

# THE PRIVATE STORMWATER FACILITY SELF-CERTIFICATION PROGRAM

# **PROGRAM OVERVIEW**

- ► The City of Shoreline has a new program that allows some property owners to inspect the stormwater systems on their property and certify that they have completed any required maintenance. This program is called the "Private Stormwater Facility Self-Certification Program".
- ► To participate in this program, property owners must complete inspections and maintenance and certify the work is completed within the timeline the City provides.
- Property owners eligible for the program will receive a request from the City to inspect their stormwater system and perform any needed maintenance. Both the inspection and the maintenance can be done by either yourself, other in-house personnel, or a qualified contractor.
- ► The City will be available to assist with questions or provide inspection guidance if requested. For those who choose to hire a qualified contractor to perform this work, the City can provide a list of contractors.



- Never enter a storm drain (catch basin) or utility vault (manhole). These are confined spaces, dangerous, and can only be entered by certified personnel.
- ► Most inspections can be done from ground level and do not require entering any structure
- ▶ If you have any questions, please contact The City of Shoreline Public Works Dept. at 206-801-2700 or other qualified stormwater inspector such as those found on out qualified contractor list.

# **Useful Documents for Your Inspection**

- Self-Inspection Checklist (to record your results)
   (included with your notification letter)
- Facility Map (included with your notification letter)
- Maintenance Tips Document (Included with your notification letter)
- The City of Shoreline Online Interactive Maps "City Surface Water Assets Interactive Map. " Here you can view your property and details of your stormwater systems.
- King County Surface Water Design Manual
   Here you will find information on maintenance standards and conditions requiring maintenance.
- Stormwater Management Manual for Western Washington
  Ecology's stormwater maintenance manual:
  Here you will also find information on maintenance standards and conditions requiring maintenance.

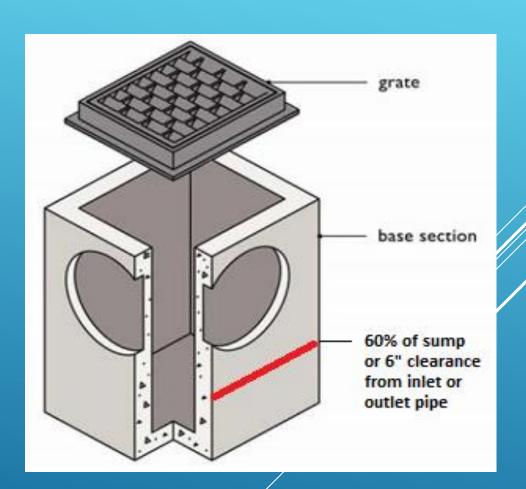


# **Helpful Tools for the Inspection**

- Lid/Grate Pulling Tool or "Hook" as pictured. (Available for checkout at the Shoreline Tool Library 16610 Aurora Ave N)
- Sediment Probe If your system only contains type 1 and shallow type 2 catch basins, you can find 8' garden stakes from a local home improvement center to measure sediment with. For deeper type 2 catch basins and vaults, you may need an extendable probe such as a painter's pole. (Four collapsable 10 ft sediment probes are available for checkout at the Shoreline Tool Library at 16610 Aurora Ave N.)
- Flashlight
- Camera
- Shovel/Rake/Post hole digger
- Gloves
- Boots or Sturdy Shoes
- High Visibility Clothing or Vest
- ½" Hex key or impact driver to remove grate bolts, if necessary

#### **Storm Drain (Catch basin)**

- Rainwater (Stormwater) from streets drains into small underground vaults called Type 1 catch basins
- Inspect and clean both the grate and the basin's sump (vault). The sump is the space between the lower pipe and the bottom of the catch basin.
- Remove the grate with a grate hook or other pulling tool to inspect the sump.
- Clean the sump when:
- sediment exceeds 60% of the sump depth
- sediment comes within 6" of the lowest pipe
- if any oil, gas, or other pollutants are seen
- If it is safe to do so, sediment can be removed by hand with a shovel, posthole digger, or shop vac. Bag the sediment and it can be placed in the regular trash.
- CAUTION: Sediment may be contaminated. Double bag and dispose of sediment in the garbage. Never put it in the yard waste or a compost.
- Alternatively, hire a professional service to clean the catch basin



