STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
Department of Technology, Management, and Budget

525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **8**

to

Contract Number **071B3200093**

<table>
<tr>
<td rowspan="7">CONTRACTOR</td>
<td>WINDSOR SOLUTIONS INC</td>
<td rowspan="7">STATE</td>
<td>Program Manager</td>
<td>Various</td>
<td>EGLE</td>
</tr>
<tr>
<td>4386 SW Macadam Ave , Suite 101</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portland, OR 97239</td>
<td rowspan="5">Contract Administrator</td>
<td>Jarrod Barron</td>
<td>DTMB</td>
</tr>
<tr>
<td>Craig Austin</td>
<td>(517) 249-0406</td>
<td></td>
</tr>
<tr>
<td>(503) 675-7833 x215</td>
<td>barronj1@michigan.gov</td>
<td></td>
</tr>
<tr>
<td>craig_austin@windsorsolutions.com</td>
<td></td>
<td></td>
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<tr>
<td>CV0066405</td>
<td></td>
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</tr>
</table>

CONTRACT SUMMARY

MIWATERS

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
May 9, 2013	May 8, 2018	0 - 1 Year	May 8, 2028

PAYMENT TERMS	DELIVERY TIMEFRAME

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ PRC	☐ Other	☒ Yes	☐ No

MINIMUM DELIVERY REQUIREMENTS

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
☐		☐		August 31, 2021

CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE
$8,587,427.00	$0.00	$8,587,427.00

DESCRIPTION

Effective 8/24/2021, the parties agree that Contract 171-210000001348 will replace, supersede, and effectively terminate this Contract 071B3200093 including all Statements of Work, beginning on 9/1/2021. Accordingly, the parties close this Contract 071B3200093 on 8/31/2021. All other terms conditions specifications, and pricing remain the same. Per Contractor, Agency, DTMB Central Procurement and State Administrative Board approval on 8/24/2021.

Program Managers
for
Multi-Agency and Statewide Contracts

AGENCY	NAME	PHONE	EMAIL
EGLE	Sarah Ehinger	269-216-1341	EhingerS1@michigan.gov
DTMB	Manny Rosales	(517) 241-4652	RosalesM@michigan.gov

STATE OF MICHIGAN
ENTERPRISE PROCUREMENT
Department of Technology, Management, and Budget
525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **7**

to

Contract Number **071B3200093**

<table>
<tr><td rowspan="6">CONTRACTOR</td><td colspan="2">WINDSOR SOLUTIONS INC</td><td rowspan="6">STATE</td><td rowspan="3">Program Manager</td><td>Jerrod Sanders</td><td>DEQ</td></tr>
<tr><td colspan="2">4386 SW Macadam Ave</td><td colspan="2">269-350-1801</td></tr>
<tr><td colspan="2">Portland, OR 97239</td><td colspan="2">SandersJ3@michigan.gov</td></tr>
<tr><td colspan="2">Craig Austin</td><td rowspan="3">Contract Administrator</td><td>Jennifer Bronz</td><td>DTMB</td></tr>
<tr><td colspan="2">(503) 675-7833 x215</td><td colspan="2">(517) 284-6992</td></tr>
<tr><td colspan="2">craig_austin@windsorsolutions.com</td><td colspan="2">bronzj@michigan.gov</td></tr>
</table>

CONTRACT SUMMARY

MIWATERS RFP

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW
May 9, 2013	May 8, 2018	2 - 1 Year	May 8, 2018

PAYMENT TERMS	DELIVERY TIMEFRAME
	N/A

ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
☐ P-Card	☐ Direct Voucher (DV)	☐ Other	☒ Yes	☐ No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
☒	2 - 1 Year Options	☒	10 Years	May 8, 2028

CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE
$5,587,427.00	$3,000,000.00	$8,587,427.00

DESCRIPTION

Effective 4/18/2018 the State and Contractor have agreed to extend the contract for useful life, 10 years, plus 2 - 1 year options. This change also includes ongoing annual licensing for nForm, nSpect and nSite, maintenance and enhancements with reporting. Please see attached SOW for further details. All other terms conditions specifications, and pricing remain the same. Per Contractor, Agency, DTMB Procurement approval.

MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
IT SERVICES
STATEMENT OF WORK

Project Title: MiWaters – Product Life, Licensing, Maintenance, & Enhancements	Period of Coverage: July 2018 to
Requesting Department: Department of Technology, Management and Budget	Date:
DTMB Project Manager: Sarah Raja	Phone: 517-284-9822

BACKGROUND:
Water Resource Division (WRD) of Department of Environmental Quality (DEQ) agency is currently working with the vendor, Windsor Solutions to implement and improve the MiWaters application which consolidated and replaced over 26 applications utilized by WRD.

PROJECT OBJECTIVE AND GOALS:
The objective of this project is to do the following:

- Update the contract length to represent the assumed functional life of the MiWaters product which is expected to be 10 years (ending May 2028) with an additional 2 option years.

- Enter into ongoing licensing agreements for nForm, nSpect, and nSite which are peripheral, off-the-shelf products that compliment MiWaters.

- Establish a revised maintenance plan and service level agreement that includes monthly reports and invoicing

- Provide for the potential to undertake additional MiWaters enhancements up to but not to exceed $900,000 throughout the functional life of the product. Enhancements will not be undertaken unless a specific scope of work has been identified and approved and a purchase order obtained.

SCOPE OF WORK, TASKS AND DELIVERABLES:

Contract Length
Contract functional life is estimated to be at least 10 years from current. Update the contract life to correspond to the functional life of the product with an additional two option years. This is an estimate to update the contract end date to May 8, 2030 with option years.

Licensing Cost and Definition

Product	Limited License $k per year
nForm	25
nSpect	10
nSite	10

A License covers unlimited usage, and up to two instance installations (for test/production).

Limited License Scope
A limited license is for a specific contracted purpose (e.g. Air program forms / FOIA / fishing licenses). Expansion to other additional programs require additional Limited Licenses or an Agency License.

Version upgrades
The annual license includes rights to all software version upgrades. Version upgrades contain new or changed functionality and bug fixes.

Emergency Patches
As needed, emergency patches may be provided to address critical production issues. The annual license includes rights to all emergency patches and deployment scripts. Client must keep up to date (within two production releases) to receive emergency patches.

Annual Escalation
License fees to remain fixed for the first 3 years of the contract. The 4th year Windsor reserves the right to increase annual license fees to current standard rates.. Year 5 and the remainder of the term of the contract should an annual increase be enacted, the increase will not exceed 2% over the prior year license fee.

Termination
Failure to renew the annual license will not terminate product use, but the annual license plus any extra effort required for multi-version upgrades must be back paid for future upgrades.

Service Levels

Issue Severity Definition
The following table provides product issue severity definitions.

Severity	Definitions or Examples
P1/Critical	System down and not accessible due to product issue, causing severe business impact to the customer.
P2/Major	Major functions of the product are not working causing business impact to the customer.
P3/Moderate	Moderate problem or issue, no significant business impact, workaround may exist.
P4/Minor	There is a consistent and reproducible non-conformity that results in no loss of functionality and no legal or regulatory non-compliance.

Issue Response Definition
The following table provides product issue response and resolution time.

Severity	Target Initial Response / Triage	Target Resolution Time
P1/Critical	Action on ticket within 1 business hour*	Correct or de-escalate to P2 within a maximum of 12 hours. Fix provided as emergency patch.
P2/Major	Action on ticket within 4 business hours*	3 business days. Fix provided as patch or new deployment.
P3/Moderate	Action on ticket within 5 business days	Added to product backlog. Addressed in future release based on relative priority and age.
P4/Minor	Action on ticket as time permits	Added to product backlog as low priority. May be resolved in future release.

* Business hours: 8:00am – 5:00pm Pacific Time.

Maintenance Service Level Agreement
DEQ, DTMB, and Windsor will enter into a Maintenance Service Level Agreement detailing how maintenance will be conducted and what is included in the scope of maintenance.

Windsor will provide Maintenance and Support billable at Windsor's standard rates.

Maintenance and Support is used to provide the following types of activities:

- General support requests and inquiries
- Training Requests
- Testing and Troubleshooting support unrelated to enhancements
- MI specific application configuration support
- Deployment support for releases and emergency patches
- Periodic Status Reports and Status Meetings
- Custom Release Notes

All hours will be tracked in Windsor's time reporting system.

Windsor will estimate and obtain pre-approval for any maintenance activities or requests that are anticipated to exceed 24 hours. In addition, Windsor will communicate any in-process maintenance activities or requests, which, due to unforeseen circumstances, encroach upon 24 hours of effort, and obtain DEQ approval prior to performing any additional work on that activity.

At the beginning of each month, Windsor will provide DEQ with a detail report of the prior month's hours and cost for review. The report will include Consultant Name, Date, Hours and Description (including no. of bug tickets) of the support activities provided on that date.

Windsor may invoice monthly for maintenance and support services provided during the month once approved by DEQ

Enhancement of the System
Provide for the opportunity to continue to enhance the capabilities of the MIWaters application throughout the life of the application. The WRD seeks to be authorized to spend up to but not exceeding $900,000 over the course of the life of the project. Prior to undertaking enhancements, the WRD will develop a well-defined scope of work (SOW) and receive firm fixed price estimates. As estimates and SOW is defined WRD will seek a purchase order against the contract to authorize the work.

PROJECT & PAYMENT SCHEDULE:
Prior to the beginning of each month, the State will determine the prioritization of the enhancements listed in the Requirements, Acceptance Criteria and Cost Matrix. Each month, Contractor shall perform those enhancements requested by the State for that month. After each month's end, Contractor shall invoice the State for any enhancements

delivered to and formally accepted by the State during the prior month. See attached Requirements, Acceptance Criteria and Cost Matrix for details.

Prior to the beginning of each month, the State may, at its sole option, substitute new items into the work backlog in exchange for removing like-value Priority 2 or Priority 3 items. In the event the State opts for a like-value substitution, the parties will document the new requirement, including its value and acceptance criteria, and shall map specifically the Priority 2 or Priority 3 items for which the new items are being substituted.

ACCEPTANCE CRITERIA:
Deliverables will not be considered complete until the DTMB Project Manager has formally accepted them.

High-level acceptance criteria:

Document Deliverables
1. Documents are dated and in electronic format, compatible with State of Michigan software.
2. Any changes to requirements once they are approved will be captured in the change control document and the revised Work Requests.
3. Draft documents are not accepted as final deliverables.
4. The documents will be reviewed and accepted in accordance with the requirements of the Contract and Appendices.

Software Deliverables - General
Software includes, but is not limited to, software product, development tools, support tools, data migration software, integration software, and installation software.
1. Beta software is not accepted as final deliverable.
2. The software will be reviewed and accepted in accordance with the requirements of the contract.
3. DEQ and DTMB will review software within a mutually agreed upon timeframe for acceptance of functionality, usability, installation, performance, security, standards compliance, backup/recovery, and operation.
    a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
    a. Unacceptable issues will be documented and submitted to the Contractor.
    b. After issues are resolved or waived, the Contractor will resubmit software for approval within 30 days of receipt.
4. Software is installed and configured, with assistance from DTMB, in an appropriate environment (e.g. development, conversion, QA testing, UAT testing, production, and training).
5. Contingency plans, de-installation procedures, and software are provided by the Contractor and approved by both the DTMB Project Manager and Agency Project Manager.
6. Final acceptance of the software will depend on the successful completion of User Acceptance Testing (UAT).
7. Testing will demonstrate the system's compliance with the requirements of the Contract. At a minimum, the testing will confirm the following:
    a. Functional - the capabilities of the system with respect to the functions and features described in the Contract.
    b. Performance - the ability of the system to perform the workload throughput requirements. All problems should be completed satisfactorily within the allotted time frame.
8. Software source code, where applicable, is reviewed by DTMB within a mutually agreed upon timeframe for readability, structure, and configuration management.
    a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
    b. Unacceptable issues will be documented and submitted to the Contractor.
    c. After issues are resolved or waived, the Contractor will resubmit source code for approval.
9. Deliverable approval process outlined in the contract terms has been followed and met.
10. Windsor solutions will work with DEQ to prioritize the highest value features for development first and deliver functionality incrementally for testing and review. DEQ will execute core testing of each release of new functionality within 5 days of availability in a test environment.

PROJECT SPECIFIC ACCEPTANCE CRITERIA
The acceptance criteria for each specific enhancement is found in the attached Requirements, Acceptance Criteria and Cost Matrix for details.

Contractor will include status updates in the regularly scheduled progress reports Contractor is already submitting to the Agency and DTMB Project Managers throughout the life of this project. Each progress report must contain current status, actions taken, progress made, and any risks identified since the previous report.

Standard Roles and Rates

Level	Title	2018 Rates
5	Principal Consultant	210
4	Managing Consultant	191
3	Lead Consultant	165
2	Senior Consultant	146
1	Consultant	120
0	Associate	94

Rates will remain fixed for the first 3 years of the contract. The 4th year Windsor reserves the right to increase annual rate fees to current standard rates. Year 5 and the remainder of the term of the contract should an annual increase be enacted; the increase will not exceed 2% over the prior year rate fee.

PROJECT CONTACTS:
State of Michigan
The designated DTMB Project Manager is:
     Sara Raja
     Michigan Department of Technology, Management & Budget
     Constitution Hall, 525 W. Allegan St. – 1st Floor North
     Lansing, MI 48909
     517-284-9822
     Rajas@michigan.gov
State of Michigan
The designated Agency Project Manager is:
     Jerrod Sanders
     Field Operations Section Chief
     Water Resources Division
     Michigan DEQ
     Lansing, Michigan 48909
     269-350-1801
     Sandersj3@michigan.gov

Windsor Solutions
The designated Contractor Project Manager is:
     John Kostakos
     Windsor Solutions
     4386 SW Macadam Ave., Suite 101
     Portland, OR 97239
     503-675-7833 ext. 230
     john_kostakos@windsorsolutions.com

LOCATION WHERE THE WORK IS TO BE PERFORMED:
Contractor staff will work at its office location.

EXPECTED WORK HOURS AND CONDITIONS:
Work hours are not to exceed eight hours per day, forty hours per week for State employee project support. Normal working hours of 8:00 am to 5:00 pm are to be observed unless otherwise agreed to in writing. No overtime rates will be permitted.

STATE OF MICHIGAN
ENTERPRISE PROCUREMENT

Department of Technology, Management, and Budget

525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **6**
to
Contract Number **071B3200093**

<table>
<tr><td rowspan="7">CONTRACTOR</td><td>WINDSOR SOLUTIONS INC</td><td rowspan="7">STATE</td><td rowspan="3">Program Manager</td><td>Mike Masterson</td><td>DEQ</td></tr>
<tr><td>4386 SW Macadam Ave</td><td>517-335-1065</td><td></td></tr>
<tr><td>Portland, OR 97239</td><td>mastersonm@michigan.gov</td><td></td></tr>
<tr><td>Craig Austin</td><td rowspan="3">Contract Administrator</td><td>Jarrod Barron</td><td>DTMB</td></tr>
<tr><td>(503) 675-7833 x215</td><td>(517) 284-7045</td><td></td></tr>
<tr><td>Craig_austin@windsorsolutions.com</td><td>BarronJ1@michigan.gov</td><td></td></tr>
<tr><td>*******5518</td><td></td><td></td></tr>
</table>

CONTRACT SUMMARY			
DESCRIPTION: Miwaters RFP			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW**
May 9, 2013	May 8, 2018	0 - 0 Year	May 8, 2018
PAYMENT TERMS		**DELIVERY TIMEFRAME**	
NA		NA	
ALTERNATE PAYMENT OPTIONS		**EXTENDED PURCHASING**	
☐ P-card ☐ Direct Voucher (DV) ☐ Other		☒ Yes	☐ No
MINIMUM DELIVERY REQUIREMENTS			
NA			

DESCRIPTION OF CHANGE NOTICE				
OPTION	**LENGTH OF OPTION**	**EXTENSION**	**LENGTH OF EXTENSION**	**REVISED EXP. DATE**
☐		☐		
CURRENT VALUE		**VALUE OF CHANGE NOTICE**	**ESTIMATED AGGREGATE CONTRACT VALUE**	
$4,884,335.00		$703,092.00	$5,587,427.00	

DESCRIPTION: Effective August 30, 2016, the parties add the services in the attached statement of work to perform the listed Priority 1, 2 and 3 enhancements. The $703,092.00 cost is added to the contract value. All other terms, conditions, specifications, and pricing remain the same. Per Contractor, Agency, DTMB Procurement and State Administrative Board approval.

MICHIGAN DEPARTMENT OF TECHNOLOGY,
MANAGEMENT AND BUDGET
IT SERVICES
STATEMENT OF WORK

Project Title: **MiWaters – enhancements**	**Period of Coverage:** **July 2016 to June 2017**
Requesting Department: **Department of Technology, Management and Budget**	**Date:** **06/22/2016**
DTMB Project Manager: **Lori Franz**	**Phone:** **517-335-3105**

BACKGROUND:
Water Resource Division (WRD) of Department of Environmental Quality (DEQ) agency is currently working with the vendor, Windsor Solutions to design and develop MiWaters application to consolidate and replace a number of applications utilized by WRD.

PROJECT OBJECTIVE AND GOALS:
The objective of this project is to request the vendor, Windsor Solutions to provide additional enhancements to the MiWaters application in multiple phases.

SCOPE OF WORK, TASKS AND DELIVERABLES:
Contractor will enhance the system to address the following capabilities:
- Priority 1 Enhancements.
- Priority 2 and 3 Enhancements.

See attached Requirements, Acceptance Criteria and Cost Matrix for details.

PROJECT & PAYMENT SCHEDULE:
Prior to the beginning of each month, the State will determine the prioritization of the enhancements listed in the Requirements, Acceptance Criteria and Cost Matrix. Each month, Contractor shall perform those enhancements requested by the State for that month. After each month's end, Contractor shall invoice the State for any enhancements delivered to and formally accepted by the State during the prior month. See attached Requirements, Acceptance Criteria and Cost Matrix for details.

Prior to the beginning of each month, the State may, at its sole option, substitute new items into the work backlog in exchange for removing like-value Priority 2 or Priority 3 items. In the event the State opts for a like-value substitution, the parties will document the new requirement, including its value and acceptance criteria, and shall map specifically the Priority 2 or Priority 3 items for which the new items are being substituted.

ACCEPTANCE CRITERIA:
Deliverables will not be considered complete until the DTMB Project Manager has formally accepted them.

High-level acceptance criteria:

Document Deliverables
1.   Documents are dated and in electronic format, compatible with State of Michigan software.
2.   Any changes to requirements once they are approved will be captured in the change control document and the revised Work Requests.
3.   Draft documents are not accepted as final deliverables.

4.   The documents will be reviewed and accepted in accordance with the requirements of the Contract and Appendices.

Software Deliverables - General
Software includes, but is not limited to, software product, development tools, support tools, data migration software, integration software, and installation software.
1. Beta software is not accepted as final deliverable.
2. The software will be reviewed and accepted in accordance with the requirements of the contract.
3. DEQ and DTMB will review software within a mutually agreed upon timeframe for acceptance of functionality, usability, installation, performance, security, standards compliance, backup/recovery, and operation.
a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
a. Unacceptable issues will be documented and submitted to the Contractor.
b. After issues are resolved or waived, the Contractor will resubmit software for approval within 30 days of receipt.
4. Software is installed and configured, with assistance from DTMB, in an appropriate environment (e.g. development, conversion, QA testing, UAT testing, production, and training).
5. Contingency plans, de-installation procedures, and software are provided by the Contractor and approved by both the DTMB Project Manager and Agency Project Manager.
6. Final acceptance of the software will depend on the successful completion of User Acceptance Testing (UAT).
7. Testing will demonstrate the system's compliance with the requirements of the Contract. At a minimum, the testing will confirm the following:
a. Functional - the capabilities of the system with respect to the functions and features described in the Contract.
b. Performance - the ability of the system to perform the workload throughput requirements. All problems should be completed satisfactorily within the allotted time frame.
8. Software source code, where applicable, is reviewed by DTMB within a mutually agreed upon timeframe for readability, structure, and configuration management.
a.   Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
b.   Unacceptable issues will be documented and submitted to the Contractor.
c.   After issues are resolved or waived, the Contractor will resubmit source code for approval.
9. Deliverable approval process outlined in the contract terms has been followed and met.
10. Windsor solutions will work with DEQ to prioritize the highest value features for development first and deliver functionality incrementally for testing and review. DEQ will execute core testing of each release of new functionality within 5 days of availability in a test environment.

Project-Specific Acceptance Criteria
The acceptance criteria for each specific enhancement is found in the attached Requirements, Acceptance Criteria and Cost Matrix for details.

PROJECT CONTROL AND REPORTS:
Contractor will include status updates in the bi- weekly progress reports Contractor is already submitting to the Agency and DTMB Project Managers throughout the life of this project. Each progress report must contain current status, actions taken, progress made, and any risks identified since the previous report.

PROJECT CONTACTS:
The designated DTMB Project Manager is:
    Lori Franz
    Michigan Department of Technology, Management & Budget
    Constitution Hall, 525 W. Allegan St. – 1st Floor North
    Lansing, MI 48909
    517-335-3105
    FranzL@michigan.gov

The designated Agency Project Manager is:
    Michael Masterson
    Field Operations Section Chief
    Water Resources Division
    Michigan DEQ

Lansing, Michigan 48909
517-243-4045
MASTERSONM@michigan.gov

The designated Contractor Project Manager is:
John Kostakos
Windsor Solutions
4386 SW Macadam Ave., Suite 101
Portland, OR 97239
503-675-7833 ext. 230
john_kostakos@windsorsolutions.com

LOCATION WHERE THE WORK IS TO BE PERFORMED:
Contractor staff will work at its office location.

EXPECTED WORK HOURS AND CONDITIONS:
Work hours are not to exceed eight hours per day, forty hours per week for State employee project support. Normal working hours of 8:00 am to 5:00 pm are to be observed unless otherwise agreed to in writing. No overtime rates will be permitted.

Requirements, Acceptance Criteria and Cost Matrix

Cost Summary

This is a firm-fixed price, deliverables based contract. The following table summarizes the total costs:

Priority 1 Enhancements	$370,142
Priority 2 & 3 Enhancements	$332,950
TOTAL	**$703,092**

The price of each specific enhancement is listed in the matrices below. After each month's end, Contractor shall invoice the State for any enhancements delivered to and formally accepted by the State during the prior month.

Priority 1 Enhancements

			Estimated Effort / Cost								
			$175	$175	$175	$140	$126	$104	$104		
Ticket #	Summary	Assumptions / Comments	PS	PA	SA	LD	DA	BA	D	Total Hours	Total Cost
MIWDEV-6688	JIRA MIWDEV-6688 - "INVOICED" vs. "STATE" and "FEDERAL" invoices	For any state owned site this should say "STATE" instead of "INVOICED" Likewise Federally owned sites should say "FEDERAL" Assumes that this is driven by the Site's Ownership Type values.	1		2	13	1	2		19	$ 2,679
MIWDEV-6685	JIRA MIWDEV-6685 - Ability to add a financial record MIWDEV-7027	Create the ability to Add a new Invoice (Charge) record internally in MiWaters. The liquidation of the charge is done only via payments, adjustments (& refunds if any). Include description for charge.	2		4	27	1	3		37	$ 5,268
MIWDEV-5306	JIRA MIWDEV-5306 - Store/archive intersect results for a feature on Site Plan	Ability to archive intersect results in the Site Plan. If feasible consider inclusion of an 'intersect all' option so user does not need to select layers. Archive these either as a static set accessible only through the Site Plan (e.g., selectable historical intersects), or as a document associated with the Site.	4		8	45	6	6		69	$ 9,780

ID	Title	Description							
288 <No JIRA Ticket>	Change the fields displayed on the documents tab	Remove the Creation Type and Modified By fields on the document list tab of all record types. Replace these two fields with Received date (ability to override when uploading) from this screen. Add a selection capability to the document list screen and an ability to Publish selected documents. This applies to documents tabs on apps/request, evaluations, permits, c&e actions.	2		4	27	1	3	
290 <No JIRA Ticket>	Automatically apply a received date and publish documents uploaded by internal staff	Automatically add the received date and ability to publish all documents uploaded by internal DEQ staff. (Publish by default, with option to not publish)	2		4	27	1	3	
299 <No JIRA Ticket>	Add Activity Type to Permit Search	Add a search criteria for activity (e.g. show all seawalls) on the permit record search at the top of the page. Staff often want to look at permits for a similar project and this type of search would be useful.	2		4	22	6	3	
300 <No JIRA Ticket>	Add "Issued/In Effect Permit" Filter to Site Explorer for "Issued Permits"	Add a new filter to Site Explorer under the "Issued Permits" Filter type. The new filter should be "Issue/In Effect" This would allow us to limit the output of Site Explorer to only show permits that are currently Active, rather than only very recently issued permits or all permits even if they are expired.	1			6	3	2	
301 <No JIRA Ticket>	Add GP and MP categories to the Permit Search Criteria	In the permits search criteria include the General Permit Categories and Minor Permit Categories for Resources Permits in the "General Permit Category" filter field. This would allow us to filter the output list of permits to GP and MP permits.	3		4	30	8	3	
XX1 <No JIRA Ticket>	Add a cell phone field to contacts	Add capability for additional phone numbers, and ability to select phone type. Would default to 'Primary' for existing numbers. Other types could be Office, Mobile. To do properly, should model as 1:m phones, so data model change.	6		14	62	8	8	

ID	Title	Description								Total	$ Amount
		This will not change input from nForm. it includes MiWaters contact maintenance only. The model change could impact many data sources, and also impacts the submission interface (populating contacts).									
167 <No JIRA Ticket>	Add a filter/sort feature for documents within Site Explorer	For facilities with numerous documents visible within Site Explorer, a way to sort/filter the documents is needed.	2		4	23	1	3		33	$ 4,708
298 <No JIRA Ticket>	Make the sticky filter for Applications-All Form type for applications and Internal one filter	Rework form visibility as a form design option. Reclassify internal forms as apps/requests. This adds flexibility and also solves the problem of internal forms being invisible to external users.	2		1	19	8	2		32	$ 4,401
306 <No JIRA Ticket>	Additional information collected on Features and Limits	On the Features and limits tab of Permits add the following: 1. a modified check box. Impact area doesn't capture all modifications. (ex. Modify a riprap shoreline to bio-engineering) 2. allow for the floodplain ecotype to be captured as volume. 3. allow the stream ecotype to be captured as linear feet.	2		4	27	1	3		37	$ 5,268
240 <No JIRA Ticket>	Report of Violations by District, county, compliance mgr, site needed ASAP	NPDES staff need to be able to do a report on violations in MiWaters (DMR violations, schedule violations) by county, compliance manager, District	1		1	9	1	1		13	$ 1,840
MIWDEV-6525	JIRA MIWDEV-6525 - External users need to be able to manage permit billing contacts	Expose Site contacts maintenance externally. Limit affil types that externals can edit. Include new functionality (e.g., multi select) to allow a user to apply a contact replacement to other site entities (e.g., some/all active permits). Note: replacing a contact retains a history of the prior contact, so auditing possible if they abuse this functionality.	6		18	67	3	9		103	$ 14,894

MIWDEV-3873	JIRA MIWDEV-3873 - Header visibility when scrolling	Windsor does not have a solution for this at this time. We have found one open source option but unfortunately it is not currently ADA compliant. This is probably best to break into two CRs: 1) research and prototyping; 2) estimation to implement (need to assess which lists would / should include this as it might not need to be replaced on lists that would be unlikely to get longer than a few lines Current estimation is for research, prototyping, estimation to retrofit. There is risk that a technical solution may not be found. Windsor will not begin work on this CR until given the go-ahead by DEQ Open to other options. Need to define solution with tech team. Note: This is a particular issue with DMRs, and may be alleviated somewhat with ability to print DMRs.	4		17	46					67	$	10,115
MIWDEV-6268	Task area not useable--needs rec'd date column, most recent listed first, needs to be cleaned up	Revamp the My Tasks to be more productive and flexible for users. The specifics of the design need to be worked out with Windsor and DEQ.	5		14	62	3	9			93	$	13,319
MIWDEV-5444	JIRA MIWDEV-5444 - If only one workgroup is associated w/ a form, it should be assigned to that workgroup	If the NOC form for example had only one work group associated with it "Permits-LEHU," because that is the only unit that processes this type of form (for all parts of the state), the form should be assigned to that workgroup no matter where the site is located. The current behavior is that if the site isn't within a HUC associated with Permits-LEHU, it will not assign a workgroup. We have a work-around we will use until this is fixed	1		1	9	1	1			13	$	1,840

ID	Title	Description									Total		$
302 <No JIRA Ticket>	Add Legal Parts as a filter type in Site Explorer	Site explorer searches with a limit of permit legal parts such as Part 301, would be useful to staff. Legal parts should be able to be used individually or in multiples. In other words. I want to do a search for sites with a part 301 and part 303 permit or application.	1			5	3	1			10	$	1,357
MIWDEV-4834	MIWDEV-4834 - Hold should require reason	If staff choose a hold reason of "other reason," then a comment should be required explaining the reason. This would not be required if it a reason other than "other reason"	1		1	9	1	1			13	$	1,840
291 <No JIRA Ticket>	Create greater efficiency in uploading documents	1)Add a default doc category for uploads to the Form and use this as the default when uploading documents to an Application/Request. 2) Add the functionality to bulk assign 1) Doc Category, 2) Received date, 3) Publish Indicator, and 4) Status to a set of documents as they are uploaded.	4		8	49	1	8			70	$	9,918
277.1 <No JIRA Ticket>	Enhancements for Site Plan - map zooming	Site Plan Map should not zoom out to landscape level when you go to edit a feature	1		2	9		2			14	$	1,993
277.2 <No JIRA Ticket>	Enhancements for Site Plan - street/satellite hybrid image	Assuming existing (public) layer is available, this is mostly config/testing	1			5	1				7	$	1,001
277.3 <No JIRA Ticket>	Enhancements for Site Plan - Auto measurement	Add street name/satellite image hybrid. Assumes area for polygon and length for lines.	3		7	30	1	3			44	$	6,388
XX2 <No JIRA Ticket>	Ability to "Download All" from the Documents screens	Add ability to download selected multiple documents at once from documents list. Place a checkbox inf front of each document on list to select. This ability should be available from all Documents screens.	3		6	35	1	4			49	$	7,017
292.1 <No JIRA	increase usefulness of site plan - auto	Auto select layers needed to complete intersection review. There needs to be two sets of default	1		1	14	1	2			19	$	2,644

Ticket													
Ticket>	select layers	layers for NPDES vs resources. Need to add flags to Layers table to indicate default intersect layer, then apply this during intersects.											
292.2 <No JIRA Ticket>	increase usefulness of site plan - export intersections	Include export button that would allow us to make a pdf of all intersections listed. 1) A default set of layers is pre-selected. This would need to be configurable. 2) The intersection report is at the Site level, not individual features. (confirm) 3) Output would be a list of intersections by layer/type in a CSV format.	3		5	30	1	4		43	$	6,142
292.3 <No JIRA Ticket>	increase usefulness of site plan - upload shapefile as new feature	Ability to upload a GIS shapefile as a new feature. This assumes upload of ESRI JSON (modern alternative) instead of shape. Shape file support would be more costly, more fragile, and is the legacy format that is being superceded.	4		8	48	1	7		68	$	9,674
XX3 <No JIRA Ticket>	Ability to add muliple polygons to one feature	While a second tier priority item, this consideration will need to be evaluted for other GIS tier 1 enhancement items. Long linear projects with multiple similar impacts (electric lines with poles in and around wetlands) would be more easily be captured with the ability to upload multiple polygons as one impact. Theoretically, fairly straight forward, but v.likely to cause some UX and processing edge case rework which is hard to predict.	5		8	59	1	12		85	$	11,909
XX4 <No JIRA Ticket>	Add the following feature types to the Site Plan: Tile outlet, grassed waterway, setback	Add the following feature types to the Site Plan: Tile outlet, grassed waterway, setback			1	2		1		4	$	559

ID	Title	Description								Total		Amount
292.4 <No JIRA Ticket>	Increase usefulness of site plan - legend of layers	Include a legend of layers	2		4	23		4		33	$	4,686
292.5 <No JIRA Ticket>	Increase usefulness of site plan - coordinate data entry - multiple types	increase the usability of the coordinate data entry window. Allow for multiple coordinate types. Will support ESRIJSON (e.g., from ArcMap), WKT, and perhaps a simple format like a set of lat/longs either comma or CR delimited (e.g., cut / paste out of Excel). A dropdown will the allow user to define what format they pasted in unless it can auto-detect.	4		8	48	1	7		68	$	9,674
292.6 <No JIRA Ticket>	Increase usefulness of site plan - estimated size default to sq feet	Increase usefulness of site plan - estimated size default to sq feet	1		1	9	1	1		13	$	1,840
308 <No JIRA Ticket>	Auto generate an event when a document is published	Add a new event type; event source as 'System'. Create a checkbox that can be set when publishing a document to 'record as an event'. Link the document to the event Default to 'generate event' for generated documents.	2		4	27	1	3		37	$	5,268
MIWDEV-5305	JIRA MIWDEV-5305 - Add click anywhere intersect (AKA Identify) to Site Plan	Implement an intersect capability similar to what Explorer has	4		8	44	1	7		64	$	9,114
159 <No JIRA Ticket>	Install a print button allowing staff to print public notice comments	Add a document template with Public Notice data source that takes in a Submission Reference Number and generates a document that lists all comments received at the date/time of generation. Stores with the related appliciation.	1		1	9	1	1		13	$	1,840
158 <No JIRA Ticket>	Applicant Access to Public Notice Comments	Provide the ability to make Public Notice comments available to the Applicant. Assumes document generation using Public Notice data source stored with the related	2		4	27	1	3		37	$	5,268

ID	Title	Description								Total	Cost
		application and made available to the Applicant.									
MIWDEV-6152	Uploaded documents, need to be able to enter received date. (Also sort documents by rec'd date instead of modified date.)	Ability to enter the "Received Date" at the time of upload; upload slide panel might be space constrained especially along with the request to add the "Publish" checkbox	2		4	27	1	3		37	$ 5,268
MIWDEV-3609	Add Ability to Attach Documents to an Event	Provide a way to create links to existing documents that relate to an event Ex: Event is an important email and the email uploaded to documents could be linked to it Ideally should be able to link events to docs in any functional area.	2		4	27	1	3		37	$ 5,268
XX5 <No JIRA Ticket>	Explorer Data layer security	Implement back end process process to authenticate and retrieve security token when needed then use that to query select secure layers. Update layer config to indicate which require security	4		11	39	3	6		63	$ 9,087
MIWDEV-7027	Upload Option under Financials	Add document tab to a Charge that supports audit of activities related to charges.	4		11	47	3	6		71	$ 10,207
XX6 <No JIRA Ticket>	Accounting for sites and permits crossing jurisdictional boundaries	Presume we are changing Site County drop down to a multi-select box. This is a fairly far-reaching as all search screens that use Site County will now need to search the array of possible counties which is more complicated. Consider setting one as primary for certain situations.			4	27	1	3		35	$ 4,918
XX7 <No JIRA Ticket>	Adjust Font Size on Payment Voucher	increase font size on submission id # to be at least as large has the heading to improve transcription by staff.			1	9	1	1		12	$ 1,665
XX8 <No JIRA Ticket>	Add make checks payable to State of Michigan	Add "make checks payable to State of Michigan" to the payment voucher forms			1	9	1	1		12	$ 1,665

MIWDEV-6554	WIP Information Migration	Relates to WIP document conversion and DEQ identifying new WIP documents that need to be added to MiWaters. Are there more missing docs out there? Need more info on what is going on.				2	6				8	$	1,036
XX9 <No JIRA Ticket>	Notification of Payment status change	Staff are requesting payment Notification be developed that triggers to the processor when a payment status of an application changes to paid for an application that has been imported (i.e. do not create notifications for payments made when a value of null exists for the processor). This would help staff quickly identify when the payment hurdle has been surpassed and would improve efficiency and would prevent staff from frequently manually looking to determine if the payment status has changed. This could be triggered when a payment record gets inserted and/or updated.			4	27	1	3				35	$	4,918
MIWDEV-6995	Datafix Biosolids Navision Invoice #	Correct data errors caused by incorrect files from Navision. This will require numerous datafix scripts and coordination with Navision folks to get the Biosolids Invoice file resent.			11	41	3	6				61	$	8,667

MIWDEV-6782	Add advanced Site Search function	Showing what matched in search results has already been done. Second item could be done replicating the Explorer advanced search (drop down) functionality as-is. This is additional to the existing 'google' type search. List of candidate search items (in priority) 1. Program (Site type) 2. Processor/Assignee/Compliance Manager/Site Manager (it would be ideal if one field for "DEQ staff" could search returns on all these areas, but that might be asking a lot. 3. County 4. District 5. Town Range Section 6. Address 7. Zip Code 8. City/Twp 9. Site Contact 10. Tax ID 11. NAICS Code			8	40	6	4		58	$	8,172
XX10 <No JIRA Ticket>	Permissions Break Down	Split permissions roles up so that we can assign staff limited access to certain roles where we are not requried to expose those individuals to other secure areas. Specifically 1) Updating basic account details (View, unlock, update email address) 2) Ability to mark certifier agreements received/update status of certifier approved with no other account edit permissions are urgently needed			1	9	1	1		12	$	1,665
MIWDEV-5627	Project name add	Add a project name field to other application detail types (already used by resources apps), and allow it to pre-populate based on an nForm tag value			1	9	1	1		12	$	1,665

ID	Name	Description									Total		Cost
XX12 <No JIRA Ticket>	Uploaded docs by user	Provide a way to upload docs to user records -- either uploaded or generated by staff (ideally if you click the authorized user list you can see a doc tab, and also a spot for the docs under the user account screen since some may not be linked up to any sites yet). For example User level Certifier Agreements. Consider making users function similar to a site (with detail information, doc tabs, etc.)			11	44	6	6			67	$	9,465
MIWDEV-7105	Refund Status Change	Change refund status workflow to Pending -> Reviewed -> Approved -> Processed Review is done by Supervisor Approved / Processed done by Finance unit			4	27	1	3			35	$	4,918
MIWDEV-6758	Update the adjustment process to make it more robust and support postitive or negative adjustments to the charge/invoice (accounting transactions).	Add ability to record an adjustment (positive / negative) as a line item against the Invoice / charge. Will require validation logic and new screens for specifying the adjustment. Remove current single field charge adjustment. Convert existing records to the new format/schema. Derive the charge status based upon Adjustment / Refund status (specific derivation formula TBD)			26	119	12	16			173	$	24,386
MIWDEV-7126	Break down migrated charges	Extract migrated invoice data from MiWaters. DEQ to provide updated file with replacement Charge Ref Numbers to be updated in MiWaters.			4	22	6	3			35	$	4,848
MIWDEV-7128	Correction of payments applied with entry errors	This seems like more on the side of someone like Nathan identifying all the payments that need to be deleted and resubmitting files referencing the correct Submission Numbers. So our part in this is to just Delete the payments? Based on that assumption will tag this as Low effort. One time fix.			1	9	1	1			12	$	1,665
MIWDEV-	Update Fee Text	Update text on "Fee assessed" to say "Initial Fee Assessed"			1	9	1	1			12	$	1,665

7130												
MIWDEV-7063	Datafix Delete duplicate RMT payments of cc or eck	Currently, invoices paid via cc or eck (elec check) online are recorded as paid in MiWaters. Subsequently, they are also came through the Navision payment file and duplicated payments in MiWaters. Clean out duplicate records.			1	9	1	1		12	$	1,665
XX14 <No JIRA Ticket>	DataFix: Fix records in error	Provide support to fix data errors not caused by a MiWaters bug. This will cover JIRA-7045 as well as provide a bucket of support hours to be able to quickly respond to other data fixes that may be discovered.			8	66	29	8		111	$	15,126
MIWDEV-7125	Permit Subcategory	The permit subcategory field is currently used by groundwater and is planned to be used by NPDES as well when we have time to lay-out the process. We need to be able to query these sub-categories within each permit category. Assume this is to be added to the Permits Search			4	20	3	2		29	$	4,086
MIWDEV-7131	Finacial Report Adjustment	Financial Report needs columns for adjustments, refunds, and comments			4	27	1	3		35	$	4,918
MIWDEV-7120	Authorized user restrictions for internal users	Provide controls that prevent internal users from establishing themselves as Authorized Users for sites we regulate. A note has to all our staff telling them not to establish themselves as Authorized Users, but I'd also like to be able to have a report to see where we might have staff listed as Authorized users so we can correct that. Once we have a control in place, we won't need the report. However, perhaps having a more general report for different user information might be more useful.			1	9	1	1		12	$	1,665

ID	Title	Description									Total		Cost
XX13 <No JIRA Ticket>	SOC new due date required "optional"	We need to option not to require a new due date on a SOC. Requireing a new due date is problematic with certain SOCs where an approval is just denied and is also a problem when subsequent revisions are submitted before the staff person has the ability to enter a determination on the schedule if documents that are submitted in revisions are still not approvable. Assumes solution is to make resubmittal due date optional			4	27	1	3		**35**		$	**4,918**
MIWDEV-6547	Ability to re-open permit workflow/permit record	Assumes there will be limitations. Workflow cannot be reopened if applications status is final (e.g. Completed, Rejected)			3	13	3	2		**21**		$	**2,931**
MIWDEV-6779	Designated name on Voucher	Add information designating the Applicant Name on the voucher (Submitted by)			1	9	1	1		**12**		$	**1,665**
JIRA MIWDEV-5819	JIRA MIWDEV-5819 - Reset "Notify" checkbox from unchecked to checked by default	This comment pertains to an item on the Workflow and Tasks tab on the Application/Request Details screen: Currently, the "Notify Assigned Processor on Status Change" checkbox is unchecked by default. We prefer that this checkbox be reset to checked by default. The attached file shows the checkbox in question.			1	6				**7**		$	**1,015**
309 <No JIRA Ticket>	Ability to mark a task complete from the main workflow screen	add ability to change a task on the workflow to complete without opening the task. This will increase our speed at completing documentation in MiWaters. Every little bit helps. Completed date is set to the current date.			4	27	1	3		**35**		$	**4,918**
145 <No JIRA Ticket>	Document description	Add a description name to the document. Add description column to the document list so that it can be searched. Refactor screen (non-'magic view')			4	21	1	3		**29**		$	**4,078**
XX10 <No	Make Payable to on Voucher	Specify who the check should be payable to in the voucher			1	9	1	1		**12**		$	**1,665**

JIRA Ticket>												
			101		325	1789	170	228		2,613	$	370,142

Priority 2 & 3 Enhancements

			Estimated Effort / Cost								
			$175	$175	$175	$140	$126	$104	$104		
Ticket #	**Summary**	**Assumptions / Comments**	**PS**	**PA**	**SA**	**LD**	**DA**	**BA**	**D**	**Total Hours**	**Total Cost**
219	JIRA MIWDEV-5814 - Create an option of copying established Pt325 annual lease fees for following year	Once the Pt 325 annual lease fee is established, it's good for a 5 year period. These are recalculated each year ending in 0 or 5 (2015, 2020). We would like a button (or other mechanism) that would generate a copy of the fees from the previous year to populate the current year invoicing.	2		5	25	1	3	3	39	$ 5,475
295	Add column for document category so we can filter for documents (IPP, etc)	Add column for document category so we can filter for documents (IPP, etc)	2		5	25	1	3	3	39	$ 5,475
MIWDEV-6342	JIRA MIWDEV-6342 - Nspect - Enable the ability to use forms multiple times	Sarah Ehinger for Pete Ostlund. We have certain inspection types (IPP, Part 91 audit, etc,) that would require a inspection template to be utilized multiple times during a single inspection to assess components of the program. these inspection forms are involved enough that they do not lend themselves to repeat sections to generate this information. IPP - industrial user file review is a form in NSpect currently that can give you an idea. We need the ability to turn on the ability	5		19	72	4	11	11	122	$ 17,072

		to open and complete that form multiple times per inspection. This is very important for us in order to be able to fully utilize NSpect for those program areas. IPP staff report that once site could have up to 32 iterations of that form when doing a full audit of Detroit. Normally 5-6 uses of that form would be needed on an average ipp audit. NOTES: This could be very complex to implement and will require significant analysis										
343	Staff need to be able to generate templates on SOC documents tabs	Many submittals (scheduled and not) will result in a response from DEQ, often in letter form. We should have the ability to generate templates from the documents tab of a submittal. It will help us find the document again to have it with the SOC submittal. Now, we can upload documents but can't generate a template from there--so it forces staff to work outside of MiWaters to have the document be saved in the correct place. We would like to have IPP local limits review and approval document templates available for staff to generate in the SOC for local limit submittals, for example.	3		9	44	3	7	5	**71**	**$**	**9,886**

MIWDEV-5651	JIRA MIWDEV-5651 - Site Plan default layers turned on	Related to JIRA MIWDEV-5306 Site Plan configuration of default sets of layer intersects fro certain internal user types - e.g resources users, permit users, etc. This would mean that a user would not need to select these layers, they would be turned on by default. Ideally a user could then turn off any too. Alternatively, would it be better to remember the user's last set of intersects and always use those?	2		5	25	1	3	3	39	$ 5,475
166	DEQ staff should be able to see a list of draft applications, etc. and open to assist external users	DEQ staff should be able to see a list of draft applications, etc. and open to assist external users. We used to be able to see drafts. Right now since I can't see them it's difficult for me to help external users with questions about finding their draft forms or answering questions about how to fill them out. Note changing versions of nform make customer assistance difficult without being able to see their form	2		5	25	1	3	3	39	$ 5,475

MIWDEV-5520	JIRA MIWDEV-5520 - Conservation Easement Filters	The filters drop down in Conservation Easements does not include categories that will be useful. The filters should be: Status Permit or Compliance Number (from the Related Permit or Compliance Record, instead of "Legal Document #") Permit or Compliance Reviewer (staff that reviewed the Related Permit or Compliance Record) Recording Date Owner Grantor Acreage We will not filter on Liber # or Page #, these should be removed. This above list are the same categories that should be displayed along the top of the returned list of conservation easements. This issue originally reported by Anne Garwood. Windsor Note - This sounds a bit like a report. Should narrow down what is really needed to find a CE vs clutter the system interface.	2		5	25	1	3	3	**39**	**$**	**5,475**
MIWDEV-1937	JIRA MIWDEV-1937 - CE-GUI-002 search & view violations - addtl filters needed	search & view violations - additional filters are needed by district, workgroup, or staff name (Reported by Kathy David)	1		1	12	1	1	1	**17**	**$**	**2,364**

29	Be able to specify status of App/Req	There should be an option to change the status of an application to "Public Notice Issued" and "Draft permit sent for countersignature." Ideally there would also be a status for "Correction Request Sent" but at least that one shows as being "on Hold" (not specific enough though). Windsor - Assume this would be implemented as as status reason (for example Hold Reason). Also, there is a separate request to add a short status that can show on the applications list, which may remove the need for this request	2		5	25	1	3	3	**39**	**$**	**5,475**
MIWDEV-5835	JIRA MIWDEV-5835 - Need ability to public notice Conservation Easement modifications	We need to be able to public notice Conservation Easement modifications. That option currently does not exist when trying to create an Event for a CE record.	2		5	25	1	3	3	**39**	**$**	**5,475**
MIWDEV-6378	JIRA MIWDEV-6378 - Add a "Parts" filter to the application/request filter	Related to JIRA MIWDEV-6485 Our resource staff (especially the floodplain staff) need to look at Applications that impact certain parts. Legal parts are captured as part of the resource application under program components. These are also added to the permit under program components. Can we add a "Legal Parts" search on the	1		1	12	1	1	1	**17**	**$**	**2,364**

ID	Title	Description									
		application/request and permits search filter? Thanks, Pete									
MIWDEV-5525	JIRA MIWDEV-5525 - File Description missing in site docs list	From Carla Davidson, signed in as myself in cloud in IE10: The documents listed under the site navigation pane's documents area only have the document name and are missing the file "description" that is in NMS. This description allows staff to locate files more quickly since documents from many different programs will use the same document templates--e.g. "general inspection form," VN, "compliance communication," etc. Please add a description column in Miwaters. This same issue may apply other places where documents are listed. Windsor - This exists as the Document Type. Not sure what is needed. Made a Medium for general budgeting.	2		5	25	1	3	3	**39**	$ 5,475

ID	Title	Description									Total		Cost
MIWDEV-3891	JIRA MIWDEV-3891 - Adding a map disclaimer	Permits | Features and Limits | Manage Site Plan Further analysis should be conducted to ensure legality issues surrounding the use of the map. DEQ staff need to feel confident that the tool can be used to add value. It may be necessary to add additional features to this portion (like layers, scales) to make the tool work properly for them. Many applications include disclaimers (see example from Mi Drive), check to see if a disclaimer should be added regarding the accuracy of information displayed on the map. Windsor: Assume this is just a side note / comment of some sort	1		1	12	1	1	1	**17**	$	**2,364**
297	External user ability to countersign permit electronically	Adding the ability for an external user to electronically sign a draft permit in MiWaters, would expidite the process and make it easier for staff to get the permit for countersigning to the permittee.	3		9	44	3	7	5	**71**	$	**9,886**
293	Additional information provided on the application details page	1. In the right side bar add the program component legal parts, to show up automatically after they have been entered. 2. Include a field for Waterbody on the app details page.	2		5	25	1	3	3	**39**	$	**5,475**

ID	Title	Description								Total		Cost
MIWDEV-6126	JIRA MIWDEV-6126 - Admin User List: Expand serach to allow for finding unverified users	It would be helpful for admins to be able to find and verify unverified accounts. Inquiries come in from people with trouble creating accounts and current tools prevent admins from finding or assisting these people.	1		1	12	1	1	1	17	$	2,364
MIWDEV-5843	JIRA MIWDEV-5843 - Include the Log Recovery permit program in a future enhancement of MiWaters	Although the Log Recovery Permit Program was in the original scope of MiWaters, a decision was made to defer its development and focus on more critical functionality. We need to factor in the Log Recovery Permit Program requirements into a future enhancement of MiWaters.	2		5	25	1	3	3	39	$	5,475
52	Add a way to batch update violations when reviewing violations	NMS had a way to batch update volations, so mutlple violations could be changed to Active - Evaluated at the same time. In MiWaters, you have to do this one at a time. Adding a batch update functinoality will help save time when reviewing violations.	3		9	44	3	7	5	71	$	9,886
61	Add Complaint Inspection Types	Can we please add additional "inspection types" such as AFO complaint inspection; CAFO complaint inspection; NPDES complaint inspection because right now there aren't any choices to do that in MiWaters and you have to have an evaluation to create a violation.	1		1	12	1	1	1	17	$	2,364

62		Need a complete list of Violations	There are not enough Violation Categories or Types to effective name a violation. What about a CAFO violation where the waste is not going to an approved storage structure; CAFO violation where the farm is applying manure in the rain. I am sure that there are many others that apply under all programs.	2		5	25	1	3	3	39	$	5,475
74		Link directly to the Applications and Permits	On the site details page to the right there was the ability to click on In Process Permits, or In Process Applications. That way it would take you right to those and you would not have to go through extra steps. Similar to when you go to the Permit Details Page you can Click on the linked Application and Site to the Right. See the two pics attached. Have a link to the In Process Application and Permit in the highlighted area. Pic 2 is similar to what we are talking about. Windsor - add an "In Process App/Permit list?)	2		5	25	1	3	3	39	$	5,475
78		Additional Search Capabilities	In MiWaters under the different sticky filters have additional search options such as waterbody, multiple counties and dates.	2		5	25	1	3	3	39	$	5,475
109		Enhancement: Select related facilities for CC on permit changes	See attached email from Windsor for details - in a nutshell, would like the system to identify cc contacts based on related facilities	3		9	44	3	7	5	71	$	9,886

#	Title	Description								Total	Cost
		selected for the site and the contact for that facility. Ideally this would be a secondary relationship type that we could select. This would allow the system to notifiy Part 91 agencies of issued permits from NOC, Resource, part 41, etc.									
112	Additional details needed for violations within the Violation tab	The details provided in the Violation section make reviewing multiple violations difficult. The addition of violation details similar to those included in the Compliance/Enforcement Action Details screen, Linked Violation tab (such as category and violation type) would make it far easier to differentiate various violations with the same non-compliance date. Screen shots of both the referenced screens are attached.	2		5	25	1	3	3	39	$ 5,475
126	Add a button to show No Discharge on initial DMR screen	It would be beneficial to have no discharge DMRs shown in the first viewing of DMRs instead of having to open them to see no discharge. Add a column, color, asterisk, something simple.	1		1	12	1	1	1	17	$ 2,364

| 160 | Requested Updates for the Complaint Form | We had a meeting with our local watershed group and they sugested that the following changes be made to the complaint form. Before these changes are made the program chairman that the changes will affect should be informed for comment.

• Update Miwaters complaint database:
o Time of ISSUE and Date of ISSUE – change ISSUE to EVENT
o The "find me" function on the map throws a pin to random locations – can we fix this to make it more accurate and NOT based on internet provider location?
O We should require a phone number and/or email
o Encourage complainants to take photos
o Anonymous complaints: we should insert a sentence that explains that the complainant's contact information will not be "FOIAable" by selecting the anonymous button, however, the DEQ may contact them in order for successful follow up on the compliant and all contact information will be kept confidential. | 1 | | 1 | 12 | 1 | 1 | 1 | 17 | $ | 2,364 |

162	My Tasks View - save preference of List View	On the My Tasks page, the user has the open of viewing their tasks in Groups view or List view. However, the view always defaults to Group. If a user wants List view, they have to select it every time they leave and come back to the page. It would be great if the user could make their preference known and the system could default to that preference.	1		1	12	1	1	1	**17**	$	**2,364**
163	Default all documents pages to most recent received/modified	On any documents page (site information, evaluation, ect) can the documents defaulted to list in order of most recent received/modified document?	1		1	12	1	1	1	**17**	$	**2,364**
174	External users are submitting items but cannot do so through MiWaters	Staff are getting multiple submittals via email that they then have to scan and/or upload to Miwaters. There seems to be a need for folks to receive items through Miwaters that are not associated with a permit schedule or a compliance schedule—ie compliance/enforcement cases where external users are sending daily emails with site pictures or revised plans, etc. Staff can upload these emailed documents to the site, but it is time consuming and they'd appreciate the submittal being uploaded to MiWaters by the external user. The need seems to be for sites with permits and	5		19	72	4	11	11	**122**	$	**17,072**

MIWDEV-6485	JIRA MIWDEV-6485 - Site Explorer - Add Permit Legal Parts as a Search Filter	Related to JIRA MIWDEV-6378 Create a new filter for Permit Legal Parts allowing the user to select sites where the Permit is related to the selected Legal Part.	1		1	12	1	1	1	**17**	$	**2,364**
MIWDEV-6308	JIRA MIWDEV-6308 - Revision of DMRs form e2 reporting system where only 1 part submitted.	Reported by J. J. Jones DMRs submitted through the e2 reporting system where only 1 part was submitted (either the daily or summary) results in that 1 part being available only when facility tries to do a revision. Would like to discuss option of applying MiWaters build logic when revision button is clicked where DMR would be constructed with both daily and summary form based on MiWaters build logic.	3		9	44	3	7	5	**71**	$	**9,886**
MIWDEV-5228	JIRA MIWDEV-5228 - No search parameters in the Search box for Financial Assurances	There are no search parameters in the Search box for Financial Assurance component of MiWaters in either the NGDI cloud or in dataprep (beta not checked). See image "no search parameters financial assurance". The following search parameters are	2		5	25	1	3	3	**39**	$	**5,475**

those without.

ID	Title	Description									Total	Amount
		needed: Instrument Number Applicant/Permittee Issuer Type District or Workgroup										
303	Include a drop down for Contractors	When filling out a JPA nForm on additional contacts. Allow for a drop down of all contractors from previous applications to autofill the contact info for that contractor on a new form.	2		5	25	1	3	3		**39**	$ **5,475**
312	Ability to Export a Report without saving it	Add the ability to export a Report without saving it to My Reports. We don't always want to save the report when we create it.	1		1	12	1	1	1		**17**	$ **2,364**
NoID#1	Allow changes to contacts from Site, Contacts list (or from Site contacts, if all contacts were listed there)	Now, it appears that you can only change a contact from where you create it-- evaluation, compliance action or site. No one will want to go through all their inspections and compliance actions to update someone's phone number, etc. We should be able to do this from site (either site details contacts or from the contacts list on the navigation pane).	2		5	25	1	3	3		**39**	$ **5,475**
93	Staff should see list of violations when view C & E action violations tab	It is confusing that in a created C & E action, violations tab, existing violations are not listed until staff click on the "Link violations" button. Staff are	2		5	25	1	3	3		**39**	$ **5,475**

		thinking that there are no violations to link since they're not viewable. To be consistent with other areas, the violations would be automatically listed and there would be checkboxes and a "link violation" button only. Existing interface is inconsistent with other tabs and areas that list existing documents, violations, etc.										
89	Resend to Nspect Feature Added	Many staff are requesting that a "resend" option be made available within MiWaters. Staff are encountering scenarios where they intended to perform an inspection and pushed the evaluation to NSpect, but due to time constraints were unable to go. In some cases it would be desirable to delete the inspection (Ideally resetting the status in Miwaters to planned) from within Nspect and then resend the existing evaluation from Miwaters back to Nspect at a later date when the staff person is next able to visit the site. Currently, if an inspection was pushed to MIWaters, there is no way to "reset" the inspection in Miwaters. It would also be helpful if a form (e.g. Areas Eval) was forgotten before the push to MiWaters.	3		9	44	3	7	5	71	$	9,886

		I've had enough requests for this, that I think it would have general appeal.									
176	Add "Reviewer" information to notifications for submission status changes	Especially for facilities that have multiple permits or work with staff from multiple programs (such as MS4, surface water and storm water), it would be useful if notifications that went out to the facilities identified who reviewed the submission.	2		5	25	1	3	3	**39**	**$ 5,475**
MIWDEV-5095	JIRA MIWDEV-5095 - Created event should list user's name	This was reported by Tiffany Myers. When creating an application event on an application assigned to me, the source just says "user." Is this something that could be changed to the staff person's name? "User" isn't very helpful.	1		1	12	1	1	1	**17**	**$ 2,364**
MIWDEV-6082	JIRA MIWDEV-6082 - Public should be given ability to link to site/feature map from Public Notice Det	Currently, MiWaters does not offer the public the ability to link directly from the Public Notice Detail screen to a map of the site and its feature(s) as they pertain to the permit being public noticed. Without this functionality, the public must rely on maps they may or may not be able to find in	2		5	25	1	3	3	**39**	**$ 5,475**

ID	JIRA Summary	Description								Total	Cost
		one or more of the documents published as part of the public notice event, or they must drill down farther into MiWaters, through some other pathway, in order to get to the site/feature map. This could either be displayed as a map control or link to Site Explorer									
MIWDEV-6253	JIRA MIWDEV-6253 - If administrator accidentally invited to a site there is no way to change their r	If an administrator is invited to a site by accident you are not able to inactivate the user or change their role unless another administrator is first associated with the site. It could also be helpful if there was a way to see invites sent out and have an option of cancelling them.	3		9	44	3	7	5	71	$ 9,886
MIWDEV-6629	JIRA MIWDEV-6629 - Move all of the records in Permit Category "Resources Certificate of Coverage" to	The records in Permit Category "Resources Certificate of Coverage" have no legal basis (Resources program has no Certificate of Coverage). These records should be moved to Permit Category "Resources General Permit". The Permit Category "Resources Certificate of Coverage" should be deleted.	1		1	12	1	1	1	17	$ 2,364
MIWDEV-5526	JIRA MIWDEV-5526 - Need to modify phone number format to accommodate international phone numbers	We currently limit the Contact phone number to 10 digits. It was mentioned that for the ballast water permits, we frequently deal with international companies that have international phone number with country codes,	2		5	25	1	3	3	39	$ 5,475

ID	Title	Description								Total	Cost
		etc. An example of this would be a registered vessel owner which is frequently in a foreign country.									
177	External/Internal users would like last modified date added as filterable column for applications	External/Internal users would like last modified date added as filterable column for applications--it is difficult to find the last draft that was worked on.	1		1	12	1	1	1	**17**	**$ 2,364**
175	Need ability to get revised docs if submittal is incomplete (for acknowledged submittals)	Staff need to ability to acknowledge receipt of a document but ask for more information to make the submittal complete. Now many items are coming in incomplete, but if we "acknowledge" them via Miwaters the external user can't revise them--ie once a submittal is acknowledged, it's complete and therefore the external user doesn't have the option to revise it.	2		5	25	1	3	3	**39**	**$ 5,475**
274	Notifications settings	The way notifications are currently setup is not useful for staff. Several people have requested revising this, ideally so that staff could customize the notifications they receive. However, if that is not possible, some recommendations include: No notifications for Public Notice ending; Possibly no completeness checklist due soon (should be discussed among resource staff); Add notification for PN Comments received; Add notifications for	3		9	44	3	7	5	**71**	**$ 9,886**

		overdue SOC deadlines. Have a way to differentiate notifications regarding external submissions so that they were more obvious (due to importance). If not customizable, will need to be discussed.									
MIWDEV-4900	JIRA MIWDEV-4900 - Notifications- suggestions for improved usability	Originally reported by Pete Ostlund, clone of MIWDEV-4886 as 2 completely different issues were reported in the same ticket. This one references Notifications. See .docx attachment item # 1 for more details. Seems that the Notifications are working correctly, these are suggestions to improve usability. 1. Notifications a. If possible, I think there should be an identifier/flag on the notification "callout" on the top right corner of the screen to let the user know if there are new notifications. See image below as an example. b. Once the notification is read, there should be a way to flag it for follow-up or to put mark it as "unread". See image below for suggestions (in red). c. All the tasks read the same way once on the notifications page: "Task Status Update Notification – MiWaters Application/Service Request	3		9	44	3	7	5	**71**	**$ 9,886**

		Proce…" followed by the date received. The tasks/notifications need much more description, such as the permit number, designated name of the facility, who assigned the task or made the change, and what the task/status change was. See image below for suggestions (in red). d. It would be helpful if internal users had the ability to send other internal users notifications without being assigned a task. For example, if I was assigned a permit and someone else had some information on that permit (e.g., worked on a similar permit) and wanted to share that information, sending it through a notification would be useful. I am sure that explanation was pretty confusing. Let's say I am working on a permit that will require specific language that isn't common in our templates. Another permit writer who has come across that language could send that language to me in a notification or at least permit number or designated name of the facility that has that language.										
NoID#3	Delete draft form	External users should be able to delete drafts that are incorrect or that they	3		9	44	3	7	5	71	$	9,886

		determine they do not need. They will currently self-delete after 30 days. Could potentially be 'extra' Large; depends where we provide the 'Delete Draft' button										
39	Add Township Name	Staff often use the township name, but iti s not shown on Site Detail. Under 'Derived Location" there is County, TRS and TRSQQ - please add township name for reference.	1		1	12	1	1	1	**17**	$	**2,364**
13	DMR Entry View	Would like to freeze parameters on DMR entry page so external users can view parameters as they are filling in data. Or add parameters at bottom of page similar to e2 Request from an external user, but would be helpful for all. For a submitted DMR that you are trying to correct that is in the center of the page and are scrolling around trying to find the correct column, it will be especially difficult to see where you are and correct the right data point. This problem would be eliminated if the header row was frozen so that you could see what parameter's column you were in. Alternately, if a fixed header is not possible, could a footer (duplicating the header info) be added so the user would at least know	3		9	44	3	7	5	**71**	$	**9,886**

		where they were when they were at the top and bottom of the DMR (even if not the middle).									
21	Event type addition	add a basic event labeled "desktop review" to address review of permit applications that do not require a site inspection	1		1	12	1	1	1	**17**	$ **2,364**
23	Notification - Public	The ability for the public to place themselves on an auto-notification for a specific geographic location/activity. For example, if anyone applied for a dredge permit between Bear Lake and Eleanor Bay, Bear Lake Township, Kalkaska County then public citizen or group would get an email.	3		9	44	3	7	5	**71**	$ **9,886**
24	Popup when Public Noticing	Add a popup that warns you your about to put something on public notice before it goes on public notice there currently isn't any notification that you are about to put something on public notice, so I would be nice to have a little popup that gives you a warning that it is about to go onto public notice	2		5	25	1	3	3	**39**	$ **5,475**
28	Due date counter	There should be a counter on the application that tells us how many days until the admin review is due. This	2		5	25	1	3	3	**39**	$ **5,475**

		could also tell us the date it is due based on a calculation of the holds.										
84	Print T&E	T&E and special interests in Explorer need to be printable.	2		5	25	1	3	3	**39**	$	**5,475**
NoID#2	Print Application	Print Application or form feature in MiWaters. Applicants want to be able to print off an application to keep for their files, or let a non miwaters user review. They can't easily do this now, they have to go screen by screen to use the print function in the browser	2		5	25	1	3	3	**39**	$	**5,475**
			114		**292**	**1514**	**86**	**200**	**176**	**2,382**	$	**332,950**

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
525 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 5
to
CONTRACT NO. 071B3200093
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR	PRIMARY CONTACT	EMAIL
Windsor Solutions Inc	Craig Austin	Craig_austin@windsorsolutions.com
4386 SW Macadam Ave	**PHONE**	**CONTRACTOR'S TAX ID NO.** **(LAST FOUR DIGITS ONLY)**
Portland OR, 97239	(503) 675-7833 x215	*****5518

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
PROGRAM MANAGER / CCI	DEQ	Mike Masterson	517-243-4045	mastersonm@michigan.gov
CONTRACT ADMINISTRATOR	DTMB	Jarrod Barron	517-284-7045	Barronj1@michigan.gov

CONTRACT SUMMARY			
DESCRIPTION: DEQ Miwaters System			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW**
May 9, 2013	May 8, 2018	2 - 1 Year	May 8, 2018
PAYMENT TERMS		**DELIVERY TIMEFRAME**	
45 days		n/a	
ALTERNATE PAYMENT OPTIONS		**EXTENDED PURCHASING**	
☐ P-card ☐ Direct Voucher (DV) ☐ Other		X Yes No	
MINIMUM DELIVERY REQUIREMENTS			
n/a			

DESCRIPTION OF CHANGE NOTICE				
EXERCISE OPTION?	**LENGTH OF OPTION**	**EXERCISE EXTENSION?**	**LENGTH OF EXTENSION**	**REVISED EXP. DATE**
☐		☐		
CURRENT VALUE		**VALUE OF CHANGE NOTICE**	**ESTIMATED AGGREGATE CONTRACT VALUE**	
$4,884,335.00		$ 0	$4,884,335.00	
DESCRIPTION: Effective March 4, 2016, the parties add the attached Statement of Work at a cost of $4,827.00, to be paid utilizing existing contract funds. All other terms, conditions, specifications and pricing remain the same. Per contractor, agency and DTMB Procurement agreement.				

1

STATEMENT OF WORK
Web Service Enhancement

BACKGROUND:
This Statement of Work is governed by the terms and conditions of Contract 071B3200093. Water Resource Division (WRD) of Department of Environmental Quality (DEQ) agency has contracted the vendor, Windsor Solutions to design and develop MiWaters application and consolidated/replaced a number of applications utilized by WRD.

OBJECTIVE:
The objective of this effort is to develop, test and implement an authenticated MiWaters Web service to be consumed by MiCaRS system. This web service will be invoked to validate a MiWaters submission reference number entered by DEQ Staff to log a paper check payment that was received. The web service will then return a Boolean value to indicate if valid or not.

SCOPE OF WORK, TASKS AND DELIVERABLES:
Contractor will enhance the system to address the MIWDEV-6450 - MiCaRS Web Services/Integration as follows:

Implement MiWaters Web service to validate Submission Reference Number.

   Scope and Assumptions
   1. Introduce a New Web service.
        a. It <u>accepts</u> a text/string value.
        b. It checks that value against MiWaters Submission Reference Number field to validate it.
        c. It <u>returns</u> a Boolean value of True or False.

   2. Assumptions
        a. The user/account attempting to access this web service has already been authenticated
        b. Besides the Boolean value the MiCaRS system does not expect any other output

Revise MiWaters User Interface to use MiCaRS Web service to validate Invoice Number

   Scope and Assumptions
   - For the invoices that are raised manually (example: Issuing a penalty fee) MiWaters currently accepts the user entered Invoice number 'AS IS', instead will use the MiCaRS web service to validate the entry.
     (Note: WSDL will be made available by the contractor later during development)
        a. It <u>accepts</u> a text/string value.
        b. It checks that value against MiCaRS Invoice Number field to validate it.
        c. It <u>returns</u> a Boolean value of True or False.

   - Assumptions
        a. The user/account attempting to access this web service is already authenticated on the MiWaters end
        b. Besides the Boolean value the MiWaters system does not expect any other output

ACCEPTANCE CRITERIA:
Deliverables will not be considered complete until the DTMB Project Manager has formally accepted them.

The following high-level acceptance criteria apply:

Document Deliverables
1.   Documents are dated and in electronic format, compatible with State of Michigan software.
2.   Any changes to requirements once they are approved will be captured in the change control document and the revised Work Requests.
3.   Draft documents are not accepted as final deliverables.
4.   The documents will be reviewed and accepted in accordance with the requirements of the Contract and Appendices.

Software Deliverables - General
Software includes, but is not limited to, software product, development tools, support tools, data migration software, integration software, and installation software.
1. Beta software is not accepted as final deliverable.
2. The software will be reviewed and accepted in accordance with the requirements of the contract.
3. DEQ and DTMB will review software within a mutually agreed upon timeframe for acceptance of functionality, usability, installation, performance, security, standards compliance, backup/recovery, and operation.
   a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
   a. Unacceptable issues will be documented and submitted to the Contractor.
   b. After issues are resolved or waived, the Contractor will resubmit software for approval within 30 days of receipt.
4. Software is installed and configured, with assistance from DTMB, in an appropriate environment (e.g. development, conversion, QA testing, UAT testing, production, and training).
5. Contingency plans, de-installation procedures, and software are provided by the Contractor and approved by both the DTMB Project Manager and Agency Project Manager.
6. Final acceptance of the software will depend on the successful completion of User Acceptance Testing (UAT).
7. Testing will demonstrate the system's compliance with the requirements of the Contract. At a minimum, the testing will confirm the following:
   a. Functional - the capabilities of the system with respect to the functions and features described in the Contract.
   b. Performance - the ability of the system to perform the workload throughput requirements. All problems should be completed satisfactorily within the allotted time frame.
8. Software source code, where applicable, is reviewed by DTMB within a mutually agreed upon timeframe for readability, structure, and configuration management.
   a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
   b. Unacceptable issues will be documented and submitted to the Contractor.
   c. After issues are resolved or waived, the Contractor will resubmit source code for approval.
9. Deliverable approval process outlined in the contract terms has been followed and met.
10. Contractor developing MiCaRS participates in a design meeting to review and confirm the service calls, signatures, authentication and access. A DTMB architect participates in this call to identify any environment changes that need to be put in place for system to system communication.
11. DTMB processes any environment changes (e.g. Enterprise Architecture Diagram updates, firewall changes) needed to support the system to system communication.

Project-Specific Acceptance Criteria / Requirements
The following acceptance criteria apply to this project's Scope Items delivered:

Implement MiWaters Web service to validate Submission Reference Number.

1. Web service is called by authenticated user/account (for MiCaRS) passing a Submission Reference Number needing validation.
2. Web service validated and returns validation result to the calling program.

Revise MiWaters User Interface to use MiCaRS Web service to validate Invoice Number

1. When invoice number is entered into MiWaters for a Compliance Action penalty/stipulation and the user presses save, MiWaters invokes the MiCaRS web service to validate the invoice number that was entered.
2. Upon return from the web service,
   a. When the invoice number that is entered in MiWaters is valid, MiWaters saves the updated penalty/stipulation.
   b. When the invoice number that is entered in MiWaters is not valid, MiWaters provides an error message to the user that the invoice number is invalid and the penalty/stipulation cannot be saved until the invoice number is corrected.

PROJECT CONTROL AND REPORTS:
Contractor will include status updates in the bi- weekly progress reports Contractor is already submitting to the Agency and DTMB Project Managers throughout the life of this project. Each progress report must contain current status, actions taken, progress made, and any risks identified since the previous report.

PROJECT CONTACTS:
The designated DTMB Project Manager is:
 Anupkumar Vijayaveeraraghavan
 Michigan Department of Technology, Management & Budget
 VijayaveeraraghavanA@michigan.gov
 517-335-3564

The designated Agency Project Manager is:
 Michael Masterson
 Field Operations Section Chief
 Michigan DEQ, Water Resources Division
 MastersonM@michigan.gov
 517-243-4045

The designated Contractor Project Manager is:
 John Kostakos
 Windsor Solutions
 4386 SW Macadam Ave., Suite 101
 Portland, OR 97239
 john_kostakos@windsorsolutions.com
 503-675-7833 ext. 230

LOCATION WHERE THE WORK IS TO BE PERFORMED:
Contractor staff will work at their office location.

EXPECTED WORK HOURS AND CONDITIONS:
Work hours are not to exceed eight hours per day, forty hours per week for State employee project support. Normal working hours of 8:00 am to 5:00 pm are to be observed unless otherwise agreed to in writing. No overtime rates will be permitted.

PAYMENT:

Price is $4,827.00 firm-fixed. Payment will be made in one lump sum after the State formally accepts all deliverables.

The cost and effort breakdown are as follows:

JIRA Ticket #	Summary	Estimated Effort / Cost						Total Hours	Total Cost
		PM	SA	LD	DA	BA	D		
	Rate	$ 175	$ 175	$ 140	126	104	104		
TBD	MiCARS CR	2	11	16			3	32	$ 4,827
								32	$ 4,827
		PM	Project Manager						
		SA	System Architect						
		LD	Lead Developer/Lead Analyst						
		DA	Data Analyst						
		BA	Business Analyst/Tester						
		D	Developer						

EXPENSES:

The State will not pay for any travel expenses, including hotel, mileage, meals, parking, etc.

PROJECT SCHEDULE:

ID	Task Mode	Task Name	Work	Duration	Start	Finish
1		**Change Request 6450 - MiCars Web Service**	**30 hrs**	**7 days**	**Mon 4/4/16**	**Tue 4/12/16**
2		**Submission Reference Web Service**	**8 hrs**	**3 days**	**Mon 4/4/16**	**Wed 4/6/16**
3		Design	2 hrs	1 day	Mon 4/4/16	Mon 4/4/16
4		Development	4 hrs	1 day	Tue 4/5/16	Tue 4/5/16
5		Test	2 hrs	1 day	Wed 4/6/16	Wed 4/6/16
6		**Validate Invoice Number (call MiCars Web Servi**	**22 hrs**	**6 days**	**Tue 4/5/16**	**Tue 4/12/16**
7		Design	4 hrs	1 day	Tue 4/5/16	Tue 4/5/16
8		Development	12 hrs	4 days	Wed 4/6/16	Mon 4/11/16
9		Test	6 hrs	1 day	Tue 4/12/16	Tue 4/12/16

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
525 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 4
to
CONTRACT NO. 071B3200093
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR	PRIMARY CONTACT	EMAIL
Windsor Solutions Inc 4386 SW Macadam Ave Portland OR, 97239	Craig Austin	Craig_austin@windsorsolutions.com
	PHONE	**CONTRACTOR'S TAX ID NO.** **(LAST FOUR DIGITS ONLY)**
	(503) 675-7833 x215	*****5518

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
PROGRAM MANAGER / CCI	DEQ	Mike Masterson	517-335-1065	mastersonm@michigan.gov
CONTRACT ADMINISTRATOR	DTMB	Jarrod Barron	517-284-7045	Barronj1@michigan.gov

CONTRACT SUMMARY				
DESCRIPTION: DEQ Miwaters System				
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW**	
May 9, 2013	May 8, 2018	0 - 0 Year	May 8, 2018	
PAYMENT TERMS		**DELIVERY TIMEFRAME**		
45 days		n/a		
ALTERNATE PAYMENT OPTIONS			**EXTENDED PURCHASING**	
☐ P-card	☐ Direct Voucher (DV)	☐ Other	☒ Yes	No
MINIMUM DELIVERY REQUIREMENTS				
n/a				

DESCRIPTION OF CHANGE NOTICE				
EXERCISE OPTION?	**LENGTH OF OPTION**	**EXERCISE EXTENSION?**	**LENGTH OF EXTENSION**	**REVISED EXP. DATE**
☐		☐		
CURRENT VALUE		**VALUE OF CHANGE NOTICE**	**ESTIMATED AGGREGATE CONTRACT VALUE**	
$4,884,335.00		$ 0	$4,884,335.00	
DESCRIPTION: Effective January 22, 2016, the parties add the attached Statement of Work at a cost of $204,342.00, to be paid utilizing existing contract funds. All other terms, conditions, specifications and pricing remain the same. Per contractor, agency and DTMB Procurement agreement.				

1

MICHIGAN DEPARTMENT OF TECHNOLOGY,
MANAGEMENT AND BUDGET
IT SERVICES
STATEMENT OF WORK

Project Title: **MiWaters – enhancements**	**Period of Coverage:** **October 2015 to December 2015**
Requesting Department: **Department of Technology, Management and Budget**	**Date:** **10/09/2015**
DTMB Project Manager: **Srini Yerukola**	**Phone:** **517-241-7723**

BACKGROUND:
This Statement of Work is governed by the terms and conditions of Contract 071B3200093. Water Resource Division (WRD) of Department of Environmental Quality (DEQ) agency has contracted the vendor, Windsor Solutions to design and develop MiWaters application and consolidated/replaced a number of applications utilized by WRD.

