



UNIVERSITY OF MINNESOTA

## Stormwater Treatment: Assessment and Maintenance

### Field Data Sheet for Level 1 Assessment: Visual Inspection Filtration Practices

Inspector's Name(s): \_\_\_\_\_  
 Date of Inspection: \_\_\_\_\_  
 Location of the filtration practice: \_\_\_\_\_  
 Address or Intersection: \_\_\_\_\_  
 Latitude, Longitude: \_\_\_\_\_  
 Date the filtration practice began operation: \_\_\_\_\_  
 Filter Size (ft. x ft.): \_\_\_\_\_  
 Time since last rainfall (hr): \_\_\_\_\_  
 Quantity of last rainfall (in): \_\_\_\_\_  
 Rainfall Measurement Location: \_\_\_\_\_

**Site Sketch (include inlets, outlets, etc.)**

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? ☐ Yes ☐ No ☐ I don't know
  1. a) If yes, enter date: \_\_\_\_\_
  1. b) Based on previous visual inspections, have any corrective actions been taken?  
☐ Yes ☐ No ☐ I don't know (If yes, describe actions in comments box)
2. Has it rained within the last 48 hours at this location? ☐ Yes ☐ No ☐ I don't know
3. Does this filtration practice utilize pretreatment practices upstream?  
☐ Yes ☐ No ☐ I don't know (If yes, describe pretreatment practices in comment box)
4. Access
  4. a) Access to the filtration practice is:  
☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible
  4. b) If obstructed, the obstruction is (choose and provide comments) :  
☐ temporary **and** ☐ no action needed **or** ☐ action needed  
☐ permanent **and** ☐ before or during installation **or** ☐ new since installation
  4. c) Access to the upstream and downstream drainage is:  
☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible
  4. d) If obstructed, the obstruction is (choose and provide comments) :  
☐ temporary **and** ☐ no action needed **or** ☐ action needed  
☐ permanent **and** ☐ before or during installation **or** ☐ new since installation

Comments

## Filtration Practices

### 5. Inlet Structures

5. a) How many inlet structures are present? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ > 5
5. b) Are any of the inlet structures clogged? (If yes, mark location on site sketch above and fill in boxes below with items causing clogging (ie. debris, sediment, vegetation, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Partially					
Completely					
Not Applicable					

5. c) Are any of the inlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Yes					
No					

6. Is there standing water in the filtration practice? ☐ Yes ☐ No

6. a) If yes, does the water have:

- ☐ Surface sheen (from oils or gasoline)
- ☐ Murky color (from suspended solids)
- ☐ Green color (from algae or other biological activity)
- ☐ Other (describe in comment box)

7. Is there evidence of illicit storm sewer discharges?

- ☐ Yes ☐ No ☐ I don't know (if yes, describe in comment box)

8. What is the approximate percentage of vegetation coverage in the practice? \_\_\_\_\_ %

9. Are there indications of any of the following in the filtration practice? (If yes, mark on site sketch)

- ☐ Sediment deposition
- ☐ Erosion or channelization
- ☐ Excessive or undesirable vegetation (that needs mowing or removal)
- ☐ Bare soil or lack of healthy vegetation significantly different from the original design
- ☐ Litter or debris
- ☐ Other
- ☐ No

9. a) If sediment deposition is evident, what is the source?

- ☐ Erosion or channelization inside the filtration practice
- ☐ Erosion or channelization outside the filtration practice
- ☐ Construction site erosion
- ☐ Other
- ☐ Unknown

## University of Minnesota

### Comments

## Filtration Practices

10. Are there indications of any of the following on the banks of the filtration practice:

- ☐ Erosion or channelization
- ☐ Soil slides or bulges
- ☐ Excessive animal burrows
- ☐ Seeps and wet spots
- ☐ Poorly vegetated areas
- ☐ Trees on constructed slopes

11. Is the bottom of the filtration practice covered with a layer of silts and/or clays?

- ☐ Yes ☐ No

12. Are any outlet structures or the emergency spillway clogged? ☐ No ☐ Partially ☐ Completely ☐ NA

12. a) If yes, specify the clogging material (i.e. debris, sediment, vegetation, etc.) in the box below.

	Outlet #:	Outlet #:	Outlet #:
Material			

12. b) Are any of the outlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Outlet #:	Outlet #:	Outlet #:
Reason			

13. Is there any evidence of any of the following downstream of the outlet structure?

- ☐ Sediment deposition ☐ Erosion or channelization ☐ Other ☐ No

13. a) If sediment deposition is evident, what is the source?

