



## PROTECT OUR WATER

AN AGRICULTURAL/LANDSCAPING GUIDE TO UNDERSTANDING STORM WATER

### Did you know that storm drains lead to the ocean?

That's right! Anything that goes into a storm drain will end up in the ocean. This is why it is important for **everyone** to be aware of the dangers of putting harmful things down the storm drains and do their part to help stop pollution.

### I don't dump anything into storm drains so I'm okay, right?

Not necessarily. When it rains, the water that goes down the storm drain is called storm water runoff. Storm water runoff itself does not usually harm the environment. However, driveways, sidewalks, streets, and even rooftops tend to accumulate pollutants quickly. Typical pollutants include oil, grease, traces of metals, sediment, phosphorous, nitrogen and other chemicals. The storm water runoff washes these pollutants off your property and carries them into our storm drains, where they affect water quality in our streams and the ocean.

### Then why do we have storm drains?

Well, when it rains, water seeps into the ground, adding to O'ahu's water supply. At times, it rains so much that the ground cannot absorb it all (like a kitchen sponge that is filled to capacity). Storm water runoff occurs when excess rainwater then flows over the surface of the ground until it finds its way to the ocean through streams and the storm drain system. The storm drain system helps to prevent flooding so your roads and homes are safe.

### So what can I do to help?

This brochure includes some helpful tips you can use to **Protect Our Water**.

#### LANDSCAPING TIPS

- Use pesticides, herbicides, and fertilizers only as needed. This will save you money and help reduce the chances of rain washing them down the storm drain.
- After mowing your lawn, pick up the grass clippings and throw them in the trash so the rain does not send them into the storm drain. Fertilizers and grass clippings can cause algae to grow, which use up oxygen in the water. This harms fish, coral and stream life because they cannot survive in water with low oxygen levels.
- Use rain barrels to collect rainwater from rooftops in mosquito-proof containers. The water can be used later on lawn or garden areas. This also prevents gravel and oil from your roof from getting into the storm drain system.

## PROTECT OUR WATER: WHAT CAN I DO?



- When you're planning your garden, design areas with native plants to provide natural places for rainwater to collect and soak into the ground. Rain from the rooftop or paved areas can be diverted into these areas rather than into storm drains.
- Use native grass or plants along the edge of roadways or streams. When it rains, these plants work well to trap any excess chemicals or dirt in the rainwater as it flows across driveways and streets, ensuring that less of these harmful substances are flushed into our ocean.

#### AGRICULTURAL TIPS

- If you own livestock, keep them away from stream banks and provide a source of water away from natural waterways.
- Store and apply manure and other fertilizers away from streams. When mowing or harvesting, properly dispose of vegetative material. Fertilizers and vegetative material can cause algae to grow, which use up oxygen in the water. This harms fish, coral and stream life because they cannot survive in water with low oxygen levels.
- Plant vegetation along stream banks, preferably native species, creating a thick buffer to help prevent livestock and wild animals from easily getting into the stream. Also, when it rains, native plants work well to trap any excess fertilizers, chemicals or dirt in the rainwater as it flows across the fields, ensuring that less of these harmful substances find their way into our ocean.
- Rotate animal grazing to prevent soil erosion in fields. Erosion results in the loss of nutrient-rich soil that is needed for crops to grow. When it rains, the water carries loose soil and dirt into the streams where it can cause flooding.
- Apply fertilizers and pesticides according to label instructions to save money and minimize pollution from excess chemicals washing into streams and the ocean.

**Additional information** is available on HDOT's Storm Water Web site at [stormwaterhawaii.com](http://stormwaterhawaii.com).



**PROTECT  
OUR WATER**  
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STATE OF HAWAII DEPARTMENT OF TRANSPORTATION