

# Pollution vs. Impairment: What's the Difference?

Pollution and impairment are two ways to describe problems with water quality, but they mean different things in terms of water quality management. According to the California Water Code—a set of laws that apply to water use and protection in the state—pollution happens when types of “waste” or harmful substances (such as sewage or pesticides) are added to a waterbody and unreasonably affect beneficial uses like swimming, drinking or fishing. When pollutant levels in a waterbody exceed established regulatory limits, the waterbody is considered impaired, indicating that water quality does not support certain uses. Impairment is a term from the federal Clean Water Act, while pollution is associated with the California Water Code. The regional water quality control boards can adopt plans to both restore and protect waterbodies.

## What is considered “waste”?

The California Water Code’s definition of waste includes a wide range of substances and activities that could potentially impact water quality. Substances include sewage and any other toxic or non-toxic liquid, solid, gaseous, or radioactive substances associated with human activities. Activities like farming, urban development, and any other human induced land use, may generate waste.

## How do we identify pollution?

Pollution is evaluated by analyzing different environmental indicators alongside reference data. This can look like comparing water sample results to water quality objectives outlined in a Basin Plan or measurements from a clean reference site, making visual observations or using scientifically recognized pollutant indicators. Pollution assessment approaches can differ based on specific site conditions, the best available science and professional expertise.

## What is the Basin Plan?

The water quality protection plan for the north coast region, called the Basin Plan, lays out rules adopted by the North Coast Regional Water Quality Control Board (North Coast Water Board) to control pollution. These rules, known as water quality standards, focus on managing waste releases and other factors that could negatively affect water quality in rivers, lakes and groundwater in the north coast region.

## What are water quality standards?

Water quality standards for the north coast region are defined in the Basin Plan and include:

**Beneficial uses.** The different ways we use and benefit from water, such as drinking, swimming, fishing, agriculture and supporting wildlife.

**Water quality objectives.** Pollution limits to protect beneficial uses.



**The Antidegradation Policy.** This State Water Resources Control Board policy aims to prevent water quality from getting worse and is consistent with federal regulations that implement the Clean Water Act.

## What is impairment?

All impaired waters are polluted, but not all polluted waters are impaired. A waterbody is considered impaired when it fails to meet water quality standards identified in the Basin Plan. Waterbodies identified as “impaired” cannot fully support the beneficial uses defined for that particular waterbody (such as swimming, fishing or drinking water). When a waterbody is designated as impaired, it gets added to a list of impaired waters under the Clean Water Act (called the 303(d) list).

## How are impaired waterbodies identified?

A structured assessment process is applied to determine whether a waterbody should be classified as impaired. This process distinguishes impairment from pollution by using specific methods outlined in the State Water Board’s Water Quality Control Policy for Developing California’s Clean Water Act Section 303(d) List (Listing Policy), which involves analyzing environmental data, following strict analytical guidelines and applying basic data adequacy standards.

Placing a waterbody on EPA’s 303(d) list triggers requirements under the Clean Water Act to develop a total maximum daily load (TMDL)—an extensive process that uses scientific studies to determine the maximum amount of a pollutant that can enter a waterbody without exceeding the water quality standards for that particular pollutant.

## What does the North Coast Water Board do when a waterbody is impaired or polluted?

North Coast Water Board staff implement the provisions of the Clean Water Act and California Water Code to keep waterbodies clean, protect beneficial uses and address problems when pollution or impairment occurs. Waterbodies are protected through permits that control pollutant inputs to restore and maintain water quality. When a waterbody is listed as impaired, a TMDL implementation plan is developed that outlines the steps and strategies necessary to reduce pollution to a level that meets defined water quality standards. TMDL implementation plans may be incorporated into the Basin Plan (or Water Quality Control Plan for the North Coast Region). Implementation plans may also be developed for unpolluted or polluted waterbodies (that are not listed as impaired) to make sure all waterbodies in the North Coast Region comply with the Basin Plan’s water quality standards.

For more information on the the North Coast Regional Water Quality Control Board’s water quality protection programs, see <https://www.waterboards.ca.gov/northcoast/>