

INTRODUCTION

The City of Encinitas Storm Water Pollution Control Manual has been put together to comply with the requirements of the Federal Clean Water Act-National Pollutant Discharge Elimination System Program (NPDES) and the San Diego County NPDES Permit No. 2001-01. The intent of these programs is to maintain and improve the quality and beneficial uses of our water resources. The widespread implementation of best management practices is regarded as one of the best solutions to achieving this goal. This manual provides detailed information on ways to implement best management practices in the City of Encinitas.

OVERVIEW

The City of Encinitas water resources-it's ocean, lagoons, wetlands, and creeks play an important role in the quality of life we enjoy. They provide us with recreation, support tourism, provide habitat to numerous species and provide open space enjoyment. These waters, however, are vulnerable to pollution from a number of human activities.

Many of our water pollution problems are due in large part to pollutants that are washed off from land by storms. Many people believe that storm water is "clean" and does not harm water quality. This perception is understandable since the amount of pollution from any one spot is not usually significant by itself. But when all these small amounts combine, they can cause big water quality problems downstream.

This manual applies to construction, commercial, industrial, municipal and construction activities that have the potential to contribute pollutants to runoff or directly to receiving waters. Storm water runoff may seep into the ground, drain into a storm drain, flow across parking lots but either way it eventually ends up in a creek, lagoon or ocean.

Contaminated storm water can negatively affect every water body it enters. Therefore, this manual provides detailed information on what we are all required to do to reduce the contamination of urban runoff (dry-weather) and storm water runoff (wet-weather) from our properties.

BACKGROUND

Storm Water Runoff

In open space areas rain water seeps into the ground. However, when rain falls on paved and other hard surfaces it runs off and is conveyed through the storm drain system directly to our creeks, lagoons and ocean. Storm water runoff although starting as rain, collects pollutants when it hits the ground and travels. For instance, runoff from parking lots picks up oil and grease dripped from cars, asbestos from worn brake linings and zinc from tires. Pesticides, herbicides, and fertilizers are washed off from landscaped areas, and soils are washed away from construction sites. Any substance found on the ground can wind up in storm water runoff.

Storm Drains Lead to Creeks, Lagoons and the Pacific Ocean

Storm drainage systems are designed to decrease the chance of flooding. The rainwater that used to seep into vegetated areas now must be collected and carried elsewhere. The storm drain system collects this storm water runoff and carries it to the nearest creek, lagoon and then the Pacific Ocean. The storm drain system is meant to only carry rainwater. By allowing oil,

antifreeze, detergents and other material to enter the storm drain system is the same as dumping directly into the creek, lagoon and ocean.

Storm Drains vs. Sewer Lines

In Southern California the storm drain system is separate from the sewer system. All gutters, parking lots and paved surfaces eventually transport pollutants to the waterways and Pacific Ocean. Therefore any litter, gas, fertilizers or sediment left on the surface of the ground will end up on the beach after a storm event. The sewer system is a closed system that directly transports waste from each household to the wastewater treatment plant.

Best Management Practices

Best Management Practices (BMPs) are defined as any program, technology, process, siting criteria, operating method, measure or device which controls prevents, removes, or reduces pollution. For instance;

- Source Control BMPs – are operational practices that prevent pollution by reducing potential pollutants at the source. They typically do not require maintenance or construction.
- Treatment Control BMPs – are methods of treatment to remove pollutants from storm water.

Sources of Pollutants

Many people know that it is illegal to dump toxic chemicals down a storm drain. But you are also polluting if you allow pollutants to be washed into a storm drain with storm water runoff or with wash water. For instance, you may be polluting if you:

- Allow wash water from engine or equipment washing to enter a storm drain
- Spill antifreeze or other material on your site without cleaning it up
- Clear land without taking steps to prevent erosion
- Allow pet waste to enter the storm drain system
- Hose off sidewalks and parking lots
- Clean the kitchens of restaurants into the storm drain system

Virtually anything on the ground surface can become a water pollutant.

Pollutants

Any substance that can render water harmful to people, fish, or wildlife or impair recreation or other beneficial uses of water is considered a pollutant. The categories of pollutants are identified below:

- Oils and Greases
- Metals – Industrial areas, paints, pesticides and automobile emissions and brakes pads.
- Sediments- Cleared construction sites, agricultural lands
- Oxygen-Demanding Substances – Food wastes, chemicals
- Nutrients- Fertilizers, animal wastes, detergents, lawn clippings
- Toxic Organic Compounds – Pesticides and PCBs
- Total/Fecal Coliform Enterococcus bacteria – Pet waste, fertilizers – This will close the beaches to recreational activities

This Best Management Practices Manual is designed for Commercial/Industrial, Municipal, Construction, and Residential practices throughout the City of Encinitas. Each category is unique in its ability to control urban runoff. This manual provides the minimum level of BMPs available to date. This field is changing rapidly therefore, any supplemental ideas or suggestions will be evaluated on a case by case basis.