

Stormwater pollution prevention

What you can do to help protect our water

What is stormwater runoff?

Rainfall generates stormwater runoff and surface flows. When it rains, stormwater runs off impervious surfaces such as paved streets, parking lots and building rooftops instead of soaking into the ground. Storm-drain systems are designed to move stormwater flows along conveyances like streets and gutters where it is directed into storm drains that deposit it to local waterways: lakes, rivers, retention basins and washes. Storm drains do not remove pollution before entering waterways.

The Environmental Protection Agency (EPA) has estimated that about 30 percent of our nation's water pollution is attributable to stormwater runoff.

Stormwater runoff is a leading cause of water pollution due to the collection of chemicals, dirt, grease, oil, trash, sediments and other pollutants as it flows over impervious areas. It is important that we keep as much of these pollutants out of stormwater as possible. Being informed about stormwater pollution will assist to prevent pollution from entering storm drains, therefore, helping to improve the water quality in local waterways.

Communities, construction companies, industries and many other institutions are using stormwater controls, known as Best Management Practices to protect our rivers, streams and lakes. These BMPs filter out pollutants and prevent pollution by controlling it at its source.

Remember: Only rain in the storm drain.

Stormwater pollution prevention

The Arizona Pollutant Discharge Elimination System General Permit regulates stormwater discharges from three potential sources: municipal separate storm sewer systems, construction activities and industrial activities. This permitting mechanism is designed to prevent stormwater runoff from washing harmful pollutants into local surface waters.

ASU's Stormwater Management Program is in general conformance with ADEQ's AZPDES Permit AZG2016-002 for Stormwater Discharges from Small Separate Storm Sewer Systems. The permit was issued by the Arizona Department of Environmental Quality effective Sept. 30, 2016. ASU's Stormwater Management Program is located online at cfo.asu.edu/stormwater-program.

These items pollute stormwater:



Antifreeze and transmission fluid



Batteries



Cigarette butts



Cooking grease



Detergent



Excessive dirt and gravel



Gasoline



Laboratory chemicals



Litter



Motor oil and oil filters



Paint



Pesticides and fertilizers



Pet waste



Solvents and degreasers



Yard waste

Recommendations to help reduce stormwater pollution

Construction

- Clean up leaks and spills immediately; do not hose down dirty pavement.
- Contain waste materials in covered dumpsters.
- Designate a concrete washout area.
- Establish an erosion and sediment control program prior to any site work.
- Install and maintain silt fences, catch basins, trackout devices, drainage swales or other erosion, sediment and runoff controls.
- Preserve natural site conditions as much as possible.
- Store solvents, paints and other chemicals and protect with secondary containment.

Food service

- Clean floor mats, filters and garbage cans in a utility sink or curbed cleaning facility with a floor drain.
- Keep dumpster area clean with lid closed; do not fill it with liquid waste; repair or replace leaky dumpsters.
- Pour wash water in a utility sink; do not pour wash water onto a parking lot, alley, sidewalk or street.
- Recycle grease and oil; do not pour into sinks, floor drains, parking lots or streets.
- Store and transfer solid and liquid waste such as tallow in watertight, covered containers.
- Sweep or use other dry methods for spill cleanup for areas outside; do not hose down spills.

Landscape maintenance

- Avoid overwatering to prevent runoff; inspect sprinklers, repair leaks and misaligned sprinkler heads; plant native vegetation to reduce the need for irrigation.
- Cover stockpiles of soil, compost or mulch with a tarp.
- Minimize the use of pesticides and fertilizers; do not apply if rain or wind is predicted.
- Prevent erosion; use ground cover, berms and vegetation to capture runoff.
- Properly dispose of chemicals; do not pour into sink, storm drain or street.
- Recycle or compost yard waste; do not blow, rake, sweep or hose into streets or the storm drain.
- Store landscaping materials safely — keep landscaping materials away from street, gutter and storm drains.
- Use natural, non-toxic alternatives if possible, avoid applying nears curbs and driveways.

Litter

- Carry a car litter bag and properly dispose when full.
- Dispose of cigarette butts, wrappers, cups, lids, straws and fast food containers properly; use trash and/or recycling receptacles.
- Do not overfill garbage cans; overfilling can send trash tumbling into streets, which can lead to clogged catch basins and polluted waterways.
- Refill reusable water bottles.

Paint areas

- For oil-based paints, use paint thinner; dispose of as hazardous waste.
- For water based paint, rinse and dispose of wastewater in sanitary sewer.

- Never clean brushes or rinse equipment where the wastewater may run into the storm drain system.
- Protect or cover storm drains when removing paint with a pressure washer.
- Reuse or recycle leftover paint or dispose of properly.
- Store products used for painting indoors or outside in an area not exposed to rain or runoff.
- Use drop cloths during paint removal, mixing and application.

Parking areas

- Clean up spilled fluids with an absorbent material and do not rinse spills into a storm drain.
- Keep vehicles maintained so they do not leak oil, gasoline, transmission or battery fluids onto driveways, streets and parking lots.
- Never dump motor oil or antifreeze in the storm drain; recycle oil and other automotive fluids.

Pets

- Clean up after your pet; pick up waste when walking your pet; use plastic bags to dispose waste into a trash receptacle.
- Pet waste can be a major source of excess nutrients, which can cause algae blooms. When algae die, it sinks to the bottom, decomposes in a process that removes oxygen from the water. Fish and other aquatic organisms are unable to live in water with low dissolved oxygen.

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