OBJECTIVE:
The objective of this effort is to develop, test and implement development of MS Word based document templates in MiWaters, and generation of MS Word Documents from those templates. This effort is to replace the current CK Editor Templates and generation, while providing DEQ the ability to transition to the MS Word format over time. In addition, this change request provides for integration with a third party tool, AceOffix, which will provide the capability for end-users of MiWaters with MS Office installed on their computers to open, edit, and save MS Word documents in-line in the browser.

SCOPE OF WORK, TASKS AND DELIVERABLES:
Contractor will enhance the system to address the following four core capabilities:

1. **Document Editing Online - AceOffix Integration**
   a. Develop an embedded screen in MiWaters that uses AceOffix to edit a Word document.
   b. Provide the ability to Open, Edit and and Save the document within AceOffix.
   c. Work with DTMB to provide information needed for them to procure the AceOffix license and install it in MiWaters Test and Production environments. AceOffix requires installation of a Web Server component plus a browser plug-in.
2. **Template Creation and Editing**
   a. Integrate an MS Word document as a Template in MiWaters.
   b. Provide the users a way to specify a merge field in the Template document. The merge field will be used to populate the data provided by the MiWaters data source at the time of document generation.
   c. Provide a way to add a merge field to the Template by selecting the merge field from a list of fields for the relevant data source

   d. Provide the ability to create a sub-document. Sub-documents may be merged into a parent document at the time of document generation. The sub document may or may not include merge fields.
   e. Provide the ability to indicate a location to insert a sub-document in the Template.

  f. Provide a way to specify repeating data for child data sources related to the main data source (e.g., a list of conditions related to a permit). *Multiple levels of children -*

  g. Provide the ability for the Template developer to preview the generated document from the Template. This executes the generation function for a specified context (e.g. Permit ID, Compliance Action ID), but does not save the generated document.

3. **Generate a Word Document from the Template**

  a. Develop an MS Word document generation function that generates a document in the context of a MiWaters entity (e.g., Permit, Compliance Action), merging in data from the Data Source, merging in sub-documents, and merging in repeating data specified in in the source Template.

  b. Provide the ability for authorized users to select a document Template in the context of a MiWaters entity and generate the new Word document for the selected template.

  c. Provide the ability for the authorized user who generated the document to save it in the MiWaters Document Repository. The system will create the relationship of the document to the related entity.

4. **Template Transition and Conversion**

  a. To provide DEQ the ability to transition from the existing CK Editor generation to MS Word document generation over time, provide the ability to use both CK Editor and MS Word generation in parallel.

  b. Develop a conversion program that will copy existing CK Editor HTML document Templates to MS Word format (both text and merge field tags). Create an "Inactive" MS Word document Template in MiWaters for each converted document.

ACCEPTANCE CRITERIA:

Deliverables will not be considered complete until the DTMB Project Manager has formally accepted them.

The following high-level acceptance criteria apply:

Document Deliverables

1. Documents are dated and in electronic format, compatible with State of Michigan software.
2. Any changes to requirements once they are approved will be captured in the change control document and the revised Work Requests.
3. Draft documents are not accepted as final deliverables.
4. The documents will be reviewed and accepted in accordance with the requirements of the Contract and Appendices.

Software Deliverables - General

Software includes, but is not limited to, software product, development tools, support tools, data migration software, integration software, and installation software.

1. Beta software is not accepted as final deliverable.
2. The software will be reviewed and accepted in accordance with the requirements of the contract.
3. DEQ and DTMB will review software within a mutually agreed upon timeframe for acceptance of functionality, usability, installation, performance, security, standards compliance, backup/recovery, and operation.
   a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
   a. Unacceptable issues will be documented and submitted to the Contractor.
   b. After issues are resolved or waived, the Contractor will resubmit software for approval within 30 days of receipt.
4. Software is installed and configured, with assistance from DTMB, in an appropriate environment (e.g. development, conversion, QA testing, UAT testing, production, and training).
5. Contingency plans, de-installation procedures, and software are provided by the Contractor and approved by both the DTMB Project Manager and Agency Project Manager.
6. Final acceptance of the software will depend on the successful completion of User Acceptance Testing (UAT).
7. Testing will demonstrate the system's compliance with the requirements of the Contract. At a minimum, the testing will confirm the following:
   a. Functional - the capabilities of the system with respect to the functions and features described in the Contract.

b. Performance - the ability of the system to perform the workload throughput requirements. All problems should be completed satisfactorily within the allotted time frame.

8. Software source code, where applicable, is reviewed by DTMB within a mutually agreed upon timeframe for readability, structure, and configuration management.
    a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
    b. Unacceptable issues will be documented and submitted to the Contractor.
    c. After issues are resolved or waived, the Contractor will resubmit source code for approval.

9. Deliverable approval process outlined in the contract terms has been followed and met.

10. The state is responsible for procurement installation and support of the AceOffix software in in the NGDI environment (server component) and on desktop browsers. AceOffix currently supports Microsoft Office 2003/2007/2010/2013/2016. AceOffix is both server and browser based. It supports Internet Explorer (6.0 or higher version), Edge, Chrome, Firefox, Opera, Safari (Windows only) browsers. For the MS Word generation Windsor Solutions will support the current MS Word file format (e.g. used in 2010/2013/2016).

11. Windsor solutions will work with DEQ to prioritize the highest value features for development first and deliver functionality incrementally for testing and review. DEQ will execute core testing of each release of new functionality within 5 days of availability in a test environment.

12. Prior to the first test release, DTMB will install (or provide instructions for DEQ users to download and self-install) the AceOffix browser components needed for DEQ testing.

13. Given that this effort relies on unproven advanced techniques as well as 3rd party software to integrate with MS Word, there is a possibility that during development an unanticipated problem arises requiring additional effort to resolve. In the event a significant problem is encountered, DEQ will collaborate with Windsor to either a) formulate a work-around or b) process an add-on change control for the additional effort.

Project-Specific Acceptance Criteria / Requirements
The following acceptance criteria apply to this project's Scope Items delivered:

1. Document Editing Online - AceOffix Integration
   a. When opening a Word document stored in the MiWaters document repository, it opens in AceOffix, provided the end user has installed the AceOffix browser-plugin and has a valid MS Office License installed.
   b. Opened documents are editable in AceOffix. When the user saves, the current document in the repository is replaced.
   c. Windsor has coordinated and planned AceOffix installation with DTMB.

2. Template Creation and Editing
   a. Document designers have the ability to create and save a new MS Word Document Template.
   b. Document designers have the ability to add merge tags to the MS Word Template.
   c. Document designers have the ability to create a sub-document.
   d. Document designers have the ability to specify insertion of a sub-document.
   e. Document designers have the ability to specify insertion of repeating data from a data source.
   f. Document designers have the ability to preview the generated document.

3. Generate a Word Document from the Template
   a. The MS Word document can be generated based upon the tags, data sources, sub-documents, and repeating data specified in the document Template.
   b. Authorized users can initiate generation of a document from a selected document template and save the document in the MiWaters Document Repository.

4. Template Transition and Conversion
   a. When an authorized user generates a document that is based on a CK Editor Template, it continues to generate as an HTML document.
   b. When an authorized user generates a document that is based on a new MS Word Template, it generates an MS Word document.
   c. All existing CK Editor Templates are converted to MS Word format as "Inactive" Templates. This includes basic conversion from HTML to Word format with best effort to convert existing CK Editor parameters/merge tags. Some document parts (e.g. tables) will not be able to be automatically converted, and

would need to be created manually by DEQ following the conversion. Any styling of the MS Word templates (fonts, lists, paragraphs etc.) would be performed manually by DEQ following the conversion.

PROJECT CONTROL AND REPORTS:
Contractor will include status updates in the bi- weekly progress reports Contractor is already submitting to the Agency and DTMB Project Managers throughout the life of this project. Each progress report must contain current status, actions taken, progress made, and any risks identified since the previous report.

PROJECT CONTACTS:
The designated DTMB Project Manager is:
      Srini Yerukola
      Michigan Department of Technology, Management & Budget
      Hollister Building, 106 W. Allegan St. – 5th Floor
      Lansing, MI 48909
      517-241-7723
      YerukolaS@Michigan.gov

The designated Agency Project Manager is:
      Michael Masterson
      Field Operations Section Chief
      Water Resources Division
      Michigan DEQ
      Lansing, Michigan 48909
      517-243-4045
      MASTERSONM@michigan.gov

The designated Contractor Project Manager is:
      John Kostakos
      Windsor Solutions
      4386 SW Macadam Ave., Suite 101
      Portland, OR 97239
      503-675-7833 ext. 230
      john_kostakos@windsorsolutions.com

LOCATION WHERE THE WORK IS TO BE PERFORMED:
Contractor staff will work at their office location.

EXPECTED WORK HOURS AND CONDITIONS:
Work hours are not to exceed eight hours per day, forty hours per week for State employee project support. Normal working hours of 8:00 am to 5:00 pm are to be observed unless otherwise agreed to in writing. No overtime rates will be permitted.

PAYMENT:
Price is $204,342.00 firm-fixed. There are four deliverables. Payment will be made for each respective deliverable in the amounts listed below after the State formally accepts that deliverable.

The cost and effort breakdown are as follows:

JIRA Ticket #	Summary	Qty	Cost	Estimated Effort / Cost						Total Hours	Total Cost
				PM	SA	LD	DA	BA	D		
	Rate			$ 175	$ 175	$ 140	126	104	104		
6631	Document editing online (AceOffix)			12	134	115		32		293	$ 44,978
6631	Create an embedded screen that uses AceOffix to edit a word doc			23	204	220		63		510	$ 77,077
6631	When opening a Word document stored in the doc repository, open it in AceOffix			16	154	167		48		385	$ 58,122
6631	Save a document edited in AceOffix back to the doc repository			7	64	69		20		160	$ 24,165
										1348	$ 204,342

PM	Project Manager
SA	System Architect
LD	Lead Developer
DA	Data Analyst
BA	Business Analyst/Tester
D	Developer

EXPENSES:
The State will not pay for any travel expenses, including hotel, mileage, meals, parking, etc.

PROJECT SCHEDULE:
The Gantt chart below represents the general timeline for development. Because this change request will be executed as an Agile project, development of highest value features will be given development priority. Certain features will be delivered for testing incrementally, and may be delivered and deployed to production incrementally as determined by Windsor and DEQ management.

ID	Task Name	Work	Resource Names	Duration	Start	2016 Feb	Mar	Qtr 2, 2016 Apr	May	Jun	Qtr 3, 2016 Jul	Aug	Sep	Qtr 4, Oct
1	**Change Request 6631 – Generate Documents in MS Word**	**1,309 hrs**		**120.64 days?**	**3/1/16**									
2	**Document Editing Online - AceOffix Integration**	**250 hrs**		**21.63 days?**	**3/1/16**									
3	Design	20 hrs	Narayanan[80%],Mo	1.56 days	3/1/16		Narayanan[80%],Morris[80%]							
4	Development	160 hrs	Morris[80%],Churchi	14.06 days	3/2/16		Morris[80%],Churchill[80%],Narayanan[20%]							
5	Test	64 hrs	Narayanan[80%],TBC	5 days?	3/15/16		Narayanan[80%],TBD Tester							
6	DTMB Coordination / Software Installs	6 hrs	Morris[5%],Kostakos	10 days	3/16/16		Morris[5%],Kostakos[5%]							
7	**Template Creation and Editing**	**477 hrs**		**36.67 days**	**3/22/16**									
8	Analysis and Design	40 hrs	Narayanan[80%],Mo	3.85 days	3/22/16		Narayanan[80%],Morris[80%]							
9	Development	312 hrs	Morris[80%],Churchi	21.67 days	3/28/16			Morris[80%],Churchill[80%],Narayanan[20						
10	Test	125 hrs	Narayanan[70%],TBC	16.16 days	4/20/16			Narayanan[70%],TBD Tester[90%]						
11	**Generate a Word Document from the Template**	**360 hrs**		**71.04 days?**	**3/28/16**									
12	Analysis and Design	24 hrs	Narayanan[80%],Mo	3.75 days	3/28/16			Narayanan[80%],Morris[80%]						
13	Development	240 hrs	Morris[80%],Churchi	17.27 days	5/13/16					Morris[80%],Churchill[80%],Nara				
14	Test	96 hrs	Narayanan[70%],TBC	13.53 days	5/31/16						Narayanan[70%],TBD Test			
15	**Template Transition and Conversion**	**134 hrs**		**49.19 days**	**4/29/16**									
16	Analysis and Design	10 hrs	Narayanan[80%],Mo	1.56 days	4/29/16			Narayanan[80%],Morris[80%]						
17	Development	100 hrs	Morris[80%],Narayar	12.5 days	6/7/16						Morris[80%],Narayanan[20%			
18	Test	24 hrs	Narayanan[70%],TBC	3.62 days	6/23/16						Narayanan[70%],TBD Test			
19	Final User Test / Production Approval	80 hrs	DEQ	10 days	7/18/16							DEQ		
20	Production Deployment and Conversion	8 hrs	DTMB	1 day	8/15/16							DTMB		

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
525 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 3
to
CONTRACT NO. 071B3200093
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR	PRIMARY CONTACT	EMAIL
Windsor Solutions Inc 4386 SW Macadam Ave Portland OR, 97239	Craig Austin	Craig_austin@windsorsolutions.com
	PHONE	**CONTRACTOR'S TAX ID NO.** **(LAST FOUR DIGITS ONLY)**
	(503) 675-7833 x215	*****5518

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
PROGRAM MANAGER / CCI	DEQ	Mike Masterson	517-335-1065	mastersonm@michigan.gov
CONTRACT ADMINISTRATOR	DTMB	Jarrod Barron	517-284-7045	Barronj1@michigan.gov

CONTRACT SUMMARY			
DESCRIPTION: DEQ Miwaters System			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW**
May 9, 2013	May 8, 2018	0 - 0 Year	May 8, 2018
PAYMENT TERMS		**DELIVERY TIMEFRAME**	
45 days		n/a	
ALTERNATE PAYMENT OPTIONS		**EXTENDED PURCHASING**	
☐ P-card ☐ Direct Voucher (DV) ☐ Other		☒ Yes ☐ No	
MINIMUM DELIVERY REQUIREMENTS			
n/a			

DESCRIPTION OF CHANGE NOTICE				
EXERCISE OPTION?	**LENGTH OF OPTION**	**EXERCISE EXTENSION?**	**LENGTH OF EXTENSION**	**REVISED EXP. DATE**
☐		☐		
CURRENT VALUE		**VALUE OF CHANGE NOTICE**	**ESTIMATED AGGREGATE CONTRACT VALUE**	
$4,884,335.00		$ 0	$4,884,335.00	
DESCRIPTION: Effective November 16, 2015, the parties add the attached Statement of Work at a cost of $30,609.00, to be paid utilizing existing contract funds. All other terms, conditions, specifications and pricing remain the same. Per contractor, agency and DTMB Procurement agreement.				

**MICHIGAN DEPARTMENT OF TECHNOLOGY,
MANAGEMENT AND BUDGET
IT SERVICES
STATEMENT OF WORK**

Project Title: MiWaters – enhancements	**Period of Coverage:** October 2015 to December 2015
Requesting Department: Department of Technology, Management and Budget	**Date:** 10/09/2015
DTMB Project Manager: Srini Yerukola	**Phone:** 517-241-7723

BACKGROUND:
This Statement of Work is governed by the terms and conditions of Contract 071B3200093. Water Resource Division (WRD) of Department of Environmental Quality (DEQ) agency has contracted the vendor, Windsor Solutions to design and develop MiWaters application and consolidated/replaced a number of applications utilized by WRD.

OBJECTIVE:
The objective of this project is for the vendor to add additional enhancements to MiWaters application to support WRD business needs

SCOPE OF WORK, TASKS AND DELIVERABLES:
Contractor will enhance the system to meet the following six change requests:
1. MIWDEV-5787: Need ability to restrict dates Schedule of Compliance (SOC)s are available
2. MIWDEV-5974: Create SOCs for Aquatic Nuisance Control (ANC) permits
3. MIWDEV-5889: App/Request - Inbox List – Add an option (Yes/No) to search for "Unassigned" items in the Inbox list
4. MIWDEV-5928: Add the ability to change the site associated with an Application/Request and add ability to delete a Site
5. MIWDEV-6029: Creation of Site Manager
6. MIWDEV-6051: Design solution for MS Word document generation and estimate implementation

CHANGE REQUEST DETAILS
MIWDEV-5787: Add ability to restrict dates SOCs are available
Scope and Assumptions
1) Assumes one field will be added to the schedule screen to track the number of days that it can be submitted prior to the schedule due date
2) A field will be added to the schedule template to specify a default number of days in schedule.
3) Assumes that a unspecified (blank) value indicates the schedule can be submitted any time
4) Availability of triggered schedules to be submitted will be based on existing logic (receipt or approval of trigger schedule)
5) Availability settings will cascade to all repeating schedules

MIWDEV-5974: Create SOCs for Aquatic Nuisance Control (ANC) permits
    Scope and Assumptions
1) Will need to determine if any of these are triggered schedules

2) Assume that DEQ will craft/publish/test the needed forms

3) Assume that existing submittal routing behavior is unchanged

4) Assume that existing submittal notification text is unchanged

MIWDEV-5889: App/Request - Inbox List – Add an option (Yes/No) to search for "Unassigned" items in the Inbox list
    Scope and Assumptions
1) An option (Yes/No toggle) will be added to the search to Include "Unassigned" items in the Inbox list. That way, the including unassigned items in the search is optional. Default would be set to Yes.

MIWDEV-5928: Add the ability to change the site associated with an Application/Request and add ability to delete a Site
    Scope and Assumptions
1) Assumes that this is limited to changing the site that an Application/Request/Complaint is associated with after it has been imported. (This can also be viewed as transferring the App/Request/Complaint from one site to another).

2) Assumes this does not include transfer to different district office / users (when changing the site may change the office that would process the application). This would be done manually.

3) Assumes a Delete Site function will be added for optional removal of the incorrect site. That function will execute business rules (TBD) to validate whether the site can be deleted.

4) Changing the site will be limited to when the application/request is in the status of "In Process".

MIWDEV-6029: Creation of Site Manager
    Scope and Assumptions
1) Users that are assigned as Site Manager may maintain the information of the site independent of any activity occurring at the site.

2) Access to the site detail (and other site tabs) for non-Site Managers will still occur when there is an active record such as an evaluation (i.e. as it is currently)

3) When designating Site Managers for a site, the user will first select / designate the Workgroup, then designate a Site Manager.

4) The Site detail page will need to allow a user to assign one or more workgroups, and one or more site managers based on the workgroups chosen.

5) District Supervisor for the listed workgroups may add/change/remove site managers

6) A System administrator role may change the Is EPA Major flag (Site Manager cannot change).

7) Data Updates for existing Sites:

a. When there is no Site Manager designated, sites will be assigned based on rules to be defined during analysis. Resources default to the permit processor, WasteWater defaults to Compliance Manager, ANC defaults permit processor etc.)

b. Workgroups will default based on the county the site is located, except for ANC sites, which will be assigned to the ANC workgroup.

MIWDEV-6051: Design solution for MS Word document generation and estimate implementation

Scope and Assumptions

1) Analyze and provide a high level design for Word Document generation to replace the existing MiWaters CK Editor document generation.

   a. This will include creation of Document Templates, Specification of Data Sources for the templates, Sub-Templates, Document Preview, and Document Generation.

2) In addition, explore feasibility for use of AceOffix to enable opening of Document Templates and Generated Documents in MS Word within the browser. Exploration will include analysis of the AceOffix API, prototyping if necessary, and design of the integration approach.

3) Provide estimate for solution development, test and implementation, as well as estimate for conversion of existing document templates from CK Editor to MS Word.

ACCEPTANCE CRITERIA:

Deliverables will not be considered complete until the DTMB Project Manager has formally accepted them. The following high-level acceptance criteria apply:

Document Deliverables

1. Documents are dated and in electronic format, compatible with State of Michigan software.
2. Any changes to requirements once they are approved will be captured in the change control document and the revised Work Requests.
3. Draft documents are not accepted as final deliverables.
4. The documents will be reviewed and accepted in accordance with the requirements of the Contract and Appendices.

Software Deliverables - General

Software includes, but is not limited to, software product, development tools, support tools, data migration software, integration software, and installation software.

1. Beta software is not accepted as final deliverable.
2. The software will be reviewed and accepted in accordance with the requirements of the contract.
3. DTMB will review software within a mutually agreed upon timeframe for acceptance of functionality, usability, installation, performance, security, standards compliance, backup/recovery, and operation.
   a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
   a. Unacceptable issues will be documented and submitted to the Contractor.
   b. After issues are resolved or waived, the Contractor will resubmit software for approval within 30 days of receipt.
4. Software is installed and configured, with assistance from DTMB, in an appropriate environment (e.g. development, conversion, QA testing, UAT testing, production, and training).
5. Contingency plans, de-installation procedures, and software are provided by the Contractor and approved by both the DTMB Project Manager and Agency Project Manager.
6. Final acceptance of the software will depend on the successful completion of User Acceptance Testing (UAT).
7. Testing will demonstrate the system's compliance with the requirements of the Contract. At a minimum, the testing will confirm the following:
   a. Functional - the capabilities of the system with respect to the functions and features described in the Contract.

      b. Performance - the ability of the system to perform the workload throughput requirements. All problems should be completed satisfactorily within the allotted time frame.
8. DTMB will review test software, data, and results within a mutually agreed upon timeframe. In the absence of an agreed timeframe, existing contract terms will control.
      a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
      b. Unacceptable issues will be documented and submitted to the Contractor.
      c. After issues are resolved or waived, the Contractor will resubmit test software, data and results for approval within 30 days of receipt.
9. Software source code, where applicable, is reviewed by DTMB within a mutually agreed upon timeframe for readability, structure, and configuration management.
      a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
      b. Unacceptable issues will be documented and submitted to the Contractor.
      c. After issues are resolved or waived, the Contractor will resubmit source code for approval.
10. Deliverable approval process outlined in the contract terms has been followed and met.

Project-Specific Acceptance Criteria / Requirements

The following acceptance criteria apply to this project's Scope Items:

1. MIWDEV-5787: Need ability to restrict dates Schedule of Compliance (SOC)s are available
    a. A field has been added to the schedule screen to track the number of days that it can be submitted prior to the schedule due date
    b. A field has been added to the schedule template to specify a default number of days in schedule.
    c. Triggered schedules available to be submitted are based on the existing system logic (receipt or approval of trigger schedule)
    d. Schedule availability settings cascade to all repeating schedules

2. MIWDEV-5974: Create SOCs for Aquatic Nuisance Control (ANC) permits
    a. SOCs have been created for Aquatic Nuisance Control permits enabling external permittees to submit ANC reports

3. MIWDEV-5889: App/Request - Inbox List – Add an option (Yes/No) to search for "Unassigned" items in the Inbox list
    a. The Yes/No been added to the system

    b. When searching the Inbox, unassigned items appear if the search is set to Yes. They are hidden if the search is set to No

4. MIWDEV-5928: Add the ability to change the site associated with an Application/Request and add ability to delete a Site
    a. A user is able to change the Site that a submission (Application, Request, or Complaint) has been submitted against after the submission has been imported into MiWaters.
    b. Users with designated permissions, may Delete a Site. Based upon TBD business rules the system will allow/disallow deletion of the site.

5. MIWDEV-6029: Creation of Site Manager
    a. Users that are assigned as Site Manager are able to maintain the information of the site independent of any activity occurring at the site.
    b. Access to the site detail (and other site tabs) for non-Site Managers occurs only when there is an active record such as an evaluation (i.e. as it is currently)
    c. Users with Administrative or Site Manager Authority are able to add or change the Site Manager for a Site.
    d. District Supervisor for the listed workgroups can add or change the Site Manager for a Site.

     e. Only a System administrator role is able to change the "Is EPA Major" flag. The Site Manager and any other user is unable to change the "Is EPA Major" value.

6. MIWDEV-6051: Design solution for MS Word document generation and estimate implementation
     a. A description of the solution has been provided for DEQ to review.
     b. Estimates have been provided for solution development, test and implementation as well as estimate for conversion of existing document templates from CK Editor to MS Word.

PROJECT CONTROL AND REPORTS:
Contractor will submit weekly progress reports to the Agency and DTMB Project Managers throughout the life of this project. Each progress report must contain current status, actions taken, progress made, and any risks identified since the previous report.

PROJECT CONTACTS:
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     Michigan Department of Technology, Management & Budget
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Work hours are not to exceed eight hours per day, forty hours per week for State employee project support. Normal working hours of 8:00 am to 5:00 pm are to be observed unless otherwise agreed to in writing. No overtime rates will be permitted.

PAYMENT:

Price is $30,609.00 firm fixed. Payment will be made in one lump sum after the State formally accepts all deliverables listed in this statement of work. The cost and effort breakdown are as follows:

	EFFORT / COST							
	PM **$175/hr**	**SA** **$175/hr**	**LD** **$140/hr**	**DA** **$126/hr**	**BA** **$104/hr**	**D** **$104/hr**	**Total** **Hours**	**Total** **Cost**
MIWDEV-5787	2		6	5	4	5	22	$2,756
MIWDEV-5974	2		5	4	2	5	18	$2,282
MIWDEV-5889	1		4	1	1	3	10	$1,277
MIWDEV-5928	7	3	22	14	11	25	82	$10,338
MIWDEV-6029	4	2	10	9	5	18	48	$5,976
MIWDEV-6051	4	32	12				48	$7,980
						TOTAL	**228**	**$30,609**

PM Project Manager
SA System Architect
LD Lead Developer
DA Data Analyst
BA Business Analyst/Tester
D Developer

EXPENSES:

The State will not pay for any travel expenses, including hotel, mileage, meals, parking, etc.

PROJECT SCHEDULE:

	Task Name	Work	Duration	Start	Finish	Predecessors
1	⊟ **MiWaters Enhancements - DEC 2015**	**224 hrs**	**24.81 days?**	**Mon 12/7/15**	**Fri 1/8/16**	
2	⊟ **MIWDEV-5787-Need ability to restrict dates SOCs are available**	**33 hrs**	**10.59 days?**	**Mon 12/7/15**	**Mon 12/21/15**	
3	Analysis and Design	10 hrs	4.17 days	Mon 12/7/15	Fri 12/11/15	
4	Development	19 hrs	4.76 days	Fri 12/11/15	Thu 12/17/15	3
5	Test	4 hrs	1.67 days?	Thu 12/17/15	Mon 12/21/15	4
6	⊟ **MIWDEV-5974-Create SOCs for ANC permits**	**16 hrs**	**5.33 days?**	**Mon 12/21/15**	**Mon 12/28/15**	
7	Analysis and Design	5 hrs	2.08 days	Mon 12/21/15	Wed 12/23/15	5
8	Development	8 hrs	2 days	Wed 12/23/15	Fri 12/25/15	7
9	Test	3 hrs	1.25 days?	Fri 12/25/15	Mon 12/28/15	8
10	⊟ **MIWDEV-5889-App/Request - Inbox List - Submission with unassigned workgroups are not easily visible**	**8 hrs**	**1.72 days**	**Mon 12/7/15**	**Tue 12/8/15**	
11	Analysis and Design	4 hrs	1 day	Mon 12/7/15	Mon 12/7/15	
12	Development	3 hrs	0.47 days	Tue 12/8/15	Tue 12/8/15	11
13	Test	1 hr	0.25 days	Tue 12/8/15	Tue 12/8/15	12
14	⊟ **MIWDEV-5928-Add the ability to change the site associated with an Application/Request and add ability to Delete a Site**	**75 hrs**	**14.81 days**	**Tue 12/8/15**	**Tue 12/29/15**	
15	Analysis and Design	22 hrs	5.5 days	Tue 12/8/15	Wed 12/16/15	13
16	Development	42 hrs	6.56 days	Wed 12/16/15	Thu 12/24/15	15
17	Test	11 hrs	2.75 days	Thu 12/24/15	Tue 12/29/15	16
18	⊟ **MIWDEV-6029-Creation of Site Manager**	**44 hrs**	**8.28 days**	**Tue 12/29/15**	**Fri 1/8/16**	
19	Analysis and Design	10 hrs	2.5 days	Tue 12/29/15	Fri 1/1/16	13,17
20	Development	29 hrs	4.53 days	Fri 1/1/16	Thu 1/7/16	19
21	Test	5 hrs	1.25 days	Thu 1/7/16	Fri 1/8/16	20
22	⊟ **MIWDEV-6051-Design solution for MS Word document generation and estimate implementation**	**48 hrs**	**12 days**	**Mon 12/7/15**	**Tue 12/22/15**	
23	Analysis and Design	44 hrs	11 days	Mon 12/7/15	Mon 12/21/15	
24	Produce Development Estimate	4 hrs	1 day	Tue 12/22/15	Tue 12/22/15	23
25	**User Acceptance (in conjunction with release 1.2)**	**40 hrs**	**5 days**	**Fri 1/8/16**	**Fri 1/15/16**	**5,9,13,17,21**
26	**Deploy to Production**	**16 hrs**	**2 days**	**Fri 1/15/16**	**Tue 1/19/16**	**25**

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
525 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 2
to
CONTRACT NO. 071B3200093
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR	PRIMARY CONTACT	EMAIL
Windsor Solutions, Inc.	Craig Austin	craig_austin@windsorsolutions.com
4386 SW Macadam Ave, Suite 101	**PHONE**	**CONTRACTOR'S TAX ID NO.** **(LAST FOUR DIGITS ONLY)**
Portland, OR 97239	(503) 675-7833 ex 215	5518

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
PROGRAM MANAGER / CCI	DEQ	Michael F Masterson	(517) 335-1065	mastersonm@michigan.gov
CONTRACT ADMINISTRATOR	DTMB	Jarrod Barron	(517) 284-7045	barronj@michigan.gov

CONTRACT SUMMARY			
DESCRIPTION: Development and Implementation of MiWaters			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW**
May 9, 2013	May 8, 2018	(2) 1-Year Options	May 8, 2018
PAYMENT TERMS		**DELIVERY TIMEFRAME**	
N/A		N/A	
ALTERNATE PAYMENT OPTIONS		**EXTENDED PURCHASING**	
☐ P-card ☐ Direct Voucher (DV) ☐ Other		☒ Yes ☐ No	
MINIMUM DELIVERY REQUIREMENTS			
N/A			

DESCRIPTION OF CHANGE NOTICE				
EXERCISE OPTION?	**LENGTH OF OPTION**	**EXERCISE EXTENSION?**	**LENGTH OF EXTENSION**	**REVISED EXP. DATE**
☐	N/A	☐	N/A	N/A
CURRENT VALUE		**VALUE OF CHANGE NOTICE**	**ESTIMATED AGGREGATE CONTRACT VALUE**	
$4,884,335.00		$0.00	$4,884,335.00	
DESCRIPTION: Effective August 4, 2015, this Contract is amended to add the services in the attached statement of work, utilizing $396,160.00 of existing contract funds. All other terms, conditions, specifications, and pricing remain the same, per Contractor and Agency agreement, and DTMB Procurement approval.				

FOR THE CONTRACTOR:

Windsor Solutions
Company Name

_____
Authorized Agent Signature

Guy Outred
Authorized Agent (Print or Type)

_____
Date

FOR THE STATE:

_____
Signature

Sharon Walenga-Maynard, Sourcing Director
Name & Title

DTMB Procurement
Agency

_____
Date

MICHIGAN DEPARTMENT OF TECHNOLOGY,

MANAGEMENT AND BUDGET

IT SERVICES

STATEMENT OF WORK

Project Title:	**Period of Coverage:**
MiWaters – enhancements	**April 2015 to 2016**
Requesting Department:	**Date:**
Department of Technology, Management and Budget	**05/08/2015**
DTMB Project Manager:	**Phone:**
Srini Yerukola	**517-241-7723**

BACKGROUND:

Water Resource Division (WRD) of Department of Environmental Quality (DEQ) agency is currently working with the vendor, Windsor Solutions to design and develop MiWaters application to consolidate and replace a number of applications utilized by WRD.

PROJECT OBJECTIVE AND GOALS:

The objective of this project is to request the vendor, Windsor Solutions to add additional enhancements to MiWaters application in multiple phases during 2015.

SCOPE OF WORK:

This change request encompasses two types of changes. The first is for additional functionality and features in MiWaters. The second is delivery of MiWaters in two or more phased (v1.1 and v1.2) production releases, allocating the additional features and current in-scope to the releases in collaboration with DEQ, and dependent on the timing of EPA's upcoming regulatory and system changes.

The additional functionality and features include:

1)   External User Experience Enhancements
2)   Integrated Document Management
3)   Integrated Spatial Data Management
4)   Advanced GIS based Data Inquiry Capability

5) HTML based Document Generation
6) Detailed Audit of Key Entities
7) Enhanced Payment Integrity
8) Support DMR Submission Process Revisions
9) Support for Unscheduled DMRs
10) Support for DMRs with non-Monthly Monitoring and Reporting Intervals
11) DMR Daily Form Improvements
12) Advanced Application Hold Capability
13) Support for Upcoming EPA E Reporting Rule Revisions

The schedule impact is a phased release with Release 1.1 in late September 2015, and v1.2 in 2016 in sync with EPA's ICIS-NPDES updates.

DELIVERABLES:

Deliverables will not be considered complete until the Agency Project Manager has formally accepted them.

REQUIREMENTS:
1. EXTERNAL USER EXPERIENCE
Flexible / Dynamic External User Interface
Implement the external interface to present a user's 'My Account' style of interface, where they can both respond to regulatory application and reporting requirements, but can also check the status and history of their prior interactions (upcoming fees, compliance schedule, current application status, etc.) This highly innovative (experimental) interface will provide external a dramatically elevated level of agency transparency and automation for external users.

The interface is designed and developed to support relatively easy customization. This will allow it to be reconfigured based on external feedback, modifying terminology, data to be displayed, and activities that can be performed. A dynamic user interface will ensure that external users and the system can adapt to this new form of e-government.

Detailed Functionality:

- Develop list screen 'container' components

- Support definition and configuration changes using SQL Views

- Implement initial dynamic views and screens for the following lists:

    o Sites

    o Applications

    o Permits

    o Compliance Actions

    o Violations

    o Financial information

    o Authorized Users

Self-site 'profile' management
Provide the ability for external registered users to maintain lists of Site contacts, features, site plan, and selected program components such as a WWTP's biosolid land application sites, or IPP Sites. This capability pushes data maintenance to external users which will help ensure data is accurate and up to date, and greatly reduce the reporting burden for very active Sites.

Detailed Functionality:

- Allow Users to view and update site information per business rules including

- o Site details
- o Site contacts
- o Site features
- o Site plan including mapping of site locations as points, lines or polygons

Delegated user account management

Provide external authorized users with the ability to invite additional colleagues or consultants to review and/or contribute to the MiWaters for their Site. Four roles will support external Site Administration, Certifier, Editor, and Viewer.

Detailed Functionality:

- External users with Administrator capability will have the ability to
    - o Invite other users to join the site
    - o Specify roles for other users including Administrator, Certifier, Editor and Viewer
    - o For site that they are affiliated with, maintain all site related data that is available for external users to maintain.
- External users with Editor capability will have the ability to:
    - o Maintain all site related data that is available for external users to maintain, with the exception of user account management.
- External users with Certifier capability will have the ability to:
    - o Maintain all site related data that is available for external users to maintain, with the exception of user account management.
    - o Certify submissions of reports to DEQ (where certification is required)
- External users with Viewer capability will have the ability to:
    - o View all site related data that is available to external users, with the exception of user account management.

Rich notifications

Expand upon the basic notification requirements (e-mail / internal system) so that the contents of the notification can include rich document style formats. As e-government matures, far less hardcopy correspondence will be required, and MiWaters should ensure that it is capable of supporting this transition. The system should leverage the same document template / generation engine used to produce hardcopy documents to produce equivalent HTML-formatted notification emails.

Detailed Functionality:

- Allow user to create and modify notifications using a "template"
- Templates will allow selection of a data source that provides parameters for data value substitution at time of notification creation
- Generate notifications as HTML formatted messages for both internal display to users, and email notifications.
- Provide ability to manage system notifications.
    - o View notifications
    - o Move viewed notifications to a "viewed" bucket
    - o Delete system notifications (view, delete)
    - o Specify receipt preferences (Internal or internal and email)

UI Graphic design focus

First impressions count, and for the many thousands of new Michigan external users of MiWaters, it is important that the interface be modern, intuitive and clean. Expending additional effort with expert Graphic Design and User Interface Experience to create this type of interface will increase the acceptance of the system to many of these users, which will come from many backgrounds and level of technical expertise across the regulatory and resources programs.

Detailed Functionality:

- Configure menus dynamically to include functions for the logged in user based on his/her individual permissions.

- Provide configurable status labels for key entities: Item status such as Permits, Enforcement Actions, and Evaluations will implement color coded status labels on both list and detail screens to focus user attention to items of high relevance.

- Provide high-contrast due-date labels to remind users when due dates are approaching, configurable for various numbers of days in advance from the due date (e.g. 7 days, 30 days from due date)

- Implement dynamic list scrolling to only load and display information that is visible on the screen, which will increase screen performance and usability.

- Implement dynamic filtering type-ahead search to efficiently filter list screens (applied to search results).

- Implement column based sorting for all list screens.

- Implement dynamic filtering of drop-down selection fields using type-ahead search to efficiently filter lists.

- Provide application shortcut icons (charms) for common functions.

2. Miscellaneous Enhancements
Integrated Document Management

A universal document management system (DMS) has not been implemented in production at DEQ. Furthermore, documents play a critical part of the regulatory process (e.g., permits), and ideally should be created and managed as part of a self-contained data management process versus as a separate document repository that typically provide a minimal and sometimes ungainly system interface. This enables the project to move forward while also providing a far more powerful user experience to discover and interact with documents. In addition, the DMS solution has been architected to support cloud deployment; and with a transition to another DMS in mind should DEQ implement a universal DMS system in the future.

Detailed Functionality:

- Develop a custom solution for storage of document including generated documents and files uploaded to MiWaters

- Design and implement the document management functionality in a modular approach that will allow other future storage mechanisms (e.g., external doc management system) to be implemented in the future while minimizing change impact to the MiWaters application.

Integrated Spatial Data Management

Integrate the spatial data into the MiWaters core data structures and SQL Server database. This provides a robust framework for current and future spatial analysis, including automatic derivation of geospatial attributes (e.g., HUC, PLSS etc.), as well we complex spatial querying (e.g., reports that identify sensitive resource buffer infringements).

Additional benefits of this strategy include: ArcGIS license costs are limited, improved combined tabular/spatial query performance, and a more intuitive (integrated mapping) user experience.

Integrated into the MiWaters application is the Site Explorer. This feature allows internal users to view

site profiles for all sites in the system, as well as associated compliance actions, documents, alternate site data, affiliates and environmental interests.

Site Explorer is extremely user friendly and offers numerous filtering and exporting capabilities.

Detailed Functionality:

- Integrate Windsor's Site Explorer product to support GIS functions as well as viewing of site profile data including:
    - o Compliance Actions
    - o Documents
    - o Mapping of related sites
- Design and develop spatial storage data structures in SQL server
- Provide a mechanism for loading/importing updates to the core data structure.

Advanced Data Inquiry Capability

Upgrade from the (simple) Windsor GIS Viewer to recent (powerful) nSite Explorer product. This provides a much more advanced and elegant solution for ad-hoc data discovery and reporting for both internal and external users. It also is highly configurable, which will aid in future search / filtering / map overlay extensions. Also if will benefit from improvements that will come from ongoing product development.

Detailed Functionality:

- Integrate Windsor's Site Explorer product to support ad-hoc reporting including:
    - o Inquiry / data discovery through multi-faceted search and custom filtering.
    - o Support export of data based upon inquiry results (.csv file).

Document Generation

By replacing the Office template generation approach with a custom browser-based solution, MiWaters will have the advantage of Office version compatibility independence (by instead using standard HTML formatting), advanced data substitution parameters, and the ability to incorporate subdocuments into the design of the document templates.

MiWaters leverages the CK Editor application which allows users to generate documents based on specified data sources. This offers consistency in communications with the public and expedites the business process of creating multiple communications at once. The CK Editor tool offers flexibility in formatting of documents that are consistent with other Office products.

Detailed Functionality:

- Integrate with CK Editor (open source component) to support web-based text editing and function as both the document template editor and the editor for generated documents.
- Enable the internal document editor to expand to full screen (hiding meta-data) for enhanced editor usability.

Detailed Audit of Key Entities

Tracking of detailed changes (field changed by whom, current/previous value), on key entities including Submission, Permit, Violation, Compliance Actions, Evaluations, Fin Instruments, and Conservation Easements.

Each of these sections contains a "View History" button. This screen details changes to the particular component fields, including the user and a date and time stamp of when the change was made.

Detailed Functionality:

- Develop history screens that detail the specific changes made to fields for key entities. Include
  - Field name changed
  - Previous value
  - New (changed to) value
  - User who made the change
  - Timestamp
- Field level change auditing will be implemented (at minimum) on the following data entities:
  - Site Details
  - Permits
  - Applications/Requests
  - Evaluations
  - Violations
  - Compliance and Enforcement Actions
  - Financial Instruments
  - Conservation Easements

Payment Integrity

The existing PayPlace (CEPAS) connectivity as standardly implemented has some gaps in security. Windsor enhanced the connectivity approach with additional logging of the call to PayPlace with additional verification of the callback from PayPlace. Also, calling of the PP web service to verify the data received matches.

PayPlace is fully integrated into MiWaters and offers detailed messages in the case of payment issues within PayPlace. Messaging includes verification errors and communication errors from PayPlace.

Detailed Functionality:

- Incorporate logging in the PayPlace (CEPAS) payment interface
- Implement post-transaction callback to PayPlace for additional verification of payment transactions

Enhanced DMR Features

The System will provide the following enhanced DMR capabilities:

- DMR Submission Process Revision
  - Provide the ability to submit both Daily and Summary forms as a single action instead of separate submissions as existing system does
- Unscheduled DMRs
  - Support DMRs that are only required when a specific event occurs, such as the permittee conducting hydrostatic pressure tests and reporting the results.
- Support for DMRs with non-Monthly Monitoring and Reporting Intervals - NMS only supported

monthly DMRs.

- o Allow DMRs to be set up to cover the following monitoring periods:
  - Monthly
  - Quarterly
  - Semi-Annual
  - Annual

- o Provide ability to specify the submission interval separately from the reporting interval. For example monthly DMRs may be all be due quarterly. This capability aligns with EPA's ICIS-NPDES system.

- DMR Daily Form Improvements

  - o Provide the capability to show separate reporting columns when a given parameter requires multiple sample types (e.g. daily min and max values, daily values and 7-day averages, etc.).

Advanced Application Hold Capability

Advanced hold capabilities will provide additional flexibility within MiWaters. Capabilities will include:

- Disallow holds after the administratively complete date is set for certain types of applications.

- Develop hold start/end date logic to avoid overlapping or future hold dates.

- Support multiple holds on a single application.

- Allow forms to be configured by an administrator to indicate whether hold periods are considered for automatic calculation of the total application processing deadline date.

- Extend task due dates based on hold periods specified.

Support for CROMERR and Upcoming EPA e-Reporting Rule

CROMERR is an EPA rule with stringent and specific guidelines that delegated program agencies must adhere to in order to receive "priority reports" including Discharge Monitoring Reports (DMRs)[1]. The rules impose technical and business process requirements for items such as:

- Validity of electronic signatures

- Determination of the identity of the individual uniquely entitled to use a signature device

- Criteria for establishing a copy of record

- Integrity of electronic document

- Opportunity to review and repudiate copy of record

EPA is in the process of implementing the e-Reporting rule. The e-Reporting rule builds upon existing EPA CROMERR requirements to require electronic submittal of Notices of Intent (NOI) to discharge in compliance with a general permit; and various Program reports (CAFO, IPP, Industrial and Construction Storm Water) in addition to DMRs which were covered under the original CROMERR rule[2]. In addition to expanding the list of forms and reports that must meet CROMERR requirements, the e-Reporting rule also greatly expands the number of data elements that states could and/or must report to EPA.

This rule is currently draft. EPA is hoping the rule will be finalized by end of the current federal fiscal year (September 30, 2015). The specific data elements EPA will require states to report as well as the timeline in which states will have to begin reporting this information to EPA is to be determined.

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[1] See the EPA CROMERR home page at http://www.epa.gov/cromerr/states.html for more information.

[2] See the EPA e-Reporting home page at http://www2.epa.gov/compliance/proposed-national-pollutant-discharge-elimination-system-npdes-electronic-reporting-rule for more information

CROMERR compliance and e-Reporting Rule are not specifically mentioned in the original MiWaters requirements. The technical and business implications of meeting these requirements is significant. The Windsor team has analyzed the rules, the capabilities provided by existing CROMERR-approved systems. MiWaters will support the infrastructure, auditing, and copy of record capabilities that are needed for CROMERR-compliance. It should be noted that Michigan will need to prepare a CROMERR application and work with the EPA in the final evaluation and verification of CROMERR compliance.

PAYMENT SCHEDULE:

The costs identified in the table below, will be paid in one lump sum after formal acceptance of all SOW deliverables.

Functionality	Mgmt	Design	Dev			Test	Total
	PM	BA	SA	LD	D	BA	
Rate	$ 175	$ 104	$ 175	$ 140	$ 104	$ 104	
Flexible / Dynamic External User Interface	40	250	40	80	140	70	$ 73,040
Self site 'profile' management	20	130	20	40	70	40	$ 37,560
Delegated user Account management	10	70	10	20	40	20	$ 19,820
Rich Notifications	10	30	10	10	20	10	$ 11,140
UI Graphic Design Focus	10	80	10	30	50	20	$ 23,300
Integrated Document Management	20	110	20	40	60	30	$ 33,400
Integrated Spatial Data Management	20	120	20	40	70	40	$ 36,520
Advanced GIS based Data Inquiry Capability	10	70	10	20	40	20	$ 19,820
HTML based Document Generation	10	60	10	20	30	20	$ 17,740
Detailed Audit of Key Entities	10	40	10	10	20	10	$ 12,180
Enhanced Payment Integrity	0	20	0	10	10	0	$ 4,520
Support DMR Submission Process Revisions	10	40	10	10	20	10	$ 12,180
Support for Unscheduled DMRs	0	30	0	10	20	10	$ 7,640
Support for DMRs with non-Monthly Intervals	10	60	10	20	30	20	$ 17,740
DMR Daily Form Improvements	10	30	10	10	20	10	$ 11,140
Advanced Application Hold Capability	0	30	0	10	20	10	$ 7,640
Support for EPA E Reporting Rule Revisions	30	170	30	50	100	50	$ 50,780
Total Hours	220	1340	220	430	760	390	
Total Cost	$ 38,500	$ 139,360	$ 38,500	$ 60,200	$ 79,040	$ 40,560	$ 396,160

PM	Project Manager	
BA	Business Analyst	
LD	Lead Developer	
SA	System Architect	
D	Developer	
DA	Data Analyst	

PROJECT CONTROL AND REPORTS:

DTMB project manager must submit a bi-weekly progress report to DEQ and DTMB stakeholders and coordinate the meetings with key stakeholders as needed.

PROJECT CONTACTS:

The designated DTMB Project Manager is:

> Srini Yerukola
> Michigan Department of Technology, Management & Budget
> Hollister Building, 106 W. Allegan St. – 5th Floor
> Lansing, MI 48909
> 517-241-7723
> YerukolaS@Michigan.gov

LOCATION WHERE THE WORK IS TO BE PERFORMED:

Contractor staff will work at their office location in Portland, Oregon..

EXPECTED WORK HOURS AND CONDITIONS:

Work hours are not to exceed eight hours per day, forty hours per week for State employee project support. Normal working hours of 8:00 am to 5:00 pm are to be observed unless otherwise agreed to in writing. No overtime rates will be permitted without prior written approval of the Agency and DTMB Project Manager.

PROJECTED TIMEFRAME:

Functionality	Planned Deployment
Flexible / Dynamic External User Interface	9/22/2015
Self site 'profile' management	9/22/2015
Delegated user Account management	9/22/2015
Rich Notifications	9/22/2015
UI Graphic Design Focus	9/22/2015
Integrated Document Management	9/22/2015
Integrated Spatial Data Management	9/22/2015
Advanced GIS based Data Inquiry Capability	9/22/2015
HTML based Document Generation	9/22/2015
Detailed Audit of Key Entities	9/22/2015
Enhanced Payment Integrity	9/22/2015
Support DMR Submission Process Revisions	9/22/2015
Support for Unscheduled DMRs	9/22/2015
Support for DMRs with non-Monthly Intervals	9/22/2015
DMR Daily Form Improvements	9/22/2015
Advanced Application Hold Capability	9/22/2015
Support for EPA E Reporting Rule Revisions	3/1/2016

EXPENSES:
The State will not pay for any travel expenses, including hotel, mileage, meals, parking, etc.

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
525 W. ALLEGAN, LANSING, MI 48933

CHANGE NOTICE NO. 1
to
CONTRACT NO. 071B3200093
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR	PRIMARY CONTACT	EMAIL
Windsor Solutions, Inc.	Craig Austin	craig_austin@windsorsolutions.com
4386 SW Macadam Ave, Suite 101	**PHONE**	**VENDOR TAX ID #** **(LAST FOUR DIGITS ONLY)**
Portland, OR 97239	(503) 675-7833 x215	5518

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
PROGRAM MANAGER / CCI	DEQ	Michael F Masterson	(517) 335-1065	mastersonm@michigan.gov
CONTRACT ADMINISTRATOR	DTMB	Jarrod Barron	(517) 284-7045	barronj1@michigan.gov

CONTRACT SUMMARY			
DESCRIPTION: Development and implementation of MiWaters			
INITIAL EFFECTIVE DATE	**INITIAL EXPIRATION DATE**	**INITIAL AVAILABLE OPTIONS**	**EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW**
May 9, 2013	May 8, 2018	(2) 1-Year Options	May 8, 2018
PAYMENT TERMS	**F.O.B.**	**SHIPPED TO**	
N/A	N/A	N/A	
ALTERNATE PAYMENT OPTIONS			**EXTENDED PURCHASING**
☐ P-card ☐ Direct Voucher (DV) ☐ Other			☒ Yes ☐ No
MINIMUM DELIVERY REQUIREMENTS			
N/A			

DESCRIPTION OF CHANGE NOTICE				
EXTEND CONTRACT EXPIRATION DATE	**EXERCISE CONTRACT OPTION YEAR(S)**	**EXTENSION BEYOND CONTRACT OPTION YEARS**	**LENGTH OF EXTENSION/OPTION**	**EXPIRATION DATE AFTER CHANGE**
☒ No ☐ Yes	☐	☐	N/A	May 8, 2018
CURRENT VALUE		**VALUE/COST OF CHANGE NOTICE**	**ESTIMATED REVISED AGGREGATE CONTRACT VALUE**	
$4,884,335.00		$0.00	$4,884,335.00	

DESCRIPTION:
Effective June 22, 2015, this Contract is amended to add the requirements in the attached Statement of Work, and will utilize $13,848.00 of existing funds. Please note the Contract Administrator has been changed to Jarrod Barron. All other terms, conditions, specifications, and pricing remain the same, per Contract and Agency agreement, and DTMB Procurement approval.

**MICHIGAN DEPARTMENT OF TECHNOLOGY,
MANAGEMENT AND BUDGET
IT SERVICES
STATEMENT OF WORK**

Project Title: **MiWaters and MAIN file interface**	**Period of Coverage:** **June 1 – July 30, 2015**
Requesting Department: **Department of Technology, Management and Budget**	**Date:** **06/17/2015**
Agency Project Manager: **Michael F Masterson**	**Phone:** **517-335-1065**
DTMB Project Manager: **Srini Yerukola**	**Phone:** **517-241-7723**

This Statement of Work is governed by the Terms of Contract 071B3200093.

BACKGROUND:
Water Resource Division (WRD) of Department of Environmental Quality (DEQ) agency is currently working with the vendor, Windsor Solutions to develop MiWaters application to consolidate and replace a number of applications utilized by WRD.

MiWaters needs to interface with Treasury's MAIN application to provide accounting instructions (SKUs) for all payments made for water division's permits and invoices during a calendar day.

OBJECTIVE:

The objective of this project is to design and develop the interface between MiWaters and MAIN systems by the vendor Windsor Solutions who is currently contracted for the design and development of MiWaters application.

The goal of this project is to provide a seamless integration between MiWaters and MAIN to support WRD and Treasury business needs.

SCOPE OF WORK:
Windsor Solutions will design and develop this interface based on the requirements provided by DEQ and Treasury stakeholders. Windsor Solutions will deliver the detailed functional requirements / design specifications per attached specification sheet. This interface will be implemented as part of the initial release of MiWaters.

TASKS:
- Windsor Solutions will discuss the requirements with DEQ/WRD agency project manager and other SOM stakeholders
- Windsor Solutions will develop the design and review with DEQ/WRD agency project manager and DTMB team supporting MAIN
- WRD and DTMB project managers will review the design, timeline, and give approval for implementation

- Windsor Solution will program the interface and implement in DTMB's environment for testing
- DTMB Business Analyst for MiWaters will coordinate the user testing with WRD and Treasury stakeholders
- DTMB Business Analyst and agency project manager will approve the implementation if the solution meets the requirements

DELIVERABLES:
Deliverables will not be considered complete until the Agency project manager has formally accepted them. Deliverables for this project include:
- Windsor Solutions will provide the high level timeline
- Windsor Solutions will develop the design specification
- WRD agency will develop the User Acceptance Testing scenarios
- Windsor Solutions will program and implement the interface

REQUIREMENTS:
After development of the system, the MiWaters system will perform the following actions:

1. Add Merchant Account SKU Table and relationship to Fee Category

2. Populate Merchant Account SKU table with the six SKUs. Add Fee Categories for Applications and specify the SKUs for the Invoice and Applications Fee Categories.

3. Add the Fee Category relationship to Forms:

   a. Add the online ability to specify the Fee Category for the Form

   b. Add validation that Fee Category is required for Forms which have Fees and only allow selection of the non-Invoice Fee Categories

4. Add Deposit Type Interface Code for the Payment Card Type table

5. Generate the SKU file on a daily basis

   a. Create output table (header and detail) for each interface instance

   b. Populate table and extract into fixed length file format

      i. Merchant number for invoices is determined through the Invoice : Fee Category relationship

      ii. Merchant number for Applications/Forms is determined through the nForm Form : MiWaters Form : Fee Category relationship

      iii. Derive the Deposit Type by accessing the Payment Type and Payment Card Type from the Payment record

   c. Transfer file output to DEG SFTP server

   d. Schedule to run daily

ACCEPTANCE CRITERIA:
Acceptance will be achieved when the following criteria have been met:

Document Deliverables
1. Documents are dated and in electronic format, compatible with State of Michigan software.
2. Requirements documents are reviewed and updated throughout the development process to assure requirements are delivered in the final product.
3. Draft documents are not accepted as final deliverables.
4. The documents will be reviewed and accepted in accordance with the requirements of the Contract and Appendices.
5. DTMB will review documents within a mutually agreed upon timeframe. In the absence of an agreed timeframe, **Section 2.250 et seq** will control.
   a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project

Manager.
   b. Issues will be documented and submitted to the Contractor.
   c. After issues are resolved or waived, the Contractor will resubmit documents for approval within 10 days of receipt.
6. Deliverable approval process outlined in **Section 2.250 et seq** has been followed and met.

<u>**Software Deliverables**</u>
1. Beta software is not accepted as final deliverable.
2. The software will be reviewed and accepted in accordance with the requirements of the contract.
3. DTMB will review software within a mutually agreed upon timeframe for acceptance of functionality, usability, installation, performance, security, standards compliance, backup/recovery, and operation.
   a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
   a. Unacceptable issues will be documented and submitted to the Contractor.
   b. After issues are resolved or waived, the Contractor will resubmit software for approval within 30 days of receipt.
4. Software is installed and configured, with assistance from DTMB, in an appropriate environment (e.g. development, conversion, QA testing, UAT testing, production, and training).
5. Contingency plans, de-installation procedures, and software are provided by the Contractor and approved by both the DTMB Project Manager and Agency Project Manager.
6. Final acceptance of the software will depend on the successful completion of User Acceptance Testing (UAT).
7. Testing will demonstrate the system's compliance with the Requirements listed above. At a minimum, the testing will confirm the following:
   a. Functional - the capabilities of the system with respect to the functions and features described in the Contract.
   b. Performance - the ability of the system to perform the workload throughput requirements. All problems should be completed satisfactorily within the allotted time frame.
8. DTMB will review test software, data, and results within a mutually agreed upon timeframe. Per time frame included below.
   a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
   b. Unacceptable issues will be documented and submitted to the Contractor.
   c. After issues are resolved or waived, the Contractor will resubmit test software, data and results for approval within 30 days of receipt.
10. Software source code, where applicable, is reviewed by DTMB within a mutually agreed upon timeframe for readability, structure, and configuration management.
   a. Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
   b. Unacceptable issues will be documented and submitted to the Contractor.
   c. After issues are resolved or waived, the Contractor will resubmit source code for approval.

PROJECT CONTROL AND REPORTS:
DTMB project manager must submit a bi-weekly progress report to DEQ and DTMB stakeholders and coordinate the meetings with key stakeholders as needed. Each bi-weekly progress report must contain current status, actions taken, progress made, and any risks identified since the previous report. Any changes to this Statement of Work will require a Contract Change Notice executed by Contractor and DTMB Procurement to be effective.

PROJECT CONTACTS:
The designated DTMB Project Manager is:
   Srini Yerukola
   Michigan Department of Technology, Management & Budget
   Hollister Building, 106 W. Allegan St. – 5th Floor
   Lansing, MI 48909
   517-241-7723
   YerukolaS@Michigan.gov

The designated Windsor Solutions Project Manager is:
   John Kostakos
   Windsor Solutions
   4386 SW Macadam Ave., Suite 101

Portland, OR 97239
503-675-7833 ext. 230
john_kostakos@windsorsolutions.com

LOCATION WHERE THE WORK IS TO BE PERFORMED:

Contractor staff will work at their office location in Portland, Oregon.

EXPECTED WORK HOURS AND CONDITIONS:

Contractor will observe the State's normal working hours of 8:00 am to 5:00 pm EST unless otherwise agreed to in writing. Overtime pay will not be available for this project since this is a firm fixed price contract.

PRICING / TIMEFRAME:
The State will pay Contractor $13,848.00 in one lump sum following formal final acceptance of all deliverables.

The following table details Contractor's estimated resource costs for this project. Since this is a firm fixed price contract, actual hours may vary.

Role	Rate	Hours	Total
Project Manager	175	9	1,575
Business Analyst/Tester	104	54	5,616
Lead Developer	140	35	4,900
Data Analyst	126	7	882
System Architect	175	5	875
Total		110	13,848

ID		Task Mode	Task Name	Duration	Start	Finish	Work	Jun 14, ' S
1		⇨	**MAIN SKU Interface Change**	**13 days**	**Mon 6/29/15**	**Wed 7/15/15**	**101 hrs**	
2	▦	⇨	Requirements	2 days	Mon 6/29/15	Tue 6/30/15	19 hrs	
3		⇨	Design	1 day	Wed 7/1/15	Wed 7/1/15	5 hrs	
4		⇨	Development	4 days	Thu 7/2/15	Tue 7/7/15	34 hrs	
5		⇨	Test	2 days	Wed 7/8/15	Thu 7/9/15	21 hrs	
6		⇨	Requirement Support/Doc	4 days	Thu 7/2/15	Tue 7/7/15	6 hrs	
7		⇨	Integration Test	2 days	Fri 7/10/15	Mon 7/13/15	8 hrs	
8		⇨	User Test	2 days	Tue 7/14/15	Wed 7/15/15	8 hrs	

EXPENSES:
The State will not pay for any travel expenses, including hotel, mileage, meals, parking, etc.

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET   **May 10, 2013**
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CONTRACT NO. 071B3200093
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR:	PRIMARY CONTACT	EMAIL
Windsor Solutions, Inc. 4386 SW Macadam Ave, Suite 101 Portland, OR 97239	Craig Austin	Craig_austin@windsorsolutions.com
	TELEPHONE	**CONTRACTOR #, MAIL CODE**
	(503) 675-7833 x215	

STATE CONTACTS	AGENCY	NAME	PHONE	EMAIL
CONTRACT COMPLIANCE INSPECTOR:	DNRE	Michael F. Masterson	517-335-1065	mastersonm@michigan.gov
BUYER:	DTMB	Mark Lawrence	517-241-1640	lawrencem1@michigan.gov

CONTRACT SUMMARY:			
DESCRIPTION: Descriptive Contract Title (Not always the same language as provided in MAIN)			
MiWaters			
INITIAL TERM	**EFFECTIVE DATE**	**INITIAL EXPIRATION DATE**	**AVAILABLE OPTIONS**
5 years	May 9, 2013	May 8, 2018	
PAYMENT TERMS	**F.O.B**	**SHIPPED**	**SHIPPED FROM**
N/A	N/A	N/A	N/A
ALTERNATE PAYMENT OPTIONS:			AVAILABLE TO MiDEAL PARTICIPANTS
☐ P-card ☐ Direct Voucher (DV) ☐ Other			☒ YES ☐ NO
MINIMUM DELIVERY REQUIREMENTS:			
N/A			
MISCELLANEOUS INFORMATION:			
N/A			
ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION:	$4,884,335.00		

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
PROCUREMENT
P.O. BOX 30026, LANSING, MI 48909
OR
530 W. ALLEGAN, LANSING, MI 48933

CONTRACT NO. 071B3200093
between
THE STATE OF MICHIGAN
and

NAME & ADDRESS OF CONTRACTOR:	PRIMARY CONTACT	EMAIL
Windsor Solutions, Inc. 4386 SW Macadam Ave, Suite 101 Portland, OR 97239	Craig Austin	Craig_austin@windsorsolutions.com
	TELEPHONE	**CONTRACTOR #, MAIL CODE**
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☐ P-card	☐ Direct Voucher (DV)	☐ Other	☒ YES ☐ NO
MINIMUM DELIVERY REQUIREMENTS:			
N/A			
MISCELLANEOUS INFORMATION:			
N/A			
ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION:	$4,884,335.00		

THIS IS NOT AN ORDER: This Contract Agreement is awarded on the basis of our inquiry bearing the solicitation #071I2200183**. Orders for delivery will be issued directly by the Department of Technology, Management & Budget through the issuance of a Purchase Order Form.**

Notice of Contract #: 071B3200093

FOR THE CONTRACTOR:	FOR THE STATE:
Windsor Solutions, Inc.	
Firm Name	Signature
	Jeff Brownlee, Chief Procurement Officer
Authorized Agent Signature	Name/Title
	DTMB Procurement
Authorized Agent (Print or Type)	Enter Name of Agency
Date	Date

STATE OF MICHIGAN
Department of Technology, Management and Budget
Purchasing Operations

Contract # 071B3200093, MiWaters

Buyer Name: Mark Lawrence
Telephone Number: 517 241-1640
E-Mail Address: lawrencem1@michigan.gov

Table of Contents

Article 1 – Statement of Work (SOW)

1.000 Project Identification

1.001 PROJECT REQUEST

The State of Michigan (SOM), through the Michigan Department of Environmental Quality (DEQ), and with the assistance of the Michigan Department Of Technology, Management and Budget (DTMB), has issued this contract to procure the development of a software application for consolidating and replacing a number of applications utilized by the Michigan Department of Environmental Quality's (MDEQ) Water Resources Division (WRD).

The State of Michigan is buying a service to develop a new application to be called MiWaters. It shall be a web-based system, with applications and services that are resident on a server that is accessible using a Web browser. It shall be a custom developed application that will leverage existing software solutions that will be customized and integrated together to meet the WRD's requirements. The new MiWaters system development to be built under this contract will include the following 3 core areas:

1. The migration of data and functionality from these other State of Michigan Applications or systems:

   - NPDES Management System (NMS),
   - Coastal and Inland Waters Permit Information System (CIWPIS),
   - Electronic Environmental Reporting System (E2RS),
   - Online Web Inquiry System (OWIS, aka NMS Online), and,
   - A number of other smaller applications.

2. Windsor product components that will be customized and integrated or included into MiWaters include:

   - nPDES – a complete NPDES data management system used by several state programs.
   - nForm – a complete package for the management of online submissions for permit applications and complaints.
   - nSpect – a comprehensive mobile inspection application
   - Windsor GIS Viewer (Web-based GIS/mapping)
   - Windsor Exchange Network ICIS-NDPES Flow Plugin
   - Windsor Dynamic Forms –a solution for adding new elements, rules and business logic to the system.

3. Interfacing to existing State of Michigan applications

   - Interface between MiWaters and Navision, the State of Michigan DEQ accounting system
   - Interface between MiWaters and DEQ Permitting on Michigan Business One Stop
   - Interface between MiWaters and PayPlace on Michigan Business One Stop design.
   - GIS functionality within MiWaters for displaying geo-referenced data on a map interface for locating and/or displaying sites/facilities/locations and cases
   - Replacement of all functionality of the Michigan Electronic Discharge Monitoring Report (e-DMR) System, also referred to as the E2 Reporting System, used by the State of Michigan.
   - Interface between MiWaters and the EPA for electronic data exchange

The new software solution will be capable of tracking, managing, querying, and reporting program data administered by the Water Resources Division. The system functionality includes (but is not limited to):

- Processing applications/permits/requests
- Maintaining information on sites of environmental interest
  - Sites can be defined differently – no common definition
  - Additional attributes, etc. from NMS associated with facility
  - Solutions rendered for the mobile worker at sites of environmental interest

- Maintaining information on water bodies, including permits for water body treatment and links to sites of environmental interest
- Wetland Identification Program (WIP)
- Compliance and Enforcement (C&E) actions and tracking
- Schedules of Compliance (SOC) tracking
- Inspections
- Complaints
- Contested Case Hearings
- Violations tracking
- Hydrologic (collection of hydrologic analysis, and linking data to permits)
- CSO/SSO Events
- Electronic submittal of Discharge Monitoring Reports (DMR's)
- Document scanning/indexing
- Interfaces with other existing systems (such as a Geographic Information System (GIS) application, the department's central accounting system, etc)
- Administration/Reporting/Freedom of Information Act (FOIA).

The solution must:
- Allow for the efficient capturing of data to avoid duplication of data entry thus reducing cost and the potential for errors
- Use Internet and web-based technologies to allow the DEQ to provide information to, and receive information from their customers including the general public.
- Facilitate the ability to deliver timely and effective responses to customer needs
- Provide workflow management capabilities to ensure data flow for all relevant workgroups
- Provide GIS capabilities to facilitate intelligent, interactive visualization of location-based data
- Provide a secure method of handling data to ensure system integrity, accountability, and availability.
- Accommodate approximately 320+ internal users of the new system.

1.002 BACKGROUND

The mission of the Michigan Department of Environmental Quality (MDEQ) is to protect and enhance Michigan's environment and public health. As stewards of Michigan's environmental heritage, we work on behalf of the people of the Great Lakes state for an improved quality of life and a sustainable future. In service to the public, MDEQ administers programs and enforces laws that protect public health and promotes the appropriate use of, limit the adverse effects on, and restore the quality of the environment. MDEQ encourages voluntary actions to enhance our natural resources and the environment. MDEQ preserves biologically diverse, rare, sensitive, or endangered plants, animals, and ecosystems through identification, education, management, and public/private partnerships and initiatives. MDEQ advances environmental protection through innovation and improvements to regulations and programs.

The primary internal users are located in Constitution Hall, Lansing, Michigan, and nine (9) or more field offices throughout the state.

The following summarizes key characteristics of the existing system:

The Coastal and Inland Waters Permit Information (CIWPIS) System is a centralized system used to track permit applications that are submitted under various statutes administered by the Department of Environmental Quality's (MDEQ) Water Resources Division (WRD). These regulatory programs include inland lakes and streams, wetlands, floodplains, and coastal resources. The system also tracks compliance history for site specific aspects of these programs as well. Limited information from CIWPIS files is also available on the internet so the applicant can track the application progress.

In addition, there are multiple smaller databases used to track events that must be reported to the Michigan Department of Environmental Quality (MDEQ), municipalities and the public.
- These CIWPIS programs range from financial and technical assistance to preservation and regulatory environmental protection programs

Many of these programs are points of intersection and cross-support, especially in the area of permitting and fee collections. With this commonality, many of the business systems and operations share the use of a single underlying database developed in Clipper, an out-dated application platform that is no longer capable of supporting the current or future needs of the organization. As a result, many of the program areas have developed either laborious work-arounds, or additional applications to meet specific needs, often introducing duplication of data, data entry, and data maintenance. In some instances, MDEQ WRD has been unable to fulfill requests for historical data analysis inquiries related to permits or other program related data. Previous audit findings have found the current MDEQ WRD databases to be noncompliant with proper internal controls over permit issuance and revenue receipting.

1.100   Scope of Work and Deliverables

1.101 IN SCOPE
This project scope includes:
- Project Management requirements validation and verification
- Design of the replacement system, including both Functional Design and System Design. This includes Design of the replacement database, including conceptual and physical data modeling
- Development of, or customization of software
- Implementation (including warranty)
- conversion/migration of data from old systems to new MiWaters system
- Training / Documentation
- Maintenance and Support
- Bank of hours for new enhancements

A more detailed description of the software, services (work) and high-level deliverables sought for this project is provided in Article 1, Section 1.104, Work and Deliverables.

Although the statement of work is for MDEQ, other State agencies may use this contract and developed software in the future, so it should be considered an enterprise-wide solution.

1.102 OUT OF SCOPE
The following are considered out of scope:
- Vendor hosting
- Hardware purchase, installation, or maintenance
- Security administration within Michigan's local-area and wide-area (LAN/WAN) networks
- Desktop support
- Relational Database Software

1.103 ENVIRONMENT
The links below provide information on the State's Enterprise information technology (IT) policies, standards and procedures which includes security policy and procedures, IT strategic plan, eMichigan web development and the State Unified Information Technology Environment (SUITE).

Contractors are advised that the State has methods, policies, standards and procedures that have been developed over the years. Contractors shall conform to State IT policies and standards. All services and products provided as a result of this CONTRACT must comply with all applicable State IT policies and standards. Contractor is required to review all applicable links provided below.

Enterprise IT Policies, Standards and Procedures:
http://www.michigan.gov/dmb/0,1607,7-150-56355-107739--,00.html

All software and hardware items provided by the Contractor must run on and be compatible with the MDTMB Standard Information Technology Environment. Additionally, the State must be able to maintain software and other items produced as the result of the Contract. Therefore, non-standard development tools may not be used unless approved by MDTMB. The Contractor will request, in writing through our EASA process, approval to use non-standard software development tools, providing justification for the requested change and all costs associated with any change. The DTMB Project Manager (DTMB PM) must approve any tools, in writing, before use on any information technology project.

It is recognized that technology changes rapidly. The Contractor may request, in writing, a change in the standard environment, providing justification for the requested change and all costs associated with any change. The State's Project Manager must approve any changes, in writing, before work may proceed based on the changed environment.

Enterprise IT Security Policy and Procedures:
http://www.michigan.gov/documents/dmb/1310_183772_7.pdf

http://www.michigan.gov/documents/dmb/1310.02_183775_7.pdf

http://www.michigan.gov/documents/dmb/1325_193160_7.pdf

http://www.michigan.gov/documents/dmb/1335_193161_7.pdf

http://www.michigan.gov/documents/dmb/1340_193162_7.pdf

http://www.michigan.gov/documents/dmb/1350.10_184594_7.pdf

The State's security environment includes:
- MDTMB Single Login.
- MDTMB provided SQL security database.
- Secured Socket Layers (SSL).
- SecureID (State Security Standard for external network access and high risk Web systems)

MDTMB requires that its single - login security environment be used for all new client-server software development. Where software is being converted from an existing package, or a client-server application is being purchased, the security mechanism must be approved in writing by the State's Project Manager and MDTMB Office of Enterprise Security.

IT Strategic Plan:
http://www.michigan.gov/itstrategicplan

IT eMichigan Web Development Standard Tools:
http://www.michigan.gov/documents/som/Look_and_Feel_Standards_302051_7.pdf

The State Unified Information Technology Environment (SUITE):
Includes standards for project management, systems engineering, and associated forms and templates – must be followed: http://www.michigan.gov/suite

Enterprise Architecture Solution Assessment (EASA)
See Exhibit A – EASA.

Agency Specific Technical Environment

The new application will comply with State of Michigan Department of Technology, Management and Budget Development Standards and State-Tribal-US Environmental Protection Agency (EPA) Exchange Network Data Standards and Design Rules & Conventions as further described below.

- Current MiWaters MDEQ - WRD Application Environment – (see Appendix A). –National Environmental Information Exchange Network: http://www.exchangenetwork.net/

- Current MDEQ/DTMB web hosting & network environment – see Appendix B – Application Hosting Services

The State has adopted the following tools for its Portal Technology development efforts:
- Enterprise IT policies, standards and procedures: http://www.michigan.gov/dmb/0,1607,7-150-9131_9347---,00.html
- Vignette Content Management and personalization Tool: http://www.michigan.gov/documents/134001_36337_7.pdf http://www.michigan.gov/documents/134002_36339_7.pdf
- E-Pay Payment Processing Module
- Google Search Appliance https://developers.google.com/search-appliance/

Unless otherwise stated, the Contractor must use the Portal Technology Tools to implement web content management and deployment efforts. Tools used for web-based application development must work in conjunction with Vignette. These interactions must be coordinated with DTMB, Enterprise Application Services Office, and the e-Michigan Web Development team.

To the extent that Contractor has access to the State computer system, the Contractor must comply with the State's Acceptable Use Policy, see http://www.michigan.gov/cybersecurity/0,1607,7-217-34395_34476---,00.html All Contractor employees will be required, in writing, to agree to the State's Acceptable Use Policy before accessing the State system. The State reserves the right to terminate the Contractor's access to the State system if a violation occurs.

1.104 WORK AND DELIVERABLES

The Contractor shall provide the deliverables, services and staff and otherwise do all things necessary or incidental to provide the functionality required for the State's business operations in accordance with the work and deliverables as set forth below. All are considered required unless they are marked as optional.

Services (work) to be provided and Deliverables
The solution will be installed and in operation within two (2) years from contract execution .

Summary of Services (work) to be performed
The State of Michigan is buying a service to develop a new application to be called MiWaters. It shall be a web-based system, with applications and services that are resident on a server that is accessible using a Web browser. It shall be a custom developed application that will leverage existing software solutions that will be customized and integrated together to meet the WRD's requirements. The new MiWaters system development to be built under this contract will include the following 3 core areas:

1. The migration of data and functionality from other State of Michigan Applications or systems.

2. Windsor product components that will be integrated or provided into MiWaters.

3. Interfacing to existing State of Michigan applications.

The following table represents a high level summary of all included and optional components. This list is only a high level summary and is not all-inclusive. All requirements must be met, and other work and specifics regarding required deliverables at each stage of this project are specified in this Contract.

COMPONENT NO.	REQUIRED/ OPTIONAL	HIGH LEVEL COMPONENT	PRODUCT/DELIVERABLE
1	required	MiWaters Solution	Design, develop, implement, and maintain* a new solution which integrates the functionality of Michigan DEQ Coastal and Inland Waters Permit Information System (CIWPIS) and National Pollutant Discharge Elimination System Management (NMS) systems, including enhancements as identified in the requirements
2	required	Low Flow	Design, develop, implement, and maintain* functionality of the low flow system as part of, and/or interfacing with, the new MiWaters solution.
3	required	High Flow	Design, develop, implement, and maintain* functionality of the high flow system as part of, and/or interfacing with, the new MiWaters solution.
4	required	Dam Safety	Design, develop, implement, and maintain* functionality of the dam safety system as part of, and/or interfacing with, the new MiWaters solution.
5	required	Related databases	Design, develop, implement, and maintain* functionality of the related databases as outlined in Appendix A of this CONTRACT as part of, and/or interfacing with, the new MiWaters solution.
6	required	Documentation	Complete all of the documentation required in compliance with SEM/SUITE methodology as outlined in the deliverables for this Contract.
7	required	Data conversion	Plan, map, convert, and verify conversion of all existing data maintained as part of converted/replaced systems into the new data structure/database used by the new MiWaters solution.
8	required	Interface with Navision	Design, develop, implement, and maintain* an interface between MiWaters and Navision
9	required	GIS features	Using the GIS Viewer as a foundation, design, enhance, implement, and maintain* GIS functionality within, or working with, MiWaters for displaying geo-referenced data on a map interface and identifying, locating, displaying and/or exporting/printing sites/facilities/locations/cases. Standard zoom in/out, pan, and navigation features are required when working with a map interface.
10	required	Replacement for E2Rs	Using nForm as a foundation, design, enhance, implement, and maintain* a replacement for the functionality of the Michigan Electronic Discharge Monitoring Report (e-DMR) System, also referred to as the E2 Reporting System, used by the State of Michigan.
11	required	Interface with Michigan Business One Stop, and/or DEQ Permitting on Michigan Business One Stop	Design, develop, implement, and maintain* an interface between MiWaters and Michigan Business One Stop (MBOS). MBOS will be utilized as a portal into the MiWaters system
12	required	Interface with PayPlace	Currently some DEQ payments go through PayPlace. Design, develop, implement, maintain or migrate PayPlace payments into MBOS for payment processing. This may not be necessary if the State decides to use Michigan Business One Stop Shopping Cart for all payment processing of MiWaters.
13	optional	Online Complaints	Implement custom nForm complaint form(s) to handle Online Complaints. Online Complaints will accept a variety of file type

14	optional	Mobile web application for public use on a Mobile smartphone for submission of complaints	Using nSpect as a foundation, design, enhance, implement, and maintain* a mobile web application for browser-based access to the Internet from a Mobile smartphone for the general public to enter and submit complaints (with location information) to MiWaters. This web application will be customized specifically to work with the mobile phone form factors and limitations on display resolution and user input methods.
			uploads and interface with MiWaters.
15	required	Mobile application for Laptop, Tablet PC, or other ruggedized mobile device for use by DEQ staff to map and process all business functions from a remote location	Using nSpect as a foundation, design, enhance, implement, and maintain* a mobile application that will process all business functions from a remote location. Optionally include the ability to identify routes to, and obtain driving directions for, inspection sites.
*References to "maintain" in this table refer to maintenance obligations while under contract with the State			

Address Cleansing: The new MiWaters solution must also include address cleansing functionality within the application interface when working with mailing and/or street addresses. Use of address cleansing services in real time, through the use of a web service, shall validate an address, return a cleansed (corrected, complete, and standardized form) address, or return two or more records (suggestions) in the postal directories that could possibly be the correct record.

