

General Guidelines for Inspection and Maintenance of Stormwater Drainage Infrastructure

Inspection and maintenance of stormwater control facilities such as retention/ detention basins and earthen drainage channels is necessary to ensure that these facilities are generally in good condition and operating as designed to manage and/ or convey stormwater runoff. Drainage infrastructure should be inspected routinely during normal conditions and during storm events when stormwater is present and being conveyed through drainage channels and basins. General maintenance items are included below for detention/ retention facilities and drainage channels. Design plans and maintenance plans should be consulted prior to conducting maintenance work.

Detention/ Retention Basin Maintenance

- Vegetation management
 - Overgrown vegetation has the potential to obstruct stormwater flows and reduce the design capacity of the basin. Inspections shall be conducted routinely to verify that vegetation growth is kept to 18" or less. Mowing is generally required when grasses and vegetation exceed 18" in height. Woody vegetation such as trees and large shrubs should not be evident in basins and should be removed if observed. Sufficient grassy vegetation should be established within the basin to prevent erosion.
 - If grass coverage is sparse and erosion is evident, native grass seed should be distributed in bare areas to promote vegetation coverage and stabilization.
- Sediment accumulations
 - Significant sediment accumulations have the potential to decrease the capacity of the basin. Sediment accumulations may also be readily exported from the basin and into surface waters and/ or the City's storm drain system. Routine inspections should be conducted to verify that the basin outlet and areas immediately downstream are free of significant sediment accumulations. Inspections should also occur on a routine basis to verify that sediment has not filled the basin by 10% or more of the original basin volume.
 - Removal of sediment and accumulated material from basin may be required if significant sediment accumulations are evident and reduce the capacity and functionality of the basin. If sediment accumulations are removed, it may be necessary to re-seed the disturbed area with a native grass seed mix.
- Obstructions
 - The inlet and outlet structures of the basin shall be inspected routinely to look for signs of erosion or obstructions. Obstruction of the basin inlet and outlet structures has the potential to impede flow into and from the basin.
- Presence of debris/ litter
 - Excessive litter and debris shall be removed from basins.

- Erosion/ Scouring
 - Significant erosion has the potential to cause failure of basin walls. Eroded material has the potential to be exported from the basin into surface waters and/ or the City's storm drain system. If erosion is evident, revegetation with native grasses may be needed to help stabilize bare areas and prevent further erosion and scouring. Structural work may be required in areas where excessive erosion has occurred.
- Nuisance
 - Standing water in the basin during dry periods can decrease the capacity of the basin and provide optimal habitat conditions for mosquitoes and other vectors. Ensure that there is no standing water during dry periods and no odors caused by stagnant conditions.

Earthen Drainage Channel Maintenance

- Vegetation management
 - Overgrown vegetation has the potential to obstruct stormwater flow and reduce the carrying capacity of the channel. Inspections shall be conducted routinely to verify that vegetation growth is kept to 18" or less. Mowing is generally required when grasses and vegetation exceed 18" in height. Woody vegetation such as trees and large shrubs should not be evident in channels and should be removed if observed. Sufficient grassy vegetation should be established within the drainage channel to prevent erosion.
 - If grass coverage is sparse and erosion is evident, native grass seed should be distributed in bare areas to encourage growth and stabilization.
- Sediment accumulations
 - Significant sediment accumulations have the potential to decrease the capacity of the channel and obstruct flow. Routine inspections should be conducted to verify that the channel is free of significant sediment accumulations.
 - Removal of sediment and accumulated material from channel may be required if significant sediment accumulations are evident and prevent positive drainage through the channel.
- Obstructions
 - Structures and other obstructions should not be located within the channel. Fences, trees and excessive vegetation are all considered drainage obstructions and should be removed to allow positive drainage through the channel.
- Presence of debris/ litter
 - Excessive litter and debris accumulations shall be removed from drainage channels.
- Erosion/ Scouring
 - Significant erosion has the potential to cause failure of channel walls and causes eroded material to be transported to surface waters and/ or the City's storm drain system. Native grasses may be needed to help stabilize bare areas and prevent further erosion and scouring. Structural work may be required in areas where excessive erosion has occurred.
- Nuisance

- Standing water should not be evident in drainage channel during dry periods. Standing water provides optimal habitat conditions for mosquitoes and other vectors. Ensure that there is no standing water during dry periods and no odors caused by stagnant conditions.