

Inspection and Maintenance Checklist

PLANTER BOX

Property Address _____

Property Owner _____

Treatment Measure No. _____ Inspection Date _____

Inspector(s) _____

Type of Inspection:

Monthly Pre-wet season Post-wet season After heavy runoff

Other: _____

Defect	Conditions when maintenance is needed	Maintenance needed?	Comments ^a	Results expected when maintenance is performed
1. Standing water	When water stands in the planter box between storms and does not drain within 24 hours after rainfall.			There should be no areas of standing water after inflow has ceased. Any of the following could apply: sediment or trash blockages removed, mulch replaced, soil media surface scarified, underdrains flushed.
2. Trash and debris	Trash and debris accumulated in the planter box and around the inlet and outlet.			Trash and debris removed and disposed of properly.
3. Sediment	Evidence of accumulated sediment in the planter box.			Material removed so that there is no clogging or blockage. Material is disposed of properly.
4. Erosion	Channels have formed around inlets, there are areas of bare soil, or there is other evidence of erosion.			Obstructions and sediment removed so that water flows freely and disperses over a wide area. Obstructions and sediment are disposed of properly.
5. Vegetation	Vegetation is dead, diseased, or overgrown.			Vegetation is healthy and attractive. Grass maintained at least 3 inches in height.
6. Mulch	Mulch is missing or patchy; areas of bare earth are exposed, or mulch layer is less than 3 inches deep.			All bare earth is covered, except mulch is kept 6 inches away from trunks of trees and shrubs. Mulch is even at a depth of 3 inches.
7. Inlet/outlet	Sediment or debris accumulations.			Inlet/outlet is clear of sediment and debris and allows water to flow freely.
8. Affected impervious areas or structures	Obvious effects on surrounding impervious areas or structures.			Hydraulic restriction layers prevent impacts from infiltration to surrounding structures.
9. Miscellaneous	Any condition not covered above that needs attention for the planter box to function as designed.			The design specifications are met.

^a Describe the maintenance completed; if the needed maintenance was not conducted, note when it will be done.

Inspection and Maintenance Checklist

GREEN ROOF

Property Address _____
 Property Owner _____
 Treatment Measure No. _____ Inspection Date _____
 Inspector(s) _____
 Type of Inspection:
 Monthly Pre-wet season Post-wet season After heavy runoff
 Other: _____

Defect	Conditions when maintenance is needed	Maintenance needed?	Comments ^a	Results expected when maintenance is performed
1. Standing water	Roof drainage system is clogged.			There should be no areas of standing water on the green roof. The drainage system is inspected for clogging conditions and repaired or replaced as needed.
2. Erosion	Areas of scoured media or bare roof.			Green roof media stays in place and does not migrate across or erode from roof surface. Eroded media replaced and re-vegetated. If problem is recurrent, consider media more resistant to wind erosion or installing media retention components.
3. Vegetation	Vegetation is dead, missing, incorrect or unwanted.			Areas of missing vegetation replanted. Plant species are appropriate to conditions and drainage system is functioning properly. If problem is recurrent, consider irrigation during establishment or use alternative species. Unwanted vegetation removed and replaced with appropriate species. Evaluate growing conditions for cause of invasive vegetation.
4. Leaking roof	Roof liner has failed.			Evaluate liner for cause of leaks. Repair or replace as necessary.

^a Describe the maintenance completed; if the needed maintenance was not conducted, note when it will be done.