- ☐ Erosion or channelization inside the filtration practice
- ☐ Erosion or channelization outside the filtration practice
- ☐ Construction site erosion
- ☐ Other, Specify \_\_\_\_\_
- ☐ Unknown

14. Inspector's Recommendations. When is maintenance needed?

- ☐ Before the next rainfall
- ☐ Before the next rainy season
- ☐ Within a year or two
- ☐ No sign that any is required

## University of Minnesota

Comments

15. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***



**UNIVERSITY OF MINNESOTA**  
**Stormwater Treatment:**  
**Assessment and Maintenance**

**Field Data Sheet for Level 1 Assessment: Visual Inspection**  
**Infiltration Basins and Trenches**

Inspector's Name(s): \_\_\_\_\_  
 Date of Inspection: \_\_\_\_\_  
 Location of the infiltration practice: \_\_\_\_\_  
 Address or Intersection: \_\_\_\_\_  
 Latitude, Longitude: \_\_\_\_\_  
 Date the infiltration practice began operation: \_\_\_\_\_  
 Filter Size (ft. x ft.): \_\_\_\_\_  
 Time since last rainfall (hr): \_\_\_\_\_  
 Quantity of last rainfall (in): \_\_\_\_\_  
 Rainfall Measurement Location: \_\_\_\_\_

*Site Sketch (include inlets, north arrow, etc.)*

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? ☐ Yes ☐ No ☐ I don't know
  1. a) If yes, enter date: \_\_\_\_\_
  1. b) Based on previous visual inspections, have any corrective actions been taken?  
☐ Yes ☐ No ☐ I don't know (If yes, describe actions in comments box)
2. Has it rained within the last 48 hours at this location? ☐ Yes ☐ No ☐ I don't know
3. Does this infiltration practice utilize pretreatment practices upstream?  
☐ Yes ☐ No ☐ I don't know (If yes, describe pretreatment practices in comment box)
4. Access
  4. a) Access to the infiltration basin or trench is:  
☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible
  4. b) If obstructed, the obstruction is (choose and provide comments) :  
☐ temporary and ☐ no action needed or ☐ action needed  
☐ permanent and ☐ before or during installation or ☐ new since installation
  4. c) Access to the upstream and downstream drainage is:  
☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible
  4. d) If obstructed, the obstruction is (choose and provide comments) :  
☐ temporary and ☐ no action needed or ☐ action needed  
☐ permanent and ☐ before or during installation or ☐ new since installation

Comments

## Infiltration Practices

### 5. Inlet Structures

5. a) How many inlet structures are present? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ > 5

5. b) Are any of the inlet structures clogged? (If yes, mark location on site sketch above and fill in boxes below with items causing clogging (ie. debris, sediment, vegetation, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Partially					
Completely					
Not Applicable					

5. c) Are any of the inlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Reason					

6. Is there standing water in the filtration practice? ☐ Yes ☐ No

6. a) If yes, does the water have:

- ☐ Surface sheen (from oils or gasoline)
- ☐ Murky color (from suspended solids)
- ☐ Green color (from algae or other biological activity)
- ☐ Other (describe in comment box)

7. Is there evidence of illicit storm sewer discharges?

☐ Yes ☐ No ☐ I don't know (if yes, describe in comment box)

8. Does the infiltration basin or trench smell like gasoline or oil? ☐ Yes ☐ No

9. What is the approximate percentage of vegetation coverage in the practice? \_\_\_\_\_ %

10. Are there indications of any of the following in the infiltration practice? (If yes, mark on site sketch)

- ☐ Sediment deposition that will significantly impede infiltration
- ☐ Erosion or channelization
- ☐ Bare soil or lack of healthy vegetation significantly different from the original design
- ☐ Litter or debris
- ☐ Standing water more than 48 hours after the end of the most recent runoff event
- ☐ Other
- ☐ No

10. a) If sediment deposition is evident, what is the source?

- ☐ Erosion or channelization inside the infiltration practice
- ☐ Erosion or channelization outside the infiltration practice
- ☐ Construction site erosion
- ☐ Other
- ☐ Unknown

## University of Minnesota

### Comments

## Infiltration Practices

11. Are there indications of any of the following on the banks of the infiltration basin or trench:

- ☐ Erosion or channelization
- ☐ Soil slides or bulges
- ☐ Excessive animal burrows
- ☐ Seeps and wet spots
- ☐ Poorly vegetated areas
- ☐ Trees on constructed slopes

12. Is the bottom of the infiltration basin or trench covered with a layer of silts and/or clays?

- ☐ Yes ☐ No

13. Are any overflow structures clogged? ☐ No ☐ Partially ☐ Completely ☐ NA

13. a) If yes, specify the clogging material (i.e. debris, sediment, vegetation, etc.) in the box below.

	Outlet #:	Outlet #:	Outlet #:
Material			
Partial or Comp.			

13. b) Are any of the overflow structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Outlet #:	Outlet #:	Outlet #:
Reason			

14. Inspector's Recommendations. When is maintenance needed?

- ☐ Before the next rainfall
- ☐ Before the next rainy season
- ☐ Within a year or two
- ☐ No sign that any is required

## University of Minnesota

Comments

15. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***





UNIVERSITY OF MINNESOTA

## Stormwater Treatment: Assessment and Maintenance

### Field Data Sheet for Level 1 Assessment: Visual Inspection Permeable Pavements

Inspector's Name(s): \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

Location of the permeable pavement: \_\_\_\_\_

Address or Intersection: \_\_\_\_\_

Latitude, Longitude: \_\_\_\_\_

Date the permeable pavement began operation: \_\_\_\_\_

Pavement area (ft. x ft.): \_\_\_\_\_

Time since last rainfall (hr): \_\_\_\_\_

Quantity of last rainfall (in): \_\_\_\_\_

Rainfall Measurement Location: \_\_\_\_\_

*Site Sketch (include curbs, islands, trees, north arrow, etc.)*

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? ☐ Yes ☐ No ☐ I don't know

1. a) If yes, enter date: \_\_\_\_\_

1. b) Based on previous visual inspections, have any corrective actions been taken?

