



TIPS FOR SUCCESSFUL DRAINAGE FACILITY SELF-INSPECTION

1. How the Process Works

Commercial and multifamily property owners in unincorporated King County selected to do self inspection/certification are responsible for inspecting their drainage facilities as well as performing maintenance required to bring the facilities up to King County standards. This may be done using either in-house staff or a vendor.

Information and submittal materials include an individual site plan showing your property's drainage facility components and a maintenance checklist form to be completed and submitted to King County Water and Land Resources Division, indicating that the inspection and maintenance have been completed.

Property owners who return the completed, signed maintenance checklist by **November 1** (indicating work was performed or maintenance was not required) may be eligible for a discount on their following year's Surface Water Management fee. King County performs random spot checks of facilities to evaluate the effectiveness of the program.

Here are the specific steps in the process:

A. Facility Identification

Look on the enclosed site plan of your property. Note the main facility type (pond, tank, vault, etc.) as indicated in the stamped box on the site plan. Next, determine which facility components (catch basin, debris barrier, pipe, etc.) are on your property. To assist you in identifying components, refer to the definitions and sketches in *King County Drainage Maintenance Standards* (kingcounty.gov/MaintainDrainage, or mailed by request). Check the appropriate column, "Yes" or "No," on the enclosed maintenance checklist, indicating whether the components for each facility type is on your property.

NOTE: Most systems have both flow control (FC) and conveyance components.

B. Inspection

Inspect all facilities/components checked "Yes" using in-house personnel or a vendor. Refer to *Drainage Maintenance Standards*, which describes the King County standard for each component and identifies defects with a defect number and description.

Report the inspection results on the enclosed maintenance checklist in the following manner: If the facility component already meets the standard, write "meets standard" in the space for that component. If the component has a defect, list the defect number from the *Maintenance Standards* in the space for that component. **NOTE: If there is more than one component, list the component ID number (i.e., CB#3, CB#4, etc.) along with the defect number. You need only list components with defects in this case.** Use the back sheet of the form or attach a separate sheet if necessary.

C. Maintenance Work

If maintenance is required, have the work performed by in-house personnel or a vendor. On the maintenance checklist check off that the work has been completed in the "Work Completed" column, and indicate the date completed.

D. Certification

Provide the information indicated and sign under the certification section, certifying under penalty of perjury that the inspection has been performed, and either no maintenance needs were identified or the work was completed as indicated in the checklist.

E. Submittal

Mail or fax the checklist to King County Water and Land Resources Division (the address and fax number are at the end of the checklist). *The checklist must be received by King County Water and Land Resources Division by December 1 this year in order for the property owner to qualify for the Surface Water Management fee discount on next year's property tax bill.*

2. Be Safe!

Use caution when entering or working around catch basins and manholes, and follow confined space entry laws. Most inspections can be performed above ground. If confined space entry is required, it is recommended that you contract with a qualified vendor with confined space entry experience.

Property owners are responsible for the safety of all persons—including in-house and vendor personnel—performing confined space entry on their property under Washington Administrative Code (WAC) 296-62-145, which is Part M, Chapter 62, Confined Spaces. This responsibility may involve undergoing an assessment of the property to determine whether a permit is required for confined space entry (the permit is a self-generated checklist used to determine that all conditions are safe for entry).

3. Tools of the Trade

Depending on the type of facility you have, some of the following tools may be of assistance in doing your own inspection:

