Michigan Department of Transportation
5100B (03/10)

CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR REQUESTS FOR PROPOSAL (RFP)

Exhibit B

MDOT PROJECT MANAGER	JOB NUMBER (JN)	CONTROL SECTION (CS)
Steven Katenhus	108225	84914

PROJECT DESCRIPTION
Bay Regions 2010 Underwater Bridge Inspections

ESTIMATED COST PER JN
$118,635

ESTIMATED HOURS PER JN
1221

Check the appropriate Tier in the box below

CONSULTANT: Provide only checked items below in proposal.

☐ **TIER I ($25,000-$99,999)**	☒ **TIER II ($100,000-$250,000)**	☐ **TIER III (>$250,000)**	**MDOT PROJECT MANAGER:** Check all items to be included in RFP. WHITE = REQUIRED GRAY SHADING = OPTIONAL
☐	☒	☐	Understanding of Service
☐	☒	☐	*Innovations*
☐	☒	☐	*Safety Program*
N/A	☒	☐	Organization Chart
☐	☒	☐	Qualifications of Team
☐	☒	☐	Past Performance
Not required as part of official RFP	Not required as part of official RFP	☐	Quality Assurance/Quality Control
☐	☒	☐	**Location:** The percentage of work performed in Michigan will be used for all selections unless the project is for on-site inspection or survey activities, then location should be scored using the distance from the consultant office to the on-site inspection or survey activity.
N/A	N/A	☐	Presentation
N/A	N/A	☐	Technical Proposal (if Presentation is required)
3 pages (MDOT forms not counted) **(No Resumes)**	7 pages (MDOT forms not counted)	19 pages (MDOT forms not counted)	Total maximum pages for RFP **not including key personnel resumes**

REQUEST FOR PROPOSAL

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be submitted in accordance with the latest "Consultant/Vendor Selection Guidelines for Service Contracts" and "Guideline for Completing a Low Bid Sheet(s)", if a low bid is involved as part of the selection process. **Referenced Guidelines are available on MDOT's website under Doing Business > Vendor/Consultant Services >Vendor/Consultant Selections.**

RFP SPECIFIC INFORMATION

☑ BUREAU OF HIGHWAYS ☐ BUREAU OF TRANSPORTATION PLANNING ** ☐ OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

☐ NO ☑ YES DATED 9/1/09 THROUGH 12/31/09

☑ **Prequalified Services** – See page 1 of the attached Scope of Services for required Prequalification Classifications.

☐ **Non-Prequalified Services** - If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, if overhead is not audited, is on file with MDOT's Office of Commission Audits. This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed. (**Form 5100J Required with Proposal**)

☑ **Qualifications Based Selection** – Use Consultant/Vendor Selection Guidelines

For all Qualifications Based Selections, the section team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected vendor will be contacted to confirm capacity. Upon confirmation, that firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

****For RFP's that originate in Bureau of Transportation Planning only**, a priced proposal must be submitted at the same time as, but separate from, the proposal. Submit directly to the Contract Administrator/Selection Specialist, Bureau of Transportation Planning **(see address list, page 2)**. The priced proposal must be submitted in a sealed envelope, clearly marked **"PRICE PROPOSAL."** The vendor's name and return address MUST be on the front of the envelope. The priced proposal will only be opened for the highest scoring proposal. Unopened priced proposals will be returned to the unselected vendor(s). Failure to comply with this procedure may result in your priced proposal being opened erroneously by the mail room.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

☐ **Qualifications Review / Low Bid** - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted and post the date of the bid opening on the MDOT website. The notification will be posted at least two business days prior to the bid opening. Only bids from vendors that meet proposal requirements will be opened. The vendor with the lowest bid will be selected. The selected vendor may be contacted to confirm capacity.

☐ **Best Value** - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

☐ **Low Bid** (no qualifications review required - no proposal required.) See Bid Sheet Instructions below for additional instructions.

BID SHEET INSTRUCTIONS

A bid sheet(s) must be submitted in accordance with the "Guideline for Completing a Low Bid Sheet(s)" (available on MDOT's website). The Bid Sheet(s) is located at the end of the Scope of Services. Submit bid sheet(s) separate from the proposal, to the address indicated below. The bid sheet(s) must be submitted in a sealed manila envelope, clearly marked **"SEALED BID."** The vendor's name and return address MUST be on the front of the envelope. Failure to comply with this procedure may result in your bid being opened erroneously by the mail room and the bid being rejected from consideration.