Report Development: At a minimum, the Contractor shall design, develop, test, and implement ten (10) reports of varying complexity:

- **Two (2) Simple**: 8-16 hours of development effort.
- **Four (4) Medium**: 16-32 hours of development effort.
- **Four (4) Complex**: 32-64 hours of development effort.

These reports will be functional and useful to the State as a starting point, and will also serve as a proof of concept for future reports. Authorized users of MiWaters (internal to the State), with proper training and user materials, will have the ability to create additional custom reports, as needed, within the system.

Configurability of Software Solution
Business processes of the Michigan DEQ are not static and often change due to legal obligations, best practices, or other considerations. The MiWaters software solution must be flexible enough to accommodate and support changing business processes by allowing the State to customize data element reference values, user views and alter functions, workflow elements, and workflow as needed when needed.

The software solution must provide the State the ability to own and configure data fields, reference values, user views, functions, workflow elements, and workflow both for existing processes and new process needs as they arise. The State must also have the ability to alter, create, and configure workflow notifications such as email notifications when certain workflow-related events occur.

Systems Environment and Interfaces
The architecture, technology standards, and programming environment are in the Enterprise Architecture Solution Assessment (EASA), in Exhibit A.

Phases of Work (Phases I-VII)
In compliance with the State of Michigan Systems Engineering Methodology (SEM) and SUITE the work will be performed under seven distinct phases, each with its own set of deliverables, with examples and methodology found in Appendix E.

Upon the conclusion of each phase and the submission of all deliverables required in the phase, the DTMB Project Manager will provide written acceptance if all the work and deliverables have been satisfactorily completed. The Contractor may, after receipt of such acceptance, submit an invoice for the milestone payment associated with the completed phase.

Phase I   Project Initiation & Planning

The Work Description for Phase I - Project Planning:

This work effort will include planning the project work, holding a kick-off meeting, and development of the planning documents.

The Contractor's Responsibilities for Project Planning:

- The Contractor will conduct one (1) face-to-face project kickoff meeting with the MDEQ - WRD and DTMB staff representatives within 30 calendar days from execution of the Contract. The meeting will be held in Lansing, Michigan, at a date and time mutually acceptable to the State and the Contractor.
- The State shall bear no additional cost for the time and travel of the Contractor for attendance at the meeting
- Using the SUITE Methodology, the Contractor will develop the project plan including a narrative description. The Contractor will work with DTMB to make updates to the communications plan, the quality management plan, the change management plan, the risk management plan, and a staffing plan (Example provided in Appendix E). If the Contractor (and/or applicable sub-contractors) chose to utilize multiple work locations, the communication plan should describe how the project team will communicate between locations. The project plan will also provide an estimate of hours and timing of work required of the SOM staff for this project. See sections 1.103, 1.300 and 1.400 for further information. The Project Plan will be submitted to the DTMB Project Manager and the MDEQ – WRD Project Manager within thirty (30) business days of the award of the Contract for approval. The Project plan must be in agreement with the Work and Deliverables, be periodically updated, and must include any necessary resource substitutions due to change of employment status and other unforeseen circumstances which may only be made with prior written approval of the DTMB Project Manager.
- The Contractor will provide the amended Project Schedule including a draft Gantt chart with all work steps related to the services required. The Project Schedule will also include review and revision time frames for documentation (e.g., schedules, plans, and system documentation) and application testing. The initial project schedule provided twenty (20) business days for the various reviews by the MDEQ - WRD Project Team and DTMB. This may be adjusted as agreed upon between the Contractor, the MDEQ - WRD Project Manager and the DTMB Project Manager.
- The Contractor will host conference calls, facilitate discussions, issue minutes of conference calls & meetings, and provide bi-weekly project status reports in written form
- The Contractor will establish an interactive web based defect tracking system to be used by the Contractor and State staff that will have the ability to record the outcome for addressing project issues and testing results. (For example see Phase VI Testing of the new System and 1.401 Issue Management)

The State's Responsibilities for Project Planning:

- Assign a Project Manager to represent DTMB and MiWaters on this project. This Project Manager is the only person authorized to accept or reject work performed by the Contractor. This project manager will be referred to as the "DTMB Project Manager"
- The DTMB Project Manager is responsible for accepting or rejecting the deliverables for work performed by the Contractor and for submitting payment authorization to the DTMB Contract Administrator (See 1.202)
- The DTMB Project Manager and the MDEQ - WRD Project Manager will identify a team of subject matter experts in the technical area and the program area for the duration of the contract, respectively
- The DTMB Project Manager and the MDEQ - WRD Project Manager will coordinate State resources as needed for the duration of the contract
- The DTMB Project Manager and the MDEQ - WRD Project Manager are to provide the work/meeting area during the Contractor site visits

- All required State staff will attend the project kickoff meeting
- Identify delivery locations and training locations
- Execute project closeout procedures
- The DTMB Project Manager will be available for twenty hours per week.

SUITE SEM / PMM Deliverables

Many of the SUITE PMM documents have been pre-filled by the State.. To the greatest extent possible, the DTMB Project Manager will assist the vendor in the creation of the SEM documents. Many of the SEM / PMM documents are by necessity co-authored between the State of Michigan and the Contractor.

Deliverables for Phase I Project Planning

The Contractor shall submit the following to the DTMB Project Manager:
- Enterprise Architecture (EASA) Solutions Assessment Form
- Security Plan (initial) - DIT 170
- Maintenance Plan (initial) - SEM 0301
- Software Configuration Management Plan (initial) - SEM 0302
- Project Schedule (MS Project or equivalent) (Initial) (includes specific tasks, with specific dates)
- Project Plan - PMM 03   (includes a narrative of the project)
- Risk Management Plan - PMM-06
- Quality Management Plan - PMM 07
- Communication Plan - PMM 08
- Change Management Plan - PMM 09

Acceptance Criteria for Phase I Project Planning

If the deliverable documents for this phase are in accordance with the SUITE methodology and templates (see section 1.103) and are acceptable to the DTMB Project Manager, in coordination with the MDEQ - WRD Project Manager, the DTMB Project Manager will provide written acceptance.

Upon receipt of the DTMB Project Manager's written acceptance of all Phase I work deliverables, the Contractor may submit an invoice for the milestone payment associated with this Phase.

Phase II   Requirements Verification and Validation

The Work Description for Requirements Verification and Validation

The requirements itemized in Appendix C are intended to represent a starting point for the Contractor in the development of the new MiWaters system. The current applications and these requirements are to be the beginning point for the analysis to determine if there are any further functional requirements necessary for the new MiWaters System. Additionally, this requirements gathering process should include the analysis of required import and export of data from MiWaters to and from other systems, as well as the consolidation/inclusion of data from other systems into MiWaters. Documentation will cover each of the MDEQ - WRD applications separately and how they interact. This will include such things as:
- if a data element is added, where will the data be captured in the MiWaters data entry application
- what business rule may be necessary for the data capture
- will the data element be used for any select criteria or displayed in any system-generated report
- will the data be available on the Internet and will there be restrictions
- where will the data be displayed on the Internet and will there be security restrictions
- if the data is needed to interface with other applications what will be the cross-walk; and
- if an administrative table needs to be updated or a new table added

Description of the Business Requirements and Technical Requirements Documents:

A Foundational Requirements SEM 402 is attached in Appendix C.

- **Business Requirements Document in SEM 402** – A detailed description of the business requirement of the proposed new system based on the Contractor's analysis of the existing system, the functional requirements identified, the pre-identified enhancements, the enhancements documented in the Joint Application Design (JAD) sessions and the Contractor's experience with similar systems. Additionally, the document will detail enhancements and functionality that can be delayed without critically impacting the whole system.
- **Technical Requirements Document in SEM 402** - A detailed description of the technical requirements of the proposed new system including a description of the software, hardware, hosting, back-up and disaster recovery, and interaction with the State Network. In instances where multiple options are considered, the document should include a cost benefit analysis of each alternative, including a recommendation and ranking. Additionally, the document will detail enhancements and functionality that can be delayed without critically impacting the overall system.

The Contractor's Responsibilities for Requirements Verification and Validation

The Contractor will hold Joint Application Design (JAD) sessions to verify and validate the documentation on the current system and to document further functional requirements and enhancements necessary for the new MiWaters System.

- This will include the proper identification of the interaction of the new system with other systems. Examples of the systems that the new MiWaters system will need to interact/exchange with are: Navision, Michigan Business One Stop, PayPlace, and GIS.

- Will review and analyze the current reporting applications to determine what reports will be upgraded, new functionality that needs to be incorporated (e.g., data elements, select criteria) and any new reports that are necessary. The analysis will also include a review of the Custom Reporting Views and Tables for necessary updates and changes

- Review, validate, and update, if necessary, the business requirements provided by the State as prepared during the Business Requirements Analysis Process. This includes a review of existing systems as well as Joint Application Design (JAD) sessions with stakeholders to determine if all requirements have been fully documented.

- Will review the current web applications and document further functional requirements necessary including potential enhancements

- Review the documents related to this Contract, business processes, and related requirements, (including MDEQ - WRD organizational structure, program staff roles & responsibilities, data elements, , etc.) and update where necessary

- Identify any functionality and enhancements that could have a delayed implementation without having a critical impact to the new MiWaters system in maintaining its operation. The needs of the MDEQ - WRD will be prioritized and identified as immediate, continuing, or long term with associated costs

- The Contractor is to update the project plan to include a work plan for the design effort that will be based on the work priorities determined by the DTMB Project Manager, in coordination with the MDEQ - WRD Project Manager.

- The Contractor is to update the project schedule to more fully define the design effort and to include multiple review sessions wherein the Contractor will demonstrate their progress on the design of the new MiWaters system.

The State's Responsibilities for Requirements Verification and Validation

- Coordinate State of Michigan resources as needed
- The DTMB Project Manager will coordinate with the MiWaters Project Manager to schedule and attend

meetings to continue providing any needed business requirements
- Provide work area for Contractor's staff when on site
- Provide conference rooms for JAD session(s), when needed
- Define project standards and controls required by the SOM
- The DTMB Project Manager, MDEQ - WRD Project Manager and appropriate program and technical subject matter experts will participate in the JAD sessions. They will be available for two, four-hour sessions per week, for up to six weeks.
- The DTMB Project Manager and MDEQ - WRD Project Manager will solicit comments from the stakeholders on the business and technical requirements considered during this phase
- Review documents and verify accuracy/provide comments

Deliverables for Phase II Requirements Verification and Validation

The Contractor shall submit the following to the DTMB Project Manager and MDEQ - WRD Project Manager:
- Requirements Traceability Matrix (initial) - SEM 0401
- Validated Business and Technical Requirements Specification - SEM 0402
- Enterprise Architecture (EA) Solutions Assessment Form (Final)

Acceptance Criteria for Phase II Requirements Verification and Validation

If the deliverable documents are in accordance with the SUITE methodology and templates (see section 1.103) and are acceptable to the DTMB Project Manager, in coordination with the MDEQ - WRD Project Manager, the DTMB Project Manager will provide written acceptance.

Upon receipt of the DTMB Project Manager's written acceptance of a Phase II work the Contractor shall submit an invoice for the milestone payment associated with this phase.

Phase III   Functional Design of the New System

The Work Description for Functional Design of the New System

Functional Design of the new MiWaters application will be in accordance with the Business Requirements Document, the Requirements Traceability Matrix and the Technical Requirements Document that were developed and accepted during Phase II.

This Functional design document will include:
- A detailed description of the new system's functionality, as described in the Business and Technical Requirements documents, discussed in Section 1.104, Requirements Verification and Validation, and defined in Appendix C
- A functional description of the software and hardware to be used
- Connectivity to other applicable systems and/or data bases
- A plan and schedule for the provision of source code to the SOM for interim code reviews
- A full description of changes in functionality and enhancements proposed during Phase II and how they will be incorporated into the new design
- The prioritization of development activities as agreed upon between the DTMB Project Manager, the MDEQ - WRD Project Manager and the Contractor's Project Manager.

The following must be provided and are to be considered indicative but not all inclusive of the subjects covered by the system Functional Design:
- Mock-ups of all screens including their functionality
- Use-case document (initial) with business rules and calculations identified by data element and table
- A list and mock-up of the system-generated reports and queries in the MiWaters report application with all business rules and calculations identified by data element and table
- A Conceptual Data Model which identifies all major entities and the relationships between them
- A description of any necessary custom reporting views and entities
- Documentation of all interfaces to other data systems

- A description of all data flows to and from the new MiWaters system, including the output to desktop software for custom reporting (e.g. output to Microsoft Word, Portable Document Format (pdf), etc.)

Data Flow Description Specifics Required as Part of the Functional Design

Along with Functional Design requirements described above data flow/data sharing descriptions are required for all systems that interface and/or share data with the proposed MiWaters solution. Data flow maps and data sharing descriptions must be provided for the following:

Replacement for E2Rs System: Data flow/data sharing descriptions to and from the new MiWaters solution will include interface with the E2Rs/Electronic Environmental Discharge Monitoring Reporting (e-DMR) system component.   The E2 Reporting System is the wastewater electronic reporting application for EDMR file submissions. Such transmission exchanges Extensible Markup Language (XML) formatted data and must be fully compliant with the State's DEQ Electronic DMR Transmission Protocol.

DMR data is shared with the United States Environmental Protection Agency (EPA) via the Michigan Node. Data exchange between DEQ and the EPA must follow applicable Exchange Network protocols, data standards, and design rules/conventions.

Navision Interface: Data flow descriptions will also include a description of data flows/data sharing with Navision. Navision is the DEQ's centralized information management system for cash receipting and invoicing.

DEQ Permitting on Michigan Business One Stop Interface: Descriptions of the data flows/data sharing will be required between MiWaters and DEQ Permitting on Michigan Business One Stop.   If PayPlace is used for processing of MiWaters activity payments, descriptions of the data flows/data sharing will also be required between MiWaters and PayPlace.

The Contractor's Responsibilities for Functional Design of the New System

The Contractor will fill out the SEM Functional Design document for the new MiWaters application.

The Contractor shall work with the State of Michigan to create bi-directional flows and/or data flow descriptions of data/information between MiWaters and related systems requiring interface as identified in this document.

The Contractor shall update the project plan to include a work plan for the development effort (Phase IV).

The State's Responsibilities for Functional Design of the New System

- The MDEQ - WRD and DTMB Project Manager will determine if there is any functionality and/or enhancements proposed during Phase II that will not be implemented at this time, considering MDEQ - WRD business needs and priorities. The MDEQ-WRD and Agency Project Managers will be available for two, four-hour sessions per week, for up to six weeks.
- Monitoring and oversight of the functional design work by the Contractor as needed
- Answer questions and provide information when requested by the Contractor
- Review any interim deliverables as agreed upon between the DTMB Project Manager and the Contractor's Project Manager
- To provide access to SOM specialists, such as security and network, when requested by the Contractor and as agreed by the DTMB Project Manager They will be available for two, four-hour sessions per week, for up to six weeks. The DTMB Project Manager and MDEQ - WRD Project Manager will discuss bi-weekly status reports with the Contractor's Project Manager

Deliverables for Phase III Functional Design of the New System

The Contractor shall submit the following to the DTMB Project Manager and the MDEQ - WRD Project Manager:
- Requirements Traceability Matrix (Updated) - SEM 0401

- Business Requirements Specification (Final) - SEM 0402
- Functional Design Document - SEM 0501, including data flow descriptions
- Application Hosting Requirements (Final)
- Web site approval by e-Michigan group (see section 1.001 Project Request, and Appendix C, # 31.6 and 30.2.6)
- Updated Maintenance Plan (initial) - SEM 0301

Acceptance Criteria for Phase III Functional Design of the New System

If these documents for this phase are in accordance with the SUITE methodology and templates (see section 1.103) and are acceptable to the DTMB Project Manager, in coordination with the MDEQ - WRD Project Manager, the DTMB Project Manager will provide written acceptance.

If a product and/or the documentation are not acceptable to the DTMB Project Manager, the SOM shall give the Contractor written notice stating why the product is unacceptable. The Contractor shall have twenty (20) business days from the receipt of such notice to correct the deficiencies. The SOM shall then have twenty (20) business days to inspect, test and reevaluate the product. If the product and documentation still does not satisfy the acceptance criteria, the SOM shall have the option of either: (1) repeating the procedure set forth above, or (2) terminating this Contract pursuant to the section of this Contract entitled "Termination."

Upon receipt of the DTMB Project Manager's written acceptance of Phase III work, the Contractor shall submit an invoice for the milestone payment associated with this Phase.

Phase IV   System Design of the New System

The Work Description for System Design of the New System

Design of the new MiWaters application will be in accordance with the Business Requirements, Requirements Traceability Matrix, Functional Design, and the Technical Requirements documents that were developed and accepted during Phase III.

This design document will include:
- A detailed description of the new system's functionality, as described in the Business and Technical Requirements documents, defined in Appendix C.
- The software and hardware to be used
- Connectivity to other applicable systems and/or data bases
- A plan and schedule for the provision of source code to the SOM for interim code reviews
- A full description of changes in functionality and enhancements proposed during Phase III and how they will be incorporated into the new system design
- The prioritization of development activities as agreed upon between the DTMB Project Manager, the MDEQ - WRD Project Manager and the Contractor's Project Manager.

The following list is to be considered indicative but not all inclusive of the subjects covered by the system design:
- Mock-ups of all screens showing their functionality and flow
- Updated use-case document with all business rules and calculations identified by data element and table
- A list and mock-up of the system-generated reports in the MiWaters report application with all business rules and calculations identified by data element and table
- A description of the table structure including a list of all fields in each table including the Custom Reporting Views and Tables
- A Physical Data Model identifying database objects including views, entities, attributes, primary and foreign keys, and relationships with cardinality/ordinality
- A description of any XML or other non-database file structures used in the solution
- Documentation of all interfaces to other data systems

- A description of all data flows to and from the new MiWaters system, including the output to desktop software for custom reporting

The Contractor's Responsibilities for System Design of the New System

The Contractor will design the new MiWaters application and produce the system design document.

The Contractor shall include, within the bi-weekly status reports, a statement that the project is on schedule or provide a proposed revised schedule. Each status report will include any key decisions and issues discussed during the previous week, if applicable. Each status report is to list any decisions or data that the Contractor is waiting for from the SOM or, if there is not anything that the Contractor is waiting for the status report is to so state. The Contractor shall also include other pertinent information impacting the project.

The Contractor shall update the project plan to include a work plan for the development effort (Phase V).

The State's Responsibilities for System Design of the New System

- The MDEQ - WRD and DTMB Project Manager will determine if there are any functionality and/or enhancements proposed during Phase III that will not be implemented at this time, considering MDEQ - WRD business needs and priorities
- Monitoring and oversight of the design work by the Contractor
- Answer questions and provide information when requested by the Contractor
- Obtain comments from all stakeholders on the design options based on report recommendations
- Review any interim deliverables as agreed upon between the DTMB Project Manager and the Contractor's Project Manager
- To provide access to SOM specialists, such security and network, when requested by the Contractor and as agreed by the DTMB Project Manager
- The DTMB Project Manager and MDEQ - WRD Project Manager will discuss bi-weekly status reports with the Contractor's Project Manager.
- State staff will be available as needed.

Deliverables for Phase IV System Design of the New System

The Contractor shall submit the following to the DTMB Project Manager and the MDEQ - WRD Project Manager (note that section 1.301, Project Plan Management, has a requirement for the **work breakdown structure (WBS, Suite form PMM-004)** *showing sub-projects, activities and tasks, and resources required and allocated to each)*:
- Security Plan (Updated) - DIT 170
- Software Configuration Mgmt. Plan (final) - SEM 0302
- Requirements Traceability Matrix (updated) - SEM 0401
- Conversion Plan (Initial) - SEM 0601
- Test Plan (initial) - SEM 0602
- Test Reports (Initial) - SEM 0603
- System Design Document - SEM 0604
- System Design Checklist - SEM 0605
- Test Cases (Initial) - SEM 0606
- Training Plan (including training schedule) – SEM-703

Acceptance Criteria for Phase IV System Design of the New System

If these documents for this phase are in accordance with the SUITE methodology and templates (see section 1.103) and are acceptable to the DTMB Project Manager, in coordination with the MDEQ - WRD Project Manager, the DTMB Project Manager will provide written acceptance.

If a product and/or the documentation are not acceptable to the DTMB Project Manager, the SOM shall give the Contractor written notice stating why the product is unacceptable. The Contractor shall have twenty (20)

business days from the receipt of such notice to correct the deficiencies. The SOM shall then have twenty (20) business days to inspect, test and reevaluate the product. If the product and documentation still does not satisfy the acceptance criteria, the SOM shall have the option of either: (1) repeating the procedure set forth above, or (2) terminating this Contract pursuant to the section of this Contract entitled "Termination."

Upon receipt of the DTMB Project Manager's written acceptance of Phase IV work, the Contractor shall submit an invoice for the milestone payment associated with this Phase.

Phase V   Construction of the New System

The Work Description for Construction of the New System
Construction of the new MiWaters application will be in accordance with the Business Requirements Traceability Matrix, Functional Design, System Design, and the Technical Requirements documents that were developed and accepted during Phase IV.

The Work Description for Construction of the New System
Construction of the new MiWaters application will be in accordance with the design documents that were developed in Phase III and Phase IV and as accepted by the DTMB Project Manager. The new system will be documented in a development document.

The Contractor must update the test plan initiated in Phase IV to test the new system in the test environment, and include a conversion test wherein the current active data base will be test loaded into the new system in the test environment. Integration testing of each application and a test for data transfer and receipt from other data systems such as Michigan Business One Stop, Navision, PayPlace, and GIS must be included.   The test plan will also include user acceptance testing by DTMB and MiWaters staff using test scripts developed by the Contractor and approved by the DTMB Project Manager, in coordination with the MDEQ - WRD Project Manager.

The development effort shall be directed based on the design documents, as accepted in Phase IV The design documents includes the prioritization of development activities as agreed upon between the DTMB Project Manager, the MDEQ - WRD Project Manager and the Contractor's Project Manager.

The Contractor's Responsibilities for Construction of the New System
The Contractor is to perform the development of a system for, the MiWaters application and produce the development document. The Work Breakdown Structure (*Suite form PMM-004)* must be updated to include resource assignments, work package estimates and material changes. Changes in staff assignments are considered material.

Within the first week of the development, the Contractor is to update the project schedule to more fully define the development effort and to include multiple review sessions wherein the Contractor will demonstrate their progress on the development of the new MiWaters application.

The Contractor will provide access to the source code, as it is being developed, to allow SOM staff to review the code for compliance with coding and development standards. These interim code reviews must occur according to the design document as accepted in Phase IV.

The Contractor shall work with the SOM database and web hosting teams to define the configuration of the test and production environments.

As the development of the new system progresses, the Contractor shall verify that the production system specifications in the Phase II technical requirement document remain accurate.

For custom developed software the Contractor shall develop the source code for the new MiWaters application such that the system is able to perform as defined in Phase III and incorporated in the design in Phase IV. This code is to be written, organized and documented in accordance with accepted industry standards or as

superseded by DTMB direction or this document. The Contractor shall provide two paper copies and one electronic copy of the development document that details the code and describes each code function and operation.

1. The Contractor will develop a written test plan with schedule for:
   A. The integration testing of data transfer with other data systems (i.e., Michigan Business One Stop, Navision, PayPlace, and GIS). This plan will be developed with the MDEQ - WRD program staff, and the DTMB Project Manager and applicable DTMB staff.
   B. Unit testing involves testing to a level to ensure the application works. This will be accomplished by the Contractor prior to submitting code to the DTMB and MDEQ - WRD staff for testing.
   C. System testing involves validating that all of the functions work in unison. This will be done by the Contractor prior to submitting code to the SOM to test.
   D. Assisting DTMB staff with stress testing which will involve testing application procedures and functions with the appropriate data load to ensure that the response time is within standards.
   E. Integration testing to ensure that the components of the system work properly together.

   The test plan will also specify the format of an interactive web-tracking log, as part of the web-tracking system, used to record testing errors or anomalies by the Contractor and State staff with the ability to record the outcome for addressing the problem.

   The Contractor will develop test scripts that will thoroughly test the workings of the new MDEQ - WRD system. In addition to testing every different type of transaction that the system would encounter in the normal course of business, the test scripts shall include the incorrect transactions that the system is designed to identify and manage.

2. The Contractor will develop a conversion program to convert the data in the current active databases so that it matches the data structure of the database in the new MiWaters system.

The Contractor must produce an initial Training Plan to identify the training approaches, methods, schedules, tools, and curricula for all types of training as specified in Phase VII Training and Documentation.

The Contractor must also produce a Technical Training Plan to accommodate training and technical knowledge transfer of the system production technical operations and maintenance to the DTMB staff for DTMB hosting support. This must include all applicable Web hosting and database system administration training for SOM DTMB personnel who will be responsible for ongoing maintenance and administration of the system, including network and system security.

The State's Responsibilities for Construction of the New System
- Monitoring and oversight of the development work by the Contractor
- Answer questions and provide information when requested by the Contractor
- Review any interim deliverables, as agreed upon among the MDEQ - WRD Project Manager, the DTMB Project Manager and the Contractor's Project Manager
- SOM staff will review the source code (if applicable) in accordance with coding and development standards as it is being developed
- Participate in structured walkthroughs of deliverables for this phase
- Participate in the development of test plans, scripts and schedule
- Participate in the development of user acceptance test criteria
- To provide access to SOM specialists, such as security and network specialists, when requested by the Contractor and as agreed to by the DTMB Project Manager
- State staff will be available as needed.

Deliverables for Construction of the New System
The Contractor shall submit the following to the MDEQ - WRD Project Manager and the DTMB Project Manager:

- Software Development Document
    - Custom developed source code
    - The conversion program (SEM – 601)
    - The load program
- Requirements Traceability Matrix (updated) - SEM 0401
- Test Plan (final) including scripts and schedule - SEM 0602
- Interactive web based defect tracking system
- Transition Plan (initial) - SEM 0701
- Installation Plan (initial) - SEM 0702
- Training Plan (initial) - SEM 0703
- Training Checklist (Technical and Staff) - SEM 0704
- Security Plan (Updated) - DIT 170
- Source Code for Code Reviews (3 Code Reviews- Initial, Interim, Final)
- The Contractor's certification that quality assurance and quality control has been performed in accordance with the quality management plan. (PMM-07)
- Installation Guide for QA /Production (Initial)
- Mobile application for use on a Mobile Smartphone device in a test environment (if this option is exercised)
- Mobile application for a Laptop, Tablet PC, or other ruggedized mobile device in a test environment (if this option is exercised
- Data Conversion (test data) from identified systems into MiWaters

Acceptance Criteria for Construction of the New System

If the documents for this phase are in accordance with the SUITE methodology and templates (see section 1.103) and are acceptable to the DTMB Project Manager, in coordination with the MDEQ - WRD Project Manager, the DTMB Project Manager will provide written acceptance for each deliverable.

If a product and/or the documentation are not acceptable to the DTMB Project Manager, the SOM shall give the Contractor written notice stating why the product is unacceptable. The Contractor shall have twenty (20) business days from the receipt of such notice to correct the deficiencies. The SOM shall then have twenty (20) business days to inspect, test and reevaluate the product. If the product and documentation still does not satisfy the acceptance criteria, the SOM shall have the option of either: (1) repeating the procedure set forth above, or (2) terminating this Contract pursuant to the section of this Contract entitled "Termination."

Upon receipt of the DTMB Project Manager's written acceptance of a Phase V work for the specific application, the Contractor shall submit an invoice for the milestone payment associated with this phase.

Phase VI   Testing of the New System

The Work Description for Testing the New System

The Contractor will test the new MiWaters application in accordance with the test plan and schedule, developed in Phase IV for each application component and also test the integrated system. Unless otherwise specified, the Contractor will pre-test the application prior to MDEQ - WRD program area subject matter experts beginning their testing. The Contractor will use the State's WebTracker.NET product (or establish an interactive web-tracking system as approved by the State), with a web-tracking log to record testing errors or anomalies by the Contractor and State staff with the ability to record the outcome for addressing the problem.

The Contractor will work with the program area subject matter experts to address any errors or anomalies.

The Contractor will produce a test results document which records the test events, the dates of the events, the test results and the analysis of the results.

The Contractor will work with the DTMB Project Manager to identify the appropriate individuals that will be trained during Phase VII in all areas of training as outlined in Phase VII Training and Documentation.

Contractor must also update the Training Plan as initiated during the Development phase of this project. The Contractor will conduct a formal review of the Training Plan with the State. This review shall be thorough, and meeting minutes must be taken describing the action items requiring follow-up by the Contractor. The State will formally accept the Training Plan in writing upon the Contractor's remediation of all outstanding action items related to the plan.

The Contractor's Responsibilities for Testing the New System

Prior to commencement of testing, the Contractor will conduct a "testing kick-off meeting" with appropriate SOM staff in order to orient SOM staff on the test methodology and schedule. Due to the multiple responsibilities of SOM specialists it is critical that the Contractor adhere to the test schedule as accepted and approved by the DTMB Project Manager, in coordination with the MDEQ - WRD Project Manager in Phase V.

The Contractor will conduct tests of the new system in accordance with the approved test plan and the test schedule. All tests will be conducted in the presence of the DTMB Project Manager or other person(s) as designated by the DTMB Project Manager. All changes to the application(s) shall result in testing the entire system (regression testing) to be sure all software functionality is maintained. The Contractor shall utilize the test scripts, approved in Phase V, to perform uniform system-wide testing.

Contractor testing will consist of four types:
- Unit Testing: Involves testing of each screen/component to ensure that the individual component meets the functionality identified in the requirements
- Integration Testing: Involves validating that all functions work in unison as the modules are developed. This also includes integration testing of the external interfaces of the system
- Functional Testing: Occurs in conjunction with integration testing to ensure that the new system handles data correctly, receives inputs from users and files, performs data error checks and input validation, passes data between modules correctly, stores and retrieves data correctly, prints reports, and presents meaningful and informative error messages to the user
- Performance/Stress Testing: Testing the application procedures and functions with the increasing data and user load to ensure that the response time is within acceptable standards. Performance testing involves the responsiveness of the system in an environment equivalent to production. Stress testing involves measuring how the application will perform, in an environment equivalent to production, in response to demand by simulating the following:
  - Increasing the number of users
  - Increasing the complexity of the tasks which the users are performing
  - Increasing the number of tasks the users perform

The Contractor will coordinate with the DTMB Project Manager and MDEQ - WRD Project Manager, to configure the application in the test environment after the Contractor has performed successful initial unit testing of the specific application. Then the MDEQ - WRD program area subject matter experts will begin their first round of User Acceptance Testing.

Although the State will perform User Acceptance Testing, the Contractor shall provide business and technical personnel to monitor progress, investigate and answer questions, and assist users in documenting defects during User Acceptance Testing.

The Contractor will conduct/direct two (2) rounds of User Acceptance Testing. After the first round (Round 1) the Contractor will correct all faults, "bugs", defects and deficiencies identified during Round 1 unless specifically agreed to, in writing, by the DTMB Project Manager. After all issues have been corrected the Contractor will refresh the quality assurance environment with the corrected software components so that the second round (Round 2) of User Acceptance Testing can begin.

The Contractor, DTMB and MiWaters program area experts will test the integration of the new MiWaters system with other applicable data systems in accordance with the test plan and schedule, and will document any test errors or anomalies on the interactive web-tracking log.

A MiWaters web-tracking system must be established and maintained by the Contractor and will have the ability to document the following:
- Production volume
- Load balancing
- Response time
- Up time and down time of the MiWaters system
- System/application errors
- Errors in data transmission
- Application functionality during this phase of production
- Analysis of errors and corrective action taken

Test errors and/or anomalies will be reviewed to determine root cause and corrective action. The Contractor is responsible to correct the problems and request a re-test until the State is satisfied with the results. This review, its results, corrective actions and re-test will be recorded in the test results document.

During the testing phase of the project, the Contractor shall include, within the bi-weekly status reports, a statement that the project is either on schedule or provide a proposed revised schedule. The status reports will include any key decisions and issues discussed during the previous week, if applicable. Each status report is to list any decisions or data that the Contractor is waiting for from the MDEQ - WRD or the DTMB staff or, if there is not anything that the Contractor is waiting for the status report is to so state. The report will also include a discussion of any errors or anomalies on the web-tracking log that have not been addressed. The Contractor shall also include other pertinent information impacting the project.

Final quality assurance acceptance testing must be performed at the State-hosting center and will mirror the States production environment. During testing, the State and the Contractor will work together to measure response time. The Contractor will make improvements to the application until the State is satisfied with the response time.

The Contractor shall work with the State to test the backup and disaster recovery processes.

The Contractor is responsible for fixing any and all faults, "bugs", defects, and/or deficiencies in the software identified during the Testing phase (including both rounds of User Acceptance Testing) to the satisfaction of the State unless specifically agreed to, in writing, by the DTMB Project Manager. The solution must fulfill all Business and Functional Requirements that have been documented for the MiWaters system. If all documented requirements are not fulfilled it will be considered a deficiency in the system.

The State's Responsibilities for Testing the New System
- The SOM will provide examples of data in the current system in order to assist the Contractor in producing test data to enter into the database during the test of the new system. Such example data shall be altered in order to obscure the actual names and places
- Monitoring and oversight of the test work by the Contractor
- Answer questions and provide information when requested by the Contractor
- Validate system installation on test and production environments
- Perform user acceptance testing and participate in integration testing with the Contractor
- Validate/accept test scripts and testing results
- Participate in the Training Plan formal review with the Contractor and provide formal acceptance, in writing, to the Contractor upon the remediation of all outstanding action items related to the plan
- The DTMB Project Manager will assemble the test team in coordination with the MDEQ - WRD Project Manager and the Contractor. The test team will conduct acceptance testing
- The DTMB Project Manager will coordinate server access, security, or the network needed for testing and production environments
- Signoff on system installation
- State staff will be available for two, four-hour sessions per week, for up to six weeks.

Deliverables for Testing the New System

- Documentation of the completion of the "testing kick-off meeting"
- Test execution and results documentation for all four types of testing: unit testing, integration testing, functional testing, and performance/stress testing.
- An interactive web-tracking system (if not using the State's WebTracker.NET product), with a web-tracking log to record testing errors or anomalies
- Conduct/direct User Acceptance Testing in two (2) rounds, with error correction and re-implementation in the quality assurance environment after Round 1
- Test Results document
  - Documented results of a conversion test wherein the current active database will be test loaded into the new system in the test environment
  - Documented results of a test for data transfer and receipt from the other data systems
- Requirements Traceability Matrix (Final) - SEM 0401
- Test Case (Final) - SEM 0606
- Test Reports (Final) - Including Conversion and Data Transfer Test Results - SEM 0603.
- Security Plan (Updated) - DIT 170
- Installation Plan (Final) - SEM 0702
- Installation Guide for QA /Production (Final)
- Meeting minutes, action items, and resolution of Training Plan formal review
- Training Plan (Final) - SEM 0703
- Proof of Acceptance of the finalized Training Plan by the State
- Final eMichigan Web Review Assessment (SOM co-responsibility)
- Resolution, to the satisfaction of the State, for all faults, "bugs", defects, and/or deficiencies in the software identified during the Testing phase, including both rounds of User Acceptance Testing

Acceptance Criteria for Testing the New System

If the documents for this phase are in accordance with the SUITE methodology and templates (see section 1.103) and are acceptable to the DTMB Project Manager, in coordination with the MDEQ - WRD Project Manager, the DTMB Project Manager will provide written acceptance for each deliverable. Written acceptance for the deliverable "Resolution, to the satisfaction of the State, for all faults, 'bugs', defects, and/or deficiencies in the software identified during the Testing phase" will not be provided until the State certifies, in writing to the Contractor, that all known issues have been resolved to the satisfaction of the State. .

If a product and/or the documentation are not acceptable to the DTMB Project Manager, the SOM shall give the Contractor written notice stating why the product is unacceptable. The Contractor shall have twenty (20) business days from the receipt of such notice to correct the deficiencies. The SOM shall then have twenty (20) business days to inspect, test and reevaluate the product. If the product and documentation still does not satisfy the acceptance criteria, the SOM shall have the option of either: (1) repeating the procedure set forth above, or (2) terminating this Contract pursuant to the section of this Contract entitled "Termination."

Upon receipt of the DTMB Project Manager's written acceptance of Phase VI work for the specific application, the Contractor shall submit an invoice for the milestone payment associated with this phase.

Training and Documentation

The Work Description for Training and Documentation

All documentation for the new MiWaters application will match the customization for the SOM implementation.

The Contractor must work with the business and provide documentation in accordance with the training plan and training schedule delivered in Phase V, and as approved by the DTMB Project Manager.

The Contractor must provide on-site (Lansing, Michigan DEQ office or other location in Lansing, Michigan, as determined by the State) Train-the-Trainer, System Administration, and Technical Training for the MiWaters solution by a qualified trainer(s) to State DEQ and DTMB staff.

Training materials and links shall be easily accessible to all system users though the MiWaters application.

The Contractor's Responsibilities for Training and Documentation
Training will be further described and documented in the training plan as a deliverable in this section. Here are some general highlights to help each bidder estimated the training costs:

The Contractor will provide Train-the-Trainer training (no more than 25 students), along with supporting training and user materials, This training must be comprehensive so that training recipients will gain enough knowledge to make productive use of all MiWaters system features and functionality and convey that knowledge to other users. The base training should be at least one working day unless bidder provides alternative timeline.

The Contractor will provide Technical and System Administrators training (no more than 8 students) that will include training on all of the configuration options available to the System Administrator and how to use them. It must also include training on development and maintenance of custom forms, custom reports, document Field Parameters and data extracts (queries). Configuration and customization of work flow must also be included, as well as customization options for screens and objects on screens. Technical training will include an overview of components that make up the solution, as well as technical details about the solution architecture, interfaces, database, and other components that make the solution function. The base training should be at least one working day unless bidder provides alternative timeline.

Contractor shall make revisions to existing, or create new, MiWaters documentation for all documents listed below in the "Deliverables for Training and Documentation" section.

The State Staff Responsibilities for Training and Documentation
- The DTMB Project Manager, in coordination with the MDEQ - WRD Project Manager , will identify MDEQ - WRD area experts for Train-the-Trainer training
- The DTMB Project Manager, in coordination with the MDEQ - WRD Project Manager , will identify MDEQ and DTMB staff for System Administration training
- The DTMB Project Manager will identify DTMB technical staff (Developers and Business Analysts) and possibly MDEQ staff for Technical training
- Participate in the training materials formal review with the Contractor and provide feedback and formal acceptance, in writing.
- Provide and schedule training rooms

Deliverables for Training and Documentation:
- On-site Train-the-Trainer training
- On-site System Administrator training
- On-site Technical training for DTMB Developers and Business Analysts, as well as select MDEQ staff. Technical training should include technical information about the database as well as software of the solution
- Online training (Webinar) for local and outstate DEQ users, retained for replay
- Training materials (Final), including Training Manual
- Produced or Updated MiWaters documents, in both printed and electronic form, such as:
  o Modifiable User and Technical Manual(s)
  o Technical Manual(s), including information flow, function and procedure calls, internal system operations diagrams and descriptions in sufficient detail to allow DTMB staff to debug MiWaters without Contractor's future assistance
  o Module and/or system configuration documents sufficient for configuration and maintenance purposes
  o Glossary
- The MiWaters Application Program Interface (API) listing properties, methods, input and output parameters, detailed and up-to-date Entity Relationship Diagrams (ERDs), Use Cases and documentation describing the process and data flows
- Documentation of components, features, and use of the hardware/software shall be detailed such that

resolution of most problems can be determined from the documentation and most questions can be answered without Contractor support
- Bi-Directional Data Flow End User documents to ensure:
  - o The SOM staff's ability to exchange data between MiWaters and other MDEQ - WRD System as defined in this Contract
  - o The assigned SOM program and technical subject matter experts the ability to exchange data between MDEQ - WRD and the Navision System
  - o The SOM staff's, including subject matter experts, ability to exchange data between the MDEQ - WRD and the external interfaces as described in Appendix D - Interfaces
- The Technical Training Plan must contain the following:
  - o A description of how the Contractor will prepare DTMB staff to assume responsibility for supporting the SOM production system hosting and operation including required DTMB roles and skills that will be needed. The Plan must also include the Contractor roles and responsibilities and a plan for transferring the knowledge base
  - o A plan and schedule that specifies SOM resources required and specific high level tasks for the training and knowledge transfer

The Contractor must provide a minimum of two (2) copies of all documentation both in printed and electronic forms. All system, operational, user, change, and issue documentation must be available in electronic format, published to an intranet website, accessible to State users, updated regularly, with unique numerical identifiers for each section and be consistent with the most current version of the application(s).

Acceptance Criteria for Training and Documentation:

If the documentation for this phase are in accordance with the SUITE methodology and templates (see section 1.103) and upon approval of all documents and the required training, the DTMB Project Manager, in coordination with the MDEQ - WRD Project Manager, will provide written acceptance for this Phase.

Upon receipt of the DTMB Project Manager's written acceptance of Training and Documentation work for the specific deliverables, the Contractor shall submit an invoice for the milestone payment associated with this phase. All training manuals, training plans and other documentation provided become the property of the State.

Phase VII   Implementation stage; Placing the New System in Production

The Work Description for Placing the New System in Production

The MiWaters application will be loaded onto the production platform and the data in the current systems will be converted and loaded onto production.

The new MiWaters application will be run in the production environment for one hundred twenty (120) business days to verify that it performs in accordance with the specifications of the design and development documents. The Contractor and the State staff will monitor the new MiWaters system during the one hundred twenty (120)-business day warranty period. A performance log will be maintained during this warranty period.

Data Migration Mapping

Before data migration scripts can be written, data mapping will be done to design how the scripts should be written. The goal is to use automated scripts to migrate as much of the data as possible in the legacy systems being replaced by MiWaters into the consolidated MiWaters database. This includes removing duplicate data between systems, so that each type of data has a single source within the MiWaters database.

There will be some cases where it is not practical to migrate data using automated scripts, for example:

- The source database is not design to the "third normal form" standard. As a result, structured data is inconsistent and unpredictable, and so human review and cleansing is needed to apply complex data transformations. For example, when the same data is stored in multiple columns or one column is used

to store many different types of data, human judgment may be needed in order to correctly decide which data should be migrated.

- Referential integrity constraints are not defined or are disabled. This causes duplicate data and orphaned data in the database (i.e., data corruption). Human intervention is needed to remove duplicate data and match up parent and child data to remove orphans.

- Data is in a proprietary database which is no longer supported, such as a Clipper database. There may be no reasonable way to extract the data from the source proprietary system through automated means.

In these cases, Windsor will work with WRD staff to determine the most cost effective method for manually migrating the data.

The web based defect tracking system, described in **Phase I,** will also be maintained during this warranty period.

The Contractor's Responsibilities for Placing the New System in Production
The Contractor will conduct planning meetings with appropriate SOM staff regarding production, hosting and the database.

In coordination with the MDEQ - WRD Project Manager, the DTMB Project Manager, and SOM specialists, the Contractor will load the new system into the production environment in accordance with the approved development document.

In coordination with the MDEQ - WRD Project Manager , the DTMB Project Manager, and SOM specialists, the Contractor will convert the data in the current system to match the format of the new system and then load the data in the new system.

The MDEQ - WRD Project Manager , the DTMB Project Manager and SOM specialists will monitor the new MiWaters system for the one hundred twenty (120) business days warranty period and will document the following on the State's WebTracker.NET web based defect tracking system (or equivalent if approved by the State):
- Production volume
- Load balancing
- Response time
- Up time and down time of the new MiWaters system
- System/application errors
- Errors in data transmission
- Application functionality during this Phase of production
- Analysis of errors and corrective action taken

A copy of the performance log for the prior week shall be provided to the DTMB Project Manager and DEQ - WRD Project Manager each week and be placed on the web-tracking system.

The web-tracking log will be reviewed by the Contractor, the MDEQ - WRD Project Manager and the DTMB Project Manager to determine if the entry is:
- A new function or enhancement which includes any items not logged on the web-tracking system during testing or the move to production
- Necessary change due to a change in the:
  - State operating system
  - Grant requirements
  - Regulations
- Problem(s) with the existing system

During this phase, the Contractor shall include, within the bi-weekly status reports, a statement that the project is either on schedule or provide a proposed revised schedule. The status reports will include any key decisions and issues discussed during the previous week, if applicable. Each status report is to list any decisions or data that the Contractor is waiting for from the MDEQ - WRD or DTMB staff or, if there is not anything that the Contractor is waiting for the status report is to so state. The Contractor shall also include other pertinent information impacting the project.

The State's Responsibilities for Placing the New System in Production

- Monitoring and oversight of the warranty period in coordination with the Contractor
- Answer questions and provide information when requested by the Contractor
- Assist in validating and verifying that each data migration has occurred successfully
- Provide access to SOM specialists when requested by the Contractor and as agreed to by the DTMB Project Manager
- Provide access to SOM facilities and equipment that is necessary to the warranty period of the new MiWaters system
  o State staff will be available as needed.

Deliverables for Placing the New System in Production

- Installation and configuration of the new MiWaters application(s) to the production environment
- Installation and configuration of the database supporting the MiWaters solution
- Installation and configuration of the new Online Complaints web solution to the production environment (if this option is exercised Installation and configuration of the new Mobile application for public use on Mobile Smartphone devices (if this option is exercised
- Installation and configuration of the new Mobile application for Laptop, Tablet PC, or other ruggedized mobile device
- Installation and/or provision of all system interfaces/integration required in the MiWaters production environment
- Data conversion of all necessary data and Data Migration Summary report
- Performance log, on a bi-weekly basis, for the one hundred twenty (120) business day production period (submitted directly to the DTMB Project Manager)
- Maintenance Plan (Final) - SEM 0301
- Transition Plan (Final) - SEM 0701
- Conversion Plan (Final) - SEM 0601
- Security Plan (Final) - DIT 170
- Business Continuity Planning (Final) - DIT 0208
- Final Source Code (if custom-developed solution)
- Updated Installation Guide for production
- Post Implementation Evaluation Report PMM-016 (System Signoff)
- Contract Closeout Checklist - DIT-0192
- Project Lessons Learned (PMM-018)
- Comprehensive training for two (2) DEQ and two (2) DTMB technical resources
- Structured Walkthrough Stage VII - Exit Meeting Record SEM-0187
- Structured Walkthrough Stage VII - Project Metrics Collection SEM-0188
- Structured Walkthrough Stage VII - Exit Position Response SEM-189

Acceptance Criteria for Phase VII Placing the New System in Production

If the documents for this phase are in accordance with the SUITE methodology and templates (see section 1.103) and the new MiWaters system's performance is acceptable to the DTMB Project Manager, in coordination with the MDEQ - WRD Project Manager, the DTMB Project Manager will provide written acceptance of the new MiWaters system.

The warranty period will be one hundred twenty (120) business days. If at any time during the warranty period, the new MiWaters system's performance or the interaction of all system components are not acceptable to the MDEQ - WRD and the DTMB Project Manager; the SOM shall give the Contractor written notice stating why the product is unacceptable.

The Contractor shall have twenty (20) business days from the receipt of such notice to correct the deficiencies. The State shall then have twenty (20) business days to inspect, test and reevaluate the product. If the product and documentation still does not satisfy the acceptance criteria, the State shall have the option of either: (1) repeating the procedure set forth above, or (2) terminating this Contract pursuant to the section 2.150 of this Contract entitled "Termination/Cancellation."

In the event that the performance of the new MiWaters system is found unacceptable at any time during the warranty period, the Contractor assumes the cost and responsibility of accurately restoring the previous data and saving the newly entered data, while the corrections to the production system are performed. Once the Contractor corrects the cause of the unacceptable performance, the DTMB Project Manager shall review and decide whether to accept the correction and elect to resume the production test run. If the production failure cannot be duplicated during this same period, the vendor shall provide an alternative testing methodology that is satisfactory to the DTMB Project Manager. In the event that the Contractor is not able to provide an alternative testing methodology that is satisfactory to the DTMB Project Manager, the SOM shall have the option of either: (1) repeating the procedure set forth above, or (2) terminating this Contract pursuant to the section of this Contract entitled "Termination.".

Upon receipt of the DTMB Project Manager's written acceptance of Phase VII work for the specific deliverables, the Contractor may submit an invoice for the milestone payment associated with this phase.

The maintenance period begins upon final written acceptance of the complete MiWaters system.

Maintenance and Support
The maintenance period will commence upon the completion of the warranty period and final acceptance of the system by the DTMB Project Manager.

For the warranty period leading up to final acceptance the selected vendor must be willing to bear responsibility, at no additional cost to the State, for any defects in the software that prevent the software from performing as designed including any consequential damage to data and including erroneous, inaccurate, and unreliable data that is created by a software defect.

Maintenance does not include professional services to modify, customize or enhance software functionality to meet specific SOM business requests beyond what is documented for this contract and specified during its development lifecycle. Hardware maintenance is outside the scope of this project.

The Contractor's Responsibilities for Maintenance and Support
During the maintenance period the Contractor will provide replacement copies, code patches, or corrective services to correct any error, malfunction or defect in the MiWaters system. All associated documentation must be also be updated.

Software Maintenance and Support duties will include, but are not limited to:

1. System Maintenance, including Product Patches and Remedial Maintenance (unscheduled)
2. Service Level Agreement (SLA) for ongoing Support
3. Help Desk (minimum availability Monday through Friday between 8:00 a.m. and 5:00 p.m. EST.)
4. Adaptive and Preventive Maintenance
5. Performance Maintenance
6. Documentation Updates

The Contractor shall correct any errors that the State reports or which the Contractor identifies within a reasonable (and agreed upon) period depending on the severity of the error as outlined below. Contractor response of reported issues shall be handled in the following manner:

- Critical issue – A problem or issue impacting a large number of users (10 or more) or any mission critical issue affecting a single user. Contractor to provide a response within thirty (30) minutes of contact by the State

- High Priority issue – A problem or issue impacting a significant number of users (1 through 9) that prevents the user(s) from performing their business in a normal fashion. Contractor to provide a response to the State within one (1) hour.

- Medium Priority issue – A problem that is an annoyance but has only minor impact on users. Contractor to provide a response the next business day.

- Low Priority issue – Technical questions or "how to" issues. Contractor to provide a response no later than the end of the next business day.

For resolution of reported problems (issues), Contractor resolution shall be handled in the following manner:
- Critical issue – Resolution within twenty-four (24) hours (fix or workaround)
- High Priority issue – Resolution within one (1) business day. Fix or plan with scheduled target date for implementation of correction
- Medium Priority issue – Resolution within five (5) business days. Fix or plan with scheduled target date for implementation of correction
- Low Priority issue – Resolution at the next release

System Maintenance refers to regular and routine work performed by the Contractor on the system and any ancillary systems or interfaces maintained by the Contractor under this contract. System Maintenance includes corrective actions related to the system not performing as originally intended. This shall include incorporation of any functionality to meet documented Business Requirements that were specified as required but not met during Construction and Implementation of the solution.

Remedial Maintenance addresses maintenance, often on an unscheduled basis, by the Contractor following a program fault or system failure. This includes, but is not limited to:
- Investigating, correcting, and documenting application faults, "bugs", or defects. This shall include corrective action for design errors, logic errors, and/or coding errors.
- Testing and implementing corrections to application faults, "bugs", or defects
- Repairing data issues, if any, as a result of system software faults, "bugs", or defects

Adaptive and Preventative Maintenance addresses modifications or upgrades to the system due to technical changes to system components or environment to keep the system useable, maintainable, and applicable in a changing environment.

Adaptive Maintenance addresses modifications or upgrades to the system due to:
- Upgrades to SQL Server
- Upgrades to .NET Framework
- Upgrades to Microsoft Office Suite versions
- Upgrades to State of Michigan managed desktop standards and/or environment
- Upgrades to State of Michigan server or hardware environments (where applicable)
- Upgrades necessary due to expiring Contractor support

Adaptive Maintenance also includes changes to system features and functionality necessary due to changes in laws or statutes of the State of Michigan affecting DEQ and how it conducts business; changes to State or Federal laws, environmental rules, or regulations; or changes to rules, mandates, or methods of work by the Environmental Protection Agency (EPA) affecting how it expects to send data to, or receive data from, the State of Michigan.

Preventative Maintenance involves avoiding or detecting problems before they cause operational problems. Maintenance in this category includes a regular review of performance metrics and a continued analysis of loads and trends. It also includes adjustments to the system to ensure that operations are not disrupted.

Performance Maintenance includes, but is not limited to:
- Improvements to the performance, maintainability, or other attributes of the system
- Run-time improvements
- Replacement or improvements to utilities to reduce run time
- Potential performance problem correction

The Contractor will conduct maintenance meetings with appropriate SOM staff regarding production, hosting and the database maintenance issues.

In coordination with the new MiWaters MDEQ system Manager, the DTMB Agency Services Business Analyst, and SOM specialists, the Contractor will maintain the MiWaters system in accordance with the approved Maintenance plan (SEM-0302) or other supporting documentation.

The Contractor will monitor the new MiWaters system during the maintenance period of the contract and document and support the following as specified in the (SEM-0301) Maintenance plan:
- Production volume
- Load balancing and trends
- Response time
- Up time and down time of the new MiWaters system
- System/application errors
- Errors in data transmission
- Application functionality during this Phase of production
- Analysis of errors and corrective actions taken

Documentation, including user guides and training materials, must reflect the system "as is" so as modifications, enhancements, or defects are addressed the documentation must be updated accordingly.

Maintenance issues will be updated and reviewed by the Contractor, the DTMB Agency Services Business Analyst and the MDEQ MiWaters system Manager and as specified in the (SEM-0301) Maintenance plan. During this phase, the Contractor shall provide status reports as specified in the (SEM-0301) Maintenance plan.

The Contractor agrees to create of a Knowledge Transfer Plan that results in DTMB and, if applicable, any Contractor personnel assigned to provide ongoing support for operations. Contractor agrees to perform the knowledge transfer/transition activities in the plan including but not limited to the following no later than 30 days prior to completion of the maintenance and support contract:
- Transfer of knowledge to perform operational activity (including administration and security)
- Transfer of knowledge to perform system maintenance
- Transfer of knowledge to perform system enhancements
- Transfer of knowledge to use and, if necessary, enhance the database
- Transfer of all final up-to-date documentation
- Transfer of all defect tracking tool contents (data), in a format useable by the State
- Written response to questions raised by DTMB or, if applicable, any Contractor about the system or its documentation

The State's Responsibilities for Maintenance and Support
- Answer questions and provide information when requested by the Contractor
- Provide access to SOM specialists when requested by the Contractor as specified in the (SEM-0301) Maintenance plan.
- Provide access to SOM facilities and equipment that is necessary to the warranty period of the new MiWaters system
- DTMB Agency Services Business Analyst will monitor all aspects of the maintenance plan as specified in the (SEM-0301) Maintenance plan.
- The State will provide a first-line help desk.

Deliverables for Maintenance and Support

- Installation and configuration of enhancements or fixes to the MiWaters application production environment as specified in the Maintenance Plan (Final) - SEM 0301
- Provision for continued functionality of all system interfaces/integration required in the MiWaters production environment by changes made by the Contractors source code.
- Follow the Maintenance Plan (Final) - SEM 0301
- Completion of a Service Level Agreement (SLA)
- Yearly upfront Invoice for each of the five (5) years submitted by Vendor
- Management Reports (Status Reports). Include the following:
  - Uptime and explanation of any interruptions
  - Performance against the SLA
  - Listing of items completed during the reporting period
  - Listing of items planned during the upcoming reporting period
- Regular updates to the defect tracking tool content as necessary
- Updates to software as required to fulfill system, remedial, adaptive, preventative, and performance maintenance responsibilities
- Updates to documentation, including training materials, as/if required
- Release notes
- Knowledge Transfer Plan including Project Schedule
- Execution of the Knowledge Transfer Plan with completion before the end of the maintenance contract

Acceptance Criteria for Maintenance and Support:

If the documentation for this phase are in accordance with the SUITE methodology and templates (see Maintenance Plan (Final) - SEM 0301) and upon approval of all documents and all required training, the DTMB Agency Services Business Analyst, in coordination with the MDEQ MiWaters system Manager, will provide written acceptance for a given yearly maintenance period.

Upon receipt of the DTMB Agency Services written acceptance of the previous year's maintenance the Contractor shall submit an invoice for the next year of maintenance.

N. Reserve Bank of Hours for Future Enhancements
The State has the option to purchase additional services for up to five thousand (5,000) hours over the five (5) year Contract.

Services must be dependent upon mutually agreed upon statement(s) of work between the Contractor and the State of Michigan. Once agreed to, the Contractor must not be obliged or authorized to commence any work to implement a statement of work until authorized via a purchase order issued against this contract.

System enhancements/scope modifications include changes to the system that are necessary to meet:
  a. New State policy requirements.
  b. New Federal regulations.
  c. New technology requested by the State.
  d. Accommodate new or updated interfaces requested by the State.
  e. State and federal legislative mandates
  f. Grant requirements
  g. Change to the network, security, or system platform, such as service packs, that then require changes in the MiWaters system

The Contractor must be able to respond with costs and timelines to all requests to modify the software to meet future needed functionality.

Deliverable(s)
Specific deliverables will be defined in future Statements of Work.

Acceptance Criteria
Specific acceptance criteria will be defined in future Statements of Work

1.200   Roles and Responsibilities

1.201 CONTRACTOR STAFF, ROLES, AND RESPONSIBILITIES

A. Contractor Staff
The Contractor will provide resumes in the attached Personnel Resume templates (Exhibit D) for all staff, including subcontractors, who will be assigned to the Contract, indicating the duties/responsibilities and qualifications of such personnel, and stating the amount of time each will be assigned to the project. The competence of the personnel the Contractor proposes for this project will be measured by the candidate's education and experience with particular reference to experience on similar projects as described in section 1.104, Statement of Work. Any person included by the vendor as a part of the project team must be on the current payroll of the vendor or on the payroll of another firm that is teaming with the vendor.

The Contractor will identify a Single Point of Contact (SPOC). The duties of the SPOC shall include, but not be limited to:
- supporting the management of the Contract
- facilitating dispute resolution, and
- advising the State of performance under the terms and conditions of the Contract

The State reserves the right to require a change in the current SPOC if the assigned SPOC is not, in the opinion of the State, adequately serving the needs of the State.

The Contractor will provide, and update when changed, an organizational chart for the project team. This chart must identify all staff, including subcontractors, who will be assigned to the contract, their role on the project team and must include the contractor's project manager. The project manager must be a direct employee of the contractor.   It must also show lines of communication to the State Project Manager. The organizational chart must also indicate lines of authority for personnel involved in performance of this Contract and relationships of this staff to other programs or functions of the firm. This chart must also show lines of authority to the next senior level of management and indicate who within the firm will have prime responsibility and final authority for the work.

All Key Personnel shall be subject to the State's interview and approval process. Any key staff substitution must have the prior approval of the State*. The State has identified the following as key personnel for this project:*

- Project Manager: Steve Rosenberger
- System Architect: Emil Lerch
- Business Analyst: Victor Kaiser
- Lead Developer: Jaime McFarland

The Contractor will provide a Project Manager to interact with the designated personnel from the State to insure a smooth transition to the new system. The project manager will coordinate all of the activities of the Contractor personnel assigned to the project and create all reports required by State. The Contractor's project manager responsibilities include, at a minimum:
- Manage all defined Contractor responsibilities in this Scope of Services
- Manage Contractor's subcontractors, if any
- Develop the project plan and schedule, and update as needed
- Serve as the point person for all project issues
- Coordinate and oversee the day-to-day project activities of the project team
- Assess and report project feedback and status
- Escalate project issues, project risks, and other concerns
- Review all project deliverables and provide feedback

- Proactively propose/suggest options and alternatives for consideration
- Utilize change control procedures
- Prepare project documents and materials
- Manage and report on the project's budget

The Contractor will provide sufficient qualified staffing to satisfy the deliverables of this Statement of Work.

B. On Site Work Requirements
    1. Location of Work
        The work is to be performed, completed, and managed as follows: The Contractor will work out of their office. The SOM will provide workspace (work space, telephone, and access to a printer, copier, and fax machine) for the Contractor when on site at SOM offices. The MiWaters application will be hosted in Lansing, where the installation and testing of the new MiWaters system is to occur.

    2. Hours of Operation:
        a. Normal State working hours are 8:00 a.m. to 5:00 p.m. EST, Monday through Friday, with work performed as necessary after those hours to meet project deadlines. No overtime will be authorized or paid.
        b. The State is not obligated to provide State management of assigned work outside of normal State working hours. The State reserves the right to modify the work hours in the best interest of the project.
        c. Contractor shall observe the same standard holidays as State employees. The State does not compensate for holiday pay.

    3. Travel:
        a. No travel or expenses will be reimbursed. This includes travel costs related to training provided to the State by Contractor.
        b. Travel time will not be reimbursed.

    4. Additional Security and Background Check Requirements:
        Contractor must present certifications evidencing satisfactory Michigan State Police Background checks ICHAT and drug tests for all staff identified for assignment to this project.

        In addition, proposed Contractor personnel will be required to complete and submit an RI-8 Fingerprint Card for the National Crime Information Center (NCIC) Finger Prints, if required by project.

        Contractor will pay for all costs associated with ensuring their staff meets all requirements.

1.202 STATE STAFF, ROLES, AND RESPONSIBILITIES
If needed, the State will provide the following resources for the Contractor's use on this project:
- Work space
- Minimal clerical support
- Desk
- Telephone
- PC workstation
- Printer
- Access to copiers and fax machine

The State project team will consist of:
- MiWaters Executive Project Sponsor
- DTMB Project Manager - Rollin Tolly
- DEQ Project Manager
- DEQ Subject Matter Experts (SME's)
- DTMB Business Analysts
- DTMB Technical Subject Matter Experts (SME's)

The State of Michigan has assigned one Project Manager to represent DTMB and MDEQ for this MiWaters project. This Project Manager is the only person authorized to accept or reject work performed by the Contractor. This project manager will be referred to as the "DTMB Project Manager". The DTMB Project Manager will designate a representative to assist with the managing of the day-to-day operations of the project, and will work closely with the MDEQ – WRD MiWaters project manager, SME's and team. Only the DTMB Project Manager has the authority to approve or accept work by the Contractor.

MiWaters Executive Project Sponsor
The MiWaters Executive Project Sponsor shall be available on an as needed basis. This resource will be solicited for key decisions by the MiWaters Project Manager when there is a need to:
- Resolve project issues in a timely manner
- Resolve deviations from the project plan
- Utilize change control procedures

DTMB Project Manager
The DTMB will provide a Project Manager, who will be responsible for the State's infrastructure and will coordinate with the MiWaters Project Manager and the Contractor in determining the system configuration.

The DTMB Project Manager will provide the following services:
- Provide State facilities, as needed
- Coordinate the State resources necessary for the project
- Facilitate communication between different State departments/divisions
- Provide acceptance and sign-off of deliverables/milestones
- Review and sign-off of timesheets and invoices
- Resolve project issues
- Escalate outstanding/high priority issues or risks
- Utilize change control procedures
- Conduct regular and ongoing review of the project to confirm that it meets original objectives and requirements
- Document and archive all important project decisions
- Arrange, schedule and facilitate State staff attendance at all project meetings.

DTMB Subject Matter Experts
DTMB will provide a Subject Matter Expert who will provide technical guidance in cooperation with the DTMB Project Manager to:
- Assist with review of the project deliverables
- Participate in testing of the application
- Participate in interim code reviews (if applicable)
- Review use cases and their applicability to the business
- Advise on State of Michigan programming guidelines

DTMB Business Analysts
DTMB will provide Business Analysts who will provide technical and process guidance in cooperation with the DTMB Project Manager and Subject Matter Experts to:
- Assist in the identification of business needs and recommend solutions to business problems
- Evaluate alternative solutions and recommend the most efficient and cost effective solution considering existing systems, capacities, limitations, timeframes, and goals.
- Review the project deliverables
- Participate in testing of the application
- Participate in interim code reviews (if applicable)
- Review use cases and their applicability to the business needs
- Serve as the conduit between the client community and DTMB Project Manager

DEQ Project Manager

The DEQ Project Manager will provide business direction to DTMB, contractor and the project team. In cooperation with the DTMB Project Manager, the MiWaters Project Manager will provide the following services:

- Submit the adjustments in response to legislative or outside agency directives to the contractor
- Provide State facilities, as needed
- Coordinate the State resources necessary for the project
- Facilitate communication between different State departments/divisions
- Provide acceptance and approval of deliverable/milestone
- Review and approval of timesheets and invoices
- Resolve project issues
- Escalate outstanding/high priority issues to the MiWaters Executive Project Sponsor
- Utilize change control procedures
- Conduct regular and ongoing review of the project to confirm that it meets original objectives and requirements
- Arrange, schedule and facilitate State staff attendance at all project meetings
- Distribution of all documentation, when necessary, to the appropriate project stakeholders

DEQ Subject Matter Experts

The DEQ Subject Matter Experts representing the business functions involved will provide the vision for the business design and how the application shall provide for that vision. They shall be available on an as needed basis and will provide the following services in cooperation with the MiWaters Project Manager and DTMB Project Manager:

- Resolve project issues in a timely manner
- Review project deliverables
- Review project plan, status, and issues
- Resolve deviations from the project plan
- Identify potential needs for utilizing change control procedures
- Ensure timely availability of MiWaters resources (this is the DEQ's Project manager's role)

In addition, the following SOM personnel/resources may be required at various stages of the project. The Contractor's Project Manager must make every effort to provide the SOM with advance notice of when they may be required.

- Systems Analyst
- Database Administrator
- Application Administrator
- User Implementation Manager
- Network Administrator
- Remote access to test and production environments
- Other SOM staff/resources as needed

1.203 OTHER ROLES AND RESPONSIBILITIES

1.300   Project Plan

1.301 PROJECT PLAN MANAGEMENT

Preliminary Project Plan

The Contractor provided a Preliminary Project Plan. The project plan will be updated as needed for project control and as indicated as deliverables throughout the seven phases of SEM.

Orientation Meeting

Within 10 calendar days from execution of the Contract, the Contractor will be required to attend an orientation meeting to discuss the content and procedures of the Contract. The meeting will be held in Lansing, Michigan,

at a date and time mutually acceptable to the State and the Contractor. The State shall bear no cost for the time and travel of the Contractor for attendance at the meeting.

Performance Review Meetings
The State will require the Contractor to attend monthly meetings, at a minimum, to review the Contractor's performance under the Contract. The meetings will be held in Lansing Michigan, or by teleconference, as mutually agreed by the State and the Contractor. The State shall bear no cost for the time and travel of the Contractor for attendance at the meeting.

Project Control
1. The Contractor will carry out this project under the SUITE Methodology and the direction and control of DTMB.
2. Within 30 business days of the execution of the Contract, the Contractor will submit to the State project manager(s) for final approval of the project plan. This project plan must be in agreement with Article 1, Section 1.104 Work and Deliverables, and must include the following:
   - The Contractor's project organizational structure.
   - The Contractor's staffing table with names and title of personnel assigned to the project. This must be in agreement with staffing of contract. Necessary substitutions due to change of employment status and other unforeseen circumstances may only be made with prior approval of the State.
   - The project **work breakdown structure (WBS) (PMM-004)** showing sub-projects, activities and tasks, and resources required and allocated to each.
   - The time-phased plan in the form of a graphic display, showing each event, task, and decision point in the WBS.
3. The Contractor will manage the project in accordance with the State Unified Information Technology Environment (SUITE) methodology, which includes standards for project management, systems engineering, and associated forms and templates which is available at: http://www.michigan.gov/suite As stated in section 1.103, the contractor is required to review all information provided by this link and confirm compliance in their response.
   a. Contractor will use an automated tool for planning, monitoring, and tracking the Contract's progress and the level of effort of any Contractor personnel spent performing Services under the Contract. The tool shall have the capability to produce:
      - Staffing tables with names of personnel assigned to Contract tasks
      - Project plans showing tasks, subtasks, deliverables, and the resources required and allocated to each (including detailed plans for all Services to be performed within the next 30 calendar days, updated semi-monthly)
      - Updates must include actual time spent on each task and a revised estimate to complete
      - Graphs showing critical events, dependencies and decision points during the course of the Contract
   b. Any tool(s) used by Contractor for such purposes must produce information of a type and in a manner and format that will support reporting in compliance with the State standards

1.302 REPORTS

Reporting formats must be submitted to the State's Project Manager for approval within 30 business days after the execution of the contract. Once both parties have agreed to the format of the report, it shall become the standard to follow for the duration of the contract.
- Bi-weekly Project status (PMM-13)
- Updated project plan/schedule
- Summary of activity during the report period
- Accomplishments during the report period
- Deliverable status
- Action Item status
- Issues
- Change Control

- Repair status
- Maintenance Activity

The Contractor shall include, within the bi-weekly status reports, a statement that the project is on schedule or provide a proposed revised schedule. Each status report will include any key decisions and issues discussed during the previous week, if applicable. Each status report is to list any decisions or data that the Contractor is waiting for from the SOM or, if there is not anything that the Contractor is waiting for the status report is to so state. The Contractor shall also include other pertinent information impacting the project.

1.400   Project Management

1.401 ISSUE MANAGEMENT
An issue is an identified event that if not addressed may affect schedule, scope, quality, or budget.

The Contractor shall maintain an issue log for issues relating to the provision of services under this Contract. The issue log must be communicated to the DTMB Project Manager and MDEQ - WRD Project Manager on an agreed upon schedule, with email notifications and updates. The issue log must be updated and must contain the following minimum elements:
- Description of issue
- Issue identification date
- Responsibility for resolving issue
- Priority for issue resolution (to be mutually agreed upon by the State and the Contractor)
- Resources assigned responsibility for resolution
- Resolution date
- Resolution description

Issues shall be escalated for resolution from level 1 through level 3, as defined below:
- Level 1 – Contractor Team/Technical leads and MiWaters Subject Matter Experts (SME's)
- Level 2 – Contractor Project Manager, DTMB Project Manager and MiWaters Project Manager
- Level 3 – MiWaters Executive Project Sponsor

1.402 RISK MANAGEMENT
A risk is an unknown circumstance or event that, if it occurs, may have a positive or negative impact on the project.

The Contractor is responsible for contributing to a Risk Management Plan (PMM-06), and updates the risk registry as early as possible, including the identification and recording of risk items, prioritization of risks, definition of mitigation strategies, monitoring of risk items, and periodic risk assessment reviews with the State.

A Risk Management Plan (PMM-06) format shall be submitted to the State for approval within twenty (20) business days after the effective date of the contract. The Risk Management Plan will be developed during the initial planning phase of the project, and be in accordance with the State's PMM methodology. Once both parties have agreed to the format of the plan, it shall become the standard to follow for the duration of the contract. The plan must be updated bi-weekly, or as agreed upon and stated in the Risk Management Plan.

The Contractor shall provide the tool to track risks. The Contractor will work with the State according to the Risk Management Plan, delivered as part of the Project Plan in Phase I, and will collaborate on the Identification, Qualitative and Quantitative Analysis, and the Response Planning of risks. (Refer to the following link for further information: http://www.michigan.gov/documents/PMM-06_159179_7.dot)

The Contractor is responsible for identification of risks for each phase of the project. Mitigating and/or eliminating assigned risks will be the responsibility of the Contractor. The State will assume the same responsibility for risks assigned to them.

1.403 CHANGE MANAGEMENT

At project initiation, the Contractor is responsible to contribute to a Change Management Plan (PMM-09). Change management is defined as the process to communicate, assess, monitor, and control all changes to system resources and processes. (Refer to the following link for further information on DTMB's change management standard: http://www.michigan.gov/documents/PMM-09_159187_7.dot).

The State also employs change management in its administration of the Contract. If a proposed contract change is approved by the Agency, the Contract Administrator will submit a request for change to the Department of Technology, Management and Budget, Purchasing Operations Buyer, who will make recommendations to the Director of Purchasing Operations regarding ultimate approval/disapproval of change request. If the DMB Purchasing Operations Director agrees with the proposed modification, and all required approvals are obtained (including State Administrative Board), the Purchasing Operations Buyer will issue an addendum to the Contract, via a Contract Change Notice. **Contractors who provide products or services prior to the issuance of a Contract Change Notice by the DMB Purchasing Operations, risk non-payment for the out-of-scope/pricing products and/or services.**

The Contractor must employ change management procedures to handle such things as "out-of-scope" requests or changing business needs of the State while the migration is underway. This includes a PMM-09 Change control plan and PMM-14 Change Request documentation. All change requests must receive approval of the DTMB Project Manager prior to beginning work on the requested change(s).

The Contractor will employ the change control methodologies to justify changes in the processing environment, and to ensure those changes will not adversely affect performance or availability.

1.500   Acceptance

1.501 CRITERIA

See the Acceptance Criteria identified in Section 1.104, Work and Deliverables for the seven Phases of the project. Acceptance Criteria is based upon the work agreed upon and the plan(s) developed for the work. There are twenty (20) business days for reviews by the SOM. In the event that the work and deliverables are not acceptable to the DTMB Project Manager, the Contractor shall correct the issues noted and re-submit by a date, as specified by the DTMB Project Manager.

1.502 FINAL ACCEPTANCE

Along with the acceptance criteria identified in Section 1.104, Work and Deliverables, the following requirements of final acceptance apply:

- Documents are dated and in electronic format, compatible with State of Michigan software
- Requirements documents are reviewed and updated throughout the development process to assure requirements are delivered in the final product
- Draft documents are not accepted as final deliverables
- The documents will be reviewed and accepted in accordance with the requirements of the Contract and Appendices
- DTMB and MDEQ - WRD will review documents within a mutually agreed upon timeframe
    a. Approvals will be written and signed by the DTMB Project Manager
    b. Issues will be documented and submitted to the Contractor
    c. After issues are resolved or waived, the Contractor will resubmit documents for approval within 30 days of receipt

Final acceptance is expressly conditioned upon completion of all deliverables and/or milestones, completion of all tasks in the project plan as approved, completion of all applicable inspection and/or testing procedures, and the certification by the DTMB Project Manager that the Contractor has met the defined requirements.

1.600 Compensation and Payment

1.601 COMPENSATION AND PAYMENT
Method of Payment
The project will be paid based on a firm, fixed-priced and will be deliverables based. The Cost Tables are in Appendix G.

The Cost Tables identify all information related, directly or indirectly, to the Contractor's charges for services and deliverables including, but not limited to, costs, fees, prices, rates, or the identification of free services, labor or materials. The Cost Tables represent the total charge to the State, and that there are no other charges required to ensure successful Contract execution.

Payment to the Contractor will be made upon the completion and acceptance of the deliverable or milestone, not to exceed contractual costs of the phase. A milestone is defined as complete when all of the deliverables within the milestone have been completed and upon written acceptance by the DTMB Project Manager. A final payment schedule will be negotiated once a vendor is selected.

Contractor agrees to all the prices, terms, warranties, and benefits provided in this Contract are comparable to or better than the terms presently being offered by Contractor to any other governmental entity purchasing the same quantity under similar terms. If, during the term of this Contract, the Contractor shall enter into contracts with any other governmental entity providing greater benefits or more favorable terms than those provided by this Contract, the Contractor shall be obligated to provide the same to the State for subsequent purchases.

The parties agree that the Services/Deliverables to be rendered by Contractor pursuant to this Contract (and any future amendments of it) will be defined and described in detail in Statements of Work or Purchase Orders (PO) executed under this Contract. Contractor shall not be obliged or authorized to commence any work to implement a Statement of Work until authorized via a PO issued against this Contract. Contractor shall perform in accordance with this Contract, including the Statements of Work/Purchase Orders executed under it.

For the Reserve Bank of Hours, the State shall identify the payment method in each statement of work.

The State shall pay **maintenance and support charges** on a yearly basis. Incorrect or incomplete invoices will be returned to Contractor for correction and reissue.

Travel
The State will not pay for any travel expenses, including hotel, mileage, meals, parking, etc. Travel time will not be reimbursed.