☐ Yes ☐ No ☐ I don't know (If yes, describe actions in comments box)

2. Has it rained within the last 48 hours at this location? ☐ Yes ☐ No ☐ I don't know

3. Is there standing water on top of or water within the permeable pavement?

☐ Yes ☐ No

4. Are there indications of any of the following on top of or within the permeable pavement?

(If yes, mark on site sketch)

☐ Sediment deposition

☐ Litter or debris

☐ Other

☐ No

Comments

## Infiltration Practices

University of Minnesota

Comments

4. a) If sediment deposition is evident, what is the source?

- ☐ Erosion or channelization inside the permeable pavement
- ☐ Erosion or channelization outside the permeable pavement
- ☐ Construction site erosion
- ☐ Other
- ☐ Unknown

5. Inspector's Recommendations. When is maintenance needed?

- ☐ Before the next rainfall
- ☐ Before the next rainy season
- ☐ Within a year or two
- ☐ No sign that any is required

6. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***



UNIVERSITY OF MINNESOTA

## Stormwater Treatment: Assessment and Maintenance

### Field Data Sheet for Level 1 Assessment: Visual Inspection Dry Ponds

Inspector's Name(s): \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

Location of the wet pond: \_\_\_\_\_

Address or Intersection: \_\_\_\_\_

Latitude, Longitude: \_\_\_\_\_

Date the wet pond began operation: \_\_\_\_\_

Wet pond dimensions. Depth (ft.): \_\_\_\_\_

Area (ft. x ft.) \_\_\_\_\_

Time since last rainfall (hr): \_\_\_\_\_

Quantity of last rainfall (in): \_\_\_\_\_

Rainfall Measurement Location: \_\_\_\_\_

*Site Sketch (include inlets, outlets, north arrow, etc.)*

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? ☐ Yes ☐ No ☐ I don't know

1. a) If yes, enter date: \_\_\_\_\_

1. b) Based on previous visual inspections, have any corrective actions been taken?

☐ Yes ☐ No ☐ I don't know (If yes, describe actions in comments box)

2. Has it rained within the last 48 hours at this location? ☐ Yes ☐ No ☐ I don't know

3. Access

3. a) Access to the dry pond is:

☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible

3. b) If obstructed, the obstruction is (choose and provide comments) :

☐ temporary **and** ☐ no action needed **or** ☐ action needed

☐ permanent **and** ☐ before or during installation **or** ☐ new since installation

3. c) Access to the upstream and downstream drainage is:

☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible

3. d) If obstructed, the obstruction is (choose and provide comments) :

☐ temporary **and** ☐ no action needed **or** ☐ action needed

☐ permanent **and** ☐ before or during installation **or** ☐ new since installation

Comments

## Sedimentation Practices

### 4. Inlet Structures

4. a) How many inlet structures are present? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ > 5

4. b) Are any of the inlet structures clogged? (If yes, mark location on site sketch above and fill in boxes below with items causing clogging (ie. debris, sediment, vegetation, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Partially					
Completely					
Not Applicable					

4. c) Are any of the inlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Reason					

5. Is there standing water in the dry pond? ☐ Yes ☐ No

5. a) If yes, does the water have:

- ☐ Surface sheen (from oils or gasoline)
- ☐ Murky color (from suspended solids)
- ☐ Green color (from algae or other biological activity)
- ☐ Other (describe in comment box)

6. Is there evidence of illicit storm sewer discharges?

- ☐ Yes ☐ No ☐ I don't know (if yes, describe in comment box)

7. Are there indications of any of the following in the dry pond? (If yes, mark on site sketch)

- ☐ Sediment deposition
- ☐ Erosion or channelization
- ☐ Excessive or undesirable vegetation (that needs mowing or removal)
- ☐ Bare soil or lack of healthy vegetation significantly different from the original design
- ☐ Litter or debris
- ☐ Other
- ☐ No

7. a) If sediment deposition is evident, what is the source?

- ☐ Erosion or channelization inside the dry pond
- ☐ Erosion or channelization outside the dry pond
- ☐ Construction site erosion
- ☐ Other
- ☐ Unknown

## University of Minnesota

### Comments

## Sedimentation Practices

8. Are there indications of any of the following on the banks of the dry pond:

- ☐ Erosion or channelization
- ☐ Soil slides or bulges
- ☐ Excessive animal burrows
- ☐ Seeps and wet spots
- ☐ Poorly vegetated areas
- ☐ Trees on constructed slopes

9. Are any outlet or overflow structures clogged? ☐ No ☐ Partially ☐ Completely ☐ NA

9. a) If yes, specify the clogging material (i.e. debris, sediment, vegetation, etc.) in the box below.

	Outlet #:	Outlet #:	Outlet #:
Material			
Partial or Comp.			