PROPOSAL SUBMITTAL INFORMATION

REQUIRED NUMBER OF COPIES FOR PROJECT MANAGER	PROPOSAL/BID DUE DATE	TIME DUE
3	4/8/10	11:00 a.m.

PROPOSAL AND BID SHEET MAILING ADDRESSES

Mail the multiple proposal bundle to the MDOT Project Manager or Other indicated below.

☑ MDOT Project Manager ☐ MDOT Other

Mail one additional stapled copy of the proposal to the Lansing Office indicated below.

	Lansing Regular Mail	OR	Lansing Overnight Mail
☑	Secretary, Contract Services Div - B470 Michigan Department of Transportation PO Box 30050 Lansing, MI 48909		Secretary, Contract Services Div - B470 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48933
☐	Contract Administrator/Selection Specialist Bureau of Transportation Planning B470 Michigan Department of Transportation PO Box 30050 Lansing, MI 48909		Contract Administrator/Selection Specialist Bureau of Transportation Planning B470 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48933

GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least four (4) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal

The following two American Recovery and Reinvestment Act of 2009 (ARRA) notifications, **ARRA MONTHLY EMPLOYMENT REPORTS** and **REQUIRED CONTRACT PROVISIONS TO IMPLEMENT AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA) SECTIONS 902 AND 1515**, are attached to this Request For Proposal for your understanding. These two notifications are only applicable for those projects/contracts funded with ARRA funds and will be included in contract Exhibits.

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

5100D – Request for Proposal Cover Sheet
5100G – Certification of Availability of Key Personnel
5100I – Conflict of Interest Statement
5100J - Consultant Data and Signature Sheet (Required only for Non-Prequalified Work)

(These forms are not included in the proposal maximum page count.)

Notification
ARRA MONTHLY EMPLOYMENT REPORTS
Note: This Notification is only applicable for those projects/contracts funded with ARRA funds. If you have questions, please contact MDOT Contract Services Division at (517) 335-0071.

The American Recovery and Reinvestment Act of 2009 (ARRA), requires states receiving stimulus funds for highway projects to provide monthly reports to the Federal Highway Administration (FHWA) regarding the number of employees of the prime contractors, all-tier subcontractors and consultants on ARRA funded projects.

The cost for complying with this Notification must be borne by the prime contractor, and all-tiers of subcontractors and consultants, as part of their overhead and is deemed to be included in the payments made under this contract.

Within 10 days after the end of each month in which work is performed on this contract, all prime contractors and consultants must provide the Engineer a monthly report on MERS at https://sso.state.mi.us/ providing employment information on each ARRA project, which will include, for work performed in that preceding month:

- The total number of employees who performed work on this contract.
- The total number of hours worked by employees who performed work on this contract.
- The total wages of employees who performed work on this contract.

Prime Consultants are responsible for reporting on all subconsultants' employment information in MERS, as the sub consultants will not have access to do so.

In addition, the prime contractor must provide a total payment amount made to any subcontractor who is a certified DBE in that preceding month.

This Notification shall be included as a part of each subcontract executed by the prime contractor, and all-tiers of subcontractors and consultants.

If necessary to conform to guidance provided by FHWA concerning the ARRA reporting requirements, the prime contractor, and all-tiers of subcontractors and consultants will revise their reporting as directed by the Engineer.

Failure to comply with the reporting requirements under ARRA would jeopardize the Department's continued receipt of ARRA funding.

Accordingly, if a contractor or any-tier of subcontractor or consultant fails to comply with this Notification, the Department may withhold contract payments until compliance is achieved. If the Department is compelled to incur costs because of such a breach, the amount of those costs may be deducted from payments otherwise to be made under this contract. Additional sanctions may include reduction or elimination of prequalification ratings and removal of bidding privileges.

NOTIFICATION
REQUIRED CONTRACT PROVISIONS TO IMPLEMENT AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA) SECTIONS 902 AND 1515

Note: This notification is only applicable for those projects/contracts funded with ARRA funds. If you have questions, please contact MDOT Contract Services Division at (517) 335-0071.

