



project clean water

## Watershed Terms and Definitions related to the San Diego Region



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**Note:** The following definitions are provided to promote general awareness of watershed issues. More detailed and technical definitions relating to environmental laws and compliance issues exist. They may vary within each local jurisdiction of San Diego County and between local agencies and state and/or federal agencies. For more information, contact the appropriate agency.

### Beneficial Uses

- The uses of water, which are necessary for the survival and well being of humans, plants, and wildlife.
- Examples: power generation; recreation; aesthetic enjoyment; navigation; domestic, municipal, agricultural and industrial supply; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

### Best Management Practices

- Activities done to prevent or reduce the discharge of pollutants to stormwater, the stormwater drainage system or receiving waters.
- Examples: good housekeeping practices like sweeping up litter, picking up pet waste, recycling, composting; education; treatment practices; practices to control or prevent runoff, spills or leaks; water conservation; erosion control; and proper disposal of wastes and leftover materials.

### Discharge

- Noun: The water or other fluid (including any solid and dissolved material), that directly or indirectly enters into stormwater drainage or receiving waters.
- Example: Water that picks up and carries sediment and trash as it is released to the ground from swimming pool draining.
- Verb: To allow pollutants to directly or indirectly enter into stormwater drainage or receiving waters.

### Ecosystem

- The populations of different species that live together, interacting with one another and with the chemical and physical factors that make up its nonliving environment. All ecosystems are connected.
- The chemical and physical factors include sunlight, rainfall, soil nutrients, climate, etc.

- Example: Ecologists studying a lake or stream ecosystem focus on how benthic plants, macro invertebrates, fish, etc affect each other and how the environment affects them.

## Estuary

- Partially enclosed coastal area at the mouth of a river where its fresh water, carrying fertile silt and runoff from the land, mixes with salty seawater.
- Examples: Tijuana Estuary, Los Peñasquitos Lagoon, San Dieguito Lagoon, Agua Hedionda Lagoon, Batiquitos Lagoon, San Elijo Lagoon, Santa Margarita Lagoon

## Groundwater

- Water that sinks into the soil and is stored in slowly flowing and slowly renewed underground reservoirs called aquifers.

## Impervious Surface

- Ground areas or covered areas into which rainfall cannot effectively infiltrate, or soak in.
- Examples: Impervious surfaces may be natural, such as a clay layer in soil, or man-made, such as rooftops, roads, sidewalks, parking areas and concrete channels.

## Open space

- Land that has little or no development (few man-made structures) and with mostly natural or undisturbed conditions.
- Examples: benefits often associated with open space include preserving water bodies, wetlands and riparian corridors, sensitive species habitat, recreation trails and parks, wildlife habitat and migration corridors, scenic vistas, agricultural land, and watershed recharge areas.

## Pollutant/Contaminant

- Generally, any substance introduced into the environment that negatively affects the usefulness of a resource.
- **Non-point source**: Pollution such as general runoff of sediments, fertilizer, pesticides, and other materials from farms and urban areas as opposed to specific points of discharge, such as from factories. Examples are bacteria from sewage and animal waste; nutrients from fertilizers, soaps and animal waste; soil and pesticides from farms and residential landscapes; or, trash dropped along streets, recreation areas and boats.
- **Point source**: Pollution from a single identifiable discharger. Examples are the (1) smoke stack of a power plant or factory, (2) drainpipe of a meatpacking plant, (3) exhaust pipe of an automobile, or (4) toxic metals spilled on the ground from certain types of businesses.

## Receiving water

- A creek, river, lake, ocean or other waterway into which tributaries, stormwater, runoff and other material flows.

## Runoff

- Water and other fluid that flows off of a property to surface streams, rivers and lakes.
- **Urban Runoff** often comes from rain and many other sources and flows toward a storm drain, frequently located along curbs of parking lots and roadways. Once in the storm drain, it flows through pipes, which lead to an outfall where the stormwater directly enters a creek, river, lake or the ocean.
- Examples: Fluids from the over watering of lawns, car washing, draining of pools, and the hosing off of driveways and other constructed surfaces.
- **Rural Runoff** often comes from storm events and agricultural activities and flows off land into drainage ditches, culverts and open flood channels and/or directly enters a stream, creek, river, lake, lagoon, bay or the ocean.
- Examples: Fluids from the over-watering of croplands and other farm or ranch landscapes and runoff from ranch animal care and machinery cleaning.

## Storm drain

- A system of catch basins and pipes that carries urban runoff from buildings and land surfaces to receiving waters. Also known as a “storm sewer”. The purpose of a storm drain is to minimize flooding.
- Examples: Constructed openings in roads and street gutters connected to underground pipes that lead directly to the ocean.

## Stormwater Drainage System

(Otherwise known as Stormwater Conveyance System)

- A **Stormwater Drainage System** carries water to streams, rivers, lakes, oceans and other bodies of water. It can be made up of both man-made structures and natural land features
- Examples: Storm drains, pipes, roadside drainage ditches, culverts, concrete and natural channels, canyons, valleys, streams, creeks, and rivers.

## Stormwater

- Surface runoff and drainage that comes from rain and other forms of precipitation.
- **Stormwater management**: Policies and procedures for handling stormwater in acceptable ways to reduce the problems of flooding, reduce or prevent pollution picked up and carried by runoff, and reduce the erosion of stream banks.

## **TMDL (Total Maximum Daily Load)**

- A government standard that gives the maximum amount of a particular pollutant released daily into a creek, river or other body of water without harming the health of the water body.

## **Toxicity**

- A measure of how poisonous a substance is.

## **Turbidity**

- A measure of how clear water is. Particles (like dirt, algae, and decaying waste) cause water to be cloudy. When light passes through this cloudy water, the light hits the particles and can't shine through – the light scatters. The amount of light that scatters can be measured to tell us how “turbid” a water sample is.
- **Turbidity** affects fish and other aquatic life by: 1) limiting photosynthesis and increasing respiration, which increases oxygen use, and the amount of carbon dioxide produced; 2) clogging fish gills and the feeding apparatus of bottom-dwelling animals by suspended particles; and/or 3) blocking the vision of fish as they hunt food and smothering bottom-dwelling animals.

## **Wastewater**

- Water used by homes, businesses, agriculture and other industries and that contains unwanted materials (wastes).
- Examples: Fluids that come from bathroom and kitchen drains, restaurant sinks, etc. These drains lead to underground pipes that connect to a wastewater treatment plant or septic system.

## **Wastewater treatment plant**

- A place where water is cleaned or “treated” so that it can be safely used or returned to the environment.

## **Water Conservation**

- Using water wisely without wasting it.
- Examples: taking shorter showers; installing low-flow shower heads, toilets, washers and dishwashers; turning off running water while brushing teeth, washing the car, and washing the dishes; watering landscapes carefully; etc.

### **Water Health (otherwise known as Water Quality)**

- How fit the water is in order to be used for a particular purpose, or, beneficial use.
- **Water Quality Criteria** — A specific level or range of levels of individual pollutants set for the protection of a water use. These “criteria” are different based on the different water uses, such as for public drinking water supply, for watering crops, or for an industry’s cooling water supply.

### **Watershed**

- An area of **land** which drains all rain that falls within it to a common body of water such as a creek, lake or ocean. All land is part of a watershed.
- Examples: We name and divide watersheds according to which river, stream, lake or beach the drainage water from that land area flows into, such as the Santa Margarita Watershed (Santa Margarita River), the Peñasquitos Watershed (Peñasquitos Creek), or the Otay Watershed (Otay Lakes/Otay River).

### **Waterway**

- Any channel for water. A waterway may be man-made or natural.