

Visual Assessment

Greater Lansing Regional Committee for Stormwater Management
Habitat and Recreation Committee

General Sheet Segment ID #: _____

Stream Name: _____

Segment Identification – Or GPS Coordinates of Segment.

Beginning at Latitude/Longitude: _____

Ending at Latitude/Longitude: _____

Survey Team: _____ **Time:** _____

_____ **Date:** _____

Weather: 1. Clear 2. Overcast 3. Light rain/Showers 4. Steady Rain 5. Heavy Rain 6. Snow 7. Heavy Snow Melt

Today	Last 48 Hours	Past Week

Days since last rain: _____ Air Temperature: _____ ° F

Site Sketch: includes riffles, pools, runs, ditches, riprap, outfalls, roads, sampling, locations, photo reference #, GPS reference #'s

Monitoring Sheet

right and left stream bank facing upstream

1. Stream Width		For Non-Wadable Streams: 1. Constant 2. Widening 3. Mild constrictions 4. Sharp constriction For Wadable Streams: Stream Width average (ft)
2. Stream Velocity		Velocity average in feet per second (divide 10 (D) by the average time (T) ; $V = D/T$)
3. Stream Depth / Velocity Combinations		1. Slow, deep 2. Fast, deep 3. Fast, shallow
4. Stream Sinuosity		1. Straight – natural 2. Straight – channelized 3. Slight bends 4. Moderate bends 5. Sharp bends (oxbows)
5. Stream Flows		1. Slow 2. Moderate 3. Swift 4. Combination
6. Pools & Riffles		1. None present 2. Present
7. Stream Substrate		1. Fine particles (silt, clay, mud) 2. Sand 3. Gravel 4. Cobble 5. Boulder 6. Bedrock 7. Other
8. Stream Substrate		1. Loose 2. Stable
9. Embeddedness (Gravel, Cobble, & Boulders)		1. 0 – 25% surrounded by fine sediment 2. 26 – 50% surrounded by fine sediment 3. 51 – 75% surrounded by fine sediment 4. Greater than 75% surrounded by fine sediment
10. Sediment on Stream Bottom		1. None 2. Light 3. Moderate 4. Severe
11. Bank Stability	Right Bank	1. Stable, evidence of erosion or bank failure absent or minimal; <5% of bank affected 2. Moderately Stable, small areas of erosion, mostly healed over; <5 – 30% of bank in reach has areas of erosion 3. Moderately Unstable; 31 – 60% of bank in reach has areas of erosion, high erosion potential during flooding 4. Unstable, many eroded areas, “raw” areas frequent; obvious bank sloughing; 60% or > of bank erosional scars
	Left Bank	
12.% of Tree Canopy a. Tunnel b. Over Stream		a. 1. 0 – 25% 2. 26 – 50% 3. 51 – 75% 4. 76 – 100%
		b. 1. 0 – 25% 2. 26 – 50% 3. 51 – 75% 4. 76 – 100%
13. Riparian Vegetation	Right Bank	1. > 50 ft. width 2. 35 – 50 ft. width 3. 15 – 35 ft. width 4. < 15 ft. width
	Left Bank	
14. Woody Debris		1. None 2. In spots 3. Heavy throughout reach
15. Woody Debris		1. Free floating 2. Attached
16. Predominant Aquatic Vegetation		1. Rooted emergent 2. Rooted submergent 3. Rooted floating 4. Free floating
17. Algae Location		1. None 2. On streambed 3. On surface 4. Both
18. Algae Color		1. Light green 2. Dark green 3. Brown 4. Other

19. Channel Alteration	1. Stream with normal pattern 2. Some channelization present, usually in areas of bridges, etc... 3. Channelization extensive, 40 – 80% of the stream reach 4. Over 80% of the stream channelized, gabion baskets and/or riprap, and/or concert present			
20. Structures	Bridges	Culverts	Dams	Other

21. Water Conditions				
Odor:		1. Normal 2. Sewage 3. Petroleum	4. Chemical 5. Anaerobic	6. Other
Color:		1. Clear 2. Tea 3. Milky 4. Muddy	5. Other	
Surface Coating		1. None 2. Oily 3. Foam 4. Scum	5. Other	

Observations: (indicate locations on map)

Photo Reference #'s

GPS Reference #'s

Assessment Sheet

Streamside Land Use – 1. If Present 2. Clearly Impacting Stream				
	Within 50 ft. of top of bank		Within ¼ mile of site	
	Left Bank	Right Bank	Left Bank	Right Bank
1. Residential single-family housing				
2. Residential multifamily housing				
3. Residential Lawns				
4. Residential Pets				
5. Commercial / Institutional				
6. Commercial / Institutional Lawns				
7. Roads Paved				
8. Roads Unpaved				
9. Construction Underway For:				
Housing Development				
Commercial				
Road / Bridge Construction Repair				
13. Agricultural Grazing Land				
14. Agricultural Feed Lots / Animal Holding Areas				
15. Agricultural Cropland				
16. Inactive Agricultural Land / Fields				
17. Recreational Power Boating				
18. Recreational Golfing				
19. Recreational Camping				
20. Recreational Swimming / Fishing / Canoeing				
21. Recreational Hiking / Paths				
22. Waterfowl (with approximate #)				
23. Pet Waste				
24. Industrial				
25. Other				

Observations: (indicate locations on map)

Photo Reference #'s

GPS Reference #'s

Pipe & Drainage Ditch Inventory (fill out one sheet for each one)

Outfall Pipe Reference # _____ in. or ft.

Pipe Diameter: _____

Type: _____ 1. Storm drain 2. Residential discharge 3. Industrial Discharge (NJPDES # _____)
4. Combined sewer overflow 5. Other _____

Pipe Material: _____ 1. Concrete 2. Steel 3. PVC 4. Clay 5. Other _____

Pipe Location: _____ 1. In stream 2. In stream bank 3. Near stream

Pipe Flow/Appearance: _____ 1. None 2. Trickle 3. Intermittent 4. Steady 5. Heavy

Flow Color: _____

Is streambank at outfall eroded? _____

Stream channel downstream: _____ 1. Stable 2. Eroded

Drainage Ditch # _____ 1. Unknown 2. Outfall pipe 3. Parking Lot 4. Settlement Basin / Pond
5. Agricultural field 6. Livestock Operation

Begins At: _____

Ditch Lining: _____ 1. Stone 2. Vegetation 3. Concrete **Ditch Is:** _____ 1. Stable 2. Eroding

Ditch Flow: _____ 1. None 2. Intermittent 3. Steady

Flow Appearance: _____ 1. Clear 2. Turbid 3. Oily 4. Foamy 5. Colored _____

Stream channel downstream: _____ 1. Stable 2. Eroded

Observations: (indicate locations on map)

Photo Reference #'s

GPS Reference #'s

Return completed for to:
Erin Campbell
GLRC Coordinator
Tri-County Regional Planning Commission
913 W. Holmes Rd. Suite 201
Lansing, Michigan 48910
Phone: 517-393-0342
Fax: 517-393-4424
ecampbell@mitcrpc.org

References
Original documents from New Jersey Department of Environmental Protection – Division of Watershed Management http://www.state.nj.us/dep/watershedmgmt/volunteer_monitoring_visual.htm