

# Appendix E

## Stormwater Facility Inspection Checklists

|                                 |  |                               |  |  |  |  |  |  |
|---------------------------------|--|-------------------------------|--|--|--|--|--|--|
| Subdivision/Area:               |  |                               |  |  |  |  |  |  |
| Inspector:                      |  | Rain in Last 24 hrs (inches): |  |  |  |  |  |  |
| Inspection Date:                |  | Rain in Last Week (inches):   |  |  |  |  |  |  |
| Reason for Inspection           |  | Weather Forecast:             |  |  |  |  |  |  |
| Number of Facilities Inspected: |  | Activities on Site:           |  |  |  |  |  |  |

| Location |             | Sediment Buildup |                     |                | Comment Code | Action | Date Action Completed | Initials |
|----------|-------------|------------------|---------------------|----------------|--------------|--------|-----------------------|----------|
| GIS#     | Description | Grate Condition  | Buildup $\geq 6$ "? | Needs Removal? |              |        |                       |          |
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|   |  |  |
|---|--|--|
| 1 - Trash, debris, or sediment blocks more than 10% of inlet                | 5 - Frame not securely attached to top slab              | 9 - Catch basin cover missing or out of pl |
| 2 - Trash, debris, or sediment exceeds 60% of sump depth                    | 6 - Fractures or cracks in basin walls or bottom         | 10 - Cover cannot be removed by one person |
| 3 - Trash, debris, or sediment blocks more than 1/3 of inlet or outlet pipe | 7 - Basin misaligned creating safety or function problem | 11 - Metal grate opening brocken or unsafe |
| 4 - Dead animals or vegetation causing odors                                | 8 - Vegetation blocking basin function                   | 12 -- Could not locate                     |



## Maintenance Standards Catch Basins and Manholes

| Maintenance Code | Type              | Conditions When Maintenance Is Needed  |
|------------------|-------------------|--|
| 1                | Sediment          | Sediment depth in bottom of structure exceeds 6" or sediment depth within 6 inches of the invert of the lowest pipe.   |
| 2                | Trash & Debris    | <p>Trash or debris in front of catch basin opening or blocking inlet by more than 10%.</p> <p>Trash or debris exceeds 60% of sump depth.</p> <p>Trash or debris within 6 inches of the invert of the lowest pipe.</p> <p>Trash or debris blocking more than 1/3 of any inlet or outlet pipe.</p> <p>Trash and debris blocking more than 20% of grate surface.</p> <p>Dead animals or vegetation that generate odors and cause complaints or dangerous gases (e.g., methane).</p> |
| 3                | Vegetation        | <p>Vegetation growing across and blocking more than 10% of the grate opening.</p> <p>Vegetation growing in inlet/outlet pipe joints that is more than six inches tall.</p>   |
| 4                | Water Quality     | <p>Any evidence of oil, gasoline, contaminants or other pollutants.</p> <p>Water flowing in catch basin during dry weather – report as potential illicit discharge concern.</p>  |
| 5                | Water Flow        | Impeded water flow due to vegetation or sediment (use appropriate code from above).  |
| 6                | Erosion           | N/A  |
| 7                | Cover/Frame/Grate | <p>Cover is missing or only partially in place.</p> <p>One maintenance person cannot remove lid after applying normal lifting pressure.</p> <p>Frame separated by more than 3/4 inch from top slab.</p> <p>Frame not securely attached.</p> <p>Locking mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread.</p> <p>Grate with opening wider than 7/8 inch.</p> <p>Grate damaged or missing.</p>           |
| 8                | Structure         | <p>Top slab with holes larger than 2 square inches or cracks wider than 1/4 inch.</p> <p>Fractures or cracks in basin walls or bottom.</p> <p>Grout at inlet/outlet pipes has separated or cracked wider than 1/2 inch and longer than one foot.</p> <p>Soil is entering the catch basin through cracks in the structure.</p> <p>Settlement has created a safety, function, or design problem.</p> <p>Field inspector judges that structure is unsound.</p>                      |
| 9                | Damaged Pipes     | Inlet or outlet piping damaged or broken and in need of repair.  |

