

STORMWATER POLLUTION PREVENTION

Commercial Landscaping

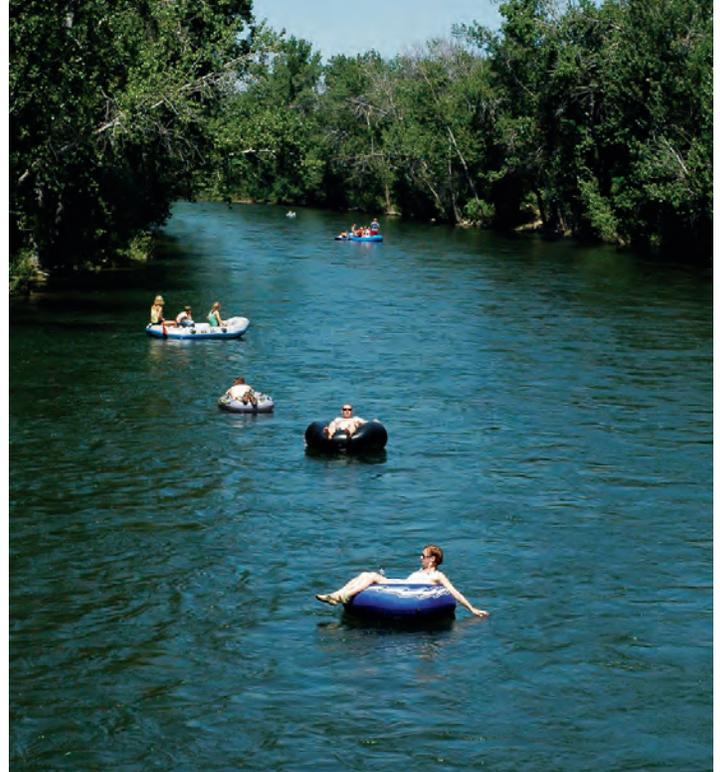
INTRODUCTION

The Boise River is an important resource in our community. It offers many recreational opportunities to our citizens and provides a critical habitat important to our natural environment. Citizens, businesses, industry and government must work together to protect the River and other water resources in the Treasure Valley.

Commercial landscapers play a key role in developing and maintaining the urban landscape. Their operations create important aesthetic and economic contributions to the community. But their operations, if not managed properly, have the potential to cause stormwater pollution. The Partners for Clean Water have developed this fact sheet to help educate commercial landscaping business owners and employees on what they can do to prevent stormwater pollution and protect the Boise River. This fact sheet provides specific information for commercial landscaping companies on the potential for their operations to cause pollution and the methods that they can implement to prevent or reduce pollution.

Mobile Businesses can minimize or eliminate their contribution to storm water, preventing pollution and ultimately protecting the water quality in the Boise River.

Keeping the pollutants out of the Boise River and our ground water ensures that future generations will be able to enjoy all of the treasures of our valley!



WHAT IS STORMWATER RUNOFF AND STORMWATER POLLUTION?

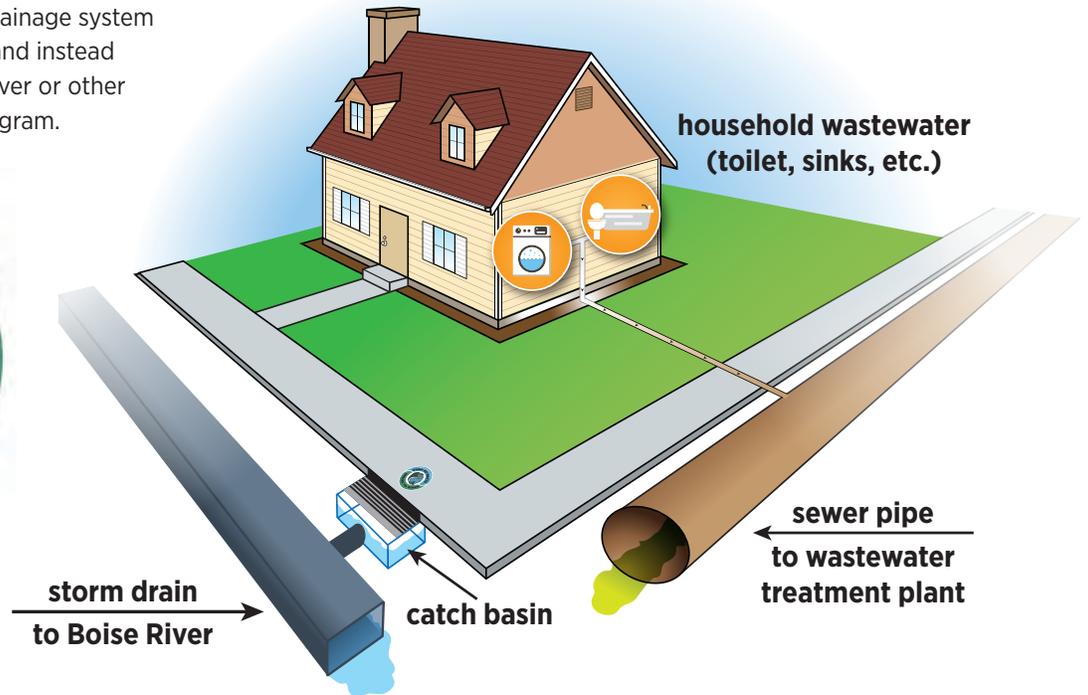
Stormwater runoff is a major cause of pollution in urban areas. When rain falls or snow melts and cannot infiltrate into the ground, runoff is generated from paved or impervious surfaces. This runoff is collected in the storm drainage system.