Out-of-Pocket Expenses
Contractor out-of-pocket expenses are not separately reimbursable by the State unless, on a case-by-case basis for unusual expenses, the State has agreed in advance and in writing to reimburse Contractor for such an expense at the State's current travel reimbursement rates.

If Contractor reduces its prices for any of the software or services during the term of this Contract, the State shall have the immediate benefit of such lower prices for new purchases. Contractor shall send notice to the State's DTMB Contract Administrator with the reduced prices within fifteen (15) Business Days.

Statements of Work and Issuance of Purchase Orders
- Unless otherwise agreed by the parties, each Statement of Work will include:
  1. Background
  2. Project Objective
  3. Scope of Work
  4. Deliverables
  5. Acceptance Criteria
  6. Project Control and Reports
  7. Specific Department Standards

8. Payment Schedule
9. Travel and Expenses
10. Project Contacts
11. Agency Responsibilities and Assumptions
12. Location of Where the Work is to be performed
13. Contractor Work Hours and Conditions

- The parties agree that the Services/Deliverables to be rendered by Contractor pursuant to this Contract (and any future amendments of it) will be defined and described in detail in Statements of Work or Purchase Orders (PO) executed under this Contract. Contractor shall not be obliged or authorized to commence any work to implement a Statement of Work until authorized via a PO issued against this Contract. Contractor shall perform in accordance with this Contract, including the Statements of Work/Purchase Orders executed under it.

Invoicing

The contractor will submit properly itemized invoices to the "Bill to" Address on Purchase Orders. Invoices must provide and itemize, as applicable:

- Contract number
- Purchase Order number
- Contractor name, address, phone number, and Federal Tax Identification Number
- Description of any commodities/hardware, including quantity ordered
- Date(s) of delivery and/or date(s) of installation and set up
- Price for each item, or Contractor's list price for each item and applicable discounts
- Maintenance charges
- Net invoice price for each item
- Shipping costs
- Other applicable charges
- Total invoice price; and
- Payment terms, including any available prompt payment discount

The State may pay maintenance and support charges on a monthly basis, in arrears. Payment of maintenance service/support of less than one (1) month's duration shall be prorated at 1/30th of the basic monthly maintenance charges for each calendar day.

Incorrect or incomplete invoices will be returned to Contractor for correction and reissue.

1.602 HOLDBACK – NOT APPLICABLE

Article 2, Terms and Conditions

2.000   Contract Structure and Term

2.001 CONTRACT TERM
This Contract is for a period of **five (5) years beginning May 9, 2013 through May 8, 2018**. All outstanding Purchase Orders must also expire upon the termination for any of the reasons listed in **Section 2.150** of the Contract, unless otherwise extended under the Contract. Absent an early termination for any reason, Purchase Orders issued but not expired, by the end of the Contract's stated term, shall remain in effect for the balance of the fiscal year for which they were issued.

2.002 OPTIONS TO RENEW
This Contract may be renewed in writing by mutual agreement of the parties not less than 30 days before its expiration. The Contract may be **renewed for up to two (2) additional 1-year periods**.

2.003 LEGAL EFFECT
Contractor accepts this Contract by signing two copies of the Contract and returning them to the Purchasing Operations. The Contractor shall not proceed with the performance of the work to be done under the Contract, including the purchase of necessary materials, until both parties have signed the Contract to show acceptance of its terms, and the Contractor receives a contract release/purchase order that authorizes and defines specific performance requirements.

Except as otherwise agreed in writing by the parties, the State shall not be liable for costs incurred by Contractor or payment under this Contract, until Contractor is notified in writing that this Contract or Change Order has been approved by the State Administrative Board (if required), signed by all the parties and a Purchase Order against the Contract has been issued.

2.004 ATTACHMENTS & EXHIBITS
All Attachments and Exhibits affixed to any and all Statement(s) of Work, or appended to or referencing this Contract, are incorporated in their entirety and form part of this Contract.

2.005 ORDERING
The State must issue an approved written Purchase Order, Blanket Purchase Order, Direct Voucher or Procurement Card Order to order any Services/Deliverables under this Contract. All orders are subject to the terms and conditions of this Contract. No additional terms and conditions contained on either a Purchase Order or Blanket Purchase Order apply unless they are specifically contained in that Purchase Order or Blanket Purchase Order's accompanying Statement of Work. Exact quantities to be purchased are unknown; however, the Contractor will be required to furnish all such materials and services as may be ordered during the Contract period. Quantities specified, if any, are estimates based on prior purchases, and the State is not obligated to purchase in these or any other quantities.

2.006 ORDER OF PRECEDENCE
The Contract, including any Statements of Work and Exhibits, to the extent not contrary to the Contract, each of which is incorporated for all purposes, constitutes the entire agreement between the parties with respect to the subject matter and supersedes all prior agreements, whether written or oral, with respect to the subject matter and as additional terms and conditions on the purchase order must apply as limited by **Section 2.005.**

In the event of any inconsistency between the terms of the Contract and a Statement of Work, the terms of the Statement of Work shall take precedence (as to that Statement of Work only); provided, however, that a Statement of Work may not modify or amend the terms of the Contract. The Contract may be modified or amended only by a formal Contract amendment.

2.007 HEADINGS

Captions and headings used in the Contract are for information and organization purposes. Captions and headings, including inaccurate references, do not, in any way, define or limit the requirements or terms and conditions of the Contract.

2.008 FORM, FUNCTION & UTILITY

If the Contract is for use of more than one State agency and if the Deliverable/Service does not the meet the form, function, and utility required by that State agency, that agency may, subject to State purchasing policies, procure the Deliverable/Service from another source.

2.009 REFORMATION AND SEVERABILITY

Each provision of the Contract is severable from all other provisions of the Contract and, if one or more of the provisions of the Contract is declared invalid, the remaining provisions of the Contract remain in full force and effect.

2.010 Consents and Approvals

Except as expressly provided otherwise in the Contract, if either party requires the consent or approval of the other party for the taking of any action under the Contract, the consent or approval must be in writing and must not be unreasonably withheld or delayed.

2.011 NO WAIVER OF DEFAULT

If a party fails to insist upon strict adherence to any term of the Contract then the party has not waived the right to later insist upon strict adherence to that term, or any other term, of the Contract.

2.012 SURVIVAL

Any provisions of the Contract that impose continuing obligations on the parties, including without limitation the parties' respective warranty, indemnity and confidentiality obligations, survive the expiration or termination of the Contract for any reason. Specific references to survival in the Contract are solely for identification purposes and not meant to limit or prevent the survival of any other section

2.020 Contract Administration

2.021 ISSUING OFFICE

This Contract is issued by the Department of Technology, Management and Budget, Purchasing Operations and Michigan Department of Environmental Quality (MDEQ) (collectively, including all other relevant State of Michigan departments and agencies, the "State"). Purchasing Operations is the sole point of contact in the State with regard to all procurement and contractual matters relating to the Contract. The Purchasing Operations Contract Administrator for this Contract is:

> Mark Lawrence, Buyer
> Purchasing Operations
> Department of Technology, Management and Budget
> Mason Bldg., 2nd Floor
> PO Box 30026
> Lansing, MI 48909
> LawrenceM1@michigan.gov
> 517-241-1640

2.022 CONTRACT COMPLIANCE INSPECTOR

The Director of Purchasing Operations directs the person named below, or his or her designee, to monitor and coordinate the activities for the Contract on a day-to-day basis during its term. **Monitoring Contract activities does not imply the authority to change, modify, clarify, amend, or otherwise alter the prices, terms, conditions and specifications of the Contract. Purchasing Operations is the only State office**

authorized to change, modify, amend, alter or clarify the prices, specifications, terms and conditions of this Contract. The Contract Compliance Inspector for this Contract is:

[Contract Administrator name, tbd],
Purchasing Operations
Department of Technology, Management and Budget
Mason Bldg., 2nd Floor
PO Box 30026
Lansing, MI 48909
Email
Phone

2.023   PROJECT MANAGER

The following individual will oversee the project:

Rollin Tolly; PMP
Program Management Office (PMO)
DTMB Agency Services:
Agency Services, DNR/DEQ/MDARD/DCH
Constitution Hall, 5th Floor South
525 W. Allegan, Lansing, MI. 48933
BeckonR@michigan.gov
Phone: 517-335-7290

2.024   CHANGE REQUESTS

The State reserves the right to request from time to time any changes to the requirements and specifications of the Contract and the work to be performed by the Contractor under the Contract. During the course of ordinary business, it may become necessary for the State to discontinue certain business practices or create Additional Services/Deliverables. At a minimum, to the extent applicable, Contractor shall provide a detailed outline of all work to be done, including tasks necessary to accomplish the Additional Services/Deliverables, timeframes, listing of key personnel assigned, estimated hours for each individual per task, and a complete and detailed cost justification.

If the State requests or directs the Contractor to perform any Services/Deliverables that are outside the scope of the Contractor's responsibilities under the Contract ("New Work"), the Contractor must notify the State promptly before commencing performance of the requested activities it believes are New Work. If the Contractor fails to notify the State before commencing performance of the requested activities, any such activities performed before the Contractor gives notice shall be conclusively considered to be in-scope Services/Deliverables and not New Work.

If the State requests or directs the Contractor to perform any services or provide deliverables that are consistent with and similar to the Services/Deliverables being provided by the Contractor under the Contract, but which the Contractor reasonably and in good faith believes are not included within the Statements of Work, then before performing such Services or providing such Deliverables, the Contractor shall notify the State in writing that it considers the Services or Deliverables to be an Additional Service/Deliverable for which the Contractor should receive additional compensation. If the Contractor does not so notify the State, the Contractor shall have no right to claim thereafter that it is entitled to additional compensation for performing that Service or providing that Deliverable. If the Contractor does so notify the State, then such a Service or Deliverable shall be governed by the Change Request procedure in this Section.

In the event prices or service levels are not acceptable to the State, the Additional Services or New Work shall be subject to competitive bidding based upon the specifications.

(1) Change Request at State Request
If the State requires Contractor to perform New Work, Additional Services or make changes to the Services that would affect the Contract completion schedule or the amount of compensation due Contractor (a "Change"), the State shall submit a written request for Contractor to furnish a proposal for carrying out the requested Change (a "Change Request").

(2) Contractor Recommendation for Change Requests:
Contractor shall be entitled to propose a Change to the State, on its own initiative, should Contractor believe the proposed Change would benefit the Contract.

(3) Upon receipt of a Change Request or on its own initiative, Contractor shall examine the implications of the requested Change on the technical specifications, Contract schedule and price of the Deliverables and Services and shall submit to the State without undue delay a written proposal for carrying out the Change. Contractor's proposal shall include any associated changes in the technical specifications, Contract schedule and price and method of pricing of the Services. If the Change is to be performed on a time and materials basis, the Amendment Labor Rates shall apply to the provision of such Services. If Contractor provides a written proposal and should Contractor be of the opinion that a requested Change is not to be recommended, it shall communicate its opinion to the State but shall nevertheless carry out the Change as specified in the written proposal if the State directs it to do so.

(4) By giving Contractor written notice within a reasonable time, the State shall be entitled to accept a Contractor proposal for Change, to reject it, or to reach another agreement with Contractor. Should the parties agree on carrying out a Change, a written Contract Change Notice must be prepared and issued under this Contract, describing the Change and its effects on the Services and any affected components of this Contract (a "Contract Change Notice").

(5) No proposed Change shall be performed until the proposed Change has been specified in a duly executed Contract Change Notice issued by the Department of Technology, Management and Budget, Purchasing Operations.

(6) If the State requests or directs the Contractor to perform any activities that Contractor believes constitute a Change, the Contractor must notify the State that it believes the requested activities are a Change before beginning to work on the requested activities. If the Contractor fails to notify the State before beginning to work on the requested activities, then the Contractor waives any right to assert any claim for additional compensation or time for performing the requested activities. If the Contractor commences performing work outside the scope of this Contract and then ceases performing that work, the Contractor must, at the request of the State, retract any out-of-scope work that would adversely affect the Contract.

2.025 NOTICES

Any notice given to a party under the Contract must be deemed effective, if addressed to the party as addressed below, upon: (i) delivery, if hand delivered; (ii) receipt of a confirmed transmission by facsimile if a copy of the notice is sent by another means specified in this Section; (iii) the third Business Day after being sent by U.S. mail, postage pre-paid, return receipt requested; or (iv) the next Business Day after being sent by a nationally recognized overnight express courier with a reliable tracking system.
State:
State of Michigan
Purchasing Operations
Attention:
PO Box 30026
530 West Allegan
Lansing, Michigan 48909

Contractor: Windsor Solutions
Name:
Address:

Either party may change its address where notices are to be sent by giving notice according to this Section.

2.026 BINDING COMMITMENTS

Representatives of Contractor must have the authority to make binding commitments on Contractor's behalf within the bounds set forth in the Contract. Contractor may change the representatives from time to time upon giving written notice.

2.027 RELATIONSHIP OF THE PARTIES

The relationship between the State and Contractor is that of client and independent contractor. No agent, employee, or servant of Contractor or any of its Subcontractors shall be deemed to be an employee, agent or servant of the State for any reason. Contractor shall be solely and entirely responsible for its acts and the acts of its agents, employees, servants and Subcontractors during the performance of the Contract.

2.028 COVENANT OF GOOD FAITH

Each party shall act reasonably and in good faith. Unless stated otherwise in the Contract, the parties shall not unreasonably delay, condition or withhold the giving of any consent, decision or approval that is either requested or reasonably required of them in order for the other party to perform its responsibilities under the Contract.

2.029 ASSIGNMENTS

Neither party may assign the Contract, or assign or delegate any of its duties or obligations under the Contract, to any other party (whether by operation of law or otherwise), without the prior written consent of the other party; provided, however, that the State may assign the Contract to any other State agency, department, division or department without the prior consent of Contractor and Contractor may assign the Contract to an affiliate so long as the affiliate is adequately capitalized and can provide adequate assurances that the affiliate can perform the Contract. The State may withhold consent from proposed assignments, subcontracts, or novation's when the transfer of responsibility would operate to decrease the State's likelihood of receiving performance on the Contract or the State's ability to recover damages.

Contractor may not, without the prior written approval of the State, assign its right to receive payments due under the Contract. If the State permits an assignment, the Contractor is not relieved of its responsibility to perform any of its contractual duties and the requirement under the Contract that all payments must be made to one entity continues.

If the Contractor intends to assign the contract or any of the Contractor's rights or duties under the Contract, the Contractor must notify the State in writing at least 90 days before the assignment. The Contractor also must provide the State with adequate information about the assignee within a reasonable amount of time before the assignment for the State to determine whether to approve the assignment.

2.030   General Provisions

2.031 MEDIA RELEASES

News releases (including promotional literature and commercial advertisements) pertaining to the RFP and Contract or project to which it relates shall not be made without prior written State approval, and then only in accordance with the explicit written instructions from the State. No results of the activities associated with the RFP and Contract are to be released without prior written approval of the State and then only to persons designated.

2.032 CONTRACT DISTRIBUTION

Purchasing Operations retains the sole right of Contract distribution to all State agencies and local units of government unless other arrangements are authorized by Purchasing Operations.

2.033 PERMITS

Contractor must obtain and pay any associated costs for all required governmental permits, licenses and approvals for the delivery, installation and performance of the Services. The State shall pay for all costs and expenses incurred in obtaining and maintaining any necessary easements or right of way.

2.034 WEBSITE INCORPORATION

The State is not bound by any content on the Contractor's website, even if the Contractor's documentation specifically referenced that content and attempts to incorporate it into any other communication, unless the State has actual knowledge of the content and has expressly agreed to be bound by it in a writing that has been manually signed by an authorized representative of the State.

2.035 FUTURE BIDDING PRECLUSION

Contractor acknowledges that, to the extent this Contract involves the creation, research, investigation or generation of a future RFP; it may be precluded from bidding on the subsequent RFP. The State reserves the right to disqualify any bidder if the State determines that the bidder has used its position (whether as an incumbent Contractor, or as a Contractor hired to assist with the RFP development, or as a Vendor offering free assistance) to gain a competitive advantage on the RFP

2.036 FREEDOM OF INFORMATION

All information in any proposal submitted to the State by Contractor and this Contract is subject to the provisions of the Michigan Freedom of Information Act, 1976 Public Act No. 442, as amended, MCL 15.231, et seq (the "FOIA").

2.037 DISASTER RECOVERY

Contractor and the State recognize that the State provides essential services in times of natural or man-made disasters. Therefore, except as so mandated by Federal disaster response requirements, Contractor personnel dedicated to providing Services/Deliverables under this Contract shall provide the State with priority service for repair and work around in the event of a natural or man-made disaster.

2.040   Financial Provisions

2.041 FIXED PRICES FOR SERVICES/DELIVERABLES

Each Statement of Work or Purchase Order issued under this Contract shall specify (or indicate by reference to the appropriate Contract Exhibit) the firm, fixed prices for all Services/Deliverables, and the associated payment milestones and payment amounts. The State may make progress payments to the Contractor when requested as work progresses, but not more frequently than monthly, in amounts approved by the Contract Administrator, after negotiation. Contractor shall show verification of measurable progress at the time of requesting progress payments.

2.042 ADJUSTMENTS FOR REDUCTIONS IN SCOPE OF SERVICES/DELIVERABLES

If the scope of the Services/Deliverables under any Statement of Work issued under this Contract is subsequently reduced by the State, the parties shall negotiate an equitable reduction in Contractor's charges under such Statement of Work commensurate with the reduction in scope.

2.043 SERVICES/DELIVERABLES COVERED

The State shall not be obligated to pay any amounts in addition to the charges specified in this Contract for all Services/Deliverables to be provided by Contractor and its Subcontractors, if any, under this Contract.

2.044 INVOICING AND PAYMENT – IN GENERAL

(a) Each Statement of Work issued under this Contract shall list (or indicate by reference to the appropriate Contract Exhibit) the prices for all Services/Deliverables, equipment and commodities to be provided, and the associated payment milestones and payment amounts.

(b) Each Contractor invoice shall show details as to charges by Service/Deliverable component and location at a level of detail reasonably necessary to satisfy the State's accounting and charge-back requirements. Invoices for Services performed on a time and materials basis shall show, for each individual, the number of hours of Services performed during the billing period, the billable skill/labor category for such person and the applicable hourly billing rate. Prompt payment by the State is contingent on the Contractor's invoices showing the amount owed by the State minus any holdback amount to be retained by the State in accordance with **Section 1.600**.

(c) Correct invoices shall be due and payable by the State, in accordance with the State's standard payment procedure as specified in 1984 Public Act No. 279, MCL 17.51 et seq., within 45 days after receipt, provided the State determines that the invoice was properly rendered.

(d) All invoices should reflect actual work done. Specific details of invoices and payments shall be agreed upon between the Contract Administrator and the Contractor after the proposed Contract Agreement has been signed and accepted by both the Contractor and the Director of Purchasing Operations, Department of Management & Budget. This activity shall occur only upon the specific written direction from Purchasing Operations.

The specific payment schedule for any Contract(s) entered into, as the State and the Contractor(s) shall mutually agree upon. The schedule should show payment amount and should reflect actual work done by the payment dates, less any penalty cost charges accrued by those dates. As a general policy statements shall be forwarded to the designated representative by the 15th day of the following month.

The Government may make progress payments to the Contractor when requested as work progresses, but not more frequently than monthly, in amounts approved by the Contract Administrator, after negotiation. Contractor must show verification of measurable progress at the time of requesting progress payments.

2.045 PRO-RATION
To the extent there are Services that are to be paid for on a monthly basis, the cost of such Services shall be pro-rated for any partial month.

2.046 ANTITRUST ASSIGNMENT
The Contractor assigns to the State any claim for overcharges resulting from antitrust violations to the extent that those violations concern materials or services supplied by third parties to the Contractor, toward fulfillment of this Contract.

2.047 FINAL PAYMENT
The making of final payment by the State to Contractor does not constitute a waiver by either party of any rights or other claims as to the other party's continuing obligations under the Contract, nor shall it constitute a waiver of any claims by one party against the other arising from unsettled claims or failure by a party to comply with this Contract, including claims for Services and Deliverables not reasonably known until after acceptance to be defective or substandard. Contractor's acceptance of final payment by the State under this Contract shall constitute a waiver of all claims by Contractor against the State for payment under this Contract, other than those claims previously filed in writing on a timely basis and still unsettled.

2.048 ELECTRONIC PAYMENT REQUIREMENT
Electronic transfer of funds is required for payments on State Contracts. Contractors are required to register with the State electronically at http://www.cpexpress.state.mi.us. As stated in Public Act 431 of 1984, all contracts that the State enters into for the purchase of goods and services shall provide that payment shall be made by electronic fund transfer (EFT).

2.050   Taxes

2.051 EMPLOYMENT TAXES

Contractor shall collect and pay all applicable federal, state, and local employment taxes, including the taxes.

2.052 SALES AND USE TAXES

Contractor shall register and remit sales and use taxes on taxable sales of tangible personal property or services delivered into the State. Contractors that lack sufficient presence in Michigan to be required to register and pay tax must do so as a volunteer. This requirement extends to: (1) all members of any controlled group as defined in § 1563(a) of the Internal Revenue Code and applicable regulations of which the company is a member, and (2) all organizations under common control as defined in § 414(c) of the Internal Revenue Code and applicable regulations of which the company is a member that make sales at retail for delivery into the State are registered with the State for the collection and remittance of sales and use taxes. In applying treasury regulations defining "two or more trades or businesses under common control" the term "organization" means sole proprietorship, a partnership (as defined in § 701(a) (2) of the Internal Revenue Code), a trust, an estate, a corporation, or a limited liability company.

2.060   Contract Management

2.061 CONTRACTOR PERSONNEL QUALIFICATIONS

All persons assigned by Contractor to the performance of Services under this Contract must be employees of Contractor or its majority-owned (directly or indirectly, at any tier) subsidiaries (or a State-approved Subcontractor) and must be fully qualified to perform the work assigned to them. Contractor must include a similar provision in any subcontract entered into with a Subcontractor. For the purposes of this Contract, independent contractors engaged by Contractor solely in a staff augmentation role must be treated by the State as if they were employees of Contractor for this Contract only; however, the State understands that the relationship between Contractor and Subcontractor is an independent contractor relationship.

2.062 CONTRACTOR KEY PERSONNEL

(a) The Contractor must provide the Contract Compliance Inspector with the names of the Key Personnel.
(b) Key Personnel must be dedicated as defined in the Statement of Work to the Project for its duration in the applicable Statement of Work with respect to other individuals designated as Key Personnel for that Statement of Work.
(c) The State shall have the right to recommend and approve in writing the initial assignment, as well as any proposed reassignment or replacement, of any Key Personnel. Before assigning an individual to any Key Personnel position, Contractor shall notify the State of the proposed assignment, shall introduce the individual to the appropriate State representatives, and shall provide the State with a resume and any other information about the individual reasonably requested by the State. The State reserves the right to interview the individual before granting written approval. In the event the State finds a proposed individual unacceptable, the State shall provide a written explanation including reasonable detail outlining the reasons for the rejection.
(d) Contractor must not remove any Key Personnel from their assigned roles on the Contract without the prior written consent of the State. The Contractor's removal of Key Personnel without the prior written consent of the State is an unauthorized removal ("Unauthorized Removal"). Unauthorized Removals does not include replacing Key Personnel for reasons beyond the reasonable control of Contractor, including illness, disability, leave of absence, personal emergency circumstances, resignation or for cause termination of the Key Personnel's employment. Unauthorized Removals does not include replacing Key Personnel because of promotions or other job movements allowed by Contractor personnel policies or Collective Bargaining Agreement(s) as long as the State receives prior written notice before shadowing occurs and Contractor provides 30 days of shadowing unless parties agree to a different time period. The Contractor with the State must review any Key Personnel replacements, and appropriate transition planning will be established. Any Unauthorized Removal may be considered by the State to be a material breach of the Contract, in respect of which the State may elect to exercise its termination and cancellation rights.

(e) The Contractor must notify the Contract Compliance Inspector and the Contract Administrator at least 10 business days before redeploying non-Key Personnel, who are dedicated to primarily to the Project, to other projects. If the State does not object to the redeployment by its scheduled date, the Contractor may then redeploy the non-Key Personnel.

2.063 RE-ASSIGNMENT OF PERSONNEL AT THE STATE'S REQUEST

The State reserves the right to require the removal from the Project of Contractor personnel found, in the judgment of the State, to be unacceptable. The State's request must be written with reasonable detail outlining the reasons for the removal request. Additionally, the State's request must be based on legitimate, good faith reasons. Replacement personnel for the removed person must be fully qualified for the position. If the State exercises this right, and the Contractor cannot immediately replace the removed personnel, the State agrees to an equitable adjustment in schedule or other terms that may be affected by the State's required removal. If any incident with removed personnel results in delay not reasonably anticipatable under the circumstances and which is attributable to the State, the applicable SLAs for the affected Service shall not be counted for a time as agreed to by the parties.

2.064 CONTRACTOR PERSONNEL LOCATION

All staff assigned by Contractor to work on the Contract shall perform their duties either primarily at Contractor's offices and facilities or at State facilities. Without limiting the generality of the foregoing, Key Personnel shall, at a minimum, spend at least the amount of time on-site at State facilities as indicated in the applicable Statement of Work. Subject to availability, selected Contractor personnel may be assigned office space to be shared with State personnel.

2.065 CONTRACTOR IDENTIFICATION

Contractor employees must be clearly identifiable while on State property by wearing a State-issued badge, as required. Contractor employees are required to clearly identify themselves and the company they work for whenever making contact with State personnel by telephone or other means.

2.066 COOPERATION WITH THIRD PARTIES

Contractor agrees to cause its personnel and the personnel of any Subcontractors to cooperate with the State and its agents and other contractors including the State's Quality Assurance personnel. As reasonably requested by the State in writing, the Contractor shall provide to the State's agents and other contractors reasonable access to Contractor's Project personnel, systems and facilities to the extent the access relates to activities specifically associated with this Contract and shall not interfere or jeopardize the safety or operation of the systems or facilities. The State acknowledges that Contractor's time schedule for the Contract is very specific and agrees not to unnecessarily or unreasonably interfere with, delay or otherwise impeded Contractor's performance under this Contract with the requests for access.

2.067 CONTRACT MANAGEMENT RESPONSIBILITIES

Contractor shall be responsible for all acts and omissions of its employees, as well as the acts and omissions of any other personnel furnished by Contractor to perform the Services. Contractor shall have overall responsibility for managing and successfully performing and completing the Services/Deliverables, subject to the overall direction and supervision of the State and with the participation and support of the State as specified in this Contract. Contractor's duties shall include monitoring and reporting the State's performance of its participation and support responsibilities (as well as Contractor's own responsibilities) and providing timely notice to the State in Contractor's reasonable opinion if the State's failure to perform its responsibilities in accordance with the Project Plan is likely to delay the timely achievement of any Contract tasks.

The Contractor shall provide the Services/Deliverables directly or through its affiliates, subsidiaries, subcontractors or resellers. Regardless of the entity providing the Service/Deliverable, the Contractor shall act as a single point of contact coordinating these entities to meet the State's need for Services/Deliverables. Nothing in this Contract, however, shall be construed to authorize or require any party to violate any applicable law or regulation in its performance of this Contract.

2.068 CONTRACTOR RETURN OF STATE EQUIPMENT/RESOURCES

The Contractor shall return to the State any State-furnished equipment, facilities and other resources when no longer required for the Contract in the same condition as when provided by the State, reasonable wear and tear excepted.

2.070   Subcontracting by Contractor

2.071 CONTRACTOR FULL RESPONSIBILITY

Contractor shall have full responsibility for the successful performance and completion of all of the Services and Deliverables. The State shall consider Contractor to be the sole point of contact with regard to all contractual matters under this Contract, including payment of any and all charges for Services and Deliverables.

2.072 STATE CONSENT TO DELEGATION

Contractor shall not delegate any duties under this Contract to a Subcontractor unless the Department of Technology, Management and Budget, Purchasing Operations has given written consent to such delegation. The State shall have the right of prior written approval of all Subcontractors and to require Contractor to replace any Subcontractors found, in the reasonable judgment of the State, to be unacceptable. The State's request shall be written with reasonable detail outlining the reasons for the removal request. Additionally, the State's request shall be based on legitimate, good faith reasons. Replacement Subcontractor(s) for the removed Subcontractor shall be fully qualified for the position. If the State exercises this right, and the Contractor cannot immediately replace the removed Subcontractor, the State shall agree to an equitable adjustment in schedule or other terms that may be affected by the State's required removal. If any such incident with a removed Subcontractor results in delay not reasonable anticipatable under the circumstances and which is attributable to the State, the applicable SLA for the affected Work shall not be counted for a time agreed upon by the parties.

2.073 SUBCONTRACTOR BOUND TO CONTRACT

In any subcontracts entered into by Contractor for the performance of the Services, Contractor shall require the Subcontractor, to the extent of the Services to be performed by the Subcontractor, to be bound to Contractor by the terms of this Contract and to assume toward Contractor all of the obligations and responsibilities that Contractor, by this Contract, assumes toward the State. The State reserves the right to receive copies of and review all subcontracts, although Contractor may delete or mask any proprietary information, including pricing, contained in such contracts before providing them to the State. The management of any Subcontractor shall be the responsibility of Contractor, and Contractor shall remain responsible for the performance of its Subcontractors to the same extent as if Contractor had not subcontracted such performance. Contractor shall make all payments to Subcontractors or suppliers of Contractor. Except as otherwise agreed in writing by the State and Contractor, the State shall not be obligated to direct payments for the Services other than to Contractor. The State's written approval of any Subcontractor engaged by Contractor to perform any obligation under this Contract shall not relieve Contractor of any obligations or performance required under this Contract. A list of the Subcontractors, if any, approved by the State as of the execution of this Contract, together with a copy of the applicable subcontract is attached.

2.074 FLOW DOWN

Except where specifically approved in writing by the State on a case-by-case basis, Contractor shall flow down the obligations in **Sections 2.031, 2.060, 2.100, 2.110, 2.120, 2.130, and 2.200** in all of its agreements with any Subcontractors.

2.075 COMPETITIVE SELECTION

The Contractor shall select subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of the Contract.

2.080   State Responsibilities

2.081 EQUIPMENT

The State shall provide only the equipment and resources identified in the Statement of Work and other Contract Exhibits.

2.082 FACILITIES

The State must designate space as long as it is available and as provided in the Statement of Work, to house the Contractor's personnel whom the parties agree will perform the Services/Deliverables at State facilities (collectively, the "State Facilities"). The Contractor shall have reasonable access to, and unless agreed otherwise by the parties in writing must observe and comply with all rules and regulations relating to each of the State Facilities (including hours of operation) used by the Contractor in the course of providing the Services. Contractor agrees that it shall not, without the prior written consent of the State, use any State Facilities or access any State information systems provided for the Contractor's use, or to which the Contractor otherwise gains access in the course of performing the Services, for any purpose other than providing the Services to the State.

2.090   Security

2.091 BACKGROUND CHECKS

On a case-by-case basis, the State may investigate the Contractor's personnel before they may have access to State facilities and systems. The scope of the background check is at the discretion of the State and the results shall be used to determine Contractor personnel eligibility for working within State facilities and systems. The investigations shall include Michigan State Police Background checks (ICHAT) and may include the National Crime Information Center (NCIC) Finger Prints. Proposed Contractor personnel may be required to complete and submit an RI-8 Fingerprint Card for the NCIC Finger Print Check. Any request for background checks shall be initiated by the State and shall be reasonably related to the type of work requested.

All Contractor personnel shall also be expected to comply with the State's security and acceptable use policies for State IT equipment and resources. See http://www.michigan.gov/dit. Furthermore, Contractor personnel shall be expected to agree to the State's security and acceptable use policies before the Contractor personnel shall be accepted as a resource to perform work for the State. It is expected the Contractor shall present these documents to the prospective employee before the Contractor presents the individual to the State as a proposed resource. Contractor staff shall be expected to comply with all Physical Security procedures in place within the facilities where they are working.

2.092 SECURITY BREACH NOTIFICATION

If the Contractor breaches this Section, the Contractor must (i) promptly cure any deficiencies and (ii) comply with any applicable federal and state laws and regulations pertaining to unauthorized disclosures. Contractor and the State shall cooperate to mitigate, to the extent practicable, the effects of any breach, intrusion, or unauthorized use or disclosure. Contractor must report to the State in writing any use or disclosure of Confidential Information, whether suspected or actual, other than as provided for by the Contract within 10 days of becoming aware of the use or disclosure or the shorter time period as is reasonable under the circumstances.

2.093 PCI DATA SECURITY REQUIREMENTS

Contractors with access to credit/debit card cardholder data must adhere to the Payment Card Industry (PCI) Data Security requirements. Contractor agrees that they are responsible for security of cardholder data in their possession. Contractor agrees that data can ONLY be used for assisting the State in completing a transaction, supporting a loyalty program, supporting the State, providing fraud control services, or for other uses specifically required by law.

Contractor agrees to provide business continuity in the event of a major disruption, disaster or failure.

The Contractor shall contact the Department of Technology, Management and Budget, Financial Services immediately to advise them of any breaches in security where card data has been compromised.   In the event of a security intrusion, the Contractor agrees the Payment Card Industry representative, or a Payment Card Industry approved third party, shall be provided with full cooperation and access to conduct a thorough security review. The review will validate compliance with the Payment Card Industry Data Security Standard for protecting cardholder data.

Contractor agrees to properly dispose sensitive cardholder data when no longer needed. The Contractor shall continue to treat cardholder data as confidential upon contract termination.

The Contractor shall provide the Department of Technology, Management and Budget, Financial Services documentation showing PCI Data Security certification has been achieved. The Contractor shall advise the Department of Technology, Management and Budget, Financial Services of all failures to comply with the PCI Data Security Requirements.   Failures include, but are not limited to system scans and self-assessment questionnaires. The Contractor shall provide a time line for corrective action.

2.100   Confidentiality

2.101 CONFIDENTIALITY

Contractor and the State each acknowledge that the other possesses and shall continue to possess confidential information that has been developed or received by it. As used in this Section, "Confidential Information" of Contractor must mean all non-public proprietary information of Contractor (other than Confidential Information of the State as defined below), which is marked confidential, restricted, proprietary, or with a similar designation. "Confidential Information" of the State must mean any information which is retained in confidence by the State (or otherwise required to be held in confidence by the State under applicable federal, state and local laws and regulations) or which, in the case of tangible materials provided to Contractor by the State under its performance under this Contract, is marked as confidential, proprietary or with a similar designation by the State. "Confidential Information" excludes any information (including this Contract) that is publicly available under the Michigan FOIA.

2.102 PROTECTION AND DESTRUCTION OF CONFIDENTIAL INFORMATION

The State and Contractor shall each use at least the same degree of care to prevent disclosing to third parties the Confidential Information of the other as it employs to avoid unauthorized disclosure, publication or dissemination of its own confidential information of like character, but in no event less than reasonable care. Neither Contractor nor the State shall (i) make any use of the Confidential Information of the other except as contemplated by this Contract, (ii) acquire any right in or assert any lien against the Confidential Information of the other, or (iii) if requested to do so, refuse for any reason to promptly return the other party's Confidential Information to the other party. Each party shall limit disclosure of the other party's Confidential Information to employees and Subcontractors who must have access to fulfill the purposes of this Contract. Disclosure to, and use by, a Subcontractor is permissible where (A) use of a Subcontractor is authorized under this Contract, (B) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the Subcontractor's scope of responsibility, and (C) Contractor obligates the Subcontractor in a written Contract to maintain the State's Confidential Information in confidence. At the State's request, any employee of Contractor and of any Subcontractor having access or continued access to the State's Confidential Information may be required to execute an acknowledgment that the employee has been advised of Contractor's and the Subcontractor's obligations under this Section and of the employee's obligation to Contractor or Subcontractor, as the case may be, to protect the Confidential Information from unauthorized use or disclosure.

Promptly upon termination or cancellation of the Contract for any reason, Contractor must certify to the State that Contractor has destroyed all State Confidential Information.

2.103 EXCLUSIONS

Notwithstanding the foregoing, the provisions in this Section shall not apply to any particular information which the State or Contractor can demonstrate (i) was, at the time of disclosure to it, in the public domain; (ii) after disclosure to it, is published or otherwise becomes part of the public domain through no fault of the receiving

party; (iii) was in the possession of the receiving party at the time of disclosure to it without an obligation of confidentiality; (iv) was received after disclosure to it from a third party who had a lawful right to disclose the information to it without any obligation to restrict its further disclosure; or (v) was independently developed by the receiving party without reference to Confidential Information of the furnishing party. Further, the provisions of this Section shall not apply to any particular Confidential Information to the extent the receiving party is required by law to disclose the Confidential Information, provided that the receiving party (i) promptly provides the furnishing party with notice of the legal request, and (ii) assists the furnishing party in resisting or limiting the scope of the disclosure as reasonably requested by the furnishing party.

2.104 NO IMPLIED RIGHTS

Nothing contained in this Section must be construed as obligating a party to disclose any particular Confidential Information to the other party, or as granting to or conferring on a party, expressly or impliedly, any right or license to the Confidential Information of the other party.

2.105 RESPECTIVE OBLIGATIONS

The parties' respective obligations under this Section must survive the termination or expiration of this Contract for any reason.

2.110   Records and Inspections

2.111 INSPECTION OF WORK PERFORMED

The State's authorized representatives shall at all reasonable times and with 10 days prior written request, have the right to enter Contractor's premises, or any other places, where the Services are being performed, and shall have access, upon reasonable request, to interim drafts of Deliverables or work-in-progress. Upon 10 Days prior written notice and at all reasonable times, the State's representatives shall be allowed to inspect, monitor, or otherwise evaluate the work being performed and to the extent that the access will not reasonably interfere or jeopardize the safety or operation of the systems or facilities. Contractor shall provide all reasonable facilities and assistance for the State's representatives.

2.112 EXAMINATION OF RECORDS

For seven years after the Contractor provides any work under this Contract (the "Audit Period"), the State may examine and copy any of Contractor's books, records, documents and papers pertinent to establishing Contractor's compliance with the Contract and with applicable laws and rules. The State shall notify the Contractor 20 days before examining the Contractor's books and records. The State does not have the right to review any information deemed confidential by the Contractor to the extent access would require the confidential information to become publicly available. This provision also applies to the books, records, accounts, documents and papers, in print or electronic form, of any parent, affiliated or subsidiary organization of Contractor, or any Subcontractor of Contractor performing services in connection with the Contract.

2.113 RETENTION OF RECORDS

Contractor shall maintain at least until the end of the Audit Period all pertinent financial and accounting records (including time sheets and payroll records, and information pertaining to the Contract and to the Services, equipment, and commodities provided under the Contract) pertaining to the Contract according to generally accepted accounting principles and other procedures specified in this Section. Financial and accounting records shall be made available, upon request, to the State at any time during the Audit Period. If an audit, litigation, or other action involving Contractor's records is initiated before the end of the Audit Period, the records shall be retained until all issues arising out of the audit, litigation, or other action are resolved or until the end of the Audit Period, whichever is later.

2.114 AUDIT RESOLUTION

If necessary, the Contractor and the State shall meet to review each audit report promptly after issuance. The Contractor shall respond to each audit report in writing within 30 days from receipt of the report, unless a shorter response time is specified in the report. The Contractor and the State shall develop, agree upon and

monitor an action plan to promptly address and resolve any deficiencies, concerns, and/or recommendations in the audit report.

2.115 ERRORS

If the audit demonstrates any errors in the documents provided to the State, then the amount in error shall be reflected as a credit or debit on the next invoice and in subsequent invoices until the amount is paid or refunded in full. However, a credit or debit may not be carried for more than four invoices. If a balance remains after four invoices, then the remaining amount shall be due as a payment or refund within 45 days of the last quarterly invoice that the balance appeared on or termination of the contract, whichever is earlier.

In addition to other available remedies, the difference between the payment received and the correct payment amount is greater than 10%, then the Contractor shall pay all of the reasonable costs of the audit.

2.120   Warranties

2.121 WARRANTIES AND REPRESENTATIONS

The Contractor represents and warrants:
(a) It is capable in all respects of fulfilling and must fulfill all of its obligations under this Contract. The performance of all obligations under this Contract must be provided in a timely, professional, and workman-like manner and must meet the performance and operational standards required under this Contract.
(b) The Contract Appendices, Attachments and Exhibits identify the equipment and software and services necessary for the Deliverable(s) to perform and Services to operate in compliance with the Contract's requirements and other standards of performance.
(c) It is the lawful owner or licensee of any Deliverable licensed or sold to the State by Contractor or developed by Contractor under this Contract, and Contractor has all of the rights necessary to convey to the State the ownership rights or licensed use, as applicable, of any and all Deliverables. None of the Deliverables provided by Contractor to the State under neither this Contract, nor their use by the State shall infringe the patent, copyright, trade secret, or other proprietary rights of any third party.
(d) If, under this Contract, Contractor procures any equipment, software or other Deliverable for the State (including equipment, software and other Deliverables manufactured, re-marketed or otherwise sold by Contractor under Contractor's name), then in addition to Contractor's other responsibilities with respect to the items in this Contract, Contractor must assign or otherwise transfer to the State or its designees, or afford the State the benefits of, any manufacturer's warranty for the Deliverable.
(e) The contract signatory has the power and authority, including any necessary corporate authorizations, necessary to enter into this Contract, on behalf of Contractor.
(f) It is qualified and registered to transact business in all locations where required.
(g) Neither the Contractor nor any Affiliates, nor any employee of either, has, must have, or must acquire, any contractual, financial, business, or other interest, direct or indirect, that would conflict in any manner or degree with Contractor's performance of its duties and responsibilities to the State under this Contract or otherwise create an appearance of impropriety with respect to the award or performance of this Agreement. Contractor must notify the State about the nature of the conflict or appearance of impropriety within two days of learning about it.
(h) Neither Contractor nor any Affiliates, nor any employee of either has accepted or must accept anything of value based on an understanding that the actions of the Contractor or Affiliates or employee on behalf of the State would be influenced. Contractor must not attempt to influence any State employee by the direct or indirect offer of anything of value.
(i) Neither Contractor nor any Affiliates, nor any employee of either has paid or agreed to pay any person, other than bona fide employees and consultants working solely for Contractor or the Affiliate, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this Contract.
(j) The prices proposed by Contractor were arrived at independently, without consultation, communication, or agreement with any other bidder for the purpose of restricting competition; the prices quoted were not

knowingly disclosed by Contractor to any other bidder; and no attempt was made by Contractor to induce any other person to submit or not submit a proposal for the purpose of restricting competition.

(k) All financial statements, reports, and other information furnished by Contractor to the State as part of its response to the RFP or otherwise in connection with the award of this Contract fairly and accurately represent the business, properties, financial condition, and results of operations of Contractor as of the respective dates, or for the respective periods, covered by the financial statements, reports, other information. Since the respective dates or periods covered by the financial statements, reports, or other information, there have been no material adverse changes in the business, properties, financial condition, or results of operations of Contractor.

(l) All written information furnished to the State by or for the Contractor in connection with this Contract, including its bid, is true, accurate, and complete, and contains no untrue statement of material fact or omits any material fact necessary to make the information not misleading.

(m) It is not in material default or breach of any other contract or agreement that it may have with the State or any of its departments, commissions, boards, or agencies. Contractor further represents and warrants that it has not been a party to any contract with the State or any of its departments that was terminated by the State or the department within the previous five years for the reason that Contractor failed to perform or otherwise breached an obligation of the contract.

(n) If any of the certifications, representations, or disclosures made in the Contractor's original bid response change after contract award, the Contractor is required to report those changes immediately to the Department of Technology, Management and Budget, Purchasing Operations.

2.122 WARRANTY OF MERCHANTABILITY

Goods provided by Contractor under this agreement shall be merchantable. All goods provided under this Contract shall be of good quality within the description given by the State, shall be fit for their ordinary purpose, shall be adequately contained and packaged within the description given by the State, shall conform to the agreed upon specifications, and shall conform to the affirmations of fact made by the Contractor or on the container or label.

2.123 WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE

When the Contractor has reason to know or knows any particular purpose for which the goods are required, and the State is relying on the Contractor's skill or judgment to select or furnish suitable goods, there is a warranty that the goods are fit for such purpose.

2.124 WARRANTY OF TITLE

Contractor shall, in providing goods to the State, convey good title in those goods, whose transfer is right and lawful. All goods provided by Contractor shall be delivered free from any security interest, lien, or encumbrance of which the State, at the time of contracting, has no knowledge. Goods provided by Contractor, under this Contract, shall be delivered free of any rightful claim of any third person by of infringement or the like.

2.125 EQUIPMENT WARRANTY

To the extent Contractor is responsible under this Contract for maintaining equipment/system(s), Contractor represents and warrants that it shall maintain the equipment/system(s) in good operating condition and shall undertake all repairs and preventive maintenance according to the applicable manufacturer's recommendations for the period specified in this Contract.

The Contractor represents and warrants that the equipment/system(s) are in good operating condition and operates and performs to the requirements and other standards of performance contained in this Contract, when installed, at the time of Final Acceptance by the State, and for a period of (1) one year commencing upon the first day following Final Acceptance.

Within 10 business days of notification from the State, the Contractor must adjust, repair or replace all equipment that is defective or not performing in compliance with the Contract. The Contractor must assume all costs for replacing parts or units and their installation including transportation and delivery fees, if any.

The Contractor must provide a toll-free telephone number to allow the State to report equipment failures and problems to be remedied by the Contractor.

The Contractor agrees that all warranty service it provides under this Contract must be performed by Original Equipment Manufacturer (OEM) trained, certified and authorized technicians.

The Contractor is the sole point of contact for warranty service. The Contractor warrants that it shall pass through to the State any warranties obtained or available from the original equipment manufacturer, including any replacement, upgraded, or additional equipment warranties.

2.126 EQUIPMENT TO BE NEW

If applicable, all equipment provided under this Contract by Contractor shall be new where Contractor has knowledge regarding whether the equipment is new or assembled from new or serviceable used parts that are like new in performance or has the option of selecting one or the other. Equipment that is assembled from new or serviceable used parts that are like new in performance is acceptable where Contractor does not have knowledge or the ability to select one or other, unless specifically agreed otherwise in writing by the State.

2.127 PROHIBITED PRODUCTS

The State will not accept salvage, distressed, outdated or discontinued merchandise. Shipping of such merchandise to any State agency, as a result of an order placed against the Contract, shall be considered default by the Contractor of the terms and conditions of the Contract and may result in cancellation of the Contract by the State. The brand and product number offered for all items shall remain consistent for the term of the Contract, unless Purchasing Operations has approved a change order pursuant to **Section 2.024**.

2.128 CONSEQUENCES FOR BREACH

In addition to any remedies available in law, if the Contractor breaches any of the warranties contained in this section, the breach may be considered as a default in the performance of a material obligation of this Contract.

2.130   Insurance

2.131 LIABILITY INSURANCE

The Contractor must provide proof of the minimum levels of insurance coverage as indicated below. The insurance must protect the State from claims that may arise out of or result from the Contractor's performance of services under the terms of this Contract, whether the services are performed by the Contractor, or by any subcontractor, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable.

The Contractor waives all rights against the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees and agents for recovery of damages to the extent these damages are covered by the insurance policies the Contractor is required to maintain under this Contract.

All insurance coverage provided relative to this Contract/Purchase Order is PRIMARY and NON-CONTRIBUTING to any comparable liability insurance (including self-insurances) carried by the State.

The insurance must be written for not less than any minimum coverage specified in this Contract or required by law, whichever is greater.

The insurers selected by Contractor must have an A.M. Best rating of A or better, or as otherwise approved in writing by the State, or if the ratings are no longer available, with a comparable rating from a recognized insurance rating agency. All policies of insurance required in this Contract must be issued by companies that have been approved to do business in the State.
See www.michigan.gov/dleg.

Where specific limits are shown, they are the minimum acceptable limits. If Contractor's policy contains higher limits, the State must be entitled to coverage to the extent of the higher limits.

The Contractor is required to pay for and provide the type and amount of insurance checked ☑ below:

☑ 1. Commercial General Liability with the following minimum coverage:
$2,000,000 General Aggregate Limit other than Products/Completed Operations
$2,000,000 Products/Completed Operations Aggregate Limit
$1,000,000 Personal & Advertising Injury Limit
$1,000,000 Each Occurrence Limit

The Contractor must list the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees and agents as ADDITIONAL INSUREDS on the Commercial General Liability certificate. The Contractor also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company.

☑ 2. If a motor vehicle is used to provide services or products under this Contract, the Contractor must have vehicle liability insurance on any auto including owned, hired and non-owned vehicles used in Contractor's business for bodily injury and property damage as required by law.

The Contractor must list the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees and agents as ADDITIONAL INSUREDS on the vehicle liability certificate. The Contractor also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company.

☑ 3. Workers' compensation coverage must be provided according to applicable laws governing the employees and employers work activities in the state of the Contractor's domicile. If a self-insurer provides the applicable coverage, proof must be provided of approved self-insured authority by the jurisdiction of domicile. For employees working outside of the state of qualification, Contractor must provide appropriate certificates of insurance proving mandated coverage levels for the jurisdictions where the employees' activities occur.

Any certificates of insurance received must also provide a list of states where the coverage is applicable.

The Contractor also agrees to provide evidence that insurance policies contain a waiver of subrogation by the insurance company. This provision must not be applicable where prohibited or limited by the laws of the jurisdiction in which the work is to be performed.

☑ 4. Employers liability insurance with the following minimum limits:
$100,000 each accident
$100,000 each employee by disease
$500,000 aggregate disease

☐ 5. Employee Fidelity, including Computer Crimes, insurance naming the State as a loss payee, providing coverage for direct loss to the State and any legal liability of the State arising out of or related to fraudulent or dishonest acts committed by the employees of Contractor or its Subcontractors, acting alone or in collusion with others, in a minimum amount of one million dollars ($1,000,000.00) with a maximum deductible of fifty thousand dollars ($50,000.00).

☐ 6. Umbrella or Excess Liability Insurance in a minimum amount of ten million dollars ($10,000,000.00), which must apply, at a minimum, to the insurance required in Subsection 1 (Commercial General Liability) above.

☐ 7. Professional Liability (Errors and Omissions) Insurance with the following minimum coverage: three million dollars ($3,000,000.00) each occurrence and three million dollars ($3,000,000.00) annual aggregate.

☐ 8. Fire and Personal Property Insurance covering against any loss or damage to the office space used by Contractor for any reason under this Contract, and the equipment, software and other contents of the office space, including without limitation, those contents used by Contractor to provide the Services to the State, up to its replacement value, where the office space and its contents are under the care, custody and control of Contractor. The policy must cover all risks of direct physical loss or damage, including without limitation, flood and earthquake coverage and coverage for computer hardware and software. The State must be endorsed on the policy as a loss payee as its interests appear.

2.132 SUBCONTRACTOR INSURANCE COVERAGE
Except where the State has approved in writing a Contractor subcontract with other insurance provisions, Contractor must require all of its Subcontractors under this Contract to purchase and maintain the insurance coverage as described in this Section for the Contractor in connection with the performance of work by those Subcontractors. Alternatively, Contractor may include any Subcontractors under Contractor's insurance on the coverage required in this Section. Subcontractor(s) must fully comply with the insurance coverage required in this Section. Failure of Subcontractor(s) to comply with insurance requirements does not limit Contractor's liability or responsibility.

2.133 CERTIFICATES OF INSURANCE AND OTHER REQUIREMENTS
Contractor must furnish to MDTMB Purchasing Operations, certificate(s) of insurance verifying insurance coverage or providing satisfactory evidence of self-insurance as required in this Section (the "Certificates"). The Certificate must be on the standard "accord" form or equivalent. **The Contract Number or the Purchase Order Number must be shown on the Certificate Of Insurance To Assure Correct Filing.** All Certificate(s) are to be prepared and submitted by the Insurance Provider. All Certificate(s) must contain a provision indicating that coverage afforded under the policies SHALL NOT BE CANCELLED, MATERIALLY CHANGED, OR NOT RENEWED without 30 days prior written notice, except for 10 days for non-payment of premium, having been given to the Director of Purchasing Operations, Department of Technology, Management and Budget. The notice must include the Contract or Purchase Order number affected. Before the Contract is signed, and not less than 20 days before the insurance expiration date every year thereafter, the Contractor must provide evidence that the State and its agents, officers and employees are listed as additional insured under each commercial general liability and commercial automobile liability policy. In the event the State approves the representation of the State by the insurer's attorney, the attorney may be required to be designated as a Special Assistant Attorney General by the Attorney General of the State of Michigan.

The Contractor must maintain all required insurance coverage throughout the term of the Contract and any extensions and, in the case of claims-made Commercial General Liability policies, must secure tail coverage for at least three years following the expiration or termination for any reason of this Contract. The minimum limits of coverage specified above are not intended, and must not be construed; to limit any liability or indemnity of Contractor under this Contract to any indemnified party or other persons. Contractor is responsible for all deductibles with regard to the insurance. If the Contractor fails to pay any premium for required insurance as specified in this Contract, or if any insurer cancels or significantly reduces any required insurance as specified in this Contract without the State's written consent, then the State may, after the State has given the Contractor at least 30 days written notice, pay the premium or procure similar insurance coverage from another company or companies. The State may deduct any part of the cost from any payment due the Contractor, or the Contractor must pay that cost upon demand by the State.

2.140 Indemnification

2.141 GENERAL INDEMNIFICATION
To the extent permitted by law, the Contractor must indemnify, defend and hold harmless the State from liability, including all claims and losses, and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest and penalties), accruing or resulting to any person, firm or corporation that may be injured or damaged by the Contractor in the performance of this Contract and that are attributable to the negligence or tortious acts of the Contractor or any of its subcontractors, or by anyone else for whose acts any of them may be liable.

2.142 CODE INDEMNIFICATION

To the extent permitted by law, the Contractor shall indemnify, defend and hold harmless the State from any claim, loss, or expense arising from Contractor's breach of the No Surreptitious Code Warranty.

2.143 EMPLOYEE INDEMNIFICATION

In any claims against the State of Michigan, its departments, divisions, agencies, sections, commissions, officers, employees and agents, by any employee of the Contractor or any of its subcontractors, the indemnification obligation under the Contract must not be limited in any way by the amount or type of damages, compensation or benefits payable by or for the Contractor or any of its subcontractors under worker's disability compensation acts, disability benefit acts or other employee benefit acts. This indemnification clause is intended to be comprehensive. Any overlap in provisions, or the fact that greater specificity is provided as to some categories of risk, is not intended to limit the scope of indemnification under any other provisions.

2.144 PATENT/COPYRIGHT INFRINGEMENT INDEMNIFICATION

To the extent permitted by law, the Contractor must indemnify, defend and hold harmless the State from and against all losses, liabilities, damages (including taxes), and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest and penalties) incurred in connection with any action or proceeding threatened or brought against the State to the extent that the action or proceeding is based on a claim that any piece of equipment, software, commodity or service supplied by the Contractor or its subcontractors, or the operation of the equipment, software, commodity or service, or the use or reproduction of any documentation provided with the equipment, software, commodity or service infringes any United States patent, copyright, trademark or trade secret of any person or entity, which is enforceable under the laws of the United States.

In addition, should the equipment, software, commodity, or service, or its operation, become or in the State's or Contractor's opinion be likely to become the subject of a claim of infringement, the Contractor must at the Contractor's sole expense (i) procure for the State the right to continue using the equipment, software, commodity or service or, if the option is not reasonably available to the Contractor, (ii) replace or modify to the State's satisfaction the same with equipment, software, commodity or service of equivalent function and performance so that it becomes non-infringing, or, if the option is not reasonably available to Contractor, (iii) accept its return by the State with appropriate credits to the State against the Contractor's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.

Notwithstanding the foregoing, the Contractor has no obligation to indemnify or defend the State for, or to pay any costs, damages or attorneys' fees related to, any claim based upon (i) equipment developed based on written specifications of the State; (ii) use of the equipment in a configuration other than implemented or approved in writing by the Contractor, including, but not limited to, any modification of the equipment by the State; or (iii) the combination, operation, or use of the equipment with equipment or software not supplied by the Contractor under this Contract.

2.145 CONTINUATION OF INDEMNIFICATION OBLIGATIONS

The Contractor's duty to indemnify under this Section continues in full force and effect, notwithstanding the expiration or early cancellation of the Contract, with respect to any claims based on facts or conditions that occurred before expiration or cancellation.

2.146 INDEMNIFICATION PROCEDURES

The procedures set forth below must apply to all indemnity obligations under this Contract.
(a) After the State receives notice of the action or proceeding involving a claim for which it shall seek indemnification, the State must promptly notify Contractor of the claim in writing and take or assist Contractor in taking, as the case may be, any reasonable action to avoid the imposition of a default judgment against Contractor. No failure to notify the Contractor relieves the Contractor of its indemnification obligations except to the extent that the Contractor can prove damages attributable to the

failure. Within 10 days following receipt of written notice from the State relating to any claim, the Contractor must notify the State in writing whether Contractor agrees to assume control of the defense and settlement of that claim (a "Notice of Election"). After notifying Contractor of a claim and before the State receiving Contractor's Notice of Election, the State is entitled to defend against the claim, at the Contractor's expense, and the Contractor will be responsible for any reasonable costs incurred by the State in defending against the claim during that period.

(b) If Contractor delivers a Notice of Election relating to any claim: (i) the State is entitled to participate in the defense of the claim and to employ counsel at its own expense to assist in the handling of the claim and to monitor and advise the State about the status and progress of the defense; (ii) the Contractor must, at the request of the State, demonstrate to the reasonable satisfaction of the State, the Contractor's financial ability to carry out its defense and indemnity obligations under this Contract; (iii) the Contractor must periodically advise the State about the status and progress of the defense and must obtain the prior written approval of the State before entering into any settlement of the claim or ceasing to defend against the claim and (iv) to the extent that any principles of Michigan governmental or public law may be involved or challenged, the State has the right, at its own expense, to control the defense of that portion of the claim involving the principles of Michigan governmental or public law. But the State may retain control of the defense and settlement of a claim by notifying the Contractor in writing within 10 days after the State's receipt of Contractor's information requested by the State under clause (ii) of this paragraph if the State determines that the Contractor has failed to demonstrate to the reasonable satisfaction of the State the Contractor's financial ability to carry out its defense and indemnity obligations under this Section. Any litigation activity on behalf of the State, or any of its subdivisions under this Section, must be coordinated with the Department of Attorney General. In the event the insurer's attorney represents the State under this Section, the insurer's attorney may be required to be designated as a Special Assistant Attorney General by the Attorney General of the State of Michigan.

(c) If Contractor does not deliver a Notice of Election relating to any claim of which it is notified by the State as provided above, the State may defend the claim in the manner as it may deem appropriate, at the cost and expense of Contractor. If it is determined that the claim was one against which Contractor was required to indemnify the State, upon request of the State, Contractor must promptly reimburse the State for all the reasonable costs and expenses.

2.150   Termination/Cancellation

2.151 NOTICE AND RIGHT TO CURE

If the Contractor breaches the contract, and the State in its sole discretion determines that the breach is curable, then the State shall provide the Contractor with written notice of the breach and a time period (not less than 30 days) to cure the Breach. The notice of breach and opportunity to cure is inapplicable for successive or repeated breaches or if the State determines in its sole discretion that the breach poses a serious and imminent threat to the health or safety of any person or the imminent loss, damage, or destruction of any real or tangible personal property.

2.152 TERMINATION FOR CAUSE

(a) The State may terminate this contract, for cause, by notifying the Contractor in writing, if the Contractor (i) breaches any of its material duties or obligations under this Contract (including a Chronic Failure to meet any particular SLA), or (ii) fails to cure a breach within the time period specified in the written notice of breach provided by the State

(b) If this Contract is terminated for cause, the Contractor must pay all costs incurred by the State in terminating this Contract, including but not limited to, State administrative costs, reasonable attorneys' fees and court costs, and any reasonable additional costs the State may incur to procure the Services/Deliverables required by this Contract from other sources. Re-procurement costs are not consequential, indirect or incidental damages, and cannot be excluded by any other terms otherwise included in this Contract, provided the costs are not in excess of 50% more than the prices for the Service/Deliverables provided under this Contract.

(c) If the State chooses to partially terminate this Contract for cause, charges payable under this Contract shall be equitably adjusted to reflect those Services/Deliverables that are terminated and the State must

pay for all Services/Deliverables for which Final Acceptance has been granted provided up to the termination date. Services and related provisions of this Contract that are terminated for cause must cease on the effective date of the termination.

(d) If the State terminates this Contract for cause under this Section, and it is determined, for any reason, that Contractor was not in breach of contract under the provisions of this section, that termination for cause must be deemed to have been a termination for convenience, effective as of the same date, and the rights and obligations of the parties must be limited to that otherwise provided in this Contract for a termination for convenience.

2.153 TERMINATION FOR CONVENIENCE

The State may terminate this Contract for its convenience, in whole or part, if the State determines that a termination is in the State's best interest. Reasons for the termination must be left to the sole discretion of the State and may include, but not necessarily be limited to (a) the State no longer needs the Services or products specified in the Contract, (b) relocation of office, program changes, changes in laws, rules, or regulations make implementation of the Services no longer practical or feasible, (c) unacceptable prices for Additional Services or New Work requested by the State, or (d) falsification or misrepresentation, by inclusion or non-inclusion, of information material to a response to any RFP issued by the State. The State may terminate this Contract for its convenience, in whole or in part, by giving Contractor written notice at least 30 days before the date of termination. If the State chooses to terminate this Contract in part, the charges payable under this Contract must be equitably adjusted to reflect those Services/Deliverables that are terminated. Services and related provisions of this Contract that are terminated for convenience must cease on the effective date of the termination.

2.154 TERMINATION FOR NON-APPROPRIATION

(a) Contractor acknowledges that, if this Contract extends for several fiscal years, continuation of this Contract is subject to appropriation or availability of funds for this Contract. If funds to enable the State to effect continued payment under this Contract are not appropriated or otherwise made available, the State must terminate this Contract and all affected Statements of Work, in whole or in part, at the end of the last period for which funds have been appropriated or otherwise made available by giving written notice of termination to Contractor. The State must give Contractor at least 30 days advance written notice of termination for non-appropriation or unavailability (or the time as is available if the State receives notice of the final decision less than 30 days before the funding cutoff).

(b) If funding for the Contract is reduced by law, or funds to pay Contractor for the agreed-to level of the Services or production of Deliverables to be provided by Contractor are not appropriated or otherwise unavailable, the State may, upon 30 days written notice to Contractor, reduce the level of the Services or change the production of Deliverables in the manner and for the periods of time as the State may elect. The charges payable under this Contract shall be equitably adjusted to reflect any equipment, services or commodities not provided by reason of the reduction.

(c) If the State terminates this Contract, eliminates certain Deliverables, or reduces the level of Services to be provided by Contractor under this Section, the State must pay Contractor for all Work-in-Process performed through the effective date of the termination or reduction in level, as the case may be and as determined by the State, to the extent funds are available. This Section shall not preclude Contractor from reducing or stopping Services/Deliverables or raising against the State in a court of competent jurisdiction, any claim for a shortfall in payment for Services performed or Deliverables finally accepted before the effective date of termination.

2.155 TERMINATION FOR CRIMINAL CONVICTION

The State may terminate this Contract immediately and without further liability or penalty in the event Contractor, an officer of Contractor, or an owner of a 25% or greater share of Contractor is convicted of a criminal offense related to a State, public or private Contract or subcontract.

2.156   TERMINATION FOR APPROVALS RESCINDED

The State may terminate this Contract if any final administrative or judicial decision or adjudication disapproves a previously approved request for purchase of personal services under Constitution 1963, Article 11, § 5, and Civil Service Rule 7-1. In that case, the State shall pay the Contractor for only the work completed to that point under the Contract. Termination may be in whole or in part and may be immediate as of the date of the written notice to Contractor or may be effective as of the date stated in the written notice.

2.157   RIGHTS AND OBLIGATIONS UPON TERMINATION

(a)   If the State terminates this Contract for any reason, the Contractor must (a) stop all work as specified in the notice of termination, (b) take any action that may be necessary, or that the State may direct, for preservation and protection of Deliverables or other property derived or resulting from this Contract that may be in Contractor's possession, (c) return all materials and property provided directly or indirectly to Contractor by any entity, agent or employee of the State, (d) transfer title in, and deliver to, the State, unless otherwise directed, all Deliverables intended to be transferred to the State at the termination of the Contract and which are resulting from the Contract (which must be provided to the State on an "As-Is" basis except to the extent the amounts paid by the State in respect of the items included compensation to Contractor for the provision of warranty services in respect of the materials), and (e) take any action to mitigate and limit any potential damages, or requests for Contractor adjustment or termination settlement costs, to the maximum practical extent, including terminating or limiting as otherwise applicable those subcontracts and outstanding orders for material and supplies resulting from the terminated Contract.

(b)   If the State terminates this Contract before its expiration for its own convenience, the State must pay Contractor for all charges due for Services provided before the date of termination and, if applicable, as a separate item of payment under this Contract, for Work In Process, on a percentage of completion basis at the level of completion determined by the State. All completed or partially completed Deliverables prepared by Contractor under this Contract, at the option of the State, becomes the State's property, and Contractor is entitled to receive equitable fair compensation for the Deliverables. Regardless of the basis for the termination, the State is not obligated to pay, or otherwise compensate, Contractor for any lost expected future profits, costs or expenses incurred with respect to Services not actually performed for the State.

(c)   Upon a good faith termination, the State may assume, at its option, any subcontracts and agreements for services and deliverables provided under this Contract, and may further pursue completion of the Services/Deliverables under this Contract by replacement contract or otherwise as the State may in its sole judgment deem expedient.

2.158   RESERVATION OF RIGHTS

Any termination of this Contract or any Statement of Work issued under it by a party must be with full reservation of, and without prejudice to, any rights or remedies otherwise available to the party with respect to any claims arising before or as a result of the termination.

2.160   Termination by Contractor

2.161   TERMINATION BY CONTRACTOR

If the State breaches the Contract, and the Contractor in its sole discretion determines that the breach is curable, then the Contractor will provide the State with written notice of the breach and a time period (not less than 30 days) to cure the breach. The Notice of Breach and opportunity to cure is inapplicable for successive and repeated breaches.

The Contractor may terminate this Contract if the State (i) materially breaches its obligation to pay the Contractor undisputed amounts due and owing under this Contract, (ii) breaches its other obligations under this Contract to an extent that makes it impossible or commercially impractical for the Contractor to perform the Services, or (iii) does not cure the breach within the time period specified in a written notice of breach. But the Contractor must discharge its obligations under **Section 2.160** before it terminates the Contract.

2.170   Transition Responsibilities

2.171   CONTRACTOR TRANSITION RESPONSIBILITIES

If the State terminates this contract, for convenience or cause, or if the Contract is otherwise dissolved, voided, rescinded, nullified, expires or rendered unenforceable, the Contractor shall comply with direction provided by the State to assist in the orderly transition of equipment, services, software, leases, etc. to the State or a third party designated by the State. If this Contract expires or terminates, the Contractor agrees to make all reasonable efforts to effect an orderly transition of services within a reasonable period of time that in no event will exceed 180 days. These efforts must include, but are not limited to, those listed in **Section 2.150.**

2.172   CONTRACTOR PERSONNEL TRANSITION

The Contractor shall work with the State, or a specified third party, to develop a transition plan setting forth the specific tasks and schedule to be accomplished by the parties, to effect an orderly transition. The Contractor must allow as many personnel as practicable to remain on the job to help the State, or a specified third party, maintain the continuity and consistency of the services required by this Contract. In addition, during or following the transition period, in the event the State requires the Services of the Contractor's subcontractors or vendors, as necessary to meet its needs, Contractor agrees to reasonably, and with good-faith, work with the State to use the Services of Contractor's subcontractors or vendors. Contractor will notify all of Contractor's subcontractors of procedures to be followed during transition.

2.173   CONTRACTOR INFORMATION TRANSITION

The Contractor shall provide reasonable detailed specifications for all Services/Deliverables needed by the State, or specified third party, to properly provide the Services/Deliverables required under this Contract. The Contractor will provide the State with asset management data generated from the inception of this Contract through the date on which this Contractor is terminated in a comma-delineated format unless otherwise requested by the State. The Contractor will deliver to the State any remaining owed reports and documentation still in Contractor's possession subject to appropriate payment by the State.

2.174   CONTRACTOR SOFTWARE TRANSITION

The Contractor shall reasonably assist the State in the acquisition of any Contractor software required to perform the Services/use the Deliverables under this Contract. This must include any documentation being used by the Contractor to perform the Services under this Contract. If the State transfers any software licenses to the Contractor, those licenses must, upon expiration of the Contract, transfer back to the State at their current revision level. Upon notification by the State, Contractor may be required to freeze all non-critical changes to Deliverables/Services.

2.175   TRANSITION PAYMENTS

If the transition results from a termination for any reason, the termination provisions of this Contract must govern reimbursement. If the transition results from expiration, the Contractor will be reimbursed for all reasonable transition costs (i.e. costs incurred within the agreed period after contract expiration that result from transition operations) at the rates agreed upon by the State. The Contractor will prepare an accurate accounting from which the State and Contractor may reconcile all outstanding accounts.

2.176   STATE TRANSITION RESPONSIBILITIES

In the event that this Contract is terminated, dissolved, voided, rescinded, nullified, or otherwise rendered unenforceable, the State agrees to reconcile all accounts between the State and the Contractor, complete any pending post-project reviews and perform any others obligations upon which the State and the Contractor agree.
(a) Reconciling all accounts between the State and the Contractor;
(b) Completing any pending post-project reviews.

2.180   Stop Work

2.181 STOP WORK ORDERS

The State may, at any time, by written Stop Work Order to Contractor, require that Contractor stop all, or any part, of the work called for by the Contract for a period of up to 90 calendar days after the Stop Work Order is delivered to Contractor, and for any further period to which the parties may agree. The Stop Work Order must be identified as a Stop Work Order and must indicate that it is issued under this **Section**. Upon receipt of the stop work order, Contractor must immediately comply with its terms and take all reasonable steps to minimize incurring costs allocable to the work covered by the Stop Work Order during the period of work stoppage. Within the period of the stop work order, the State must either: (a) cancel the stop work order; or (b) terminate the work covered by the Stop Work Order as provided in **Section 2.182**.

2.182 CANCELLATION OR EXPIRATION OF STOP WORK ORDER

The Contractor shall resume work if the State cancels a Stop Work Order or if it expires. The parties shall agree upon an equitable adjustment in the delivery schedule, the Contract price, or both, and the Contract shall be modified, in writing, accordingly, if: (a) the Stop Work Order results in an increase in the time required for, or in Contractor's costs properly allocable to, the performance of any part of the Contract; and (b) Contractor asserts its right to an equitable adjustment within 30 calendar days after the end of the period of work stoppage; provided that, if the State decides the facts justify the action, the State may receive and act upon a Contractor proposal submitted at any time before final payment under the Contract. Any adjustment will conform to the requirements of **Section 2.024**.

2.183 ALLOWANCE OF CONTRACTOR COSTS

If the Stop Work Order is not canceled and the work covered by the Stop Work Order is terminated for reasons other than material breach, the termination shall be deemed to be a termination for convenience under **Section 2.153**, and the State shall pay reasonable costs resulting from the Stop Work Order in arriving at the termination settlement. For the avoidance of doubt, the State shall not be liable to Contractor for loss of profits because of a Stop Work Order issued under this Section**.**

2.190   Dispute Resolution

2.191 IN GENERAL

Any claim, counterclaim, or dispute between the State and Contractor arising out of or relating to the Contract or any Statement of Work must be resolved as follows. For all Contractor claims seeking an increase in the amounts payable to Contractor under the Contract, or the time for Contractor's performance, Contractor must submit a letter, together with all data supporting the claims, executed by Contractor's Contract Administrator or the Contract Administrator's designee certifying that (a) the claim is made in good faith, (b) the amount claimed accurately reflects the adjustments in the amounts payable to Contractor or the time for Contractor's performance for which Contractor believes the State is liable and covers all costs of every type to which Contractor is entitled from the occurrence of the claimed event, and (c) the claim and the supporting data are current and complete to Contractor's best knowledge and belief.

2.192 INFORMAL DISPUTE RESOLUTION

(a)   All disputes between the parties shall be resolved under the Contract Management procedures in this Contract. If the parties are unable to resolve any dispute after compliance with the processes, the parties must meet with the Director of Purchasing Operations, DMB, or designee, to resolve the dispute without the need for formal legal proceedings, as follows:
(1)   The representatives of Contractor and the State must meet as often as the parties reasonably deem necessary to gather and furnish to each other all information with respect to the matter at issue which the parties believe to be appropriate and germane in connection with its resolution. The representatives shall discuss the problem and negotiate in good faith in an effort to resolve the dispute without the necessity of any formal proceeding.

(2)   During the course of negotiations, all reasonable requests made by one party to another for non-privileged information reasonably related to the Contract shall be honored in order that each of the parties may be fully advised of the other's position.

(3)   The specific format for the discussions shall be left to the discretion of the designated State and Contractor representatives, but may include the preparation of agreed upon statements of fact or written statements of position.

(4)   Following the completion of this process within 60 calendar days, the Director of Purchasing Operations, DMB, or designee, shall issue a written opinion regarding the issue(s) in dispute within 30 calendar days. The opinion regarding the dispute must be considered the State's final action and the exhaustion of administrative remedies.

(b)   This Section shall not be construed to prevent either party from instituting, and a party is authorized to institute, formal proceedings earlier to avoid the expiration of any applicable limitations period, to preserve a superior position with respect to other creditors, or under Section 2.193.

(c)   The State shall not mediate disputes between the Contractor and any other entity, except state agencies, concerning responsibility for performance of work under the Contract.

2.193 INJUNCTIVE RELIEF

The only circumstance in which disputes between the State and Contractor shall not be subject to the provisions of **Section 2.192** is where a party makes a good faith determination that a breach of the terms of the Contract by the other party is that the damages to the party resulting from the breach shall be so immediate, so large or severe and so incapable of adequate redress after the fact that a temporary restraining order or other immediate injunctive relief is the only adequate remedy.

2.194 CONTINUED PERFORMANCE

Each party agrees to continue performing its obligations under the Contract while a dispute is being resolved except to the extent the issue in dispute precludes performance (dispute over payment must not be deemed to preclude performance) and without limiting either party's right to terminate the Contract as provided in **Section 2.150**, as the case may be.

2.200   Federal and State Contract Requirements

2.201 NONDISCRIMINATION

In the performance of the Contract, Contractor agrees not to discriminate against any employee or applicant for employment, with respect to his or her hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, religion, national origin, ancestry, age, sex, height, weight, and marital status, physical or mental disability. Contractor further agrees that every subcontract entered into for the performance of this Contract or any purchase order resulting from this Contract will contain a provision requiring non-discrimination in employment, as specified here, binding upon each Subcontractor. This covenant is required under the Elliot Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, et seq., and the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, et seq., and any breach of this provision may be regarded as a material breach of the Contract.

2.202 UNFAIR LABOR PRACTICES

Under 1980 PA 278, MCL 423.321, et seq., the State shall not award a Contract or subcontract to an employer whose name appears in the current register of employers failing to correct an unfair labor practice compiled under section 2 of the Act. This information is compiled by the United States National Labor Relations Board. A Contractor of the State, in relation to the Contract, shall not enter into a contract with a Subcontractor, manufacturer, or supplier whose name appears in this register. Under section 4 of 1980 PA 278, MCL 423.324, the State may void any Contract if, after award of the Contract, the name of Contractor as an employer or the name of the Subcontractor, manufacturer or supplier of Contractor appears in the register.

2.203   WORKPLACE SAFETY AND DISCRIMINATORY HARASSMENT

In performing Services for the State, the Contractor shall comply with the Department of Civil Services Rule 2-20 regarding Workplace Safety and Rule 1-8.3 regarding Discriminatory Harassment. In addition, the Contractor shall comply with Civil Service regulations and any applicable agency rules provided to the Contractor. For Civil Service Rules, see http://www.mi.gov/mdcs/0,1607,7-147-6877---,00.html.

2.204   PREVAILING WAGE

Wages rates and fringe benefits to be paid each class of individuals employed by the Contractor, its subcontractors, their subcontractors, and all persons involved with the performance of this Contract in privity of contract with the Contractor shall not be less than the wage rates and fringe benefits established by the Michigan Department of Labor and Economic Development, Wage and Hour Bureau, schedule of occupational classification and wage rates and fringe benefits for the local where the work is to be performed. The term Contractor shall include all general contractors, prime contractors, project managers, trade contractors, and all of their contractors or subcontractors and persons in privity of contract with them.

The Contractor, its subcontractors, their subcontractors and all persons involved with the performance of this contract in privity of contract with the Contractor shall keep posted on the work site, in a conspicuous place, a copy of all wage rates and fringe benefits as prescribed in the Contract. Contractor shall also post, in a conspicuous place, the address and telephone number of the Michigan Department of Labor and Economic Development, the agency responsible for enforcement of the wage rates and fringe benefits. Contractor shall keep an accurate record showing the name and occupation of the actual wage and benefits paid to each individual employed in connection with this contract. This record shall be available to the State upon request for reasonable inspection.

If any trade is omitted from the list of wage rates and fringe benefits to be paid to each class of individuals by the Contractor, it is understood that the trades omitted shall also be paid not less than the wage rate and fringe benefits prevailing in the local where the work is to be performed.

