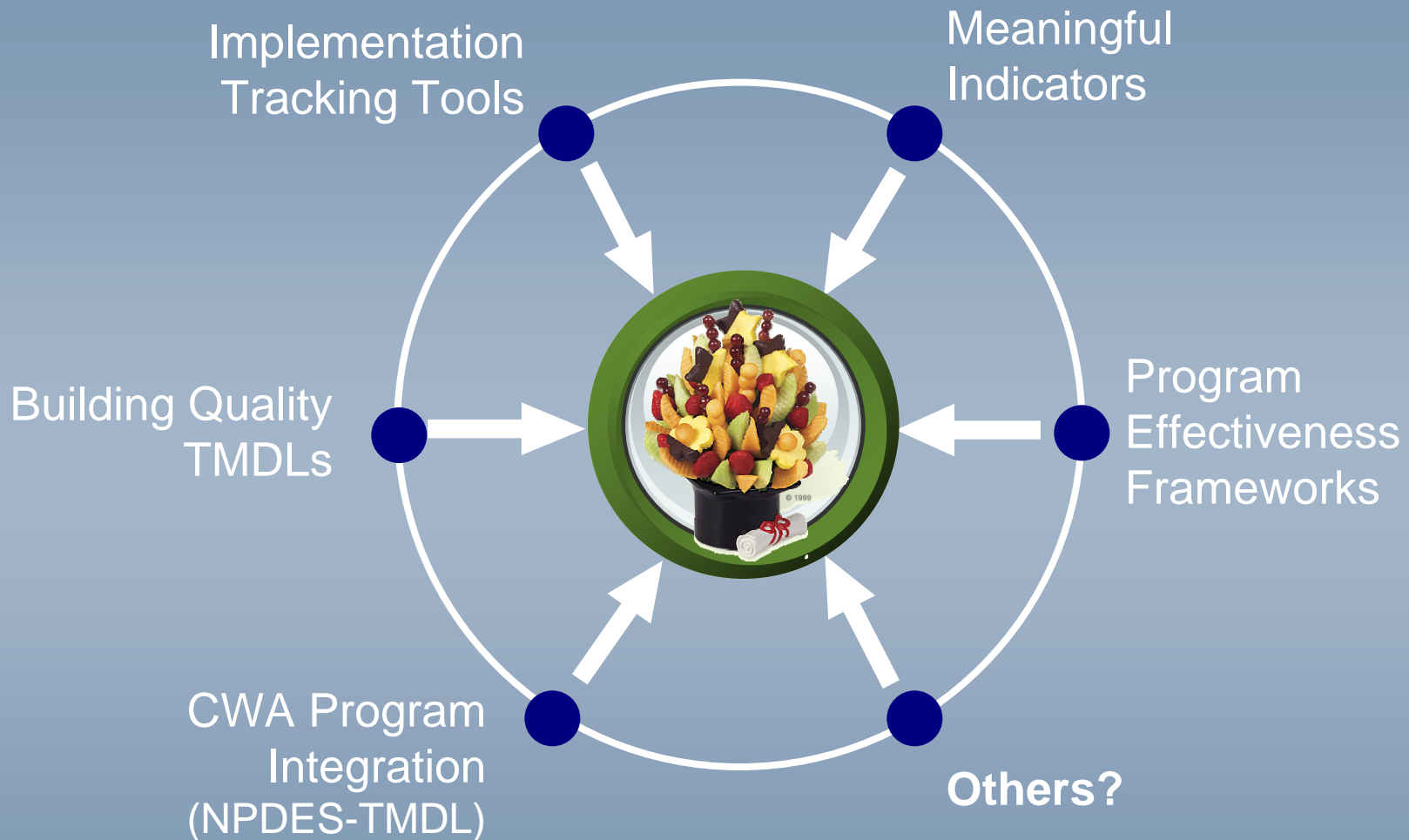5. Both protection and restoration

Project Closure

➢ Final Report: draft at the end of June/beginning of July

➢ State agencies will take the framework back to their respective staff, develop additional measures, and populate

➢ Possibility of one more meeting in the fall, to finalize guiding measures and conduct gaps analysis

End Goal:
Watershed Portal "One Stop Shop"

Improving Implementation

Implementation Tracking Tools

Meaningful Indicators

Building Quality TMDLs

Program Effectiveness Frameworks

CWA Program Integration (NPDES-TMDL)

Others?

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Questions?