There are many types of stormwater pollutants including litter, oils, grease, chemicals, fertilizers, pesticides, sediment and bacteria. These pollutants come from many sources, primarily generated by the activities of people on our lands. For example, excess nutrient pollution can be generated from residential or agricultural areas when too much fertilizer is used on lawns or crops. Pollutants like litter or oil and grease can flow to the storm drainage system from roadways or parking lots.

It is important to remember that in the Boise area, the storm drainage system is separate from the sanitary sewer system. The storm drainage system does not flow to a treatment plant and instead discharges directly into the Boise River or other local waterways as shown in the diagram.



This storm drainage inlet, also known as a catch basin, collects runoff from a street in Downtown Boise.



STORMWATER REGULATIONS

The Partners for Clean Water are regulated by the federal Clean Water Act and are required to implement various measures to prevent stormwater pollution and improve the quality of our surface waters.

Municipal Stormwater ordinances and requirements prohibit the discharge of non-stormwater flows to the storm drainage system. Commercial landscaping businesses must ensure that any discharge or flow from their operations do not enter the storm drainage system. They should also commit to managing their operations in a manner that prevents or reduces pollution. Violations of stormwater ordinances and requirements can result in civil or criminal penalties. But more importantly, violations can harm our waters and the environment. These violations are called "illicit discharges".

In the Lower Boise River watershed, Boise, Garden City and the Ada County Highway District have enacted regulations to prevent Illicit Discharges to the storm drainage system. These regulations can be reviewed on the Partners for Clean Water website partnersforcleanwater.org



Paint disposal into a gutter, as shown in this picture, is not permitted and is an illicit discharge to the storm drainage system.

POLLUTION PREVENTION PRACTICES FOR COMMERCIAL LANDSCAPERS

The following pollution prevention practices, also known as Best Management Practices or BMPs, are applicable to Commercial Landscaping companies:

Employee Training

The most effective tool to prevent pollution is knowledge. Training information and programs enable employees to complete their job duties effectively and prevent pollution. Training programs should identify key business activities that have the potential to generate pollution. Once those activities have been identified, employees should understand the methods necessary to prevent pollution. The development of standard operating procedures (SOPs), written guidelines that identify methods for completing key business tasks and pollution prevention procedures, are helpful to support and reinforce training topics.

Training programs should be customized to meet the needs of each business. These programs can be developed in-house or by using other pre-developed training programs available as noted in the “Resources” section of this brochure.



Fertilizer Application

Fertilizers provide important nutrients that help plants and grass grow in our urban environment. However, too much fertilizer is often applied and during precipitation can contaminate stormwater runoff. These excess nutrients are harmful to our waterways and can cause algae blooms which can

impact fish and other aquatic life. Commercial landscapers have the opportunity to set an example concerning the responsible use of fertilizer. Fertilizer should be applied as specified by manufacturer recommendations or based on the results of a site specific soil test. Do not apply fertilizer immediately before precipitation is expected. When applying fertilizer, if excess material is spread onto sidewalks or pavement, please sweep up this material and apply to vegetated surfaces or dispose properly.

Pesticide and Herbicide Application

These considerations will reduce the potential indiscriminate use of chemical control products and therefore reduce the potential exposure of pesticide residues to humans, animals, and the environment.

First, increase your knowledge on pesticide products. Be aware of the pest you are trying to control and use the appropriate product. Consider the use of alternative control options including Integrated Pest Management. For any products used, be sure to read and properly follow all directions on the product label. Be careful when automated aerosols, plant feeders and ground sterilants, as there may be increased risks when using these products.

