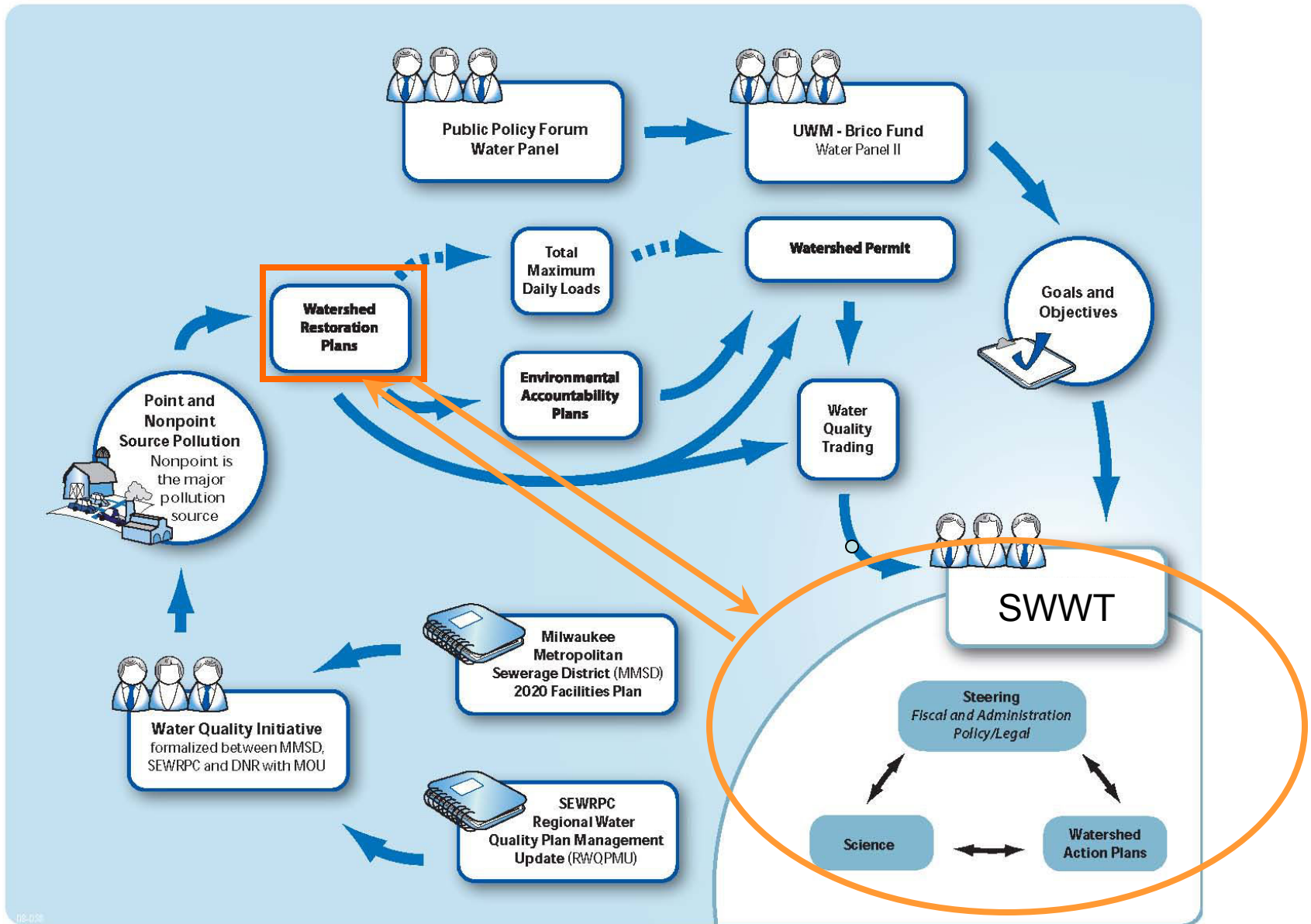


# FRAMEWORK FOR THE WATERSHED RESTORATION PLANS



# SCOPE OF THE WATERSHED RESTORATION PLANS (WRPs)

## STEPS IN THE WATERSHED PLANNING AND IMPLEMENTATION PROCESS

### Characterization and Analysis Tools

- GIS
- Statistical Packages
- Monitoring
- Load calculations
- Model selection tools
- Models
- Data bases

Blue = done in WQI

Red = done in WQI but depth needed

Green = focus of WRP

## STEPS IN THE WATERSHED PLANNING AND IMPLEMENTATION PROCESS

### A. Build partnerships

- a. Identify key stakeholders
- b. Identify issues of concern
- c. Set preliminary goals
- d. Develop indicators
- e. Conduct public outreach