# Type 1 Catch Basins as seen from ground level



Herring Bone Grate/Solid Lid



Vane Grate



Interior Photo with PVC pipes



Interior Photo with 12" concrete pipes



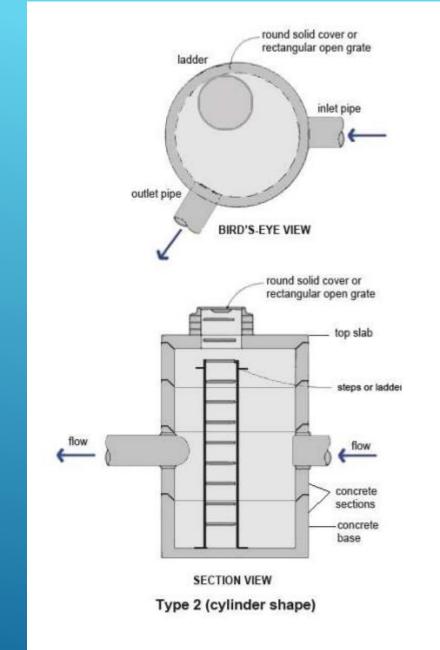
Round Maintenance Lid



Standard Solid Locking Lid

#### Type 2 storm drains (catch basins):

- A Type 2 catch basin is a large concrete structure that is typically 4 to 8 feet in diameter and may be up to 20 feet deep.
- <u>Do not enter type 2 catch basins</u>. They are confined spaces and are dangerous. Contact a trained professional for needed maintenance or repairs.
- Use a long probe, tube(conduit), pole etc. to check the depth of sediment. It is time to clean when:
- trash, debris, or sediment exceeds 60% of the depth from the bottom of the basin to the bottom of the lowest pipe into or out of the basin.
- If any pollution such has oil, gasoline etc. is observed, it must be for cleaned and should be removed by a vactor truck.
- You may also visually inspect the interior of the catch basin for any structural damage such as cracks, holes, or crumbling materials.



#### Flow Control Structure

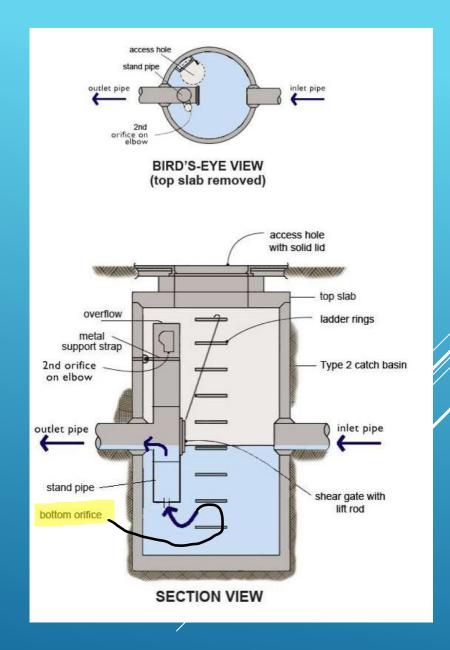
This structure is found inside a Type 2 storm drain (catch basin)

The Flow Control Structure is the vertical metal pipe that is attached to one of the catch basin walls.

Vactor trucks required to complete maintenance.

Maintenance is required when:

- -excessive floating debris is present (such as trash, vegetation, etc). This can clog the flow control.
- When sediment at the bottom of the catch basin covers the bottom orifice of the flow control structure (highlighted in drawing).



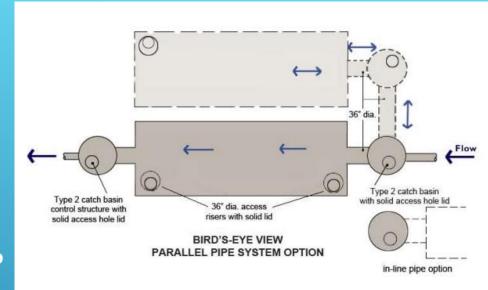
Photos taken from ground level of flow control within a type 2 catch basin.

