HERE'S HOW HOME OWNERS

PROTECT GUAM'S WATER•ECONOMY•FUTURE

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NONPOINT POLLUTION IS...

- pollution from human activities
- small scale
- mostly unnoticeable by itself
- harmful mostly when it accumulates
- manageable
- capable of ruining our economy
- inexpensive to manage
- prevented with good housekeeping
- easy to understand

THE PROBLEM

POLLUTION OF OUR COASTAL AND SURFACE WATERS BY NORMAL ACTIVITIES

Homes are very active places. Lots of little pollutants come from human activities. So, let's walk around the house and find those common, everyday substances that can add up to pollution of our streams and coastline. The driveway and lawn–every rainstorm washes soil from the bare patches on the lawn and the ruts in the driveway.

"How can soil be a pollutant? It's natural!"

That's true. Soil is not a poison. Not all pollutants are poisons. Soil is a pollutant when it covers, suffocates, and blocks out sunlight from other organisms, such as our corals.

"I LIVE ON THE MOUNTAIN!

MY SOIL DOESN'T GO THAT FAR, DOES IT?"

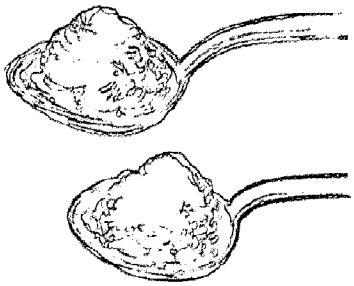
SOIL lost from your home **does** get to our coastal waters. We have to deal with a lot of storm water, as we do get a lot of rain. Before Guam grew so much, the rain water was absorbed into the ground where it landed and we didn't have problems with large and powerful flows of storm water that could carry away soil. Now that we have many more roads, highways, developments, and parking areas, there's less of a chance that storm water will be absorbed and cleansed by nature.

We have more water, moving faster, and it will pick up more and travel farther.

"YOU'RE TALKING ABOUT BIG PROBLEMS. SURELY MY DRIVEWAY ISN'T CAUSING A PROBLEM."

You're right! Your driveway, by itself, isn't a problem. But when the small amount of water and soil that comes off your driveway is added to the runoff from other driveways, a stream of water that carries soils and pollutants starts to build into a flow of polluted storm runoff.

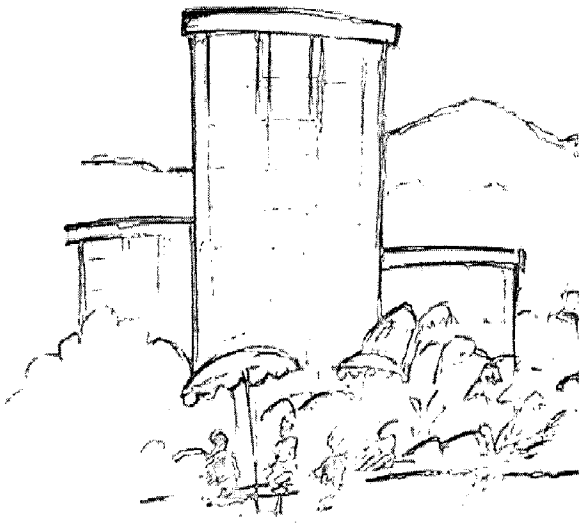
The pollutants and soil add up. It only takes two tablespoons–about one ounce– of soil from each home on Guam to add up to an entire ton of soil dumped into our coastal waters.



It may not be very visible as it is carried from your lawn or driveway, but several pounds of soil may leave your lawn in one storm, resulting in tons and tons of soil being carried into coastal waters on a rainy day.

"HOW DO YOU KNOW THIS REALLY IS HAPPENING?"

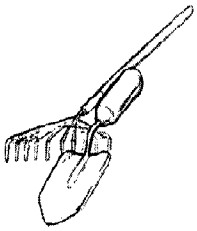
First, we can see the plumes of silt being washed out to sea during a storm. The waters of Guam becomes rusty red as a result of the soil being taken up and carried to the coastal waters. Second, the University of Guam Marine Laboratory has documented that silt is collecting in our reefs. The Marine Lab has also identified other nonpoint pollutants as having negative



effects on coral spawning, even further degrading the rich life of the reefs. Most of us don't dive, and we never get to see the changes that are occurring underwater only a few yards away from us. That's one of the reasons why we haven't been concerned about nonpoint pollutants, but when puzzling evidence of unseen problems started to emerge, such as toxic seaweed that has claimed lives, the overgrowth of algae on Tumon Bay and the shrinking of fish catches, science and engineering professionals throughout Guam looked for answers. We have known about nonpoint pollutants for more than twenty years, but only when this evidence started to accumulate did we consider the possibility that pollution from known sources was only a part of the problem. Clearly the problem is not unique to Guam. Other communities have experienced the losses, including illness and death, that come from neglecting these problems. We can and have learned from their experiences and have unique problems for which there must be unique solutions.

"WHAT ARE SOME THINGS I CAN DO AROUND THE HOUSE?"

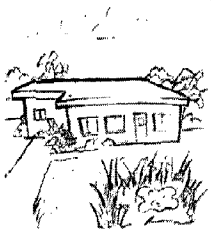
FOR GARDEN AND LAWN



- Reseed bare areas.
- Protect bare areas from water flow until natural cover is established.
- Use gravel or paving for your driveway and parking areas. If you must park on the lawn, don't park in the same place each time.
- Avoid the use of pesticides, or other chemicals. If you must, use them only according to directions. Never apply just before a rain storm.
- When mowing the lawn, leave the clippings on the lawn. Clippings that you sweep up can be used for protecting bare soil from rain.

- Avoid the use of chemical fertilizers, and apply only minimum amounts of fertilizer or manure.

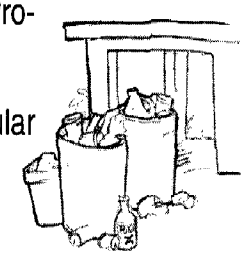
YOUR SEPTIC SYSTEM



- Have your system pumped before it overflows.
- Conserve water.
- Don't use garbage disposals; compost food wastes instead.
- Don't dump chemicals, petroleum products, or household chemicals into your drains.
- Avoid the use of "septic system conditioners."
- Use low-sudsing, phosphate free detergents.

HOUSEHOLD CHEMICALS

- Dispose of household chemicals according to the label directions.
- If in doubt, contact the Guam Environmental Protection Agency for assistance.
- Never place household chemicals in the regular trash.



PETS AND DOMESTIC ANIMALS

- Prevent your animals from leaving wastes directly in streams or on paved surfaces.
- Compost pet waste, flush it into the sanitary sewer system, or place it in the trash.
- Never place animal waste down a storm drain.
- If you use animal waste as a fertilizer, protect it from being washed away by storm water flowing across your property or direct contact with rain.

HERE'S HELP!

In this booklet, we have shown some of the more common ways that activities around your home may contribute to pollution. We hope that we've explained why we need your help and support and that you will want to make the simple changes that would really help protect.

If you need more information about these practices, or for more general information on nonpoint pollution, there are lots of folks with information. You probably know most of them, and we promise you a warm welcome from all:

- For general information on nonpoint pollution, pesticides, and feedlot waste disposal, contact the Guam Environmental Protection Agency at 472-8863.

- For help with planning your use of animal wastes, fertilizer, and pesticides, contact the Agricultural Experiment Station at the University of Guam College of Agriculture at 735-2134.

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