## **Bioretention Area Inspection and Maintenance Checklist**

Green Infrastructure Site Location and Address: MIK Carnegie Infrastructure Project, Intersection of MIK Jr. Dr. & Carnegie Ave Date and Time 97/16/2019 10:35am   Weather Conditions: Security   Date of Last Inspection: N/A Inspector and Title: Chris Hartman, CPESC, CESSWI, CPSWQ, Stormwater Technical Specialist, Crystal Davis, Watershed Programs Specialist, Specialist, Specialist, Specialist, Specialist, Specialist, Specialist, Specialist, Specialist, Crystal Davis, Watershed Programs Specialist, Plan or As-Built Plan Available: Yes    Inspection Item		
Inspection and Title: Chris Hartman, CPSC_CESSWI, CPSWQ, Stormwater Technical Specialist, Crystal Davis, Watershed Programs Specialist, December 1989, Watershed Programs Intern		
Inspection fem   DeWATERING		
Inspection Item   DEWATERING		Stormwater Technical Specialist, Crystal Davis, Watershed Programs
Images    Images   Images	Specialist, Spencer Nash, Watershed Programs Intern	
Standing water is present after 24 hours. If yes, describe sheen, color, or smell.    Yes	Site Plan of As-built Plan Available: Yes	
Standing water is present after 24 hours. If yes, describe sheen, color, or smell.    Yes	Inspection Item	Images
Standing water is present after 24 hours. If yes, describe sheen, color, or smell.  Yes □No □NA  Action needed. □Yes ☑ No □NA  Comments: No additional comments  INLETS  Inlets are in poor structural condition. □Yes ☑ No □NA  Sediment has accumulated and/or is blocking the inlets. □Yes ☑ No □NA  Erosion is occurring around the inlets. □Yes □No □NA  Action needed. □Yes □No □NA  Comments: Erosion is occurring around the eastern inlet. Applicant will need to stabilize crosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).  VEGETATION  Vegetation is wilting, discolored, or dying due to disease or stress. □Yes □No □NA  Vegetation needs to be controlled through mowing or manual removal. □Yes □No □NA  Vegetation needed. □Yes □No □NA  Action needed.		images
sheen, color, or smell.    Yes	DE WITDENIO	
sheen, color, or smell.    Yes	Standing water is present after 24 hours. If we describe	
Yes		
Action needed.    Yes   No   NA      No   NA      No   NA      Sediment has accumulated and/or is blocking the inlets.   Yes   No   NA      Photo 1.      Frosion is occurring around the inlets.   Yes   No   NA      Photo 1.      Frosion is occurring around the inlets.   Yes   No   NA      Action needed.     Action needed to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).   Yegetation is wilting, discolored, or dying due to disease or stress.   Yes   No   NA      Vegetation needs to be controlled through mowing or manual removal.   Yes   No   NA      Photo 2.     Photo 3.     Photo 4.     Photo 2.     Photo 2.     Photo 2.     Photo 3.     Photo 2.     Photo 2.     Photo 3.     Photo 4.     Photo 3.     Photo 4.     Photo 3.     Photo 4.     Photo 4.     Photo 3.     Photo 4.     Photo 4.     Photo 4.     Photo 5.     Photo 6.     Photo 7.     Photo 8.     Photo 9.     Photo 9.     Photo 9.     Photo 9.     Photo 1.     Photo 9.     Photo 1.     Photo 1.     Photo 9.     Photo 9		The state of the s
□ Yes		
□ Yes		
Comments: No additional comments    INLETS		
INLETS  Inlets are in poor structural condition.  □ Yes ☑ No □ NA  Photo 1.  Sediment has accumulated and/or is blocking the inlets.  □ Yes ☑ No □ NA  Erosion is occurring around the inlets.  □ Yes □ No □ NA  Action needed.  □ Yes □ No □ NA  Comments: Erosion is occurring around the eastern inlet. Applicant will need to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).  VEGETATION  Vegetation is wilting, discolored, or dying due to disease or stress. □ Yes ☑ No □ NA  Vegetation needs to be controlled through mowing or manual removal. □ Yes □ No □ NA  Action needed.	☐ Yes ✓ No ☐ NA	
INLETS  Inlets are in poor structural condition.  □ Yes ☑ No □ NA  Photo 1.  Sediment has accumulated and/or is blocking the inlets.  □ Yes ☑ No □ NA  Erosion is occurring around the inlets.  □ Yes □ No □ NA  Action needed.  □ Yes □ No □ NA  Comments: Erosion is occurring around the eastern inlet. Applicant will need to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).  VEGETATION  Vegetation is wilting, discolored, or dying due to disease or stress. □ Yes ☑ No □ NA  Vegetation needs to be controlled through mowing or manual removal. □ Yes □ No □ NA  Action needed.		
