

Stormwater Facility Credit Program

Introduction

In an effort to encourage private businesses to better manage stormwater runoff from their properties, the City of Seattle created the Stormwater Facility Credit Program (SFCP).¹ This program recognizes businesses that install and operate stormwater systems by offering a credit on their drainage fees, if they qualify. Depending on the size of the property where stormwater is treated, this credit can result in a substantial savings of thousands of dollars per year. Freer Consulting offers a range of services that help clients apply for and receive a credit through the SFCP.

Stormwater

In recent years, states, counties, and municipalities have paid increasing attention to problems created by stormwater runoff. These problems fall into two general categories: flow control and water quality.

Flow Control

Many city surfaces (such as asphalt, concrete, and metal) are impervious to stormwater and hence do not allow stormwater to infiltrate the ground. As a result, cities utilize storm sewer systems (or a storm sewer combined with a sanitary sewer) to drain stormwater away from the city. During heavy or frequent rain events, stormwater flow can exceed the drainage capacity of the storm sewer. This leads to flooding in low-lying areas, which is a potential safety hazard (for example, if flooding occurs on a busy road or street). Another result is the erosion of soil and sediment, particularly if stormwater is flowing rapidly. This can deposit sediment in areas from where it must be removed or erode and destabilize shorelines, which is a serious problem for residences and businesses adjacent to the shore.

To mitigate this risk, flow control measures can be implemented. One example of a flow control measure is a detention vault. A detention vault controls the flow of excess stormwater by holding it and then draining it at a controlled rate. This reduces the volume and velocity of the stormwater that enters a municipal storm sewer. Other flow control measures include wet ponds and permeable pavements. These also act to slow down stormwater flow and allow for some stormwater to infiltrate the ground.

Water Quality

¹ Seattle Public Utilities,
<http://www.seattle.gov/util/ForBusinesses/DrainageSewerBusinesses/StormwaterFacilityCredit/index.htm>.
Accessed December 17, 2014.

Stormwater also poses a risk to water quality by transferring pollutants from impervious surfaces to lakes, rivers, and coastal waters. Such pollutants include: oil, grease, sediment, copper, lead, zinc, ammonia, etc. These pollutants come from a variety of sources such as loose soil, leaking equipment or vehicles, car and truck tires, brake pads, and galvanized roofs and fences.

One way to mitigate this risk is through source control best management practices (BMPs), which are intended to limit pollutants on impervious surfaces, thereby reducing the levels of pollutants in stormwater. Source control BMPs include (but are not limited to) regularly sweeping areas where sediment may collect, storing metal items under cover, painting galvanized metal surfaces, providing secondary containment for liquids, and regularly checking equipment for leaks.

Unfortunately, source control BMPs are not always feasible or effective in lowering pollutants to the levels required by regulatory agencies. In such cases, a system is required to treat stormwater before it is discharged into a storm drain system or another body of water. These systems can be as simple as a vault or pond that allow sediment or suspended solids to settle out of stormwater or a more complex filtration system that uses special media to remove heavy oils and metals.

Stormwater Management

There are multiple agencies that regulate stormwater discharge. At the federal level, the Environmental Protection Agency created the National Pollutant Discharge Elimination System (NPDES) to regulate stormwater that is discharged to surface waters by industrial, municipal, or other facilities. In order to legally discharge stormwater, these facilities must obtain a permit to do so and monitor their stormwater to ensure that pollutant levels are below required limits. In many cases, the NPDES program is administered by state agencies, such as the Washington Department of Ecology. The Department of Ecology can issue individual NPDES permits, but it also issues general permits such as the Industrial Stormwater General Permit (ISGP), which cover many facilities that meet certain requirements and reduces the need for individual permits. Cities like the City of Seattle also have their own stormwater codes that regulate stormwater.

Because polluted stormwater is so problematic, regulatory agencies are drafting and enforcing more stringent rules regarding stormwater. Therefore, businesses that discharge stormwater should proactively manage it to avoid fines and other penalties. Good stormwater management also benefits the community as a whole. In this light, the SFCP serves as an incentive for businesses in Seattle to implement stormwater management.