9. b) Are any of the outlet or overflow structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Outlet #:	Outlet #:	Outlet #:
Reason			

10. Inspector's Recommendations. When is maintenance needed?

- ☐ Before the next rainfall
- ☐ Before the next rainy season
- ☐ Within a year or two
- ☐ No sign that any is required

## University of Minnesota

### Comments

11. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***



UNIVERSITY OF MINNESOTA

## Stormwater Treatment: Assessment and Maintenance

### Field Data Sheet for Level 1 Assessment: Visual Inspection Wet Ponds

Inspector's Name(s): \_\_\_\_\_  
 Date of Inspection: \_\_\_\_\_  
 Location of the wet pond: \_\_\_\_\_  
 Address or Intersection: \_\_\_\_\_  
 Latitude, Longitude: \_\_\_\_\_  
 Date the wet pond began operation: \_\_\_\_\_  
 Wet pond dimensions. Depth (ft.): \_\_\_\_\_  
 Area (ft. x ft.) \_\_\_\_\_  
 Time since last rainfall (hr): \_\_\_\_\_  
 Quantity of last rainfall (in): \_\_\_\_\_  
 Rainfall Measurement Location: \_\_\_\_\_

*Site Sketch (include inlets, outlets, north arrow, etc.)*

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? ☐ Yes ☐ No ☐ I don't know
  1. a) If yes, enter date: \_\_\_\_\_
  1. b) Based on previous visual inspections, have any corrective actions been taken?
   
☐ Yes ☐ No ☐ I don't know (If yes, describe actions in comments box)
2. Has it rained within the last 48 hours at this location? ☐ Yes ☐ No ☐ I don't know
3. Access
  3. a) Access to the wet pond is:
   
☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible
  3. b) If obstructed, the obstruction is (choose and provide comments) :
   
☐ temporary **and** ☐ no action needed **or** ☐ action needed
   
☐ permanent **and** ☐ before or during installation **or** ☐ new since installation
  3. c) Access to the upstream and downstream drainage is:
   
☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible
  3. d) If obstructed, the obstruction is (choose and provide comments) :
   
☐ temporary **and** ☐ no action needed **or** ☐ action needed
   
☐ permanent **and** ☐ before or during installation **or** ☐ new since installation

Comments

<div></div>
-------------

## Sedimentation Practices

### 4. Inlet Structures

4. a) How many inlet structures are present? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ > 5

4. b) Are any of the inlet structures clogged? (If yes, mark location on site sketch above and fill in boxes below with items causing clogging (ie. debris, sediment, vegetation, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Partially					
Completely					
Not Applicable					

4. c) Are any of the inlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Reason					

5. How many cells are in the wet pond system? \_\_\_\_\_

5. a) Does the water in the pond have:

- ☐ Surface sheen (from oils or gasoline)
- ☐ Murky color (from suspended solids)
- ☐ Green color (from algae or other biological activity)
- ☐ Other (describe in comment box)

6. Is there evidence of illicit storm sewer discharges?

- ☐ Yes ☐ No ☐ I don't know (if yes, describe in comment box)

7. Does the wet pond smell like gasoline or oil? ☐ Yes ☐ No

8. Are there indications of any of the following in the wet pond? (If yes, mark on site sketch)

- ☐ Sediment deposition in excess of 50% of the sediment storage capacity
- ☐ Erosion or channelization
- ☐ Excessive or undesirable vegetation (that needs mowing or removal)
- ☐ Bare soil or lack of healthy vegetation significantly different from the original design
- ☐ Litter or debris
- ☐ Other
- ☐ No

8. a) If sediment deposition is evident, what is the source?

- ☐ Erosion or channelization inside the wet pond
- ☐ Erosion or channelization outside the wet pond
- ☐ Construction site erosion
- ☐ Other
- ☐ Unknown

## University of Minnesota

### Comments



## Sedimentation Practices

9. Are there indications of any of the following on the banks of the wet pond:

- ☐ Erosion or channelization
- ☐ Soil slides or bulges
- ☐ Excessive animal burrows
- ☐ Seeps and wet spots
- ☐ Poorly vegetated areas
- ☐ Trees on constructed slopes

10. Are any outlet or overflow structures clogged? ☐ No ☐ Partially ☐ Completely ☐ NA

10. a) If yes, specify the clogging material (i.e. debris, sediment, vegetation, etc.) in the box below.

	Outlet #:	Outlet #:	Outlet #:
Material			
Partial or Comp.			

10. b) Are any of the outlet or overflow structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Outlet #:	Outlet #:	Outlet #:
Reason			

11. Is there any evidence of any of the following downstream of the outlet structure?

- ☐ Sediment deposition
- ☐ Erosion or channelization
- ☐ Other
- ☐ No

11. a) If sediment deposition is evident, what is the source?