2.210   Governing Law

2.211   GOVERNING LAW

The Contract shall in all respects be governed by, and construed according to, the substantive laws of the State of Michigan without regard to any Michigan choice of law rules that would apply the substantive law of any other jurisdiction to the extent not inconsistent with, or pre-empted by federal law.

2.212   COMPLIANCE WITH LAWS

Contractor shall comply with all applicable state, federal and local laws and ordinances in providing the Services/Deliverables.

2.213   JURISDICTION

Any dispute arising from the Contract shall be resolved in the State of Michigan. With respect to any claim between the parties, Contractor consents to venue in Ingham County, Michigan, and irrevocably waives any objections it may have to the jurisdiction on the grounds of lack of personal jurisdiction of the court or the laying of venue of the court or on the basis of forum non conveniens or otherwise. Contractor agrees to appoint agents in the State of Michigan to receive service of process.

2.220   Limitation of Liability

2.221   LIMITATION OF LIABILITY

Neither the Contractor nor the State shall be liable to each other, regardless of the form of action, for consequential, incidental, indirect, or special damages. This limitation of liability does not apply to claims for infringement of United States patent, copyright, trademark or trade secrets; to claims for personal injury or damage to property caused by the gross negligence or willful misconduct of the Contractor; to claims covered

by other specific provisions of this Contract calling for liquidated damages; or to court costs or attorney's fees awarded by a court in addition to damages after litigation based on this Contract.

The Contractor's liability for damages to the State is limited to two times the value of the Contract or $500,000 whichever is higher. The foregoing limitation of liability does not apply to claims for infringement of United States patent, copyright, trademarks or trade secrets; to claims for personal injury or damage to property caused by the gross negligence or willful misconduct of the Contractor; to claims covered by other specific provisions of this Contract calling for liquidated damages; or to court costs or attorney's fees awarded by a court in addition to damages after litigation based on this Contract.

The State's liability for damages to the Contractor is limited to the value of the Contract.

2.230   Disclosure Responsibilities

2.231   DISCLOSURE OF LITIGATION

Contractor shall disclose any material criminal litigation, investigations or proceedings involving the Contractor (and each Subcontractor) or any of its officers or directors or any litigation, investigations or proceedings under the Sarbanes-Oxley Act. In addition, each Contractor (and each Subcontractor) shall notify the State of any material civil litigation, arbitration or proceeding which arises during the term of the Contract and extensions, to which Contractor (or, to the extent Contractor is aware, any Subcontractor) is a party, and which involves: (i) disputes that might reasonably be expected to adversely affect the viability or financial stability of Contractor or any Subcontractor; or (ii) a claim or written allegation of fraud against Contractor or, to the extent Contractor is aware, any Subcontractor by a governmental or public entity arising out of their business dealings with governmental or public entities. The Contractor shall disclose in writing to the Contract Administrator any litigation, investigation, arbitration or other proceeding (collectively, "Proceeding") within 30 days of its occurrence. Details of settlements that are prevented from disclosure by the terms of the settlement may be annotated. Information provided to the State from Contractor's publicly filed documents referencing its material litigation shall be deemed to satisfy the requirements of this Section.

If any Proceeding disclosed to the State under this Section, or of which the State otherwise becomes aware, during the term of this Contract would cause a reasonable party to be concerned about:
(a)   the ability of Contractor (or a Subcontractor) to continue to perform this Contract according to its terms and conditions, or
(b)   whether Contractor (or a Subcontractor) in performing Services for the State is engaged in conduct which is similar in nature to conduct alleged in the Proceeding, which conduct would constitute a breach of this Contract or a violation of Michigan law, regulations or public policy, then the Contractor must provide the State all reasonable assurances requested by the State to demonstrate that:
  (1) Contractor and its Subcontractors will be able to continue to perform this Contract and any Statements of Work according to its terms and conditions, and
  (2) Contractor and its Subcontractors have not and will not engage in conduct in performing the Services which is similar in nature to the conduct alleged in the Proceeding.
(c)   Contractor shall make the following notifications in writing:
  (1) Within 30 days of Contractor becoming aware that a change in its ownership or officers has occurred, or is certain to occur, or a change that could result in changes in the valuation of its capitalized assets in the accounting records, Contractor must notify MDTMB Purchasing Operations.
  (2) Contractor shall also notify MDTMB Purchasing Operations within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership or officers.
  (3) Contractor shall also notify MDTMB Purchase Operations within 30 days whenever changes to company affiliations occur.

2.232   CALL CENTER DISCLOSURE

Contractor and/or all subcontractors involved in the performance of this Contract providing call or contact center services to the State shall disclose the location of its call or contact center services to inbound callers. Failure to disclose this information is a material breach of this Contract.

2.233 BANKRUPTCY

The State may, without prejudice to any other right or remedy, terminate this Contract, in whole or in part, and, at its option, may take possession of the "Work in Process" and finish the Works in Process by whatever appropriate method the State may deem expedient if:

(a) the Contractor files for protection under the bankruptcy laws;
(b) an involuntary petition is filed against the Contractor and not removed within 30 days;
(c   the Contractor becomes insolvent or if a receiver is appointed due to the Contractor's insolvency;
(d) the Contractor makes a general assignment for the benefit of creditors; or
(e) the Contractor or its affiliates are unable to provide reasonable assurances that the Contractor or its affiliates can deliver the services under this Contract.

Contractor will fix appropriate notices or labels on the Work in Process to indicate ownership by the State. To the extent reasonably possible, materials and Work in Process shall be stored separately from other stock and marked conspicuously with labels indicating ownership by the State.

2.240   Performance

2.241 TIME OF PERFORMANCE

(a) Contractor shall use commercially reasonable efforts to provide the resources necessary to complete all Services and Deliverables according to the time schedules contained in the Statements of Work and other Exhibits governing the work, and with professional quality.
(b) Without limiting the generality of **Section 2.241,** Contractor shall notify the State in a timely manner upon becoming aware of any circumstances that may reasonably be expected to jeopardize the timely and successful completion of any Deliverables/Services on the scheduled due dates in the latest State-approved delivery schedule and must inform the State of the projected actual delivery date.
(c) If the Contractor believes that a delay in performance by the State has caused or will cause the Contractor to be unable to perform its obligations according to specified Contract time periods, the Contractor must notify the State in a timely manner and must use commercially reasonable efforts to perform its obligations according to the Contract time periods notwithstanding the State's failure. Contractor will not be in default for a delay in performance to the extent the delay is caused by the State.

2.242 SERVICE LEVEL AGREEMENT (SLA)

(a) SLAs will be completed with the following operational considerations:

   (1) SLAs will not be calculated for individual Incidents where any event of Excusable Failure has been determined; Incident means any interruption in Services.
   (2) SLAs will not be calculated for individual Incidents where loss of service is planned and where the State has received prior notification or coordination.
   (3) SLAs will not apply if the applicable Incident could have been prevented through planning proposed by Contractor and not implemented at the request of the State. To invoke this consideration, complete documentation relevant to the denied planning proposal must be presented to substantiate the proposal.
   (4) Time period measurements will be based on the time Incidents are received by the Contractor and the time that the State receives notification of resolution based on 24x7x365 time period, except that the time period measurement will be suspended based on the following:
      (i) Time period(s) will not apply where Contractor does not have access to a physical State Location and where access to the State Location is necessary for problem identification and resolution.
      (ii) Time period(s) will not apply where Contractor needs to obtain timely and accurate information or appropriate feedback and is unable to obtain timely and accurate information or appropriate feedback from the State.
(b) Chronic Failure for any Service(s) will be defined as three unscheduled outage(s) or interruption(s) on any individual Service for the same reason or cause or if the same reason or cause was reasonably discoverable in the first instance over a rolling 30 day period. Chronic Failure will result in the State's option to terminate the effected individual Service(s) and procure them from a different vendor for the

chronic location(s) with Contractor to pay the difference in charges for up to three additional months. The termination of the Service will not affect any tiered pricing levels.
(c) Root Cause Analysis will be performed on any Business Critical outage(s) or outage(s) on Services when requested by the Contract Administrator. Contractor will provide its analysis within two weeks of outage(s) and provide a recommendation for resolution.
(d) All decimals must be rounded to two decimal places with five and greater rounding up and four and less rounding down unless otherwise specified.

2.243 LIQUIDATED DAMAGES
Late or Improper Completion of Work
The parties acknowledge that late or improper completion of the Work will cause loss and damage to the State, and that it would be impracticable and extremely difficult to fix the actual damage sustained by the State as a result. Therefore, Contractor and the State agree that if there is late or improper completion of the Work and the State does not elect to exercise its rights under **Section 2.152**, the State is entitled to collect liquidated damages in the amount of $5,000.00 and an additional $100.00 per day for each day Contractor fails to remedy the late or improper completion of the Work.

During the warranty period, should the system be unavailable due to host or applicable problems, the State is entitled to $500 per calendar day if down 4 or more hours. During maintenance & support, should the system be unavailable due to host or applicable problems, the State is entitled to $400 per calendar day if down 4 or more hours.

Unauthorized Removal of any Key Personnel
It is acknowledged that an Unauthorized Removal will interfere with the timely and proper completion of the Contract, to the loss and damage of the State, and that it would be impracticable and extremely difficult to fix the actual damage sustained by the State as a result of any Unauthorized Removal. Therefore, Contractor and the State agree that in the case of any Unauthorized Removal in respect of which the State does not elect to exercise its rights under **Section 2.152**, the State may assess liquidated damages against Contractor as specified below.

For the Unauthorized Removal of any Key Personnel designated in the applicable Statement of Work, the liquidated damages amount is $25,000.00 per individual if the Contractor identifies a replacement approved by the State under **Section 2.060** and assigns the replacement to the Project to shadow the Key Personnel who is leaving for a period of at least 30 days before the Key Personnel's removal.

If Contractor fails to assign a replacement to shadow the removed Key Personnel for at least 30 days, in addition to the $25,000.00 liquidated damages for an Unauthorized Removal, Contractor must pay the amount of $833.33 per day for each day of the 30 day shadow period that the replacement Key Personnel does not shadow the removed Key Personnel, up to $25,000.00 maximum per individual. The total liquidated damages that may be assessed per Unauthorized Removal and failure to provide 30 days of shadowing must not exceed $50,000.00 per individual.

2.244 EXCUSABLE FAILURE
Neither party will be liable for any default, damage or delay in the performance of its obligations under the Contract to the extent the default, damage or delay is caused by government regulations or requirements (executive, legislative, judicial, military or otherwise), power failure, electrical surges or current fluctuations, lightning, earthquake, war, water or other forces of nature or acts of God, delays or failures of transportation, equipment shortages, suppliers' failures, or acts or omissions of common carriers, fire; riots, civil disorders; strikes or other labor disputes, embargoes; injunctions (provided the injunction was not issued as a result of any fault or negligence of the party seeking to have its default or delay excused); or any other cause beyond the reasonable control of a party; provided the non-performing party and its Subcontractors are without fault in causing the default or delay, and the default or delay could not have been prevented by reasonable precautions and cannot reasonably be circumvented by the non-performing party through the use of alternate sources, workaround plans or other means, including disaster recovery plans.

If a party does not perform its contractual obligations for any of the reasons listed above, the non-performing party will be excused from any further performance of its affected obligation(s) for as long as the circumstances prevail. But the party must use commercially reasonable efforts to recommence performance whenever and to whatever extent possible without delay. A party must promptly notify the other party in writing immediately after the excusable failure occurs, and also when it abates or ends.

If any of the above-enumerated circumstances substantially prevent, hinder, or delay the Contractor's performance of the Services/provision of Deliverables for more than 10 Business Days, and the State determines that performance is not likely to be resumed within a period of time that is satisfactory to the State in its reasonable discretion, then at the State's option: (a) the State may procure the affected Services/Deliverables from an alternate source, and the State is not be liable for payment for the unperformed Services/ Deliverables not provided under the Contract for so long as the delay in performance continues; (b) the State may terminate any portion of the Contract so affected and the charges payable will be equitably adjusted to reflect those Services/Deliverables terminated; or (c) the State may terminate the affected Statement of Work without liability to Contractor as of a date specified by the State in a written notice of termination to the Contractor, except to the extent that the State must pay for Services/Deliverables provided through the date of termination.

The Contractor will not have the right to any additional payments from the State as a result of any Excusable Failure occurrence or to payments for Services not rendered/Deliverables not provided as a result of the Excusable Failure condition. Defaults or delays in performance by Contractor which are caused by acts or omissions of its Subcontractors will not relieve Contractor of its obligations under the Contract except to the extent that a Subcontractor is itself subject to an Excusable Failure condition described above and Contractor cannot reasonably circumvent the effect of the Subcontractor's default or delay in performance through the use of alternate sources, workaround plans or other means.

2.250   Approval of Deliverables

2.251 DELIVERY OF DELIVERABLES

A list of the Deliverables to be prepared and delivered by Contractor including, for each Deliverable, the scheduled delivery date and a designation of whether the Deliverable is a document ("Written Deliverable") or a Custom Software Deliverable is attached, if applicable. All Deliverables shall be completed and delivered for State review and written approval and, where applicable, installed in accordance with the State-approved delivery schedule and any other applicable terms and conditions of this Contract.

Prior to delivering any Deliverable to the State, Contractor will first perform all required quality assurance activities, and, in the case of Custom Software Deliverables, System Testing to verify that the Deliverable is complete and in conformance with its specifications. Before delivering a Deliverable to the State, Contractor shall certify to the State that (1) it has performed such quality assurance activities, (2) it has performed any applicable testing, (3) it has corrected all material deficiencies discovered during such quality assurance activities and testing, (4) the Deliverable is in a suitable state of readiness for the State's review and approval, and (5) the Deliverable/Service has all Critical Security patches/updates applied.

In discharging its obligations under this Section, Contractor shall be at all times (except where the parties agree otherwise in writing) in compliance with Level 3 of the Software Engineering Institute's Capability Maturity Model for Software ("CMM Level 3") or its equivalent.

2.252 CONTRACTOR SYSTEM TESTING

Contractor will be responsible for System Testing each Custom Software Deliverable in Contractor's development environment prior to turning over the Custom Software Deliverable to the State for User Acceptance Testing and approval. Contractor's System Testing shall include the following, at a minimum, plus any other testing required by CMM Level 3 or Contractor's system development methodology:

Contractor will be responsible for performing Unit Testing and incremental Integration Testing of the components of each Custom Software Deliverable.

Contractor's System Testing will also include Integration Testing of each Custom Software Deliverable to ensure proper inter-operation with all prior software Deliverables, interfaces and other components that are intended to inter-operate with such Custom Software Deliverable, and will include Regression Testing, volume and stress testing to ensure that the Custom Software Deliverables are able to meet the State's projected growth in the number and size of transactions to be processed by the Application and number of users, as such projections are set forth in the applicable Statement of Work.

Contractor's System Testing will also include Business Function Testing and Technical Testing of each Application in a simulated production environment. Business Function Testing will include testing of full work streams that flow through the Application as the Application will be incorporated within the State's computing environment. The State shall participate in and provide support for the Business Function Testing to the extent reasonably requested by Contractor. Within ten (10) days before the commencement of Business Function Testing pursuant to this Section, Contractor shall provide the State for State review and written approval Contractor's test plan for Business Function Testing.

Within five (5) Business Days following the completion of System Testing pursuant to this **Section**, Contractor shall provide to the State a testing matrix establishing that testing for each condition identified in the System Testing plans has been conducted and successfully concluded. To the extent that testing occurs on State premises, the State shall be entitled to observe or otherwise participate in testing under this Section as the State may elect.

2.253 APPROVAL OF DELIVERABLES, IN GENERAL

All Deliverables (Written Deliverables and Custom Software Deliverables) require formal written approval by the State, in accordance with the following procedures. Formal approval by the State requires that the Deliverable be confirmed in writing by the State to meet its specifications, which, in the case of Custom Software Deliverables, will include the successful completion of State User Acceptance Testing, to be led by the State with the support and assistance of Contractor. The parties acknowledge that the approval process set forth herein will be facilitated by ongoing consultation between the parties, visibility of interim and intermediate Deliverables and collaboration on key decisions.

The State's obligation to comply with any State Review Period is conditioned on the timely delivery of Deliverables being reviewed. If Contractor fails to provide a Deliverable to the State in a timely manner, the State will nevertheless use commercially reasonable efforts to complete its review or testing within the applicable State Review Period.

Before commencement of its review or testing of a Deliverable, the State may inspect the Deliverable to confirm that all components of the Deliverable (e.g., software, associated documentation, and other materials) have been delivered. If the State determines that the Deliverable is incomplete, the State may refuse delivery of the Deliverable without performing any further inspection or testing of the Deliverable. Otherwise, the review period will be deemed to have started on the day the State receives the Deliverable and the applicable certification by Contractor in accordance with this Section.

The State will approve in writing a Deliverable upon confirming that it conforms to and, in the case of a Custom Software Deliverable, performs in accordance with, its specifications without material deficiency. The State may, but shall not be required to, conditionally approve in writing a Deliverable that contains material deficiencies if the State elects to permit Contractor to rectify them post-approval. In any case, Contractor will be responsible for working diligently to correct within a reasonable time at Contractor's expense all deficiencies in the Deliverable that remain outstanding at the time of State approval.

If, after three (3) opportunities (the original and two repeat efforts), Contractor is unable to correct all deficiencies preventing State approval of a Deliverable, the State may: (i) demand that Contractor cure the failure and give Contractor additional time to cure the failure at the sole expense of Contractor; or (ii) keep this Contract in force and do, either itself or through other parties, whatever Contractor has failed to do, in which event Contractor shall bear any excess expenditure incurred by the State in so doing beyond the contract price for such Deliverable and will pay the State an additional sum equal to ten percent (10%) of such excess expenditure to cover the State's general expenses without the need to furnish proof in substantiation of such

general expenses; or (iii) terminate this Contract for default, either in whole or in part by notice to Contractor (and without the need to afford Contractor any further opportunity to cure). Notwithstanding the foregoing, the State shall not use, as a basis for exercising its termination rights under this Section, deficiencies discovered in a repeat State Review Period that could reasonably have been discovered during a prior State Review Period.

The State, at any time and in its own discretion, may halt the UAT or approval process if such process reveals deficiencies in or problems with a Deliverable in a sufficient quantity or of a sufficient severity as to make the continuation of such process unproductive or unworkable. In such case, the State may return the applicable Deliverable to Contractor for correction and re-delivery prior to resuming the review or UAT process and, in that event, Contractor will correct the deficiencies in such Deliverable in accordance with the Contract, as the case may be.

Approval in writing of a Deliverable by the State shall be provisional; that is, such approval shall not preclude the State from later identifying deficiencies in, and declining to accept, a subsequent Deliverable based on or which incorporates or inter-operates with an approved Deliverable, to the extent that the results of subsequent review or testing indicate the existence of deficiencies in the subsequent Deliverable, or if the Application of which the subsequent Deliverable is a component otherwise fails to be accepted pursuant to **Section 2.080**. **There shall be no default acceptance.**

2.254 PROCESS FOR APPROVAL OF WRITTEN DELIVERABLES

The State Review Period for Written Deliverables will be the number of days set forth in the applicable Statement of Work following delivery of the final version of the Written Deliverable (failing which the State Review Period, by default, shall be five (**5**) Business Days for Written Deliverables of one hundred (100) pages or less and ten (**10**) Business Days for Written Deliverables of more than one hundred (100) pages). The duration of the State Review Periods will be doubled if the State has not had an opportunity to review an interim draft of the Written Deliverable prior to its submission to the State. The State agrees to notify Contractor in writing by the end of the State Review Period either stating that the Written Deliverable is approved in the form delivered by Contractor or describing any deficiencies that shall be corrected prior to approval of the Written Deliverable (or at the State's election, subsequent to approval of the Written Deliverable). If the State delivers to Contractor a notice of deficiencies, Contractor will correct the described deficiencies and within five (5) Business Days resubmit the Deliverable in a form that shows all revisions made to the original version delivered to the State. Contractor's correction efforts will be made at no additional charge. Upon receipt of a corrected Written Deliverable from Contractor, the State will have a reasonable additional period of time, not to exceed the length of the original State Review Period, to review the corrected Written Deliverable to confirm that the identified deficiencies have been corrected.

2.255 PROCESS FOR APPROVAL OF CUSTOM SOFTWARE DELIVERABLES

The State will conduct UAT of each Custom Software Deliverable in accordance with the following procedures to determine whether it meets the criteria for State approval – i.e., whether it conforms to and performs in accordance with its specifications without material deficiencies.

Within thirty (**30**) days (or such other number of days as the parties may agree to in writing) prior to Contractor's delivery of any Custom Software Deliverable to the State for approval, Contractor shall provide to the State a set of proposed test plans, including test cases, scripts, data and expected outcomes, for the State's use (which the State may supplement in its own discretion) in conducting UAT of the Custom Software Deliverable. Contractor, upon request by the State, shall provide the State with reasonable assistance and support during the UAT process.

For the Custom Software Deliverables listed in an attachment, the State Review Period for conducting UAT will be as indicated in the attachment. For any other Custom Software Deliverables not listed in an attachment, the State Review Period shall be the number of days agreed in writing by the parties (failing which it shall be forty-five (**45**) days by default). The State Review Period for each Custom Software Deliverable will begin when Contractor has delivered the Custom Software Deliverable to the State accompanied by the certification required by this **Section** and the State's inspection of the Deliverable has confirmed that all components of it have been delivered.

The State's UAT will consist of executing test scripts from the proposed testing submitted by Contractor, but may also include any additional testing deemed appropriate by the State. If the State determines during the UAT that the Custom Software Deliverable contains any deficiencies, the State will notify Contractor of the deficiency by making an entry in an incident reporting system available to both Contractor and the State. Contractor will modify promptly the Custom Software Deliverable to correct the reported deficiencies, conduct appropriate System Testing (including, where applicable, Regression Testing) to confirm the proper correction of the deficiencies and re-deliver the corrected version to the State for re-testing in UAT. Contractor will coordinate the re-delivery of corrected versions of Custom Software Deliverables with the State so as not to disrupt the State's UAT process. The State will promptly re-test the corrected version of the Software Deliverable after receiving it from Contractor.

Within three (3) business days after the end of the State Review Period, the State will give Contractor a written notice indicating the State's approval or rejection of the Custom Software Deliverable according to the criteria and process set out in this **Section**.

2.256   FINAL ACCEPTANCE

"Final Acceptance" shall be considered to occur when the Custom Software Deliverable to be delivered has been approved by the State and has been operating in production without any material deficiency for fourteen (14) consecutive days. If the State elects to defer putting a Custom Software Deliverable into live production for its own reasons, not based on concerns about outstanding material deficiencies in the Deliverable, the State shall nevertheless grant Final Acceptance of the Project.

2.260   Ownership

2.261   OWNERSHIP OF WORK PRODUCT BY STATE

The State owns all Deliverables, as they are work made for hire by the Contractor for the State. The State owns all United States and international copyrights, trademarks, patents or other proprietary rights in the Deliverables.

2.262   OWNERSHIP AND DISPOSITION OF STATE OWNED DATA

The State shall own all data within, and associated with, the MiWaters solution that may reside within the Contractor's hosting environment and/or equipment/media. Upon termination of services, for any reason, the Contractor agrees to return all original state owned data and any derivative work to the State in a usable format. Delivery must be through a secured electronic transmission or by parcel service that utilizes tracking numbers.

Following the State's verified receipt of the original state owned data and any derivative work, and the State's confirmation that the data was received in a useable format, the Contractor agrees to physically and/or electronically destroy or erase all residual state owned data regardless of format from the entire Contractor's technology resources and any other storage media or areas. This includes, but is not limited to, all production copies, test copies, backup copies and/or printed copies of information created on any other servers or media and at all other Contractor sites. The Contractor will provide a record of data destructions to the State for inspection and records retention no later than 30 days after destruction.

If, for any reason, the state owned data cannot be returned and/or destroyed upon termination of services, the Contractor agrees to notify the State with an explanation as to the conditions which make return and/or destruction impossible. Upon mutual agreement by both parties that the return and/or destruction of data is not possible or feasible, the Contractor shall make the state owned data inaccessible to those purposes that make the return or proper destruction impossible. The Contractor shall provide to the State a detailed description as to the procedures and methods used to make the State owned data inaccessible no later than 30 days after making the data inaccessible."

2.263 VESTING OF RIGHTS

With the sole exception of any preexisting licensed works identified in the SOW, the Contractor assigns, and upon creation of each Deliverable automatically assigns, to the State, ownership of all United States and international copyrights, trademarks, patents, or other proprietary rights in each and every Deliverable, whether or not registered by the Contractor, insofar as any the Deliverable, by operation of law, may not be considered work made for hire by the Contractor for the State. From time to time upon the State's request, the Contractor must confirm the assignment by execution and delivery of the assignments, confirmations of assignment, or other written instruments as the State may request. The State may obtain and hold in its own name all copyright, trademark, and patent registrations and other evidence of rights that may be available for Deliverables.

2.264 RIGHTS IN DATA

The State is the owner of all data made available by the State to the Contractor or its agents, Subcontractors or representatives under the Contract. The Contractor will not use the State's data for any purpose other than providing the Services, nor will any part of the State's data be disclosed, sold, assigned, leased or otherwise disposed of to the general public or to specific third parties or commercially exploited by or on behalf of the Contractor. No employees of the Contractor, other than those on a strictly need-to-know basis, have access to the State's data. Contractor will not possess or assert any lien or other right against the State's data. Without limiting the generality of this Section, the Contractor must only use personally identifiable information as strictly necessary to provide the Services and must disclose the information only to its employees who have a strict need-to-know the information. The Contractor must comply at all times with all laws and regulations applicable to the personally identifiable information.

The State is the owner of all State-specific data under the Contract. The State may use the data provided by the Contractor for any purpose. The State will not possess or assert any lien or other right against the Contractor's data. Without limiting the generality of this Section, the State may use personally identifiable information only as strictly necessary to utilize the Services and must disclose the information only to its employees who have a strict need to know the information, except as provided by law. The State must comply at all times with all laws and regulations applicable to the personally identifiable information. Other material developed and provided to the State remains the State's sole and exclusive property.

2.265 OWNERSHIP OF MATERIALS

The State and the Contractor will continue to own their respective proprietary technologies developed before entering into the Contract. Any hardware bought through the Contractor by the State, and paid for by the State, will be owned by the State. Any software licensed through the Contractor and sold to the State, will be licensed directly to the State.

2.270   State Standards

2.271 EXISTING TECHNOLOGY STANDARDS

The Contractor will adhere to all existing standards as described within the comprehensive listing of the State's existing technology standards at http://www.michigan.gov/dit.

2.272 ACCEPTABLE USE POLICY

To the extent that Contractor has access to the State computer system, Contractor must comply with the State's Acceptable Use Policy, see http://www.michigan.gov/ditservice. All Contractor employees must be required, in writing, to agree to the State's Acceptable Use Policy before accessing the State system. The State reserves the right to terminate Contractor's access to the State system if a violation occurs.

2.273 SYSTEMS CHANGES

Contractor is not responsible for and not authorized to make changes to any State systems without written authorization from the Project Manager. Any changes Contractor makes to State systems with the State's

approval must be done according to applicable State procedures, including security, access and configuration management procedures.

2.280   Extended Purchasing

2.281   MIDEAL (MICHIGAN DELIVERY EXTENDED AGREEMENTS LOCALLY)

Public Act 431 of 1984 permits MDTMB to provide purchasing services to any city, village, county, township, school district, intermediate school district, non-profit hospital, institution of higher education, community, or junior college. A current listing of approved program members is available at: www.michigan.gov/buymichiganfirst. Unless otherwise stated, the Contractor must ensure that the non-state agency is an authorized purchaser before extending the Contract pricing.

The Contractor will supply Contract Services and equipment to these local governmental agencies at the established State of Michigan contract prices and terms to the extent applicable and where available. The Contractor must send its invoices to, and pay the local unit of government, on a direct and individual basis.

To the extent that authorized local units of government purchase quantities of Services and/or equipment under this Contract, the quantities of Services and/or equipment purchased will be included in determining the appropriate rate wherever tiered pricing based on quantity is provided.

2.282   STATE EMPLOYEE PURCHASES

The State allows State employees to purchase from this Contract. Unless otherwise stated, it is the responsibility of the Contractor to ensure that the State employee is an authorized purchaser before extending the Contract pricing.

The Contractor will supply Contract Services and Deliverables at the established State of Michigan contract prices and terms to the extent applicable and where available. The Contractor shall send its invoices to and pay the State employee on a direct and individual basis.

To the extent that authorized State employees purchase quantities of Services or Deliverables under this Contract, the quantities of Services and/or Deliverables purchased will be included in determining the appropriate rate wherever tiered pricing based on quantity is provided.

2.290   Environmental Provision

2.291   ENVIRONMENTAL PROVISION

Energy Efficiency Purchasing Policy: The State seeks wherever possible to purchase energy efficient products. This includes giving preference to U.S. Environmental Protection Agency (EPA) certified 'Energy Star' products for any category of products for which EPA has established Energy Star certification. For other purchases, the State may include energy efficiency as one of the priority factors to consider when choosing among comparable products.

Environmental Purchasing Policy: The State of Michigan is committed to encouraging the use of products and services that impact the environment less than competing products. The State is accomplishing this by including environmental considerations in purchasing decisions, while remaining fiscally responsible, to promote practices that improve worker health, conserve natural resources, and prevent pollution. Environmental components that are to be considered include: recycled content and recyclables; energy efficiency; and the presence of undesirable materials in the products, especially those toxic chemicals which are persistent and bioaccumulative. The Contractor should be able to supply products containing recycled and environmentally preferable materials that meet performance requirements and is encouraged to offer such products throughout the duration of this Contract. Information on any relevant third party certification (such as Green Seal, Energy Star, etc.) should also be provided.

Hazardous Materials: For the purposes of this Section, "Hazardous Materials" is a generic term used to describe asbestos, ACBMs, PCBs, petroleum products, construction materials including paint thinners, solvents, gasoline, oil, and any other material the manufacture, use, treatment, storage, transportation or disposal of which is regulated by the federal, state or local laws governing the protection of the public health, natural resources or the environment. This includes, but is not limited to, materials the as batteries and circuit packs, and other materials that are regulated as (1) "Hazardous Materials" under the Hazardous Materials Transportation Act, (2) "chemical hazards" under the Occupational Safety and Health Administration standards, (3) "chemical substances or mixtures" under the Toxic Substances Control Act, (4) "pesticides" under the Federal Insecticide Fungicide and Rodenticide Act, and (5) "hazardous wastes" as defined or listed under the Resource Conservation and Recovery Act.

(a) The Contractor shall use, handle, store, dispose of, process, transport and transfer any material considered a Hazardous Material according to all federal, State and local laws. The State shall provide a safe and suitable environment for performance of Contractor's Work. Before the commencement of Work, the State shall advise the Contractor of the presence at the work site of any Hazardous Material to the extent that the State is aware of the Hazardous Material. If the Contractor encounters material reasonably believed to be a Hazardous Material and which may present a substantial danger, the Contractor shall immediately stop all affected Work, notify the State in writing about the conditions encountered, and take appropriate health and safety precautions.

(b) Upon receipt of a written notice, the State will investigate the conditions. If (a) the material is a Hazardous Material that may present a substantial danger, and (b) the Hazardous Material was not brought to the site by the Contractor, or does not result in whole or in part from any violation by the Contractor of any laws covering the use, handling, storage, disposal of, processing, transport and transfer of Hazardous Materials, the State shall order a suspension of Work in writing. The State shall proceed to have the Hazardous Material removed or rendered harmless. In the alternative, the State shall terminate the affected Work for the State's convenience.

(c) Once the Hazardous Material has been removed or rendered harmless by the State, the Contractor shall resume Work as directed in writing by the State. Any determination by the Michigan Department of Community Health or the Michigan Department of Environmental Quality that the Hazardous Material has either been removed or rendered harmless is binding upon the State and Contractor for the purposes of resuming the Work. If any incident with Hazardous Material results in delay not reasonable anticipatable under the circumstances and which is attributable to the State, the applicable SLAs for the affected Work will not be counted in a time as mutually agreed by the parties.

(d) If the Hazardous Material was brought to the site by the Contractor, or results in whole or in part from any violation by the Contractor of any laws covering the use, handling, storage, disposal of, processing, transport and transfer of Hazardous Material, or from any other act or omission within the control of the Contractor, the Contractor shall bear its proportionate share of the delay and costs involved in cleaning up the site and removing and rendering harmless the Hazardous Material according to Applicable Laws to the condition approved by applicable regulatory agency(ies).

Labeling: Michigan has a Consumer Products Rule pertaining to labeling of certain products containing volatile organic compounds. For specific details visit http://www.michigan.gov/deq/0,1607,7-135-3310_4108-173523--,00.html

Refrigeration and Air Conditioning: The Contractor shall comply with the applicable requirements of Sections 608 and 609 of the Clean Air Act (42 U.S.C. 7671g and 7671h) as each or both apply to this contract.

Environmental Performance: Waste Reduction Program - Contractor shall establish a program to promote cost-effective waste reduction in all operations and facilities covered by this contract. The Contractor's programs shall comply with applicable Federal, State, and local requirements, specifically including Section 6002 of the Resource Conservation and Recovery Act (42 U.S.C. 6962, et seq.).

2.300   Deliverables

2.301 SOFTWARE

A list of the items of software the State is required to purchase for execution the Contract is attached. The list includes all software required to complete the Contract and make the Deliverables operable; if any additional software is required in order for the Deliverables to meet the requirements of this Contract, such software shall be provided to the State by Contractor at no additional charge (except where agreed upon and specified in a Statement of Work or Contract Change Notice). The attachment also identifies certain items of software to be provided by the State.

2.302 HARDWARE

A list of the items of hardware the State is required to purchase for executing the Contract is attached. The list includes all hardware required to complete the Contract and make the Deliverables operable; if any additional hardware is required in order for the Deliverables to meet the requirements of this Contract, such hardware shall be provided to the State by Contractor at no additional charge (except where agreed upon and specified in a Contract Change Notice). The attachment also identifies certain items of hardware to be provided by the State.

2.310   Software Warranties

2.311 PERFORMANCE WARRANTY

The Contractor represents and warrants that Deliverables, after Final Acceptance, will perform and operate in compliance with the requirements and other standards of performance contained in this Contract (including all descriptions, specifications and drawings made a part of the Contract) for a period of (90) ninety days. In the event of a breach of this warranty, Contractor will promptly correct the affected Deliverable(s) at no charge to the State.

2.312 NO SURREPTITIOUS CODE WARRANTY

The Contractor represents and warrants that no copy of licensed Software provided to the State contains or will contain any Self-Help Code or any Unauthorized Code as defined below. This warranty is referred to in this Contract as the "No Surreptitious Code Warranty."

As used in this Contract, "Self-Help Code" means any back door, time bomb, drop dead device, or other software routine designed to disable a computer program automatically with the passage of time or under the positive control of a person other than the licensee of the software. Self-Help Code does not include Software routines in a computer program, if any, designed to permit an owner of the computer program (or other person acting by authority of the owner) to obtain access to a licensee's computer system(s) (e.g. remote access via modem) for purposes of maintenance or technical support.

As used in this Contract, "Unauthorized Code" means any virus, Trojan horse, spyware, worm or other Software routines or components designed to permit unauthorized access to disable, erase, or otherwise harm software, equipment, or data; or to perform any other such actions. The term Unauthorized Code does not include Self-Help Code. Unauthorized Code does not include Software routines in a computer program, if any, designed to permit an owner of the computer program (or other person acting by authority of the owner) to obtain access to a licensee's computer system(s) (e.g. remote access via modem) for purposes of maintenance or technical support.

In addition, Contractor will use up-to-date commercial virus detection software to detect and remove any viruses from any software prior to delivering it to the State.

2.313 CALENDAR WARRANTY

The Contractor represents and warrants that all software for which the Contractor either sells or licenses to the State of Michigan and used by the State prior to, during or after the calendar year 2000, includes or shall include, at no added cost to the State, design and performance so the State shall not experience software

abnormality and/or the generation of incorrect results from the software, due to date oriented processing, in the operation of the business of the State of Michigan.

The software design, to insure calendar year rollover compatibility, shall include, but is not limited to: data structures (databases, data files, etc.) that provide 4-digit date century; stored data that contain date century recognition, including, but not limited to, data stored in databases and hardware device internal system dates; calculations and program logic (e.g., sort algorithms, calendar generation, event recognition, and all processing actions that use or produce date values) that accommodates same century and multi-century formulas and date values; interfaces that supply data to and receive data from other systems or organizations that prevent non-compliant dates and data from entering any State system; user interfaces (i.e., screens, reports, etc.) that accurately show 4 digit years; and assurance that the year 2000 shall be correctly treated as a leap year within all calculation and calendar logic.

2.314 THIRD-PARTY SOFTWARE WARRANTY

The Contractor represents and warrants that it will disclose the use or incorporation of any third-party software into the Deliverables. At the time of Delivery, the Contractor shall provide in writing the name and use of any Third-party Software, including information regarding the Contractor's authorization to include and utilize such software. The notice shall include a copy of any ownership agreement or license that authorizes the Contractor to use the Third-party Software.

2.315 PHYSICAL MEDIA WARRANTY

Contractor represents and warrants that each licensed copy of the Software provided by the Contractor is free from physical defects in the media that tangibly embodies the copy. This warranty does not apply to defects discovered more than (30) thirty days after that date of Final Acceptance of the Software by the State. This warranty does not apply to defects arising from acts of Excusable Failure. If the Contractor breaches this warranty, then the State shall be entitled to replacement of the non-compliant copy by Contractor, at Contractor's expense (including shipping and handling).

2.320   Software Licensing

2.321 CROSS-LICENSE, DELIVERABLES ONLY, LICENSE TO CONTRACTOR

The State grants to the Contractor, the royalty-free, world-wide, non-exclusive right and license under any Deliverable now or in the future owned by the State, or with respect to which the State has a right to grant such rights or licenses, to the extent required by the Contractor to market the Deliverables and exercise its full rights in the Deliverables, including, without limitation, the right to make, use and sell products and services based on or incorporating such Deliverables.

2.322 CROSS-LICENSE, DELIVERABLES AND DERIVATIVE WORK, LICENSE TO CONTRACTOR

The State grants to the Contractor, the royalty-free, world-wide, non-exclusive right and license under any Deliverable and/or Derivative Work now or in the future owned by the State, or with respect to which the State has a right to grant such rights or licenses, to the extent required by the Contractor to market the Deliverables and/or Derivative Work and exercise its full rights in the Deliverables and/or Derivative Work, including, without limitation, the right to make, use and sell products and services based on or incorporating such Deliverables and/or Derivative Work.

2.323 LICENSE BACK TO THE STATE

Unless otherwise specifically agreed to by the State, before initiating the preparation of any Deliverable that is a Derivative of a preexisting work, the Contractor shall cause the State to have and obtain the irrevocable, nonexclusive, worldwide, royalty-free right and license to (1) use, execute, reproduce, display, perform, distribute internally or externally, sell copies of, and prepare Derivative Works based upon all preexisting works and Derivative Works thereof, and (2) authorize or sublicense others from time to time to do any or all of the foregoing.

2.324 LICENSE RETAINED BY CONTRACTOR

Contractor grants to the State a non-exclusive, royalty-free, site-wide, irrevocable, transferable license to use the Software and related documentation according to the terms and conditions of this Contract. For the purposes of this license, "site-wide" includes any State of Michigan office regardless of its physical location.

The State may modify the Software and may combine such with other programs or materials to form a derivative work. The State will own and hold all copyright, trademarks, patent and other intellectual property rights in any derivative work, excluding any rights or interest in Software other than those granted in this Contract.

The State may copy each item of Software to multiple hard drives or networks unless otherwise agreed by the parties.

The State will make and maintain no more than one archival copy of each item of Software, and each copy will contain all legends and notices and will be subject to the same conditions and restrictions as the original. The State may also make copies of the Software in the course of routine backups of hard drive(s) for the purpose of recovery of hard drive contents.

In the event that the Contractor shall, for any reason, cease to conduct business, or cease to support the Software, the State shall have the right to convert these licenses into perpetual licenses, with rights of quiet enjoyment, but subject to payment obligations not to exceed the then current rates.

2.325 PRE-EXISTING MATERIALS FOR CUSTOM SOFTWARE DELIVERABLES

Neither Contractor nor any of its Subcontractors shall incorporate any preexisting materials (including Standard Software) into Custom Software Deliverables or use any pre-existing materials to produce Custom Software Deliverables if such pre-existing materials will be needed by the State in order to use the Custom Software Deliverables unless (i) such pre-existing materials and their owners are identified to the State in writing and (ii) such pre-existing materials are either readily commercially available products for which Contractor or its Subcontractor, as the case may be, has obtained a license (in form and substance approved by the State) in the name of the State, or are materials that Contractor or its Subcontractor, as the case may be, has the right to license to the State and has licensed to the State on terms and conditions approved by the State prior to using such pre-existing materials to perform the Services.

2.330   Source Code Escrow

2.331 DEFINITION

"Source Code Escrow Package" shall mean:
(a) A complete copy in machine-readable form of the source code and executable code of the Licensed Software, including any updates or new releases of the product;
(b) A complete copy of any existing design documentation and user documentation, including any updates or revisions; and/or
(c) Complete instructions for compiling and linking every part of the source code into executable code for purposes of enabling verification of the completeness of the source code as provided below. Such instructions shall include precise identification of all compilers, library packages, and linkers used to generate executable code.

2.332 DELIVERY OF SOURCE CODE INTO ESCROW

Contractor shall deliver a Source Code Escrow Package to the Escrow Agent, pursuant to the Escrow Contract, which shall be entered into on commercially reasonable terms subject to the provisions of this Contract within (30) thirty days of the execution of this Contract.

2.333 DELIVERY OF NEW SOURCE CODE INTO ESCROW

If at any time during the term of this Contract, the Contractor provides a maintenance release or upgrade version of the Licensed Software, Contractor shall within ten (10) days deposit with the Escrow Agent, in accordance with the Escrow Contract, a Source Code Escrow Package for the maintenance release or upgrade version, and provide the State with notice of the delivery.

2.334 VERIFICATION

Thereafter, the State reserves the right at any time, but not more than once a year, either itself or through a third party contractor, upon thirty (30) days written notice, to seek verification of the Source Code Escrow Package.

2.335 ESCROW FEES

The Contractor will pay all fees and expenses charged by the Escrow Agent.

2.336 RELEASE EVENTS

The Source Code Escrow Package may be released from escrow to the State, temporarily or permanently, upon the occurrence of one or more of the following:
(a) The Contractor becomes insolvent, makes a general assignment for the benefit of creditors, files a voluntary petition of bankruptcy, suffers or permits the appointment of a receiver for its business or assets, becomes subject to any proceeding under bankruptcy or insolvency law, whether domestic or foreign;
(b) The Contractor has wound up or liquidated its business voluntarily or otherwise and the State has reason to believe that such events will cause the Contractor to fail to meet its warranties and maintenance obligations in the foreseeable future;
(c) The Contractor voluntarily or otherwise discontinues support of the provided products or fails to support the products in accordance with its maintenance obligations and warranties.

2.337 RELEASE EVENT PROCEDURES

If the State desires to obtain the Source Code Escrow Package from the Escrow Agent upon the occurrence of an Event in this **Section**, then:
(a) The State shall comply with all procedures in the Escrow Contract;
(b) The State shall maintain all materials and information comprising the Source Code Escrow Package in confidence in accordance with this Contract;
(c) If the release is a temporary one, then the State shall promptly return all released materials to Contractor when the circumstances leading to the release are no longer in effect.

2.338 LICENSE

Upon release from the Escrow Agent pursuant to an event described in this **Section**, the Contractor automatically grants the State a non-exclusive, irrevocable license to use, reproduce, modify, maintain, support, update, have made, and create Derivative Works. Further, the State shall have the right to use the Source Code Escrow Package in order to maintain and support the Licensed Software so that it can be used by the State as set forth in this Contract.

2.339 DERIVATIVE WORKS

Any Derivative Works to the source code released from escrow that are made by or on behalf of the State shall be the sole property of the State. The State acknowledges that its ownership rights are limited solely to the Derivative Works and do not include any ownership rights in the underlying source code.

<u>Appendix A - Current Application Environment; Interfaces</u>

<u>This guide offers additional information, and/or links to additional information on the Internet, regarding systems that will be replaced by, or interfacing with, the new MiWaters solution.</u>

CORE SYSTEMS:

Core systems are "larger" systems currently in use by the Michigan Department of Environmental Quality (DEQ) whose functionality, and the databases that support them, will be replaced by the new MiWaters solution. Data from these systems must be migrated to, and maintained within, the database supporting the new solution.

**Coastal and Inland Waters Permit Information System (CIWPIS)*:*

CIWPIS is a system used to track permit applications that are submitted under various statutes administered by the Department of Environmental Quality (DEQ) Water Resources Division (WRD). The original CIWPIS database was developed in the late 1970's as a mainframe application. In the early 1990's CIWPIS was updated and re-written to a Client-Server architecture model. The current application is written in Borland Delphi 6.0 and supports approximately 120 Water Resources Division staff. The potential number of users of an updated database with added functionality, especially if CIWPIS and NMS are combined into a single system, could easily surpass 320.

Permit applications are received in the Permit Consolidation Unit (PCU) within the WRD, at field offices, or through Michigan Business One Stop. Applications for transportation agency projects are entered into CIWPIS by the Transportation and Flood Hazard Management Unit. Once an application is entered, all activities and correspondence related to that application, including the issuance or denial of the associated permit, are tracked in CIWPIS.

WRD staff may also access CIWPIS for review purposes. Other DEQ staff with an interest in the data maintained in CIWPIS can access it via the DEQ intranet. Limited information from CIWPIS files is also available on the internet so the applicant can track the application progress (see CIWPIS ON LINE).

CIWPIS ON LINE:

Source: *http://www.deq.state.mi.us/ciwpis/*

CIWPIS On Line provides summaries, on the Internet, of Land/Water Joint Permit applications (JPA) received since 1999. The JPA covers activities regulated under Parts 301, 303, 325, 315, 323 and 353 and Part 31 (Floodplains) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

This on-line version of this tracking system allows the permit applicant, or any member of the general public, to search for permits or permit applications by geographic area, or to check on the status of a pending application. Public notices are also posted on-line, and comments may be transmitted electronically directly to the permit reviewer.

National Pollutant Discharge Elimination Management System (NMS):

NMS is a facility-centric system built in 1999 in C-sharp using .Net technology with a Structured Query Language (SQL) database. There are over 400 tables in the system. NMS is a centralized database and encompasses groundwater and aquatic emissions control from industrial, farms, and bodies of water (for instance pesticide application). The system tracks permit and violation history for facilities such and wastewater treatment plants.

There have been a number of upgrades to NMS over the years, making it a large system with advanced functionality in the areas of Inspection, Compliance, Violation, and Enforcement. The system also includes Tasking, Mapping, Reporting, and full Microsoft Word Document Generation functionality. NMS also includes a system wizard to guide users through screens and processes.

There are currently approximately 310 NMS system users comprised of central and district staff within the WRD. The central staff members establish records, and the district staff members carry out the compliance and enforcement functions.

NMS interacts (exports and imports) with several other systems, including:
- e2 reporting system (E2RS)
- On-Line Web Inquiry System (OWIS)
- Navision
- Michigan Business One-Stop (MiBOS)
- Facility Profiler
- Michigan NODE
- Aquatic Nuisance Control (ANC) Web Page
- Center for Geographic Information (CGI)

RELATED DATABASES

Related databases are "smaller" systems or databases that are to be incorporated into the MiWaters solution. Many (not all) are Microsoft Access databases, with either local tables, tables linked to a SQL/Server database, or some combination thereof. Generally it is expected that data and functionality from these systems will be incorporated into the new MiWaters solution.

Track 404 Applications

Tracking permits under Section 404 of the State of Michigan's Clean Water Act.

The Wetlands Program developed a screening tool to begin tracking 404 permit applications that are located on a 303(d) listed waterbody. Proposed projects are located and mapped with impaired waterbodies in the region. Cautionary letters are then sent to the COE and the appropriate state to advise them of the impaired status of the project location to ensure that they have relevant information regarding water quality. Forty-three such letters were sent this fiscal year.

Compliance Tracking

Tracking compliance and enforcement actions   The DEQ Land and Water Management Division maintains a system for tracking compliance and enforcement actions. All complaints received by the DEQ (including violations reported by staff) are entered into this system and tracked until resolved. This system assists field staff in monitoring the status of enforcement actions which may proceed over a period of months. It also supports coordination among the Land and Water Management Division and law enforcement staff in the DEQ Office of Criminal Investigations and the Law Enforcement Division of DNR.

Combined Sewer Overflow/Sanitary Sewer Overflow

The CSO/SSO system is used for event tracking because NMS does not have this capability. Events are occurrences, such as a sewer line becoming plugged, or a power outage causing overflows due to the pumps stopping. By law, owners of facilities that experience an event must report the event to DEQ, municipalities, and to the public. DEQ in turn, and as required by law, quickly posts this information on the DEQ web site. Outputs of CSO/SSO include Event Monitoring Reports, quarterly reports to districts and annual review summary reports, all required by law. CSO/SSO is built with a Microsoft Access front end.

A combined sewer is a sewer that is designed to carry both sanitary sewage and storm water runoff. A discharge from a combined sewer system occurs in response to rainfall and/or snowmelt because the carrying capacity of the sewer system is exceeded. These discharges do not receive all treatment that is available and utilized under ordinary dry weather conditions (normally during dry weather conditions the wastewater is transported to a wastewater treatment facility where it receives appropriate treatment prior to discharge). Both the combined sewer overflow structure and the discharge from the structure are referred to as "CSOs".

Sanitary Sewer Overflows (SSO)

Sanitary sewer overflows (SSOs) differ from combined sewer overflows (CSOs). CSOs are overflows from older sewer systems designed to carry both domestic and storm water loads. SSOs are discharges of raw or inadequately treated sewage from municipal separate sanitary sewer systems, which are designed to carry domestic sanitary sewage but not storm water. These overflows may also contain industrial wastewater that is present in the sewer system.

Dam Safety

Source: http://www.mi.gov/deq/0,4561,7-135-3313_3684_3723---,00.html

The Dam Safety Program of the Michigan DEQ focuses on ensuring that dams are properly constructed, inspected and maintained, and that the owners have adequately prepared for potential emergencies. The Dam Safety system, developed in Microsoft Access using a combination of local and linked tables, assists with this mission by maintaining design, operation, and owner information on all known Michigan dams.

Permits are required for all activities on dams, berms, and dikes with a height of 6 feet or more and that have impoundments with a surface area of 5 acres or more at the design flood elevation.

Part 325 (Great Lakes Bottomland Conveyances)

Source: http://www.michigan.gov/statelicensesearch/0,1607,7-180-24786_24813-244636--,00.html

The Land and Water Management Division (LWMD), within the Michigan DEQ, has responsibility for issuing Great Lakes bottomlands permits under the authority of Part 325, Great Lakes Submerged Lands (formerly Public Act 247 of 1955, as amended), of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The purpose of this permit is to protect the waters of the Great Lakes and the Great Lakes bottomlands (the land lying below the ordinary high water mark (OHWM)).

Salvage

Source: http://www.michigan.gov/deq/0,4561,7-135-3313_3677_3701-14518--,00.html

Part 761 and the Federal Abandoned Shipwreck Act of 1987 provide necessary and sufficient statutory authority. Part 761 prohibits the removal, alteration and destruction of abandoned property which is in, on, under, or over the bottomlands of the Great Lakes including those within a Great Lakes underwater preserve without a permit issued by representatives of the Department of Environmental Quality (DEQ) and the Department of History, Arts and Libraries (HAL). Each permit may contain appropriate conditions. Engaging in activities prohibited under Part 761 are crimes. A person seeking a permit must complete and file a prescribed application form with the following attachments:

- A map or lake chart showing the exact location of items proposed for salvage and providing Loran-C or latitude and longitude coordinates

- Underwater photograph of each artifact proposed for salvage as located on the lake bottom or wreck site.

- A plan describing how artifacts will be properly conserved after removal.

- Written acknowledgment from a museum or other public institution accepting items that it has the means to properly interpret and display the subject artifacts.

Log Recovery

Source: http://www.michigan.gov/deq/0,4561,7-135-3313_3677_3703---,00.html

The Submerged Lands Program staff administers the Part 326, Great Lakes Submerged Logs Recovery, of the NREPA (Part 326). This part became effective on July 10, 2000 and regulates the recovery of submerged logs from the Great Lakes bottomlands through a permit application review process. The purpose of this regulation is to provide for the legal and controlled recovery of abandoned old growth logs that were not captured and processed during Michigan's logging era.

Conservation Easements

Source: http://www.michigan.gov/deq/0,4561,7-135-3313_3687-86447--,00.html

Conservation easements provide for the protection of the natural resource functions and values of an easement site.   As part of the easement the Grantor agrees to maintain the property in its natural and undeveloped condition.

This system maintains all conservation easements that the LWMD has a record of receiving. Not all conservation easements are related to a permit. Some easements are related to an enforcement action.

Floodplain Service

Source: http://www.mi.gov/deq/0,4561,7-135-3313_3684_3725---,00.html

The Land and Water Management Division of the Michigan DEQ ensure that development which occurs within the 100-year floodplain is reasonably safe from flooding and does not increase flood damage potential. This Microsoft Access system uses tables linked to a Microsoft SQL/Server database.

High Risk Erosion Areas/Critical Dune Areas (HREA-CDA)

Source: http://www.michigan.gov/deq/0,1607,7-135-3313_3677_3700-10860--,00.html

A permit is required to erect, install, move, or enlarge a building or septic system on a parcel of land where any portion is in a High Risk Erosion Area (HREA). Setback requirements are established for potential 30 year and 60 year erosion zones.

Property tax identification (tax ID) numbers assists the DEQ in determining whether or not an area in question is within a high risk erosion area.

Critical Dune Areas (CDA) Tax List

Source: http://www.michigan.gov/deq/0,4561,7-135-3311_4114_4236---,00.html

A permit(s) is required for activity within a Critical Dune Area (CDA).

This database consists of a list of property tax identification (tax ID) numbers within a Critical Dune Area (CDA). This assists the DEQ in determining whether or not an area in question is within a critical dune area.

Shorelands (high Risk Erosion and Critical Dune Permits)

Shorelands Management:

Source: http://www.michigan.gov/deq/0,1607,7-135-3313_3677_3700---,00.html

The Great Lakes Shorelands program of the LWMD provides residents protection from the natural hazards of coastal erosion and flooding as well as environmental protection of Michigan's fragile coastal areas.

Critical Dunes:
Source: http://www.michigan.gov/deq/0,1607,7-135-3311_4114_4236---,00.html

Legal Lake Levels

Source: http://www.michigan.gov/deq/0,1607,7-135-3313_3684_3723---,00.html

Data maintained within the current Dam Safety database for view/query on normal (legal) lake levels.

Procedures exist for establishing and maintaining normal (legal) lake levels under Part 307 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Lakes Floodplain Elevations

Source: http://www.michigan.gov/deq/0,4561,7-135-3313_3684_3725---,00.html

A river, stream, lake, or drain may on occasion overflow their banks and inundate adjacent land areas. The land that is inundated by water is defined as a floodplain. In Michigan, and nationally, the term floodplain has come to mean the land area that will be inundated by the overflow of water resulting from a 100-year flood (a flood which has a 1% chance of occurring any given year). It is estimated that about 6% of Michigan's land is flood-prone, including about 200,000 buildings.

Floods are a natural process which occur wherever there is a water body. However, the damage that results from a flood is dependent on what type of development has occurred in and near an area that is flood-prone. One of the goals of the Water Management Section of the Water Resources Division is to ensure that development which occurs within the 100-year floodplain is reasonably safe from flooding and does not increase flood damage potential.

The State of Michigan's Floodplain Regulatory Authority , found in Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, requires that a permit be obtained prior to any alteration or occupation of the 100-year floodplain of a river, stream or drain.

Miscellaneous Measurements

Source: www.mi.gov/hydrology

or

http://www.michigan.gov/deq/0,4561,7-135-3313_3684_3724-9273--,00.html

Miscellaneous Discharge Measurements data have been collected by the U.S. Geological Survey, DEQ's Water Resources Division, and other participating agencies. These measurements aid in determining changes in discharge along a stream course, low-flow characteristics, and effects of flow diversions and augmentations.

Part 41 Permit Tracking, Part of Act 451, Wastewater Issues

Tracks permits issued for the construction of sanitary sewer and waste water treatment facilities.

Part 41 is a permit tracking system used by DEQ to capture data related to wastewater issue permit applications. There is typically a 30-day window for an application to be processed from the time it is received. The system provides users with a "time clock" functionality to track project-specific information including expedited permits and construction notifications during this 30-day window. It is an SQL database managed by DTMB. Application data in the Part 41 database already exists in NMS, as the facility or entity applying for the waste water issue permit must exist in NMS in order for the permit to be applied for.

The Part 41 database, with less than 25 users, currently does not contain role-based security. Output includes Part 13 annual statistics for State legislative reporting and quarterly statistics for internal management. Also, users can create their own queries and save them.

Pollution Emergency Alerting System (PEAS)

Source: http://www.michigan.gov/deq/0,4561,7-135-3311_4109_4217-9820--,00.html

http://www.deq.state.mi.us/peas2/

The Pollution Emergency Alerting System (PEAS) is a system used by DEQ to store information regarding complaints about pollutions violations, such as an industrial facility dumping pollutants into water. Most of the complaints that are received by DEQ come in from the general public via phone or e-mail. DEQ staff then enters the data directly into the system.

PEAS notify local, state, federal, and Canadian agencies about environmental emergencies that occur in, or may affect, their respective jurisdictions. Callers can notify PEAS staff, of environmental releases and emergencies through a toll-free, statewide, PEAS hotline, staffed 24 hours a day. PEAS respond to between 600 and 2000 calls per year, ranging from minor releases, to major environmental catastrophes. PEAS staffing includes a PEAS Administrator and DEQ staff amongst whom after-hours, on-call duties are rotated on a

weekly basis. The PEAS Administrator is responsible for developing procedures as needed, providing guidance and training to the after-hours answering service and after-hours on-call DEQ staff, scheduling on-call staff, developing and managing the contract with the PEAS answering service, maintaining the PEAS database of incidents, forwarding database summary reports to all DEQ divisions, and ensuring overall smooth and effective operation of the system.

Output of the system includes both pre-defined and customizable reports. Members of the public can request information that is stored in PEAS either by contacting DEQ directly, or by filing a Freedom of Information Act (FOIA) request. The PEAS system is built with a Microsoft Access front end. There are currently approximately 150 users of the system.

A public facing web site is also available at http://www.deq.state.mi.us/peas2/ to allow the general public to search for and view certain complaint information online.

Subdivisions

Source: http://www.mi.gov/deq/0,4561,7-135-3313_3684_3727---,00.html
or
http://www.mi.gov/deq/0,4561,7-135-3313_3684_3727-10104--,00.html

The State of Michigan has thousands of miles of rivers, streams, creeks, and lakes that add beauty and value to home sites. Aside from aesthetic value, their natural purpose is to convey or store storm water runoff. This can pose dangerous conditions as large rain events can turn babbling brooks into raging rivers. Each year losses reach into the millions of dollars from homes and businesses destroyed or damaged by flooding.

In an effort to provide consumer protection and minimize losses due to flooding, the Land Division Act (formerly the Subdivision Control Act), Act No. 288, Public Acts of 1967 as amended, Sections 116 and 117, require that preliminary plats for subdivisions be submitted to the Department of Environmental Quality, Water Resources Division (WRD) for review.

Transportation Service

Source: http://www.mi.gov/deq/0,4561,7-135-3313_3684_15299---,00.html

The Transportation and Flood Hazard Management Unit of the Water Resources Division reviews permit applications submitted by Public Transportation Agencies under a Memorandum of Understanding between the Michigan Department of Transportation and the Michigan Department of Environmental Quality.

Wetland Identification Program (WIP)

Source: http://michigan.gov/deq/0,1607,7-135-3313_3687-10193--,00.html

The Wetland Identification Program (WIP), formerly referred to as the Wetland Assessment Program, was established by the DEQ in July 1998 to assist the public in identifying wetland and non-wetland (i.e., upland) areas on their property. The WIP and the ability to assess fees for the WIP are authorized by Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Michigan Flood Flow and Low Flow Discharge Databases

Sources: http://www.michigan.gov/hydrology
                http://www.deq.state.mi.us/flow/
                http://www.deq.state.mi.us/flow/hflowqry.asp

Flood Flows (aka High Flow or H Flow)

This database contains flood discharge estimates for various locations in Michigan. These estimates are used to design structures such as dams, bridges, and culverts. These estimates are also used to determine the extent of floodplain boundaries.

Access to the Flood Flow Database is provided as a service to allow you to check the status of your flood flow requests or to view discharges from previous requests for preliminary design purposes. The discharges values are only valid for the original requestor and for one year after the original request date. To obtain discharge information from the Hydrologic Studies Program, a flood flow discharge request form may be submitted electronically to the DEQ. A written or email response to your request will be returned to you and must accompany your permit application

Low Flow (L Flow)

Low flows are estimated for various points around the State and recorded here. These values represent drought type conditions and are used in calculating worst case scenarios for the mixing of discharge waters into natural streams or rivers.

Access to the Low Flow Database is provided as a service to allow you to view the discharges from previous requests for preliminary design purposes. The discharge values are only valid for one year after the original request date. To obtain discharge information from the Hydrologic Studies Program, a low flow discharge request form may be submitted electronically to the DEQ. A written or email response to your request will be returned to you and must accompany your permit application.

Wetland Mitigation

Source: http://www.michigan.gov/deq/0,4561,7-135-3313_3687-86447--,00.html

Under Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, the Michigan Department of Environmental Quality (MDEQ) may impose conditions on a permit for a use or development if the conditions are designed to remove an impairment to the wetland benefits, to mitigate the impact of a discharge of fill material, or to otherwise improve the water quality. The purpose of compensatory wetland mitigation, commonly referred to as wetland mitigation, is the replacement of unavoidably lost wetland resources with created or restored wetlands, with the goal of replacing as fully as possible the functions and public benefits of the lost wetland.

Marina

http://www.michigan.gov/deq/0,4561,7-135-3313_3681_3711---,00.html

The Marina database tracks Part 301, Inland Lakes and Streams, Marina permits and applications.

St. Clair Flats System

Background information: http://www.michigan.gov/dnr/0,4570,7-153-10366_46403_46404-169446--,00.html

The St. Clair Flats System tracks deeds, assignment requests, and state owned leases in the St. Clair Flat areas. It also contains links to electronic images for leases related to the regulatory administration on the lake under Part 339.

Financial Instruments System

The Financial Instruments System tracks and maintains financial instruments required as a condition of a permit.

INTERFACES

With the exception of systems listed as optional, systems listed in this section are systems with which the new MiWaters solution must interface.

Navision

Navision is the DEQ's central information management system for cash receipting and invoicing.

MDOT Accounting Service Center (ASC) loads or manually enters cash receipts and invoices into Navision. It is anticipated that MiWaters will read payment information from Navision via a newly-developed web service and display that information in the relevant areas of MiWaters.

Michigan Business One Stop

Source: http://www.michigan.gov/business

Michigan Business One Stop is an online service that guides users who want to start, operate or expand a business in Michigan. Business owners can apply for or renew permits and licenses, file annual reports and pay unemployment taxes, or any other fees they are subject to under state law. Information is shared across state departments with one, easy e-payment system, and the site provides businesses information about transaction status in a new, paperless environment.

DEQ Permitting

Allows business owners to apply for DEQ Permits through Michigan Business One Stop website

Electronic Discharge Monitoring Reports (EDMR), (E2Rs)

Source: http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3713-181925--,00.html

Web Site: https://secure1.state.mi.us/e2rs/skin/main/FrmLogin.aspx

The Michigan Department of Environmental Quality (MDEQ) is providing a web-enabled electronic environmental (E2) reporting system for wastewater facilities to streamline the management of discharge monitoring reports (DMR's) required under the Michigan wastewater regulation program.

The E2 DMR systems provides wastewater facilities with an alternative way to submit DMR data and allow the MDEQ to electronically validate the data, acknowledge receipt, and upload data to Michigan's central wastewater database.

Data collected via the e-DMR system is currently housed in NMS, but it must be housed and accessible within MiWaters when the new MiWaters solution is operational.

OWIS (NMS Online)

OWIS is the Online Web Inquiry System that provides online public notice to the general public regarding permit information

(URL: http://www.deq.state.mi.us/owis/Page/main/Home.aspx).

OWIS is a website where individuals provide public notice for permits. This public notice process for wastewater discharge permits issued pursuant to Part 31 of Act 451 are commonly referred to as NPDES, Stormwater, and Groundwater permits. All permits proposed for issuance are subject to a 30-day public notice period. This gives the public the opportunity to comment on the proposed discharge and inform the DEQ of any relevant surface water concerns. If the DEQ determines that there are relevant, unresolved surface water concerns, the Department will choose to hold a public meeting or public hearing.

Public notice requirements for draft permits are identified in Rule 323.2117, and provide for three options, which include posting the draft permit in a post office or other public building near the wastewater discharge, posting the draft permit at the entrance of the applicant's premises, or publishing notice in a local newspaper.

Permits placed on public notice, since October 1, 2007, are now available via the NMS Web Inquiry System. Up-to-date information is transferred from the NMS database directly to the website. This will include new and proposed reissuances of certificates of coverage and individual NPDES permits. The website will also allow the public to search by a variety of criteria such as county, watershed, alpha, and general permit type.

<center>**Online Complaints (optional)**</center>

If this option is exercised, the contractor shall provide a new public-facing web site to accept the submission of Online Complaints. The general public may choose to submit a complaint when they believe that laws are being violated or other action is being taken that may negatively affect the environment.

Online Complaints must provide for entry of reporter, location, and complaint information; accept photo/video uploads; and interface with MiWaters.

<center>**Mobile Applications (optional)**</center>

Smartphone:

If this option is exercised, the contractor shall provide a mobile web application for general public use with browser-based access to the Internet from a mobile device connected to a wireless network, such as a Windows Mobile smartphone. This application would be available to mobile citizens for the submission of complaints. Such complaints would include location information and provide for the inclusion of photographs to support the complaint. Complaints submitted via a smartphone would be available to DEQ staff in MiWaters.

This mobile web application will differ from the other "optional Online Complaints public-facing web site in that it will be customized specifically to work with the mobile phone form factors and limitations on display resolution and user input methods.

Laptop, Tablet PC, or other ruggedized device:

If this option is exercised, the contractor shall provide a mobile application for Laptop, Tablet PC, or other ruggedized mobile device, for use by DEQ staff to map and process inspections in the field. Such application will share data with MiWaters to map/view previous and pending inspections, as well as edit existing inspection information and/or add a new inspection. Ability to attach/associate photographs to inspections is also desired, as well as the ability to identify routes to, and obtain driving direction for, inspection sites.

Appendix B – DTMB Application Hosting Services
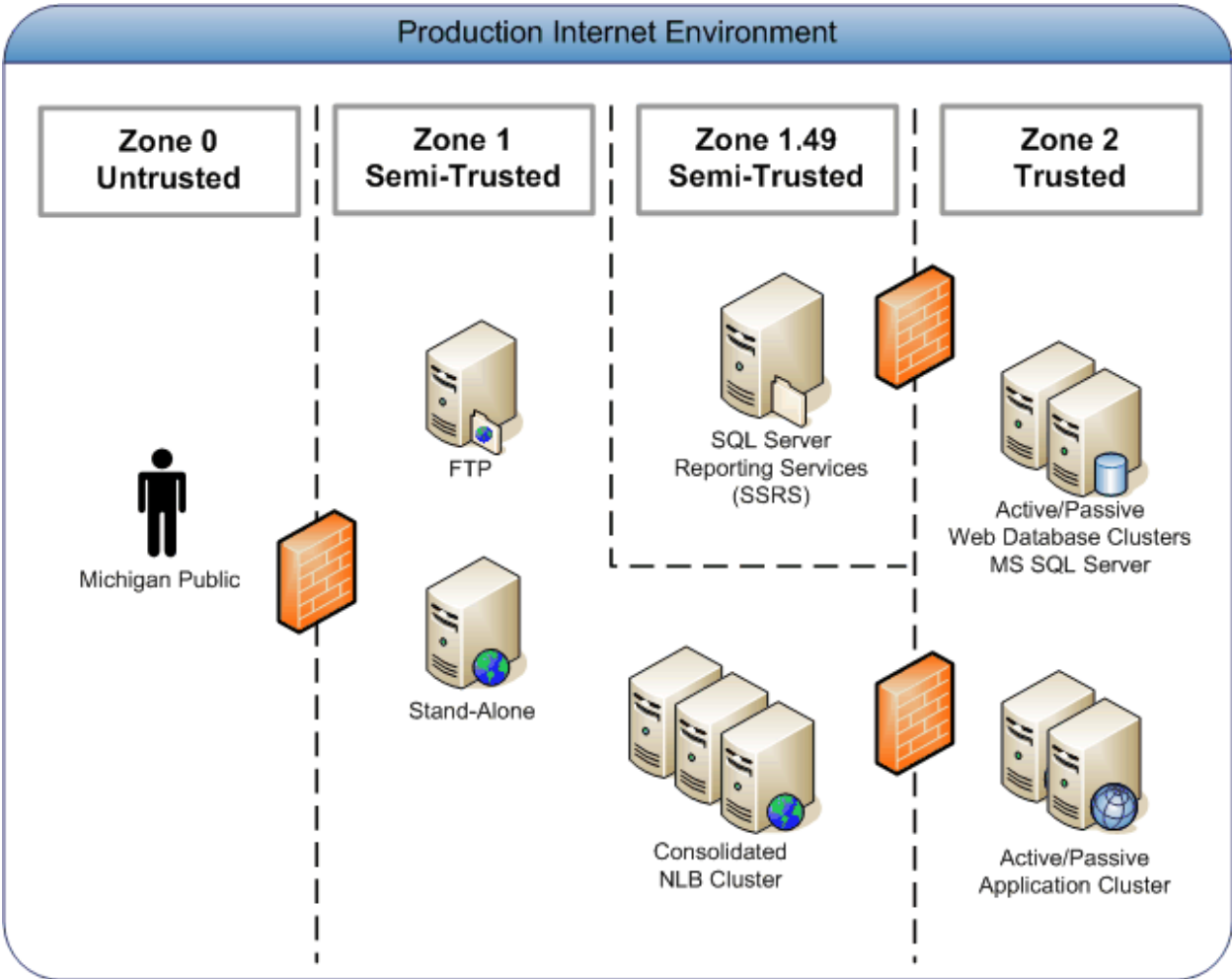
Appendix C - Requirements

The requirements identify what the solution or product must run on or integrate with, including any standards that must be met, security requirements, and interfaces. Technical requirements will also identify the general framework in which the system or product must work, such as: capacity requirements (number of users, concurrent users, number of transactions to be handled, peak usage), documentation, audit and backup and recovery.

Compliance means the Contractor will fully provide all aspects of the requirement and that they will be incorporated into the new system.

- The last column in the tables indicate if the item is required (R) or optional (O).

Table of Contents

1.   Overview

Requirements are statements of business problems and/or needs in as much detail as will fully explain the problems and/or needs. Requirements are NOT statements of a solution to a problem or need. Requirement elements may include business, functional and technical detail. Each requirement must be stated as a unique objective that is:

- **Necessary** (i.e., absolute requirements that are to be verified are identified by "must" or "shall").

- **Correct** (i.e., an accurate description of a feature or process).
- **Unambiguous** (i.e., can have only one interpretation).
- **Complete** (i.e., answers the questions who, what, when, where, why, and what if).
- **Consistent** (i.e., is not in conflict with other requirements).
- **Verifiable and Testable** (i.e., is stated in concrete terms and measurable quantities. Can be used to create one or more clear tests to verify the requirements has been met).
- **Modifiable** (i.e., the structure and style of the requirement are such that any necessary changes to the requirement can be made easily, completely, and consistently).
- **Traceable (i.e., the origin is clear and can be tracked in future development activities and tests).** Must use the Requirements Traceability Matrix (SEM-0401) to trace the requirements

2. System Users

This section identifies potential users of the system as identified during the requirements gathering sessions and a high level description of their activities. This list may change during detailed functional design. Roles may be grouped into one or more workgroups for organizational compatibility and workflow objectives.