Inspection and Maintenance Checklist

BIOSWALE

Property Address _____
 Property Owner _____
 Treatment Measure No. _____ Inspection Date _____
 Inspector(s) _____
 Type of Inspection:
 Monthly Pre-wet season Post-wet season After heavy runoff
 Other: _____

Defect	Conditions when maintenance is needed	Maintenance needed?	Comments ^a	Results expected when maintenance is performed
1. Standing water	Water stands in the bioswale between storms and does not drain within 24 hours after rainfall.			There should be no areas of standing water once inflow has ceased. Any of the following could apply: sediment or trash blockages removed, grade from head to foot of bioretention area improved, media surface scarified, underdrains flushed.
2. Trash and debris	Trash and debris accumulated in the bioswale and around the inlet and outlet.			Trash and debris removed from the bioswale and disposed of properly.
3. Sediment	Evidence of accumulated sediment in the bioswale.			Material removed so that there is no clogging or blockage. Material is disposed of properly.
4. Erosion	Channels have formed around inlets, there are areas of bare soil, or there is other evidence of erosion.			Obstructions and sediment removed so that water flows freely and disperses throughout the bioswale. Obstructions and sediment are disposed of properly.
5. Vegetation	Vegetation is dead, diseased, or overgrown.			Vegetation is healthy and attractive. Grass is maintained at least 3 inches in height.
6. Mulch (if used)	Mulch is missing or patchy. Areas of bare earth are exposed or mulch layer is less than 3 inches deep.			All bare earth is covered, except mulch is kept 6 inches away from trunks of trees and shrubs. Mulch is even at a depth of 3 inches.
7. Inlet/outlet	Sediment or debris accumulations.			Inlet/outlet is clear of sediment and debris and allows water to flow freely.
8. Miscellaneous	Any condition not covered above that needs attention for the bioswale to function as designed.			The design specifications are met.

^a Describe the maintenance completed; if the needed maintenance was not conducted, note when it will be done.

Inspection and Maintenance Checklist

BIORETENTION

Property Address _____
 Property Owner _____
 Treatment Measure No. _____ Inspection Date _____
 Inspector(s) _____
 Type of Inspection:
 Monthly Pre-wet season Post-wet season ____ After heavy runoff
 Other: _____

Defect	Conditions when maintenance is needed	Maintenance needed?	Comments ^a	Results expected when maintenance is performed
1. Standing water	Water stands in the bioretention area between storms and does not drain within 24 hours after rainfall.			There should be no areas of standing water once inflow has ceased. Any of the following could apply: sediment or trash blockages removed, grade from head to foot of bioretention area improved, media surface scarified, underdrains flushed.
2. Trash and debris	Trash and debris accumulated in the bioretention area and around the inlet and outlet.			Trash and debris removed from the bioretention area and disposed of properly.
3. Sediment	Evidence of accumulated sediment in the bioretention area.			Material removed so that there is no clogging or blockage. Material is disposed of properly.
4. Erosion	Channels have formed around inlets, there are areas of bare soil, or there is other evidence of erosion.			Obstructions and sediment removed so that water flows freely and disperses over a wide area. Obstructions and sediment are disposed of properly.
5. Vegetation	Vegetation is dead, diseased or overgrown.			Vegetation is healthy and attractive. Grass is maintained at least 3 inches in height.
6. Mulch	Mulch is missing or patchy. Areas of bare earth are exposed or mulch layer is less than 3 inches deep.			All bare earth is covered, except mulch is kept 6 inches away from trunks of trees and shrubs. Mulch is even at a depth of 3 inches.
7. Inlet/outlet	Sediment accumulations.			Inlet/outlet is clear of sediment and debris and allows water to flow freely.
8. Miscellaneous	Any condition not covered above that needs attention for the bioretention area to function as designed.			The design specifications are met.

^a Describe the maintenance completed; if the needed maintenance was not conducted, note when it will be done.

Inspection and Maintenance Checklist

STORMWATER WETLAND

Property Address _____
 Property Owner _____
 Treatment Measure No. _____ Inspection Date _____
 Inspector(s) _____
 Type of Inspection:
 Monthly Pre-wet season Post-wet season ____ After heavy runoff
 Other: _____