- ☐ Erosion or channelization inside the filtration practice
- ☐ Erosion or channelization outside the filtration practice
- ☐ Construction site erosion
- ☐ Other, Specify \_\_\_\_\_
- ☐ Unknown

12. Inspector's Recommendations. When is maintenance needed?

- ☐ Before the next rainfall
- ☐ Before the next rainy season
- ☐ Within a year or two
- ☐ No sign that any is required

## University of Minnesota

Comments

12. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***



UNIVERSITY OF MINNESOTA

## Stormwater Treatment: Assessment and Maintenance

### Field Data Sheet for Level 1 Assessment: Visual Inspection Underground Sedimentation Devices

Inspector's Name(s): \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

Location of the device pond: \_\_\_\_\_

Address or Intersection: \_\_\_\_\_

Latitude, Longitude: \_\_\_\_\_

Date the device began operation: \_\_\_\_\_

Device dimensions. Depth (ft.): \_\_\_\_\_

Area (ft. x ft.) \_\_\_\_\_

Time since last rainfall (hr): \_\_\_\_\_

Quantity of last rainfall (in): \_\_\_\_\_

Rainfall Measurement Location: \_\_\_\_\_

*Site Sketch (include inlets, outlets, north arrow, etc.)*

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? ☐ Yes ☐ No ☐ I don't know

1. a) If yes, enter date: \_\_\_\_\_

1. b) Based on previous visual inspections, have any corrective actions been taken?

☐ Yes ☐ No ☐ I don't know (If yes, describe actions in comments box)

2. Has it rained within the last 48 hours at this location? ☐ Yes ☐ No ☐ I don't know

3. Access

3. a) Access to the underground sedimentation device is:

☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible

3. b) If obstructed, the obstruction is (choose and provide comments) :

☐ temporary **and** ☐ no action needed **or** ☐ action needed

☐ permanent **and** ☐ before or during installation **or** ☐ new since installation

3. c) Access to the upstream and downstream drainage is:

☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible

3. d) If obstructed, the obstruction is (choose and provide comments) :

☐ temporary **and** ☐ no action needed **or** ☐ action needed

☐ permanent **and** ☐ before or during installation **or** ☐ new since installation

Comments

## Sedimentation Practices

### 4. Inlet Structures

4. a) How many inlet structures are present? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ > 5

4. b) Are any of the inlet structures clogged? (If yes, mark location on site sketch above and fill in boxes below with items causing clogging (ie. debris, sediment, vegetation, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Partially					
Completely					
Not Applicable					

4. c) Are any of the inlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Reason					

5. Is a significant amount of water entering the underground device? ☐ Yes ☐ No ☐ I don't know

5. a) If yes, what is the source?

- ☐ Recent rainfall/runoff event
- ☐ Leaking pipes or manholes
- ☐ Lawn irrigation
- ☐ Fire hydrant
- ☐ Other, specify \_\_\_\_\_

6. Is there evidence of illicit storm sewer discharges?

- ☐ Yes ☐ No ☐ I don't know (if yes, describe in comment box)

### 7. Structure

7. a) Are there excessive amounts of solids, debris, vegetation, or other objects that could be hindering performance or be re-suspended and exit the system during subsequent runoff events?

- ☐ Yes ☐ No ☐ I don't know

7. b) Does the structure have any:

- ☐ Significant cracks
- ☐ Leaks
- ☐ Joint failures
- ☐ Structural instability
- ☐ Corrosion
- ☐ Other signs of damage or components requiring attention (describe in comment box)

## University of Minnesota

### Comments

## Sedimentation Practices

8. Are any outlet structures clogged? ☐ No ☐ Partially ☐ Completely ☐ NA

8. a) If yes, specify the clogging material (i.e. debris, sediment, vegetation, etc.) in the box below.

	Outlet #:	Outlet #:	Outlet #:
Material			
Partial or Comp.			

8. b) Are any of the outlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Outlet #:	Outlet #:	Outlet #:
Reason			

9. Is there any evidence of any of the following downstream of the outlet structure?

☐ Sediment deposition ☐ Erosion or channelization ☐ Other ☐ No

9. a) If sediment deposition is evident, what is the source?

- ☐ Erosion or channelization inside the filtration practice
- ☐ Erosion or channelization outside the filtration practice
- ☐ Construction site erosion
- ☐ Other, Specify \_\_\_\_\_
- ☐ Unknown

10. Inspector's Recommendations. When is maintenance needed?

- ☐ Before the next rainfall
- ☐ Before the next rainy season
- ☐ Within a year or two
- ☐ No sign that any is required

## University of Minnesota

### Comments

12. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***



UNIVERSITY OF MINNESOTA

## Stormwater Treatment: Assessment and Maintenance

### Field Data Sheet for Level 1 Assessment: Visual Inspection Bioretention Practices (including Rain Gardens)

Inspector's Name(s): \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

Location of the bioretention practice: \_\_\_\_\_

Address or Intersection: \_\_\_\_\_

Latitude, Longitude: \_\_\_\_\_

Date the bioretention practice began operation: \_\_\_\_\_

Bioretention practice area (ft. x ft.): \_\_\_\_\_

Time since last rainfall (hr): \_\_\_\_\_

Quantity of last rainfall (in): \_\_\_\_\_

Rainfall Measurement Location: \_\_\_\_\_

**Site Sketch (include inlets, outlets, north arrow, etc.)**

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? ☐ Yes ☐ No ☐ I don't know

1. a) If yes, enter date: \_\_\_\_\_

1. b) Based on previous visual inspections, have any corrective actions been taken?