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed  |
|------------------|--------------------------|--|
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g. standing water for more than 72 hours in areas accessible to mosquitoes.)  |
| 11               | Other                    | <p>Ladder is unsafe due to missing rungs, not securely attached to basin wall, misalignment, rust, cracks, or sharp edges.</p> <p>Catch basin insert requires replacement if:</p> <ul style="list-style-type: none"> <li>• Sediment, trash or debris blocks water flow through the insert,</li> <li>• Effluent water from the insert has a visible sheen, or</li> <li>• Insert is saturated with water or oil and can no longer absorb.</li> </ul> |
| 12               | Could Not Locate         | Field inspectors are unable to locate the catch basin or manhole.  |

## Maintenance Standards Control Structures

| Maintenance Code | Type              | Conditions When Maintenance Is Needed  |
|------------------|-------------------|--|
| 1                | Sediment          | Sediment depth in bottom of structure exceeds 6" or sediment depth within 6 inches of the invert of the lowest pipe.   |
| 2                | Trash & Debris    | <p>Trash or debris exceeds 60% of sump depth.</p> <p>Trash or debris within 6 inches of the orifice plate or lowest pipe invert.</p> <p>Trash or debris blocking openings in the control structure.</p> <p>Trash or debris blocking more than 1/3 of any inlet or outlet pipe.</p> <p>Dead animals or vegetation that generate odors and cause complaints or dangerous gases (e.g., methane).</p>  |
| 3                | Vegetation        | Vegetation growing in inlet/outlet pipe joints that is more than six inches tall.  |
| 4                | Water Quality     | Any evidence of oil, gasoline, contaminants or other pollutants.   |
| 5                | Water Flow        | Impeded water flow due to vegetation or sediment (use appropriate code from above).  |
| 6                | Erosion           | N/A  |
| 7                | Cover/Frame/Grate | <p>Cover is missing or only partially in place.</p> <p>One maintenance person cannot remove lid after applying normal lifting pressure.</p> <p>Frame separated by more than 3/4 inch from top slab.</p> <p>Frame not securely attached.</p> <p>Locking mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread.</p>   |
| 8                | Structure         | <p>Damaged or missing orifice plate.</p> <p>Control structure is not securely attached to manhole wall.</p> <p>Control structure is not in upright position.</p> <p>Connection between control structure and outlet pipe is not water tight.</p> <p>Holes (other than design openings) in the control structure.</p> <p>Cleanout gate is not watertight, is missing, is rusted, or cannot be moved up and down by one maintenance person applying normal pressure.</p> <p>Top slab with holes larger than 2 square inches or cracks wider than 1/4 inch.</p> <p>Fractures or cracks in basin walls or bottom.</p> <p>Grout at inlet/outlet pipes has separated or cracked wider than 1/2 inch and longer than one foot.</p> <p>Soil is entering the catch basin through cracks in the structure.</p> <p>Settlement has created a safety, function, or design problem.</p> <p>Field inspector judges that structure is unsound.</p> |
| 9                | Damaged Pipes     | Inlet or outlet piping damaged or broken and in need of repair.  |

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed   |
|------------------|--------------------------|---|
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g. standing water for more than 72 hours in areas accessible to mosquitoes.) |
| 11               | Other                    | Ladder is unsafe due to missing rungs, not securely attached to basin wall, misalignment, rust, cracks, or sharp edges.         |
| 12               | Could Not Locate         | Field inspectors are unable to locate the structure.  |