In accordance with requirements under section 902 of the American Recovery and Reinvestment Act of 2009 (ARRA), the following language is made a part of this contract and is to be made a part of all tier subcontracts or consultant contracts:

The U.S. Comptroller General and his representatives have the authority:

(1) To examine any records of the contractor or any of its subcontractors, or any State or local agency administering such contract, that directly pertain to, and involve transactions relating to, the contract or subcontract; and

(2) To interview any officer or employee of the contractor or any of its subcontractors, or of any State or local government agency administering the contract, regarding such transactions.

The Comptroller General and his representatives have the authority and rights provided under Section 902 of the ARRA with respect to this contract. As provided in section 902, nothing in section 902 shall be interpreted to limit or restrict in any way any existing authority of the Comptroller General.

In accordance with the requirements of section 1515(a) of the ARRA any representatives of the Inspector General have the authority:

(1) To examine any records of the contractor or grantee, any of its subcontractors or sub-grantees, or any State or local agency administering such contract, that pertain to, and involve transactions relating to the contract, subcontract, grant, or sub-grant; and

(2) To interview any officer or employee of the contractor, grantee, sub-grantee or agency regarding such transactions.

Nothing set forth in section 1515 of the ARRA shall be interpreted to limit or restrict in any way any existing authority of an inspector general.

Michigan Department of Transportation

SCOPE OF SERVICE
FOR
SPECIALTY SERVICES
Underwater Bridge Inspection

CONTROL SECTION(S): 84914

JOB NUMBER(S): 108225

PROJECT LOCATION(S):
The bridges are in various locations in Arenac, Bay, Genesee, Gladwin, Huron, Isabella, Lapeer, Midland, Saginaw, Sanilac and Tuscola Counties, Michigan in the Bay Region (see **Attachment No. 1**, **Work Package Listing**, for specific bridge numbers and locations).

DESCRIPTION OF WORK:
In accordance with Federal Regulations, each bridge under MDOT jurisdiction that has submerged substructure elements that cannot be checked by wading, must be inspected by a qualified diver on a periodic basis of 60 months or less. The work defined in this scope is limited to performing an underwater inspection of bridge substructure elements and preparing a report that details the inspection findings.

The work associated with this project is broken into two phases: Site inspection and data gathering, and the completion of the report writing and communication of the information to MDOT. Both phases must be complete for successful completion of the project.

PRIMARY PREQUALIFICATION CLASSIFICATION:
Underwater Bridge Inspection

SECONDARY PREQUALIFICATION CLASSIFICATION:
Bridge Safety Inspection

ANTICIPATED START DATE: May 7, 2010

ANTICIPATED COMPLETION DATE: October 1, 2010

DBE REQUIREMENT: N/A

MDOT PROJECT MANAGER

Steven Katenhus, P.E.
Bay Region Bridge Management Engineer
55 E. Morley Drive
Saginaw, Michigan 48601
DPM Office: (989) 754-0878 ext 242
Fax: (989) 754-8122
DPM E-mail katenhuss@michigan.gov

Any questions regarding this Scope of Service please contact the MDOT Project Manager.

DURATION & SCHEDULE

Project Schedule

By submittal of the priced proposal, the CONSULTANT is verifying that they can meet the schedule identified in this scope of work. The CONSULTANT is required to develop a project schedule for the inspection of the bridges shown on the attached WORK PACKAGE LIST. The Project Schedule must be submitted in the form of a Gantt Chart also showing the meeting dates as milestones.

Any changes to the schedule must be submitted to the MDOT PM for approval prior to the change. Failure to progress in alignment with the schedule will be considered as failing to meet the terms of the authorization and may result in the cancellation of the contract.

The CONSULTANT must be prepared to begin the field inspection work within one week after receiving the notice to proceed.

Project Dates

The CONSULTANT is required to attend an initial pre-inspection meeting, and a project closeout meeting. The expected dates for these meetings are shown below; however, these may be adjusted as mutually agreed to by the MDOT PM and the CONSULTANT.

Priced Proposal Submission:	**May 7, 2010**
Anticipated NTP:	**May 14, 2010**
Pre-Inspection Meeting:	**May 20, 2010**
Project Closeout Meeting:	**October 1, 2010**

ADDITIONAL QUALIFICATION REQUIREMENTS:

The Consultant must provide personnel with qualifications that meet or exceed the requirements below and comply with all applicable FHWA regulations. One individual may act in different capacities at different times. However, they must meet the qualifications of both jobs. This accommodation does not allow for a reduction in staff size at the site as described below.

