

## WATER POLLUTION PREVENTION AT KEONE'ULA ELEMENTARY SCHOOL

Keone'ula Elementary School is located at the end of Kaileole'a Drive in Ewa Beach. Storm water discharges from the campus via the small Municipal Separate Storm Sewer System (MS4) into the City Department of Planning and Permitting (DDP) MS4, which discharges to Kalo'i Gulch.

The median annual rainfall at the school is less than 19.7 inches. The site is flat and is bordered by a future district park to the east, residential development to the west, undeveloped land to the north, and Keone'ula Boulevard on the south.

When it rains, water flows over campus and streets carrying the pollutants it picks up into storm drains. Storm drains are not connected to the wastewater treatment plant. Therefore, the pollutant water flows directly into our streams and ocean.

Pollutant means any hazardous waste, petroleum products, pesticides, detergents, chemical fertilizers, sewage sludge, animal waste, soil erosion and soil, accumulation of sediments, and construction waste and materials.

### WHAT YOU CAN DO TO HELP PROTECT WATER

#### STAFF ACTIVITIES

**Use water wisely.** By conserving water, the amount of wastewater needing treatment and disposal will be reduced. Overwatering and runoff can carry pollutants into the storm drain system.

**Use and dispose hazardous substances properly.** Always read the product label and choose the least toxic alternative. Motor oil, paints, solvents and other chemicals should not be poured on the ground or down the storm drains, because they can pollute our streams and ocean. Motor oil is recycled at oil change locations; other chemical products should be first used up by buying only the amount needed; typically unused excess could be evaporated or soaked into clay litter, wrapped in plastic and disposed with trash. Excess pesticides require special handling and must be disposed as hazardous waste.

**Use fertilizer and pesticides sparingly.** Choose the least toxic alternative such as compost for fertilizer, repellent/resistant plants and instead of bug sprays, use baited traps. Follow label instructions and use only the amount needed. Apply outdoors only during dry weather, rain water can easily carry substances to nearby storm drains and stream.

**Landscape the land to prevent erosion.** Cover bare ground with grass, shrubs or trees to hold soil in place. Establish native plantings and provide vegetation buffer zones along storm drains and stream.

**Improve housekeeping.** Fix water leaks throughout campus by replacing faucet washers and toilet flappers as needed. A slow drip or leak can easily waste more than 100 gallons of water a week. Put all litter into trash cans so it does not get washed into the storm drains or streams.

**Implement annual campus cleanup event.** Coordinate cleanup event for the whole campus to collect litter and address any other issues that would impact storm water quality, such as storage of materials and soil erosion areas. Maintain record of litter collected and other changes that impact storm water quality and take before and after photos of campus.



## STUDENT ACTIVITIES

**Study storm water management.** Teachers can address hazards associated with illicit discharges to our storm drains and streams. Develop steps that can be taken to reduce storm water pollution.

**Learn about good housekeeping.** Good housekeeping practices are simply maintaining a safe, orderly and clean learning environment. Conduct an individual or class project to reinforce pollution prevention activities consistent with protecting storm water.

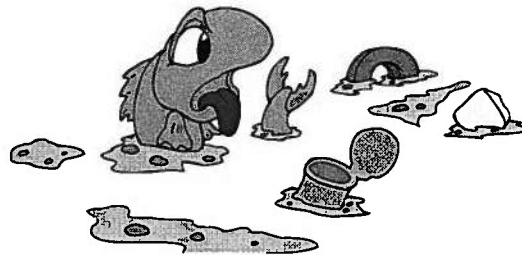
**Learn where your wastewater goes.** Investigate the wastewater drainage process from campus to the ocean via streams, storm and sewer drains.

**Educate others.** Conduct an individual or class project to inform others about protecting our ocean from pollution.

**Participate in annual campus cleanup event.** Participate in a campus cleanup day to collect litter and address any other issues that would impact storm water quality, such as storage of materials and soil erosion areas.

## REPORT ANY ILLEGAL DISCHARGE

As a member of Keone'ula Elementary School, we can make a difference, report any illegal discharge in our school and community.



## SPILL RESPONSE

- Local (Honolulu Fire Department):
- State Hazard Hotline:

911 (24/7)

586-4249 (business hours)

247-2191 (after hours)

To report illegal discharge that has already occurred, call 768-3203 (City Illegal Dumping Hotline)

Polluted runoff public outreach: 692-5208 (City), 586-4309 (State)

**Share pollution prevention behaviors and practices  
with your family, friends and neighbors**

