

# Colorado Uniform Watershed Plan Outline

This outline incorporates the elements required by EPA into a complete watershed plan.

## Section 1. Watershed Characterization and Regulatory Framework

### 1.1 Watershed Approach to Manage Water Resources

[Worksheet # 1. Is a Watershed Approach Right for Me?](#)

### 1.2 History and Background

1.2.1 Need

1.2.2 Summarize Drivers

### 1.3 Geographical Information Systems Information

1.3.1 Appropriate GIS Maps

1.3.2 Map Data Inventory

[Worksheet # 2. Watershed Maps You Should Collect](#)

### 1.4 Watershed Inventories

1.4.1 Watershed Inventories and Needs

[Worksheet # 5. Watershed Inventory and Needs](#)

1.4.1.1. Critical Wildlife and Plants

1.4.1.2. Threatened and Endangered Species

1.4.1.3. Soils and Geology

1.4.1.4. Mines, Oil and Gas Wells

1.4.1.5. Water Resources

1.4.1.6. Ditches and Canals

1.4.2 Major Land Uses

1.4.3 Forestry and Agriculture Inventories

1.4.4 Other Inventories

### 1.5 Watershed Features

1.5.1 Geographical definition

[Worksheet # 3. Watershed Boundary Definition](#)

1.5.1.1. Tiered watershed boundaries

1.5.1.2. Rationale for defining watershed boundary

1.5.1.3. Map of region (watershed tiers)

1.5.1.4. Map of watershed (area of focus)

[Worksheet # 4. Watershed Area and Other Information](#)

1.5.2 Major physical features

1.5.2.1. List of hydrology features including streams, lakes and reservoirs; wetlands, critical riparian corridors

1.5.2.2. List of soil types, topographical features, climate changes, habitat, wildlife

1.5.3 Towns and other places

1.5.3.1. Special districts and special uses (e.g., landfill or superfund)

1.5.4 Permitted dischargers, industries and major business

1.5.5 List of general land use distribution types (urban, mining, agriculture, open space, forest, grasslands, etc.)

1.5.6 Major activities of interest

### 1.6 Land Use and Demographics

1.6.1 Land Uses

[Worksheet # 6. Watershed Inventory Major Land Uses](#)

1.6.2 Population Characteristics

[Worksheet # 7. Watershed Inventory Demographics of Watershed](#)

1.6.3 Other Demographic Information

[Worksheet # 8. Socio-Economic Information about Your Watershed](#)

## **1.7 Integration with Other Planning Efforts**

1.7.1 Integration Approach

1.7.2 Links to Water Quality, Environmental or Other Relevant Regulatory Efforts/Programs (e.g. Source Water Protection)

[Worksheet # 9. Potential Agency Program Links](#)

## **1.8 Impaired Waters and Protection of Potential Use Impaired Waters**

1.8.1 List all segments within watershed with Adopted Standards and Classifications; Beneficial Uses

1.8.2 303(D) Listing

[Worksheet # 10. Regulatory Framework, 303\(d\) Listing, Impairment or Protection](#)

1.8.2.1. Impaired Segments

1.8.2.2. Pollutants of Concern

1.8.2.3. Total Maximum Daily Load Efforts

1.8.2.4. Priority

1.8.3 Use Impaired Waters

1.8.3.1. Impaired Segments

1.8.3.2. Pollutants of Concerns

## **1.9 Threatened or Endangered Species**

### **1.10 Regulatory Issues and Processes**

1.10.1.1. Regulatory Issues and processes

1.10.1.2. Government Issues and processes

1.10.1.3. Industry Issues and processes

1.10.1.4. Community-Driven Issues

1.10.1.5. Regulatory Framework

## **Section 2. Watershed Partnerships**

### **2.1 Categories of Stakeholders**

[Worksheet # 11. List of Possible Stakeholders](#)

2.1.1 Local

2.1.2 Regional

2.1.3 State

2.1.4 Tribal

2.1.5 Federal

### **2.2 Watershed Partners**

2.2.1 List Of Participants (Selective)

2.2.2 Watershed Participant Roles And Responsibilities

[Worksheet # 13. Identifying Individual Stakeholder Skills and Resources](#)

### **2.3 Outreach Activities and Technical Assistance**

### **2.4 Watershed Organization Structure**

**Worksheet # 12. Watershed Organization and Structure**

- 2.4.1 Watershed Organization Type and Dynamics
- 2.4.2 Rules of Operation
- 2.4.3 Funding Mechanisms

**Section 3. Scope Of Watershed Efforts**

**3.1 Pollutants of Concern**

**Worksheet # 14. Ask "What Do I Already Know About Problems in My Watershed"**

- 3.1.1 Point Source
- 3.1.2 Nonpoint Source
- 3.1.3 Stormwater
- 3.1.4 Environmental
- 3.1.5 Combinations of Pollutants

**3.2 Select Indicators to Measure Environmental Conditions**

- 3.2.1 Indicator Parameters by Category/Type
- 3.2.2 Monitoring Requirements
- 3.2.3 Expected Outcomes
- 3.2.4 Measures of Success

