

Good Housekeeping

Practice good housekeeping and follow best management practices (BMPs) that are appropriate for your daily routine at home and at work.

- **Storing Chemicals**—Keep chemicals, paints, fuels and oils properly contained with lids, and away from storm drain inlets.
- Properly dispose chemicals in the appropriate recycling centers. *The Guam Recycling Guide** lists contact details for local companies that accept used chemicals.
- **Garden safe**—Limit usage of lawn pesticides and fertilizers. Use environmentally friendly alternatives when possible.
- **Vehicle Washing**—Wash equipment/vehicles in a designated and/or covered area where the wash water is collected to be recycled or discharged properly to the sanitary sewer.
- If you prefer to wash your own vehicle, wash it over your lawn or gravel to allow the ground to neutralize the soap and grime, rather than sending these directly to storm drains. Use biodegradable or non-toxic soap that is phosphate free.
- **Protective Barriers**—Install barriers to prevent soil and debris runoff while doing home improvements and at construction sites.
- **Report Polluters**—If you see anyone illegally dumping, 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 https://www.cnic.navy.mil/regions/jrm/installations/navbase_guam.html

References:

**Guam Recycling Guide* can be found on the Naval Base Guam website under Recycling, or visit the Guam EPA websites <https://guamepa.govguam.net/> or <http://epa.guam.gov/recycling/>

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Getting to Know Illicit Discharge



Photo: KUAM News

What is Storm Water and Illicit Discharge?

Storm water is rain water that doesn't soak into the ground. Some of it flows into drainage systems that empty into Guam's waterways.

Ideally, this excess rain water is contaminant-free when it reaches its disposal point.

However in reality, storm water picks up a variety of pollutants such as animal waste, pesticides, and debris as it makes its way to drainage systems eventually discharging with being not fully treated before entering into Guam's waterways where we swim and fish. This is **storm water pollution**.



There are many causes of storm water pollution, such as **illicit discharges**. These are discharges to drainage systems that are not rain water. Many illegal discharges are caused by uninformed individuals, leaking sanitary systems and illegal connections.

Here are some examples of illicit discharges:

- **Septic tank leaks / illegal sanitary connections**—Leaking septic tanks and illegal connections can create high levels of bacteria entering our waterways.
- **Automotive Oil Leaks / improper disposal**—Oil and other petroleum products do not dissolve in water, and are toxic to people, wildlife and plants.

- **Improper Disposal of Commercial and Industrial Hazardous Waste**—can lead to unexpected releases of toxins that are hazardous to humans and harmful to the environment.
- **Home Improvement Waste (e.g. concrete, paint)**—Many home projects use hazardous substances and cause debris that can enter storm drains if not properly disposed.
- **Laundry Waste / Detergents**—Discharges from laundering contains chemicals from detergents, colored dyes and other contaminants.
- **Vehicle Washing**—Vehicles carry sediments, oil and other particles that end up in waterways when washed especially if water waste from home vehicle washing is disposed improperly into storm water drainage systems.
- **Pesticides and Fertilizers**—Nutrients from fertilizers and pesticides can lead to eutrophication which causes heavy algae growth and death of aquatic life due to lack of oxygen.
- **Swimming Pools / Spa Discharge**—Draining pools and spas into storm drains can pollute waterways with chlorine and other chemicals, sediments and contaminants that can threaten aquatic life.
- **Cooking Grease / Household Waste**—Pouring grease and waste in drains will cause blockage in pipes restricting flow and damaging pipes.
- **Spills from Roadway Accidents**—Accidental spills on roads don't occur often but can still pose a threat to water quality of groundwater, destroy habitats and fish life.



Signs of Illicit Discharge

The end point of a storm water drainage system where flow is discharged into our waterways is a storm water **outfall**. If the outfall is flowing when there has been no recent rainfall, this may indicate an illicit discharge.

Here are some signs of illicit discharges:

- Visible sewage waste or sanitary debris
- Foul odors (e.g. sewage, rotten eggs, detergents, petroleum)
- Stained sediment, rocks or vegetation; stains inside and outside drainage pipes
- Algae growth near outfall (with standing water)
- Soap suds
- Discolored or cloudy water
- Oil sheen on the water surface
- Muddy discharge; which may be caused by sediment or concrete runoff
- Large numbers of dead fish in the waterways around the outfalls
- Abnormal flow during dry weather periods

Remember, storm water drains are only for excess rain water not other liquids.