Changes made to the Project Manager/Team Leader that occurs after the authorization must be submitted in writing for MDOT's project manager's approval. Failure to comply with this requirement may result in termination of the contract.

The Project Manager/ Team Leader will be responsible for writing the Inspection Report and will be the primary contact with MDOT's project manager.

Only one manager level position will be allowed and paid for on this project.

Diver Inspection Team Composition

1. Each bridge will be inspected by a diving team composed of three (3) people in a combination of Diver(s) and Tender(s). For open water dives, the team will be composed of a diver and two (2) tenders, for penetration dives the team will be composed of two (2) divers and one (1) tender. The Consultant PM may also serve as one of the team members if properly certified. The Consultant PM will act as Team leader while in the field.

Diver Qualifications

1. Certified by a national recognized authority, such as the Professional Association of Diving Instructors (PADI) or Association of Commercial Diving Educators (ACDE) in the type of diving equipment that will be used for the inspections. They must be in sound physical condition and have proof of a medical physical examination within the last twelve (12) months on file with the company.

2. Three years of documented structural inspection experience with bridges and similar structures. This experience must be actual performance of the work and not supervision or ancillary activities.

3. Be able to verbally communicate well and able to write and sketch the observations found during the inspection.

4. Must be a Qualified Team Leader.

Diver Tender Qualifications

1. Two years of experience in assisting diver operations. This must be actual performance of the work and not supervision or ancillary activities.

DESCRIPTION OF THE WORK (cont'd)

Bridge File review

In this phase of the work the CONSULTANT will take several steps to review the documentation for each bridge and register on-line to be assigned the forms to complete.

1. The Qualified Diver must register on-line with the MDOT Michigan Bridge Inspection System (MBIS) bridge data collection application, at the "New Consultant

/ Inspector Registration". This person's name will appear on all inspection documents.

2. Review the bridge files, and become familiar with the documentation for each bridge at the MDOT Bay Region office.
3. Review previous underwater inspection reports, if available.

Site Inspection

Briefly stated, the Diver Inspection Team will go to the bridge site, enter the water with underwater breathing equipment, and physically examine (Level I) the condition of the structure under the water's surface and just above it. This inspection will be done according to NBIS and will include a topographical examination of the stream bed in and around the substructure elements and probing along the mud line for support. The Diver Inspection Team will record their observations in narrative form as well as with sketches and pictures as is appropriate.

Prior to commencing diving operations, the Diver Inspection Team will evaluate and make notes on the waterway such as bank erosion or evidence of waterway movement, debris buildup, and obstructions which may adversely affect the bridge. Any deficiencies visually observed on substructure elements above the water will be noted in the report.

Timber dolphin and fender systems on or near the bridge or in the waterway for the protection of the bridge will be inspected. The structural condition of the elements will be determined and they will be evaluated to determine if they meet the latest FHWA clearance requirements.

The elevation of the river bed relative to an established USGS datum must be measured for all structures over water. These measurements must be taken at the previous locations along the length of the bridge that is over the water and recorded on the "***Stream Cross Section Report***" form. This information must be compared to the previous data, if available, in the form of a graph. The form is set up to automatically graph the new data with the old for comparison. With the approval of the MDOT PM, the CONSULTANT may contact ***Christopher Potvin, P.E., Consultant PM-Manager of the MDOT Hydraulics Unit in Design*** for additional information.

Problems, which could affect the continued safe operation of the bridge, must be brought to the attention of the MDOT PM before the Diver Inspection Team leaves the site.

Reports

The Diver Inspection Team will take the information and data obtained in the field and assemble it into a report for delivery to MDOT. The report will contain a written description of the conditions found at the site above and below water, contain a statement as to the condition of the substructure elements (ie good, fair, poor), identify all deleterious conditions and an estimate of the magnitude of each, and provide photographs and sketches of the substructure element and the effected areas. MDOT will provide existing plan and elevation drawings for each bridge to aid and utilize when producing each sketch.

A Michigan Registered Professional Engineer working for the consultant will review the underwater

inspection for compliance with the NBIS and CFR 650 for the thoroughness of the inspection. The report will be sealed and signed by the consultant attesting to this review.

