

APPENDIX 6

**REQUIRED TREATMENT VOLUME WORKSHEET
FOR
STORM WATER FACILITIES**

Water Quality Volume Required?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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- Water quality volume is required for all sites.

Stream Protection Volume Required?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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(If any of the following is checked yes, stream protection volume is required.)

- Discharge to a natural water course. Yes No
- Discharge to a storm sewer or ditch that discharges directly to a natural watercourse without attenuation of flows to below predeveloped runoff rates. Yes No

Standard Flood Control Volume Required?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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(If both of following are checked no, standard flood control volume is required.)

- Hydrologic and hydraulic study proves standard detention criteria will have a negative effect on downstream flows and/or discharge to a lake or wetland at existing peak runoff rates will not have a measurable effect on water levels. In this case, an alternate detention release rate maybe allowed. Yes No
- Direct discharge to a regional detention basin (city-owned or privately owned) via a storm sewer or drainage ditch with adequate capacity to convey the developed 10-year peak flow and secondary conveyance provisions for the developed 100-year peak flow. In this case, flood control volume will not be required. Yes No

Spill Containment Volume Required?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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(If any of following are checked yes, spill containment volume is required.)

- Discharge runoff may contain oil, grease, toxic chemicals or other polluting material. Yes No
- Commercial or industrial development where large amounts of oil and grease may accumulate. Yes No
- Chemicals are stored and/or used onsite. Yes No

**TREATMENT SUITABILITY
OF
URBAN STORM WATER PRACTICES**

Control	Urban Storm Water Practice	Volume			
		Water Quality	Stream Protection	Flood Control	Spill Containment
Integrated Management Practice	Infiltration trench	X	X ¹	X	
	Leaching basin/dry well	X	X ¹	X	
	Swirl concentrator	X			✓
	Bioretation/rain gardens	X	X	X	
	Vegetation: interception/Uptake	✓	✓	✓	
	Reduced lot grading		✓	✓	
	Disconnect roof drains		✓	✓	
	Green roof	✓	✓	✓	
	Impervious cover reductions		✓	✓	
Conveyance	Storm sewers				
	Perforated storm sewers				
	Catch basins	✓			
	Grassed waterways	✓			
Storm Water Facility	Underground storm sewer storage			X	
	Dry detention basin		X	X	
	Extended detention basin	X	X	X	
	Wet detention basin (storm water pond)	X		X	
	Dry infiltration basin	X	X ¹	X	
	Retention pond	X	X ¹	X	
	Storm water wetland	X	X	X	
Pretreatment	Spill containment cell	X			X
	Sediment forebay	✓			
	Water quality swale	X			X
	Underground oil and grit separation	X			X

Empty space = Volume criteria not applicable to BMP, or does not provide treatment volume.

X Fully meets or can be designed to meet treatment volume.

X¹ If infiltration is used exclusively, stream protection volumes are not required, and therefore shown as met.

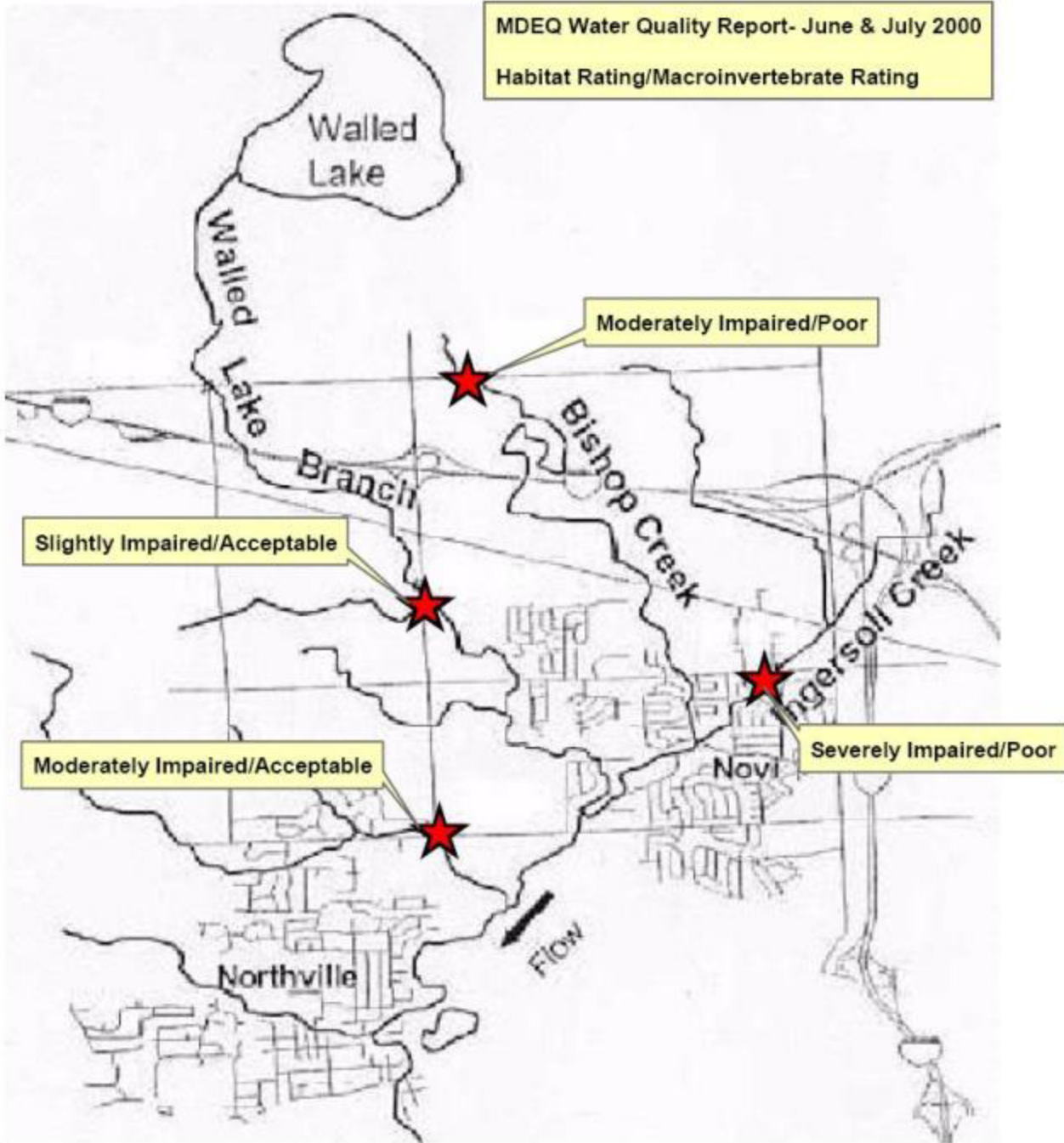
✓ Can be used with other BMPs to help meet uniform treatment criteria.



NO SCALE



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PLOT INFO: D:\WORK\04203\MAP_DOCUMENT\FIG4.1_MDEQ\SITES.MXD DATE: 12/16/2004 USER: MCL

DATA SOURCES: MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY SURFACE WATER QUALITY DIVISION BIOLOGICAL ASSESSMENT OF THE WALLED LAKE BRANCH OAKLAND COUNTY, MICHIGAN, JUNE-JULY 2000.

MDEQ WATER QUALITY SAMPLING LOCATIONS

CITY OF NOVI
OAKLAND COUNTY, MICHIGAN
STORM WATER
MASTER PLAN

PROJECT NO.
G04203

FIGURE NO.

4.1