Defect	Conditions when maintenance is needed	Maintenance needed?	Comments ^a	Results expected when maintenance is performed
1. Sediment	Evidence of accumulated sediment in the forebay or wetland body.			Accumulated sediment is excavated and disposed of properly.
2. Erosion	Evidence of erosion or sloughing on embankment.			Eroded areas filled with suitable material and vegetation established.
3. Vegetation	Embankment vegetation is dead, diseased, or overgrown; trees or shrubbery are growing on the embankment; there are areas of unwanted or inappropriate vegetation. There are visible dead plants or extensive bare areas in the wetland area.			Vegetation reestablished, trees or shrubs removed from the embankment and replaced with grass; embankment vegetation is mowed, invasive vegetation removed. Dead or missing wetland plants replaced with appropriate species.
4. Clogged orifice	Debris or vegetation is restricting flow through the orifice.			Debris is removed from orifice to allow desired drawdown.
5. Clogged riser or bypass structure	Debris or vegetation is impeding flow.			Debris is removed from the riser; consider trash rack installation.
6. Riser, barrel, or embankment failure	Separation of structural components.			Professional Engineer should conduct analysis of structural condition and recommend repairs.
7. Low water level	Low-level release valve is leaking or liner has failed.			Low-level release valve replaced or repaired; liner repaired.
8. Outfall	Outfall exhibits erosion and scour.			Scoured areas repaired.

^a Describe the maintenance completed; if the needed maintenance was not conducted, note when it will be done.

Inspection and Maintenance Checklist

RAIN GARDEN

Property Address _____
 Property Owner _____
 Treatment Measure No. _____ Inspection Date _____
 Inspector(s) _____
 Type of Inspection:
 Monthly Pre-wet season Post-wet season ____ After heavy runoff
 Other: _____

Defect	Conditions when maintenance is needed	Maintenance needed?	Comments ^a	Results expected when maintenance is performed
1. Standing water	Water stands in the bioretention area between storms and does not drain within 24 hours after rainfall.			There should be no areas of standing water once inflow has ceased. Any of the following could apply: sediment or trash blockages removed, grade from head to foot of bioretention area improved, media surface scarified, underdrains flushed.
2. Trash and debris	Trash and debris accumulated in the bioretention area and around the inlet and outlet.			Trash and debris removed from the bioretention area and disposed of properly.
3. Sediment	Evidence of accumulated sediment in the bioretention area.			Material removed so that there is no clogging or blockage. Material is disposed of properly.
4. Erosion	Channels have formed around inlets, there are areas of bare soil, or there is other evidence of erosion.			Obstructions and sediment removed so that water flows freely and disperses over a wide area. Obstructions and sediment are disposed of properly.
5. Vegetation	Vegetation is dead, diseased or overgrown.			Vegetation is healthy and attractive. Grass is maintained at least 3 inches in height.
6. Mulch	Mulch is missing or patchy. Areas of bare earth are exposed or mulch layer is less than 3 inches deep.			All bare earth is covered, except mulch is kept 6 inches away from trunks of trees and shrubs. Mulch is even at a depth of 3 inches.
7. Inlet/outlet	Sediment accumulations.			Inlet/outlet is clear of sediment and debris and allows water to flow freely.
8. Miscellaneous	Any condition not covered above that needs attention for the bioretention area to function as designed.			The design specifications are met.

^a Describe the maintenance completed; if the needed maintenance was not conducted, note when it will be done.

Inspection and Maintenance Checklist

CISTERN

Property Address _____
 Property Owner _____
 Treatment Measure No. _____ Inspection Date _____
 Inspector(s) _____
 Type of Inspection:
 Monthly Pre-wet season Post-wet season ____ After heavy runoff
 Other: _____

Defect	Conditions when maintenance is needed	Maintenance needed?	Comments ^a	Results expected when maintenance is performed
1. Low flow	Gutters are full of debris and overflowing.			Gutters should be clear and free-flowing when gutters are cleaned and gutter guards or screens are installed.
2. Inlet	Filters are clogged or full.			Filters are clean and free of trash and debris.
3. First flush diverter	First flush filter is full or clogged causing permanent flow to the cistern.			First flush is diverted away from the cistern when the first flush diverter valve is removed and cleaned.
4. Cistern does not drain within 48 hours	Outlet is clogged.			Cistern completely drains in less than 48 hours.
5. Cistern drains in less than 24 hours	Cistern leaks or outlet allows excessive flows.			Cistern drains in 24 to 48 hours.
6. Miscellaneous	Any condition not covered above that needs attention for the cistern to function as designed.			The design specifications are met.