The consultant report will contain a number of standard observations and measurements as follows:

1. Date and time of inspection.
2. Bridge Number
3. Location and name of waterway
4. Water Temperature
5. Current Water
6. Depth Turbidity
7. Type of material on the stream bed
8. Presence and condition of rip-rap or scour countermeasures
9. Extent of marine growth on substructure elements
10. Consultant PM's Name
11. Diver Inspector's Name
12. Tenders Name
13. Type of diving equipment used.

Two (2) draft copies of each report will be provided to the MDOT Project Manager. One of these will be marked up by MDOT with comments and returned to the consultant for review. A progress meeting will be held with the MDOT representatives and the consultant to review and discuss comments. The consultant will then incorporate revisions into the final reports. MDOT reserves the right to request additional drafts for review if, in the opinion of MDOT's Project Manager, the changes required are extensive. The contract will be unsatisfactory if the consultant fails to make changes to the reports as required by MDOT's Project Manager.

The consultant will submit two bound copies of the final report for each bridge. The final report will also contain one Compact Disk (CD) with electronic copies of the final report and photographs.

Streambed profile measurements will be included with each report and on the standardized forms provided on the MDOT Bridge Operations website.

The consultant will be required to recommend updated NBIS ratings for the Substructure Elements (Item 60), Channel and Channel Protection (Item 61), and Pier Protection (Item 111), as part of the deliverables. The Consultant will also be required to use the Michigan Bridge Inspection System to complete the underwater inspection form, SI&A item 92B and include a copy of this report in the final report. This portion of the deliverables will be coordinated with the MDOT PM and completed at the time of the inspections.

The consultant deliverables will include two written recommendations to remediate a scour critical rating of 5 or below.

EQUIPMENT

The consultant will be responsible for providing all equipment necessary to complete the project in

an efficient and safe manner. The consultant will be responsible for selecting the type of dive equipment (SCUBA, surface-supplied air, or mixed gas) that will best be suited for the work at a given site and is required to have all of the typical forms of commercial diving equipment available for the project. The boat or marine vessel used for the project must have room to accommodate MDOT staff as necessary.

The consultant must provide all of the necessary inspection tools for completion of the inspection. Typical items such as cameras, hammers, lights, message boards, and scrapers can be expected.

The consultant must provide all of the necessary personal safety equipment for each employee at the work site.

All equipment must be in sound working order, meeting applicable inspections for safe operation. Lost time due to equipment failures will not be paid for.

SAFETY

MDOT requires safe working operations. The consultant and it's employees must be trained in all the applicable state and federal regulations as well as industry practices for the work being performed. It is not the responsibility of MDOT or the MDOT PM to regulate the consultant's safety practices, however, the MDOT PM has the authority to have any individual who is found working unsafely removed from MDOT right of way. If the consultant is found to be working unsafely, the MDOT PM can stop all operations and terminate the contract.

Some, but not all, of the regulations that can be expected to apply are the latest revisions of:

> Michigan Occupational Safety and Health Administration regulations (MIOSHA) Part 79 & Part 504, Diving Operations.
> Occupational Safety and Health Administration regulations (OSHA) Subpart N, Commercial Diving Standards.
> Marine Occupational Safety and Health Standards (USCG Regulations), 46 CFR 197.200-197.488 plus Appendix A, Subchapter V.
> Consensus Standards for Commercial Diving Operations, Association of Diving Contractors, latest edition (ADC Standards)

EXISTING RECORDS AND DATA

MDOT will furnish the consultant access to any available pertinent information related to the structure(s) being inspected.

Information furnished to the consultant is not to be released or distributed to any outside agency without written permission from MDOT's Project Manager.

CONSULTANT PAYMENT – Actual Cost Plus Fixed Fee:
Compensation for this project shall be on an **actual cost plus fixed fee** basis. This basis of payment typically includes an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, subconsultant costs, and applied fixed fee.

All billings for services must be directed to the Department and follow the current guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's website. This document contains instructions and forms that must be followed and used for billing. Payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to your contract for your specific contract terms.

Direct expenses, if applicable, will not be paid in excess of that allowed by the Department for its own employees in accordance with the State of Michigan's Standardized Travel Regulations. Supporting documentation must be submitted with the billing for all eligible expenses on the project in accordance with the Reimbursement Guidelines. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this project.

The use of overtime hours is not acceptable unless prior written approval is granted by the MDOT Region Engineer/Bureau Director and the MDOT Project Manager. Reimbursement for overtime hours that are allowed will be limited to time spent on this project in excess of forty hours per person per week. Any variations to this rule should be included in the priced proposal submitted by the Consultant and must have prior written approval by the MDOT Region Engineer/Bureau Director and the MDOT Project Manager.