## Maintenance Standards Conveyance Systems (Pipes and Ditches)

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed  |
|------------------|--------------------------|--|
| 1                | Sediment                 | Sediment or debris exceeds 20% of pipe diameter or 20% of debris barrier openings.<br>Accumulated sediment that exceeds 20% of the design depth of the ditch.  |
| 2                | Trash & Debris           | Trash and debris accumulated in pipe or ditch.<br>Visual evidence of dumping   |
| 3                | Vegetation               | Vegetation reduces movement of water through pipes.<br>Excessive vegetation that reduces free movement of water through ditches.   |
| 4                | Water Quality            | Any evidence of oil, gasoline, contaminants or other pollutants.<br>Water flowing in pipes or ditch during dry weather – report as potential illicit discharge concern.  |
| 5                | Water Flow               | Impeded water flow due to vegetation or sediment (use appropriate code from above).<br>Standing water in the pipe or swale between storm events.   |
| 6                | Erosion                  | Erosion damage over 2 inches deep where cause is still present or there is potential for continued erosion.<br>Native soil is visible beneath the rock lining of a conveyance ditch.   |
| 7                | Cover/Frame/Grate        | N/A  |
| 8                | Structure                | Debris barrier/trash rack is missing or not attached to pipe.<br>Debris barrier/trash rack bars are bent by more than 3 inches.<br>Debris barrier/trash rack bars are loose or rust is causing 50% deterioration to any part of the barrier. |
| 9                | Damaged Pipes            | Protective coating is damaged or rust is causing more than 50% deterioration to any part of pipe.<br>Any dent that decreases the flow area by more than 20% or puncture that impacts performance.  |
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g. standing water for more than 72 hours in areas accessible to mosquitoes.)  |
| 11               | Other                    |  |
| 12               | Could Not Locate         | Field inspectors are unable to locate the pipe or ditch.   |



## Maintenance Standards Drywells

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed   |
|------------------|--------------------------|---|
| 1                | Sediment                 | Sediment depth in bottom of structure exceeds 6".   |
| 2                | Trash & Debris           | Trash or debris exceeds 2 feet or impedes flow from inlet pipes.<br>Trash or debris blocks more than 1/3 of any inlet or outlet pipe.<br>Dead animals or vegetation that generate odors and cause complaints or dangerous gases (e.g., methane).  |
| 3                | Vegetation               | Vegetation growing in inlet/outlet pipe joints that is more than six inches tall.<br>Root systems entering drywell.   |
| 4                | Water Quality            | Any evidence of oil, gasoline, contaminants or other pollutants.<br>Water flowing into drywell during dry weather – report as potential illicit discharge concern.  |
| 5                | Water Flow               | Facility does not drain within 72 hours.<br>Impeded water flow due to vegetation or sediment (use appropriate code from above).   |
| 6                | Erosion                  | N/A   |
| 7                | Cover/Frame/Grate        | Cover is missing or only partially in place.<br>One maintenance person cannot remove lid after applying normal lifting pressure.<br>Frame separated by more than 3/4 inch from top slab.<br>Frame not securely attached.<br>Locking mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread. |
| 8                | Structure                | Top slab with holes larger than 2 square inches or cracks wider than 1/4 inch.<br>Grout at inlet/outlet pipes has separated or cracked wider than 1/2 inch and longer than one foot.<br>Settlement has created a safety, function, or design problem.<br>Field inspector judges that structure is unsound.  |
| 9                | Damaged Pipes            | Inlet piping damaged or broken and in need of repair.   |
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g. standing water for more than 72 hours in areas accessible to mosquitoes.)   |
| 11               | Other                    |   |
| 12               | Could Not Locate         | Field inspectors are unable to locate the drywell.  |

## Maintenance Standards Energy Dissipators

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed  |
|------------------|--------------------------|--|
| 1                | Sediment                 | Accumulated sediment exceeds 20% of the design depth.<br>Over 1/2 of perforations in dispersion pipe are plugged with sediment.  |
| 2                | Trash & Debris           | Visual evidence of dumping<br>Over 1/2 of perforations in dispersion pipe are plugged with trash or debris.  |
| 3                | Vegetation               | Excessive vegetation reduces free movement of water through the flow spreader or energy dissipator.  |
| 4                | Water Quality            | Any evidence of oil, gasoline, contaminants or other pollutants.<br>Water flowing through facility during dry weather – report as potential illicit discharge concern.   |
| 5                | Water Flow               | Visual evidence of water discharging at concentrated points from the dissipator (normal condition is a “sheet flow” of water from the facility).<br>Water in receiving area has potential to cause significant erosion or landslide. |
| 6                | Erosion                  | Only one layer of rock above native soil in an area five square feet or larger.<br>Any exposure of native soil within rock pad area.<br>Soil erosion in or adjacent to rock pad.   |
| 7                | Cover/Frame/<br>Grate    | N/A  |
| 8                | Structure                | Flow spreader has deteriorated to 1/2 of original size or concentrated worn spots exceeding one square foot making structure unsound.<br>See Conveyance System standards for pipes and debris barriers/trash racks.                  |
| 9                | Damaged Pipes            | See Conveyance System standards for pipes and debris barriers/trash racks.   |
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g. standing water for more than 72 hours in areas accessible to mosquitoes.)  |
| 11               | Other                    |  |
| 12               | Could Not Locate         | Field inspectors are unable to locate the energy dissipator facility.  |

