

# Watershed Planning Guidance

## Overview

Watershed plans consistent with Environmental Protection Agency's (EPA's) nine key elements provide a framework for improving water quality in a holistic manner within a geographic watershed. The nine elements help assess the contributing causes and sources of nonpoint source (runoff) pollution, involve key stakeholders, and prioritize restoration and protection strategies to address water quality problems.

## Understanding the Nine Key Elements

Development of watershed-based plans funded with ACWA funds must be consistent with EPA's nine elements. The elements can be used in watersheds with impaired waters or used to protect watersheds not yet impaired.

The first three elements characterize and set goals to address pollution sources. The remaining six elements determine specific resources and criteria to implement and evaluate the plan. The watershed-based plan may contain additional information but to the extent practicable, should, at a minimum, address these nine key elements.

The nine elements can provide a structure to develop:

- Lake management and protection plans
- River management and protection plans
- Land and water resource management plans
- TMDL implementation plans
- Other watershed-based plans

## Additional Resources

- EPA's watershed approach website: [EPA Watershed Planning page](#)
- EPA's 9-element watershed planning handbook: [EPA 9 Element Handbook](#)

### Summary of the nine minimum key elements

1. Identify the causes and sources (to the extent practicable without collecting additional data)
2. Estimate pollutant loading into the watershed and the expected load reductions (to the extent practicable without collecting additional data). For waters with an approved TMDL, refer to the TMDL loading calculations. For waters or pollutants without a TMDL, a rough estimate is acceptable.
3. Describe management measures that will achieve load reductions and targeted critical areas
4. Estimate the amounts of technical and financial assistance and the relevant authorities needed to implement the plan
5. Develop an information/education component
6. Develop a project schedule
7. Develop the interim, measurable milestones
8. Identify indicators to measure progress and make adjustments
9. Develop a monitoring component

## Summary Information from EPA

### **“9 Key Elements” for Watershed-Based Plans EPA Nonpoint Source (Section 319) Program**

1. An identification of the **causes and sources** or groups of similar sources that will need to be controlled to achieve the load reductions estimated in the watershed-based plan (and to achieve any other watershed goals identified in the watershed-based plan), as discussed in item (2) immediately below. Sources that need to be controlled should be identified at the significant subcategory level with estimates of the extent to which they are present in the watershed (e.g., X number of dairy cattle feedlots needing upgrading, including a rough estimate of the number of cattle per facility; Y acres of row crops needing improved nutrient management or sediment control; or Z linear miles of eroded streambank needing remediation).
2. An estimate of the **load reductions expected for the management measures** described under paragraph (3) below (recognizing the natural variability and the difficulty in precisely predicting the performance of management measures over time). Estimates should be provided at the same level as in item (1) above (e.g., the total load reduction expected for dairy cattle feedlots; row crops; or eroded streambanks).
3. A description of the **NPS management measures** that will need to be implemented to achieve the load reductions estimated under paragraph (2) above (as well as to achieve other watershed goals identified in the watershed-based plan), and an identification (using a map or a description) of the critical areas in which those measures will be needed to implement the plan.
4. An estimate of the amounts of **technical and financial assistance** needed, associated **costs**, and/or the sources and **authorities** that will be relied upon, to implement the plan.
5. An **information/education** component that will be used to enhance public understanding of the project and encourage their early and continued participation in selecting, designing, and implementing the NPS management measures that will be implemented.
6. A **schedule** for implementing the NPS management measures identified in the plan that is reasonably expeditious.
7. A description of interim, **measurable milestones** for determining whether NPS management measures or other control actions are being implemented.
8. A set of **criteria that can be used to determine whether loading reductions are being achieved over time and substantial progress is being made towards attaining water quality standards** and, if not, the criteria for determining whether the plan needs to be revised or, if a NPS TMDL has been established, whether the NPS TMDL needs to be revised.
9. A **monitoring** component to evaluate the effectiveness of the implementation efforts over time, measured against the criteria established under item (8) immediately above.