



## Pollution Solution FACT SHEET 9

CITY AND COUNTY OF HONOLULU  
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**O**ahu is home to nearly one million residents who have a direct effect on our island environment and water quality.

### What You Need To Know

When it rains, water flows over roofs, yards, driveways, sidewalks, and streets carrying the pollutants it picks up into storm drains, streams and ultimately to the ocean.

#### Problems

1. If your downspouts discharge onto pavement that slopes toward the street or adjacent drainage channel, it could be carrying pollutants to the downstream water in your watershed. Bird droppings, leaves and other dirt accumulate on the roof and in the roof gutter. When it rains, these pollutants are flushed out to the street drainage system or drainage channel, carrying harmful nutrients and sediment to the stream or coastal waters where the storm drain system ends.



*Simple physics ... water will not flow uphill.*

2. If your downspouts are connected to subsurface drain pipes, the problem is similar to situation 1, above. The difference is that instead of flowing along a paved surface to a street inlet or to a drainage channel, the subsurface drainage pipes carry roof runoff pollutants directly into the drainage system and from there to a stream or coastal waters.

## ILLEGAL STORM DRAIN CONNECTIONS AND TIPS FOR RESIDENTS



*Each pipe is a man-made conveyance that connects non-storm water discharges directly to the city-owned separate storm sewer system or MS4. Illegal connections can be located either above or below the ground and may include drains, pipes or ditches.*

### Best Management Practices

1. If your house has roof gutters and downspouts, you might be able to easily reduce the impact of your roof runoff on the downstream waters in your watershed. Disconnect, if necessary, and redirect your downspout(s) to a discharge location where the water can soak into the ground and reduce irrigation demands. The longest and flattest route over vegetated ground to the street is generally the best, as the water will have more time to soak into the ground. Grass is an excellent filter for runoff from roofs and other impermeable areas. Other vegetation that forms a ground cover and mulched areas beneath trees, can also effectively filter out pollutants.
2. If discharge to a vegetated area is not feasible, direct the discharge to a gravel area. Be sure to maintain a least 2 inches of gravel in such areas to reduce the potential for soil erosion underneath the gravel. Deeper gravel beds are better than shallower ones.
3. If neither a vegetated area nor a graveled area is available at a convenient location for redirecting the downspout, consider installation of a rain barrel to collect the roof runoff for later irrigation use.
4. All connections from nonmunicipal and private drainage systems to the city-owned separate storm sewer system require a storm drain connection license. Call 768-8106 or visit [www.honoluluapp.org/aboutdpp/](http://www.honoluluapp.org/aboutdpp/).

#### Precautions:

1. Do not allow downspout discharge to flow toward the building, as this could result in damage to the building and/or its foundation. Direct discharge from downspouts around the side of the building or to another location where the discharge will not flow toward the building. For houses with post and beam construction, uphill downspouts may be piped beneath the building for discharge on the downhill side.
2. Provide a splash block to prevent erosion where a downspout discharges to the ground. If the area around the splash block is steep and/or has sparse ground cover, be sure to stabilize the area with gravel, mulch, or other means to adequately prevent soil erosion.

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## Laws and Ordinances

Know the law to avoid fines. The Clean Water Act gave the Environmental Protection Agency (EPA) the authority to implement water pollution control programs.

The National Pollutant Discharge Elimination System (NPDES) permit issued by the State Department of Health mandates the City and County of Honolulu to continue to require licenses for all private drain connections and maintain a database for all licensed connections to its Municipal Separate Storm Sewer System (MS4).

Revised Ordinances of Honolulu Section 14-12.2 defines "Private Storm Drain Connection" as: Any conveyance of storm water, including but not limited to any drainage pipe, ditch, or swale connected to any drainage facility or separate storm sewer system, including any curb and gutter.

All connections from nonmunicipal and private drainage systems to the city-owned separate storm sewer system shall require a storm drain connection license issued by the chief engineer.

Any private storm drain system that is connected to the city-owned separate storm sewer system without a license issued to the property owner of records shall be considered an illegal storm drain connection.

## Be A Part Of The Solution

The City and County of Honolulu, working under Federal Clean Water Act Guidelines, has a number of public education programs that focus on community involvement and participation to help eliminate or reduce illegal discharge practices.

Existing projects such as the Adopt-A-Stream Program, including storm drain stenciling, World Water Monitoring Day, Earth Month Teen Video Contest, Earth Month Mauka to Makai Clean Water Expos, and workshops provide opportunities to educate an interested and committed neighborhood.

## Report It, Who To Call

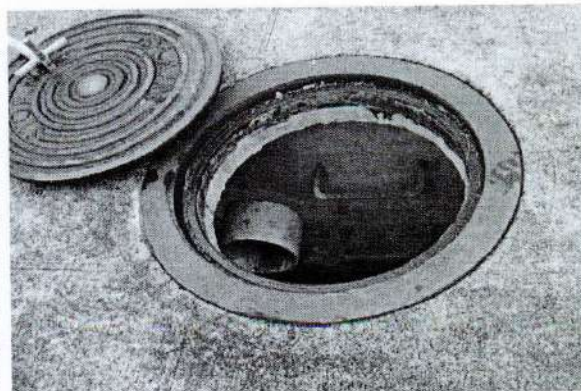
As a resident, you can make a difference, both on the job and in your community. When you're at home, share your knowledge with family and neighbors. As you drive to work, report any illegal discharge or dumping.

NPDES Permitting Questions 768-3289, 768-3242  
Illegal Discharges, Connections, occurred 768-3246, 768-3247  
Storm Water Quality Public Participation, Involvement: 768-3248  
Private Storm Drain Connection License: 768-8106,  
[www.honolulu.org/aboutdpp/](http://www.honolulu.org/aboutdpp/)

Clean stream hotline (potential flood problem) 768-7890

Residential code enforcement (complaint investigations related to zoning and housing code for one and two family dwellings, sidewalk maintenance, vacant lot overgrowth, animal structures and setback 768-8280

## Other Examples of Illegal Storm Drain Connections



*Illegal pipe connection that is below the ground*



*Curb drains typically convey runoff directly to the City's street drainage system without the benefit of absorption by permeable surfaces and natural treatments such as landscaped areas and planters.*



*Parking lot designed with these man-made conveyances that connect non-storm water discharges directly to a City drainage channel require a storm connection license.*