## Maintenance Standards Green Roofs (or Roof Gardens)

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed   |
|------------------|--------------------------|---|
| 1                | Sediment                 | Inlets to roof drainage system clogged with sediment.   |
| 2                | Trash & Debris           | Inlets to roof drainage system clogged with trash or debris.<br>Trash and debris accumulated on the roof.   |
| 3                | Vegetation               | Planted vegetation becomes excessively tall.<br>Presence of poisonous or nuisance vegetation or noxious weeds.<br>Planted vegetation is sparse or bare or eroded patches occur in more than 10% of roof garden. |
| 4                | Water Quality            | Any evidence of oil, gasoline, contaminants or other pollutants.  |
| 5                | Water Flow               | Water stands in the green roof between storms and does not drain freely.  |
| 6                | Erosion                  | Eroded or scoured areas due to wind or water.   |
| 7                | Cover/Frame/Grate        | N/A   |
| 8                | Structure                | Membrane or roof structure is compromised by either roots and/or water damage.  |
| 9                | Damaged Pipes            | N/A   |
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g., standing water for more than 72 hours in areas accessible to mosquitoes)   |
| 11               | Other                    | Irrigation system leaking or malfunctioning.  |
| 12               | Could Not Locate         | Field inspectors are unable to locate the facility.   |

## Maintenance Standards Infiltration Trenches

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed   |
|------------------|--------------------------|---|
| 1                | Sediment                 | Two inches or more of accumulated sediment.<br>Percolation test indicates infiltration rate is less than 90% of design capacity.<br>Inlet pipe is clogged with sediment.                          |
| 2                | Trash & Debris           | Trash or debris impeding water flow.<br>Visual evidence of dumping.<br>Inlet pipe is clogged with trash and debris.   |
| 3                | Vegetation               | Poisonous or nuisance vegetation constituting a hazard to maintenance personnel or the public.<br>Evidence of noxious weeds.  |
| 4                | Water Quality            | Evidence of oil, gasoline, contaminants, or other pollutants.   |
| 5                | Water Flow               | Little or no water visibly flows through trench during heavy rain storms.   |
| 6                | Erosion                  | Erosion damage over 2 inches deep where cause is still present or there is potential for continued erosion.   |
| 7                | Cover/Frame/Grate        | N/A   |
| 8                | Structure                | N/A   |
| 9                | Damaged Pipes            | Protective coating is damaged or rust is causing more than 50% deterioration to any part of pipe.<br>Any dent that decreases the flow area by more than 20% or puncture that impacts performance. |
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g. standing water for more than 72 hours in areas accessible to mosquitoes.)   |
| 11               | Other                    |   |
| 12               | Could Not Locate         | Field inspectors are unable to locate the trench.   |

## Maintenance Standards Media Filters (e.g. Stormfilter)

*Note: Manufacturer maintenance standards should supersede those shown below.*

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed   |
|------------------|--------------------------|---|
| 1                | Sediment                 | Sediment depth on filters exceeds 1/4-inch.<br>Sediment depth in vault exceeds 6-inches in first chamber.<br>Drain pipes and/or clean-outs become full with sediment.   |
| 2                | Trash & Debris           | Trash and debris accumulated on compost filter bed.<br>Drain pipes and/or clean-outs become full with trash or debris.  |
| 3                | Vegetation               | Root systems entering the structure.  |
| 4                | Water Quality            | Any evidence of oil, gasoline, contaminants or other pollutants.<br>Water flowing into the system during dry weather – report as potential illicit discharge concern.   |
| 5                | Water Flow               | Drawdown of water through the media takes longer than 1 hour and overflow occurs frequently.<br>Flows do not properly enter filter cartridges.  |
| 6                | Erosion                  | N/A   |
| 7                | Cover/Frame/Grate        | Cover is missing or only partially in place.<br>One maintenance person cannot remove lid after applying normal lifting pressure.<br>Locking mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread. |
| 8                | Structure                | Cracks wider than 1/2-inch.<br>Evidence of soil particles entering structure through cracks.<br>The vault is not structurally sound.<br>Baffles corroding, cracking, warping and/or showing signs of failure.   |
| 9                | Damaged Pipes            | Any part of the pipes that are crushed or damaged due to corrosion and/or settlement.<br>Inlet piping damaged or broken and in need of repair.  |
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g. standing water for more than 72 hours in areas accessible to mosquitoes.)   |
| 11               | Other                    | Ladder is corroded or deteriorated, not functioning properly, not securely attached to structural wall, missing rungs, has cracks and/or is misaligned.   |
| 12               | Could Not Locate         | Field inspectors are unable to locate the facility.   |