User Role	Description
Field User	DEQ employee in the field who does site inspections, responds to complaints, maps the area in question with a GPS device, takes pictures
Office User	DEQ employee who enters information such as applications, public notices, public hearings, etc.
Statewide User	DEQ employee who has statewide access to all functional areas
System Administrator	DEQ employee who queries system for legislative, executive, and production operations management purposes
District Supervisor	Lead role in a geographic workgroup – has access to subordinate work in the group
Field Supervisor	Lead role with respect to activity
Financial User	DEQ employee who processes financial assurances and has visibility into the financial aspects of a DEQ jurisdictional activity
Public user	Non-DEQ employee who applies for permits, submits compliance information, request wetland identification, hydrology studies, conservation easement changes, etc.
Non-authenticated role	MiWaters supports data sharing with external systems accessible to the general public that do not require authentication, such as: • Submitting complaints • Viewing public notice information • Viewing permit status information

3.   Business Requirements Detail

Global Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
1.0	The system must support functionality that crosses all functional areas of the system, or is administrative in nature.	R
1.1	The system must be configurable, to allow authorized users to add fields/tables, establish data input business rules and requirements, and reorganize the placement of fields on screens.	R
1.2	The system must enforce entry of valid data in mandatory fields before additional functionality or processes can be performed.	R
1.2.1	The system must have the ability to change required fields depending on user selections.	R
1.2.2	The system must accommodate the use of multiple mobile input devices, such as a pc or tablet or GPS device.	R
1.3.1	Authorized roles must have the ability to initiate data/file importing in the system.	R
1.3.2	Authorized roles must have the ability to select one or multiple files for import.	R

Business Req. No.	Detailed Business Requirement Description	R/O
1.3.3	The system must utilize Operating System capabilities for the import to occur	R
1.3.4	Authorized roles must have the ability to drag and drop files from the device into the system.	R
1.3.5	Authorized roles must have the ability to specify index criteria for the file(s) for future retrieval purposes.	R
1.6.	The system must accommodate the capture of data using remote devices.	R
1.6.1	Authorized roles must have the ability to synchronize data captured on a remote device with the system.	R
1.7	The system must provide for field-level validation.	R
1.8	The system must contain logic to determine which fields are required/enabled/disabled/viewable based the following children requirements:	R
1.8.1	The system must contain logic to determine which fields are required/enabled/disabled/viewable based on the user's selections.	R
1.8.2	The system must contain logic to determine which fields are required/enabled/disabled/viewable based on a data element's type.	R
1.8.3	The system must contain logic to determine which fields are required/enabled/disabled/viewable based on a record's type.	R
1.8.4	The system must contain logic to determine which fields are required/enabled/disabled/viewable based on a user's role.	R
2.0	The system must have online help capability for each functional area in the system.	R
2.1	System Online help must be available 24 hours per day, 7 days per week, except during normal maintenance cycles.	R
2.2	Authorized roles must have the ability to print online help.	R
2.3	Authorized roles must have the ability to create/view/update system help files.	R
2.4	Authorized roles must have the ability to index sections of help to functional areas in the system.	R
3.0	All public-facing online forms must comply with Department of Technology, Management and Budget (DTMB) Agency Web Standards.	R
3.1	The system must be able to export data to multiple data file formats that, at a minimum, are supported by Microsoft Office and portable document format.	R
3.1.1	The system must display file sizes of files available for download.	R
3.2	The system must be able to import multiple file formats that, at a minimum, are supported by Microsoft Office 2010 and portable document format.	R
3.2.1	The system must display a message indicating upload file size maximums prior to importing a file.	R
3.2.2	The system must generate a message when an attempted file upload fails due to file size restrictions.	R
3.3	GIS technology must comply with State of Michigan GIS standards.	R
7.8	The system must store the fee amount associated with each activity.	R
7.8.1	Authorized roles must have the ability to enter the standard fee charged for each activity.	R
7.8.2	Authorized roles must have the ability to view fees charged for each activity.	R
7.8.3	Authorized roles must have the ability to view fees received for each activity.	R
7.8.4	Authorized roles must have the ability to view the date fees were paid for each activity.	R
21.8	Authorized roles must have the ability to enter non-working days into a calendar that links to any timeframe calculations.	R
21.8.1	Any non-working days in the system calendar must not be utilized in "work day" calculations	R
21.8.2	Any non-working days in the system must be utilized for "calendar day" calculations.	R
21.10	Authorized roles must have the ability to modify information when created due to user error, including, but not limited to, the following requirements:	R
21.10.1	The system must allow authorized roles to modify a received-date.	R
21.10.2	The system must display the date/time an authorized user modified a received date.	R
21.10.3	The system must display the authorized userid/username who modified the received date.	R
21.10.4	Authorized roles must have the ability to enter narrative on why a received-date was modified.	R
21.10.5	Authorized roles must have the ability to "re-open" any document or record that is marked with a status of "closed" to view, enter data, or modify information.	R
21.10.5.1	Authorized roles must have the ability to modify any cascaded event that occurred due to the record being closed if the authorized role "re-opens" the record/document.	R

Business Req. No.	Detailed Business Requirement Description	R/O
21.11	The system must be compatible with Windows XP and Windows 7.	R
21.12	Online services must comply with State of Michigan DTMB standards.	R
21.13	Dates must be displayed in a format of mm/dd/yyyy.	R
21.14	Times must be displayed in 12-hr (A.M, P.M.) format	R
21.15	Numbers greater than zero but less than one (decimals) must be displayed with a leading zero to the left of the decimal.	R
21.16	Authorized roles must have the ability to post documents to the world wide web.	R
21.16.1	Authorized roles must have the ability to enter a begin date for the posting.	R
21.16.2	Authorized roles must have the ability to enter an end date for the posting.	R
21.18	Authorized roles must have the ability to view/ enter/ update codes in a code table.	R
21.18.1	Authorized roles must have the ability to activate and inactivate codes in the table.	R
21.19	Authorized non-staff roles must have the ability to view the status of their submitted request(s), based on DEQ business process statuses.	R
21.20	The system must track modifications to administrative tables	R
21.20.1	The system must store/display the date/time when a modification is made.	R
21.20.2	The system must store/display the username/id who made the modification.	R
21.21	Authorized roles must have the ability to maintain all online public facing forms.	R
21.21.1	Authorized roles must have the ability to add/edit/remove data elements on forms	R
21.21.2	Authorized roles must have the ability to map data elements on forms to fields in the system	R
21.22	The system must accommodate DEQ reporting, including metrics and statutory, federal or state reports.	R
21.22.1	Authorized roles must have the ability to view/create/update document templates supported by Microsoft Office	R
21.22.2	Authorized roles must have the ability to view/print reports	R
21.22.2.1	Authorized roles must have the ability to save a report as a .pdf.	R
21.22.3	Authorized roles must have the ability to modify the queries behind reports.	R
21.22.3.1	Authorized roles must have the ability to save modifications to queries behind reports	R
21.22.4	The reporting tool utilized must be a state standard tool if the tool is a COTS solution that will integrate with the system.	R
21.22.4.1	The reporting tool must be within the scope of client knowledge.	R
21.22.5	Authorized roles must have the ability to export report data and graphical representations of that data into other documents, including, but not limited to, Microsoft Office 2010 products.	R
21.22.6	Authorized roles must have the ability to publish and unpublish reports.	R
21.22.7	Authorized roles must have the ability to delete reports.	R
21.23	Authorized roles must have the ability to create/edit queries in the system.	R
21.23.1	Authorized roles must have the ability to define parameters for queries.	R
21.23.2	Authorized roles must have the ability to access, run and view system queries.	R
21.23.2.1	Authorized roles must have the ability to save a query with user-specified parameters as a user "favorite."	R
21.23.2.1.1	Authorized roles must have the ability to access, run and view user-favorite queries.	R
21.23.3	Authorized roles must have the ability to view/export/print query results.	R
21.23.4	The system must save recent queries with user-entered parameters as a user "recently-used" query.	R
21.23.4.1	Authorized roles must have the ability to indicate the number of "recently used" queries, with that number being administratively maintained.	R
21.23.5	Authorized roles must have the ability to use one or more full or partial "wildcard" parameters in queries.	R
21.23.6	Queries must have standard information in the header of the resultant set of the query.	R
21.23.6.1	Query result headers must contain the number of records.	R
21.23.6.2	Query result headers must contain the number of rows.	R
21.23.6.3	Query result headers must contain the query name.	R

Business Req. No.	Detailed Business Requirement Description	R/O
21.23.6.4	Query result headers must contain a narrative description of the query.	R
21.23.6.5	Query result headers must contain the date/time the query was run.	R
21.23.7	Authorized roles must have the ability to view how often a query is run.	R
21.23.8	Authorized roles must have the ability to view the date/time the last update to the query occurred.	R
21.23.8.1	Authorized roles must have the ability to view who last updated the query.	R
21.23.9	Authorized roles must have the ability to index queries based on one or more criteria.	R
21.23.10	Authorized roles must have the ability to view/access queries in a folder structure similar to windows explorer, but where queries will display one or more times in different areas dependent upon the index(ces).	R
21.23.11	Authorized roles must have the ability to export query results to output files.	R
21.23.12	Cases referred to OCI (Office of Criminal Investigation) must only be viewable by authorized roles.	R
21.23.13	Authorized roles must have the ability to create inputs for authorized roles to use as parameters when running queries.	R
21.23.14	Authorized roles must have the ability to save a query with parameters the authorized roles indicated as a "favorite."	R
21.23.15	Authorized roles must have the ability to establish a profile for customized queries.	R
21.23.15.1	The system must save default query filters for each user profile.	R
21.23.17	Authorized roles must have the ability to sort results by one or more columns, ascending and/or descending.	R
21.23.18	Authorized roles must have the ability to filter query results by one or more columns.	R
21.23.19	Authorized roles must have the ability to perform queries in GIS mode.	R
21.23.20	Authorized roles must have the ability to run queries that result in datasets that can be utilized in a tabular format, as well as spatially.	R
21.23.21	Authorized roles must have the ability to utilize a buffer in a spatial query.	R
21.23.21.1	Authorized roles must have the ability to specify a distance for the buffer	R
21.23.21.1.1	Authorized roles must have the ability to specify a unit of measurement for the distance	R
21.23.22	Authorized roles must have the ability to search on existing pass-through parameters	R
21.23.22.1	Authorized roles must have the ability to search on attributes of pass-through parameters.	R
21.23.23	The system must display an administrative query change log.	R
21.23.23.1	Authorized roles must have the ability to "hot link" to a selected record from a query result.	R
21.23.24	Authorized roles must have the ability to delete queries.	R
21.24	The system must accommodate user roles, allowing and restricting access to areas of the system, based on role, function and/or geographic area	R
21.25	The system must comply with DTMB enterprise security standards.	R
21.26.1	Authorized roles must have the ability to view/enter/update roles in the system.	R
21.26.1.1	Authorized roles must have the ability to view/enter/update roles that are chain of command-based.	R
21.26.1.2	Authorized roles must have the ability to view/enter roles that are module-based.	R
21.26.1.3	Authorized roles must have the ability to view/enter roles that are assignment-based.	R
21.26.1.4	Authorized roles must have the ability to set geographically-based roles so that users can only add/edit sites in their geographic area of work.	R
21.26.1.4.1	Authorized roles must have the ability to grant users access to sites outside of their geographic area.	R
21.26.1.4.2	Authorized roles must have the ability to grant users access to all sites in DEQ jurisdiction.	R
21.26.2	Authorized roles must have the ability to modify roles in the system.	R
21.26.3	Authorized roles must have the ability to inactivate roles in the system.	R
21.26.4	Authorized roles must have the ability to assign users to one or more role(s).	R
21.26.4.1	The system must provide additive access of roles per privilege if a user is a member of more than one role.	R
21.26.5	The system must allow security to be at the data field level for add/edit privileges.	R
21.26.6	The system must only allow the system administrator role the ability to create new users.	R

Business Req. No.	Detailed Business Requirement Description	R/O
21.26.7	Authorized roles must have the ability to provide authorized roles security access to a specified task or workflow item to allow more than one user access to that task or workflow.	R
21.26.8	Authorized roles must have the ability to modify add/edit access rights per role.	R
21.26.10	The system must store information on the creation/modification of roles.	R
21.26.10.1	The system must store the userid/username who created the role.	R
21.26.10.2	The system must store the date/time the role was created/edited.	R
21.26.11	The system must store information on the creation/modification of users.	R
21.26.11.1	The system must store the userid/username who created the user.	R
21.26.11.2	The system must store the date/time the user was created/edited.	R
21.26.12	All roles must have read-access to all system areas, barring anything marked "confidential."	R
21.26.13	The system must utilize workstation log-in information to authenticate authorized roles.	R
21.26.13.1	The system must accommodate secure log-in for authorized roles via the web.	R
21.26.14	The system must control system functionality access and data field access via user roles.	R
21.26.15	Authorized roles must have the ability to activate and inactivate users in the system.	R
21.26.16	Authorized roles must have the ability to modify a username associated with a userid.	R
21.26.17	Authorized roles must have the ability to query and view the tasks/workflow items assigned to each user (tasks by userid)	R
21.26.18	Authorized roles must have the ability to view/create/update user workgroups.	R
21.26.18.1	Authorized roles must have the ability to assign users to workgroups.	R
21.26.18.2	Authorized roles must have the ability to indicate one workgroup as a primary workgroup for the user.	R
21.26.19	Authorized non-staff roles must have the ability to create groups in the online system that allow one or more userids to access specific activities/records	R
21.4	The system must accommodate user configuration of the system.	R
21.4.1	Authorized roles must have the ability to create profiles, allowing for customization of user preferences.	R
21.4.1.1	The system must inherit Microsoft Operating System settings that allow users to modify colors and styles.	R
21.4.1.2	Authorized roles must have the ability to create "my favorites," including, but not limited to the following requirements.	R
21.4.1.2.1	Authorized roles must have the ability to create/update a "my favorites" list of queries	R
21.4.1.2.2	Authorized roles must have the ability to create/update a "my favorites" list of reports.	R
21.4.1.2.3	Authorized roles must have the ability to create/update a "my favorites" list of sites.	R
21.4.1.3	Authorized roles must have the ability to configure system notifications	R
21.4.1.3.1	Authorized roles must have the ability to indicate preference to receive system notifications via email.	R
21.4.1.3.2	Authorized roles must have the ability to indicate preference to receive system notifications internally in the system.	R
21.4.1.3.3	Authorized roles must have the ability to opt in or out of system notifications.	R
21.4.1.3.3.1	Authorized roles must have the ability to mark specific notification types as mandatory, not allowing users to opt out.	R
21.4.1.3.4	Authorized roles must have the ability to indicate how often they would like to receive notifications, depending upon the type of notification.	R
21.4.1.3.4.1	Authorized roles must have the ability to indicate specified types of notifications as "immediate" for delivery.	R
21.4.1.4	Authorized roles must have the ability to set default values for search criteria.	R
21.4.1.5	Authorized roles must have the ability to customize the graphic for the system.	R
21.4.2	Authorized non-staff users must have the ability to create profiles, allowing for customization of user preferences.	R
21.4.2.1	Authorized non-staff users must have the ability to add/edit email addresses in their profile for notifications.	R
21.4.2.1.1	Names/addresses must be updated for that contact for that role.	R
21.4.2.1.2	The system must notify authorized roles when change occurs to names/addresses of compliance	R

Business Req. No.	Detailed Business Requirement Description	R/O
	contacts.	
21.4.2.2	Authorized non-staff users must have the ability to subscribe to status change notifications on workflows, when available/applicable.	R
21.4.2.3	Authorized non-staff roles must have the ability to indicate preference to receive reminder communications on information due to the DEQ within a specified number of days, as set by system administrators.	R
21.4.2.3.1	Authorized roles must have the ability to indicate the format of reminder communications sent.	R
21.4.2.4	The system must send reminder communications to non-staff users prior to any information or action due to the DEQ based on user preferences.	R
21.4.2.4.1	The system must include legal document id numbers on reminder communications if the reminder communication is regarding a site/action tied to a legal document.	R
21.4.2.4.2	The reminder communication must include a narrative description of the scheduled item.	R
21.4.2.4.3	The reminder communication must include the scheduled due date.	R
21.4.2.4.4	Language in the email must be administratively configurable.	R
21.4.2.4.5	The system must store the communication in the appropriate record.	R
21.4.2.5	Authorized non-staff roles must have the ability to indicate they do not want to receive automated emails from the system.	R
21.4.2.5.1	Authorized roles must have the ability to not give non-staff roles option to not receive specified communications, based on the communication type.	R
21.4.3	The system must display/record email addresses used for each notification sent.	R
21.5.	The system must accommodate document management for MiWaters-applicable documents.	R
21.5.1	Authorized roles must have the ability to create/maintain/publish/un-publish document templates, coded with fields from the system.	R
21.5.1.1	Document templates must be saved as Microsoft Word templates, 2010 or greater.	R
21.5.1.2	Authorized roles must have the ability to edit document templates.	R
21.5.1.3	Authorized roles must have the ability to indicate that specific sections of a document created from a template are "locked" or not editable.	R
21.5.1.4	The system must support base templates, allowing optional sections being pulled from other templates.	R
21.5.1.5	The system must display a log for template modifications.	R
21.5.1.5.1	Authorized roles must have the ability to enter narrative on why a document template was modified.	R
21.5.1.6	Authorized roles must have the ability to insert fields into any section of a document template.	R
21.5.1.7	Authorized roles must have the ability to build new templates based on existing document templates.	R
21.5.1.8	Documents created from templates that are unpublished must be viewable by authorized roles.	R
21.5.2	Authorized roles must have the ability to view/enter statuses for documents.	R
21.5.2.1	Authorized roles must have the ability to indicate whether or not the status will indicate that the document will be stored after a version is finalized.	R
21.5.3	Authorized roles must have the ability to edit statuses for documents.	R
21.5.4	Authorized roles must have the ability to inactivate statuses for documents.	R
21.5.4.1	The system must not modify historical status information on documents when status information is edited or inactivated.	R
21.5.5	The system must pull the most current data each time a document is created until the associated record is finalized.	R
21.5.5.1	Authorized roles must have the ability to save one or more versions of a document.	R
21.5.5.2	The system must display a link to each version of a document when the associated record is displayed.	R
21.5.6	Authorized roles must have the ability to indicate documents that can have more than one final version per record.	R
21.5.7	Authorized roles must have the ability to query multiple data selections in a field when searching for documents that meet specified criteria.	R
21.5.8	The system must store finalized documents in SOM Standard Microsoft Word versions that are supported..	R

Business Req. No.	Detailed Business Requirement Description	R/O
21.5.9	The system must convert any document delivered external to the state or posted on a state website to .pdf.	R
21.5.10	Authorized roles must have the ability to override the system and create more than one version of a final document for specified documents.	R
21.5.10.1	The system must display the date/time each document was created.	R
21.5.10.2	Authorized roles must have the ability to indicate why there is more than one final document	R
21.5.10.3	The system must display the userid/username who created the document.	R
21.5.11	Authorized roles must have the ability to indicate that a document is "confidential," restricting access to the draft document to only the user currently working on it.	R
21.5.11.1	Authorized roles must have the ability to indicate that a document is not "confidential."	R
21.5.11.2	Authorized roles with access to a confidential document must have the ability to indicate users who can have access to that document.	R
21.5.11.3	The system must allow for chain-of-command access to confidential documents.	R
21.5.12	Authorized roles must have the ability to create multiple record document merges.	R
21.5.12.1	The system must parse pages of a multiple record document merge and store individual documents in a related record .	R
21.5.12.1.1	Authorized roles must have the ability to specify index information prior to parsing a merge document into individual files.	R
21.5.13	Authorized roles must have the ability to create/view/print free-form documents.	R
21.5.13.1	Authorized roles must have the ability to print documents to .pdf native to the solution.	R
21.5.14	Finalized documents must be stored in the system in their native format.	R
21.5.15	The system must allow authorized roles to establish record retention guidelines set by DEQ in accordance with the State Historical Preservation Office. This applies to any document or file we maintain in MiWaters, and potentially to the data record itself.	R
21.5.15.1	Some documents will be around longer – exceptions on a document by document basis.	R
21.5.16	Authorized roles must have the ability to create document merge fields that are created from SQL.	R
21.5.17	Storage of images and files – stored with db as data – may want to store outside the database and link to them. How about: Authorized users must have the ability to store images and files within the database.	R
21.5.18	Authorized roles must have the ability to create and utilize variables for template fields	R
21.5.19	Authorized roles must have the ability to search on and open documents based on document id ("quick open")	R
21.6	The system must allow authorized roles to respond appropriately to Freedom Of Information Act requests by allowing authorized roles to search for, select and print/export data.	R
21.6.1	Authorized roles must have the ability to search for files based on data entities mentioned in the FOIA request that are available in the system.	R
21.6.1.1	The system must locate and display summary information on all files meeting search criteria.	R
21.6.1.1.1	The system must display a hyperlink to the document for the authorized role to investigate further and determine if the document fits the requirements of the FOIA.	R
21.6.1.1.2	The system must display the functional area of the document.	R
21.6.1.1.3	The system must display the status of the document.	R
21.6.1.1.4	The system must display whether or not the document is "confidential."	R
21.6.1.1.5	The system must display the size of the document.	R
21.6.1.1.6	The system must display a sum of the file sizes.	R
21.6.1.1.7	The system must display the document description.	R
21.6.1.1.7.1	Authorized roles must have the ability to enter a document description when creating a document.	R
21.6.1.2	Authorized roles must have the ability to select/deselect the files that meet the requirements of the FOIA.	R
21.6.2	The system must convert each selected document to .pdf upon authorized role confirmation.	R
21.6.3	The system must sum the size of the documents once converted for authorized roles to understand the appropriate media for transfer.	R
21.6.4	Authorized roles must have the ability to export the selected documents to a storage device that	R

Business Req. No.	Detailed Business Requirement Description	R/O
	DEQ can provide the requestor.	
21.6.5	The system must group documents marked "confidential" separately from other documents for FOIA coordinator to print and manually redact.	R
21.7.0	Authorized roles must have the ability to configure the business process workflow based on the DEQ organizational model, including support for work assignment, approval, delegation and substitution.	R
21.7.1	Authorized roles must have the ability to assign workflow via a work queue.	R
21.7.2	Authorized roles must have the ability to configure and maintain workflow management.	R
21.7.3	Authorized roles must have the ability to securely route work and documents to authorized staff roles within the system.	R
21.7.3.1	The system must route work based on predefined criteria based on authorized role input.	R
21.7.4	Authorized roles must have the ability to prioritize work flow assignments.	R
21.7.5	Authorized roles must have the ability to reassign work to other authorized roles within the system.	R
21.7.6	Authorized roles must have the ability to review assigned work.	R
21.7.7	Authorized roles must have the ability to maintain deadlines related to tasks in the work queue.	R
21.7.8	Authorized roles must have the ability to configure internal notifications/reminders to be sent to authorized roles when there are modifications to work assignments.	R
21.7.9	The system must display each time a task is completed or modified.	R
21.7.10	The system must contain a production operations management dashboard for each user with information relevant to the authorized role.	R
21.7.10.1	The system must allow authorized roles to view workflow dashboards.	R
21.7.10.2	Authorized roles with subordinates must have the ability to view a summary version of dashboard information relevant to his/her subordinates.	R
21.7.10.2.1	Authorized roles with subordinates must have the ability to drill into summary information.	R
21.7.11	The system must allow authorized roles to enter and update workflow dashboard content.	R
21.17	The system must accommodate internal notifications.	R
21.17.1	System notification capabilities must incorporate a spell-check tool.	R
21.17.2	Authorized roles must have the ability to notify workgroups.	R
21.17.3	Authorized roles must have the ability to notify authorized roles.	R
21.17.4	Authorized roles must have the ability to enter dates for notifications.	R
21.17.4.1	Authorized roles must have the ability to enter a beginning date for notifications.	R
21.17.4.2	Authorized roles must have the ability to enter an end date for notifications.	R
21.17.5	Authorized roles must have the ability to acknowledge that they've read the notification.	R
21.17.5.1	The system must not display a message again to a user once it was acknowledged.	R
21.17.5.2	Authorized roles must have the ability to view historical acknowledged messages.	R
21.17.6	System notifications must have HTML capabilities.	R

Name Address

Business Req. No.	Detailed Business Requirement Description	R/O
11.0	The system must accommodate names and addresses.	R
11.1	Authorized roles must have the ability to relate a customer to multiple roles/responsibilities.	R
11.2	The system must prompt authorized roles to use the same contact information for new roles at the same facility for the same customer.	R
11.2.1	Authorized roles must have the ability to enter contact information for each role at each facility.	R
11.2.1.1	Historical name and address information must not change when an update occurs to contact information.	R
11.2.2	Authorized roles must have the ability to enter one or more contact name(s) for one or more addresses and related contact information.	R
11.2.2.1	Authorized roles must have the ability to indicate the primary contact/address information.	R

11.2.3	Authorized roles must have the ability to "copy" contact information from one contact to one or more other roles.	R
11.3	Authorized roles must have the ability to query/filter contact information.	R
11.3.1	Authorized roles must have the ability to query/filter existing contact information.	R
11.3.1.1	Authorized roles must have the ability to query/filter existing contact information when entering a new site into the system, select information and relate that information to the new site.	R
11.3.2	Authorized roles must have the ability to query/view based on "wildcard/partial" search criteria on any name/address fields.	R
11.3.3	Authorized roles must have the ability to search for functional area information by contact.	R
11.3.3	Authorized roles must have the ability to relate an existing name and address found in a query to current record.	R
11.3.4	Authorized roles must have the ability to query/filter/view the roles/responsibilities associated with one contact.	R
11.3.5	Authorized roles must have the ability to query/filter on contact information at a specified site.	R
11.3.6	Authorized roles must have the ability to query/filter on contact information in a specified functional area.	R
11.3.7	Authorized roles must have the ability to query/filter contact information at any place within the site's functional areas.	R
11.4	Authorized roles must have the ability to view/indicate contact information germane to the site type.	R
11.4.1	Authorized roles must have the ability to view/enter/update contact types for site types.	R
11.5	Authorized roles must have the ability to enter contact information germane to the functional area.	R
11.5.1	Authorized roles must have the ability to establish germane contact types for functional areas by type of site	R
11.6	Authorized roles must have the ability to indicate the contact type.	R
11.7	Authorized roles must have the ability to enter one or more email addresses as part of each contact for each customer.	R
11.8	The system must not allow authorized roles to update contact information referenced on a legal document once the legal document is finalized. (the document can't change, the data can change).	R
11.9	Authorized roles must have the ability to associate the same name and role with the same address, but multiple facilities.	R
11.10	Authorized roles must have the ability to associate the same name and role for two or more different addresses at different facilities.	R
11.11	Authorized roles must have the ability to associate the same name and multiple roles and multiple addresses for the same facility.	R
11.11.1	Authorized roles must have the ability to modify contact name and address information.	R
11.11.2	Authorized roles must have the ability to modify contact name information.	R
11.11.3	Authorized roles must have the ability to modify contact address information	R
11.11.5	Authorized roles must have the ability to select which roles and activities should be updated with the modified contact information.	R
11.12	Authorized roles must have the ability to view contact information change history.	R
11.12.1	Authorized roles must have the ability to view what information was modified.	R
11.12.2	Authorized roles must have the ability to view the date the information was modified.	R
11.12.3	Authorized roles must have the ability to view the username who modified the information.	R
11.13	External authorized roles must have the ability to update their own address contact information.	R
11.13.1	The system must send contacts an email confirming any name/address changes made.	R
11.13.1.1	The system must send an email to the old and new email address when updating the email address in the system.	R
11.13.2	Need ability to indicate one name, address, phone number and email address as primary if a contact is associated with more than one.	R
11.13.3	External authorized roles must not have the ability to modify their roles, based on contact type.	R
11.14	The system must accommodate US postal address standards for US addresses.	R
11.14.1	Authorized roles must have the ability to enter up to four lines of information for name.	R
11.14.1.1.	The titles/directions for the 4 lines will change depending on the type of contact information being entered.	R

11.14.7	Authorized roles must have the ability to enter up to two lines for address information.	R
11.14.2	Authorized roles must have the ability to enter a comment for the contact.	R
11.14.4	The system must default the state to MI, but give authorized roles the ability to indicate other states.	R
11.14.5	Authorized roles must have the ability to enter a website address for each contact.	R
11.14.6	Authorized roles must have the ability to enter the corporate tax id, if applicable.	R
11.15	The system must accommodate international contact information.	R
11.15.1	The system must default "country" to "US" but give authorized roles the ability to modify to other countries.	R
11.16	The system must have the ability to utilize CSS address cleansing services, but must give DEQ staff the ability to save or not save changes.	R
11.16.1	Authorized roles must have the ability to modify any returned information from the cleansing service.	R
11.16.2	Authorized roles must have the ability to relate names to existing contact information	R
11.17	Authorized roles must have the ability to inactivate any name, address, telephone number or email address.	R
11.18	Authorized roles must have the ability to filter contact information in functional areas.	R
11.19	Michigan cities and townships for mailing addresses must be displayed from a combo box if the state selected is Michigan.	R
11.19.1	Applicants must have the ability to enter the corporate tax id, if applicable.	R
11.20	Authorized roles must have the ability to indicate contact telephone number type.	R
11.21	Authorized roles must have the ability to indicate an email address type.	R
11.22	The system must enforce requirement of a contact name for specified contact types in specified programs for specified functional areas based on facility or SEI.	R
11.22.1	The system must not modify historical contact name when contact name is modified.	R
11.23	Authorized roles must have the ability to delete contact information that is in a pending status.	R
11.24	Authorized roles must have the ability to indicate a contact as active, pending or inactive, by site.	R
11.25	Authorized roles must have the ability to maintain LUG information, including Register of Deeds information.	R
11.26	Authorized roles must have the ability to view/print labels with different data elements, based on the type of entity.	R
11.27	Authorized roles must have the ability to indicate the preferred method of communication per contact.	R

Scanning and Indexing

Business Req. No.	Detailed Business Requirement Description	R/O
10.0	The system must accommodate the DEQ document/file scanning/upload/imaging and indexing process	R
10.1	Authorized roles must have the ability to scan/image/upload one or more documents into the system.	R
10.1.1	Authorized roles must have the ability to "batch" index documents/files that are being entered into the system, no matter the means of entry (scan or upload).	R
10.2	Authorized roles must have the ability to index documents/files for retrieval purposes.	R
10.2.15	The system must populate index fields with known information if the authorized role is in a record with related index information.	R
10.2.15.1	Authorized roles must have the ability to modify index fields populated by the system.	R
10.2.1	Authorized roles must have the ability to view/enter/update the facility or site of environmental interest with which the document is associated.	R
10.2.1.1	Authorized roles must have the ability to save documents while working with a site record.	R
10.2.1.2	Authorized roles must have the ability to view/enter/update a new site of environmental interest if it doesn't already exist in the system.	R
10.2.2	The system must prompt authorized roles to relate a document to the current site of environmental interest if the authorized role is in a record with a related site of environmental interest.	R

10.2.2.1	Authorized roles must have the ability to view/enter/update the functional area of the database with which the document is associated if the document wasn't' saved while working in that functional area.	R
10.2.3	Authorized roles must have the ability to view/indicate/update the document business type	R
10.2.4	Authorized roles must have the ability to view/indicate/update the document file type if the document was received in electronic format and the system does not recognize a file extension.	R
10.2.5	Authorized roles must have the ability to view/enter/update the date received if not captured by the system.	R
10.2.6	Authorized roles must have the ability to view/enter/update the date the document was dated/created.	R
10.2.7	The system must display the userid/username of the person that scanned/uploaded the document.	R
10.2.8	The system must store the date/time the document was scanned/uploaded.	R
10.2.9	Authorized roles must have the ability to view/indicate/update one or more program area(s) under which the document is stored.	R
10.2.10	Authorized roles must have the ability to view/indicate/update one or more program(s).	R
10.2.10.1	Authorized roles must have the ability to view/indicate/update one or more program category(ies).	R
10.2.12	Authorized roles must have the ability to relate scanned/uploaded/generated files to each other.	R
10.2.12.1	Authorized roles must have the ability to view/indicate/update why a file is related to one or more other files.	R
10.2.12.2	Authorized roles must have the ability to view/enter/update narrative as to why a file is related to one or more other files.	R
10.2.12.3	Authorized roles must have the ability to view/indicate/update a specified file as a primary file.	R
10.2.12.4	Authorized roles must have the ability to "unrelate" a file from one or more other files.	R
10.2.12.5	Authorized roles must have the ability to view related (bundled) files.	R
10.2.14	Authorized roles must have the ability to view/enter/update narrative regarding the scanned/uploaded/generated document to further describe what it is about.	R
10.2.14.1	Authorized roles must have the ability to edit the comment.	R
10.2.14.1.1	The system must record the edit date/time.	R
10.2.14.1.2	The system must record the userid who made the edit.	R
10.3	Authorized roles must have the ability to query documents/files based on indexes.	R
10.3.1	Authorized roles must have the ability to view/indicate/update one or more indexes as search criteria.	R
10.3.2	Authorized roles must have the ability to view/indicate/update display order of retrieved documents.	R
10.4	Authorized roles must have the ability to view/print/export documents/files.	R
10.5	Authorized roles must have the ability to view/indicate/update where the system should save documents/files upon scanning, by related system function.	R
10.5.1	Authorized roles must have the ability to view/indicate/update where the system should save documents/files upon electronic receipt, by related system function.	R
10.5.2	Authorized roles must have the ability to view/indicate/update which files received will trigger a workflow.	R
10.5.2.1	Authorized roles must have the ability to relate a received document/file type to a workflow, based on additional specified criteria.	R
10.6	Authorized roles must have the ability to relate indexes with one or more functional areas in a document.	R
10.6.1	Authorized roles must have the ability to view/indicate/update an index as "required" for storage purposes.	R
10.7	Authorized roles must have the ability to view/indicate/update the intended functional area of document/file usage based on document/file type.	R
10.8	The system must save an image of scanned documents/files in .pdf format, unless the authorized role specifies a different file type.	R
10.8.1	Authorized roles must have the ability to view/indicate/update the type of file to be saved if the authorized role specifies a file type other than .pdf.	R
10.9	The system must save/display documents/files in the appropriate functional area based on	R

	document/file type if the document/file was created in the system.	
10.10	The system must display a message indicating that required information is missing for indexing if a "required" field is null.	R
10.11	The system must display documents/files in the appropriate functional area based on index information entered by authorized roles if the document/file was not created in the system.	R
10.12	Authorized roles must have the ability to modify index information on documents/files indexed by the system.	R
10.13	The system must prompt authorized roles to enter any information missing that is required for indexing.	R
10.14	The system must save a document/file in the appropriate workflow/space when uploaded/scanned into the system.	R
10.14.1	Authorized roles must have the ability to determine which documents/files trigger a workflow and which do not.	R
10.15	Authorized roles must have the ability to drag and drop one or more attachment(s) from external systems into MiWaters.	R
10.16	A new version of a document/file must be saved in the system each time a document/file is modified.	R
10.17	Authorized roles must have the ability to view files associated with a record.	R
10.18	Authorized roles must have the ability to view records associated with specified files.	R
10.19	Authorized roles must have the ability to view a filterable, virtual file cabinet for each site of environmental interest.	R
10.19.1	Authorized roles must have the ability to view thumbnails of files in preview mode.	R
10.20	Authorized roles must have the ability to select multiple files to be printed.	R
10.21	Authorized roles must have the ability to index a document/file as confidential.	R
10.22	Authorized roles must have the ability to index a document/file with "key words" that are administratively maintained.	R
10.23	Authorized roles must have the ability to view the file size associated with each displayed file.	R
10.24	The system must preserve embedded metadata in stored document/files.	R
10.24.1	Authorized roles must have the ability to view metadata associated with a file.	R

Wastewater Sites of Environmental Interest (SEI) Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
8.0	The system must accommodate the DEQ business process of defining all activities around a site of environmental interest or a *potential* site of environmental interest.	R
8.1	Authorized roles must have the ability to view/enter/update location information for a site, based upon the site type and system activity.	R
8.2	Authorized roles must have the ability to force the creation of new versions of sites upon the modification of specified data elements at existing sites.	R
8.3	Authorized roles must have the ability to view/enter/update physical site of environmental interest location information	R
8.3.1	Authorized roles must have the ability to view/enter/update one or more latitude(s)/longitude(s).	R
8.3.1.1	The system must populate TRS fields based on lat/long entered, if a valid lat/long is entered.	R
8.3.2	Authorized roles must have the ability to view/enter/update one or more town(s)/range(s) of the location.	R
8.3.3	Authorized roles must have the ability to view/enter/update one or more section(s) of the location.	R
8.3.4	Authorized roles must have the ability to view/enter/update one or more quarter(s), quarter/quarter(s) or half section(s).	R
8.3.5	Authorized roles must have the ability to indicate one or more county(ies) of the site of environmental interest.	R
8.3.5.1	The system must validate each town/range based on the county(ies) selected.	R
8.3.5.2	The system must validate each lat/long based on the county(ies) selected.	R
8.3.6	Authorized roles must have the ability to view/enter/update geographic narrative regarding the site.	R

Business Req. No.	Detailed Business Requirement Description	R/O
8.3.7	Authorized roles must have the ability to view/enter/update one or more street number s and names.	R
8.3.7.1	Authorized roles must have the ability to view/enter/update one or more roads if no street address is available.	R
8.3.7.2	The system must not allow authorized roles to enter a PO box for the location address of a site of environmental interest.	R
8.3.8	Authorized roles must have the ability to indicate one or more city(ies)/township(s).	R
8.3.9	Authorized roles must have the ability to indicate state.	R
8.3.10	Authorized roles must have the ability to indicate one or more zip +four code(s).	R
8.3.11	Authorized roles must have the ability to view/enter/update the country of the location.	R
8.3.12	Authorized roles must have the ability to view/enter/update one or more Private Land Claim number(s).	R
8.3.13	Authorized roles must have the ability to view/enter/update property tax identification number.	R
8.3.14	Authorized roles must have the ability to indicate one or more overseeing compliance district(s).	R
8.3.15	Authorized roles must have the ability to indicate an overseeing compliance district as the primary district.	R
8.3.16	Authorized roles must have the ability to view/enter/update one or more Hydrologic Unit Codes (HUCs) and related cycle year.	R
8.3.16.1	The system must prompt authorized roles to select a primary HUC if more than one HUC is entered.	R
8.3.16.2	Authorized roles must have the ability to view/enter/update HUCs up to 12 digits in length.	R
8.4	Authorized roles must have the ability to capture GPS information via a site visit	R
8.5	Authorized roles must have the ability to modify site information.	R
8.6	Authorized roles must have the ability to combine multiple sites into one.	R
8.7	Authorized roles must have the ability to divide one site into many sites.	R
8.8	Authorized roles must have the ability to view historical information on combined/divided sites.	R
8.9	Authorized roles must have the ability to view points, lines and polygons on a map, by location.	R
8.10	Authorized roles must have the ability to print points, lines and polygons on a map, by location.	R
8.11	Authorized roles must have the ability to view points, lines and polygons on a map, by geographic area selected.	R
8.12	Authorized roles must have the ability to view/print points, lines and polygons on a map representing DEQ jurisdictional information, by geographic area selected.	R
8.13	Authorized roles must have the ability to view/enter/update site name.	R
8.13.1	Authorized roles must have the ability to view/enter/update a "designated" site name.	R
8.14	Authorized roles must have the ability to view existing sites of environmental interest on a map.	R
8.14.1	Authorized must have the ability to view existing attribution data regarding the site of environmental interest.	R
8.15	Authorized roles must have the ability to update location information on sites of environmental interest.	R
8.16	The system must prompt authorized roles to enter information on a site of environmental interest when authorized roles are creating the site.	R
8.16.1	Authorized roles must have the ability to create a new Site of Environmental Interest (SEI) utilizing a GIS map.	R
8.17	Authorized roles must have the ability to select an existing SEI for work in functional areas.	R
8.17.1	The system must populate location fields with corresponding location information if an existing site is selected.	R
8.18	Authorized roles must have the ability to indicate if the site is a parent or child.	R
8.18.1	The system must prompt authorized roles to relate the site to a parent site if the authorized role indicates that the site is a child.	R
8.18.2	Authorized roles must have the ability to enter narrative on why the sites are related.	R
8.19	The system should prompt authorized roles to view/enter/update metadata on data collection methods for specified fields.	R
8.20	Authorized roles must have the ability to view/enter/update specific site-type information for industrial/commercial sites.	R

Business Req. No.	Detailed Business Requirement Description	R/O
8.20.1	Authorized roles must have the ability to indicate whether the site is a mobile industrial site.	R
8.20.2	Authorized roles must have the ability to identify one or more receiving waters.	R
8.20.3	Authorized roles must have the ability to view/enter/update wastewater station location information, comprising outfalls, intakes, and monitoring wells.	R
8.20.3.1	Authorized roles must have the ability to link stations to a wastewater site.	R
8.20.3.2	Authorized roles must have the ability to indicate the station type.	R
8.20.3.2.1	Authorized roles must have the ability to indicate outfall.	R
8.20.3.2.1.1	Authorized roles must have the ability to view/enter/update conveyance information regarding outfalls.	R
8.20.3.2.2	Authorized roles must have the ability to indicate monitoring well.	R
8.20.3.2.2.1	Authorized roles must have the ability to identify a GIS point for a monitoring station or well.	R
8.20.3.2.3	Authorized roles must have the ability to indicate intake.	R
8.20.3.2.3.1	Authorized roles must have the ability to view/enter/update source body of water information regarding the intake.	R
8.20.3.2.4	Authorized roles must have the ability to indicate ground water land application site.	R
8.20.3.2.4.1	Authorized roles must have the ability to identify the physical location of stations as points if a station is not a land application site.	R
8.20.3	Authorized roles must have the ability to view/enter/update narrative regarding a monitoring location for each station.	R
8.20.4	Authorized roles must have the ability to view/enter/update metadata on the monitoring point.	R
8.21	Authorized roles must have the ability to view/enter/update location information on venting groundwater sites.	R
8.21.1	Authorized roles must have the ability to identify a point for the venting groundwater site where vented water feeds into an existing water body.	R
8.22	Authorized roles must have the ability to view/enter/update location information on construction sites.	R
8.22.1	Authorized roles must have the ability to identify a polygon of the disturbed area.	R
8.22.2	Authorized roles must have the ability to view/enter/update one or more impacted water body(ies).	R
8.22.3	Authorized roles must link a construction site to a part 91 agency.	R
8.22.4	Authorized roles must have the ability to relate the construction project to one or more other construction projects .	R
8.22.4.1	Authorized roles must have the ability to view/enter/update a start date on the relationship.	R
8.22.4.2	Authorized roles must have the ability to view/enter/update an end date on the relationship.	R
8.22.4.3	Authorized roles must have the ability to indicate one or more reason(s) for the relationship.	R
8.23	Authorized roles must have the ability to view/enter/update location information on municipal wastewater/storm water sites.	R
8.23.1	Authorized roles must have the ability to view/enter/update location information on municipal wastewater treatment plants.	R
8.23.1.1	Authorized roles must have the ability to identify receiving waters.	R
8.23.1.2	Authorized roles must have the ability to view/enter/update the watershed.	R
8.23.1.3	Authorized roles must have the ability to identify a point for the wastewater treatment plant.	R
8.23.2	Authorized roles must have the ability to view/enter/update location information on Municipal Separate Storm Sewer Systems (MS4).	R
8.23.2.1	Authorized roles must have the ability to identify a polygon or line for the MS4.	R
8.23.2.2	Authorized roles must have the ability to identify separate polygons for regulated and unregulated areas.	R
8.23.2.3	Authorized roles must have the ability to indicate whether the MS4 is regulated.	R
8.23.2.4	Authorized roles must have the ability to receive GPS data related to MS4 location (pts and polygon data) from regulated parties.	R

Business Req. No.	Detailed Business Requirement Description	R/O
8.23.3	Authorized roles must have the ability to view/enter/update location information on contributing municipal wastewater collection systems.	R
8.23.3.1	Authorized roles must have the ability to link municipal wastewater collection sites to other sites of environmental interest (usually to a municipal wastewater treatment plant [WWTP])	R
8.23.3.2	Authorized roles must have the ability to import GPS/GIS data defining the collection system.	R
8.23.3.3	Authorized roles must have the ability to relate the collection system to one or more wastewater treatment plants.	R
8.23.3.4	Authorized roles must have the ability to identify points, lines or a polygon representing the sanitary sewer.	R
8.23.3.5	Authorized roles must have the ability to view/enter/update additional information associated with the collection system.	R
8.24	Authorized roles must have the ability to view/enter/update location (district/county) information on Part 91 agencies.	R
8.24.1	Authorized roles must have the ability to link Part 91 agencies to construction sites.	R
8.24.2	Authorized roles must have the ability to transition sites to different Part 91 agencies.	R
8.24.2.1	The system must display the date/time the transfer occurred.	R
8.24.2.2	The system must display the authorized username/id who transferred the site.	R
8.24.3	Authorized roles must have the ability to modify Part 91 information.	R
8.24.3.1	Authorized roles must have the ability to identify a polygon of the area of oversight for the part 91 agency.	R
8.24.3.2	If a point is used to mark the location, it must be the office where the oversight entity resides.	R
8.25	Authorized roles must have the ability to view/enter/update location information on CAFOs and AFOs.	R
8.25.1	Authorized roles must have the ability to indicate if the location is a CAFO or AFO.	R
8.25.2	Authorized roles must have the ability to identify a point or polygon of the location.	R
8.25.3	Authorized roles must have the ability to view/enter/update additional information on CAFOs and AFOs.	R
8.26	Authorized roles must have the ability to view/enter/update location information on ANC treatment sites.	R
8.26.1	Authorized roles must have the ability to identify a point or polygon representing the area being treated within the water body.	R
8.26.2	Authorized roles must have the ability to view/enter/update the REACH code.	R
8.26.3	Authorized roles must have the ability to view with GIS what was done in the past at the same location.	R
8.27	Authorized roles must have the ability to view/enter/update location information on wastewater land application sites.	R
8.27.1	Authorized roles must have the ability to identify a point or polygon representing the land application site.	R
8.27.2	Authorized roles must have the ability to link the land application site to a source facility/site.	R
8.27.3	Authorized roles must have the ability to view/enter/update potentially impacted waters/aquifers.	R
8.27.4	Authorized roles must have the ability to view/enter/update location information on ground water disposal land application sites	R
8.27.4.1	Authorized roles must have the ability to link ground water disposal land application sites to monitoring wells.	R
8.27.5	Authorized roles must have the ability to view/enter/update location information on Concentrated Animal Feeding Operations (CAFO/AFO) land application sites.	R
8.27.5.1	Authorized roles must have the ability to view/enter/update tile locations.	R
8.27.5.2	Authorized roles must have the ability to link ground water disposal land application sites to standpipes.	R
8.27.5.2.1	Authorized roles must have the ability to identify points indicating stand pipes.	R
8.27.5.2.2	Authorized roles must have the ability to identify polygons indicating the field.	R
8.27.6	Authorized roles must have the ability to view/enter/update location information for bio-solid land application sites.	R
8.27.6.1	Authorized roles must have the ability to capture the property owner to the site.	R

Business Req. No.	Detailed Business Requirement Description	R/O
8.27.6.2	Authorized roles must have the ability to modify the site (WWTP) with which the land application site is associated.	R
8.27.6.3	Authorized roles must have the ability to view/enter/update the name of the individual or entity using the bio-solids application site.	R
8.28	Authorized roles must have the ability to view/enter/update location information on Agriculture non-AFO sites.	R
8.28.1	Authorized roles must have the ability to identify a point indicating the Agriculture non-AFO site	R
8.28.2	Authorized roles must have the ability to view/enter/update the name of the individual or entity using the Agriculture non-AFO site.	R
8.29	Authorized roles must have the ability to view/enter/update location information on PEAS, complaints and other wastewater sites under investigation.	R
8.29.1	Authorized roles must have the ability to view/enter/update location of alleged incident.	R
8.29.1.1	Authorized roles must have the ability to identify a point or polygon indicating the location of the alleged incident	R
8.29.2	Authorized roles must have the ability to view/enter/update location(s) of impact	R
8.29.2.1	Authorized roles must have the ability to view/enter/update one or more impacted waterbody(ies).	R
8.29.2.2	Authorized roles must have the ability to identify a point, line or polygon indicating the location(s) of impact	R
8.29.3	Authorized roles must have the ability to link the location of incident to the source site.	R
8.29.4	Authorized roles must have the ability to view/enter/update information on failing septic system locations	R
8.29.4.1	Authorized roles must have the ability to view/enter/update one or more impacted water body(ies).	R
8.29.4.2	Authorized roles must have the ability to identify a polygon within the township or county indicating the area of the failing septic system.	R
8.29.4.3	Authorized roles must have the ability to view/enter/update the addresses of the affected homes.	R
8.30	The system must display EPA STORET information for authorized users.	R
8.31	Authorized roles must have the ability to view/enter/update location information on wastewater Total Maximum Daily Load (TMDL)locations	R
8.31.1	Authorized roles must have the ability to view/enter/update the TMDL HUC/REACH	R
8.31.2	Authorized roles must have the ability to identify a point, line or polygon indicating the TMDL area.	R
8.31.3	Authorized roles must have the ability to link the TMDL to a site or sites.	R
8.31.4	Authorized roles must have the ability to view/enter/update the watershed information for the site?	R
8.32	Authorized roles must have the ability to view/enter/update ballast water location information.	R
8.32.1	Authorized roles must have the ability view/enter/update the vessel owner name.	R
8.32.2	Authorized roles must have the ability to view/enter/update ports of call and their locations	R
8.32.3	Authorized roles must have the ability to view/enter/update the point of origin.	R
8.32.4	Authorized roles must have the ability to view/enter/update additional ballast water vessel information.	R
8.33	Authorized roles must have the ability to view/enter/update location information on superfund sites.	R
8.33.1	Authorized roles must have the ability to identify impacted waters.	R
8.34	Authorized roles must have the ability to identify/enter location information on projects on or connecting to inland lakes or streams greater than or equal to five acres, contiguous wetlands, wetlands greater than or equal to five acres, streams, regulated ponds, coastal wetlands, the Great Lakes and Great Lakes Bottomlands.	R
8.34.1	Authorized roles must have the ability to view/identify/update a point representing the central point of a project if the project is a line less than or equal to 100 feet or an area less than or equal to 1,000 square feet.	R
8.34.2	Authorized roles must have the ability to view/identify/update a polygon representing the project area if the project is an area greater 1,000 square feet or a line if the line is greater than 100 linear feet.	R
8.34.3	Authorized roles must have the ability to view/enter/update location information on constructing, enlarging, extending, removing or placing a structure on bottomland or a marina project.	R
8.34.3.1	The system must prompt authorized roles to enter/update dimensions of the footprint of each	R

Business Req. No.	Detailed Business Requirement Description	R/O
	structure in the project.	
8.34.3.1.1	The system must prompt authorized roles to enter/update the dimensions of the perimeter fill.	R
8.34.3.2	The system must prompt authorized roles to identify/update a point representing the center point of each structure in the project if the structure is a line less than or equal to 100 linear feet or an area less than or equal to 1,000 square feet.	R
8.34.3.3	The system must prompt authorized roles to identify/update a polygon representing the project area if the structure is greater than 1,000 square feet or a line if the line is greater than 100 linear feet.	R
8.34.3.4	Authorized roles must have the ability to view/enter/update information specific to marina projects	R
8.34.3.4.1	Authorized roles must have the ability to view/enter/update historical marina footprint information.	R
8.34.3.4.2	Authorized roles must have the ability to view/enter/update existing marina footprint information.	R
8.34.3.4.3	Authorized roles must have the ability to view/enter/update proposed marina footprint information.	R
8.34.4	Authorized roles must have the ability to view/enter/update location information on the construction of a pond or similar waterway within 500 feet of the part 301 Ordinary High Water mark (OHWM) of an inland lake or stream.	R
8.34.4.1	Authorized roles must have the ability to view/enter/update the inland lake's or stream's closest point to the pond or waterway.	R
8.34.4.2	Authorized roles must have the ability to view/enter/update the line of existing stream channel.	R
8.34.4.3	Authorized roles must have the ability to view/enter/update the line of the proposed stream channel.	R
8.34.4.4	Authorized roles must have the ability to view/enter/update the name of the closest waterway or lake.	R
8.34.5	Authorized roles must have the ability to view/enter/update location information on creating, enlarging or diminishing an inland lake or stream.	R
8.34.5.1	The system must prompt authorized roles to enter/update the point of the dam/control structure or augmentation well if the project is enlarging an inland lake or stream	R
8.34.5.1.1	The system must prompt authorized roles to identify/update a polygon representing the new area.	R
8.34.5.1.2	The system must prompt authorized roles to enter/update the lat/long representing the new area if no polygon is drawn.	R
8.34.5.2	The system must prompt authorized roles to identify/update a polygon of the diminished area if the project is diminishing an inland lake or stream.	R
8.34.5.3	The system must prompt authorized roles to identify/update a point representing the center of the structure causing the inland lake or stream to be diminished.	R
8.34.5.4	Authorized roles must have the ability to view/enter/update the line of existing stream channel if the project affects a stream.	R
8.34.5.5	Authorized roles must have the ability to view/enter/update the line of the proposed stream channel if the project affects a stream.	R
8.34.6	Authorized roles must have the ability to view/enter/update location information on drawdown projects in an inland lake or stream.	R
8.34.6.1	The system must prompt authorized roles to identify/update a point or points representing the drawdown location(s).	R
8.34.6.2	The system must prompt authorized roles to enter/update the drawdown depth.	R
8.34.6.3	The system must prompt authorized roles to indicate the drawdown type.	R
8.34.7	Authorized roles must have the ability to view/enter/update location information on the removal of dams.	R
8.34.7.1	The system must prompt authorized roles to identify/update a polygon representing the new boundary of the inland lake or stream.	R
8.34.7.1.1	The system must prompt authorized roles to enter/update the starting elevation.	R
8.34.7.1.2	Authorized roles must have the ability to view/enter/update the ending elevation.	R
8.34.7.1.3	Authorized roles must have the ability to view/enter/update a datum reference.	R
8.34.7.2	The system must prompt authorized roles to identify/update a point representing the center of the dam that was removed.	R
8.34.8	Authorized roles must have the ability to view/enter/update location information on existing dams.	R
8.34.8.1	The system must prompt authorized roles to enter/update the dam latitude/longitude if lat/long is null in the system.	R

Business Req. No.	Detailed Business Requirement Description	R/O
8.34.8.2	The system must prompt authorized roles to view existing dams on a GIS layer, regardless of jurisdiction.	R
8.34.9	Authorized roles must have the ability to view/enter/update location information on proposed dams.	R
8.34.9.1	The system must prompt authorized roles to enter/update the dam latitude/longitude.	R
8.34.10	The system must prompt authorized roles to enter/update the full legal description representing the location of the Great Lakes Bottomland conveyance.	R
8.34.10.1	Authorized roles must have the ability to insert shapefiles defining a polygon representing a bottomland conveyance.	R
8.34.10.2	The system must accommodate an offshore wind grid.	R
8.34.10.2.1	The system must prompt authorized roles to identify/update a point representing the location of each offshore wind structure.	R
8.34.10.2.2	The system must prompt authorized roles to identify/update a line representing the location of the offshore wind transmission lines.	R
8.34.10.2.3	The system must prompt authorized roles to enter/update the latitude/longitude of each offshore wind structure if no point is provided.	R
8.34.10.2.4	Authorized roles must have the ability to view/identify/update a polygon representing the conveyance.	R
8.34.10.3	Authorized roles must have the ability to view/enter/update information on shipwrecks.	R
8.34.10.3.1	The system must prompt authorized roles to identify/update a point representing the location of the shipwreck.	R
8.34.10.3.2	Authorized roles must have the ability to view/enter/update one or more polygon(s) representing the debris field(s).	R
8.34.10.3.3	Authorized roles must have the ability to view/enter/update points for artifacts.	R
8.34.10.3.3.1	The system must validate that points representing artifacts are in the debris field.	R
8.34.10.3.4	The system must prompt authorized roles to enter/update the latitude/longitude of the shipwreck.	R
8.34.10.4	The system must prompt authorized roles to enter/update points for buoys, boring or scientific structures.	R
8.35	Authorized roles must have the ability to view/enter/update location information on projects in wetlands.	R
8.35.1	Authorized roles must have the ability to view/identify/update a point representing the central point of a project if the project is a line less than or equal to 100 linear feet or an area less than or equal to 1,000 square feet.	R
8.35.1.1	The system must prompt authorized roles to enter/update dimensions of footprint of each structure with perimeter fill.	R
8.35.2	Authorized roles must have the ability to view/identify/update a polygon representing the project if the project is an area greater than 1,000 square feet or view/identify/update a line if the project is a line greater than 100 linear feet.	R
8.35.3	Authorized roles must have the ability to view/enter/update location information on drained area of the wetland	R
8.35.3.1	The system must prompt authorized roles to identify/update a polygon representing the area lost.	R
8.35.3.2	Authorized roles must have the ability to view/enter/update the wetland type if draining causes the wetland type to change.	R
8.35.4	Authorized roles must have the ability to view/enter/update location information on shoreline management activities on Great Lakes Bottomlands	R
8.35.4.1	The system must prompt authorized roles to identify/update a polygon representing the impacted area.	R
8.35.5	Authorized roles must have the ability to view/enter/update location information on wetland restoration/enhancement.	R
8.35.5.1	The system must prompt authorized roles to identify/update a point representing a water control structure if a water control structure exists or is proposed at the site.	R
8.35.5.2	The system must prompt authorized roles to identify/update a polygon representing a berm if a berm exists or is proposed at the site.	R

Business Req. No.	Detailed Business Requirement Description	R/O
8.35.6	Authorized roles must have the ability to view/enter/update location information on mitigation banks.	R
8.35.6.1	The system must prompt authorized roles to draw a polygon representing the mitigation bank.	R
8.36	Authorized roles must have the ability to view/enter/update location information on permit projects in environmental areas.	R
8.36.1	Authorized roles must have the ability to view/identify/update a point representing the central point of a project if the project is a line less than or equal to 100 linear feet or an area less than or equal to 1,000 square feet.	R
8.36.2	Authorized roles must have the ability to view/identify/update a polygon representing the project if the project is a line greater than 100 linear feet or an area greater than 1,000 square feet.	R
8.36.3	Authorized roles must have the ability to view/enter/update location information on herbicide treatments.	R
8.36.3.1	The system must prompt authorized roles to identify/update a polygon representing the impacted area.	R
8.36.4	Authorized roles must have the ability to view/enter/update location information regarding structures in an environmental area.	R
8.36.4.1	The system must prompt authorized roles to enter/update dimensions of the footprint of each structure in the project.	R
8.36.4.1.1	The system must prompt authorized roles to enter/update dimensions of the perimeter fill of the project.	R
8.36.4.2	Authorized roles must have the ability to view/identify/update a point representing the central point of a project if the project is a line less than or equal to 100 linear feet or an area less than or equal to 1,000 square feet.	R
8.36.4.3	Authorized roles must have the ability to view/identify/update a polygon representing the project if the project is a line greater than 100 linear feet or an area greater than 1,000 square feet.	R
8.36.5	Authorized roles must have the ability to view/enter/update location information on draining (alteration of drainage) in an environmental area.	R
8.36.5.1	The system must prompt authorized roles to identify/update a polygon representing the area lost.	R
8.36.6	Authorized roles must have the ability to view/enter/update location information on mowing in environmental areas.	R
8.36.6.1	The system must prompt authorized roles to identify/update a polygon representing the mowing area.	R
8.37	Authorized roles must have the ability to view/enter/update location information on critical dunes.	R
8.37.1	Authorized roles must have the ability to view/enter/update location information on structures on critical dunes.	R
8.37.1.1	The system must prompt authorized roles to identify/update a polygon representing existing structures on critical dunes.	R
8.37.1.2	The system must prompt authorized roles to identify/update a polygon representing proposed structures on critical dunes.	R
8.37.1.3	The system must prompt authorized roles to enter/update dimensions of the perimeter fill of the project.	R
8.37.1.4	The system must prompt authorized roles to identify/update a line representing utilities on critical dunes.	R
8.37.1.5	The system must prompt authorized roles to identify/update a polygon representing roads on critical dunes.	R
8.37.2	Authorized roles must have the ability to view/enter/update location information on sand removal on critical dunes.	R
8.37.2.1	The system must prompt authorized roles to identify/update a polygon representing the sand removal area.	R
8.37.2.2	Authorized roles must have the ability to view/identify/update the change in footprint.	R
8.37.3	Authorized roles must have the ability to view/enter/update location information on vegetation removal on critical dunes.	R
8.37.3.1	The system must prompt authorized roles to identify/update a polygon of the impacted vegetation area on the critical dune.	R
8.38	Authorized roles must have the ability to view/enter/update location information on high risk erosion areas.	R

Business Req. No.	Detailed Business Requirement Description	R/O
8.38.1	The system must prompt authorized roles to identify/update lines and a point for high risk erosion areas.	R
8.38.1.1	The system must prompt authorized roles to identify/update the erosion hazard line.	R
8.38.1.2	The system must prompt authorized roles to identify/update the line of 30-year setback.	R
8.38.1.3	The system must prompt authorized roles to identify/update the line of 60-year setback.	R
8.38.1.4	The system must prompt authorized roles to identify/update the closest point from the structure to the high risk erosion line	R
8.39	Authorized roles must have the ability to view/enter/update location information on sites of hydrologic calculation.	R
8.39.1	The system must prompt authorized roles to identify/update a point or polygon on the river representing the location where flows will be calculated.	R
8.39.2	Authorized roles must have the ability to view historical hydrologic calculation points.	R
8.39.3	The system must display hydrologic reports related to a point.	R
8.40	Authorized roles must have the ability to view/enter/update location information on ordinary high water mark elevation.	R
8.40.1	The system must have the ability to prompt authorized roles to view/identify/update a line indicating the ordinary high water mark.	R
8.41	Authorized roles must have the ability to override system-prompted shapes and indicate/update a site of environmental interest with another shape.	R
8.42	Authorized roles must have the ability to view/enter/update multiple disjointed points/lines/areas.	R
8.42.1	The system must record information regarding the addition/modification of sites.	R
8.42.1.1	The system must display the date/time the site was created/modified.	R
8.42.1.2	The system must display the username/id who created/modified the site.	R
8.42.1.3	The system must store historical site information when a site is modified.	R

Geographic Information System (GIS) Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
9.0	The system must contain a Geographic Information System (GIS) component	R
9.1	Authorized roles must have the ability to spatially view/add, identify, and print/plot location information.	R
9.1.1	Authorized roles must have the ability to view GIS layers	R
9.1.2	Authorized roles must have the ability to access the GIS interface for administrative purposes. Ex: Give GIS administrators ability to reorder layers, toggle transparency of layers. The admin/GIS expert needs the ability to control the look and feel of the GIS site.	R
9.1.3	Authorized Users should be able to toggle symbology and transparency of GIS layers	R
9.1.4	Authorized roles must have the ability to add a new GIS object point, line or polygon, by type.	R
9.1.5	Authorized roles must have the ability to create a centroid to represent the center of a site or footprint.	R
9.2.2	Authorized roles must have the ability to add a new GIS object by clicking on an area on a map	R
9.2.2.1	Authorized roles must have the ability to indicate if the new GIS object is a parent or child.	R
9.2.3	Authorized roles must have the ability to create a new GIS object by entering attribution data regarding that object.	R
9.2.4	Authorized roles must have the ability to create a new GIS object by uploading/importing GPS data.	R
9.3	The system must establish a point based on location information provided by authorized role.	R
9.3.1	The system must establish a point, line or polygon based on location information and site type if the authorized role is an internal DEQ user.	R
9.4	Authorized roles must have the ability to modify a GIS point to a line or polygon if the authorized role is an internal DEQ user.	R
9.5	Authorized roles must have the ability to link/overlay GIS layer information to spatial data	R
9.6	The system must graphically display relevant information in the same geographic area that the	R

Business Req. No.	Detailed Business Requirement Description	R/O
	authorized role selected.	
9.6.1	The system must graphically display permit-layer information in the same geographic area.	R
9.6.2	The system must graphically display violation-layer information in the same geographic area.	R
9.6.3	The system must graphically display complaint-layer information in the same geographic area.	R
9.6.4	The system must graphically display site inspection-layer information in the same geographic area.	R
9.7	Authorized roles must have the ability to view location information on a GIS layer, by location type.	R
9.8	The system must display specific site types within a geographic area.	R
9.9	Authorized roles must have the ability to create a new location on a GIS layer, by location type.	R
9.10	The system must display metadata for all GIS layers.	R
9.10.1	The system must display background attribution data for all GIS layers.	R
9.11	The system must display one or more physical addresses that match a partially entered address.	R
9.11.1	Authorized roles must have the ability to select a single address from the displayed list of matches.	R
9.11.2	The system must interface with CSS' address cleansing services.	R
9.12	Authorized roles must have the ability to print displayed GIS and attribution data to support standard printing sizes, including plot.	R
9.12.1	Authorized roles must have the ability to print displayed GIS and attribution data to .pdf	R
9.13	The system must populate appropriate fields for the system function/activity based on the attribution data related to the selected location.	R
9.14	Authorized roles must have the ability to measure distance/area within the GIS system.	R
9.14.1	Authorized roles must have the ability to specify the unit of measurement.	R
9.15	Authorized roles must have the ability to buffer polygon, point and line features within the GIS system.	R
9.15.1	Authorized roles must have the ability to utilize a buffer in a spatial query.	R
9.15.2	Authorized roles must have the ability to specify a distance for the buffer	R
9.15.3	Authorized roles must have the ability to specify a unit of measurement for the distance	R
9.16	Authorized roles must have the ability to access and interface with other GIS systems maintained by DEQ partners	R
9.17	Authorized Roles must have the ability to toggle between displaying and not displaying GIS layers.	R
9.18	The GIS system will include the ability to cycle through multiple background raster layers. Including multiple years of aerial imagery, topography, etc	R
9.19	Authorized roles must have the ability to export any spatial data , at a minimum, to shapefile format in Michigan Georef projection, NAD83, meters.	R
9.20	Authorized roles must have the ability to include basic geoprocessing capabilities, including but not limited to the ability to merge and clip GIS layers.	R
9.24	Authorized roles must have the ability to query spatial layers and the attribution data behind the layers.	R
9.25	Authorized roles must have the ability to export GIS information.	R
9.26	Authorized roles must have the ability to indicate which layers initially display.	R
9.27	Authorized roles must have the ability to filter sites displayed upon map display by toggling layers on and off.	R
9.28	The system must display sites of environmental interest around the selected "area of concern."	R
9.31	Authorized roles must have the ability to pan and zoom displayed GIS data on a map.	R
9.32	Authorized roles must have the ability to hover over a drawn site of environmental interest and see specified attribution data.	R
9.32.1	Authorized roles must have the ability to view attribution data for all sites of environmental interest identified from a hover	R
9.32.2	Authorized roles must have the ability to identify which site of environmental interest on which they would like to view attribution data.	R
9.33	The system must zoom the map based on an authorized role-defined search.	R

Pre-Application Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
7.0	The system must accommodate the DEQ permit pre-application process.	R
7.15	All global requirements apply to pre-applications.	R
7.1	A public-facing (online) permit pre-application form must link to MiWaters.	R
7.1.1	Authorized non-staff roles must have the ability to enter authorized non-staff role information.	R
7.1.1.11	The system must conform to all global name and address requirements.	R
7.1.1.1	Authorized non-staff roles must have the ability to enter authorized non-staff role first name.	R
7.1.1.2	Authorized non-staff roles must have the ability to enter authorized non-staff role last name.	R
7.1.1.10	Authorized non-staff roles must have the ability to enter authorized non-staff role type.	R
7.1.1.10.1	Authorized non-staff roles must have the ability to enter a group, as applicable.	R
7.1.1.10.2	Authorized non-staff roles must have the ability to enter authorized non-staff role title.	R
7.1.1.3	Authorized non-staff roles must have the ability to enter authorized non-staff role address.	R
7.1.1.4	Authorized non-staff roles must have the ability to enter authorized non-staff role city/township.	R
7.1.1.5	Authorized non-staff roles must have the ability to enter authorized non-staff role state/province.	R
7.1.1.12	Authorized non-staff roles must have the ability to enter country	R
7.1.1.6	Authorized non-staff roles must have the ability to enter authorized non-staff role zip code+4.	R
7.1.1.7	Authorized non-staff roles must have the ability to enter one or more authorized non-staff role phone number(s).	R
7.1.1.7.1	Authorized non-staff roles must have the ability to enter the phone type.	R
7.1.1.9	Authorized non-staff roles must have the ability to enter one or more authorized non-staff role email address(es).	R
7.1.2	Authorized non-staff roles must have the ability to indicate whether or not the authorized non-staff role and property owner are the same individual or entity if there is only one property owner.	R
7.1.2.1	The system must have the ability to copy authorized non-staff role information to the property owner if the authorized non-staff role indicates the authorized non-staff role and property owner are the same individual or entity.	R
7.1.2.1.1	The system must have the ability to copy authorized non-staff role first name to property owner first name.	R
7.1.2.1.2	The system must have the ability to copy authorized non-staff role last name to property owner last name.	R
7.1.2.1.3	The system must have the ability to copy authorized non-staff role address to property owner address.	R
7.1.2.1.4	The system must have the ability to copy authorized non-staff role city/township to property owner city/township.	R
7.1.2.1.5	The system must have the ability to copy authorized non-staff role state to property owner state/province.	R
7.1.2.1.10	The system must have the ability to copy authorized non-staff role country to property owner country	R
7.1.2.1.6	The system must have the ability to copy authorized non-staff role zip(+4) code to property owner zip code(+4).	R
7.1.2.1.7	The system must have the ability to copy all authorized non-staff role phone number(s) to property owner phone number(s).	R
7.1.2.1.7.1	The system must have the ability to copy associated phone types to property owner phone types.	R
7.1.2.1.9	The system must copy authorized non-staff role email to property owner email.	R
7.1.2.2	The system must prompt the authorized non-staff role to attach a letter from the landowner authorizing the pre-application process to proceed if the authorized non-staff role indicates the authorized non-staff role and property owner are not the same individual or entity.	R
7.1.3	The system must prompt the authorized non-staff role to enter property owner information if the authorized non-staff role indicates the authorized non-staff role and property owner are not the same individual or entity,.	R
7.1.3.10	Authorized non-staff roles must have the ability to enter one or more contact(s) as property owners.	R
7.1.3.1	Authorized non-staff roles must have the ability to enter property owner first name.	R

7.1.3.2	Authorized non-staff roles must have the ability to enter property owner last name.	R
7.1.3.3	Authorized non-staff roles must have the ability to enter property owner address.	R
7.1.3.4	Authorized non-staff roles must have the ability to indicate property owner city/township.	R
7.1.3.5	Authorized non-staff roles must have the ability to enter property owner state/province.	R
7.1.3.11	Authorized non-staff roles must have the ability to enter property owner country	R
7.1.3.6	Authorized non-staff roles must have the ability to enter property owner zip code+4.	R
7.1.3.7	Authorized non-staff roles must have the ability to enter one or more property owner phone number(s).	R
7.1.3.7.1	Authorized non-staff roles must have the ability to enter the phone type.	R
7.1.3.9	Authorized non-staff roles must have the ability to enter property owner email address.	R
7.1.4	Authorized non-staff roles must have the ability to indicate whether or not agent information is available.	R
7.1.4.1	The system must prompt the authorized non-staff role to enter agent information if the authorized non-staff role indicates agent information is available.	R
7.1.4.1.1	Authorized non-staff roles must have the ability to enter the agent's first name.	R
7.1.4.1.2	Authorized non-staff roles must have the ability to enter the agent's last name.	R
7.1.4.1.3	Authorized non-staff roles must have the ability to enter the company through which the agent is employed.	R
7.1.4.1.4	Authorized non-staff roles must have the ability to enter the agent's address.	R
7.1.4.1.5	Authorized non-staff roles must have the ability to enter the agent's city/township.	R
7.1.4.1.6	Authorized non-staff roles must have the ability to enter the agent's state/province.	R
7.1.4.1.11	Authorized non-staff roles must have the ability to enter the agent's country	R
7.1.4.1.7	Authorized non-staff roles must have the ability to enter the agent's zip code+4.	R
7.1.4.1.8	Authorized non-staff roles must have the ability to enter one or more agent phone number(s).	R
7.1.4.1.8.1	Authorized non-staff roles must have the ability to enter the phone type.	R
7.1.4.1.10	Authorized non-staff roles must have the ability to enter the agent's email address.	R
7.1.5	Authorized non-staff roles must have the ability to enter information on one or more site location(s), based on the type of application/Parts affected..	R
7.1.5.8	Authorized non-staff roles must have the ability to enter site project name.	R
7.1.5.9	Authorized non-staff roles must have the ability to enter narrative on the nearest major intersection and directions to the site from the major intersection.	R
7.1.6	Authorized non-staff roles must have the ability to indicate whether they would like to have the pre-application meeting at the project site, a DEQ district office, or in Lansing Central office, MI.	R
7.1.7	Authorized non-staff roles must have the ability to indicate whether DEQ staff should contact the authorized non-staff role or the agent.	R
7.1.8	Authorized non-staff roles must have the ability to indicate whether the proposed project is a single family residential lot one acre or less in size.	R
7.1.9	Authorized non-staff roles must have the ability to enter narrative on the project description.	R
7.1.10	Authorized non-staff roles must have the ability to attach files(documents and/or drawings) to the pre-application form further describing the project	R
7.1.10.1.	The system must link the attached files to the project description.	R
7.1.11	Authorized non-staff roles must have the ability to enter the estimated total project area or the total size of the pre-application review area in acres/square footage.	R
7.1.12	Authorized non-staff roles must have the ability to indicate all resources involved in the activity requested to be considered for permit.	R
7.1.12.1	Authorized non-staff roles must have the ability to indicate whether or not wetlands are involved, or if authorized non-staff role is unsure if wetlands are involved.	R
7.1.12.1.2	Authorized non-staff roles must have the ability to indicate the type of wetland.	R
7.1.12.1.1	Authorized non-staff roles must have the ability to indicate whether or not a wetland delineation has been conducted at the site if authorized non-staff role selects wetlands.	R
7.1.12.1.1.1	Authorized non-staff roles must have the ability to enter the DEQ WIP file number if a wetland delineation has been conducted by the State of Michigan.	R
7.1.12.2	Authorized non-staff roles must have the ability to indicate whether or not inland lakes and streams are involved or if the authorized non-staff role is unsure if inland lakes and streams are involved.	R

7.1.12.2.1	Authorized non-staff roles must have the ability to enter one or more impacted water body names.	R
7.1.12.3	Authorized non-staff roles must have the ability to indicate whether or not floodplains are involved or if authorized non-staff role is unsure if floodplains are involved.	R
7.1.12.4	Authorized non-staff roles must have the ability to indicate whether or not critical dunes are involved or if authorized non-staff role is unsure if critical dunes are involved.	R
7.1.12.5	Authorized non-staff roles must have the ability to indicate whether or not high risk erosion areas are involved or if authorized non-staff role is unsure if high risk erosion areas are involved.	R
7.1.12.6	Authorized non-staff roles must have the ability to indicate whether or not Great Lakes are involved or if authorized non-staff role is unsure if Great Lakes are involved.	R
7.1.12.7	Authorized non-staff roles must have the ability to indicate whether or not dams are involved or if authorized non-staff role is unsure if dams are involved.	R
7.1.12.8	Authorized non-staff roles must have the ability to indicate whether or not conservation easements are impacted or if authorized non-staff role is unsure if a conservation easement is impacted.	R
7.1.14	Authorized non-staff roles must have the ability to enter the estimated acreage, square footage or linear feet of impact.	R
7.1.15	Authorized non-staff roles must have the ability to enter dredge information.	R
7.1.15.1	Authorized non-staff roles must have the ability to enter the estimated cubic yards of dredge, if any.	R
7.1.15.2	Authorized non-staff roles must have the ability to enter the estimated dredge area, if any.	R
7.1.16	Authorized non-staff roles must have the ability to enter fill information.	R
7.1.16.1	Authorized non-staff roles must have the ability to enter the estimated cubic yards of fill, if any.	R
7.1.16.2	Authorized non-staff roles must have the ability to enter the estimated fill area, if any.	R
7.1.17	Authorized non-staff roles must have the ability to attach files relevant to the pre-application.	R
7.1.17.1	Authorized non-staff roles must have the ability to attach one or more map(s) of the site location(s).	R
7.1.17.2	Authorized non-staff roles must have the ability to attach site plans.	R
7.1.22	Authorized non-staff roles must have the ability to enter narrative regarding the application.	R
7.1.18	The system must display the fee.	R
7.1.19	Authorized roles must have the ability to indicate pre-application fees as paid in full.	R
7.1.19.1	The system must prompt the authorized role to inform the authorized non-staff role that a pre-application meeting cannot occur until fee is paid if a fee is owed.	R
7.1.19.2	Authorized roles must have the ability to override the prompt and schedule the pre-application meeting.	R
7.1.20	Authorized non-staff roles must have the ability to save un-submitted pre-application requests.	R
7.1.20.1	The system must notify authorized non-staff roles that un-submitted pre-application requests will be stored for up to a number of administratively maintained days.	R
7.1.20.1.1	Authorized roles must have the ability to enter the number of days an un-submitted pre-application request will be stored.	R
7.1.20.2	The system must notify authorized non-staff roles with an administratively maintained number of days prior to deleting online pre-application information.	R
7.1.21	Authorized non-staff roles must have the ability to delete un-submitted pre-application requests.	R
7.2	The system must allow authorized roles to enter data from pre-application forms received via walk-in, mail or email.	R
7.2.1	Authorized roles must have the ability to enter applicant role information.	R
7.2.1.1	Authorized roles must have the ability to enter applicant first name.	R
7.2.1.2	Authorized roles must have the ability to enter applicant last name.	R
7.2.1.3	Authorized roles must have the ability to enter applicant address.	R
7.2.1.4	Authorized roles must have the ability to enter applicant city/township.	R
7.2.1.5	Authorized roles must have the ability to enter applicant state.	R
7.2.1.6	Authorized roles must have the ability to enter applicant zip code.	R
7.2.1.7	Authorized roles must have the ability to enter applicant phone number.	R
7.2.1.9	Authorized roles must have the ability to enter applicant email address.	R
7.2.2	Authorized roles must have the ability to indicate whether or not the applicant and property owner are the same individual or entity.	R
7.2.2.1	The system must have the ability to copy applicant information to the property owner if the applicant indicates the applicant and property owner are the same individual or entity.	R

