

Fact Sheet: Discharging contaminated stormwater into the King County sewer system

Applying for approval



King County

Department of
Natural Resources and Parks
Wastewater Treatment Division
Industrial Waste Program

January 2015

MISSION STATEMENT

The mission of the Industrial Waste Program is to protect the environment, public health, biosolids quality, and King County's regional sewerage systems. We work cooperatively with our customers as we regulate industrial discharges, provide technical assistance, and monitor the regional sewerage system.

Introduction

King County intends its stormwater-acceptance practice to provide the greatest environmental protection while protecting the collection system and treatment plants.

King County recognizes that it is not always possible or practical for businesses to prevent the contamination of stormwater associated with industrial activities, or to treat industrial stormwater before discharging it to surface waters. However, in many areas, the county's sewer capacity is limited, particularly during wet weather months (November - April) and the county has no extra capacity to accept stormwater that may cause or add to sewage overflows.

In areas where the sewer and stormwater systems are combined and the stormwater already goes to the sanitary sewer (primarily within the City of Seattle) King County still requires the use of best management practices (BMPs) or pretreatment of contaminated industrial stormwater.

Under what conditions does King County accept contaminated stormwater into the sanitary sewer?

King County accepts contaminated stormwater to the sewer system when:

1. Contamination is the result of an industrial activity.

2. Contamination of the stormwater cannot be prevented with BMPs.
3. Other disposal options that provide the same degree of effectiveness in controlling pollutants at a reasonable cost are not available.
4. The discharge meets flow restrictions and King County discharge limits.
5. The volume of stormwater discharge has been minimized using BMPs.
6. The discharger pays sewer fees to the local sewer agency.
7. The sewerage system has capacity to handle the waste.

Note that you must meet all of the above conditions.

How do I get permission to discharge contaminated stormwater to the King County sewer system?

For permission to discharge contaminated stormwater to the King County sewer system you will need to submit an Industrial Wastewater Discharge Permit Application and a Supplemental Application for Discharge of Contaminated Stormwater to KCIW. (See Contacts and Resources, end of document inside).

Depending on the nature of the industrial activity, the volume of discharge, the type of pollutants, and other site conditions, KCIW has different types of discharge approvals that can be issued. They range from a Letter of Authorization, which provides the least oversight and is issued to short duration or

low volume dischargers, to an Industrial Wastewater Discharge Permit, which provides the most oversight and is for large volume dischargers. The burden is on the discharger to show why a specific area should drain to the sanitary sewer system instead of the storm-drain system.

Local sewer agencies may prohibit these discharges or may require a slower discharge rate or the construction of additional lines.

Normally facilities using wash pads that are 200 square feet or less do not require permission to discharge contaminated stormwater unless they have installed an oil/water separator. Contact KCIW (see Contacts and Resources) to discuss.

How do I show that stormwater has been contaminated by “industrial activity”?

Stormwater becomes contaminated by industrial activity when it falls on areas with material handling equipment or activities, raw materials, intermediate products, final products, waste materials, byproducts, or industrial machinery. For a complete list, see King County Code 28.82.360. (See Contacts and Resources.)

You may be required to submit analyses of stormwater samples to show the level of contamination from an industrial activity.

How do I show that other disposal options are not reasonable?

King County may require the discharger to submit an engineering analysis report showing that discharge to the sanitary sewer represents all known, available, and reasonable methods of prevention, control, and treatment (AKART). Washington State Surface Water Quality Standards (Chapter 173-201 WAC) define AKART as “represent(ing) the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants associated with the discharge.”

If the stormwater can be treated adequately and discharged to state waters at a reasonable cost, King County will not accept the discharge.

Before beginning an AKART analysis, you should meet with a KCIW staff member to determine the extent of analysis needed.



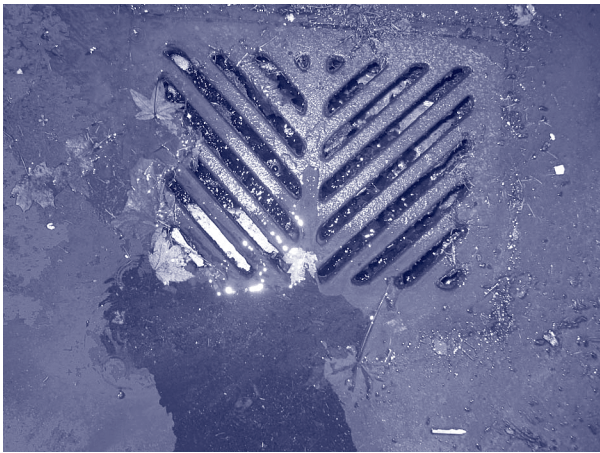
What flow restrictions apply to a contaminated stormwater discharge?

When the total area draining to the sewer system is greater than 2,000 square feet, the discharge rate of contaminated industrial stormwater is restricted to no more than 0.2 cubic feet per second for each acre of stormwater drainage area. Storage capacity to retain the water on site or a system to restrict flow, such as a valve, may be required. To evaluate the total area draining to the sewer system, contact KCIW. (See Contacts and Resources.)