## Maintenance Standards Oil/Water Separators

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed   |
|------------------|--------------------------|---|
| 1                | Sediment                 | Sediment depth in bottom of structure exceeds 6-inches.   |
| 2                | Trash & Debris           | Trash and debris accumulation in vault, or pipe inlet/outlet, floatables and non-floatables.  |
| 3                | Vegetation               | Root systems entering the structure.  |
| 4                | Water Quality            | Discharge shows obvious signs of poor water quality.<br>Oil accumulations that exceed 1-inch at the surface of the water.<br>Water flowing into the system during dry weather – report as potential illicit discharge concern.  |
| 5                | Water Flow               | Water is not flowing properly through the facility.   |
| 6                | Erosion                  | N/A   |
| 7                | Cover/Frame/Grate        | Cover is missing or only partially in place.<br>One maintenance person cannot remove lid after applying normal lifting pressure.<br>Locking mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread. |
| 8                | Structure                | Cracks wider than 1/2-inch.<br>Any evidence of soil entering the structure through cracks.<br>The vault is not structurally sound.<br>Baffles or walls corroding, cracking, warping and/or showing signs of failure.  |
| 9                | Damaged Pipes            | Inlet or outlet piping damaged or broken and in need of repair.   |
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g. standing water for more than 72 hours in areas accessible to mosquitoes.)   |
| 11               | Other                    | Ladder is corroded or deteriorated, not functioning properly, not securely attached to structural wall, missing rungs, has cracks and/or is misaligned.   |
| 12               | Could Not Locate         | Field inspectors are unable to locate the facility.   |

**Maintenance Standards**  
**Ponds: Detention, Infiltration, Evaporation, Water Quality**

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed   |
|------------------|--------------------------|---|
| 1                | Sediment                 | Inlet/Outlet pipe clogged with sediment.<br>Sediment accumulation in pond bottom exceeds 6 inches or 10% of the designed pond depth unless otherwise specified.   |
| 2                | Trash & Debris           | Trash and debris exceeding 5 cubic feet (equivalent to one standard size garbage can) per 1,000 square feet of pond area.<br>Visual evidence of dumping.<br>Inlet/Outlet pipe clogged with trash or debris.   |
| 3                | Vegetation               | Poisonous or nuisance vegetation constituting a hazard to maintenance personnel or the public.<br>Evidence of noxious weeds.<br>Tree growth does not allow access or interferes with slope mowing, silt removal, vactoring, or equipment movements.<br>Dead, diseased, or dying trees identified by a certified Arborist.<br>Tree growth on berms over 4 feet high that may lead to piping and eventual berm failure.<br>Tree growth on emergency spillways.  |
| 4                | Water Quality            | Prevalent and visible oil sheen.<br>Evidence of oil, gasoline, contaminants or other pollutants.  |
| 5                | Water Flow               | First cell (if applicable) is empty, doesn't hold water.  |
| 6                | Erosion                  | Erosion of the pond's side slopes exceeding 2 inches deep where there is potential for continued erosion.<br>Scouring of the pond bottom exceeding 6-inches deep, or where continued erosion is prevalent.  |
| 7                | Cover/Frame/Grate        | See Control Structures for additional maintenance standards.  |
| 8                | Structure                | See Control Structures for additional maintenance standards.<br>Liner is visible and has more than three 1/4-inch holes in it.<br>Any part of the berm or emergency spillway that has settled 4 inches lower than the design elevation.<br>Discernable water flow through pond berm. (Consult with Geotechnical Engineer to evaluate condition and recommend repair.)<br>Emergency spillway: only one layer of rock exists above native soil in area five square feet or larger, or any exposure of native soil at the top of flow path of spillway. (Rip-rap on inside slopes need not be replaced.)<br>Internal spillway not level. |
| 9                | Damaged Pipes            | See Conveyance System standards for pipes and debris barriers/trash racks.  |
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g. standing water for more than 72 hours in areas accessible to mosquitoes.)   |