7.2.2.1.1	The system must have the ability to copy applicant first name to property owner first name.	R
7.2.2.1.2	The system must have the ability to copy applicant last name to property owner last name.	R
7.2.2.1.3	The system must have the ability to copy applicant address to property owner address.	R
7.2.2.1.4	The system must have the ability to copy applicant city/township to property owner city/township.	R
7.2.2.1.5	The system must have the ability to copy applicant state to property owner state.	R
7.2.2.1.6	The system must have the ability to copy applicant zip code to property owner zip code.	R
7.2.2.1.7	The system must have the ability to copy applicant phone number to property owner phone number.	R
7.2.2.1.8	The system must have the ability to copy applicant fax number to property owner fax number.	R
7.2.2.1.9	The system must have the ability to copy applicant email to property owner email.	R
7.2.3	The system must have the ability to prompt an authorized role to enter property owner information if authorized role indicates the applicant and property owner are not the same individual or entity.	R
7.2.3.1	Authorized roles must have the ability to attach one or more letter(s) from property owner(s) authorizing the DEQ to meet with the applicant.	R
7.2.3.2	Authorized roles must have the ability to enter property owner first name.	R
7.2.3.3	Authorized roles must have the ability to enter property owner last name.	R
7.2.3.4	Authorized roles must have the ability to enter property owner address.	R
7.2.3.5	Authorized roles must have the ability to enter property owner city/township.	R
7.2.3.6	Authorized roles must have the ability to enter property owner state.	R
7.2.3.7	Authorized roles must have the ability to enter property owner zip code.	R
7.2.3.8	Authorized roles must have the ability to enter property owner phone number.	R
7.2.3.10	Authorized roles must have the ability to enter property owner email address.	R
7.2.4	Authorized roles must have the ability to indicate whether or not agent information is applicable.	R
7.2.4.1	The system must have the ability to prompt an authorized role to enter agent information if the authorized role indicates agent information is applicable.	R
7.2.4.1.1	Authorized roles must have the ability to enter the agent's first name.	R
7.2.4.1.2	Authorized roles must have the ability to enter the agent's last name.	R
7.2.4.1.3	Authorized roles must have the ability to enter the company through which the agent is employed.	R
7.2.4.1.4	Authorized roles must have the ability to enter the agent's address.	R
7.2.4.1.5	Authorized roles must have the ability to enter the agent's city/township.	R
7.2.4.1.6	Authorized roles must have the ability to enter the agent's state.	R
7.2.4.1.7	Authorized roles must have the ability to enter the agent's zip code.	R
7.2.4.1.8	Authorized roles must have the ability to enter the agent's phone number.	R
7.2.4.1.10	Authorized roles must have the ability to enter the agent's email address.	R
7.2.5	Authorized roles must have the ability to enter site location information, based on the type of application/Parts affected.	R
7.2.5.8	Authorized roles must have the ability to enter site project name.	R
7.2.5.9	Authorized roles must have the ability to enter narrative on the nearest major intersection and directions to the site from the major intersection.	R
7.2.6	Authorized roles must have the ability to indicate if the applicant would like to have the pre-application meeting in the DEQ office or at the site of the proposed permitted activity.	R
7.2.7	Authorized roles must have the ability to indicate whether DEQ staff should contact the applicant or the agent.	R
7.2.8	Authorized roles must have the ability to indicate whether or not the proposed project is a single family residential lot one acre or less in size.	R
7.2.9	Authorized roles must have the ability to enter narrative on the project description.	R
7.2.10	Authorized roles must have the ability to attach files to the pre-application form that further describe the project.	R
7.2.10.1	The system must have the ability to link an attached document at this step to the project description.	R
7.2.11	Authorized roles must have the ability to enter the estimated total project area in acres.	R
7.2.12	Authorized roles must have the ability to indicate all resources involved.	R
7.2.12.1	Authorized roles must have the ability to indicate wetlands.	R
7.2.12.2	Authorized roles must have the ability to indicate whether or not a wetland delineation has been	R

	conducted at the site if "Wetlands" was selected.	
7.2.12.3	Authorized roles must have the ability to indicate inland lakes and streams.	R
7.2.12.3.1	Authorized roles must have the ability to enter the waterbody name if the authorized role indicates inland lakes and streams.	R
7.2.12.4	Authorized roles must have the ability to indicate floodplains.	R
7.2.12.5	Authorized roles must have the ability to indicate critical dunes.	R
7.2.12.6	Authorized roles must have the ability to indicate high risk erosion areas.	R
7.2.13	Authorized roles must have the ability to enter the estimated acreage of impact.	R
7.2.14	Authorized roles must have the ability to enter the estimated cubic yards of fill, if any.	R
7.2.16	Authorized roles must have the ability to attach any additional files relevant to the pre-application record.	R
7.2.16.1	Authorized roles must have the ability to attach a map of the site location.	R
7.2.16.2	Authorized roles must have the ability to attach a site plan.	R
7.3	The system must have the ability to create a pre-application report to record additional data during the pre-application meeting.	R
7.3.1	Authorized roles must have the ability to view/print the pre-application report.	R
7.3.3	Authorized roles must have the ability to view previously entered pre-application data to assist in entering pre-application meeting data.	R
7.3.4	Authorized roles must have the ability to indicate "partial" or "full" payment.	R
7.4	Authorized roles must have the ability to enter pre-application meeting-specific information.	R
7.4.1	Authorized roles must have the ability to enter attendee names.	R
7.4.2	Authorized roles must have the ability to enter narrative regarding the meeting.	R
7.4.3	Authorized roles must have the ability to select a determination.	R
7.4.3.1	Authorized roles must have the ability to indicate that a permit is required.	R
7.4.3.2	Authorized roles must have the ability to indicate that a permit is not required.	R
7.4.3.3	Authorized roles must have the ability to indicate that DEQ cannot determine whether or not a permit is required.	R
7.4.4	Authorized roles must have the ability to sign a determination.	R
7.4.5	The system must record the date the authorized role signed the determination	R
7.5	The system must have the ability to send electronic notification to point of contact specified on the pre-application	R
7.6	Authorized roles must have the ability to indicate that a scheduled pre-application meeting was canceled.	R
7.6.2	System must compare date of cancelation with date of meeting to determine if a refund should be generated.	R
7.6.2.1	Authorized roles must have the ability to indicate that a refund for a meeting cancelation will be processed if cancelation is received more than 24 hours before the meeting.	R
7.7	Authorized roles must have the ability to link one or more permit pre-application records to a permit application.	R
7.7.4	Authorized roles must have the ability to relate one or more pre-application record(s) to a project.	R
7.7.2	Authorized roles must have the ability to view pre-application information linked to a permit.	R
7.7.3	Authorized roles must have the ability to print pre-application information linked to a permit.	R
7.7.5	Authorized roles must have the ability to utilize previously submitted information on new pre-application information if the authorized role relates the new pre-application to a historical pre-application.	R
7.9	The system must record the date a pre-application request was received.	R
7.9.1	The system must record the date the pre-application request was submitted if the application was received online.	R
7.9.2	Authorized roles must have the ability to enter the date the pre-application request was received if received via walk-in or standard mail.	R
7.10	Authorized roles must have the ability to view pre-application records.	R
7.10.1	Authorized roles must have the ability to view pre-application work in date-received order, earliest to most recent.	R
7.10.2	The system must display the number of calendar days since pre-application complete date.	R
7.10.2.1	Authorized roles must have the ability to view pre-application work in "calendar days since	R

	application receipt" order.	
7.10.3	The system must have the ability to route work to the authorized role responsible for the county in which the location for the activity noted in the pre-application will take place.	R
7.10.3.1	Authorized roles must have the ability to route pre-application work to other authorized roles.	R
7.11	Authorized roles must have the ability to link multiple pre-application meetings.	R
7.11.1	Authorized roles must have the ability to view all historical pre-application meeting information, if any, linked to a current pre-application meeting.	R
7.12	Authorized roles must have the ability to generate a template-based letter to authorized non-staff role(s) regarding the determination of the pre-application meeting.	R
7.13	Authorized roles must have the ability to add statuses for pre-application records.	R
7.13.1	Authorized roles must have the ability to add status of "open" to a pre-application record.	R
7.13.7	Authorized roles must have the ability to indicate a status of "meeting scheduled."	R
7.13.8	Authorized roles must have the ability to indicate a status of "pending."	R
7.13.2	Authorized roles must have the ability to add the status of "closed" to a pre-application record.	R
7.13.3	The system must have the ability to record the date a status change was made to a pre-application record.	R
7.13.4	The system must have the ability to capture the authorized role name who made the status change on the pre-application record.	R
7.13.5	Authorized roles must have the ability to view a list of all status changes for a specified pre-application record.	R
7.13.6	Authorized roles must have the ability to print status changes for a unique pre-application record.	R
7.14	Authorized non-staff roles must have the ability to delete unsubmitted pre-application records.	R
7.15	Authorized roles must have the ability to inactivate pre-application records created due to administrative error.	R

Permit Application Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
22.0	The system must accommodate the DEQ permitting business process.	R
22.1	The system must accommodate DEQ online permit application submittals.	R
22.1.1	Public-facing (online) permit application forms must link to MiWaters.	R
22.1.2	Authorized non-staff roles must have the ability to **complete** online permit applications.	R
22.1.3	Authorized non-staff roles must have the ability to populate a new application using information from an existing application.	R
22.1.4	Authorized non-staff roles must have the ability to request a reissuance of a permit.	R
22.1.5	Authorized roles must have the ability to relate a pre-application to an application.	R
22.1.9	The system must pre-populate applicable pre-application information to the permit application if the authorized non-staff role initiated the pre-application process and is continuing with the application process.	R
22.1.15	Authorized non-staff roles must have the ability to indicate a site of environmental interest on a map for the requested permitted activity.	R
22.1.15.1	The system must populate location attribution data based on the authorized role's confirmation of the site of environmental interest.	R
22.1.15.2	The system must notify authorized non-staff roles if the site selected is in an "area of concern."	R
22.1.16	Authorized non-staff roles must have the ability to indicate if they have already been through the *pre*-application process for the requested activity at the location.	R
22.1.16.1	Authorized non-staff roles must have the ability to enter the pre-application unique identifier if he/she indicates having gone through the pre-application process.	R
22.1.16.2	Authorized non-staff roles must have the ability to view the related pre-application.	R
22.1.18	Authorized non-staff roles must have the ability to attach files to the permit application.	R
22.1.19	Authorized non-staff roles must have the ability to **save** un-submitted applications.	R
22.1.20	The system must notify authorized non-staff roles that un-submitted applications will be stored for a specified number of days that is administratively maintained.	R
22.1.21	The system must notify authorized non-staff roles within an administratively maintained specified	R

	number of days prior to deleting online application information.	
22.1.22	Authorized non-staff roles must have the ability to print the completed permit application form (submitted or un-submitted).	R
22.1.23	Authorized non-staff roles must have the ability to modify un-submitted, saved permit applications.	R
22.1.24	Authorized non-staff roles must have the ability to delete un-submitted, saved permit applications.	R
22.1.25	Authorized non-staff roles must have the ability to indicate payment type.	R
22.1.26	Authorized roles must have the ability to view/print a payment voucher to be mailed in with payment.	R
22.1.27	Authorized non-staff roles must have the ability to indicate which related files/documents will be provided by "other means" than attaching to the online application.	R
22.1.28	Authorized non-staff roles must have the ability to submit online permit applications.	R
22.1.29	The system must obtain electronic confirmation/approval of permit submittal from authorized non-staff roles.	R
22.1.30	The system must store/display an image of the submitted application.	R
22.1.31	The system must display the permit application submittal date/time.	R
22.1.32	The system must display a printable version of a confirmation page for authorized non-staff roles upon submittal of the permit application.	R
22.1.33	The system must send a confirmation email to the authorized non-staff role with specific information related to the permit application.	R
22.1.33.1	The system must support separate authentication for the submitter of information and individual who enters application information if the individual entering application information has no legal ownership of the site.	R
22.1.34	Authorized non-staff roles must have the ability to view a summary list of un-submitted, saved permit applications.	R
22.1.35	Authorized non-staff roles must have the ability to view the status of his/her submitted permit application.	R
22.1.36	A submitted application must not be editable by authorized non-staff roles.	R
22.1.37	Authorized roles must have the ability to indicate what is posted regarding a submitted permit application on a public facing site that links to MiWaters.	R
22.2	The system must accommodate the permit application process.	R
22.2.16	The system must contain a mechanism that tracks the timing of determination of application completeness and application processing, based on the permit part.	R
22.2.16.1	Authorized roles must have the ability to start and stop the timing mechanism dependent upon events occurring that are administratively maintained.	R
22.2.16.2	The system must track the running total of time spent in statuses that count toward application completeness and processing.	R
22.2.16.3	The system must display due dates for each item in the workflow based on time allotted to complete the task (completeness/processing) and time burned.	R
22.2.1	Authorized roles must have the ability to view/enter permit statuses.	R
22.2.2	Authorized roles must have the ability to modify permit statuses	R
22.2.3	Authorized roles must have the ability to inactivate permit statuses	R
22.2.3.1	The system must not modify historical permit status information if a status is modified or inactivated.	R
22.2.12	Authorized roles must have the ability to view/enter permit application statuses.	R
22.2.13	Authorized roles must have the ability to modify permit application statuses	R
22.2.14	Authorized roles must have the ability to inactivate permit application statuses	R
22.2.14.1	The system must not modify historical permit application status information if a status is modified or inactivated.	R
22.2.14.2	Authorized roles must have the ability to view/enter permit actions.	R
22.2.14.3	Authorized roles must have the ability to modify permit actions.	R
22.2.14.4	Authorized roles must have the ability to inactivate permit actions.	R
22.2.14.5	The system must not modify historical permit action information if an action is modified or inactivated.	R
22.2.14.6	Authorized roles must have the ability to log in a paper permit application.	R
22.2.14.7	The system must notify authorized roles if an existing pre-application exists with the same location and/or applicant information.	R

22.2.7.1	Authorized roles must have the ability to pull pertinent information from the pre-application over to the application.	R
22.2.7.1.1	Authorized roles must have the ability to modify information pulled from the pre-application to the application.	R
22.2.8.1	Authorized roles must have the ability to enter proposed permit activity location information.	R
22.2.8.1.1	Authorized roles must have the ability to relate one or more Sites to the permit application.	R
22.2.8.11	Authorized roles must have the ability to modify site boundaries received from a non-staff authorized role on an online permit application	R
22.2.8.2	Authorized roles must have the ability to select from existing spatial locations.	R
22.2.8.3	Authorized roles must have the ability to enter a new site if the site does not already exist in the system.	R
22.2.8.4	Authorized roles must have the ability to enter the application received date.	R
22.2.8.5	Authorized roles must have the ability to indicate how the permit application was received.	R
22.2.8.5.1	Authorized roles must have the ability to indicate that the application and associated payment were sent to cash handling.	R
22.2.8.6	Authorized roles must have the ability to indicate one or more permit element(s) that will drive the content, look and feel of the screens and aid in fee determination.	R
22.2.8.6.1	The permit element(s) that drive the content, look and feel of the screens and aid in fee determination must be administratively maintained.	R
22.2.8.7	Authorized roles must have the ability to indicate findings from initial review of impact.	R
22.2.8.7.1	Authorized roles must have the ability to review and confirm if the proposed activity impacts a conservation easement.	R
22.2.8.7.2	Authorized roles must have the ability to indicate if a violation at the site needs to be resolved prior to issuing a new permit if there is a violation.	R
22.2.8.7.3	The system must prompt authorized roles to create a communication indicating the reason the application will not be processed if the proposed activity impacts a conservation easement or there is a known violation at the site that must be resolved.	R
22.2.8.7.3.1	Authorized roles must have the ability to indicate that the applicant's fee was returned.	R
22.2.8.7.4	Authorized roles must have the ability to review and confirm if the proposed activity is a dredge project.	R
22.2.8.7.4.1	Authorized roles must have the ability to indicate if there is known contamination at the site if the proposed activity is a dredge project.	R
22.2.8.7.4.1.1	The system must prompt authorized roles to create a dredge memo if the project is for a dredge.	R
22.2.8.7.5	Authorized roles must have the ability to review and confirm if there are threatened and endangered species on the site.	R
22.2.8.7.5.2	Authorized roles must have the ability to review and confirm if the T&E species is a federal concern, if T&E species exist on the site.	R
22.2.8.7.5.2.1	Authorized roles must have the ability to send a communication to the state and/or federal agency responsible for T&E.	R
22.2.8.7.5.1	Authorized roles must have the ability to attach feedback from the DNR regarding T&E information.	R
22.2.8.7.6	Authorized roles must have the ability to indicate if the permit type and/or part are modified due to the initial review of impact.	R
22.2.8.7.6.1	The system must store historical information on a permit application when the type and/or part is modified due to the initial review of impact.	R
22.2.8.7.7	Authorized roles must have the ability to review and confirm if the proposed activity at the location must be flagged for EPA review.	R
22.2.8.8	Authorized roles must have the ability to assign the preliminary permit type.	R
22.2.8.9	Authorized roles must have the ability to indicate one or more preliminary statutory parts that are applicable to the permit application.	R
22.2.8.9.1	The system must notify authorized roles if a part indicated for the specified application is under statutory timeframes to determine administrative completeness.	R
22.2.8.9.2	The system must notify authorized roles if the difference between the current date and receipt date is greater than the specified timeframe to determine application completeness for the permit application type.	R

22.2.8.9.3	The system must prioritize permit applications under timeframe constraints in the workflow based on the number of days left to complete analysis of application completeness.	R
22.2.8.1.2	The system must notify authorized roles if there is a known violation at the location.	R
22.2.9	Authorized roles must have the ability to assign permit application processing to an authorized user or role.	R
22.2.10	Authorized roles must have the ability to cease or delay (put on hold) processing of an application due to enforcement issues at the site.	R
22.2.15	Authorized roles must have the ability to modify submitted online permit application information.	R
22.2.16	The system must prompt authorized roles to trigger the application processing workflow if the authorized roles indicate the application is administratively complete.	R
22.2.17	Authorized roles must have the ability to put an application on "hold."	R
22.2.17.1	The system must display the hold begin date.	R
22.2.17.2	The system must display the username/id of who put the application on hold.	R
22.2.17.3	Authorized roles must have the ability to indicate a reason the application was put on hold.	R
22.2.17.4	Authorized roles must have the ability to enter narrative on why the application was put on hold.	R
22.2.18	Authorized roles must have the ability to take an application off "hold."	R
22.2.18.1	The system must display the hold end date.	R
22.3	Authorized roles must have the ability to indicate that an application is administratively incomplete or complete.	R
2.3.16	Authorized roles must have the ability to modify information on a permit application that does not impact the scope of the project.	R
22.3.16.1	Authorized non-staff roles must have the ability to view/modify specific areas of the application considered "incomplete" that affect the scope of the project.	R
22.3.16.1.1	The system must allow authorized non-staff roles to modify one or more section(s) of an online permit application that are considered "incomplete" by authorized roles and that affect the scope of the project.	R
22.3.16.2	The system must allow authorized non-staff roles to attach additional documents or revisions to a document or application to respond to a request for additional information/clarification.	R
22.3.3	The system must store/display the date/time the application was indicated to be incomplete or complete.	R
22.3.4	The system must store/display the userid/name who indicated the application to be incomplete or complete.	R
22.3.5	Administrative completeness criteria must be administratively maintained, as "complete" criteria changes over time.	R
22.3.6	Authorized roles must have the ability to view/enter/update administrative completeness criteria, by program.	R
22.3.7	The system must prompt authorized roles to indicate one or more reasons why the permit application is incomplete if the authorized role indicated administratively incomplete.	R
22.3.8	Authorized roles must have the ability to enter narrative on why the permit application is incomplete.	R
22.3.9	The system must prompt authorized roles to create an "Incomplete" communication regarding the permit application.	R
22.3.10	Authorized roles must have the ability to view/print/send the "Incomplete" communication.	R
22.3.11	Authorized roles must have the ability to copy all parties invested in the project.	R
22.3.12	The system must notify authorized roles that a revised permit application was not received within the administratively set timeframe for the specified permit type, if a timeframe is established for the permit type.	R
22.3.13	Authorized roles must have the ability to enter an extension to the administratively set timeframe regarding the permit application.	R
22.3.13.1	The system must prompt authorized roles to enter narrative on why an extension was granted.	R
22.3.13.2	Authorized roles must have the ability to enter the length of the extension.	R
22.3.14	Once an application is deemed administratively complete, specific data elements of the application must not be editable.	R
22.3.15	Authorized roles must have the ability to indicate that an application cannot be processed under to	R

	deadline constraints.	
22.3.16	The system must display the number of days an application is into the processing cycle.	R
22.3.17	The system must display the number of days left for processing if there are timeframes associated with processing.	R
22.3.19	Authorized roles must have the ability to post permits and associated applications on a public facing online page that links to MiWaters.	R
22.3.20	Authorized roles must have the ability to modify the type of permit until the legal document is finalized.	R
22.3.21	Authorized roles must have the ability to modify the applicable regulatory part(s) until the legal document is finalized.	R
22.4	Authorized roles must have the ability to process wastewater permit applications.	R
22.4.1	Authorized roles must have the ability to process wastewater general permits	R
22.4.1.1	Authorized roles must have the ability to process wastewater general NPDES and groundwater permits.	R
22.4.1.1.1	Authorized roles must have the ability to indicate the priority of the permit application.	R
22.4.1.1.2	Authorized roles must have the ability to enter required monitoring requirements.	R
22.4.1.1.5	Authorized roles must have the ability to indicate whether or not recommendations are used in permit application decision.	R
22.4.1.1.6	Authorized roles must have the ability to create/view/print a draft permit.	R
22.4.1.1.7	Authorized roles must have the ability to create/view a pre-public notice of a draft permit.	R
22.4.1.1.8	Authorized roles must have the ability to indicate that a public meeting will be held.	R
22.4.1.1.9	Authorized roles must have the ability to indicate that a public hearing will be held.	R
22.4.1.1.1 0	Authorized roles must have the ability to create/view/print a public notice regarding the hearing or meeting if a hearing or meeting will be held.	R
22.4.1.1.1 1	Authorized roles must have the ability to post the public notice on a public facing online page that links to MiWaters for a timeframe that is administratively maintained.	R
22.4.1.1.1 2	Authorized staff and non-staff roles must have the ability to enter/attach comments regarding the public notice.	R
22.4.1.1.1 3	Authorized roles must have the ability to modify the draft GP.	R
22.4.3	Authorized roles must have the ability to process wastewater part 41 construction permits	R
22.4.3.1	Authorized roles must have the ability to view whether or not the permit application is expedited.	R
22.4.3.2	Authorized roles must have the ability to indicate that the proposed project fits into expedited requirements.	R
22.4.3.2.1	The system must prioritize the expedited application with a timeframe for processing that is administratively maintained.	R
22.4.3.3	Authorized roles must have the ability to indicate that the proposed project does not fit into expedited requirements.	R
22.4.3.3.1	The system must prioritize the non-expedited application with a timeframe for processing that is administratively maintained	R
24.3.3.2	Authorized roles must have the ability to indicate that the fee will be refunded for expedited processing.	R
22.4.4	Authorized roles must have the ability to process wastewater ANC permits	R
22.4.4.1	The system must prioritize ANC processing based on timeframes that are administratively maintained.	R
22.4.4.2	Authorized roles must have the ability to indicate that the activity requested will be processed under a COC.	R
22.4.4.2.1	Authorized roles must have the ability to indicate if the DEQ is unable to process the application within the specified timeframe.	R
22.4.4.2.2	Authorized roles must have the ability to enter information on refunds due to processing not being completed within specified timeframes.	R
22.4.4.3	The system must prioritize permit processing based on timeframes that are administratively maintained if the application was not completed in the first specified timeframe and a refund was processed.	R
22.4.4.4	Authorized roles must have the ability to create/view/print a draft permit for the ANC application.	R
22.4.4.5	Authorized roles must have the ability to create/view public information of the ANC application and draft permit.	R

22.4.4.6	Authorized roles must have the ability to post the public notice of the draft permit on a public facing online page that links to MiWaters for a timeframe that is administratively maintained.	R
22.4.4.7	Authorized roles must have the ability to enter/attach comments received regarding the public information.	R
22.4.4.8	Authorized roles must have the ability to indicate if a public meeting will be held	R
22.4.4.9	Authorized roles must have the ability to indicate if a public hearing or meeting will be held	R
22.4.4.10	Authorized roles must have the ability to enter/attach comments received during the public hearing or meeting.	R
22.4.5	Authorized roles must have the ability to process wastewater NPDES/Groundwater individual permits.	R
22.4.5.1	Authorized roles must have the ability to indicate if the activity can be covered under a certificate of coverage.	R
22.4.5.1.1	The system must prompt the authorized role to trigger the COC process for the application if the authorized role indicates the activity can be covered under a COC.	R
22.4.5.2	Authorized roles must have the ability to indicate if the activity will be covered under an individual permit.	R
22.4.5.2.1	Authorized roles must have the ability to indicate if permit application is NPDES/groundwater new use.	R
22.4.5.2.1.1	The system must prioritize NPDES/groundwater new use permit processing based on timeframes that are administratively maintained.	R
22.4.5.2.2	Authorized roles must have the ability to enter/attach comments received by district offices.	R
24.4.5.2.2.2	Authorized roles must have the ability to enter a due date on entering district comments.	R
22.4.5.2.2.1	The system must notify authorized roles if district comments are not entered within an administratively set timeframe from the due date.	R
22.4.5.2.3	Authorized roles must have the ability to indicate whether or not district recommendations are used in the permit application decision.	R
22.4.5.2.4	Authorized roles must have the ability to enter required monitoring requirements.	R
22.4.5.2.5	Authorized roles must have the ability to create/view/print a draft permit.	R
22.4.5.2.6	Authorized roles must have the ability to create/view/print a pre-public notice communication of a draft permit.	R
22.4.5.2.9	Authorized roles must have the ability to create/view/print a public notice regarding the hearing or meeting if a hearing or meeting will be held.	R
22.4.5.2.7	Authorized roles must have the ability to indicate that a public meeting will be held at any point in the application process.	R
22.4.5.2.8	Authorized roles must have the ability to indicate that a public hearing will be held at any point in the application process..	R
22.4.5.2.9	Authorized roles must have the ability to post the public notice regarding the draft permit on a public facing online page that links to MiWaters for a timeframe that is administratively maintained.	R
22.4.5.2.9.1	Authorized roles must have the ability to enter/attach comments regarding the public notice.	R
22.4.5.2.10	Authorized roles must have the ability to post the public notice regarding the public meeting/hearing on a public facing online page that links to MiWaters for a timeframe that is administratively maintained.	R
22.4.5.2.11	Authorized roles must have the ability to enter/attach comments regarding the public notice.	R
22.4.5.2.12	Authorized roles must have the ability to modify the draft permit.	R
22.4.5.2.13	Authorized roles must have the ability to re-PN the modified draft NPDES/groundwater permit if the draft is significantly modified.	R
22.4.5.2.14	Authorized roles must have the ability to create/view/print a public notice on modified draft permits.	R
22.4.5.2.16	Authorized roles must have the ability to indicate that a public hearing will be held regarding the modified draft NPDES/groundwater permit.	R
22.4.5.3	The system must calculate and display an expiration date for the NPDES/groundwater permit based on formulas that are administratively maintained.	R
22.4.5.3.1	NPDES expiration dates must default to the first day of the basin cycle.	R

22.4.6	Authorized roles must have the ability to process wastewater Notice of Coverage (NOC)permits	R
22.4.6.1	Authorized roles must have the ability to enter an expiration date not to exceed five years *and* not to exceed the expiration date of the SESC permit (whichever comes first).	R
22.4.6.2	Authorized roles must have the ability to create/view/print a Permit Coverage Acknowledgement communication.	R
22.4.7	Authorized roles must have the ability to process wastewater NPDES/groundwater Certificates of Coverage (COC).	R
22.4.7.1	The system must prioritize NPDES/groundwater COC processing based on receipt date.	R
22.4.7.2	Authorized roles must have the ability to enter/attach comments received by district offices.	R
22.4.7.3	Authorized roles must have the ability to indicate whether or not district recommendations are used in permit application decision.	R
22.4.7.4	Authorized roles must have the ability to enter required monitoring requirements.	R
22.4.7.5	Authorized roles must have the ability to create/view/update/print a draft COC.	R
22.4.7.6	Authorized roles must have the ability to create/view/update/print a public notice on the COC application.	R
22.4.7.7	Authorized roles must have the ability to create/view/update/print a pre-public notice on the COC application if the applicant did not apply for coverage under a GP.	R
22.4.7.8	Authorized roles must have the ability to post the public notice of the draft COC on a public facing online page that links to MiWaters for a timeframe that is administratively maintained.	R
22.4.7. 9	The system must display the expiration date of the COC.	R
22.4.8	Authorized roles must have the ability to develop monitoring requirements.	R
22.4.8.1	The system must support effluent limits with seasonal variations.	R
22.4.8.2	The system must support different statistical base codes.	R
22.4.8.3	Authorized roles must have the ability to create monitoring limit templates	R
22.4.8.3.1	Authorized roles must have the ability to copy and paste monitoring limit templates.	R
22.4.8.4	Monitoring requirements must be carried forward with the reissuance of a permit and be editable by AU staff.	R
22.4.8.4.1	Authorized roles must have the ability to modify carried forward monitoring requirements.	R
22.4.8.5	Monitoring requirements on a COC must inherit the same monitoring requirements from the associated GP.	R
22.4.8.5.1	Authorized roles must have the ability to modify inherited monitoring requirements.	R
22.4.9	Authorized roles must have the ability to enter applicable annual fees, based on permit type.	R
22.4.10	Authorized roles must have the ability to attach a plan submitted by the permittee to the permit.	R
22.5	Authorized roles must have the ability to process resource permit applications.	R
22.5.1	Authorized roles must have the ability to enter water resource permit application information.	R
22.5.2	Authorized roles must have the ability to review and confirm if threatened and endangered species are at the site or sites.	R
22.5.2.1	Authorized roles must have the ability to attach, search and enter feedback information from T&E.	R
22.5.2.2	Authorized roles must have the ability to verify permit type.	R
22.5.3	Authorized roles must have the ability to trigger a site inspection at any point in the permit application process.	R
22.5.4	Authorized roles must have the ability to process resource General Permits (GP).	R
22.5.4.1	The system must notify authorized roles within an administratively maintained timeframe that a GP is coming due for reissuance.	R
22.5.4.3	Authorized roles must have the ability to process new resource GPs.	R
22.5.5	Authorized roles must have the ability to process resource Individual Permits (IP)	R
22.5.5.1	Authorized roles must have the ability to view if the proposed activity at the location is flagged as a "red file."	R
22.5.5.2	Authorized roles must have the ability to notify EPA if the activity at the location is flagged for their review.	R
22.5.6	Authorized roles must have the ability to process Certificates of Coverage (COC) or authorizations under General Permits (GP).	R
22.5.7	Authorized roles must have the ability to indicate that an application has been withdrawn at any point in the permit application process.	R
22.5.8	Authorized roles must have the ability to indicate whether or not the permit requires financial assurance review prior to permit decision.	R

22.5.8.1	Authorized roles must have the ability to enter the amount of the financial assurance.	R
22.5.8.2	Authorized roles must have the ability to create/view/print a communication to the permit applicant that the financial instrument was denied, with denial explanation.	R
22.5.9	Authorized roles must have the ability to indicate whether or not the permit requires conservation easement review prior to permit decision.	R
22.5.10	Authorized roles must have the ability to process resource minor projects.	R
22.5.10.1	Authorized roles must have the ability to notify required agencies.	R
22.5.10.2	Authorized roles must have the ability to trigger an inspection of the site.	R
22.5.11	Authorized roles must have the ability to modify the type of permit at any time in the application process based on DEQ findings.	R
22.6	Authorized roles must have the ability to enter permit decision information.	R
22.6.1	Authorized roles must have the ability to indicate the DEQ has denied the application.	R
22.6.1.1	Authorized roles must have the ability to indicate one or more reasons why the application was denied.	R
22.6.1.2	Authorized roles must have the ability to enter narrative on why the application was denied.	R
22.6.1.3	The system must prompt authorized roles to create a denial letter.	R
22.6.1.4	Authorized roles must have the ability to indicate that the applicant is appealing the denial decision. (permit issuance decisions can be appealed too)	R
22.6.1.5	Authorized roles must have the ability to indicate the outcome of the appeal process.	R
22.6.1.5.1	Authorized roles must have the ability to indicate informal settlement information.	R
22.6.2	Authorized roles must have the ability to indicate that countersignatures are required, based on permit type/program.	R
22.6.2.1	Authorized roles must have the ability to create/view/print a draft permit to be sent for countersignature.	R
22.6.2.4	Authorized roles must have the ability to indicate date that the draft permit was sent to applicant for counter signature.	R
22.6.2.2	Authorized roles must have the ability to indicate that the draft permit was received by the DEQ with applicant signature.	R
22.6.2.3	The system must notify authorized roles if an administratively maintainable timeframe is past and DEQ has not received the draft permit with applicant signature.	R
22.6.3	Authorized roles must have the ability to issue a permit.	R
22.6.4	The system must notify authorized roles if the permit application has a related financial assurance that has not been received.	R
22.6.5	The system must provide authorized roles with the options to issue the permit or place on hold – waiting for receipt of financial assurance, or deny the permit application.	R
22.6.6	The system must trigger a tiered approval process if authorized roles indicate that the permit will be issued without the required financial instrument in place.	R
22.6.7	The system must notify authorized roles if permit application has a related conservation easement that has not been received	R
22.6.8	Authorized roles must have the ability indicate that an extension on a permit decision was requested by the applicant.	R
22.6.9	Authorized non-staff roles must have the ability to request an extension on a permit decision online.	R
22.6.10	Authorized roles must have the ability to indicate whether the extension was approved or denied.	R
22.6.11	Authorized roles must have the ability to send a communication to applicants regarding the extension decision.	R
22.6.12	The system must notify authorized non-staff roles regarding the extension decision online.	R
22.7	Authorized roles must have the ability to process a permit re-issuance.	R
22.7.1	Authorized roles must have the ability to issue a modified permit.	R
22.7.2	The system must accommodate the permit modification process, including modifying dates.	R
22.7.3	Authorized roles must have the ability to approve one or more parts of a permit application (while not approving one or more other parts of the application) via the issuance of a draft permit for countersignature.	R
22.7.6	Authorized roles must have the ability to indicate that the permit application has gone to the appeal process at any time during the application process.	R
22.7.5	Authorized roles must have the ability to trigger a site inspection workflow at any point in the	R

	application process.	
22.7.13	Authorized roles must have the ability to change the permit type at any time prior to finalizing the permit.	R
22.7.14	Authorized roles must have the ability to relate a permit or parts of a permit back to an enforcement action.	R
22.7.15	The system must organize necessary documentation for administrative hearings based on administratively maintained requirements.	R
22.7.17	Authorized roles must have the ability to update online application forms.	R
22.7.17.1	Authorized roles must have the ability to map new fields on online forms to fields in the system.	R
22.7.18	Authorized roles must have the ability to post all permit decisions and other pertinent information on a public facing online page that links to MiWaters.	R
22.7.18.1	Authorized roles must have the ability to indicate which pieces of information are posted based on the permit action.	R
22.7.19	ARs must have the ability to incorporate SOCs into permits	R
22.7.21	Authorized roles must have the ability to transfer ownership of a permit	R
22.7.21.1	The system must notify authorized roles if the permit has a related financial assurance.	R
22.7.21.2	Authorized roles must have the ability to place a permit transfer on hold pending a new financial instrument from the new permittee	R
22.7.21.3	The system must notify authorized roles when a new financial instrument is in place.	R
22.7.22	Authorized roles must have the ability to enter information on financial assurance reduction requests.	R
22.7.22.1	Authorized roles must have the ability to indicate that a financial assurance reduction request was received.	R
22.7.22.2	Authorized roles must have the ability to attach an electronic copy of the request to the record.	R
22.7.22.3	Authorized roles must have the ability to trigger the inspection workflow to confirm that permit conditions have been satisfactorily met to reduce the assurance.	R
22.7.22.3.1	Authorized roles must have the ability to create/view/print a communication to the property owner on why the request cannot be honored.	R
22.7.22.4	Authorized roles must have the ability to trigger a tiered approval process in the system for the financial assurance reduction.	R
22.7.23	Authorized roles must have the ability to enter an issuance date on the permit	R
22.7.24	Authorized roles must have the ability to enter a delayed effective date on a permit.	R
22.7.25	Authorized roles must have the ability to determine appropriate actions for expiring permits.	R
22.7.26	Authorized roles must have the ability to relate a reissuance application to an existing permit.	R
22.7.26.1	The system must carry forward any SOCs that are not complete at the time of expiration of the current permit.	R
22.7.26.3	The current permit must continue to exist as the legal operating document until the reissuance is in effect.	R
22.7.27	The system must notify authorized roles that an expiration date is coming on an existing permit	R
22.7.27.1	Authorized roles must have the ability to send a communication to permittee(s) regarding a permit that is expiring in a timeframe that is administratively maintained.	R
22.7.28	Authorized roles must have the ability to terminate a permit.	R
22.7.28.1	Authorized roles must have the ability to receive a termination request.	R
22.7.28.2	The system must close any outstanding conditions associated with a permit if the permit is terminated	R
22.7.53	Authorized roles must have the ability to indicate what Part or combination of Parts in a resource application, or which draft NPDES permit (or permit type) requires a Public Notice.	R
22.7.54	Authorized roles must have the ability to create/view/print a public notice based on the permit type and resource permit application.	R
22.7.55	Authorized roles must have the ability to indicate that a public hearing was request	R
22.7.56	Authorized roles must have the ability to indicate that a public hearing will be held.	R
22.7.58	The system must send notification of the hearing to the DEQ calendar.	R
22.7.59	The system must prompt authorized roles to complete/view/print required templates for public hearings.	R
22.7.60	Authorized roles must have the ability to create/view/print a public notice regarding the public hearing	R

22.7.61	Authorized roles must have the ability to select from existing names and addresses for each document.	R
22.7.62	Authorized roles must have the ability to create a new contact.	R
22.7.63	The system must store contact information for each document sent.	R
22.7.64	Authorized roles must have the ability to indicate that a requested public hearing will not be held.	R
22.7.65	Authorized roles must have the ability to enter narrative as to why the requested public hearing will not be held.	R
22.7.66	Authorized roles must have the ability to process permit transfers	R
22.7.66.1	Authorized non-staff roles must have the ability to request a permit transfer online.	R
22.7.66.2	Authorized roles must have the ability to indicate that a permit transfer request was received.	R
22.7.66.3	Authorized roles must have the ability to indicate whether or not the permit transfer was approved.	R
22.7.66.4	Authorized roles must have the ability to create/view/print a permit transfer communication if the permit transfer was approved.	R
22.7.67	The system must accommodate the DEQ Critical Dunes business process.	R
22.7.67.1	Authorized roles must have the ability to view/enter critical dunes statuses.	R
22.7.67.2	Authorized roles must have the ability to modify critical dunes statuses.	R
22.7.67.3	Authorized roles must have the ability to inactivate critical dunes statuses.	R
22.7.67.4	The system must not modify historical critical dunes status information if a status is modified or inactivated.	R
22.7.68	A secure, public-facing online critical dune form must link to the system to give authorized non-staff roles the ability to enter information on CDAs.	R
22.7.69	Authorized roles must have the ability to enter information on a critical dune application.	R
22.7.69.1	Authorized roles must have the ability to indicate that the site has been verified to be in a critical dune area.	R
22.7.69.2	Authorized roles must have the ability to indicate that the application was forwarded to the LUG for processing due to LUG authority at the site.	R
22.7.70	Authorized roles must have the ability to indicate that a refund is to be provided to the applicant.	R
22.7.71	Authorized roles must have the ability to indicate if the application is not complete.	R
22.7.71.1	The system must prompt authorized roles to trigger the Application Incomplete Communication process if authorized roles indicate the application is not complete.	R
22.7.71..2	Authorized roles must have the ability to indicate whether or not each assurance was provided with the application.	R
22.7.21	Authorized roles must have the ability to indicate that the site is exempt from DEQ jurisdiction.	R
22.7.72.1	The system must prompt authorized roles to create/view/print an exemption letter if the site is exempt.	R
22.7.73	Authorized roles must have the ability to attach documents to the file.	R
22.7.74	Authorized roles must have the ability to indicate that copies of the application were delivered to statute-listed parties.	R
22.7.75	Authorized roles must have the ability to trigger a site inspection for the critical dune site.	R
22.7.76	Authorized roles must have the ability to view site inspection information on the critical dune.	R
22.7.77	Authorized roles must have the ability to indicate if additional information is required for processing.	R
22.7.78	Authorized roles must have the ability to enter narrative on what additional information is required if additional information is indicated as being required.	R
22.7.79	Authorized roles must have the ability to indicate if additional fees are required.	R
22.7.80	Authorized roles must have the ability to indicate whether or not all criteria were met for the critical dune application.	R
22.7.81	Authorized roles must have the ability to indicate that a permit under critical dune is issued.	R
22.7.82	Authorized roles must have the ability to indicate that a modified permit will be issued.	R
22.7.83	Authorized roles must have the ability to create/view/print a communication to the applicant requesting revisions for a modified permit.	R
22.7.84	Authorized roles must have the ability to indicate that requested revisions were received by the applicant.	R
22.7.85	Authorized roles must have the ability to indicate that an application is denied.	R
22.7.86	Authorized roles must have the ability to indicate that requested revisions were not received from the applicant and therefore, the application is denied.	R

22.7.87	Authorized roles must have the ability to indicate that the permit is denied if not all criteria were met for the application.	R
22.7.88	Authorized roles must have the ability to create/view/print critical dune application denial letters.	R
22.7.89	Authorized roles must have the ability to indicate whether or not the application is eligible for special exception.	R
22.7.90	Authorized roles must have the ability to indicate that the applicant submitted an application for special exception.	R
22.7.90.1	Authorized roles must have the ability to enter the amount owed for the special exception.	R
22.7.90.2	Authorized roles must have the ability to enter that fees were paid in full for the special exception.	R
22.7.91	Authorized roles must have the ability to create/view/print a letter to the LUG requesting comments on the special exception request.	R
22.7.91.1	The system must prompt authorized roles if comments are not received by the LUG within an administratively maintained of request.	R
22.7.91.3	Authorized roles must have the ability to indicate that comments were received by the LUG.	R
22.7.91.4	Authorized roles must have the ability to indicate that the request has been reviewed by the Special Exception Panel.	R
22.7.92	Authorized roles must have the ability to indicate the determination of the Special Exception Panel.	R
22.7.92.1	Authorized roles must have the ability to enter narrative regarding the determination of the Special Exception Panel.	R
22.7.93	Authorized roles must have the ability to indicate that the special exception review panel approved issuance of the special exception.	R
22.7.94	Authorized roles must have the ability to create/view/print the special exception permit.	R
22.7.95	Authorized roles must have the ability to indicate that the critical dune special exception review panel denied issuance of the special exception.	R
22.7.95.1	Authorized roles must have the ability to create/view/print critical dune special exception ~~application~~ denial letters.	R
22.7.96	The system must accommodate the DEQ high risk erosion (HREA) business process.	R
22.7.97	Authorized roles must have the ability to view/enter high risk erosion areas statuses.	R
22.7.97.1	Authorized roles must have the ability to modify high risk erosion areas statuses.	R
22.7.97.2	Authorized roles must have the ability to inactivate high risk erosion areas statuses.	R
22.7.97.3	The system must not modify historical high risk erosion areas status information if a status is modified or inactivated.	R
22.7.98	A secure, public-facing online high-risk erosion area form must link to the system to provide authorized non-staff roles the ability to enter information on HREAs.	R
22.7.99	Authorized roles must have the ability to enter information on the high-risk erosion application.	R
22.7.99.1	Authorized roles must have the ability to indicate that the site is in a high-risk erosion area.	R
22.7.99.2	Authorized roles must have the ability to indicate that the application was forwarded to the LUG for processing due to LUG authority at the site.	R
22.7.100	Authorized roles must have the ability to indicate that a refund is to be provided to the applicant.	R
22.7.101	Authorized roles must have the ability to indicate if the application is not complete.	R
22.7.102	The system must prompt authorized roles to trigger the Application Incomplete Letter process if authorized roles indicate the application is not complete.	R
22.7.103	Authorized roles must have the ability to indicate that the site/activity is exempt from DEQ jurisdiction.	R
22.7.104	The system must prompt authorized roles to create/view/print an exemption letter if the site is exempt	R
22.7.105	Authorized roles must have the ability to attach documents to the file.	R
22.7.106	Authorized roles must have the ability to schedule a site inspection for the high-risk erosion site.	R
22.7.106.1 1	Authorized roles must have the ability to view/ enter/indicate site inspection information on the high-risk erosion area.	R
22.7.107	Authorized roles must have the ability to indicate if additional information is required for processing.	R
22.7.108	Authorized roles must have the ability to indicate if additional fees are required.	R
22.7.109	Authorized roles must have the ability to indicate whether or not all criteria were met for the permit.	R

22.7.110	Authorized roles must have the ability to indicate that a permit is issued	R
22.7.111	Authorized roles must have the ability to indicate that a modified permit will be issued.	R
22.7.112	Authorized roles must have the ability to create/view/print a communication to the applicant requesting revisions for a modified permit.	R
22.7.112.1	Authorized roles must have the ability to indicate that requested revisions were received by the applicant.	R
22.7.113	Authorized roles must have the ability to indicate that an application is denied.	R
22.7.113.1	Authorized roles must have the ability to indicate that requested revisions were not received from the applicant and therefore, the application is denied.	R
22.7.113.2	The system must notify authorized roles when requested revisions were not received within an amount of time that is administratively maintained.	R
22.7.113.3	Authorized roles must have the ability to indicate that the permit is denied if not all criteria were met for the application.	R
22.7.113.4	Authorized roles must have the ability to create/view/print high risk erosion application denial letters.	R
22.8.1	Authorized roles must have the ability to enter information on cases regarding permits and/or applications.	R
22.8.2	Authorized roles must have the ability to indicate that a person is contesting the department's action.	R
22.8.2.1	Authorized roles must have the ability to indicate whether a permittee or 3rd party is contesting the department's action.	R
22.8.2.2	Authorized roles must have the ability to change the status of the associated permit to reflect that a permit is "stayed" if there is an associated permit, the permittee is contesting the department's action, and the permit program area is wastewater.	R
22.8.3	Authorized roles must have the ability to enter information regarding informal resolution discussions.	R
22.8.4	Authorized roles must have the ability to enter the outcome of the informal discussions.	R
22.8.4.1	Authorized roles must have the ability to indicate that the issued permit will be modified as part of informal discussions to settle the CCH.	R
22.8.4.2	Authorized roles must have the ability to indicate that the decision of the DEQ stands.	R
22.8.4.3	Authorized roles must have the ability to indicate if the current, published permit should be "unpublished" if a permit exists.	R
22.8.4.4	Authorized roles must have the ability to indicate that resolution must involve a hearing.	R
22..8.5	Authorized roles must have the ability to request electronic status reports from MAHS using an email template.	R
22..8.6	Authorized roles must have the ability to indicate that DEQ requested an AG be assigned to the case, with date, time, userid and name.	R
22..8.7	Authorized roles must have the ability to indicate that a pre-hearing conference is scheduled.	R
22..8.8	Authorized roles must have the ability to enter information on the outcome of the pre-hearing conference.	R
22..8.9	Authorized roles must have the ability to view/print documents related to the case.	R
22..8.10	Authorized roles must have the ability to enter information on the hearing.	R
22..8.11	Authorized roles must have the ability to attach hearing/decision files from Michigan Administrative Hearings System (MAHS) into the system.	R
22..8.12	Authorized roles must have the ability to indicate if an exception was filed.	R
22..8.13	Authorized roles must have the ability to attach the final director's order to the record.	R
22..8.14	Authorized roles must have the ability to indicate that a case is closed.	R
22..8.15	Authorized roles must have the ability to relate a case to a permit application	R
22..8.16	Authorized roles must have the ability to relate a case to a permit.	R
		R

Inspections Requirements Specifications

Business Req. No.	Detailed Business Requirement Description	R/O
15.0	The system must accommodate the DEQ business process for site inspections.	R
15.1	All global requirements apply to inspections.	R
15.2	Authorized roles must have the ability to view/enter inspection statuses.	R
15.2.1	Authorized roles must have the ability to edit inspection statuses.	R
15.2.2	Authorized roles must have the ability to inactivate inspection statuses.	R
15.2.3	The system must not allow editing of any historical inspection status information when an inspection status is inactivated or modified.	R
15.3	Authorized roles must have the ability to view/enter inspection types.	R
15.3.1	Authorized roles must have the ability to edit inspection types.	R
15.3.2	Authorized roles must have the ability to inactivate inspection types.	R
15.3.2.1	The system must record the date an inspection type was inactivated.	R
15.3.2.2	The system must record the userid/username who inactivated the inspection type.	R
15.4	Authorized roles must have the ability to view/enter areas evaluated.	R
15.4.1	Authorized roles must have the ability to edit areas evaluated.	R
15.4.2	Authorized roles must have the ability to inactivate areas evaluated.	R
15.4.3	The system must not allow editing of any historical areas evaluated information when an area evaluated is inactivated or modified.	R
15.5	Authorized roles must have the ability to relate an area evaluated to one or more inspection types.	R
15.6	Authorized roles must have the ability to graphically view site inspections to be conducted, by location, within a geographic area on a GIS layer.	R
15.6.1	The system must display high priority inspections differently than lower priority inspections on a GIS layer.	R
15.7	The system must pre-populate information regarding an inspection based on pre-existing data within the system. .	R
15.8	Authorized roles must have the ability to select one or more inspection type(s) per program area.	R
15.9	Authorized roles must have the ability to notify the customer associated with the inspection if the customer requests notification regarding the date and time that the inspection will occur.	R
15.9.1	Authorized roles must have the ability to notify customers about an inspection via email.	R
15.10	Authorized roles must have the ability to view/enter inspection information.	R
15.10.1	Authorized roles must have the ability to update inspection information.	R
15.10.1.1	Authorized roles must have the ability to update inspection record statuses.	R
15.10.1.2	Authorized roles must have the ability to update inspection document statuses.	R
15.10.1.3	The system must lock an inspection record once all inspection tasks are complete.	R
15.10.2	Authorized roles must have the ability to view/indicate/update inspection type if the system does not already have the inspection type.	R
15.10.3	The system must display the areas evaluated based on the inspection type.	R
15.10.3.1	Authorized roles must have the ability to view, select and de-select one or more areas evaluated for each specific inspection type.	R
15.10.3.1.1	Authorized roles must have the ability to indicate specified areas evaluated as mandatory for an inspection type.	R
15.10.3.2	The system must record the date that authorized roles entered inspection information for each area evaluated.	R
15.10.3.3	The system must record the userid/username who entered inspection information for each area evaluated.	R
15.10.3.4	Authorized roles must have the ability to enter a "finding" for each area evaluated.	R
15.10.3.5	Authorized roles must have the ability to enter narrative for each finding.	R
15.10.5	Authorized roles must have the ability to relate an inspection to one or more contact name(s) present at the inspection.	R
15.10.6	Authorized roles must have the ability to view/enter the inspection start date.	R
15.10.7	Authorized roles must have the ability to select one or more water body type(s) that apply to the inspection.	R

15.10.8	Authorized roles must have the ability to view additional information on the wetland if wetland was selected for the inspection.	R
15.10.8.1	Authorized roles must have the ability to indicate whether or not the wetland is contiguous, as defined in Section 30301.	R
15.10.8.2	Authorized roles must have the ability to view/update size of wetland in terms of acreage when preparing for inspection.	R
15.10.8.2.1	Authorized roles must have the ability to indicate if the wetland is greater than five acres.	R
15.10.9	Authorized roles must have the ability to indicate the parts of a statute under which a permit is required if the inspection is due to a permit application.	R
15.10.10	The system must prompt authorized roles to enter additional information if the authorized role indicates part 303.	R
15.10.10.1	Authorized roles must have the ability to view/enter the amount of wetland acreage owned by the property owner.	R
15.10.10.2	Authorized roles must have the ability to view/enter modify the amount of wetland acreage impacted by the proposed activity.	R
15.10.10.3	Authorized roles must have the ability to indicate/enter the names of the dominant vegetation on the inspection report.	R
15.10.10.3.2	Authorized roles must have the ability to view/enter indicator status of the dominant plants.	R
15.10.10.4	Authorized roles must have the ability to view/enter other plants.	R
15.10.10.4.1	Authorized roles must have the ability to view/enter indicator status of the other plants.	R
15.10.10.5.1	Authorized roles must have the ability to view/enter a narrative description of the soils.	R
15.10.10.5.2	Authorized roles must have the ability to view/enter/update a narrative description on any data found in an inspection.	R
15.10.10.5.3	Authorized roles must have the ability to view/enter GPS coordinates on any data found in the inspection.	R
15.10.10.5.4	Authorized roles must have the ability to view/enter wetland determination data if the inspection is only for wetland determination.	R
15.10.10.6	Authorized roles must have the ability to view/enter the soil depth.	R
15.10.10.7	Authorized roles must have the ability to view/enter narrative on any hydrologic indictors.	R
15.10.11	Authorized roles must have the ability to indicate whether or not an application drawing is complete and accurate.	R
15.10.11.1	Authorized roles must have the ability to view/enter/modify narrative if the application drawing is not complete and accurate.	R
15.10.12	Authorized roles must have the ability to view/enter/modify narrative on general field notes/comments.	R
15.10.13	Authorized roles must have the ability to attach files regarding inspection general field notes including, but not limited to Microsoft Office and Office compatible files, including .pdf.	R
15.10.14	Authorized roles must have the ability to view/enter the inspection end date if the end date differs from the start date.	R
15.10.14.1	The end date must indicate the last date of the actual on-site inspection.	R
15.10.15	Authorized roles must have the ability to capture inspection information in different formats.	R
15.10.16	Authorized roles must have the ability to indicate that another site inspection is necessary to make a determination regarding the site.	R
15.10.16.1	Authorized roles must have the ability to view/enter narrative as to why another site inspection is necessary.	R
15.10.16.2	The system must prompt authorized roles to trigger the inspection workflow for the new inspection.	R
15.10.16.3	The system must relate a new inspection request with existing inspection information for the purpose of viewing the historical data when back at the site.	R
15.10.16.3.1	The system must populate the new inspection with pertinent data from the old inspection.	R
15.10.16.4	The system must allow option to close the old inspection when the new inspection is opened.	R
15.11	Authorized roles must have the ability to schedule inspections based on permit types and facility basin years.	R

15.12	Authorized roles must have the ability to withdraw inspections.	R
15.12.1	Authorized roles must have the ability to indicate the reason an inspection was withdrawn.	R
15.12.1.1	Authorized roles must have the ability to enter narrative on why the inspection was withdrawn.	R
15.13	Authorized roles must have the ability to relate one or more inspection(s) to one functional area activity.	R
15.14	Authorized roles must have the ability to conduct a site inspection at any step in the permit application process.	R
15.15	Authorized roles must have the ability to prioritize site inspections, including, but not limited to, the following children requirements.	R
15.15.1	Authorized roles must have the ability to view site inspections prioritized on the number of days left in the permit processing window for each permit that requires an inspection.	R
15.15.2	Authorized roles must have the ability to view site inspections prioritized by geographic area on a map.	R
15.16	Authorized roles must have the ability to generate inspection documents.	R
15.16.1	Authorized roles must have the ability to use site inspection information for any activity at the site, at the time of the inspection.	R
15.18	The system must update inspection statuses upon data entered by the authorized role.	R
15.18.1	The system must record the status date for each status.	R
15.18.2	Authorized roles must have the ability to attach/upload files at any time to an inspection record, unless status is closed.	R
15.19	The system must change inspection record information and the inspection document to not editable once the status is "closed."	R
15.19.1	Authorized roles must have the ability to re-open inspection records for editing by authorized roles.	R
15.20	Authorized roles must have the ability to view/enter information on Dam Safety Inspections.	R
15.20.1	The system must notify authorized roles when a dam is due for inspection.	R
15.20.1.1	Authorized roles must have the ability to create/view/print a dam safety inspection reminder letter to send to dam owners when dams are due for inspections.	R
15.20.1.1.1	Authorized roles must have the ability to generate a copy of the dam safety inspection reminder for distribution to local emergency managers	R
15.20.1.2	Authorized roles must have the ability to create a list of state-owned dams that are due for inspection, to be used as the basis for the dam inspection Memo of Understanding (MOU) between DNR and DEQ.	R
15.20.8	Authorized roles must have the ability to create/view/print a dam inspection request acknowledgement letter.	R
15.20.2	Authorized roles must have the ability to indicate whether the state or a private firm will inspect the dam.	R
15.20.3	Authorized roles must have the ability to indicate receipt of the dam inspection report.	R
15.20.4	Authorized roles must have the ability to view/enter dam inspection report data into the system.	R
15.20.4.1	Authorized roles must have the ability to view/enter the inspection date.	R
15.20.4.8	Authorized roles must have the ability to view/enter the name of the engineer who sealed the inspection report.	R
15.20.4.9	Authorized roles must have the ability to view/enter the date/time the inspection report was received.	R
15.20.4.2	Authorized roles must have the ability to indicate the condition assessment of the dam.	R
15.20.4.2.1	Authorized roles must have the ability to indicate deficiencies if the dam did not pass inspection.	R
15.20.4.2.1.1	Authorized roles must have the ability to indicate the deficiencies of the dam	R
15.20.4.2.1.2	The system must prompt authorized roles that an emergency order for immediate action should be created if the authorized role indicates the condition of the dam unsatisfactory.	R
15.20.4.3	The system must prompt the authorized role to create an inspection report review letter, with compliance dates when appropriate, that the user can edit as needed.	R
15.20.4.3.1	The system must store the response requested dates from the inspection report review letter and notify authorized roles when due dates arrive.	R
15.20.4.3.2	The system must generate a close out letter to dam owner that the user can edit once the conditions of the inspection report review letter have been satisfied.	R
15.20.4.4	The system must store electronic receipt of the dam inspection report.	R

15.20.4.7	Authorized roles must have the ability to view/enter narrative notes in the file.	R
15.20.4.7.1	The system must record the date/time the narrative was entered into the system.	R
15.20.4.7.2	The system must record the userid/username the narrative was entered into the system.	R
15.20.6	Authorized roles must have the ability to route dam inspection work to other authorized roles.	R
15.21	Authorized roles must have the ability to view/enter information on compliance inspections.	R
15.21.1	Authorized roles must have the ability to indicate "confidential" on inspection records.	R
15.21.2	Authorized roles must have the ability to select documents or data to release from confidential inspection records.	R
15.22	Authorized roles must have the ability to view/enter site inspection information on mitigation banks.	R
15.22.1	Authorized roles must have the ability to provide site inspection feedback to the bank sponsor.	R
15.23	Authorized roles must have the ability to view/enter site inspection information on conservation easements.	R
15.25	Authorized roles must have the ability to relate an inspection to one or more site(s) of environmental interest.	R
15.26	Authorized roles must have the ability to create "ad hoc" inspections that do not stem from an existing legal document or action.	R
15.27	Authorized roles must have the ability to create/view/update inspections based on functional area and then program area.	R
15.28	The system must contain a collaborative inspection planning tool.	R
15.28.1	Authorized roles must have the ability to build inspection plans.	R
15.28.5	The system must create inspection due dates based on the date of the previous inspection and the cycle of the site.	R
15.28.2	The system must create individual inspection records from the plan once the plan is finalized.	R
15.28.3	The system must store a copy of the inspection plan for each workgroup.	R
15.28.4	The system must provide inspection suggestions based on historical inspections and inspection goals.	R
15.29	Authorized roles must have the ability to capture a violation from an inspection.	R
15.29.1	Authorized roles must have the ability to enter the part of statute, formal enforcement action or permit being violated.	R
15.29.2	Authorized roles must have the ability to enter GPS information regarding the location of the violation.	R
15.30	Authorized roles must have the ability to create/view/print inspection reports.	R
15.31	Authorized roles must have the ability to attach files related to the site inspection.	R
15.32	Authorized roles must have the ability to maintain an inspection activity log.	R
15.33	Authorized roles must have the ability to flag whether the inspection is due to an EPA commitment.	R
15.34	Authorized roles must have the ability to indicate that an inspection was due to one or more complaint(s).	R
15.35	Authorized roles must have the ability to view/enter/update/upload sample information.	R
15.36	Authorized roles must have the ability to enter/view/update field notes.	R
15.37	Authorized roles must have the ability to enter/view/update recommended necessary corrective action.	R

Compliance Schedules and E2RS requirements

Business Req. No.	Detailed Business Requirement Description	R/O
13.0	The system must accommodate the DEQ Schedule of Compliance business process.	R
13.1	Authorized roles must have the ability to view/enter/update Schedules of Compliance (SOCs).	R
13.1.1	Authorized roles must have the ability to modify SOCs.	R
13.1.2	Authorized roles must have the ability to inactivate SOCs.	R
13.1.2.1	The system must not change historical SOC information when an SOC is added or modified.	R
13.2	Authorized roles must have the ability to view/enter/update SOC types/categories.	R

13.2.1	Authorized roles must have the ability to modify SOC types/categories.	R
13.2.2	Authorized roles must have the ability to inactivate compliance schedule types/categories.	R
13.2.2.1	The system must not change historical compliance schedule type information when a compliance schedule types/categories is added, modified, or inactivated.	R
13.2.3	Authorized roles must have the ability to view enter one or more attributes per SOC type/category.	R
13.3	Authorized roles must have the ability to view/enter/update schedule templates.	R
13.3.1	Authorized roles must have the ability to modify schedule templates.	R
13.3.2	Authorized roles must have the ability to inactivate schedule templates.	R
13.3.2.1	The system must not change historical compliance schedule template information when a schedule template is added, modified, or inactivated.	R
13.31	Authorized roles must have the ability to relate one or more SOCs to a schedule template.	R
13.4	Authorized roles must have the ability to enter general dependencies for SOCs in a compliance schedule.	R
13.5	Authorized roles must have the ability to view/enter SOC statuses.	R
13.5.1	Authorized roles must have the ability to edit SOC statuses.	R
13.5.2	Authorized roles must have the ability to inactivate SOC statuses.	R
13.5.2.1	The system must not modify any historical SOC status information when a SOC status is modified.	R
13.6.1	Authorized roles must have the ability to relate compliance schedule types to one or more programs.	R
13.6.2	Authorized roles must have the ability to relate compliance schedule types to one or more functional areas.	R
13.6.3	Authorized roles must have the ability to relate compliance schedule templates to types of legal documents.	R
13.7	Authorized roles must have the ability to create compliance schedules for DEQ legal documents.	R
13.7.1	Authorized roles must have the ability to relate one or more SOCs to a legal document.	R
13.7.1.1	The system must display a schedule template for the legal document if one exists for the program.	R
13.7.1.2	Authorized roles must have the ability to create a schedule if no template exists.	R
13.7.1.2.1	Authorized roles must have the ability to select from existing SOCs.	R
13.7.1.2.2	Authorized roles must have the ability to enter a new SOC.	R
13.7.3	The system must display the SOCs required for the specified legal document compliance in the schedule.	R
13.7.4	Authorized roles must have the ability to view/enter/update SOC due dates.	R
13.7.4.1	Authorized roles must create a compliance schedule based on SOC dependencies if no specific dates are provided.	R
13.7.4.2	Authorized roles must have the ability to link SOCs to the completion of other SOCs in the schedule.	R
13.7.5.2.2.1	The system must store the date/time that a legal document's compliance schedule information is modified.	R
13.7.5.2.2.2	The system must store the user id/username that modified information on the SOC.	R
13.7.5.3	Authorized roles must have the ability to modify language on a specified SOC.	R
13.7.6	Once a permit or enforcement action is finalized in the system, the system must not allow users to modify SOC information.	R
13.7.6.1	Authorized roles must have the ability to view/enter/update related comments in a SOC at any time, regardless of status of the related legal document.	R
13.7.6.2	Authorized roles must have the ability to view/enter/update flags in a SOC at any time, regardless of status of the related legal document.	R
13.7.6.3	Authorized roles must have the ability to view/enter/update notification information in a SOC at any time, regardless of status of the related legal document.	R
13.7.6.4	Authorized roles must have the ability to add files to the SOC record, regardless of status of the related legal document.	R
13.7.7	The system must notify authorized roles when the final SOC for a permit or enforcement action is complete.	R
13.7.8	Authorized roles must have the ability to copy/paste the SOC framework from one SOC legal document to another legal document for the purpose of reuse.	R

13.7.8.1	Authorized roles must have the ability to copy SOCs from one or more existing schedules to a schedule in progress (in a draft legal document).	R
13.7.8.2	Authorized roles must have the ability to "carry forward" SOCs from one permit that is expiring to a related permit to be issued.	R
13.7.9	Authorized roles must have the ability to indicate whether approval is required and if so, whether it is done by staff or by the system (auto-approved).	R
13.9	Authorized roles must have the ability to directly relate SOCs to each other.	R
13.10	Authorized roles must have the ability to assign the authorized role responsible for compliance monitoring on a specific functional area document/activity with SOC oversight.	R
13.10.1	The system must notify authorized roles when a SOC is coming due within an administratively maintained timeframe.	R
13.10.2	Authorized roles must have the ability to enter/view statuses on an SOC.	R
13.10.3	Authorized roles must have the ability to create and modify compliance communication letters.	R
13.10.4	Authorized roles must have the ability to view SOCs with various sorting and filtering in a work list.	R
13.10.4.1	Authorized roles must have the ability to view a list of SOCs for which the logged-in user is responsible.	R
13.10.4.2	Authorized roles must have the ability to view SOCs by functional area, and sub groupings.	R
13.10.5	Authorized roles must have the ability to view SOCs grouped by the related legal document.	R
13.11	The system must notify authorized non-staff roles in an administratively maintained timeframe prior to a compliance submittal due date.	R
13.12	Authorized non-staff roles must have the ability to view/enter/update compliance information, via a secure online public-facing application, for permits or legal documents in effect or in force.	R
13.12.1	Authorized roles must have the ability to submit files/compliance information via the online compliance reporting system.	R
13.14	The system must have the ability to receive submitted compliance information.	R
13.14.1	The system must have the ability to receive submitted compliance information electronically via a secure online reporting system.	R
13.14.2	Authorized roles must have the ability to enter received submittal information in the system.	R
13.15	The system must notify authorized roles regarding changes in compliance schedule activity statuses.	R
13.15.1	The system must send "received "confirmation messages to submitters of compliance information/authorized roles when information is received.	R
13.15.2	The system must send approval/acceptance confirmation messages to submitters of compliance information/authorized roles if the information can be approved/accepted by the system.	R
13.15.3	Authorized roles must have the ability to send an "un-approvable report" message to submitters of compliance reports/authorized roles when the information is un-approvable and is received one day or more prior to the due date.	R
13.15.4	The system must send approval confirmation messages to submitters of compliance information, subject to user preferences, upon approval by authorized roles.	R
13.15.5	The system must create un-approvable message to submitters of compliance information when authorized roles indicate report as un- approvable and report is received one day or more prior to the due date.	R
13.15.5.1	Authorized roles must have the ability to view/modify the message to the submitter.	R
13.15.5.2	Authorized roles must have the ability to send or not send the message to the submitter.	R
13.15.6.1	The system must have the ability to relate an SOC to a violation.	R
13.15.7	The system must consolidate communications whenever possible and appropriate.	R
13.20	The system must store submittals, approvable or not, and relate them to an SOC or eDMR requirement.	R
13.21	Authorized roles must have the ability to delete pending SOCs.	R
13.22	Authorized roles must have the ability to modify SOCs once the originating document is final.	R
13.32	Authorized roles must have the ability to view/enter/update notification information on an SOC.	R
13.32.1	Authorized roles must have the ability to enter stipulated penalties as an SOC type.	R
13.33	Authorized roles must have the ability to view/enter/update a compliance schedule based on the deficiencies found in an inspection.	R
13.34	The system must generate a close out letter which authorized roles can edit as needed, to a site owner once the conditions of the emergency order have been satisfied.	R

13.35	Authorized roles must have the ability to view/enter/update narrative/comments on the SOC.	R
13.39	Authorized roles must have the ability to enter a decision on whether or not the information received is approvable.	R
13.36	Authorized roles must have the ability to indicate the outcome of each SOC, including, but not limited to, the following requirements.	R
13.36.1	Authorized roles must have the ability to enter a new "informal" date for the SOC.	R
13.36.2	Authorized roles must have the ability to indicate that the SOC is being carried forward to a new legal document.	R
13.36.3	Authorized roles must have the ability to indicate that no action will be taken on the SOC that was not accepted.	R
13.36.4	Authorized roles must have the ability to indicate that the SOC is closed.	R
13.36.5	Authorized roles must have the ability to indicate a status of "not applicable" on a SOC.	R
13.37	Authorized roles must have the ability to route SOC work items to other authorized roles.	R
13.38	Authorized roles must have the ability to view SOCs, based on due date, in a calendar function that is filterable based on various criteria.	R
31.0	The system must accommodate the DEQ compliance information submittal business process, including, but not limited to, DMR submittals and schedules of compliance (SOC) submittals.	R
31.2	Authorized roles must have the ability to maintain codes to be indicated by authorized roles when parameters are out of range or information does not meet compliance criteria.	R
31.2.1	Authorized roles must have the ability to view/enter codes.	R
31.2.2	Authorized roles must have the ability to edit codes.	R
31.2.3	Authorized roles must have the ability to inactivate codes.	R
31.2.4	The system must not allow editing of any historical non-numeric code references when a code is inactivated or modified.	R
31.3	Authorized roles must have the ability to maintain stage codes to be referenced by authorized non-staff roles.	R
31.3.1	Authorized roles must have the ability to view/enter stage codes.	R
31.3.2	Authorized roles must have the ability to edit stage codes.	R
31.3.3	Authorized roles must have the ability to inactivate stage codes.	R
31.3.4	The system must not allow editing of any historical stage codes when a stage code is inactivated or modified.	R
31.4	Authorized roles must have the ability to manage message language to be presented to authorized non-staff roles upon log-in based on the type of permission the role has.	R
31.4.1	Authorized roles must have the ability to view, enter, and edit an effective date and time for message language.	R
31.4.2	Authorized roles must have the ability to view, enter, and edit message language.	R
31.4.3	The system must provide spell check tools for online narrative fields for all roles.	R
31.4.4	Authorized roles must have the ability to view, enter, and edit comments regarding changes to the message language.	R
31.5	Authorized roles must have the ability to manage reporting requirements, by site.	R
31.5.1	Authorized roles must have the ability to specify a status for the reporting requirements by site.	R
31.5.2	Authorized roles must have the ability to specify a report type for a reporting requirement.	R
31.5.3	Authorized roles must have the ability to specify the reporting frequency relative to reporting requirements by site.	R
31.5.4	Authorized roles must have the ability to specify the month or months in which data are to be reported by the site.	R
31.5.5	Authorized roles must have the ability to enter/edit an effective start date and time for the reporting requirement for a site.	R
31.5.6	Authorized roles must have the ability to enter/edit an effective end date and time for the reporting requirement for a site.	R
31.5.7	Authorized roles must have the ability to generate an XML reporting requirements file from the reporting requirements specified for a legal document/action.	R
31.5.7.1	Authorized roles must have the ability to view an XML reporting requirements file for any site in human-readable format.	R
31.5.7.2	Authorized roles must have the ability to download an XML reporting requirements file for any site.	R

31.6	Authorized responsible parties must be provided access to the MiWaters compliance functionality via a public-facing (Internet) web site.	R
31.7	Authorized regulated parties must have the ability to log in to the MiWaters public-facing online system that processes compliance submittals.	R
31.8	An authorized regulated party must have the ability to log out of the MiWaters online system.	R
31.9	The system must display the count of facilities for which an authorized regulated party can certify submissions.	R
31.10	The system display the count of facilities for which an authorized regulated party has view-only access.	R
31.11	Authorized regulated parties must have the ability to view the sites with which they are associated if they are required to report data.	R
31.11.1	Authorized regulated parties must have the ability to view their role in reference to the site with which they are associated.	R
31.11.2	Authorized regulated parties must have the ability to view information relative to the sites with which they are associated.	R
31.12	Authorized regulated parties must have the ability to view/print/ download up-to-date reporting requirements for a site with which they are associated.	R
31.13.1	Authorized regulated parties must have the ability to complete an online entry web form to generate a submission file.	R
31.13.1.1	Authorized regulated parties must have the ability to indicate information to present an online entry form.	R
31.13.1.1	The system must pre-populate the online entry form with pertinent information.	R
31.13.1.1.1	The system must accommodate entry of information for one or more monitoring groups.	R
31.13.1.1.2	The system must enforce entry or selection of values in required fields to ensure a valid eDMR XML submission file.	R
31.13.1.1.3	The system must enforce date format of CCYY-MM-DD for all dates to ensure a valid eDMR XML submission file.	R
31.13.1.1.4	The system must provide the ability to enter general report comments.	R
31.13.1.1.5	Authorized regulated parties must have the ability to save values entered in an online entry form and return to it at a later time.	R
31.13.1.1.6	Authorized regulated parties must have the ability to generate an eDMR XML submission file from the contents of the web form.	R
31.13.1.1.7	The system must notify authorized regulated parties if data ready for submission will trigger a violation.	R
31.13.1.1.8.1	The system must prompt authorized roles to indicate an administratively maintained reason for the parameter being outside an acceptable range, for each parameter that will trigger a violation.	R
31.13.1.1.8.2	Authorized roles must have the ability to enter narrative on why a parameter is outside an acceptable range, for each parameter that will trigger a violation.	R
31.13.1.1.8.3	The system must calculate averages such as 7-day averages and prompt authorized users of violation so that they are able to enter reasons for the violation(s).	R
31.13.1.1.9	Authorized regulated parties must have the ability to indicate "no discharge" per outfall.	R
31.13.2	Authorized regulated parties must have the ability to copy data from a properly formatted spreadsheet such as Microsoft Excel and paste into an online web form to generate a submission file.	R
31.13.3	Authorized regulated parties must have the ability to obtain specifications for creating a valid XML submission file.	R
31.13.4	The system must verify that eDMR data files submitted conforms to reporting requirements.	R
31.13.4.1	The system must record whether or not the submitted data file conforms to data requirements.	R
31.13.4.2	The system must notify the authorized regulated party, via electronic mail, that a submission received.	R
31.14	Authorized regulated parties must have the ability to save a submission file locally.	R
31.14.1	Authorized regulated parties must have the ability to retrieve, edit, and resave a local previously saved submission file.	R
31.15	Authorized regulated parties must have the ability to certify and submit compliance reports.	R

31.15.1	Authorized regulated parties must have the ability to select a compliance file for submission.	R
31.15.2	Authorized regulated parties must have the ability to test the selected file for "well formed-ness" and validate it against eDMR XML schema if the report is an eDMR report.	R
31.15.3	Authorized regulated parties must have the ability to enter their unique PIN to represent an electronic signature when submitting compliance information.	R
31.15.4	Authorized regulated parties must have the ability to view certification language to which they must agree when submitting compliance information.	R
31.15.5	Authorized regulated parties must have the ability to indicate that they agree with the certification language when submitting compliance information.	R
31.16	Authorized regulated parties must have the ability to test for and report the "well formedness" of a proposed eDMR daily submission.	R
31.17	Authorized regulated parties must have the ability to test for and report eDMR report compliance with the DEQ eDMR data prior to submittal.	R
31.17.1	The system must notify authorized non-staff roles if data is out of range and will trigger a violation.	R
31.17.1.1.	The system must prompt authorized non-staff roles to indicate a reason regarding the violation if the authorized non-staff role proceeds with the submittal of data that will trigger a violation.	R
31.17.1.2	Authorized roles must have the ability to enter narrative on the violation if the authorized non-staff role proceeds with the submittal of data that will trigger a violation.	R
31.18	Authorized regulated parties must have the ability to print their own compliance reports	R
31.19	The system must enforce limitations on parameters for an eDMR based on limitations on parameters set for a regulated wastewater site in a legal document.	R
31.20	The system must acknowledge and confirm receipt of a submission by an authorized regulated party.	R
31.20.1	The system must generate and display a confirmation number upon a successful submittal by an authorized regulated party.	R
31.20.2	The system must have the ability to display to the authorized regulated party an "Upload Successful" message upon successful submittal.	R
31.20.3	The system must notify the authorized regulated party that a submission was received.	R
31.21	Authorized regulated parties must have the ability to view the status of submitted compliance information.	R
31.22	Authorized regulated parties must have the ability to search for and select submitted compliance reports to view, for the regulated sites with which they are associated.	R
31.22.1	Authorized regulated parties must have the ability to view submitted reports in the Form view.	R
31.22.2	Authorized regulated parties must have the ability to view submitted reports in the XML format view displayed in human readable format.	R
31.23.3	Authorized regulated parties must have the ability to view the submitted report Chain of Custody information.	R
31.23.3.1	The system must display the Certifiers login name relative to the submitted eDMR report.	R
31.23.3.2	The system must display the Certifiers login name relative to the submitted eDMR report.	R
31.23.3.3	The system must display the Certifiers TCP/IP address relative to the submitted eDMR report.	R
31.23.3.4	The system must display the Date and Time the file was selected, if available, relative to the submitted eDMR report	R
31.23.3.5	The system must display the Atomic Date and Time the file was sent.	R
31.23.3.6	The system must display the Atomic Date and Time the file was received.	R
31.23.3.7	The system must display the Atomic Date and Time the acknowledgement was sent to the Certifier account email address.	R
31.23.3.8	The system must display the Confirmation Number relative to the submitted eDMR report.	R
31.23.3.9	The system must display the Checksum validation date/time and results.	R
31.24	Authorized regulated parties must have the ability to view their reports that have not yet been submitted.	R
31.25	The system must have the ability to reject reports submitted by an authorized regulated party registered as a Certifier.	R
31.26	The system must trigger the violation workflow item if a compliance submittal was expected, but not received by a specified date.	R
31.26.1	The system must trigger a separate "compliance" workflow item if eDMR data is out of range.	R
31.26.1.1	The system must trigger a violation workflow item if eDMR data is out of range and the site submitting the data is a "major."	R

31.26.2	The system must trigger a violation workflow and eDMR violation workflow for any violation defined as "Significant Non-Compliance" (SNC).	R
31.27	Authorized roles must have the ability to submit versions of submittals if changes to data must be made.	R
31.28	The system must display monthly averages based on daily submittals of each parameter for compliance information that is submitted daily.	R
31.29	The system must trigger a violation workflow item if data is expected, but null data is received.	R
31.30	The system must update the online portion of the system with name and address information from the system.	R
31.31	Authorized regulated parties must have the ability to view system announcements.	R
31.32	Authorized regulated parties must have the ability to view online help.	R
31.33	System administrative functions for eSOCs and eDMRs must reside in MiWaters.	R
31.34	Authorized regulated parties must have the ability to prepare eDMR data for submission.	R
31.35	eDMR tolerances must be an administratively maintained reference value, depending on parameter.	R

IPP Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
29.0	The system must accommodate the DEQ Industrial Pretreatment Program (IPP) business process.	R
29.1	A public-facing online form that allows authorized non-staff roles to enter IPP Annual report information must sync with and populate with MiWaters.	R
29.1.1	Authorized non-staff roles must have the ability to view/enter/print annual report information.	R
29.1.1.1.	Authorized non-staff roles must have the ability to attach files to the annual report information.	R
29.2	Authorized non-staff roles must have the ability to view facility records.	R
29.2.1	Authorized non-staff roles must have the ability to submit electronic program documents for associated facility/SOC records from public facing website.	R
29.3	The system must accommodate the DEQ IPP annual report business process.	R
29.3.1	The system must trigger a workflow item for authorized roles to review submitted annual report information if annual report information is submitted.	R
29.3.2	The system must display historical annual report information and historical document submittals for the same facility for an administratively maintained timeframe.	R
29.3.3.	The system must validate that required data is entered, following configurable business rules.	R
29.3.4	The system must trigger the violation workflow when annual report information is expected, but not received by the indicated due date entered by the permit writer and/or enforcement staff.	R
29.3.5	The system must update the associated SOC with the received date and notify the AR when annual report information is received and trigger a review workflow.	R
29.4	Authorized roles must have the ability to view/enter/modify/print IPP information. (Optional, manual entry will be allowed)	R
29.4.1	Authorized roles must have the ability to indicate if the site is a state or federal IPP site.	R
29.5	Authorized roles must have the ability to transfer PPETS information to EPA	R
29.6	Authorized roles must have the ability to view on a map the SIUs, CIUs and IUs associated with a program for each facility.	R
29.6.1	Authorized roles must have the ability to create a point for each SIU, CIU and IU.	R
29.7	Authorized roles must have the ability to import/maintain/update/filter/print IU list	R
29.8	Authorized roles must have the ability to update history and make modifications to the IPP program and program elements	R
29.9	Authorized roles must have the ability to track the currently approved program.	R
29.9.1	The system must archive older program documents when new approved program documents replace the current one.	R

| 29.10 | The system must have the ability to record the local limits for permit maintenance. | R |
| 29.11 | The system must have the ability to track public notice dates/expirations for program modifications. Reminders should be sent to staff once they can continue. | R |

