

MICHIGAN DEPARTMENT OF TRANSPORTATION

SCOUR CRITICAL BRIDGE ACTION PLAN

| | | | |
|------------------------|---------------------------------------|----------------------------|----------------------------|
| Facility | Latitude / Longitude | MDOT Structure ID | Structure Condition |
| Feature | Length / Width / Spans | Owner | |
| Location | Built / Recon. / Paint / Ovly. | TSC | Operational Status |
| Region / County | Material / Design | Last NBI Inspection | Scour Evaluation |

PLAN OF ACTION AUTHORS

| Name | Agency | Phone | Email | Last Modified Date |
|-------------|---------------|--------------|--------------|---------------------------|
|-------------|---------------|--------------|--------------|---------------------------|

SCOUR VULNERABILITY

- Item 113 Scour Criticality Source of Item 113
- Item 71 Waterway Adequacy
- Level I Assessment
- Level II Analysis
- Executive Summary Scour Evaluation

Calculated Values

| Scour Analysis Event Frequency | 25 year | 50 year | 100 year | 500 year | Comments |
|---------------------------------------|----------------|----------------|-----------------|-----------------|-----------------|
| Anticipated Surface Elevation (ft) | | | | | |
| Distance Below Bottom chord (ft) | | | | | |
| Anticipated Flow (cubic ft/sec) | | | | | |
| Anticipated Pressure Flow (Y/N) | | | | | |

Substructure Information

| Foundation | Normally in Water | Normal Water Depth (ft) | In Water (100 yr) | Footing Type | Depth Known | Soil Type |
|-------------------|--------------------------|--------------------------------|--------------------------|---------------------|--------------------|------------------|
| | | | | | | |

COUNTERMEASURE RECOMMENDATIONS

- Only Monitoring Required **Estimated Cost \$**
- Structural/Hydraulic Countermeasures Considered

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Countermeasure Comments

MONITORING PROGRAM

Recommended Monitoring Requirements

| Type | Frequency/ Amount | Comments |
|---|------------------------------|-----------------|
| <input type="checkbox"/> Regular Inspection | | |
| <input type="checkbox"/> Other Special Inspection | | |
| <input type="checkbox"/> Underwater Inspection | | |
| <input type="checkbox"/> Stream Bed Cross Sections | | |
| <input type="checkbox"/> Monitoring Devices (Fixed, Sonar, etc.) | | |
| <input type="checkbox"/> Flood Monitoring - Initiate monitoring when any of the following occur | | |
| <input type="checkbox"/> NOAA Flood Warning (This includes both Flash Flood and Flood Warnings) | | |
| <input type="checkbox"/> Flow Information | | |
| <input type="checkbox"/> Discharge | | |
| <input type="checkbox"/> Rainfall | | |
| <input type="checkbox"/> WS Elevation | | Measured from |
| <input type="checkbox"/> Pressure Flow | | |
| <input type="checkbox"/> Debris Accumulation | | |

Items to Watch During Monitoring

| Foundation | Items to Watch |
|-------------------|-----------------------|
| | |

Inspection Summary

| Type | Latest Date Completed | Current Frequency | Inspector | Agency |
|----------------------|------------------------------|--------------------------|------------------|---------------|
| Routine | | | | |
| Underwater | | | | |
| Cross Section | | | | |
| Scour Inspection | | | | |
| High Flow Monitoring | | | | |

BRIDGE CLOSURE

Conditions To Consider Bridge Closure

- Water Surface Elevation
- Overtopping of Road or Structure
- Pressure Flow
- High Debris Accumulation
- Observed Structure Movement/Settlement
- Loss of Scour Countermeasures

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Contacts Responsible for BRIDGE CLOSURE

| Name | Title | Agency | Phone Number | Cell Number |
|------|-------|--------|--------------|-------------|
|------|-------|--------|--------------|-------------|

Contacts Responsible for OPENING Bridge

| Name | Title | Agency | Phone Number | Cell Number |
|------|-------|--------|--------------|-------------|
|------|-------|--------|--------------|-------------|

DETOUR ROUTE

Possible Detour Route

| Detour Bridge Numbers | Bridges/Culverts on Detour Route | | Scour Rating |
|-----------------------|----------------------------------|------------------|--------------|
| | Feature Intersected | Load Limitations | |

SCOUR INSPECTIONS

| Date | Type | Freq | Inspector | Agency |
|------|------|------|-----------|--------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

HIGH FLOW EVENTS