| Maintenance Code | Type             | Conditions When Maintenance Is Needed   |
|------------------|------------------|---|
| 11               | Other            | <p>Evidence of rodent holes or any evidence of water piping through dam or berm via rodent holes. (Consult with Geotechnical Engineer to evaluate condition and recommend repair.)</p> <p>Beaver dam within the pond, resulting in change or function of the facility.</p> <p>Insects such as wasps and hornets that interfere with maintenance activities.</p> |
| 12               | Could Not Locate | Field inspectors are unable to locate the pond.   |



## Maintenance Standards Porous Pavement

| Maintenance Code | Type                           | Conditions When Maintenance Is Needed   |
|------------------|--------------------------------|---|
| 1                | Sediment                       | Porous pavement clogging due to organic matter and sediment.  |
| 2                | Trash & Debris                 | Porous pavement clogging due to trash or debris.<br>Trash and debris accumulated on overflow devices.                         |
| 3                | Vegetation                     | Planted vegetation becomes excessively tall.<br>Nuisance weeds and other vegetation start to take over.                       |
| 4                | Water Quality                  | Any evidence of oil, gasoline, contaminants or other pollutants   |
| 5                | Water Flow                     | N/A   |
| 6                | Erosion                        | Soil from adjacent areas washed onto pavement.  |
| 7                | Cover/Frame/<br>Grate          | N/A   |
| 8                | Structure                      | Cracked or moving edge restraints.<br>Cracked or settled pavement<br>Aggregate loss in pavers from settling or power washing. |
| 9                | Damaged<br>Pipes               | N/A   |
| 10               | Mosquito<br>Vector<br>Breeding | N/A   |
| 11               | Other                          |   |
| 12               | Could Not<br>Locate            |   |

## Maintenance Standards Sedimentation Manholes

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed   |
|------------------|--------------------------|---|
| 1                | Sediment                 | Sediment depth in bottom of structure exceeds 6"  |
| 2                | Trash & Debris           | Accumulated trash or debris exceeding 12 inches or impeding flow from inlet or outlet pipes.  |
| 3                | Vegetation               | N/A   |
| 4                | Water Quality            | Discharge shows obvious signs of poor water quality.<br>Water flowing into the system during dry weather – report as potential illicit discharge concern.   |
| 5                | Water Flow               | N/A   |
| 6                | Erosion                  | N/A   |
| 7                | Cover/Frame/<br>Grate    | Cover is missing or only partially in place.<br>One maintenance person cannot remove lid after applying normal lifting pressure.<br>Locking mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread. |
| 8                | Structure                | Any openings or voids allowing material to be transported into facility.<br>Cracks wider than 1/2-inch and any evidence of soil particles entering the structure through the cracks.<br>Field inspector determined the vault is not structurally sound.                 |
| 9                | Damaged Pipes            | Inlet or outlet piping damaged or broken and in need of repair.   |
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g. standing water for more than 72 hours in areas accessible to mosquitoes.)   |
| 11               | Other                    | Ladder is unsafe due to missing rungs, misalignment, not securely attached to structure wall, rust, or cracks.  |
| 12               | Could Not Locate         | Field inspectors are unable to locate the facility.   |