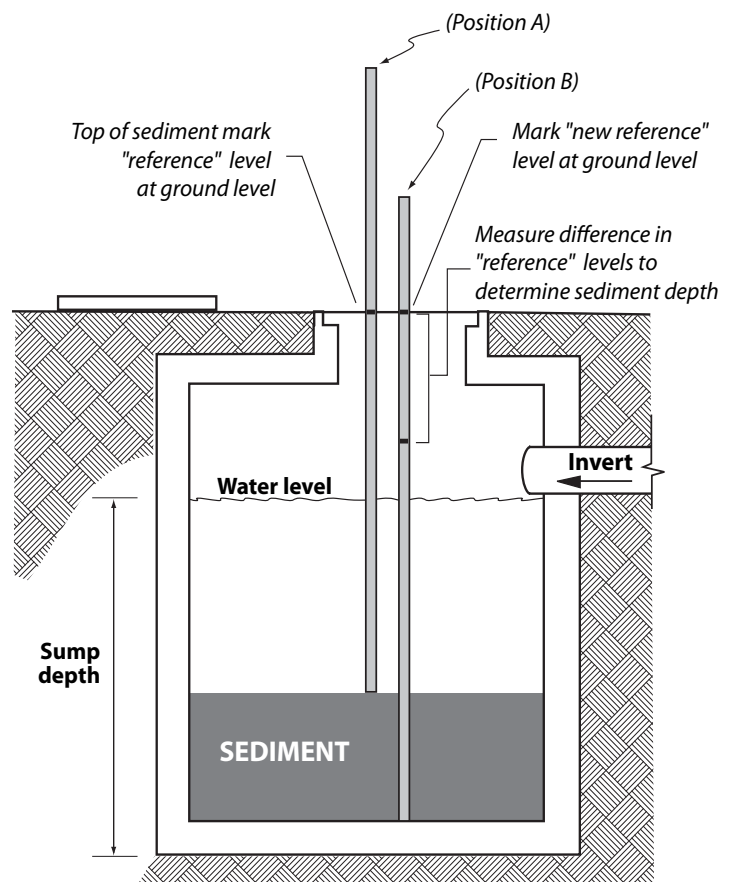
Task	Tool
Opening manhole cover	<ul style="list-style-type: none"> • 1/2" Allen wrench • Lid hook
Opening stuck lids/grates	<ul style="list-style-type: none"> • Crow bar • Lubricant (oil/grease) • Liquid wrench
Measuring sediment depths	<ul style="list-style-type: none"> • Measuring rod (an 8-foot length of aluminum conduit marked at 1-foot intervals works well for most systems)
Measuring storage space/sediment depths	<ul style="list-style-type: none"> • Tape measure (12 ft)
Entry into confined spaces	<ul style="list-style-type: none"> • Gas monitor/detector (GX-82) • Flashlight
Lifting grates, lids	<ul style="list-style-type: none"> • Manhole cover hook
Inspection from above ground	<ul style="list-style-type: none"> • Mirror on long handle
Probing for catch basins/moving heavy objects	<ul style="list-style-type: none"> • Straight-pointed bar
General	<ul style="list-style-type: none"> • Flashlight (6-volt lantern or halogen recommended) • Flat screwdriver • Phillips screwdriver • Shovel • Trash rake (4/5 prong) • Vice grips • 10" wrench • 15" wrench • Zep spray cleaning solution

4. Sediment Estimating—the Most Common Task

The most common defect encountered is excessive sediment level in a Type I or Type II Catch Basin (Tasks A-2 and B-2 in *King County Drainage Maintenance Standards*). Please refer to the *Maintenance Standards* for information on other defects.

Here is how to check the sediment level in a Type I or Type II Catch Basin:

- A. **Remove the manhole cover/grate** using a 1/2-inch Allen wrench and a catch basin grate hook or crow bar.
- B. **Identify the sump depth (water level).** Using a probe or rod, identify the sump depth. This is done by inserting the rod through the water and sediment until it hits the bottom of the catch basin; water level will be visible for measurement upon removal. *NOTE: Under normal conditions, the water level should be even with the outlet pipe. A higher water level indicates a blockage in the outlet (refer to the Maintenance Standards for more information).*
- C. **Identify the sediment level.**
 - 1) Put the probe or rod in through the water until it touches the top of the sediment. Mark it with relation to a stationary point in the catch basin with tape or chalk (Position A).
 - 2) Put the probe or rod in through the water and sediment until it touches the bottom of the catch basin, and mark the probe with relation to the same stationary point as in item 1 above (Position B).



The difference between the two marks is the **sediment depth**.

- 3) The water mark left on the rod is the “sump depth.” Measure the ratio of sediment depth to sump depth to determine allowable amounts.

In Type I and Type II catch basins, the sediment must be removed if the sediment level exceeds one-third of the sump depth (water level) in order to meet the King County standard.