

# WHEN IT RAINS IT DRAINS

Even though you may live miles from local rivers and streams, you may be polluting surface waters without knowing it while doing every day common tasks.

Day after day, pollutants such as garbage, motor oil, sediment, chemicals and excess nutrients and bacteria are carried by stormwater runoff and deposited into our storm drainage system. Stormwater conveyances whether run underground or through ditches, eventually discharge into our local water bodies. Whatever contaminants the runoff comes in contact with will also be deposited into streams, creeks and rivers.

## POLLUTION CONTRIBUTORS



### **PET WASTE:**

As unpleasant as it is to clean-up your pet's waste, it is even more unpleasant to swim in waters that have been contaminated with the waste. When we do not clean-up after our pets, the excess waste is carried into waterways, causing high fecal coliform counts and elevated levels of bacteria and nutrients.

Elevated levels of bacteria and fecals in surface waters can present human health hazards and infections such as dysentery and viral and bacterial gastroenteritis. Excessive amounts of nutrients in waterways can cause harmful algal blooms which can result in lowered oxygen levels. A reduction in dissolved oxygen can be lethal to fish and other aquatic organisms.

### **WHAT CAN YOU DO?**

- 💧 Clean up after your pet. The best disposal method for pet waste is flushing but you can also bag up the waste and dispose of it in the trash.

### **FATS, OILS AND GREASES (FOGS):**

FOGs come from butter, lard, meats, nuts, vegetables fats and oils and are commonly poured or scraped into sinks for disposal down the drain. Dumping leftover food scraps, oils and grease down the drain causes sewer blockages and is prohibited aboard the installation. As these materials are disposed of into the drain, they start a cycle of hardening and producing build up until the pipe is blocked. These blockages cause overflows in the sanitary sewer system which in turn will allow raw sewage to back up into your home or discharge into the environment.



There are a variety of human health concerns with coming into contact with raw sewage. If an overflow happens outside of the home and enters the environment bacteria loading can occur in surface waters and have adverse effects of aquatic life.

### **WHAT CAN YOU DO?**

- 💧 **DO NOT** pour these items down the drain.
  - 💧 Pour these materials into a heat safe container or a double lined bag of kitty litter and dispose of it into the trash.
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### **HOUSEHOLD HAZARDOUS MATERIALS:**

There are a variety of hazardous materials routinely used in and around our homes including chemical cleaners, pesticides, paints, solvents, gasoline, antifreeze and batteries. Improper use and disposal of these products are potentially severe to our environmental health. Failure to keep these items from coming into contact with rainwater can result in surface water pollution which can poison aquatic life. Land animals and people can become sick from eating diseased and poisoned fish and shellfish.

Reuse and recycle these materials as much as possible. Someone else may be able to use leftover paints, finishes, cleaning materials, etc. Camp Lejeune offers a Household Hazardous Material Collection Program for active duty military personnel and dependents residing in Base housing units. You can bring your old and unused products to the collection site at Building 908 off of Michael Road. You can also call 451-1482 or visit [http://www.lejeune.marines.mil/Portals/27/Documents/EMD/HW-MM/Household\\_HM\\_Brochure.pdf](http://www.lejeune.marines.mil/Portals/27/Documents/EMD/HW-MM/Household_HM_Brochure.pdf) to answer any questions you may have.

### **WHAT CAN YOU DO?**

- 💧 Read and follow labels for proper use and disposal;
  - 💧 **NEVER** dump these materials into a storm drain;
  - 💧 Store materials in a covered location;
  - 💧 Consider more environmentally friendly/natural products;
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### **YARD MAINTENANCE:**

Many pollutants can enter water bodies as a result of typical lawn and gardening work. Runoff contaminated with pesticides, herbicides and fertilizers or an abundance of yard clippings can severely degrade receiving waters and result in adverse effects on fish and other aquatic life.



