

MICHIGAN DEPARTMENT OF TRANSPORTATION  
**SCOUR CRITICAL BRIDGE ACTION PLAN**

<b>MDOT Bridge ID</b>		<b>Structure Number</b>			<b>Control Section</b>		
<b>Facility</b>		<b>Federal Struc ID</b>		<b>Last Modified By</b>		<b>Agency Name</b>	
<b>Feature</b>	<b>Location</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Insp Freq</b>	<b>Insp Key</b>		
<b>Length</b>	<b>Width</b>	<b>Year Built</b>	<b>Yr Recon</b>	<b>Br</b>	<b>Type</b>	<b>Scour Eval</b>	<b># of Pins</b>

-

<b>WaterShed</b>	
------------------	--

<b>Scour Vulnerability Rating</b>	
<b>Item 113 Rating &amp; Description</b>	

**ABUTMENT A**

<b>Foundation</b>	<b>In Water</b>		<b>Spread Footing</b>		<b>Piles Deep Fdn</b>		<b>Unknown</b>	
<b>Foundation Soil Type</b>	<b>Non Cohesive</b>		<b>Cohesive</b>		<b>Rock</b>		<b>Unknown</b>	

**ABUTMENT B**

<b>Foundation</b>	<b>In Water</b>		<b>Spread Footing</b>		<b>Piles Deep Fdn</b>		<b>Unknown</b>	
<b>Foundation Soil Type</b>	<b>Non Cohesive</b>		<b>Cohesive</b>		<b>Rock</b>		<b>Unknown</b>	

<b>Total Number of Piers</b>	
<b>Comments</b>	

<b>Piers in water for 100 year event(by footing type)</b> (identify location i.e 1W,2S)	<b>Spread Footing</b>	<b>Piers Deep Fdn</b>	<b>Unknown</b>

<b>Pier Foundation Soil Type</b>	<b>Non Cohesive</b>		<b>Cohesive</b>		<b>Rock</b>		<b>Unknown</b>	
----------------------------------	---------------------	--	-----------------	--	-------------	--	----------------	--

<b>OBSERVED SCOUR REPORTED</b>

<b>SCOUR EVALUATION REPORT, EXECUTIVE SUMMARY</b>

<b>Scour Analysis Event Frequency</b>	<b>25 year</b>	<b>50 year</b>	<b>100 year</b>
<b>Anticipated Surface Elevation(ft)</b>			
<b>Distance below bottom chord(ft)</b>			
<b>Anticipated Flow(cubic ft/sec)</b>			

MICHIGAN DEPARTMENT OF TRANSPORTATION  
**SCOUR CRITICAL BRIDGE ACTION PLAN**

MDOT Bridge ID

Structure Number

Control Section

<b>Facility</b>		<b>Federal Struc ID</b>		<b>Last Modified By</b>		<b>Agency Name</b>									
<b>Feature</b>		<b>Location</b>		<b>Latitude</b>		<b>Longitude</b>		<b>Insp Freq</b>		<b>Insp Key</b>					
<b>Length</b>		<b>Width</b>		<b>Year Built</b>		<b>Yr Recon</b>		<b>Br</b>		<b>Type</b>		<b>Scour Eval</b>		<b># of Pins</b>	

<b>Bridge Inspection Coding Information</b>	
<b>Routine Inspection Date</b>	
<b>Under Water Inspeccion Date</b>	

<b>Pontis Scour Smart Flag</b>		
<b>Pontis Rip-Rap Smart Flag</b>		
<b>Item 71 Water Adequacy</b>		

Item	Rating (1 to 9)	Comments
Abutment		
Piers		
Item 61 Channel/Protection		
(MDOT) Culvert Scour Rating		

<b>Counter Measure Condition &amp; Recommendation</b>	
<b>Existing Counter Measures</b>	

<b>Inspector recommendations</b>	
<b>Counter Measures Not Feasible</b>	
<b>Priority</b>	
<b>Explanation:</b>	

<b>Monitoring Plan</b>	
<b>Routine Inspection Frequency</b>	
<b>Under Water Inspection Frequency</b>	

<b>Cross Section Elevations</b>	
<b>Date Last Taken</b>	
<b>Frequency(in months)</b>	