INLETS  Inlets are in poor structural condition.  □ Yes ☑ No □ NA  Photo 1.  Sediment has accumulated and/or is blocking the inlets.  □ Yes ☑ No □ NA  Erosion is occurring around the inlets.  □ Yes □ No □ NA  Action needed.  □ Yes □ No □ NA  Comments: Erosion is occurring around the eastern inlet. Applicant will need to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).  VEGETATION  Vegetation is wilting, discolored, or dying due to disease or stress. □ Yes ☑ No □ NA  Vegetation needs to be controlled through mowing or manual removal. □ Yes □ No □ NA  Action needed.	a	
Inlets are in poor structural condition.	Comments: No additional comments	
Inlets are in poor structural condition.		
Inlets are in poor structural condition.		
Inlets are in poor structural condition.	INLETS	製化学人が進行。
Yes	T. (EETS)	
Sediment has accumulated and/or is blocking the inlets.  Yes No NA  Erosion is occurring around the inlets.  Yes No NA  Action needed.  Yes No NA  Comments: Erosion is occurring around the eastern inlet. Applicant will need to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).  VEGETATION  Vegetation is wilting, discolored, or dying due to disease or stress.  Yes No NA  Vegetation needs to be controlled through mowing or manual removal.  Yes No NA  Action needed.	Inlets are in poor structural condition.	STATE OF THE STATE
Sediment has accumulated and/or is blocking the inlets.  ☐ Yes ☐ No ☐ NA  Action needed.  ☐ Yes ☐ No ☐ NA  Comments: Erosion is occurring around the eastern inlet. Applicant will need to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).  VEGETATION  Vegetation is wilting, discolored, or dying due to disease or stress.  ☐ Yes ☐ No ☐ NA  Vegetation needs to be controlled through mowing or manual removal. ☐ ☑ Yes ☐ No ☐ NA  Action needed.	☐ Yes ✓ No ☐ NA	Photo 1.
□ Yes		
□ Yes		
□ Yes	Sodiment has accomplated and/on is blocking the inlate	
Erosion is occurring around the inlets.    Yes	□ Yes □ No □ NA	
✓ Yes No NA   Action needed. ✓ Yes No NA   Comments: Erosion is occurring around the eastern inlet. Applicant will need to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).   VEGETATION Vegetation is wilting, discolored, or dying due to disease or stress. □ Yes ✓ No NA   Vegetation needs to be controlled through mowing or manual removal. Photo 2.   ✓ Yes No NA   Action needed.		
✓ Yes No NA   Action needed. ✓ Yes No NA   Comments: Erosion is occurring around the eastern inlet. Applicant will need to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).   VEGETATION Vegetation is wilting, discolored, or dying due to disease or stress. □ Yes ✓ No NA   Vegetation needs to be controlled through mowing or manual removal. Photo 2.   ✓ Yes No NA   Action needed.		
✓ Yes No NA   Action needed. ✓ Yes No NA   Comments: Erosion is occurring around the eastern inlet. Applicant will need to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).   VEGETATION Vegetation is wilting, discolored, or dying due to disease or stress. □ Yes ✓ No NA   Vegetation needs to be controlled through mowing or manual removal. Photo 2.   ✓ Yes No NA   Action needed.		
✓ Yes No NA   Action needed. ✓ Yes No NA   Comments: Erosion is occurring around the eastern inlet. Applicant will need to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).   VEGETATION Vegetation is wilting, discolored, or dying due to disease or stress. □ Yes ✓ No NA   Vegetation needs to be controlled through mowing or manual removal. Photo 2.   ✓ Yes No NA   Action needed.	Erosion is occurring around the inlets.	Was a second and a second a second and a second a second and a second a second and a second and a second and
Action needed.  Yes No NA  Comments: Erosion is occurring around the eastern inlet. Applicant will need to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).  VEGETATION  Vegetation is wilting, discolored, or dying due to disease or stress.  Yes No NA  Vegetation needs to be controlled through mowing or manual removal.  Yes No NA  Action needed.		
✓ Yes □ No □ NA    Comments: Erosion is occurring around the eastern inlet.  Applicant will need to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).  VEGETATION  Vegetation is wilting, discolored, or dying due to disease or stress.  □ Yes ☑ No □ NA    Photo 2.  Photo 2.  Photo 2.  Photo 2.		