☐ Yes ☐ No ☐ I don't know (If yes, describe actions in comments box)

2. Has it rained within the last 48 hours at this location? ☐ Yes ☐ No ☐ I don't know

3. Does this bioretention practice utilize pretreatment practices upstream?

☐ Yes ☐ No ☐ I don't know (If yes, describe pretreatment practices in comment box)

4. Access

4. a) Access to the bioretention practice is:

☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible

4. b) If obstructed, the obstruction is (choose and provide comments) :

☐ temporary **and** ☐ no action needed **or** ☐ action needed

☐ permanent **and** ☐ before or during installation **or** ☐ new since installation

4. c) Access to the upstream and downstream drainage is:

☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible

4. d) If obstructed, the obstruction is (choose and provide comments) :

☐ temporary **and** ☐ no action needed **or** ☐ action needed

☐ permanent **and** ☐ before or during installation **or** ☐ new since installation

### Comments

## Biologically Enhanced Practices

### 5. Inlet Structures

5. a) How many inlet structures are present? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ > 5

5. b) Are any of the inlet structures clogged? (If yes, mark location on site sketch above and fill in boxes below with items causing clogging (i.e., debris, sediment, vegetation, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Partially					
Completely					
Not Applicable					

5. c) Are any of the inlet structures misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Reason					

6. Is there standing water in the bioretention practice? ☐ Yes ☐ No

6. a) If yes, does the water have:

- ☐ Surface sheen (from oils or gasoline)
- ☐ Murky color (from suspended solids)
- ☐ Green color (from algae or other biological activity)
- ☐ Other (describe in comment box)

7. Is there evidence of illicit storm sewer discharges?

☐ Yes ☐ No ☐ I don't know (if yes, describe in comment box)

8. Does the bioretention practice smell like gasoline or oil? ☐ Yes ☐ No

9. What is the approximate percentage of vegetation coverage in the practice? \_\_\_\_\_ %

9. a) Does the current vegetation match the original design? ☐ Yes ☐ No ☐ Unknown

9. b) Is there the presence of:

- ☐ Weeds
- ☐ Wetland vegetation
- ☐ Invasive vegetation
- ☐ None of the above
- ☐ Other, specify \_\_\_\_\_

9. c) Does the vegetation appear to be healthy? ☐ Yes ☐ No (if no, describe in comment box)

9. d) Is the vegetation the appropriate size and density? ☐ Yes ☐ No (if no, describe in comment box)

## University of Minnesota

### Comments



## Biologically Enhanced Practices

10. Are there indications of any of the following in the bioretention practice? (If yes, mark on site sketch)

- ☐ Sediment deposition
- ☐ Erosion or channelization
- ☐ Excessive or undesirable vegetation (that needs mowing or removal)
- ☐ Litter or debris
- ☐ Other
- ☐ No

10. a) If sediment deposition is evident, what is the source?

- ☐ Erosion or channelization inside the infiltration practice
- ☐ Erosion or channelization outside the infiltration practice
- ☐ Construction site erosion
- ☐ Other
- ☐ Unknown

11. Are there indications of any of the following on the banks of the bioretention practice:

- ☐ Erosion or channelization
- ☐ Soil slides or bulges
- ☐ Excessive animal burrows
- ☐ Seeps and wet spots
- ☐ Poorly vegetated areas
- ☐ Trees on constructed slopes
- ☐ None of the above, the banks are in good condition
- ☐ Other, specify \_\_\_\_\_

12. Are any overflow or bypass structures clogged? ☐ No ☐ Partially ☐ Completely ☐ NA

12. a) If yes, specify the clogging material (i.e. debris, sediment, vegetation, etc.) in the box below.

	Outlet #:	Outlet #:	Outlet #:
Material			
Partial or Comp.			

12. b) Are any of the overflow or bypass structures misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown)

	Outlet #:	Outlet #:	Outlet #:
Reason			

13. Inspector's Recommendations. When is maintenance needed?

- ☐ Before the next rainfall
- ☐ Before the next rainy season
- ☐ Within a year or two
- ☐ No sign that any is required

## University of Minnesota

### Comments

14. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***



UNIVERSITY OF MINNESOTA

## Stormwater Treatment: Assessment and Maintenance

### Field Data Sheet for Level 1 Assessment: Visual Inspection Constructed Wetlands

Inspector's Name(s): \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

Location of the constructed wetland: \_\_\_\_\_

Address or Intersection: \_\_\_\_\_

Latitude, Longitude: \_\_\_\_\_

Date the constructed wetland began operation: \_\_\_\_\_

Area of the constructed wetland (ft. x ft.): \_\_\_\_\_

Time since last rainfall (hr): \_\_\_\_\_

Quantity of last rainfall (in): \_\_\_\_\_

Rainfall Measurement Location: \_\_\_\_\_

*Site Sketch (include inlets, outlets, north arrow, etc.)*

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? ☐ Yes ☐ No ☐ I don't know

1. a) If yes, enter date: \_\_\_\_\_

1. b) Based on previous visual inspections, have any corrective actions been taken?