Chemicals used on lawns and gardens should be applied in accordance with the labels. Any amount above what is specified will wash off into storm drains and ditches that eventually drain to streams and the river. These chemicals add extra nutrients to surface waters which upset the natural chemical balance needed to remain healthy. Yard clippings that are swept into stormwater conveyances, into the street or are picked up by natural rainwater flows will increase the organic matter in a stream. Excessive amounts of nutrients and organic matter in a water body will cause harmful algal blooms and lowered amounts of dissolved oxygen which is critical for fish to breathe.

## WHAT CAN YOU DO?

- 💧 Read and follow labels for proper use and disposal;
  - 💧 Store lawn and garden chemicals in a covered location;
  - 💧 Never apply fertilizers, pesticides and herbicides while it is raining or directly before a large storm;
  - 💧 Compost or mulch yard waste;
  - 💧 **DO NOT** sweep or dump grass clippings, leaves, or twigs into any street, drainage ditch, or stormwater facility or pond;
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### SOLID WASTE:

Household garbage and other wastes can lead to a variety of pollutants in stormwater runoff. Contaminants such as oils, greases, nutrients, bacteria, and pathogens are carried to our creeks, streams and rivers every day from leaking garbage cans and containers without lids.

Solid waste that is left out in the environment can cause choking and suffocation in aquatic and terrestrial animals.

Try not to accumulate solid waste around your home and recycle materials where possible. Recycling programs are available in all housing areas at Camp Lejeune. The Base landfill also collects a wide variety of materials for recycling and puts on electronic recycling events. Visit the Camp Lejeune Recycling Section's website for a list of accepted recyclable materials. <http://www.lejeune.usmc.mil/emd/Recycling/HOMRec..htm>

## WHAT CAN YOU DO?

- 💧 Keep garbage containers closed when not in use;
  - 💧 Don't allow solid waste to accumulate around your residence and don't keep garbage outside if not in a closed container;
  - 💧 Recycle where possible;
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### AUTO CARE:

Many people prefer to repair, maintain and wash their vehicles at home. Those that do, need to take responsibility to ensure that these activities do not pollute our creeks, streams and rivers.



Automobile maintenance and repair activities can introduce chemicals such as oil, grease, antifreeze, hydraulic and brake fluids, and metals into the environment. Any of these chemicals that reach the ground, driveway or road will become stormwater pollutants if not cleaned up properly. Many used automotive fluids and batteries can be recycled, free of charge, at local automotive shops and Base hobby shops. Contact your local shops and ask about disposal of these materials.

*A study showed that the amount of oil running off our streets and driveways and ultimately flowing into the oceans is equal to an Exxon Valdez oil spill – 10.9 million gallons – every 8 months. (NRC, 2002)*

In addition to soap and dirt, vehicle wash water can contain oil, grease, solvents, nutrients and metals. All of these materials, if allowed to come in contact with the environment, have adverse effects on the health and quality of our water resources.

**Refer to lease agreements and community guidelines before conducting any automobile maintenance.**

**WHAT CAN YOU DO?**

- 💧 **NEVER** dump used vehicle fluids down a storm drain or a household drain;
  - 💧 Collect all used oil, antifreeze or other vehicle fluids in containers so they can be recycled or disposed of properly. Do not mix these fluids in the same container as this limits your ability to recycle them;
  - 💧 Use drip pans, tarps or an absorbent material under the vehicle to capture leaks or spills that may occur during maintenance;
  - 💧 Clean up any leaks or spills with an absorbent material. Do not hose down these spills;
  - 💧 Store automotive parts that may have oily or greasy residue on them under cover and off the ground to minimize rainwater contact;
  - 💧 If possible, wash vehicles on your lawn so that wash water can infiltrate or at a commercial car wash that recycles wash water;
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*Everyone can help prevent stormwater pollution. It is often caused by everyday behavior that you may not realize contributes to the problem. Simple behavior changes are all it takes to prevent pollutants from reaching the waters where we fish, swim and live. Please report observances of any activities that may cause stormwater pollution to the Stormwater Reporting Line at **(910) 451-8039** or through email at [cljnstormwater@mcw.usmc.mil](mailto:cljnstormwater@mcw.usmc.mil)*