MICHIGAN DEPARTMENT OF TRANSPORTATION  
**SCOUR CRITICAL BRIDGE ACTION PLAN**

MDOT Bridge ID

Structure Number

Control Section

<b>Facility</b>	<b>Federal Struc ID</b>	<b>Last Modified By</b>		<b>Agency Name</b>			
<b>Feature</b>	<b>Location</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Insp Freq</b>	<b>Insp Key</b>		
<b>Length</b>	<b>Width</b>	<b>Year Built</b>	<b>Yr Recon</b>	<b>Br</b>	<b>Type</b>	<b>Scour Eval</b>	<b># of Pins</b>

-

<b>Items to Watch</b>

<b>Fixed Monitoring Devices</b>
<b>Type of Instruments</b>
<b>Installation Locations</b>

<b>Agency Responsible For Monitoring During High Flow</b>
---

<b>Responsible Agency Location</b>	<b>Phone Number</b>	<b>Cell Number</b>

<b>Flood Monitoring Resources</b>
<b>NoAA Website</b> <a href="http://www.crh.noaa.gov/ahps2/">http://www.crh.noaa.gov/ahps2/</a> [Flows are shown in kcfs]
<b>USGS Website</b> <a href="http://water.usgs.gov/cgi-bin/waterwatch?map_type=real&amp;state=mi">http://water.usgs.gov/cgi-bin/waterwatch?map_type=real&amp;state=mi</a> [Flows are shown in cfs]

<b>Initiate Monitoring when a flood warning is issued and/or when one or more of the following occurs</b>
1. Structure will experience 25 year peak flow or more.
2. Structure is expected to have pressure flow.
3. History of whirlpools upstream or adjacent to sub-structure.
4. History of debris accumulation.
5. Known or existing scour holes.

MICHIGAN DEPARTMENT OF TRANSPORTATION  
**SCOUR CRITICAL BRIDGE ACTION PLAN**

MDOT Bridge ID

Structure Number

Control Section

	null	
<b>Facility</b>	<b>Federal Struc ID</b>	<b>Last Modified By</b>
		ENSER
<b>Feature</b>	<b>Location</b>	<b>Latitude</b>
		null
		<b>Longitude</b>
		null
		<b>Insp Freq</b>
<b>Length</b>	<b>Width</b>	<b>Year Built</b>
		<b>Yr Recon</b>
		<b>Br</b>
		<b>Type</b>
		<b>Scour Eval</b>
		<b># of Pins</b>

Bridge Closure	
<b>Conditions To Evaluate Bridge Closure</b>	
1.Pressure Flow(water surface above bottom cord)	
2.Observed whirlpools upstream and adjacent to substructure	
3.High Debris Accumulation	
4.Settlement of abutment/piers	
5.Erosion of Roadway Embankment	
6.Other	

Contact People For Bridge Closure		
Name	Phone Number	Cell Number

(For NHS bridges, notify FHWA if closure is more than eight hours)		
Contact For Re-Opening After Inspection	Phone Number	Cell Number

Detour Route
Possible Detour Route(route number,from,to, etc.)

Bridges/Culverts on Detour Route			
Detour Bridge Numbers	Water Way	Load Limitations	Scour Rating

Documentation Of High Flow Event			
Date Monitored		Time Monitored	hr min
Storm Duration (hrs)		Estimated Total Rainfall (in)	
High Water Dst from Bottom Chord (ft)		Estimated USGS Flow Discharge (cu ft./sec)	

MICHIGAN DEPARTMENT OF TRANSPORTATION  
**SCOUR CRITICAL BRIDGE ACTION PLAN**

MDOT Bridge ID

Structure Number

Control Section

--	--	--

<b>Facility</b>	<b>Federal Struc ID</b>	<b>Last Modified By</b>	<b>Agency Name</b>
-----------------	-------------------------	-------------------------	--------------------

--	--	--	--

<b>Feature</b>	<b>Location</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Insp Freq</b>	<b>Insp Key</b>
----------------	-----------------	-----------------	------------------	------------------	-----------------

--	--	--	--	--	--

<b>Length</b>	<b>Width</b>	<b>Year Built</b>	<b>Yr Recon</b>	<b>Br</b>	<b>Type</b>	<b>Scour Eval</b>	<b># of Pins</b>
---------------	--------------	-------------------	-----------------	-----------	-------------	-------------------	------------------

--	--	--	--	--	--	--	--

-

<b>Whirlpools Observed</b>

<b>Debris Accumulation</b>

<b>Action Taken / Closure</b>

<b>Comments</b>