☐ Yes ☐ No ☐ I don't know (If yes, describe actions in comments box)

2. Has it rained within the last 48 hours at this location? ☐ Yes ☐ No ☐ I don't know

3. Does this constructed wetland utilize pretreatment practices upstream?

☐ Yes ☐ No ☐ I don't know (If yes, describe pretreatment practices in comment box)

4. Access

4. a) Access to the constructed wetland is:

☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible

4. b) If obstructed, the obstruction is (choose and provide comments) :

☐ temporary **and** ☐ no action needed **or** ☐ action needed

☐ permanent **and** ☐ before or during installation **or** ☐ new since installation

4. c) Access to the upstream and downstream drainage is:

☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible

4. d) If obstructed, the obstruction is (choose and provide comments) :

☐ temporary **and** ☐ no action needed **or** ☐ action needed

☐ permanent **and** ☐ before or during installation **or** ☐ new since installation

Comments

## Biologically Enhanced Practices

5. a) How many inlet structures are present? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ > 5
5. b) Are any of the inlet structures clogged? (If yes, mark location on site sketch above and fill in boxes below with items causing clogging (ie. debris, sediment, vegetation, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Partially					
Completely					
Not Applicable					

5. c) Are any of the inlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Reason					

6. How many cells are in the wetland system? \_\_\_\_\_
6. a) Is there standing water in the constructed wetland? ☐ Yes ☐ No
6. b) If yes, does the water in the wetland have:
- ☐ Surface sheen (from oils or gasoline)
  - ☐ Murky color (from suspended solids)
  - ☐ Green color (from algae or other biological activity)
  - ☐ Other (describe in comment box)
7. Is there evidence of illicit storm sewer discharges?
- ☐ Yes ☐ No ☐ I don't know (if yes, describe in comment box)
8. Does the constructed wetland smell like gasoline or oil? ☐ Yes ☐ No
9. What is the approximate percentage of vegetation coverage in the practice? \_\_\_\_\_ %
9. a) Does the current vegetation match the original design? ☐ Yes ☐ No ☐ Unknown
9. b) Is there the presence of:
- ☐ Weeds
  - ☐ Invasive vegetation
  - ☐ None of the above
  - ☐ Other, specify \_\_\_\_\_
9. c) Does the vegetation appear to be healthy? ☐ Yes ☐ No (if no, describe in comment box)
9. d) Is the vegetation the appropriate size and density? ☐ Yes ☐ No (if no, describe in comment box)

## University of Minnesota

### Comments

## Biologically Enhanced Practices

10. Are there indications of any of the following in the wetland? (If yes, mark on site sketch)

- ☐ Sediment deposition in excess of 50% of the sediment storage capacity
- ☐ Erosion or channelization
- ☐ Excessive or undesirable vegetation (that needs mowing or removal)
- ☐ Litter or debris
- ☐ Other
- ☐ No

10. a) If sediment deposition is evident, what is the source?

- ☐ Erosion or channelization inside the wet pond
- ☐ Erosion or channelization outside the wet pond
- ☐ Construction site erosion
- ☐ Other
- ☐ Unknown

11. Are there indications of any of the following on the banks of the filtration practice:

- ☐ Erosion or channelization
- ☐ Soil slides or bulges
- ☐ Excessive animal burrows
- ☐ Seeps and wet spots
- ☐ Poorly vegetated areas
- ☐ Trees on constructed slopes

12. Are any overflow or outlet structures clogged? ☐ No ☐ Partially ☐ Completely ☐ NA

12. a) If yes, specify the clogging material (i.e. debris, sediment, vegetation, etc.) in the box below.

	Outlet #:	Outlet #:	Outlet #:
Material			
Partial or Comp.			

12. b) Are any of the overflow or outlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Outlet #:	Outlet #:	Outlet #:
Reason			

13. Is there any evidence of any of the following downstream of the outlet structure?

- ☐ Sediment deposition
- ☐ Erosion or channelization
- ☐ Other
- ☐ No

13. a) If sediment deposition is evident, what is the source?

- ☐ Erosion or channelization inside the filtration practice
- ☐ Erosion or channelization outside the filtration practice
- ☐ Construction site erosion
- ☐ Other, Specify \_\_\_\_\_
- ☐ Unknown

## University of Minnesota

### Comments

Biologically Enhanced Practices

University of Minnesota

14. Inspector's Recommendations. When is maintenance needed?

- ☐ Before the next rainfall
- ☐ Before the next rainy season
- ☐ Within a year or two
- ☐ No sign that any is required

Comments

15. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***



UNIVERSITY OF MINNESOTA

## Stormwater Treatment: Assessment and Maintenance

### Field Data Sheet for Level 1 Assessment: Visual Inspection Filter Strips and Swales

Inspector's Name(s): \_\_\_\_\_  
 Date of Inspection: \_\_\_\_\_  
 Location of the filter strip or swale: \_\_\_\_\_  
 Address or Intersection: \_\_\_\_\_  
 Latitude, Longitude: \_\_\_\_\_  
 Date the filter strip or swale began operation: \_\_\_\_\_  
 Size of the practice. Depth and length, if swale (ft.): \_\_\_\_\_  
 Area (ft. x ft.), if filter strip \_\_\_\_\_  
 Time since last rainfall (hr): \_\_\_\_\_  
 Quantity of last rainfall (in): \_\_\_\_\_  
 Rainfall Measurement Location: \_\_\_\_\_

