SECTION I: THE BASICS

This section presents a streamlined summary of the watershed handbook, *Handbook for Developing Watershed Plans to Restore and Protect Our Waters*, and walks you through the basic watershed planning and implementation process. In addition, this section highlights where in the planning process to incorporate the nine minimum elements (see the box to the right) required for watershed-based plans that are developed and implemented with section 319 funds.

Summary of the nine minimum elements to be included in section 319-funded watershed plans for threatened or impaired waters

a. Identify causes and sources of pollution
b. Estimate pollutant loading into the watershed and the expected load reductions
c. Describe management measures that will achieve load reductions and targeted critical areas
d. Estimate amounts of technical and financial assistance and the relevant authorities needed to implement the plan
e. Develop an information/education component
f. Develop a project schedule
g. Describe the interim, measurable milestones
h. Identify indicators to measure progress
i. Develop a monitoring component

Watershed plans provide an analytic framework for managing efforts to both restore water quality in degraded areas and to protect overall watershed health. Watershed plans assist states and tribes in addressing nonpoint source pollution by providing a comprehensive assessment of nonpoint source pollution and a set of management measures to address them.

EPA recognizes that not all watersheds are threatened or impaired and that in many cases watershed stakeholders want to develop and implement watershed plans to continue protecting high-quality watersheds. The watershed planning and implementation steps are similar for healthy and impaired watersheds, but the overall watershed plan goals and management strategies will vary depending on local and regional priorities, conservation programs, and regulatory requirements or other approaches used to achieve them.

NOTE: A waterbody is **impaired** if it does not attain the water quality criteria associated with its designated use(s). **Threatened** waters are those that meet standards but exhibit a declining trend in water quality such that they will likely exceed standards in the near future.

In this section of the Quick Guide, you will learn about the framework to conduct a successful watershed planning effort. The basis for this framework is the **six steps of watershed planning,** which are discussed in detail in the Handbook (http://water.epa.gov/polwaste/nps/handbook_index.cfm). An additional goal of the Handbook (and, subsequently, of this guide) is to show both how the **nine elements** presented in the Clean Water Act section 319 grant guidelines serve as building blocks to develop watershed plans and where these elements fit within the six steps of the watershed planning process (Figure 1). The nine elements are the components of the watershed planning process that EPA believes are the most critical to preparing effective watershed plans and are generally required for watershed projects funded under section 319. EPA finalized its updated section 319 *Nonpoint Source Program and Grant Guidelines for States and Territories* in 2013, and it includes the nine elements discussed in the Handbook and this Quick Guide (see www.epa.gov/nps/319).