EXAMPLE:

XYZ Boatyard is a 1.5-acre boat repair facility located in Seattle, Wash. Of the total 1.5 acres, 0.7 acres of surface area have been identified as generating non-contaminated stormwater and were diverted to a separate storm drainage system. The remaining 0.8 acres of surface area have been identified as generating contaminated industrial stormwater. The stormwater flows from this area have been diverted to a separate stormwater detention tank connected to the sanitary sewer. The contaminated stormwater detention tank was equipped with a flow restriction device (e.g., orifice restriction, metering valve, etc.) which was established at a maximum discharge rate of 0.16 cubic feet per second ($0.2 \text{ cfs/acre} \times 0.8 \text{ acre} = 0.16 \text{ cfs}$). The facility diverted overflows from the contaminated stormwater detention tank to storm drainage in accordance with the stormwater detention requirements of the local surface water quality authority.

Overflow from retention or flow-restriction systems cannot go to the sanitary sewer system. Options include more onsite retention, overflow to the storm drain, and infiltration back into the ground.



What discharge limits apply to contaminated stormwater discharges to the King County Sewer?

Dischargers of contaminated stormwater are required to meet King County's local discharge limits for all contaminants, including, but not limited to, heavy metals, settleable solids, oil and grease, and pH.

King County local limits and their applicability to businesses in the sewer service area are cited in King County Code – Title 28 (and in KCIW Local Discharge Limits, Contacts and Resources).

What fees apply to contaminated stormwater discharges?

Permit fees, sewer fees, monitoring fees, and capacity charges may apply to stormwater discharges. For information on the specific fees that may apply to your discharge, see Contacts and Resources.

Where the discharge to the sewer system is not metered, the volume of contaminated stormwater will be determined by the amount of precipitation falling on the area draining to the sewer. The precipitation amount is determined by using a five-year rolling average based on National Weather Service data for Seattle. Billing arrangements may differ among local sewer agencies.

How can I minimize the volume of flow going to the sanitary sewer?

There are two primary ways to minimize the flow of contaminated stormwater. Dischargers can minimize the volume by reducing or eliminating

discharge from parts of an industrial site that are not contaminating stormwater, such as discharges from roof drains, parking lots, storage areas, and driveways. King County frequently requires industrial users to reconfigure drainage systems for this purpose.

Dischargers can also minimize contamination by using BMPs, allowing stormwater to flow to the state waters.

What BMPs apply to preventing stormwater releases?

BMPs are activities, practices, and procedures that prevent or reduce the release of stormwater or pollutants to the waters of Washington State or to the King County sewer system.

Examples of BMPs include:

- Segregate industrial activities from non-industrial activities.
- Keep outdoor areas well maintained.
- Regularly maintain onsite drainage facilities.
- Enclose or cover and regularly clean process areas.
- Tarp over and under painting and paint-preparation areas.
- Install catch basin inserts and/or oil/water separators; making sure that they are regularly maintained so that they work well.
- Reconfigure slopes and install berms.
- Maintain equipment to prevent leaks, confine drips and spills, and cleanup spills. Maintain a spill plan and train employees to use it.
- Train and educate employees and management in BMPs and all pertinent regulations applicable to the site.



Other sources of BMP information include Washington State Department of Ecology's Stormwater Management in Washington State, Volume IV, Source Control BMPs and the King County Stormwater Pollution Control Manual (See Contacts and Resources.)

Contacts and Resources

CONTACT:

King County Industrial Waste Program
201 S. Jackson St., Room 513
Seattle, WA 98104-3855
Ph: 206-477-5300 or TTY: 711
Fax: 206-263-3001
Info.KCIW@kingcounty.gov

KCIW RESOURCES

Use this easy link and follow the menu on our main Internet page to reach all KCIW Internet pages: www.kingcounty.gov/industrialwaste

For permission to discharge contaminated stormwater to King County:

KCIW's Internet page about discharging or sending contaminated industrial stormwater to the King County sewage system:

www.kingcounty.gov/environment/wastewater/IndustrialWaste/GettingDischargeApproval/Stormwater.aspx

Download KCIW's Wastewater Discharge Permit Application and Supplemental Application for Discharge of Contaminated Stormwater at:
www.kingcounty.gov/environment/wastewater/IndustrialWaste/Forms/ApprovalForms.aspx
Or use easy link above.

To learn about KCIW fees:

www.kingcounty.gov/environment/wastewater/IndustrialWaste/Fees.aspx

This Internet page includes a downloadable copy of the booklet Industrial Waste Program Fees.
Or use easy link above.

Contact KCIW (above) for print versions of documents.

OTHER RESOURCES:

King County Code:

www.kingcounty.gov/council/legislation/kc_code.aspx

King County Industrial Waste Local Discharge Limits Public Rule (PUT 8-13)

www.kingcounty.gov/operations/policies/rules/utilities/put8131pr.aspx

King County Stormwater Pollution Control Manual:

www.kingcounty.gov/environment/waterandland/stormwater/documents/pollution-prevention-manual.aspx

Washington State Department of Ecology's Stormwater Management in Washington State, Volume IV, Source Control BMPs:

www.ecy.wa.gov/programs/wq/stormwater/manual.html#How_to_Find_the_Stormwater_Manual

Washington State Surface Water Quality Standards:

www.ecy.wa.gov/programs/wq/swqs/index.html

Creating Resources from Wastewater

Alternate Formats Available
Voice: 206-477-5300 or TTY Relay: 711