



# Sewage

## How You Can Reduce Sewage Pollution

- Use fewer toxic chemicals. Because sewage treatment plants focus on bacteria, harsh chemicals often pass through the sewage system and go into the rivers and ocean. Try to use environmentally friendly cleaning products and other chemicals.
- Don't pour FOG's down the drain! FOG's are Fats, Oils and Grease. They clog up pipes, causing the sewage system to overflow onto the street, into the stormdrain system, and out into the bay.
- Buy hair traps for drains so that you don't need to rely on chemical drain openers, which are very bad for the environment.
- Save water so that the sewage treatment plant doesn't get overwhelmed! Turn water off when you don't need it, and fix leaky faucets. This is especially important in drought years, when our water supplies are already running low.

## About Sewage Treatment

Have you ever wondered what happens when you flush your toilet or do the dishes? This wastewater is called sewage; it is all the water that goes through pipes from the insides of buildings.

Sewage is required by law to be properly treated. Once the raw sewage gets to the sewage treatment plant, it undergoes a number of processes to make sure it's cleaned: First, it goes through a screen. Solids are separated and removed from the liquids. Things like that goldfish you "buried" and toilet paper are all removed and sent to a landfill.

Next is the primary treatment tank. 85% of the remaining organic and inorganic solids settle out to the bottom and are removed. The solids that are removed are called bio-solids or sludge. This sludge is further cleaned and sent to a composting plant for non-human consumption crops. Sludge can also be used to cover landfills and as a source to create methane gas. In most cases, next comes the secondary treatment tank. Here the remaining solids are removed and living bacteria are added to eat up the remaining organics and bacteria.

After secondary treatment, the effluent is most often pumped out about 5 miles into the open ocean, and discharged at depths of 200 feet or more. Or, in some cases, the effluent is sent to a water reclamation plant, where through a form of tertiary (or third stage) treatment like micro-filtration or reverse osmosis, the water is made even cleaner.

In Los Angeles County the sanitation districts provide services to more than 5 million people, and treat 525 million gallons of used water every day.

## History of Sewage Treatment in Los Angeles

Before we began to treat water in 1925, used water was discharged directly into the ocean, untreated, where swimmers were in the water. The unsafe and contaminated waters reportedly caused the beach-goers to have sinus, ear, and throat infections, as well as stomach problems. It became apparent that this wastewater needed to be cleaned up and treated before it was dumped into the ocean. In the 1970's, the amount of sewage released into the ocean was greatly reduced, in part due to the passage of the Clean Water Act. However, many sewage treatment plants continued to request waivers to avoid complying with the laws. In the 1980's some avid beach-goers noticed that they were getting skin rashes after swimming in the ocean. They couldn't figure out what caused the rash, and eventually a doctor suggested that possibly something in the ocean was irritating their skin. Disturbed by this possibility, they did some research, and what they learned shocked them.

They discovered that the Hyperion Sewage Treatment Plant was releasing more sewage into the Santa Monica Bay than the 1972 Clean Water Act allowed. Furthermore, Hyperion was asking for another waiver, to avoid having to complete secondary treatment. The swimmers decided to take action and fight the request, and Heal the Bay was born.