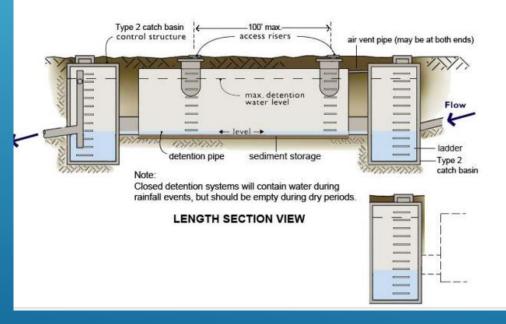


#### **Detention Pipes**

DO NOT ENTER! They are confined spaces and can be dangerous! Contact a trained professional for needed maintenance or repairs.

- Detention Pipes are large underground metal pipes, typically 36" to
   120" in diameter, which temporarily store stormwater runoff
- Over time, Detention Pipe systems can accumulate an excessive amount of sediment and debris at the bottom of the pipe(s).
- Maintenance is needed when the depth of sediment in the detention pipe is 15% or more of the pipe's diameter. This can be a decided by visually estimating or using a sediment probe.
- The sediment will need to be removed from the system with a vactor truck.





# Detention Pipes:



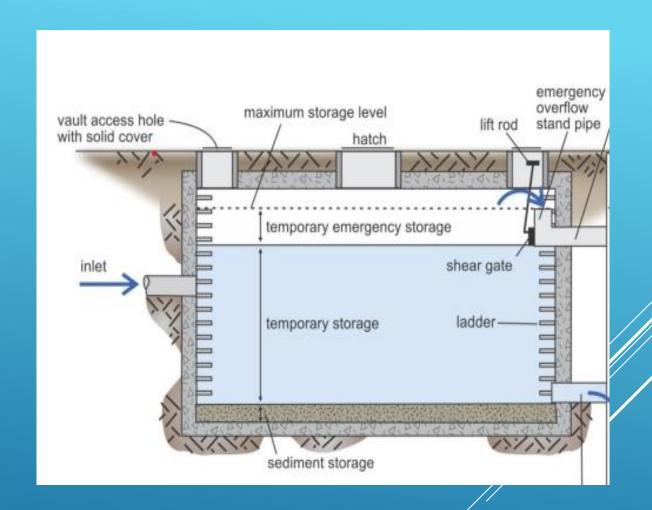
Above: Clean detention Pipe Below: Excessive sediment in pipe, needs maintenance.

A detention pipe as viewed from ground level via access maintenance hole.

#### **Detention Vaults**

DO NOT ENTER! They are confined spaces and can be dangerous! Contact a trained professional for needed maintenance or repairs.

- Detention vaults are large rectangular concrete structures typically located underground.
- They are designed to temporarily store stormwater and slowly release it through a flow control structure outlet.
- These are designed to almost completely drain following a rain storm and one that is still full of water more than 24 hours after a storm likely requires maintenance.
- Over time detention tanks and vaults accumulate sediment, trash and vegetation debris which reduces the storage and treatment capacity for water runoff from storms.
- If the sediment depth exceeds 15% of the storage area it will need to be cleaned with a vacuum (vactor) truck. This can be a decided by visually estimating or using a sediment probe.



#### **Filter Vaults:**

Maintenance of these systems requires specialized training and entry into confined spaces and therefore should only be performed by qualified personnel.

- Some vault structures may also contain one or more filter cartridges that remove harmful pollutants from stormwater.
- Over time filter vaults accumulate sediment, trash and vegetation debris which reduces the filter cartridge's ability to do its job of cleaning stormwater.
- If you can see sediment build-up on top of or surrounding the filter cartridge(s), that is a good indicator that they are likely due for replacement. During the replacement of filters, a qualified contractor should evaluate the vault to determine if additional cleaning and maintenance is needed.





To view your stormwater facility, please visit The City of Shoreline Interactive Maps "City Surface Water Assets Interactive Map."

## **City of Shoreline Interactive Maps**

There you can view your property, aerial photos, useful data, and other details on your stormwater facility.

Maintenance standards and conditions requiring maintenance can be found here:

## **Stormwater Management Manual for Western Washington**

For questions or further assistance:

Contact

Brett Massa at 206-801-2464 or <u>bmassa@shorelinewa.gov</u>