

# **Fred the Fish**

## *Background Information on Storm Drain Pollution*

### **What are storm drains and why do we have them?**

When it rains on natural areas, much of that water is absorbed by the ground. The rest is either taken up by plants, evaporates, or it flows downhill into a creek or river.

In a more developed setting, rain falls onto pavement and other non-permeable surfaces such as roofs, sidewalks, parking lots, and driveways. These surfaces do not allow the water to be absorbed into the ground. To prevent flooding, storm drains were developed to drain away excess rain water.

### **Who cleans storm water?**

The water that you see flowing over impermeable surfaces like driveways, sidewalks, and streets is called stormwater runoff. Stormwater runoff is directed into the nearest creek or river to prevent flooding. Unfortunately, stormwater runoff picks up many pollutants from residential and commercial sources. In most cases in the United States, stormwater runoff is not treated or filtered. In Sonoma County, no one cleans stormwater. Anything that enters our storm drain system remains untreated and is discharged directly into our local waterways.

### **What is a sewer system?**

A sewer system is designed to transport wastewater to a treatment facility to be cleaned. Water that has been used to take a shower, flush the toilet, wash dishes, or do laundry is considered wastewater. Wastewater must be treated before it can be discharged into local waterways or reused for irrigation.

### **Who is affected?**

Polluted water entering our waterways damages the ecosystem. When our waterways become polluted, plants, aquatic insects, birds, and other animals suffer. Ultimately, humans also suffer. Quality of water directly affects quality of life!

### **What are some common storm drain pollutants?**

- debris and litter
- pet waste
- soap from car washing
- oil, grease, and automotive fluids
- fertilizer and pesticides from gardens and homes
- paint and cleaning chemicals
- yard clippings
- soil from poor construction site management
- improperly maintained septic systems

## How to prevent storm drain pollutants from entering our waterways?

1. Street litter such as styrofoam, plastic, and paper can be prevented from blowing into storm drain inlets by keeping trash bins covered and by not littering. Take care to make sure waste is recycled whenever possible.
2. Pet waste left on the ground gets carried away by storm water, contributing harmful bacteria, parasites, and viruses to our waterways. Pet waste is also very acidic, changing the natural pH of water. Always carry bags with you to clean up pet waste.
3. Vehicle fluids such as oil, gas, and antifreeze are very dangerous for our waterways. Maintain your vehicle to help ensure it isn't leaking fluids. If you do experience a leak, clean it with absorbent materials such as cat litter or sawdust. If you change your oil at home, recycle used oil in a clean, sealed, plastic container and take it to a California Certified used oil collection center.
4. Decomposing yard clippings use oxygen needed for aquatic life to survive and also create foul odors. Yard waste such as grass clippings, tree trimmings, and leaves can be composted and used for fertilizer around the yard. If you don't need clippings for compost, make sure to use a broom and dust pan to sweep them up and place them in your green bin.
5. Take your car to a self-wash or a full service commercial car wash. Laws require commercial car washes to treat and recycle the dirty water. If this is not a feasible option, pull your car on to a permeable surface like your lawn and use a bucket for your soapy water. Dump the bucket into a household drain when finished. Always use an environmentally safe cleanser.
6. Hosing off driveways and other pavements washes pollutants into storm drains. Instead, use a broom and dust pan to clean up.