The SFCP

All properties in the City of Seattle are subject to a drainage fee for stormwater management services. This fee is based on the acreage of the property. The more acreage, the higher the impact that a property has on the City's stormwater drainage system, resulting in a higher fee. This fee is billed through King County, and shows up on county property tax assessments as

Surface Water Management or Drainage. The SFCP offers qualified property owners a tax credit on their drainage fees.

The key requirement for a property owner to qualify for the SFCP is to have and maintain a stormwater system that reduces the impact of the property's discharge on the City's system. There are a number of qualifying systems under the SFCP, some fairly simple and others more complex. A few are listed and described below.

Vault: A structure that serves as a detention system for stormwater. It holds stormwater on the property and then drains it at a controlled rate, thereby reducing sudden surges of stormwater into the City's system during heavy or sustained rain events. Some vaults also contain a "flow control structure" (a large pipe with a small hole in the bottom), which helps control how much water drains out of the vault. Vaults can also provide a measure of treatment by allowing sediment and other solids to settle to the bottom of the vault, which can then be cleaned out of the vault once the water is gone.

Sand filter: A widely used form of water treatment. When stormwater passes through a sand filter, grains of sand catch sediment and suspended matter, removing it from the water. Some, but not all sand filters utilize chemicals to improve the filter's performance.

Bioswale: A shallow depression in the ground that contains soil and plants congruent with local conditions. Bioswales retain water to provide flow control and treat water by utilizing the plants to settle solids and remove metal ions.

Wet pond: This is similar to a bioswale, but it is generally designed for stormwater detention. Wet ponds often contain structures to slow down the flow of stormwater. Most of the time, these ponds contain some amount of water in between rain events, hence the name.

Permeable pavement: A pavement that, unlike most impervious pavements, allows water to infiltrate the soil beneath the pavement or filter it to a reservoir. This serves primarily to slow down the flow of stormwater.

Oil-water separator: Oil and grease are common pollutants found in stormwater, especially where there is significant vehicular activity. An oil-water separator receives stormwater discharge and retains the oil while the water drains out. There are different types, but they operate on the same principle: oil has a lower specific gravity than water, so it floats to the top of the separator or is collected on coalescing plates, while the water flows out.

Treatment/filtration systems: There are a variety of stormwater systems available that remove pollutants using proprietary filter media, electrocoagulation, chemical treatment, or other technologies. They are generally custom-designed and installed in accordance with the conditions present at the site where they operate, (for example, size of the site, available space for installation, drainage, specific pollutants, etc.).

Property owners with a stormwater system must make sure that it is properly maintained and functioning in accordance with the City of Seattle's Stormwater Code.² Seattle Public Utilities may conduct inspections of stormwater systems to confirm compliance.

Applying for the SFCP

To apply for the SFCP, property owners must complete and sign the SFCP application form and provide supporting documentation. Information on the application form includes:

- Property parcel number(s)
- Property owner name and contact information
- Types (roofs, pavement, walkways, etc.) and areas (in square feet) of the surfaces served by the stormwater system
- Type of stormwater system present on the parcel and when it was installed
- The person responsible for inspecting the system
- Maintenance done on the system and when it was done

Supporting documentation to be provided includes:

- Photos of the property
- An as-built site map showing the areas served by the stormwater system(s), how they are drained, and stamped and signed by a professional engineer
- Photos of the stormwater system, particularly its internal structure
- Maintenance records for the previous five years, (for example, inspection reports, vendor invoices, etc.)
- Side sewer cards for the parcel(s)
- Any drawings or diagrams of the stormwater system

Assistance with the SFCP

Freer Consulting is available to help you apply for a credit under the SFCP. We can research and organize necessary information, provide engineering support, estimate your tax credit, complete the application documents, and act as the primary point of contact with the City on your behalf. If you are interested in our assistance with any aspect of an SFCP application, contact Freer Consulting at 206-285-9044 or info@freerconsulting.com.

² Seattle Department of Planning and Development, <http://seattle.gov/dpd/codesrules/codes/stormwater/>. Accessed December 17, 2014.