^a Describe the maintenance completed; if the needed maintenance was not conducted, note when it will be done.

Inspection and Maintenance Checklist

VEGETATED FILTER STRIP

Property Address _____
 Property Owner _____
 Treatment Measure No. _____ Inspection Date _____
 Inspector(s) _____
 Type of Inspection:
 Monthly Pre-wet season Post-wet season ____ After heavy runoff
 Other: _____

Defect	Conditions when maintenance is needed	Maintenance needed?	Comments ^a	Results expected when maintenance is performed
1. Sediment	Sediment depth exceeds 2 inches or covers vegetation.			Sediment deposits removed and surface re-leveled to maintain sheet flow over the filter strip.
2. Erosion	Eroded or scoured areas due to flow channelization or high flows.			No erosion or scouring evident. For ruts or bare areas less than 12 inches wide, damaged areas repaired by filling with crushed gravel. Over time the grass will start to cover the rock.
3. Trash and debris	Trash and debris accumulated on the filter strip.			Trash and debris removed from filter strip and flow spreading devices.
4. Visual contaminants and pollution	Any visual evidence of oil, gasoline contaminants, or other pollutants.			No visual contaminants or pollutants present.
5. Vegetation	When grass becomes excessively tall (greater than 10 inches). Evidence of nuisance weeds and other unwanted vegetation. Vegetation seems crowded or overgrown.			Grass mowed to a height of 2–5 inches and clippings removed. Nuisance vegetation controlled such that flow is not impeded using Integrated Pest Management (IPM) techniques if applicable. For more information, see http://www.ipm.ucdavis.edu . Minor vegetation removal and thinning. Mowing berms and surroundings. Facility looks well kept.
6. Flow spreader	Flow spreader uneven or clogged so that flows are not uniformly distributed through the entire filter width.			No visual erosion in the filter strip or ponding behind the flow spreader.

^a Describe the maintenance completed; if the needed maintenance was not conducted, note when it will be done.

Inspection and Maintenance Checklist

VEGETATED SWALE

Property Address _____
 Property Owner _____
 Treatment Measure No. _____ Inspection Date _____
 Inspector(s) _____
 Type of Inspection:
 Monthly Pre-wet season Post-wet season After heavy runoff
 Other: _____

Defect	Conditions when maintenance is needed	Maintenance needed?	Comments ^a	Results expected when maintenance is performed
1. Standing water	When water stands in the swale between storms and does not drain freely.			There should be no areas of standing water after inflow has ceased. Outlet structures and underdrain (if installed) should drain freely.
2. Trash and debris	Trash and debris that exceeds 5 cubic feet per 1,000 square feet (one standard garbage can).			Trash and debris are removed from the swale.
3. Visual contaminants and pollution	Visual evidence of oil, gasoline, contaminants, or other pollutants.			No visual evidence of contaminants or pollutants present.
4. Sediment	Sediment depth exceeds 2 inches or covers vegetation.			Sediment deposits removed without significant disturbance of the vegetation. Swale is level from side to side and drains freely toward outlet.
5. Erosion	Eroded or scoured areas due to flow channelization or high flows.			No erosion or scouring in swale bottom. For ruts or bare areas less than 12 inches wide, damaged areas repaired by filling with crushed gravel. Over time the grass will start to cover the rock.
6. Vegetation	Grass is sparse or bare or eroded patches occur in more than 10% of the swale bottom.			Vegetation coverage is in more than 90% of the swale bottom. Poorly vegetated areas of the swale bottom are re-planted with plugs of grass from the upper slope and reseeded in locations where plugs were taken. Plugs are planted in the swale bottom with no gaps, or reseeded into loosened, fertile soil.