**Site Sketch (include inlets, outlets, roads, north arrow, etc.)**

Based on visual assessment of the site, answer the following questions and make photographic or video-graphic documentation:

1. Has visual inspection been conducted at this location before? ☐ Yes ☐ No ☐ I don't know
  1. a) If yes, enter date: \_\_\_\_\_
  1. b) Based on previous visual inspections, have any corrective actions been taken?  
☐ Yes ☐ No ☐ I don't know (If yes, describe actions in comments box)
2. Has it rained within the last 48 hours at this location? ☐ Yes ☐ No ☐ I don't know
3. Does this swale or filter strip utilize pretreatment practices upstream?  
☐ Yes ☐ No ☐ I don't know (If yes, describe pretreatment practices in comment box)
4. Access
  4. a) Access to the swale or filter strip is:  
☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible
  4. b) If obstructed, the obstruction is (choose and provide comments) :  
☐ temporary and ☐ no action needed or ☐ action needed  
☐ permanent and ☐ before or during installation or ☐ new since installation
  4. c) Access to the upstream and downstream drainage is:  
☐ Clear ☐ Partially obstructed ☐ Mostly obstructed ☐ Inaccessible
  4. d) If obstructed, the obstruction is (choose and provide comments) :  
☐ temporary and ☐ no action needed or ☐ action needed  
☐ permanent and ☐ before or during installation or ☐ new since installation

Comments

## Biologically Enhanced Practices

University of Minnesota

Comments

5. a) How many inlet structures are present? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ > 5

5. b) Are any of the inlet structures clogged? (If yes, mark location on site sketch above and fill in boxes below with items causing clogging (ie. debris, sediment, vegetation, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Partially					
Completely					
Not Applicable					

5. c) Are any of the inlet structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Inlet #:	Inlet #:	Inlet #:	Inlet #:	Inlet #:
Reason					

6. Is there standing water in the swale or on the filter strip? ☐ Yes ☐ No

6. a) If yes, does the water have:

- ☐ Surface sheen (from oils or gasoline)
- ☐ Murky color (from suspended solids)
- ☐ Green color (from algae or other biological activity)
- ☐ Other (describe in comment box)

7. Is there evidence of illicit storm sewer discharges?

☐ Yes ☐ No ☐ I don't know (if yes, describe in comment box)

8. What is the approximate percentage of vegetation coverage in the practice? \_\_\_\_\_ %

8. a) Does the current vegetation match the original design? ☐ Yes ☐ No ☐ Unknown

8. b) Is there the presence of:

- ☐ Weeds
- ☐ Invasive vegetation
- ☐ None of the above
- ☐ Other, specify \_\_\_\_\_

8. c) Does the vegetation appear to be healthy? ☐ Yes ☐ No (if no, describe in comment box)

8. d) Is the vegetation the appropriate size and density? ☐ Yes ☐ No (if no, describe in comment box)

9. Are there indications of any of the following within the filter strip or swale? (If yes, mark on site sketch)

- ☐ Sediment deposition
- ☐ Erosion or channelization
- ☐ Excessive or undesirable vegetation (that needs mowing or removal)
- ☐ Bare soil or lack of healthy vegetation significantly different from the original design
- ☐ Litter or debris
- ☐ Other
- ☐ No



## Biologically Enhanced Practices

University of Minnesota

Comments

9. a) If sediment deposition is evident, what is the source?

- ☐ Erosion or channelization inside the wet pond
- ☐ Erosion or channelization outside the wet pond
- ☐ Construction site erosion
- ☐ Other
- ☐ Unknown

10. Are there indications of any of the following on the banks of the swale:

- ☐ Erosion or channelization
- ☐ Soil slides or bulges
- ☐ Excessive animal burrows
- ☐ Seeps and wet spots
- ☐ Poorly vegetated areas
- ☐ Trees on constructed slopes
- ☐ Not applicable

11. Are any overflow or outlet structures clogged? ☐ No ☐ Partially ☐ Completely ☐ NA

11. a) If yes, specify the clogging material (i.e. debris, sediment, vegetation, etc.) in the box below.

	Outlet #:	Outlet #:	Outlet #:
Material			
Partial or Comp.			

11. b) Are any of the overflow structures askew or misaligned from the original design or otherwise in need of maintenance? (if yes, write in reason: frost heave, vandalism, unknown, etc.)

	Outlet #:	Outlet #:	Outlet #:
Reason			

12. Is there any evidence of any of the following downstream of the outlet structure?

- ☐ Sediment deposition
- ☐ Erosion or channelization
- ☐ Other
- ☐ No

12. a) If sediment deposition is evident, what is the source?

- ☐ Erosion or channelization inside the filtration practice
- ☐ Erosion or channelization outside the filtration practice
- ☐ Construction site erosion
- ☐ Other, Specify \_\_\_\_\_
- ☐ Unknown

13. Inspector's Recommendations. When is maintenance needed?

- ☐ Before the next rainfall
- ☐ Before the next rainy season
- ☐ Within a year or two
- ☐ No sign that any is required

12. Summarize the results of this inspection and write any other observations in the box below.

***Summary and other observations***