## **Good Housekeeping**

- **Garden safe**—Limit usage of lawn pesticides and fertilizers. Verify with the Environmental Office that their use is allowed in your area.
- Gather grass, leaves and tree cuttings,

and dispose as green waste or use for compost. Don't sweep or wash cuttings, or any other debris from your yard,



into the gutter or down the storm drain.

- Use more native plants. They have long root systems to stabilize soil and absorb excess nutrients from runoff.
- Clear vegetation—Remove any vegetation around the storm drains that may block the flow of the storm water.
- Pick Up Litter—Pick up any litter, including the tiny bits, around the drainage systems.
- Pick Up After Your Pet—Pick up and dispose of all pet waste which can contain nutrients and harmful bacteria and/or parasites. Properly dispose of waste in a trash bin.
- Report Polluters—If you see someone illegally dumping into storm drains, report them.

## **Important Contact Numbers**

To report a questionable discharge into a Navy storm drain system or nearby waters, please take the following action:

- Residents of Naval Base Guam (NBG) Apra Heights Housing/ Community—contact the Area Housing Manager
- All other Base Personnel—contact:

NBG Storm Water Program, NBG Environmental Office (671) 339-3711

For additional information, visit Naval Base Guam Storm Water web page at <a href="https://www.cnic.navy.mil/regions/jrm/installations/navbase\_guam.html">https://www.cnic.navy.mil/regions/jrm/installations/navbase\_guam.html</a>

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# Getting to Know Your Drainage System







# **Types of Drainage Systems**

A drainage systems is an arrangement of piping, culverts and inlets to collect and convey storm water to point of disposal.

Catch Basin/Storm Drain—a grated

trap inlet that prevents litter, debris, sediment and other contaminants from entering a drainage system.



Grass Swale—a shallow, densely vegetated channel designed to convey and treat storm water.



Concrete Swalea shallow concretelined channel designed to convey storm water.



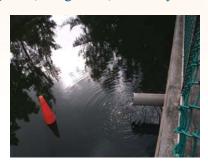
Ponding Basin—a landscaped depression or shallow basin used to capture and hold storm water during rain events to prevent flooding.



Pipe/ Box Culvert—a pipe/boxshaped structure placed in a trench (usually under roads) to convey storm water.



Outfalls—a final point of discharge from a storm water system to another system, the ground, or a body of water.



## **Importance of Drainage Systems**

#### **Avoid Water Accumulation**

A properly maintained drainage system can prevent standing water (that can lead to flooding) by sending water away from your home or infrastructure.



Photo: KUAM News

#### **Eliminate Mosquito Breeding Grounds**

Prevent the gathering of stagnant waters, which can encourage mosquitoes to breed.

#### **Reduce Soil Erosion**

Standing water left for a long time can make soil muddy, causing soil to erode.

Drainage systems keep balanced moisture in your garden to reduce soil erosion



#### **Prevent Structural Damage**

- Poor drainage can cause hydroplaning (vehicle sliding uncontrollably), if water begins to seep into cracks of roadways.
- Poor drainage can also cause foundation damage to a building or home.