(Blue = done in WQI; Red = done in WQI but depth needed; Green = focus of WRP)

## STEPS IN THE WATERSHED PLANNING AND IMPLEMENTATION PROCESS

- B. Characterize the watershed
  - a. Gather existing data and create a watershed inventory
  - b. Identify data gaps and collect additional data if needed
  - c. Analyze data
  - d. Identify causes and sources of pollution that need to be controlled
  - e. Estimate pollutant loads

(Blue = done in WQI; Red = done in WQI but depth needed; Green = focus of WRP)

## STEPS IN THE WATERSHED PLANNING AND IMPLEMENTATION PROCESS

- C. Finalize goals and identify solutions
  - a. Set overall goals and management objectives
  - b. Develop indicators and targets
  - c. Determine load reductions needed
  - d. Identify critical areas
  - e. Develop management measures to achieve goals

(Blue = done in WQI; Red = done in WQI but depth needed; Green = focus of WRP)

## D. Design an implementation program

- a. Develop an implementation schedule
- b. Develop interim milestones to track implementation of management resources
- c. Develop criteria to measure progress toward meeting watershed goals
- d. Develop monitoring component (program)
- e. Develop information/education (program)
- f. Develop evaluation process
- g. Identify technical and financial assistance needed to implement plan**
- h. Assign responsibility for reviewing and revising the plan

(Blue = done in WQI; Red = done in WQI but depth needed; Green = focus of WRP)

## STEPS IN THE WATERSHED PLANNING AND IMPLEMENTATION PROCESS

### E. Implement Watershed Plan

- a. Implement management strategies
- b. Conduct monitoring
- c. Conduct information/education activities

### F. Measure progress and make adjustments

- a. Review and evaluate information
- b. Share results
- c. Prepare annual work plans
- d. Report back to stakeholders and others
- e. Make adjustments to program

(Green = focus of WRP)

# Nine Elements for Watershed Plans

1. Identify causes & sources of pollution
2. Estimate load reductions expected
3. Describe management measures & targeted critical areas
4. Estimate technical and financial assistance needed
5. Develop education component
6. Develop project schedule
7. Describe interim, measurable milestones
8. Identify indicators to measure progress
9. Develop a monitoring component

*Source: US EPA, 2004 319 Supplemental Guidelines*

# Nine Elements for Watershed Plans

1. Identify causes & sources of pollution

*What are we going to study (and what are we not)?*

# Nine Elements for Watershed Plans

## 2. Estimate load reductions expected

*What has to be done to meet water quality standards and targets (look at models and refine)?*

# Nine Elements for Watershed Plans

3. Describe management measures (FPOPs) & targeted critical areas

*What management measures (called FPOPs in the WQI) can we employ and what will they accomplish?*

# Nine Elements for Watershed Plans

4. Estimate technical and financial assistance needed

*What resources are available, what is needed and where might it come from?*

# Nine Elements for Watershed Plans

5. Develop education component to enhance public understanding of the project and encourage early and continued participation.

*Involve the SWWT and the future Watershed Action Teams in the I&E component of the Watershed Restoration Plans*

# Nine Elements for Watershed Plans

*These next four scope efforts involve the following:*

- 6. Develop project schedule*
- 7. Describe interim, measurable milestones*
- 8. Identify indicators to measure progress*
- 9. Develop a monitoring component*

***These tasks are all interrelated and the combined goal of these tasks is to create and adaptive implementation structure for the WRP.***

# Nine Elements for Watershed Plans

## 6. Develop project schedule

*What will be done first, second, third.....*

# Nine Elements for Watershed Plans

7. Describe interim measurable milestones

*How do we measure progress?*

# Nine Elements for Watershed Plans

## 8. Identify indicators to measure progress

*What water quality or other measurements will be used to show progress?*

# Nine Elements for Watershed Plans

9. Develop a monitoring component

*What does the overall program contain?*

# Nine Elements for Watershed Plans

10. Write two Watershed Restoration Plans

# Watershed Restoration Plan Report

## (possible outline)

- **Introduction**
  - Plan area & description, partners, background
- **Water quality information & analysis**
  - WQ goals, monitoring/assessment results
  - Key pollutants / stressors, sources, current loads
- **Proposed management measures**
  - Load reductions needed, BMP types proposed
  - Reductions expected from BMPs, installation sites
- **Implementation plan**
  - Public info/education & outreach/involvement plan
  - BMP/\$\$/TA support sources, project schedule & costs
- **Monitoring and adaptive management approach**
  - Interim measurable milestones, load reduction criteria
  - Evaluation framework, monitoring plan & partners

## Scale and Data Collection in Watershed Planning