The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.

The hours billed for inspectors will not begin until the inspectors report to the project site.

GENERAL
Release of information: The consultant may not release any information about the bridge or the inspection to anyone outside of MDOT. The consultant is not allowed to make copies of the information in the bridge files unless given written approval from the MDOT Project Manager.

References and Guidelines: The consultant is expected to be familiar with the following reference material:

- AASHTO Publications:
  Manual for Condition Evaluation of Bridges
  AASHTO Manual for Maintenance Inspection of Bridges
- Federal Highway Administration (FHWA) Publications:

Inspection of Fracture Critical Bridge Members

- Manual on Uniform Traffic Control Devices for Streets and Highways
- National Bridge Inspection Standards (NBIS)
- Bridge Inspectors Reference Manual (BIRM)
- Underwater Bridge Inspections

ATTACHMENT 1

County	Control Section Number	Ab Structure Number	Facility Carried	Feature Intersected	Location
Arenac	06073-B02	398	US-23	Au Gres River	In Au Gres
Bay	09012-B01	581	M-247	Kawkawlin River	4.4 mi. NW of Bay City PO
Bay	09031-B01	585	M-13	Cheboyganing Creek	5.2 mi. S of Bay City PO
Bay	09032-B02	587	M-13 & M-84	W Channel Saginaw River	Bay City (Lafayette Ave)
Genesee	25032-B01	2488	I-75 & US-23	Flint River	2.0 mi. N of M-21
Genesee	25042-B05	2519	I-75 Ramp A & C	Swartz Creek	SB I-75 Ramp to I-69
Genesee	25072-B02	2567	M-54	Flint River	In Flint (2.6 mi. N of Co. Line)
Genesee	25132-B05	2637	I-475	Flint River, W Blvd	Flint
Gladwin	26011-B01	2871	M-18	Tobacco River	In Beaverton
Gladwin	26022-B01	2880	M-61	Tittabawassee River	0.3 mi. E of M-20
Gladwin	26031-C01	12879	M-30	No Name Creek	M-61 & M-30 S of INT 400’
Huron	32011-B01	3444	M-25	Sebewaing River	In Sebewaing
Huron	32012-B02	3449	M-25	Pigeon River	In Caseville
Isabella	37014-B01-1	4240	US-127	Chippewa River	1.9 mi. NW of M-20
Isabella	37014-B01-2	4241	US-127	Chippewa River	1.9 mi. NW of M-20
Lapeer	44012-B03	5303	M-24	N Br Flint River	0.6 mi. S of M-90
Lapeer	44061-B04	5364	M-90	N Br Flint River	0.8 mi. E of M-24
Midland	56021-R01	6891	M-20	CSX/Tittabawassee River	In Midland
Midland	56032-B01	6897	M-30	Tittabawassee River	0.3 mi. N of Edenville
Midland	56044-B04-3	6903	US-10 EB	Sanford Lake	0.2 mi. NW of M-30
Midland	56044-B04-4	6904	US-10 WB	Sanford Lake	0.2 mi. NW of M-30

Saginaw	73051-B04	9079	M-13	Flint River	7.2 mi. S of M-46
Saginaw	73062-B02	9094	M-46	Tittabawassee River	0.4 mi. W of M-47
Saginaw	73062-B04	9096	M-46	Saginaw River	In Saginaw
Saginaw	73101-B01	9115	I-675	Saginaw River GTW C&O RR	In Saginaw
Saginaw	73131-B02	9178	M-83	Cass River	In Frankenmuth
Saginaw	73171-B02-1	9185	I-75 NB	Cass River	10.0 mi. NW of Genesee Co.
Saginaw	73171-B02-2	9186	I-75 SB	Cass River	10.0 mi. NW of Genesee Co.
Sanilac	74022-B06	9459	M-90	Black River	4.7 mi. W of US-25 in Croswell
Tuscola	79032-B01	10410	M-15	Cass River	In Vassar
Tuscola	79041-B01	10413	M-46	Cass River	5.5 mi. W of M-24
Tuscola	79051-B01	10428	M-24	Cass River	0.6 mi. S of M-81 in Caro
Tuscola	79081-B01	10439	M-25	Quanicassee River	0.8 mi. E of Bay Co. Line