## Maintenance Standards Swales: Biofiltration, Grassy, Infiltration

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed  |
|------------------|--------------------------|--|
| 1                | Sediment                 | Sediment depth exceeds 2 inches.<br>Inlet/outlet areas clogged with sediment.  |
| 2                | Trash & Debris           | Trash and debris accumulated in the swale.<br>Inlet/outlet areas clogged with trash and debris.  |
| 3                | Vegetation               | Grass is sparse or bare or eroded patches occur in more than 10% of the bottom of the swale.<br>Grass is taller than 10 inches.<br>Nuisance weeds or other vegetation starting to take over.<br>Excessive shading causing poor grass growth. |
| 4                | Water Quality            | Any evidence of oil, gasoline, contaminants or other pollutants.<br>Water flowing through facility during dry weather – report as potential illicit discharge concern.   |
| 5                | Water Flow               | Standing water in swale between storms does not drain freely.<br>Flow spreader uneven or clogged where flows are not uniformly distributed through the swale.  |
| 6                | Erosion                  | Small quantities of water continually flow causing an eroded, muddy channel at the bottom.<br>Eroded or scoured grassy swale bottom due to flow channelization, or higher flows.   |
| 7                | Cover/Frame/Grate        | N/A  |
| 8                | Structure                | N/A  |
| 9                | Damaged Pipes            | See Conveyance System standards for pipes and debris barriers/trash racks.   |
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g. standing water for more than 72 hours in areas accessible to mosquitoes.)  |
| 11               | Other                    |  |
| 12               | Could Not Locate         | Field inspectors are unable to locate the swale.   |

## Maintenance Standards Vaults, Tanks, and Storage Pipes

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed   |
|------------------|--------------------------|---|
| 1                | Sediment                 | Sediment depth exceeds 10% of diameter of storage area for half length of storage vault or any point depth exceeds 15% of diameter.<br><br>(Example: 72-inch storage tank would require cleaning when sediment reaches depth of 7 inches for more than 1/2 length of tank.)   |
| 2                | Trash & Debris           | Trash or debris exceeds the limits for sediment described above.  |
| 3                | Vegetation               | N/A   |
| 4                | Water Quality            | Prevalent and visible oil sheen.<br>Evidence of oil, gasoline, contaminants or other pollutants.  |
| 5                | Water Flow               | First cell (if applicable) is empty, doesn't hold water.  |
| 6                | Erosion                  | N/A   |
| 7                | Cover/Frame/Grate        | Cover is missing or only partially in place.<br>One maintenance person cannot remove lid after applying normal lifting pressure.<br>Locking mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread.   |
| 8                | Structure                | See Control Structures for additional maintenance standards.<br>Openings or voids between tank or pipe sections allowing material to be transported into facility.<br>Tank/pipe is bent more than 10% of its design shape.<br>Cracks wider than 1/2-inch.<br>Evidence of soil particles entering structure through cracks.<br>The vault is not structurally sound.<br>One-half of the cross section of an air vent is blocked or vent is damaged. |
| 9                | Damaged Pipes            | Inlet or outlet piping damaged or broken and in need of repair.   |
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g. standing water for more than 72 hours in areas accessible to mosquitoes.)   |
| 11               | Other                    | Ladder is unsafe due to missing rungs, misalignment, not securely attached to structure wall, rust, or cracks.  |
| 12               | Could Not Locate         | Field inspectors are unable to locate the facility.   |

## Maintenance Standards Vegetated Filter Strips

| Maintenance Code | Type                     | Conditions When Maintenance Is Needed  |
|------------------|--------------------------|--|
| 1                | Sediment                 | Sediment depth exceeds 2 inches.   |
| 2                | Trash & Debris           | Trash and debris accumulated on the filter strip.  |
| 3                | Vegetation               | Grass taller than 10-inches.<br>Nuisance weeds or other vegetation starts to take over.<br>Planted vegetation is sparse or bare or eroded patches occur in more than 10% of the filter strip area. |
| 4                | Water Quality            | Any evidence of oil, gasoline, contaminants or other pollutants.<br>Water flowing through facility during dry weather – report as potential illicit discharge concern.                             |
| 5                | Water Flow               | Visual evidence of water discharging at concentrated points (rather than sheet flow) onto the filter strip.  |
| 6                | Erosion                  | Eroded or scoured areas due to flow channelization or higher flows.  |
| 7                | Cover/Frame/Grate        | N/A  |
| 8                | Structure                | Flow spreader uneven or clogged so that flows are not uniformly distributed through filter width.  |
| 9                | Damaged Pipes            | See Conveyance System standards for pipes and debris barriers/trash racks.   |
| 10               | Mosquito Vector Breeding | Suitable habitat exists for mosquito production (e.g. standing water for more than 72 hours in areas accessible to mosquitoes.)  |
| 11               | Other                    |  |
| 12               | Could Not Locate         | Field inspectors are unable to locate the filter strip.  |