

How Does the Clean Water Act Work in Theory?

WATER QUALITY STANDARDS. States set water quality standards that reflect the minimum level of water quality necessary to protect human health and aquatic species. Standards are comprised of designated uses (e.g., fish, swimming, drinking water) and numeric or narrative criteria to protect those uses. Standards must be reviewed and updated every three years. The Environmental Protection Agency (EPA) must approve all state water quality standards or promulgate protective standards if the state fails to do so.

IMPAIRED WATERS LIST. To determine if the state is properly protecting its waters, it must regularly compare water quality data and information against the water quality standards. Those waterbodies that fail to meet the standards are designated as “impaired waters” and placed on the “303(d) list” of impaired waters. States are required to submit the lists to EPA for approval or disapproval every two years. If a state fails to develop a timely and complete impaired waters list, the burden to do so shifts to EPA.

TMDL CLEAN-UP PLANS. States are required to develop clean-up plans, known as Total Maximum Daily Loads (TMDLs), for all waters on the impaired waters list. A TMDL is often called a “pollution diet” because it is a science-based determination of the total load of a pollutant that a waterbody can handle and still meet water quality standards, which then allocates amounts of pollution to all pollution sources to that waterbody. Allocations to sources that discharge pursuant to permits are given “wasteload allocations” and sources of nonpoint source pollution runoff are given “load allocations.” If a source currently contributes more pollution to a waterbody than its allocation, it must reduce its contribution. The state must submit TMDLs to EPA for approval, and if a state fails to complete approvable TMDLs, the burden shifts to EPA to calculate the TMDLs.

DISCHARGE PERMITS. States and EPA issue National Pollutant Discharge Elimination System (NPDES) permits to all “point sources,” such as industrial and municipal dischargers. NPDES permits must ensure that discharges both use the appropriate level of technology to reduce or eliminate the discharge of pollutants and prohibit any discharge that would cause or contribute to violations of water quality standards. Permits must comply with any TMDL-generated wasteload allocations. NPDES permits expire after five years but can remain in place indefinitely after expiration. A “general permit” applies to more than one pollution source. States may be authorized to issue NPDES permits subject to EPA oversight.

NONPOINT SOURCE CONTROLS. States control (or fail to control) polluted runoff from “nonpoint sources,” such as logging, farming, septic systems, etc. Pollution controls for nonpoint sources are generally called “best management practices” or “BMPs.” Western states have state laws that establish BMPs such as the width of required riparian buffers for logging activities but only have vague restrictions on agriculture. TMDLs set limits on the amount of pollution that should come from nonpoint sources, but unfortunately, states generally ignore what TMDLs say about the need to restrict nonpoint source pollution. States are required to submit nonpoint source plans to EPA, which provides funding to states. The Clean Water Act does not establish a federal permitting scheme for nonpoint sources.