**3.3 Mission and/or Vision Of Watershed Organization**

**Worksheet # 16. Your Vision and Mission Statement; Steps to Meet Your Vision**

**3.4 Goals And Objectives**

- 3.4.1 Near-Term Benchmarks
- 3.4.2 Long-Term Goals

**3.5 Organizational Concerns**

**Worksheet # 15. Member Perceptions: Concerns, Causes, Goals and Indicators**

- 3.5.1 By Membership
- 3.5.2 With Goals and Objectives

**Section 4. Watershed Information Sources, Monitoring Plan and Data Inventories**

**4.1 Information Sources**

- 4.1.1 Organizations
- 4.1.2 Literature References
- 4.1.3 Other Sources

**4.2 Data Inventories**

**4.3 Monitoring Program**

**Worksheet # 18. Some Data Analysis Needs and Questions**

- 4.3.1 Monitoring Program Elements (Chemical, Physical and Biological)

**Worksheet # 19. Monitoring Plan Elements and Targets**

- 4.3.2 Quality Assurance Project Plan
- 4.3.3 Sample Analysis Plan
- 4.3.4 Data Management Plan
- 4.3.5 Reporting Requirements

**4.4 Existing Data Inventory**

- 4.4.1 Date Gaps

## **Section 5. Data Analyses and Characterizations**

### **5.1 Applied Data Sets and Data Management**

### **5.2 Analysis Methodologies**

### **5.3 Water Quality and Environmental Models and Modeling**

#### **[Worksheet # 17. Problem Solving - Building a Conceptual Model](#)**

- 5.3.1 Predictive Tools and Processes
- 5.3.2 Identify Pollutant Problems and Sources
- 5.3.3 Identify Spatial and Temporal Trends
- 5.3.4 Identify Known and Suspected Stressors
- 5.3.5 Target Know Causes and Sources
- 5.3.6 Priorities

### **5.4 Recommended TMDL Strategy**

### **5.5 Quantify Pollutant Loads And Load Reductions**

- 5.5.1 Concerns and Observations
- 5.5.2 Pollutant Load Estimates
- 5.5.3 Estimate Needed Load Reductions by Source and Type
- 5.5.4 Priorities

### **5.6 Other Data Analysis and Characterization**

## **Section 6. Watershed Management Action Strategy, Policies and Programs**

### **6.1 Existing Management Strategies**

#### **[Worksheet # 20. Existing Wastewater Management Efforts](#)**

#### **[Worksheet # 21. Existing Urban Stormwater Management Efforts](#)**

#### **[Worksheet # 22. Existing Agricultural and Forestry Practices](#)**

- 6.1.1 Addressing Growth and Development
- 6.1.2 Point Source Strategies
- 6.1.3 Regulatory Strategies
- 6.1.4 Other Requirements
- 6.1.5 Nonpoint Source Strategies
- 6.1.6 Stormwater Management (permitted and not permitted)

### **6.2 Management Objectives, Policies and Programs**

#### **[Worksheet # 23. Documenting Management Measures and Constraints](#)**

- 6.2.1 By Pollutant Source and Type
- 6.2.2 Measures of Success
- 6.2.3 Load Reduction Strategies and Programs
  - 6.2.3.1. Targets
  - 6.2.3.2. Timing

### **6.3 Watershed Approach (e.g. Complete Watershed, Critical Segments or Areas)**

### **6.4 Watershed Appropriate Best Management Practices**

#### **[Worksheet #24. List Best Practices Used in Watershed](#)**

### **6.5 Proposed Management Strategies**

- 6.5.1 Preferred Strategies and Programs
- 6.5.2 Prioritize Strategies and Programs

### **6.6 Cost Benefit Analysis**

- 6.6.1 Funding Options
- 6.6.2 Benefits

## **Section 7. Implementation Plan Elements**

### **7.1 Implementation Plan**

#### **[Worksheet #25. Selecting Possible Implementation Tools](#)**

- 7.1.1 Implementation Elements
- 7.1.2 Information and Education Plan
- 7.1.3 Implementation Schedule

### **7.2 TMDL Implementation Process**

#### **[Worksheet #26. Draft Implementation Plan Matrix](#)**

### **7.3 Technical Assistance**

### **7.4 Measures of Progress and Success**

#### **[Worksheet #27. List Possible Measures of Success](#)**

- 7.4.1 Milestones

#### **[Worksheet #28. Developing Criteria to Measure Process and Success](#)**

- 7.4.1.1. Interim Measurable Milestones and Checkpoints
- 7.4.1.2. Long-term Focus (e.g. 20-year)
- 7.4.2 Data Application
- 7.4.3 Other Measures

### **7.5 Financial Plan**

#### **[Worksheet #29. Possible Elements of Financial Plan](#)**

- 7.5.1 Minimum Funding Requirement (Base Program)
- 7.5.2 Five-Year Funding Requirements With Activities
- 7.5.3 Funding Sources

### **7.6 Information and Education Plan**

#### **[Worksheet #30. Possible Elements of Information and Education Plan](#)**

## **Section 8. Adaptive Watershed Management Plan**

#### **[Worksheet #31. Checklist of Basic Components of Your Watershed Plan](#)**

#### **[Worksheet #32. Review Nine Components of an EPA Watershed-Based Plan](#)**

### **8.1 Review Progress for Adaptive Management**

### **8.2 Reporting Processes**

### **8.3 Total Maximum Daily Load Implementation**

### **8.4 New Concerns and Issues Identified by Partners**

#### **[Worksheet #33. Getting Help](#)**