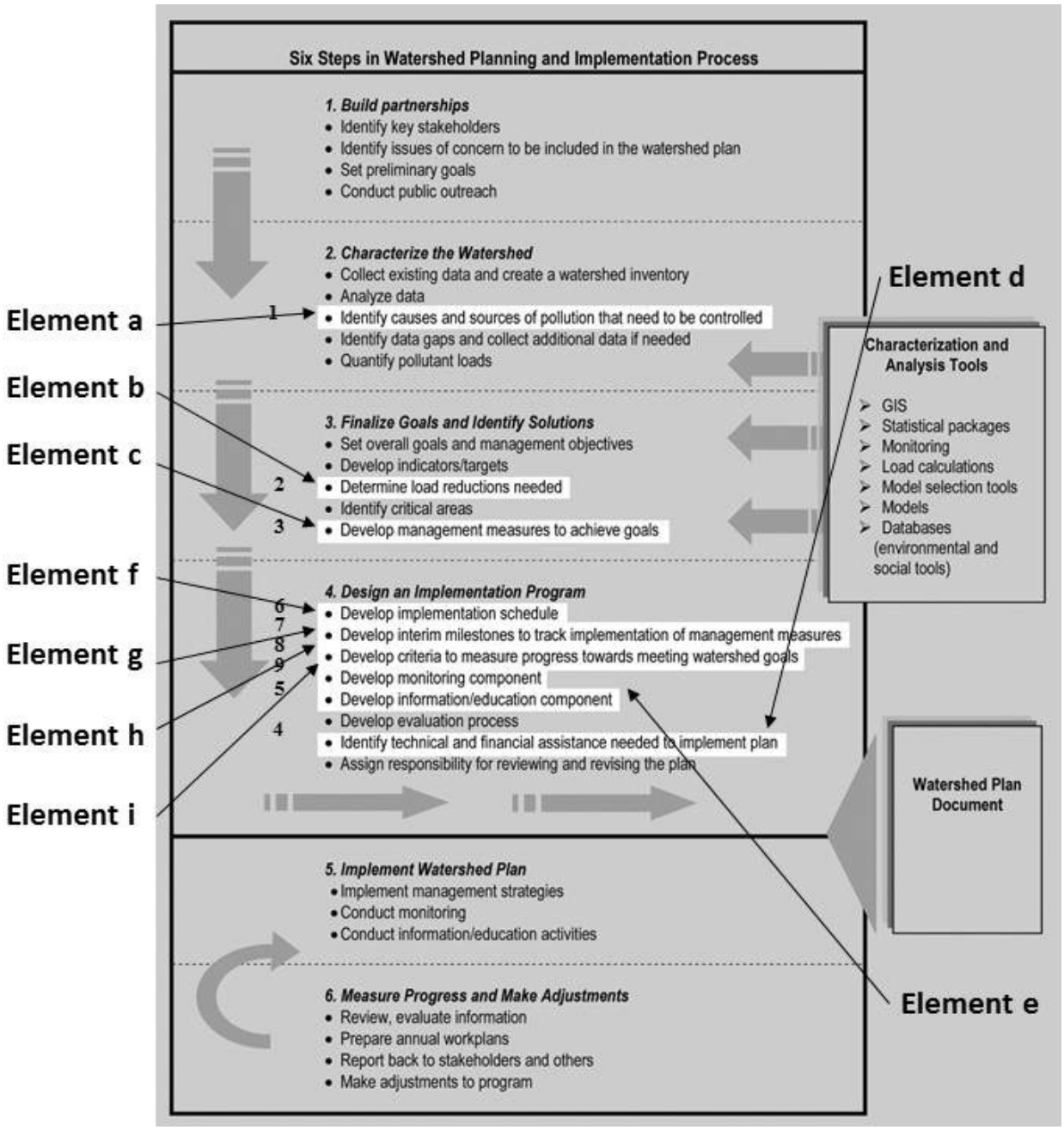


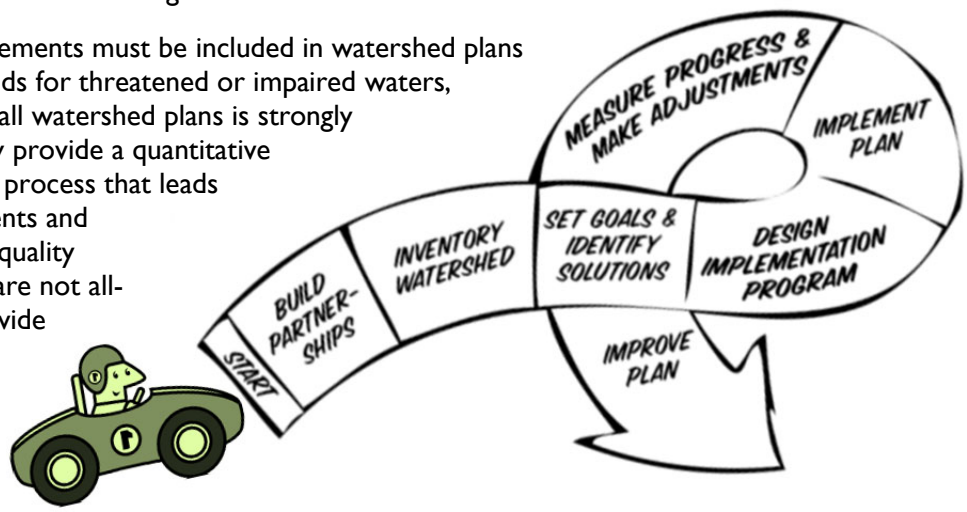
Figure 1. Crosswalk between the six steps of watershed planning and the section 319 nine minimum elements.

Understanding the Nine Minimum Elements of Watershed-Based Plans

EPA developed the nine minimum elements to help watershed managers address some of the most common pitfalls seen in watershed plans, particularly those for impaired waters. Watershed plans often lack quantified estimates of current and projected pollutant loads and the reductions needed to achieve water quality standards and other watershed goals. These loading estimates and estimates of load reductions from proposed pollution control measures provide the analytic link between actions on the ground and attainment of water quality standards. In the absence of such a framework, it is difficult to develop and implement a watershed plan that can be expected to achieve water quality standards or other environmental goals.

> **NOTE:** EPA's Watershed Central (http://water.epa.gov/type/watersheds/datait/watershedcentral/index.cfm), including its wiki, can be used to assist watershed practitioners in each of the watershed planning and implementation steps.

Although these minimum elements must be included in watershed plans funded with section 319 funds for threatened or impaired waters, including these elements in all watershed plans is strongly recommended because they provide a quantitative framework for the planning process that leads to water quality improvements and restoration to attain water quality standards. These elements are not all-encompassing, but they provide the basic components needed to produce a watershed plan that can lead to water quality improvements.



The elements are labeled *a* through *i* to reflect how they are presented in the 319 guidelines. The first three elements (*a* through *c*) are considered during the characterization and goal-setting phases to address the primary sources of pollution in the watershed and to determine the management strategies needed in specific areas to reduce the pollution to meet water quality goals. The remaining six elements (*d* through *i*) are used to develop a specific plan of action with measureable targets and milestones, as well as the necessary financial and technical resources needed to restore the waterbody.

Under section 303(d) of the Clean Water Act, states, territories, and authorized tribes are required to develop lists of impaired waters—waters that are too polluted or degraded to meet their water quality standards. The law requires that these jurisdictions establish priority rankings for waters on the lists and, in most cases, develop total maximum daily loads (TMDLs) for these waters. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive from both point and nonpoint sources and still meet water quality standards.

TMDLs provide an important starting point for water quality planning. Some TMDL development reports also contain an implementation strategy or plan. The point source allocations in TMDLs provide water quality targets for point sources such as wastewater treatment plants and stormwater treatment systems that go into their regulatory permits. Nonpoint source allocations are usually managed according to a TMDL implementation plan or watershed-based plan, which must include the nine elements described in this guide and in the Clean Water Act section 319 funding guidelines.