Comments: Erosion is occurring around the eastern inlet.  Applicant will need to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).  VEGETATION  Vegetation is wilting, discolored, or dying due to disease or stress.  Yes No NA  Vegetation needs to be controlled through mowing or manual removal.  Yes No NA  Action needed.	l	<b>新</b> 智 一种 1000 1000 1000 1000 1000 1000 1000 1
Applicant will need to stabilize erosion through means of rock inlet protection or re-mulching the area (Refer to photo 3).  VEGETATION  Vegetation is wilting, discolored, or dying due to disease or stress.  Yes No No NA  Vegetation needs to be controlled through mowing or manual removal.  Yes No NA  Action needed.		
rock inlet protection or re-mulching the area (Refer to photo 3).  VEGETATION  Vegetation is wilting, discolored, or dying due to disease or stress.  □ Yes □ No □ NA  Vegetation needs to be controlled through mowing or manual removal.  □ Yes □ No □ NA  Action needed.		
Photo 3).  VEGETATION  Vegetation is wilting, discolored, or dying due to disease or stress.  □ Yes □ No □ NA  Vegetation needs to be controlled through mowing or manual removal.  □ Yes □ No □ NA  Action needed.		
VEGETATION  Vegetation is wilting, discolored, or dying due to disease or stress.  □ Yes		(2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1
Vegetation is wilting, discolored, or dying due to disease or stress.  □ Yes  No □ NA  Vegetation needs to be controlled through mowing or manual removal.  □ Yes □ No □ NA  Action needed.	photo 3).	
Vegetation is wilting, discolored, or dying due to disease or stress.  □ Yes  No □ NA  Vegetation needs to be controlled through mowing or manual removal.  □ Yes □ No □ NA  Action needed.		S.S. S.
Vegetation is wilting, discolored, or dying due to disease or stress.  □ Yes  No □ NA  Vegetation needs to be controlled through mowing or manual removal.  □ Yes □ No □ NA  Action needed.	VEGETATION	
stress.  Yes No NA  Vegetation needs to be controlled through mowing or manual removal.  Yes No NA  Action needed.		· 医大型 医松木 (2011年)
□ Yes ✓ No □ NA   Vegetation needs to be controlled through mowing or manual removal		
Vegetation needs to be controlled through mowing or manual removal.  ✓ Yes □ No □ NA  Action needed.		Photo 2.
manual removal.  Yes No NA  Action needed.		
Action needed.		
	✓Yes □ No □ NA	
✓ Yes □ No □ NA		
	✓ Yes □ No □ NA	

Comments: Applicant will need to weed the cell.
BIORETENTION MAIN INFILTRATION AREA
Trash and debris have accumulated.  ☐ Yes ✓ No ☐ NA
Sediment has accumulated at the surface.
□ Yes ✓ No □ NA
Topmost layer is caked or crusted over with sediment.
☐ Yes ✓ No ☐ NA
Erosion is evident.
☐ Yes ✓ No ☐ NA
Mulch is compacted.
□ Yes ✓ No □ NA
Sinkholes or animal borrows are present.
□ Yes 🗸 No □ NA
Action needed.
☐ Yes ✓ No ☐ NA  Comments: No additional comments
Comments: No additional comments
SIDE SLOPES AND EMBANKMENT
Erosion is evident.
☐ Yes  No ☐ NA
Sinkholes or animal borrows are present.
□ Yes 🗸 No □ NA
Action needed.
□ Yes ✓ No □ NA
Comments: No additional comments.
OUTLETS AND OVERFLOW STRUCTURE (i.e.,
catch basin)
Outlets or overflow structures in poor structural condition.
□Yes ✓ No □ NA
Sediment, trash or debris is blocking the outlets or
overflow <u>str</u> ucture. □Yes ✓No □ NA
Erosion is occurring around the outlets or overflow
structure.
☐ Yes ✓ No ☐ NA
Height from surface of practice to top of overflow structure
is insufficient to allow for ponding during rain events.
☐ Yes ✓ No ☐ NA
Action needed.
☐ Yes ✓ No ☐ NA
Action needed.
Note: No additional comments.
SUMMARY
Please address the following items:
1. Ensure the erosion occurring at the eastern inlet is
stabilized (runoff inflow appears to be running along
the side of the rock inlet protectionreform the rock
into a concave shape).
2. Weed the practice to reduce the amount of invasive
species. Refer to photo 3. for the location that has