Yard Debris Management

Yard waste, sediment and other materials from landscape maintenance wash into the storm drain system and contribute significantly to urban runoff pollution. Pollutants such as leaves, grass clippings, and dirt left on paved areas can be washed into storm drains. As a result, these pollutants can cause local flooding by clogging drains and may reduce the aesthetic recreational value of nearby streams and the Boise River. Nutrients, dirt, pet waste, pesticides and fertilizers are only some of the pollutants that can get into the storm drain system and our river.

Water Usage/Conservation/Plant Selection

Landscape to conserve water and reduce runoff. Use efficient irrigation systems and select water-conserving plants or native plants where applicable.



Materials Management

All landscaping materials (fertilizers, chemicals, pesticides, etc) that have a potential to cause pollution should be stored properly in an indoor or covered location where these materials are not exposed to precipitation.

Erosion and Sediment Control

During landscaping or small construction projects, it is important to use erosion and sediment control measures to ensure that sediment does not contaminate stormwater runoff. There are many erosion and sediment control BMPs but the best approach is prevention by minimizing soil disturbance or immediately covering disturbed areas with seed and straw mulch to provide cover in case of precipitation. Information on additional Erosion and Sediment Control measures is provided in the “Additional Resources” section.

Surface Cleaning

Sweeping parking lots, walks, and driveways instead of washing them off will prevent sediment and pollution from entering the stormdrain system. Discard debris and yard waste in the garden or trash or consider composting.

Watering and Vehicle Washing

Watering and washing activities must comply with applicable regulations and cannot cause a discharge to the storm drainage system. Ideally, vehicles will be washed indoors in a location with floor drains connected to the sanitary sewer system to capture wash wastewater. If indoor washing is not viable, a storm drain **inlet protection device** should be used. An inlet protection will capture runoff before it enters the storm drain system and allow it to be collected and discharged properly to the sanitary sewer system.



Samples of Inlet Protection Devices. Photos courtesy of Ertec Environmental Systems.

Power/Pressure Washing

Power/Pressure washing activities can generate pollution from the discharge of waste water. If chemicals are used in washing activities, discharges can be particularly harmful to our waters. These activities must comply with all applicable regulations and cannot cause a discharge to the storm drainage system.

There are several best management practices for power/pressure washing activities. Cleaning surface with dry methods, such as sweeping or by using absorbents should be considered. Where surfaces cannot be cleaned with dry methods alone, it is important to minimize the amount of water used during washing. Also, chemicals should be used only when necessary during washing operations. If washing activities result in any discharge, storm drain inlet protection devices must be used so that waste water can be captured and properly disposed.

Disposal

In general, it is acceptable to dispose of mobile business wastewater to the sanitary sewer system by draining the waste water to a utility sink, toilet or other appropriate connection to the sewer system. No wastewater from a mobile business can be discharged to a storm drain or sewer. If mobile business activities generate stormwater runoff, the operator must block adjacent storm drains with a storm drain protection barrier, collect the water and dispose properly. If you have any questions about proper disposal, don't hesitate to contact the appropriate Partners for Clean Water representative.

CONTACT INFORMATION AND ADDITIONAL RESOURCES

Stormwater Pollution Hotline – Boise, Garden City and the Ada County Highway District, (208) 395-8888

Partners for Clean Water (includes staff contact information)

partnersforcleanwater.org

Pest Control Fact Sheets

www.partnersforcleanwater.org/outreach/homeowners/eddyfactsheets/

United States Environmental Protection Agency (USEPA)

www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu

Florida Friendly Landscaping

fyn.ifas.ufl.edu/professionals/BMP_overview.htm

Gwinnett County, GA – Commercial Landscaping BMPs

www.gwinnettcounty.com/static/departments/publicutilities/pdf/WQ-11%20Commercial%20Landscaping%20and%20Lawn%20Care%20Services.pdf

King County, WA – Commercial Best Management Practices

www.kingcounty.gov/services/environment/water-and-land/stormwater/documents/pollution-prevention-manual/commercial-bmp.aspx

Idaho DEQ – Best Management Practice Catalog (for Erosion Control)

www.deq.idaho.gov/media/622263-Stormwater.pdf

Idaho Nursery and Landscape Association

inlagrow.org

Fairfax County, VA – Landscaping and Grounds Maintenance

www.fairfaxcounty.gov/dpwes/publications/stormwater/ms4/p2packet_landscaping.pdf