Complaints Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
12.0	The system must accommodate the DEQ complaint business process that allows people internal and external to DEQ to inform DEQ of complaints regarding observations at sites of environmental interest.	R
12.1	All global requirements apply to complaints requirements.	R
12.2	Authorized roles must have the ability to view/enter complaint statuses.	R
12.2.1	Authorized roles must have the ability to edit complaint statuses.	R
12.2.2	Authorized roles must have the ability to inactivate complaint statuses	R
12.2.3	The system must not modify any historical complaint status information when a complaint status is modified.	R
12.3	Authorized roles must have the ability to track complaints separately from all other activities in the system.	R
12.4	The system must store DEQ complaint information entered into the system.	R
12.5	Authorized roles must have the ability to enter information specific to a complaint for each complaint entered.	R
12.5.1	Authorized roles must have the ability to enter complainant name and address information and phone number.	R
12.5.16	Authorized roles must have the ability to indicate one or more complaint categories.	R
12.5.2	The system must allow authorized roles to enter location information of what was observed that triggered the complaint.	R
12.5.2.1	Authorized roles must have the ability to identify a point, line or polygon on a GIS map to graphically indicate the location where the complaint occurred.	R
12.5.2.1.1	Authorized roles must have the ability to modify the original GIS shape entered.	R
12.5.2.2	Authorized roles must have the ability to create one GIS point or polygon for a site of environmental interest where one or more (similar) complaint(s) are reported Summary: an event at one site can result in multiple complaints received. The complaints can be at the original site and at other associated sites (like downstream locations). Need to be able to put an umbrella around (be able to relate, like a parent/child relationship) all the complaints associated with the event. This may be done after the fact, Each complaint may have GIS attributes.	R
12.5.3	Authorized roles must have the ability to view/enter narrative on what the complainant observed.	R
12.5.4	Authorized roles must have the ability to enter additional narrative for internal purposes regarding the complaint.	R
12.5.5	Authorized roles must have the ability to enter whether or not the observation included a material release and/or any other unauthorized activity.	R
12.5.5.1	Authorized roles must have the ability to enter a description of the material release and/or any other unauthorized activity if a release and/or any other unauthorized activity occurred.	R
12.5.5.2	Authorized roles must have the ability to enter whether or not a release and/or any other unauthorized activity was ongoing at the time the complaint information was provided to DEQ, if a release occurred.	R
12.5.6	Authorized roles must have the ability to indicate whether or not the complainant wishes to remain anonymous.	R
12.5.7.	Authorized roles must have the ability to indicate if the complaint is a "self-report" of a violation.	R
12.5.7.1	The system must notify authorized role that complainant and alleged violator are the same person or entity if complaint is related to a violation.	R
12.5.9	Authorized roles must have the ability to attach files for complaint substantiation purposes.	R
12.5.10	Authorized roles must have the ability to add links to the on-line complaint form for complaint substantiation purposes.	R
12.5.11	Authorized roles must have the ability to enter the (approximate) date/time of the alleged activity that caused the complaint.	R

12.5.11.1	Authorized roles must have the ability to indicate that the date/time of the alleged activity is "unknown."	R
12.5.12	Authorized roles must have the ability to enter contact information of the alleged responsible party.	R
12.5.13	Authorized roles must have the ability to enter the (approximate) date/ time that the incident was observed or discovered.	R
12.5.13.1	Authorized roles must have the ability to indicate that the date/time of the alleged incident is "unknown."	R
12.5.14	Authorized roles must have the ability to enter the date/time a complaint is/was received by the Pollution Emergency Coordinator (PECC).	R
12.5.15	Authorized roles must have the ability to enter the date/time a complaint is received into DEQ/WRD.	R
12.6	The system must record the user id/username of the authorized role who received the complaint.	R
12.6.1	The system must record the date the authorized role entered the complaint.	R
12.6.2	The system must record the time the complaint was entered.	R
12.7	A public-facing, online complaint form must link to the system.	R
12.7.1	Authorized non-staff roles must enter specified information for the complaint to be valid.	R
12.7.1.1	The system must prompt authorized roles to indicate complaint location information on a map.	R
12.7.1.1.1	The system must populate location attribution data based on the location indicated.	R
12.8	The system must display the date/time the complaint was submitted.	R
12.10	The system must allow authorized roles the ability to prioritize complaints.	R
12.10.1	Authorized roles must have the ability to prioritize complaints by complaint type.	R
12.10.2	Authorized roles must have the ability to prioritize complaints by number of similar complaints in a specified geographic area.	R
12.10.2.1	Authorized roles must have the ability to link one or more event (complaint(s)) to one site.	R
12.10.3	Authorized roles must have the ability to view sites of environmental interest with active permits in the same geographic area as the alleged activity that triggered the complaint.	R
12.10.4	Authorized roles must have the ability to prioritize complaints by complaint status and status date.	R
12.11	The system must display sites of environmental interest with different colors (or layers) depending upon the status of the complaint associated with the site.	R
12.12	Authorized roles must have the ability to "refer" a complaint to another state agency or Local Unit of Government, electronically forwarding all compiled information on the complaint.	R
12.12.1	The system must store complaint referral information.	R
12.12.1.1	Authorized roles must have the ability to enter contact information of the person receiving the referral.	R
12.12.1.2	Authorized roles must have the ability enter the date/time of the referral.	R
12.12.1.3	Authorized roles must have the ability to indicate confirmation that referral was received.	R
12.12.2	Authorized users must have the ability to refer complaints via email.	R
12.12.2.1	The system must provide information regarding the complaint in the referral.	R
12.12.2.2	The system must provide authorized roles the ability to redact any complainant-provided information prior to referral.	R
12.12.2.2.1	The system must flag any contacts wishing to remain anonymous for authorized roles to view and potentially redact prior to sending.	R
12.13	Authorized roles must have the ability to provide a separate referral communication to each complainant(s) regarding related alleged activities so that each complainant understands who to contact for follow-up.	R
12.13.1	Authorized roles must have the ability to generate an email to complainants regarding related alleged activities at a particular site indicating that the complaint was referred to a Local Unit of Government or other agency.	R
12.13.1.1	Authorized roles must have the ability to provide Local Unit of Government contact information.	R
12.13.2	Authorized roles must have the ability to send a communication to each complainant(s) regarding related alleged activities, informing each complainant that the issue was resolved by the DEQ.	R
12.14	Authorized roles must have the ability to securely route complaint-related work to other authorized roles within the system.	R
12.15	Authorized roles must have the ability to relate a complaint to one or more sites of environmental interest.	R
12.16	Authorized roles must have the ability to relate multiple events complaints to one site of	R

	environmental interest.	
12.17	Authorized roles must have the ability to link a site inspection to a complaint.	R
12.18	Authorized roles must have the ability to link a violation to a complaint or a complaint to a violation.	R
12.32	Authorized roles must have the ability to link a complaint to a permit or a permit application.	R
12.19	Authorized roles must have the ability to query complaints based on one or more data elements including, but not limited to the following requirements.	R
12.19.1	Authorized roles must have the ability to query complaints by names.	R
12.19.9	Authorized roles must have the ability to query complaints by role/responsibility.	R
12.19.2	Authorized roles must have the ability to filter complaints by location information.	R
12.19.3	Authorized roles must have the ability to utilize GIS complaint layer to find complaints by location.	R
12.19.4	Authorized roles must have the ability to filter complaints based on whether or not the complaint has an associated violation.	R
12.19.4.1	Authorized roles must have the ability to view sites of environmental interest that have a violation and one or more associated complaints.	R
12.19.5	Authorized roles must have the ability to filter based on whether or not there are associated permits or permit applications in the vicinity of the location of the complaint.	R
12.19.5.1	Authorized roles must have the ability to query complaints by permit or permit application.	R
12.19.6	Authorized roles must have the ability to query based on whether or not the complaint is resolved.	R
12.19.7	Authorized roles must have the ability to query complaints based on specific district.	R
12.19.7.1	Authorized roles must have the ability to query complaints based on county.	R
12.19.7.2	Authorized roles must have the ability to query complaints based on TRS.	R
12.19.8	Authorized roles must have the ability to find complaints based on the specific complaint ID.	R
12.19.9	Authorized roles must have the ability to query the span of time, in days, between the receipt of a complaint and complaint resolution, by complaint.	R
12.20	Authorized roles must have the ability to view/print query results.	R
12.20.1	Authorized roles must have the ability to view/plot maps that spatially represent the results of the complaint query.	R
12.22	Authorized roles must have the ability to indicate the status of complaints, including, but not limited to the following requirements.	R
12.22.1	The system must store the date/time a status update was entered.	R
12.22.2	The system must store the userid/username who entered the complaint status update.	R
12.22.3	Authorized roles must have the ability to indicate the status of the complaint.	R
12.22.4	Authorized roles must have the ability to enter a designated status of "Resolved" and record a reason if not system-generated.	R
12.22.4.1	The system must prompt authorized roles to indicate a status of "Resolved" if the alleged activity that triggered the complaint is an activity in compliance with a permit.	R
12.22.4.2	The system must prompt authorized roles to indicate a status of "Resolved" if the complaint is referred outside Water Resources Division of DEQ.	R
12.22.4.3	The system must prompt authorized roles to indicate a status of "Resolved" if there is not enough information provided to substantiate the complaint.	R
12.22.4.4	The system must prompt authorized roles to indicate a status of "Resolved" if the site inspection triggered by the complaint results in a Violation being entered into the system.	R
12.22.4.4.1	The system must open a violation and relate complaint information to a violation if an authorized role gives a complaint the status of "Resolved due to a violation".	R
12.22.5	Authorized roles must have the ability to indicate a reason the complaint was resolved.	R
12.22.6	Authorized roles must have the ability to enter narrative on why the complaint was resolved.	R
12.22.7	Authorized roles must have the ability to enter a status of Active/Pending Additional Information if the complaint requires further investigation by authorized DEQ staff.	R
12.23	The system must store all historical complaint information.	R
12.25	Authorized roles must have the ability to delete complaints if entered in error	R
12.26	Authorized roles must have the ability to trigger a violation or enforcement workflow at any point in the complaint workflow.	R
12.27	Authorized roles must have the ability to view/enter complaint categories.	R
12.28	The system must notify authorized roles if the location of the complaint is at or near a conservation easement or conveyance.	R

12.27.1	Authorized roles must have the ability to edit complaint categories.	R
12.27.2	Authorized roles must have the ability to inactivate complaint categories	R
12.27.3	The system must not modify any historical complaint category information when a complaint category is modified.	R
12.29.1	Authorized roles must have the ability to edit ways a complaint is received.	R
12.29.2	Authorized roles must have the ability to inactivate ways a complaint is received.	R
12.29.3	The system must not modify any historical ways a complaint was received when the information is modified.	R
12.30	Authorized roles must have the ability to indicate one or more statutes or parts of statute that may be involved in the complaint.	R

Violations Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
14.0	The system must accommodate the DEQ violation business process.	R
14.1	Authorized roles must have the ability to view/enter violation categories.	R
14.1.1	Authorized roles must have the ability to modify violation categories.	R
14.1.2	Authorized roles must have the ability to inactivate violation categories.	R
14.1.3	The system must not change historical violation category information when a violation category is added, modified or inactivated.	R
14.1.4	Authorized roles must have the ability to view/enter violation types.	R
14.1.4.1	Authorized roles must have the ability to relate violation types to one or more violation categories.	R
14.1.4.2	Authorized roles must have the ability to modify violation types.	R
14.1.4.3	Authorized roles must have the ability to inactivate violation types.	R
14.1.4.4	The system must not change historical violation records when a sub-violation type is added, modified or inactivated.	R
14.1.5	Authorized roles must have the ability to enter one or more programs for each violation category.	R
14.2	Authorized roles must have the ability to view/enter sub-violations.	R
14.2.1	Authorized roles must have the ability to modify sub-violations.	R
14.2.2	Authorized roles must have the ability to inactivate sub-violations.	R
14.2.3	The system must not change historical sub-violation information when a sub-violation is added, modified or inactivated.	R
14.2.4	Authorized roles must have the ability to relate a sub-violation to one or more violation types.	R
14.3	Authorized roles must have the ability to enter a basis for each violation type	R
14.3.1	Authorized roles must have the ability to modify basis.	R
14.3.2	Authorized roles must have the ability to inactivate basis.	R
14.3.3	The system must not change historical violation information when a basis is added or modified.	R
14.4	Authorized roles must have the ability to indicate which combinations of category names, violations types and/or basis trigger violation notifications to authorized roles.	R
14.4.1	Authorized roles must have the ability to indicate which actions/events trigger violation notifications to authorized roles.	R
14.6	Authorized roles must have the ability to view/enter violation severity indicators	R
14.7	Authorized roles must have the ability to view/enter violation statuses.	R
14.7.1	Authorized roles must have the ability to edit violation statuses	R
14.7.2	Authorized roles must have the ability to inactivate violation statuses	R
14.7.3	The system must not modify any historical violation status information when a violation status is modified.	R
14.8	Authorized roles must have the ability to view/enter/update violation information regarding activities, site conditions, observations or sampling at sites of environmental interest.	R
14.8.1	The system must have the ability to generate violations resulting from compliance schedule exceedances/violations.	R
14.8.1.1	The system must notify authorized roles of violations when a required submittal is not received by its due date.	R

14.8.1.1.2	The system must recognize a "Schedule of Compliance" item as past due one day (or one business day if that is how the SOC is specified) after the due date.	R
14.8.1.2	The system must notify authorized roles when submitted information is outside the limits defined in the related permit/order.	R
14.8.1.4	The system must compare submitted information to permit/order information to determine whether or not a value is outside the normal tolerance.	R
14.8.1.5	The system must display all historical late submittals from a permittee when displaying current late submittals from a compliance schedule of that permittee.	R
14.8.1.6	The system must relate the violation to the SOC.	R
14.8.2	Authorized roles must have the ability to generate a violation after information is collected at a site inspection, confirming/documenting the violation.	R
14.8.2.1	Authorized roles must have the ability to relate a site inspection to one or more violation(s) created from that site inspection.	R
14.8.2.1.1	The system must populate any data pertinent to a violation found during a site inspection in the violation record.	R
14.8.7	Authorized roles must have the ability to relate one or more violation(s) to a site of environmental interest.	R
14.8.3	Authorized roles must have the ability to indicate one or more sub violations for a single violation.	R
14.8.3.1	Authorized roles must have the ability to modify the violation type.	R
14.8.3.2	The system must prompt authorized roles to indicate one or more sub-violations if a violation is selected that has related sub-violations	R
14.8.4	Authorized roles must have the ability to indicate one or more sub-violation type(s).	R
14.8.5	Authorized roles must have the ability to indicate a category.	R
14.8.6.1	The system must indicate "inspection" as the basis of a violation if an authorized role triggers a violation from an inspection.	R
14.9	The system must provide authorized roles notice of violations on the user's dashboard upon log-in.	R
14.9.1	Authorized role must have the ability to view/print violation dashboard messages	R
14.10	Authorized roles must have the ability to indicate how DEQ learned of the violation if the violation was not created by the system.	R
14.10.1	Authorized roles must have the ability to indicate if the violation was self-reported.	R
14.10.2	Authorized roles must have the ability to view how DEQ learned of the violation	R
14.13.4	Authorized roles must have the ability to indicate "ignore the violation," not taking any action at the time of viewing the violation.	R
14.13.6.3	Authorized roles must have the ability to record the number of days a violation occurred to assist field staff involved in enforcement.	R
14.13.6.3.1	Authorized roles must have the ability to enter the violation start date for specified violations.	R
14.13.6.3.2	Authorized roles must have the ability to enter the violation end date for specified violations.	R
14.13.6.3.3	Authorized roles must have the ability to enter the violation "detection" date for specified violations.	R
14.16	Authorized roles must have the ability to view historical violation information for a particular violation.	R
14.18	Authorized roles must have the ability to logically delete violations that were created due to error.	R
14.18.4	Authorized roles must indicate a reason why the violation was removed.	R
14.18.5	Authorized roles must have the ability to enter narrative on why the violation was removed.	R
14.19	Authorized roles must have the ability to relate a permit to a violation if the permit was the result of a violation.	R
14.20	Authorized roles must have the ability to enter flag types for resource violations.	R
14.21	Authorized roles must have the ability to indicate a flag on a violation.	R
14.23	All global requirements apply to this section.	R
14.24	Authorized roles must have the ability to create multiple violations at once, all with the same base information, depending on how the violation is created.	R
14.25	Authorized roles must have the ability to view the status change history for a violation.	R
14.25.1	Authorized roles must have the ability to view the username/user id who updated the status	R

14.25.2	Authorized roles must have the ability to view the date/time who updated the status	R
14.25.3	The system must notify authorized roles if complainant and alleged violator are the same person or entity if complaint is related to a violation.	R
14.25.4	Authorized roles must have the ability to indicate a violation on parts of a permit.	R
14.25.5	Authorized roles must have the ability to create/view/print an annual summary, per permittee, of violations for an administratively set timeframe and compliance requirements for an administratively set future amount of time.	R
14.26	Authorized roles must have the ability to enter enforcement actions for a violation. Once all of the enforcement actions are entered this will "resolve" a violation.	R
14.26.1	Authorized roles must have the ability to indicate a reason the violation was resolved.	R
14.26.2	Authorized roles must have the ability to enter narrative on why the violation was resolved.	R
14.26.3	Authorized roles must have the ability to manually switch the status of violations to other statuses, other than resolved.	R

Compliance and Enforcement (C&E) Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
19.0	The system must accommodate the DEQ Compliance and Enforcement business process.	R
19.1	Authorized roles must have the ability to trigger enforcement, and escalate enforcement by sequential actions.	R
19.1.3	Authorized roles must have the ability to trigger a site inspection from the case.	R
19.1.4	Authorized roles must have the ability to create/view/print a closure/termination letter to the responsible party.	R
19.2	Authorized roles must have the ability to attach the responsible party's confirmation of receipt to a violation notice.	R
19.4.1	Authorized roles must have the ability to relate an enforcement case directly to a site of environmental interest.	R
19.4.2	Authorized roles must have the ability to indicate civil enforcement case.	R
19.4.2.1	The system must route civil enforcement work to authorized roles responsible for that work.	R
19.4.2.2	Authorized roles must have the ability to indicate that the civil enforcement case is closed, escalated or pending.	R
19.4.2.2.1	Authorized roles must have the ability to indicate the next step of an enforcement case if the case is marked as pending.	R
19.4.2.3	Authorized roles must have the ability to indicate AG involvement if the enforcement case is marked as escalated.	R
19.5	Authorized roles must have the ability to indicate administrative settlement.	R
19.5.1	Authorized roles must have the ability to track the progress of the administrative settlement through the process.	R
19.5.2	Authorized roles must have the ability to create/view/print an Administrative Consent Order (ACO).	R
19.5.3	Authorized roles must have the ability to indicate the ACO type.	R
19.5.4	Authorized roles must have the ability to relate the ACO to one or more violations when an ACO is entered.	R
19.5.5	Authorized roles must have the ability to relate the ACO to one or more permits.	R
19.5.6	Authorized roles must have the ability to relate the ACO to one or more schedules of compliance.	R
19.5.7	Authorized roles must have the ability to view/enter/update penalty information on the ACO.	R
19.5.7.1	Authorized roles must have the ability to view/enter/update (variable) payment schedule information on the penalty.	R
19.5.7.2	Authorized roles must have the ability to view/enter/update (variable) Supplemental Environmental Projects (SEP) information on the penalty, if any were incurred.	R
19.5.7.3	Authorized roles must have the ability to indicate any penalties that were paid.	R
19.5.8	Authorized roles must have the ability to route ACO work to other authorized roles.	R
19.6	Authorized roles must have the ability to "resolve" violations associated with an order when the order is created.	R
19.6.1	Authorized roles must have the ability to view/enter/update the date the ACO was signed.	R

19.6.2	Authorized roles must have the ability to indicate that an ACO can specify a set of time period limits that supersede the permit limits.	R
19.7	Authorized roles must have the ability to view/enter/update information on General Administrative Consent Orders (GACOs).	R
19.7.1	Authorized roles must have the ability to relate one or more SOCs to the GACO.	R
19.7.1	Authorized roles must have the ability to relate a Certificate of Entry to the GACO.	R
19.8	Authorized roles must have the ability to relate an enforcement action to one or more sites of environmental interest.	R
19.9	Authorized roles must have the ability to relate an enforcement action to one or more responsible parties.	R
19.10	Authorized roles must have the ability to address violations occurring subsequent to enforcement issuance	R
19.11	Authorized roles must have the ability to indicate that formal enforcement action has modified permit effluent limits and/or SOCs.	R
19.11.1	Authorized roles must have the ability to indicate the length of time the action modified each limit and/or SOC.	R
19.12	Authorized roles must have the ability to indicate that an enforcement action was referred to the Escalated Enforcement Review Team (EERT).	R
19.12.1	Authorized roles must have the ability to enter the date of the EERT.	R
19.12.2	Authorized roles must have the ability to enter narrative regarding the EERT.	R
19.13	Authorized roles must have the ability to view/enter/update one or more DEQ responses to a violation.	R
19.13.1	Authorized roles must have the ability to indicate that the DEQ requested a Corrective Action Plan (CAP) or response from the violator.	R
19.13.1.1	Authorized roles must have the ability to incorporate the CAP request into a legal document as one or more SOCs.	R
19.13.2	Authorized roles must have the ability to relate one or more enforcement actions to a violation.	R
19.13.3	Authorized roles must have the ability to create a compliance communication.	R
19.13.3.1	Authorized Roles must have the ability to relate one or more violations to a compliance communication.	R
19.13.3.2	Authorized roles must have the ability to view, print and email the compliance communication.	R
19.13.3.3	The system must display related violations in a compliance communication.	R
19.13.4	Authorized roles must have the ability to create a violation notice.	R
19.13.4.1	Authorized roles must have the ability to relate one or more violations to a Violation Notice.	R
19.13.4.2	The system must display related violations in a violation notice.	R
19.13.4.3	Authorized roles must have the ability to view, print and email the violation notice.	R
19.13.5	Authorized roles must have the ability to create Second Violation Notices.	R
19.13.5.4	Authorized roles must have the ability to route a Second Violation Notice for approval.	R
19.13.5.5	AR must have the ability to relate one or more violations to a Second Violation Notice.	R
19.13.5.6	The system must display related violations in a second violation notice.	R
19.13.5.1	Authorized roles must have the ability to view, print and email the Second Violation Notice.	R
19.13.6	Authorized roles must have the ability to create/view/print an Enforcement Notice.	R
19.13.6.1	Authorized roles must have the ability to send the Enforcement Notice via certified mail.	R
19.13.6.2	Authorized roles must have the ability to relate the enforcement notice to one or more violations.	R
19.13.6.4	The system must route enforcement work to authorized roles responsible for that work.	R
19.13.7	Authorized roles must have the ability to refer a violation for criminal investigation.	R
19.13.8	Authorized roles must have the ability to send a civil liability letter to the violator.	R
19.13.9	Authorized roles must have the ability to view/indicate one or more assessed monetary penalties.	R
19.13.9.1	Authorized roles must have the ability to indicate stipulated penalties.	R
19.13.9.1.1	Authorized roles must have the ability to enter the date that the stipulated penalty is demanded as a result of violating an order.	R
19.13.9.1.2	Authorized roles must have the ability to view the date that the stipulated penalty is paid.	R
19.13.9.1.3	Authorized roles must have the ability to enter narrative on the stipulated penalties.	R

19.13.10	Authorized roles must have the ability to view/enter/update any person or entity notified of the violation, other than the violator.	R
19.13.10.1	Authorized roles must have the ability to notify EPA of enforcement activity if the location is an EPA red file location.	R
19.13.10.1.1	The system must notify authorized roles of any violation meeting red-file criteria.	R
19.13.11	Authorized roles must have the ability to cite parts of a statute related to a particular violation in any document disseminated regarding that violation.	R
19.13.11.1	Authorized roles must have the ability to indicate one or more parts of statute related to the violation.	R
19.13.11.2	Authorized roles must have the ability to view/enter/update narrative on parts of statute related to the violation.	R
19.14	Authorized roles must have the ability to view/enter/update information on what was done to correct the violation.	R
19.14.1	Authorized roles must have the ability to view the span of time between the violation start date and the violation end date.	R
19.14.3	Authorized roles must have the ability to indicate that no action was necessary.	R
19.15	Authorized roles must have the ability to create a letter to formally notify the responsible party that he/she/it has returned to compliance or addressed the issue of noncompliance.	R
19.16	Authorized roles must have the ability to view/enter/update information on judicial cases and hearings.	R
19.17	Enforcement cases must be related to a site of environmental interest.	R
19.18	Authorized roles must have the ability to view/enter/update case information into the system.	R
19.22.5	Authorized roles must have the ability to indicate Criminal Case.	R
19.22.8	Authorized roles must have the ability to view/enter/update statuses for cases and hearings.	R
19.22.8.1	Authorized roles must have the ability to view/enter/update information on the criminal case	R
19.22.8.2	Authorized roles must have the ability to view/enter/update the outcome of the case.	R
19.22.8.3	Authorized roles must have the ability to flag a criminal record as confidential, allowing limited access to the information or record.	R
19.22.8.3.1	The system must allow all roles to view the criminal information once the file is closed.	R
19.22.9	Authorized roles must have the ability to scan/index court-related information and relate to specified case information.	R
19.23	Authorized roles must have the ability to close a case.	R
19.23.1	Authorized roles must have the ability to create/view/print a letter to the responsible party.	R
19.23.2	Authorized roles must have the ability to indicate that the case is being tracked/monitored.	R
19.23.3	Authorized roles must have the ability to relate a compliance schedule to the case.	R
19.24	Authorized roles must have the ability to enter activity log information on enforcement actions.	R
19.25	Authorized roles must have the ability to attach files to an enforcement action.	R

High/Low Flow Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
23.0	The system must accommodate the high flow/low flow business process.	R
23.1	Authorized roles must have the ability to view/enter statuses for high/low flow requests.	R
23.2	Authorized roles must have the ability to modify statuses for high/low flow requests.	R
23.3	Authorized roles must have the ability to inactivate statuses for high/low flow requests.	R
23.3.1	The system must not modify historical status information if high/low flow statuses are modified or inactivated.	R
23.4	Authorized non-staff roles must have the ability to enter requests into a public-facing online form that links to MiWaters.	R
23.4.1	Authorized non-staff roles must have the ability to enter one or more locations on one request.	R
23.4.2	The system must send an email to the requestor, upon confirmation, that a request was received in the system.	R

23.4.3	Authorized non-staff roles must have the ability to view the status of a request.	R
23.4.4	Authorized non-staff roles must have the ability to attach files to the request.	R
23.4.5	Authorized non-staff roles must have the ability to indicate if there are both high and low flows to be evaluated.	R
23.4.8	Authorized non-staff roles must have the ability to indicate the location for the high or low flows on a map.	R
23.4.8.1	The system must populate location attribution information based on the location selected on the map	R
23.4.6	Authorized roles must have the ability to view what was done historically for the same location.	R
23.4.6.1	Authorized roles must have the ability to view what was done historically on the same stream.	R
23.4.7	Authorized non-staff roles must have the ability to enter contact information.	R
23.4.7.1	A DEQ staff contact must be required if a low flow is requested.	R
23.4.9	Authorized roles must have the ability to indicate the dam id number if dam is selected as a request type.	R
23.5	Authorized roles must have the ability to view/enter requests in the system.	R
23.5.1	Authorized roles must have the ability to modify information on a received request.	R
23.5.2	Authorized roles must have the ability to indicate one or more request type(s).	R
23.5.2.1	The system must prompt authorized roles to indicate one or more flow type(s) based on the request type(s).	R
23.5.2.2	Authorized non-staff roles must have the ability to select a flow that is not indicated based on the type.	R
23.5.2.3	The system must store an image of the original request.	R
23.7	Authorized roles must have the ability to indicate that the request cannot be processed.	R
23.7.3	The system must prompt authorized roles to indicate why the request cannot be processed.	R
23.7.3.1	The system must display the date/time the reason was indicated	R
23.7.3.2	The system must display the username/id the reason was indicated	R
23.7.2	The system must prompt authorized roles to enter narrative on why the request cannot be processed.	R
23.7.1	Authorized roles must have the ability to create a communication to the requestor indicating that the request cannot be processed.	R
23.8	Authorized roles must have the ability to indicate that additional information was requested.	R
23.8.1	Authorized roles must have the ability to enter narrative on the additional information requested.	R
23.8.1.1	Authorized roles must have the ability to create/view/print a communication to the requestor indicating that additional information is required to complete the request.	R
23.8.1.2	Authorized roles must have the ability to close the request due to insufficient information if the requestor did not return requested information within an administratively maintained amount of time.	R
23.8.1.2.2	The system must notify authorized roles when the request is within an administratively maintained window from the processing timeframe-end and requested information has not been received from the requestor.	R
23.8.1.2.1	Authorized roles must have the ability to create/view/print a communication indicating that the request is canceled.	R
23.9	Authorized roles must have the ability to withdraw a request.	R
23.10	Authorized roles must have the ability to process emergency requests.	R
23.10.1	Authorized roles must have the ability to flag a request as an emergency request.	R
23.10.1.1	Authorized roles must have the ability to enter the DEQ or SOM staff person working on the associated legal document/activity requiring the high/low flow.	R
23.10.1.2	Authorized roles must have the ability to enter the requested due date of the emergency request.	R
23.10.2	The system must prioritize emergency requests with non-emergency requests based on the due date and status.	R
23.11	Authorized roles must have the ability to attach one or more analysis spreadsheets to the request.	R
23.11.2	Authorized roles must have the ability to view/print/export analysis spreadsheets.	R
23.11.4	Authorized roles must have the ability to update base template formulas.	R
23.11.4.1	The system must not modify historical spreadsheets when templates are modified.	R
23.12	The system must store calculation spreadsheets for each request.	R

23.12.1	The system must retrieve data from the correct spreadsheet based on user method selection and populate fields in the system.	R
23.13	Authorized roles must have the ability to create/view/print a response for each request.	R
23.14	Authorized roles must have the ability to modify the document, once created, from the template.	R
23.15	Authorized roles must have the ability to send the document to the requestor.	R
23.15.1	The system must store the sent document in the record.	R
23.15.2	The communication must indicate that high flows and low flows will come in separate emails, if both high and low flows were requested.	R
23.15.3	The communication must contain the "process number" (unique identifier created by system).	R
23.15.3.1	The process number must accommodate older numbers with newer numbers created for both high and low flows	R
23.16	Authorized roles must have the ability to create/view/print reports functionally similar to reports generated in HFlow Summary for both high and low flow processing.	R
23.17	Authorized roles must have the ability to create update records that are not associated with a request.	R
23.17.1	Authorized roles must have the ability to enter narrative as to why the update occurred.	R
23.11.1	Authorized roles must have the ability to save one or more versions of an analysis spreadsheet.	R
23.17.2	Authorized roles must have the ability to supersede old values with values from the update, but maintain both old and new records.	R
23.17.3	Authorized roles must have the ability to indicate that an update was completed, but old values will continue to be used.	R
23.18	Authorized roles must have the ability to pull data into the system from the USGS website.	R
23.18.2	The system must process frequency values from USGS peak flow information.	R
23.18.2.1	The system must display the date/time the peak flow information was last updated.	R
23.18.2.1.1	Authorized roles must have the ability to update peak flow information.	R
23.19	Authorized roles must have the ability to update statistics from USGS.	R
23.19.1	Authorized roles must have the ability to update daily values.	R
23.19.2	Authorized roles must have the ability to update peak flow for each year.	R
23.19.3	Authorized roles must have the ability to update low flow statistics.	R
23.19.4	Authorized roles must have the ability to add gauges.	R
23.20	Authorized roles must have the ability to create/view files that are functionally similar to current hflow cards printed for each request.	R
23.21	The system must accommodate the stream flow measurement business process.	R
23.21.1	Authorized roles must have the ability to view/enter statuses for stream flow requests.	R
23.21.2	Authorized roles must have the ability to modify statuses for stream flow requests.	R
23.21.3	Authorized roles must have the ability to inactivate statuses for stream flow requests.	R
23.21.3.1	The system must not modify historical information if stream flow statuses are modified or inactivated.	R
23.21.4	Authorized roles must have the ability to enter stream flow requests in the system.	R
23.21.5	Authorized roles must have the ability to view stream flow requests.	R
23.21.6	Authorized roles must have the ability to enter the latitude and longitude for the stream flow request.	R
23.21.7	Authorized roles must have the ability to view all data associated with a stream flow study.	R
23.21.7.1	Authorized roles must have the ability to attach files to the record (discharge notes, curve files).	R
23.21.8	The system must notify authorized roles (requestor) when results can be viewed.	R
23.21.9	Authorized roles must have the ability to compile pertinent information and send to USGS in USGS format.	R
23.21.9.1	Authorized roles must have the ability to create separate files for distribution to USGS for each set of discharge notes.	R
23.22	Rounding conventions must follow DEQ business rules.	R
23.23	Unit conventions must follow DEQ business rules.	R
23.24	All global requirements apply to the high/low flow section.	R

Mitigation Banks Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
16.0	The system must accommodate the DEQ mitigation bank business process.	R
16.1	Authorized roles must have the ability to enter mitigation bank statuses.	R
16.1.1	Authorized roles must have the ability to modify mitigation bank statuses.	R
16.1.2	Authorized roles must have the ability to inactivate mitigation bank statuses.	R
16.1.3	The system must not change historical mitigation bank status information when a status is added, modified or inactivated.	R
16.2	The system must have the ability to receive pre-proposal information on mitigation banks.	R
16.2.1	Authorized roles must have the ability to enter pre-proposal information online via a public-facing form.	R
16.2.2	Authorized roles must have the ability to attach a completed electronic version of a pre-proposal document.	R
16.3	Authorized roles must have the ability to enter site inspection information on the proposed mitigation site.	R
16.4	Authorized roles must have the ability to indicate whether or not the site is potentially acceptable for a mitigation bank.	R
16.5	Authorized roles must have the ability to provide feedback to the potential bank sponsor.	R
16.5.2	The system must display the date the document was created.	R
16.5.3	The system must display the username/id who created the document.	R
16.5.1	Authorized roles must have the ability to include a Wetland Identification Program (WIP) application if wetlands are found at the site.	R
16.6	The system must have the ability to receive mitigation bank proposals.	R
16.6.1	Authorized roles must have the ability to link the mitigation bank proposal to a permit application.	R
16.7	Authorized roles must have the ability to indicate statuses for mitigation bank proposals.	R
16.7.1	Authorized roles must have the ability to indicate whether or not the proposal is administratively complete.	R
16.7.1.1	Authorized roles must have the ability to notify the potential bank sponsor if the proposal is not administratively complete.	R
16.7.2	The system must record the date the proposal was marked as complete.	R
16.7.2.1	The system must record the username who marked the proposal as complete.	R
16.8	The system must accommodate the DEQ mitigation bank internal agency review process.	R
16.8.1	Authorized roles must have the ability to route mitigation bank work to other authorized roles in the system.	R
16.8.2	Authorized roles must have the ability to indicate statuses on the mitigation bank proposal as it goes through the review process.	R
16.9	Authorized roles must have the ability to create/view/print a mitigation bank agreement.	R
16.9.2	Authorized roles must have the ability to route the agreement for approval in the system.	R
16.9.1	The system must track versions of mitigation bank agreements.	R
16.10	Authorized roles must have the ability to enter information on mitigation bank checks received.	R
16.10.1	Authorized roles must have the ability to indicate that a check was received.	R
16.10.5	Authorized roles must have the ability to scan and index the check.	R
16.10.6	Authorized roles must have the ability to view the redacted check.	R
16.10.7	Authorized roles must have the ability to indicate that the check was filled out incorrectly.	R
16.10.7.1	Authorized roles must have the ability to indicate that the check was sent back to the mitigation bank sponsor.	R
16.10.7.2	The system must prompt the authorized role to generate a letter to the bank sponsor indicating return of the check.	R
16.10.8	Authorized roles must have the ability to indicate if the payment was via interdepartmental grant (IDG).	R
16.11	The system must have the ability to accept monitoring reports electronically.	R
16.12	The system must notify authorized roles when monitoring reports are due from bank sponsors.	R
16.13	The system must prompt authorized roles to send reminder communications to bank sponsors	R

	prior to the monitoring report due date.	
16.14	The system must prompt authorized roles to generate a compliance letter when monitoring report information is not received by the due date.	R
16.15	Authorized roles must have the ability to enter information on mitigation bank credit approval requests.	R
16.15.1	Authorized roles must have the ability to receive credit approval requests.	R
16.15.1.1	Authorized roles must have the ability to enter approval request information into the system.	R
16.15.1.2	Authorized non-staff roles must have the ability to enter approval request information into an online public-facing form.	R
16.15.2	The system must notify authorized roles if the request was received prior to the earliest use date indicated on the agreement.	R
16.15.3	Authorized roles must have the ability to indicate approval of the mitigation bank credit request.	R
16.15.3.1	Authorized roles must have the ability to approve mitigation bank credit requests in phases.	R
16.15.3.2	Authorized roles must have the ability to approve mitigation bank credits by type.	R
16.15.3.2.1	Authorized roles must have the ability to approve mitigation bank credits by acreage per type.	R
16.15.3.2.2	Authorized roles must have the ability to round acreage to the nearest hundredth of an acre in favor of the bank sponsor.	R
16.15.3.3	The system must prompt authorized roles to create/print an approval letter and all associated approval information to the bank sponsor regarding the mitigation bank approval request.	R
16.15.4	The system must not allow the issuance of a permit with bank credits if there are insufficient credits in the bank.	R
16.15.5	Authorized roles must have the ability to deny credit approval requests.	R
16.15.5.1	The system must prompt authorized roles to create a denial letter to the bank sponsor.	R
16.15.6	Authorized roles must have the ability to approve an amount of credits smaller than what was requested by the bank sponsor.	R
16.16	Authorized roles must have the ability to link mitigation bank credits to permits when applicable.	R
16.17	Authorized roles must have the ability to enter information on mitigation bank site inspections.	R
16.17.1	Authorized roles must have the ability to view a mitigation bank site inspection report.	R
16.18	Authorized roles must have the ability to track the sale of mitigation bank credits.	R
16.18.1	Authorized roles must have the ability to scan the received mitigation bank credit sale document.	R
16.18.2	Authorized roles must have the ability to index the received mitigation bank sale document.	R
16.18.3	Authorized roles must have the ability to view/enter/update mitigation bank sale information.	R
16.18.3.1	Authorized roles must have the ability to enter the price of the mitigation bank sale.	R
16.18.3.1.1	The system must indicate that the sale price of the mitigation bank sale is not FOIAble.	R
16.18.3.2	Authorized roles must have the ability to enter mitigation bank buyer information into the system.	R
16.18.3.3	Authorized roles must have the ability to enter the date of the mitigation bank sale.	R
16.18.3.3.1	Authorized roles must have the ability to enter the date of notification of the sale.	R
16.18.3.3.2	The system must display the number of days between notification and sale.	R
16.18.9	Authorized roles must have the ability to correct received mitigation bank sale information.	R
16.18.4	The system must notify authorized roles when the mitigation bank is within a particular threshold of total sale.	R
16.18.5	The system must notify authorized roles when the purchase of the mitigation bank appears to be for a project outside of the watershed for that mitigation bank.	R
16.18.6	Authorized roles must have the ability to link mitigation bank credit sales to permits.	R
16.18.7	Authorized roles must have the ability to enter credits from multiple banks for one buyer.	R
16.18.8	Authorized roles must have the ability to apply credits to multiple projects.	R
16.19	Authorized roles must have the ability to enter mitigation bank annual report information.	R
16.19.1	Authorized roles must have the ability to attach mitigation bank annual reports.	R
16.19.2	Authorized roles must have the ability to enter mitigation bank annual report information via an online public facing form.	R
16.20	Authorized roles must have the ability to view the purchase receipt of mitigation bank credits prior	R

	to signing the permit.	
16.21	Authorized roles must have the ability to create reports on mitigation banks.	R
16.22	Authorized roles must have the ability to view mitigation bank attribution information on a GIS layer.	R
16.22.1	Authorized roles must have the ability to view the phases of a mitigation bank on a GIS layer.	R
16.23	Authorized roles must have the ability to query mitigation bank information.	R
16.23.1	Authorized roles must have the ability to view/print mitigation bank query results.	R

Conservation Easement Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
17.0	The system must accommodate the DEQ conservation easement business process.	R
17.1	Authorized roles must have the ability to view/enter conservation easement statuses.	R
17.1.1	Authorized roles must have the ability to edit conservation easement statuses.	R
17.1.2	Authorized roles must have the ability to inactivate conservation easement statuses.	R
17.1.3	The system must not change historical conservation easement status information when a status is added, edited or inactivated.	R
17.2	The system must notify authorized roles when a legal document/action requiring an easement is issued.	R
17.2.1	The system must relate the conservation easement to the legal document/action requiring it.	R
17.3	Authorized roles must have the ability to create a conservation easement without a related legal document/action being required for completion.	R
17.4	Authorized roles must have the ability to indicate that a project does not require an easement.	R
17.4.1	Authorized roles must have the ability to indicate the reason a conservation easement is not required.	R
17.4.1.1	Authorized roles must have the ability to indicate that the project is a transportation project.	R
17.4.1.2	Authorized roles must have the ability to indicate what the mitigation requirement is in acreage, administratively maintained.	R
17.5	Authorized roles must be able to indicate the date the conservation easement is due.	R
17.5.1	The system must notify authorized roles if the conservation easement is past due.	R
17.6	Authorized roles must have the ability to indicate/view easement statuses.	R
17.6.1	The system must display the date/time a status was entered for the conservation easement.	R
17.6.2	The system must display the user id/username of who entered the status on the conservation easement.	R
17.6.3	The system must display statuses on a conservation easement, ordered by date, with the most recent date and related information at the top.	R
17.7	Authorized roles must have the ability to view/enter/update conservation easement information.	R
17.7.1	Authorized roles must have the ability to view/print documents/files related to the conservation easement.	R
17.7.2	Authorized roles must be able to relate one or more conservation easements to a permit or order.	R
17.8	Authorized roles must have the ability to attach files to the conservation easement record.	R
17.9	Authorized roles must have the ability to indicate whether or not Attorney General (AG) review is required.	R
17.9.1	Authorized roles must have the ability to view/enter/update narrative in proposed conservation easement if AG review was required and changes recommended.	R
17.9.2	The system must display the date/time AG assistance was requested.	R
17.10	External authorized roles must have the ability to view/enter/update conservation easement information via a secure, public-facing online form.	R
17.10.1	External authorized roles must have the ability to attach conservation easement files to the form.	R
17.11	Authorized roles must have the ability to indicate that the easement has passed or not passed review.	R
17.11.1	System must display indication that easement has been approved by field staff.	R
17.11.2	System must display indication that easement location information has been converted to GIS	R

	polygon and added to the easement layer.	
17.11.3	System must display indication that easement has not been approved by field staff.	R
17.11.4	System must display indication that easement location information could not be converted to GIS polygon and/or added to the easement layer.	R
17.12	Authorized roles must have the ability to send a Revision Request Communication to Easement Holders.	R
17.12.1	Authorized roles must have the ability to indicate that the easement holder responded to the Revision Request Communication.	R
17.13	Authorized roles must have the ability to print the conservation easement for signature.	R
17.14	Authorized roles must have the ability to scan the signed conservation easement into the system.	R
17.14.1	The system must prompt users to indicate that the original conservation easement document "must be maintained."	R
17.14.2	The system must allow authorized roles to input information on location of original easement documents.	R
17.15	The system must keep a conservation easement active, even if the easement is related to a legal document/action and that legal document/action is closed, unless an easement is closed or terminated by an authorized role.	R
17.16	Authorized roles must have the ability to process conservation easement modifications.	R
17.16.1	Authorized roles must have the ability to request an easement modification via an online public-facing form.	R
17.16.1.1	Authorized roles must have the ability to attach documents to the easement modification request.	R
17.16.1.2	The system must utilize pertinent easement information for the modification.	R
17.16.1.3	The system must route the easement modification request to the field staff responsible for the geographic area in which the easement is located.	R
17. 16.2	Authorized roles must have the ability to view/enter/update easement modification information into the system.	R
17. 16.3	Authorized roles (field staff) must have the ability to make a recommendation to the Field Supervisor in the same geographic area in which the easement is located.	R
17. 16.4	Authorized roles (field supervisor) must have the ability to view/enter/update recommendation information on the easement modification.	R
17. 16.5	Authorized roles (Easement Coordinator) must have the ability to indicate if the modification meets established criteria.	R
17. 16.6	The system must prompt authorized roles to Public Notice (PN) the easement modification if the easement modification meets established criteria.	R
17.16.6.1	Authorized roles must have the ability to view/enter/update public comments from the PN.	R
17.16.6.1.2	The system must notify authorized roles when the administratively maintained window ends for the PN.	R
17.16.6.1.3	Authorized roles must have the ability to view/enter/update public comments after the window ends.	R
17.16.6.1.5	Authorized roles must have the ability to view/enter/update narrative from meetings with field staff regarding public comments.	R
17.16.7	Authorized roles must have the ability to indicate that modification is ready for review by the Division Chief.	R
17.16.8	Authorized roles must have the ability to generate the "Agreement to Modify the Easement."	R
17.16.9	Authorized roles must have the ability to indicate that a check made payable to the Register of Deeds is being held for the easement modification.	R
17.16.9.1	Authorized roles must have the ability to indicate that the check being held was released to the Register of Deeds.	R
17.17	Authorized roles must have the ability to process conservation easement corrections.	R
17.17.1	Authorized roles must have the ability to receive conservation easement correction requests.	R
17.17.2	Authorized roles must have the ability to create letters requesting correction with justification.	R
17.18	Authorized roles must have the ability to process conservation easement terminations.	R
17.18.1	Authorized roles must have the ability to indicate receipt of a letter to request termination of a conservation easement.	R
17.18.2	The system must trigger a site inspection for the site of the conservation easement.	R
17.18.3	Authorized roles must be notified when the site inspection findings report is complete.	R

17.18.4	Authorized roles must have the ability to approve/deny (not approve) the site inspection findings report.	R
17.18.5	Authorized roles must have the ability to indicate whether or not the easement meets the criteria to terminate the agreement.	R
17.18.6	The system must prompt authorized roles to notify property owners if the easement does not meet the criteria to terminate the agreement.	R
17.18.7	The system must prompt authorized roles to create a termination form if the easement meets the criteria to terminate the agreement.	R
17.18.8	Authorized roles must have the ability to indicate that a termination form is out for customer signature.	R
17.18.9	Authorized roles must have the ability to indicate whether or not the returned termination form meets requirements.	R
17.18.10	The system must prompt authorized roles to create a revision request letter regarding the termination form if the returned form does not meet requirements.	R
17.18.11	Authorized roles must have the ability to indicate that a check made payable to the Register of Deeds is being held for the easement termination.	R
17.18.12	Authorized roles must have the ability to indicate that the check being held was released to the Register of Deeds.	R
17.18.13	Authorized roles must have the ability to view/enter/update the location of the original conservation easement document after the termination process is complete.	R
17.19	Authorized roles must have the ability to query conservation easement information on one or more parameters.	R
17.19.1	Authorized roles must have the ability to view/print conservation easement query results.	R
17.19.2	Authorized roles must have the ability to query/ filter by Grantor, Permittee, County, Township, TRS, plus multiple sections, Acreage of recorded easements, date permit issued, recording date, Liber or Instrument number, page number, district field person, and notes.	R
17.19.3	Authorized roles must have the ability to query the number of conservation easements recorded in a specified timeframe (fiscal year, year).	R
17.19.4	Authorized roles must have the ability to query the number of acres of preservation under an easement, the number of mitigation acres (restoration and/or creation) created, total acres restored. By FY and by year and in total	R
17.19.5	Authorized roles must be able to query the number of recorded easements the DEQ holds. By FY and year and in total	R
17.19.6	Authorized roles must have the ability to query the number of easements that have stewardship agreement requirements.	R
17.19.7	Authorized roles must have the ability to query the number of wetland banking agreements recorded.	R
17.19.8	Authorized roles must have the ability to query for issued legal documents/actions that require an easement, by legal document/action type.	R
17.19.9	Authorized roles must have the ability to query recorded easements in a defined watershed.	R
17.20	Authorized roles must have the ability to modify entered conservation easement information until the status on the easement is "final."	R
17.22	The system must not allow the release of a related financial instrument until the conservation easement is recorded.	R
17.23	Authorized roles must have the ability to view/enter/update monitoring actions.	R
17.23.1	Authorized roles must have the ability to track monitoring reports due after a legal document/action is issued for a timeframe that is administratively maintained.	R
17.24	Authorized roles must have the ability to view/update various conservation easement templates and make available to the public.	R

CSO/SSO/RTB Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
20.0	The system must accommodate the DEQ Combined Sewer Overflow/Retention Treatment Basin/Storm Sewer Overflow (CSO/RTB/SSO) business process.	R
20.1	A secure public-facing online form must link to MiWaters that allows authorized roles to report a discharge event.	R
20.1.1	Authorized roles must have the ability to view/enter/update data relevant to the event.	R
20.1.2	The system must display each date/time the information was entered/updated in the system.	R
20.1.3	Authorized roles must have the ability to view submitted information regarding the event.	R
20.2	Authorized roles must have the ability to indicate that a CSO/RTB/SSO/other discharge occurred.	R
20.2.1	Authorized roles must have the ability to indicate how a discharge was reported.	R
20.2	Authorized roles must have the ability to indicate if the event was a CSO,RTB,SSO, or other.	R
20.3	Authorized roles must have the ability to enter CSO/RTB event information.	R
20.3.1	The system must relate the event to a permit.	R
20.3.2	The system must indicate the outfall number of the CSO/RTB event.	R
20.4	Authorized roles must have the ability to enter SSO information.	R
20.4.1	Authorized roles must have the ability to relate the SSO to a collection system.	R
20.4.2	Authorized roles must have the ability to enter the collection system formation into the system if the collection system does not exist in the system.	R
20.5	Authorized roles must have the ability to enter the date/time the event was reported to DEQ.	R
20.5.1	Authorized roles must have the ability to enter the "start" date and time of the event.	R
20.5.2	The system must flag any event where the report date is more than 24 hours after the start date.	R
20.5.3	Authorized roles must have the ability to trigger the violation workflow when the report date is more than 24 hours after the start date of an event.	R
20.6	Authorized roles must have the ability to enter the end date/time of the event.	R
20.6.3	Authorized role must have the ability to enter the date the end date/time was reported.	R
20.6.1	Authorized roles must have the ability to enter the date the final report was received.	R
20.6.2	The system must flag any event where the report-received date is more than 10 days after the end date of the event.	R
20.14	Non-staff Authorized roles must enter all other report information on-line, or staff authorized roles must enter all other report information	R
20.7	The system must immediately post discharge events information on the internet.	R
20.7.1	The system must compile information regarding event submittals to be posted.	R
20.7.1.1	The system must display historical event information at the site along with the current event.	R
20.7.2	Authorized roles must have the ability to flag certain events or event information as confidential, depending upon the type of event.	R
20.8	Authorized roles must have the ability to attach files to the event record or facility/collection system record.	R
20.9	Authorized roles must have the ability to create/view/print an annual summary report on all events for a calendar year.	R
20.10	Authorized roles must have the ability to trigger a violation for a discharge event.	R
20.11	Authorized roles must have the ability to relate the event to one or more inspections.	R
20.12	Authorized roles must have the ability to enter one or more discharge points per event.	R
20.12.1	Authorized roles must have the ability to enter information on each discharge point per event.	R
20.13	Authorized roles must have the ability to enter corrective action information on the event.	R

Wetland Identification Program (WIP) Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
25.0	The system must accommodate the DEQ WIP process.	R
25.1	Authorized roles must have the ability to enter WIP request statuses	R
25.1.1	Authorized roles must have the ability to modify WIP request statuses	R
25.1.2	Authorized roles must have the ability to inactivate WIP request statuses.	R
25.1.3	The system must not change historical status information when a WIP request status is added, modified or inactivated.	R
25.2	Authorized non-staff roles must have the ability to enter/submit WIP request information via a public-facing online form.	R
25.2.1	Authorized non-staff roles must have the ability to view the status of his/her submitted WIP request, based on DEQ business process statuses.	R
25.3	Authorized roles must have the ability to enter WIP request information.	R
25.3.1	Authorized roles must have the ability to enter payment information into MiWaters.	R
25.3.2	Authorized roles must have the ability to attach files to the WIP application.	R
25.4	The system must calculate the fees associated with a WIP application, based on the authorized non-staff role's or applicant's input and established business rules.	R
25.5	The system must notify authorized roles that the application must be processed under a timeframe that is administratively maintained if the application is an express application.	R
25.6	Authorized role must have the ability to indicate that the request is incomplete.	R
25.6.1	Authorized roles must have the ability to select from a dropdown and/or enter narrative as to why the request is incomplete.	R
25.6.2	The system must prompt authorized roles to create/view/print an "incomplete" communication to the applicant.	R
25.6.3	The system must notify authorized roles if an updated WIP application is not received from the applicant within a timeframe that is administratively maintained	R
25.6.3.1	Authorized roles must have the ability to close the record if an updated WIP application is not received from the applicant within a timeframe that is administratively maintained	R
25.6.4	Authorized roles must have the ability to indicate that a refund was provided to the applicant due to the application being incomplete.	R
25.7	Authorized roles must have the ability to assign WIP work to other authorized roles.	R
25.8	Authorized roles must have the ability to trigger the site inspection workflow at any point in the WIP workflow.	R
25.8.1	The system must relate the inspection to the WIP application.	R
25.8.2	Authorized roles must have the ability to view inspection information regarding the WIP application.	R
25.9	Authorized roles must have the ability to enter regulatory information into the system.	R
25.10	Authorized roles must have the ability to indicate that the Wetland form is complete.	R
25.11	Authorized roles must have the ability to create GIS lines or polygons related to the WIP location.	R
25.11.1	Authorized roles must have the ability to download GPS data.	R
25.11.2	Authorized roles must have the ability to draw GIS lines and polygons representing the WIP location.	R
25.13	Authorized roles must have the ability to create a WIP report.	R
25.13.1	Authorized roles must have the ability to create/view/print a WIP communication.	R
25.13.2	Authorized roles must have the ability to create/view/print a location map.	R
25.13.3	Authorized roles must have the ability to create/view/print a site map of the wetlands.	R
25.13.4	Authorized roles must have the ability to relate the letter, site location and site map to each other and to the WIP record.	R
25.14	The system must notify authorized roles if an informal appeal is received within an administratively maintained timeframe.	R
25.15	Authorized roles must have the ability to enter narrative on the outcome of the informal resolution process.	R
25.15.1	The system must notify authorized roles if a formal appeal is received within an administratively	R

Business Req. No.	Detailed Business Requirement Description	R/O
	maintained timeframe.	
25.16	Authorized roles must have the ability to relate the WIP to an appeal.	R
25.17	Authorized roles must have the ability to close a WIP case.	R
25.18	Authorized roles must have the ability to indicate that a refund was issued.	R
25.19	Authorized roles must have the ability to search for WIP files based on, but not limited to, the following criteria:	R
25.19.1	Must have the ability to search for a WIP file based on TRS number	R
25.19.2	Must have the ability to search for a WIP based on WIP file number	R
25.20	Authorized roles must have the ability to create/view/print WIP reports.	R
25.21	Authorized roles must have the ability to relate a WIP to a site of environmental interest.	R

Floodplain Management Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
27.0	The system must accommodate the DEQ Floodplain Management business process.	R
27.1	A public-facing online floodplain application form must link to MiWaters.	R
27.2	Authorized roles must have the ability to indicate that a floodplain application was received.	R
27.3	Authorized roles must have the ability to indicate that the application with associated payment was sent to cash handling.	R
27.4	Authorized roles must have the ability to enter application information into the system.	R
27.5	Authorized roles must have the ability to view maps and query the system for a GIS view of the drainage area information.	R
27.5.1	Authorized roles must have the ability to indicate that a drainage area and 100-yr discharge was requested if no map is available.	R
27.5.2	Authorized roles must have the ability to create/view/print a "No Authority" letter if the drainage area is determined to be less than two square miles and if the activity is otherwise un-regulated by Part 31.	R
27.5.2.1	Authorized roles must have the ability to indicate that a refund was requested to be processed through cash handling.	R
27.5.3	Authorized roles must have the ability to query floodplain information in the system.	R
27.5.4	Authorized roles must have the ability to request a hydraulic analysis from the applicant.	R
27.5.4.1	Authorized roles must have the ability to close the request if a hydraulic analysis or other information is requested, but not received within an administratively maintained timeframe.	R
27.6	Authorized roles must have the ability to indicate whether or not the project is in the floodplain.	R
27.6.1	Authorized roles must have the ability to indicate if the project is in the floodway if authorized roles indicated the project is in the floodplain.	R
27.6.1.1	Authorized roles must have the ability to indicate if the project is residential if authorized roles indicated that the project is in the floodway.	R
27.6.1.1.1	Authorized roles must have the ability to create/view/print a request for floodway analysis communication to the applicant.	R
27.6.1.1.1.1	Authorized roles must have the ability to close the request if a floodway analysis is requested, but not received within an administratively maintained timeframe.	R
27.6.1.1.1.2	Authorized roles must have the ability to indicate that the hydraulic review fee was sent to cash handling if a completed hydraulic analysis was received from the applicant.	R
27.6.1.1.2	Authorized roles must have the ability to deny the permit if authorized roles indicated that the project is residential and in the floodway.	R
27.6.2	Authorized roles must have the ability to create/view/print a "No Authority" letter if the project is not in the floodplain.	R
27.7	Authorized roles must have the ability to indicate if the project causes an increase in floodplain elevation.	R
27.8	Authorized roles must have the ability to indicate if the project meets part 31 requirements.	R
27.9	Authorized roles must have the ability to deny the permit if authorized roles indicated that the	R

	project does not meet part 31 requirements.	
27.10	Authorized roles must have the ability to create/view/print a communication requesting additional cut or analysis on the project from the applicant.	R
27.10.1	Authorized roles must have the ability to close the request if additional cut or analysis is requested, but not received within an administratively maintained timeframe.	R
27.10.2	Authorized roles must have the ability to deny the permit if authorized roles indicated that the additional cut or analysis received was not adequate.	R
27.11	Authorized roles must have the ability to issue a floodplain permit.	R
27.11.5	System must have the ability to store hydraulic models.	R
27.12	The system must accommodate the Subdivisions business process.	R
27.12.1	Authorized roles must have the ability to indicate that a request to review a preliminary plat was received either by mail or email.	R
27.12.3	Authorized roles must have the ability to create/view/print a "No Authority" letter if the DEQ has no authority at the location.	R
27.12.4	Authorized roles must have the ability to create/view/print a "No Objection" letter if the drainage is less than two square miles.	R
27.12.5	Authorized roles must have the ability to notify the applicant to apply for a Part 31 permit if fill is needed for buildable area.	R
27.12.6	Authorized roles must have the ability to issue an approval letter if a Part 31permit is issued or if the project is otherwise acceptable.	R
27.12.7	Authorized roles must have the ability to indicate that DLARA was notified of the status of requirements.	R
27.12.8	Authorized roles must have the ability to create/view/print a communication to the applicant that all requirements were not met for the request to be honored	R
27.12.9	System must have the ability to store hydraulic models.	R
27.13	The system must accommodate the Floodplains Services business process.	R
27.13.1	A public-facing online form for floodplain services requests must link to MiWaters.	R
27.13.2	Authorized roles must have the ability to indicate that a request was received.	R
27.13.3	Authorized roles must have the ability to create/view/print a communication to the applicant requesting additional information to identify the site.	R
27.13.3.1	Authorized roles must have the ability to close the request if additional information to identify the site is requested, but not received within an administratively maintained timeframe.	R
27.13.4	Authorized roles must have the ability to query the system to determine the size of the drainage area for the site and if any other floodplain information exists near this location.	R
27.13.5	Authorized roles must have the ability to create/view/print a communication requesting cross section for Hydraulic Analysis (HA)	R
27.13.5.1	Authorized roles must have the ability to close the request if a cross section for HA is requested, but not received within an administratively maintained timeframe.	R
27.13.6	Authorized roles must have the ability to provide information to the requestor.	R
27.13.7	System must have the ability to store hydraulic models	R

Data Migration Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
26.0	The system must accommodate migration of data from current DEQ systems representing different functional areas.	R
26.1	Files related to records migrated from any database into MiWaters must also be migrated and related to that record within the MiWaters data structure, if possible.	R
26.2	The system must incorporate all data elements from "CIWPIS."	R
26.2.1	The system must incorporate all historical data from "CIWPIS."	R
26.2.2	Authorized roles must have the ability to view all data elements from CIWPIS.	R
26.2.3	Authorized roles must have the ability to create spatial references from historical CIWPIS permit information.	R
26.2.4	The system must parse out CIWPIS data into the MiWaters data structure where possible.	R
26.2.4.1	The system must parse out CIWPIS name and address information and incorporate it into the MiWaters data structure.	R
26.2.4.2	The system must parse out CIWPIS location (site) information and incorporate it into the MiWaters data structure.	R
26.2.4.2.1	CIWPIS location information (TRS) must spatially translate into a centroid point of that TRS.	R
26.2.4.2.2	Authorized roles must have the ability to modify spatial information from CIWPIS to a polygon or line.	R
26.2.4.3	The system must parse out CIWPIS permit information and incorporate it into the MiWaters data structure.	R
26.2.4.3.1	The system must allow authorized roles to attach files to CIWPIS data in MiWaters.	R
26.2.4.4	Authorized roles must have the ability to view/edit 100% of CIWPIS records where applications are in process and full data migration is complete on day one of MiWaters production.	R
26.2.6	Authorized roles must have the ability to view narrative information from CIWPIS.	R
26.2.7	The system must display specific CIWPIS data elements in a five year window on the internet.	R
26.3	The system must incorporate data elements from "Track 404 Applications."	R
26.3.1	The system must incorporate five years of historical data from "404Files" and "404FilesOld" from "Track 404 Applications."	R
26.3.2	The system must relate the track 404 information with CIWPIS data where possible.	R
26.3.3	The system must not incorporate "Track 404" information that is redundant to Coastal and Inland Waters Permit Information System (CIWPIS).	R
26.3.4	Authorized roles must have the ability to view approximately 50% of records where full data migration is complete.	R
26.3.5	Authorized roles must have the ability to add/edit data from "Track 404" on day one of MiWaters production.	R
26.4	The system must incorporate data elements from "Compliance Tracking."	R
26.4.1	The system must incorporate all historical data from "Compliance Tracking."	R
26.4.2	The system must relate the "Compliance Tracking" information with CIWPIS data where possible.	R
26.4.3	The system must not incorporate "Compliance Tracking" information that is redundant to CIWPIS.	R
26.4.4	Authorized roles must have the ability to view approximately 80% of "Compliance Tracking" records where full data migration is complete.	R
26.4.5	Authorized roles must have the ability to add/edit data from open "Compliance Tracking" records (those in process) on day one of MiWaters production.	R
26.6	The system must incorporate all data elements from "CSO/SSO."	R
26.6.1	The system must incorporate all historical data from "CSO/SSO."	R
26.6.2	Authorized roles must have the ability to view all data elements from CSO/SSO.	R
26.6.3	Authorized roles must have the ability to create spatial references from historical CSO/SSO information.	R
26.6.4	The system must parse out CSO/SSO data into the MiWaters data structure where possible.	R
26.6.4.1	The system must parse out all CSO/SSO name and address information and incorporate it into the MiWaters data structure.	R
26.6.4.2	The system must parse out CSO/SSO location (site) information and incorporate it into the	R

	MiWaters data structure as sites of environmental interest.	
26.6.5	Authorized roles must have the ability to view "CSO/SSO" records when full data migration is complete.	R
26.6.6	Authorized roles must have the ability to add/edit data from "CSO/SSO" on day one of MiWaters production.	R
26.7	The system must incorporate all data elements from "Dam Safety."	R
26.7.1	The system must incorporate all historical data from "Dam Safety."	R
26.7.2	Authorized roles must have the ability to view all data elements from Dam Safety.	R
26.7.3	Authorized roles must have the ability to create spatial references from historical Dam Safety records.	R
26.7.4	The system must parse out Dam Safety data into the MiWaters data structure where possible.	R
26.7.4.1	The system must parse out all Dam Safety name and address information and incorporate it into the MiWaters data structure.	R
26.7.4.2	The system must parse out Dam Safety location (site) information and incorporate it into the MiWaters data structure.	R
26.7.5	Authorized roles must have the ability to run/view reports in the system that are functionally similar to the reports in the "Dam Safety" database.	R
26.7.6	Authorized roles must have the ability to view "Dam Safety" records when full data migration is complete.	R
26.7.7	Authorized roles must have the ability to add/edit data from "Dam Safety" on day one of MiWaters production.	R
26.8	The system must incorporate all data elements from "Conservation Easements."	R
26.8.1	The system must incorporate all historical data from "Conservation Easements."	R
26.8.2	All records must be related to a permit, enforcement action or mitigation bank.	R
26.8.3	The system must not incorporate conservation easement information that is redundant to CIWPIS.	R
26.8.4	Authorized roles must have the ability to view approximately 70% of "Conservation Easement" records where full data migration is complete.	R
26.8.5	Authorized roles must have the ability to add/edit data from "Conservation Easements" on day one of MiWaters production.	R
26.9	Authorized roles must have the ability to view reports that are functionally similar to the reports in "Hflow Summary."	R
26.9.1	Authorized roles must have the ability to view reports that are functionally similar to Hflow Summary reports within 30 days of MiWaters go live date.	R
26.10	The system must incorporate all data elements from "Miscellaneous Measurements."	R
26.10.1	The system must incorporate all historical data from "Miscellaneous Measurements."	R
26.11	The system must incorporate all data elements from "HFlow."	R
26.11.1	The system must incorporate all historical data from "HFlow."	R
26.11.2	Authorized roles must have the ability to view approximately 100% of "HFlow" records where full data migration is complete.	R
26.11.3	Authorized roles must have the ability to add/edit data from "HFlow" on day one MiWaters production.	R
26.12	The system must incorporate all data elements from "LFlow."	R
26.12.1	The system must incorporate all historical data from "LFlow."	R
26.12.2	Authorized roles must have the ability to view 100% of "LFlow" records where full data migration is complete.	R
26.12.3	Authorized roles must have the ability to add/edit data from "LFlow" on day one MiWaters production.	R
26.13	Authorized roles must have the ability to run queries that are functionally similar to those in the "Legal Lake Levels" application.	R
26.13.1	Authorized roles must have the ability to run queries that are functionally similar to those in the "Legal Lake Levels" within 30 days of MiWaters go live date.	R
26.14	The system must incorporate all data elements from "Lakes Floodplain Elevations."	R
26.14.1	The system must incorporate all historical data from "Lakes Floodplain Elevations."	R
26.14.2	Authorized roles must have the ability to view approximately 100% of "Lakes Floodplain Elevations" records where full data migration is complete.	R
26.14.3	Authorized roles must have the ability to add/edit data from "Lakes Floodplain Elevations" on day	R

	one of MiWaters production.	
26.15	The system must incorporate all data elements from "Subdivisions."	R
26.15.1	The system must incorporate all historical data from "Subdivisions."	R
26.15.2	Authorized roles must have the ability to view "Subdivisions" records where full data migration is complete.	R
26.15.3	Authorized roles must have the ability to add/edit data from "Subdivisions" within 30 days of MiWaters go live date.	R
26.16	The system must incorporate all data elements from "NMS."	R
26.16.1	The system must incorporate all historical data from "NMS."	R
26.16.2	Authorized roles must have the ability to view all data elements from "NMS.".	R
26.16.3	Authorized roles must have the ability to create spatial references from historical "NMS" location information.	R
26.16.4	The system must incorporate NMS data into the MiWaters data structure where possible.	R
26.16.5	The system must incorporate all NMS name and address information into the MiWaters data structure.	R
26.16.6	The system must incorporate NMS location (site) information into the MiWaters data structure.	R
26.16.9	Authorized roles must have the ability to view/enter information on permit applications that are in process, but not yet issued in NMS, in the system.	R
26.16.10	Authorized roles must have the ability to add/edit to NMS data on day one of MiWaters production.	R
26.17	The system must incorporate all data elements from "Part 41."	R
26.17.1	The system must relate "Part 41" information with NMS data where possible.	R
26.17.2	The system must not incorporate "Part 41" data elements that are redundant to NMS.	R
26.17.3	Authorized roles must have the ability to view "Part 41" records when full data migration is complete.	R
26.17.4	Authorized roles must have the ability to add/edit data from "Part 41" on day one of MiWaters production.	R
26.18	The system must incorporate all data elements from "Pollution Emergency Alert System (PEAS)."	R
26.18.1	The system must relate "PEAS" information with NMS data where possible.	R
26.18.3	Authorized roles must have the ability to view "PEAS" records where full data migration is complete.	R
26.18.4	Authorized roles must have the ability to add/edit data from "PEAS" within 90 days of MiWaters go live date.	R
26.19	The system must interface with Online Web Inquiry System (OWIS). New public facing site will replace CIWPIS online and OWIS – will have to include a summary list of all current applications and components on day one	R
26.19.1	Authorized roles must have the ability to add/edit data from OWIS on day one of MiWaters production.	R
26.20	The system must incorporate data elements from "Floodplain Service" from 1998 to the present.	R
26.20.1	The system must incorporate all data elements from "Floodplain Service" if the records have information in the status field..	R
26.20.2	The system must relate "Floodplain Service" information with CIWPIS data where possible.	R
26.20.3	The system must not incorporate "Floodplain Service" data elements that are redundant to CIWPIS.	R
26.20.4	Authorized roles must have the ability to create documents that are functionally similar to documents created in "Floodplain Service."	R
26.20.5	Authorized roles must have the ability to view "Floodplain Service" records where full data migration is complete.	R
26.20.6	Authorized roles must have the ability to add/edit data from "Floodplain Service" on day one of MiWaters production.	R
26.21	The system must incorporate all data elements from "High Risk Erosion Areas" (HREA).	R
26.21.1	The system must incorporate all historical data from "HREA".	R
26.21.2	The system must relate "HREA" information with CIWPIS data where possible.	R
26.21.3	The system must not incorporate "HREA" data elements that are redundant to CIWPIS.	R
26.21.4	Authorized roles must have the ability to create documents that are functionally similar to documents created in "HREA".	R
26.21.5	Authorized roles must have the ability to view "HREA" records where full data migration is	R

	complete.	
26.21.6	Authorized roles must have the ability to add/edit data from "HREA" on day one of MiWaters production.	R
26.22	The system must incorporate data elements from "Transportation Service."	R
26.22.1	The system must relate "Transportation Service" information with CIWPIS data where possible.	R
26.22.2	The system must not incorporate "Transportation Service" data elements that are redundant to CIWPIS.	R
26.22.3	Authorized roles must have the ability to view "Transportation Service" records where full data migration is complete.	R
26.22.4	Authorized roles must have the ability to add/edit data from "Transportation Service" on day one of MiWaters production.	R
26.23	The system must incorporate all data elements from "WIP."	R
26.23.1	The system must relate "WIP" information with CIWPIS data where possible.	R
26.23.2	The system must not incorporate "WIP" data elements that are redundant to CIWPIS.	R
26.23.3	Scanned files stored under the "Scans" tab must be related to a WIP record and stored with MiWaters data structure.	R
26.23.4	Authorized roles must have the ability to view 75% of "WIP" records where full data migration is complete.	R
26.23.5	Authorized roles must have the ability to add/edit data from "WIP" on day one of MiWaters production.	R
26.24	The system must incorporate data elements from "Wetland Mitigation."	R
26.24.1	The system must relate "Wetland Mitigation" information with CIWPIS data where possible.	R
26.24.2	The system must not incorporate "Wetland Mitigation" data elements that are redundant to CIWPIS	R
26.24.3	Authorized roles must have the ability to view 100% of "Wetland Mitigation" records where full data migration is complete.	R
26.24.4	Authorized roles must have the ability to add/edit data from "Wetland Mitigation" on day one of MiWaters production.	R
26.25	The system must incorporate data elements from "Marina."	R
26.25.1	The system must relate "Marina" information with CIWPIS data where possible.	R
26.25.2	The system must not incorporate "Marina" data elements that are redundant to CIWPIS.	R
26.25.3	Authorized roles must have the ability to view/maintain Marina MOP # information.	R
26.25.4	The system must relate marina information to a permit, where possible.	R
26.25.5	Location information in "Marina" must be considered site of environmental interest information in the MiWaters data structure.	R
26.25.6	Authorized roles must have the ability to attach files to "Marina" records.	R
26.25.7	Authorized roles must have the ability to view 100% of "Marina" records where full data migration is complete.	R
26.25.8	Authorized roles must have the ability to add/edit data from "Marina" on day one of MiWaters production.	R
26.26	The system must incorporate all data elements from "St. Clair Flats."	R
26.26.1	The system must incorporate all historical data from "St. Clair Flats."	R
26.26.2	Authorized roles must have the ability to view 100% of "St. Clair Flats" records where full data migration is complete.	R
26.26.3	Authorized roles must have the ability to add/edit data from "St. Clair Flats" on day one of MiWaters production.	R
26.27	The system must incorporate all data elements from "Financial Instruments."	R
26.27.1	The system must incorporate all historical data from "Financial Instruments."	R
26.27.2	The system must relate "Financial Instruments" information with CIWPIS data where possible.	R
26.27.3	The system must not incorporate "Financial Instruments" data elements that are redundant to CIWPIS.	R
26.27.4	Authorized roles must have the ability to view 100% of "Financial Instruments" records where full data migration is complete.	R
26.27.5	Authorized roles must have the ability to add/edit data from "Financial Instruments" on day one of MiWaters production.	R
26.28	The system must incorporate all data elements from "Part 325 - Great Lakes Submerged Lands."	R

26.28.1	The system must incorporate all historical data from "Part 325."	R
26.28.2	The system must relate "Part 325" information with CIWPIS data where possible.	R
26.28.3	The system must not incorporate "Part 325" data elements that are redundant to CIWPIS.	R
26.28.4	Location information in "Part 325" must be considered site of environmental interest information in the MiWaters data structure.	R
26.28.5	Authorized roles must have the ability to view 100% of "Part 325" records where full data migration is complete.	R
26.28.6	Authorized roles must have the ability to add/edit data from "Part 325" on day one of MiWaters production.	R
26.29	The system must incorporate all data elements from "Part 326 – Log Recovery."	R
26.29.1	The system must incorporate all historical data from "Part 326."	R
26.29.2	Location information in "Part 326" must be considered site of environmental interest information in the MiWaters data structure.	R
26.29.3	Authorized roles must have the ability to view "Part 326" records where full data migration is complete.	R
26.29.4	Authorized roles must have the ability to add/edit data from "Part 326" on day one of MiWaters production.	R
26.30	The system must incorporate all data elements from "Shorelands."	R
26.30.1	The system must incorporate all data elements from "Shorelands."	R
26.30.2	Authorized roles must have the ability to view 75% of "Shorelands" records where full data migration is complete.	R
26.30.3	Authorized roles must have the ability to view data from "Shorelands" on within 30 days of MiWaters go live date.	R
26.31	The system must incorporate data elements from "CDA Tax List."	R
26.31.1	Authorized roles must have the ability to view "CDA Tax List" records where full data migration is complete.	R
26.31.2	Authorized roles must have the ability to add/edit data from "CDA Tax List" within 30 days of MiWaters go live date.	R

Biosolids Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
28.0	The system must accommodate the DEQ biosolids business process.	R
28.1	A public-facing online form that allows authorized non-staff roles to enter biosolids Annual Report information must sync with and populate MiWaters.	R
28.1.1	Authorized non-staff roles must have the ability to view/enter annual report information. Once submitted or entered by DEQ staff it must be locked to further editing.	R
28.1.1.1	Authorized non-staff roles must have the ability to attach files to the annual report information.	R
28.1.1.2	Authorized non-staff roles must have the ability to maintain biosolids land application site information.	R
28.1.2.1	Authorized non-staff roles must have the ability to transfer the right to use the site for biosolids application. Historical site transfer information must be maintained.	R
28.1.2.2	Authorized non-staff roles must have the ability to inactivate sites.	R
28.1.3	Authorized non-staff roles must have the ability to apply for land-application of biosolids.	R
28.2	The system must accommodate the DEQ biosolids annual report business process.	R
28.2.1	The system must notify authorized roles on an administratively maintained date that annual report reminders must be generated and mailed.	R
28.2.2	Authorized roles must have the ability to trigger an online or batch process to create/view/print/send an administratively maintained communication to each wastewater facility annual report contact that annual reports are coming due. A copy of the reminder should be stored in the system.	R
28.2.3	Authorized roles must have the ability to enter statewide annual fee information.	R
28.2.3.1	The system must allow authorized roles to trigger a batch process once all the facilities have	R

	reported that will calculate the total fee per facility based on statewide and facility specific information.	
28.2.3.2	The system must allow authorized roles the ability to trigger a process that would create, display and send the biosolid invoices based on the fee calculations.	R
28.2.5	The system must trigger a workflow item for authorized roles to review submitted and calculated information and mark the report as "reviewed" with the appropriate status of the associated SOC.	R
28.2.5.1	The system must display historical annual report information for the same facility for some administratively defined number of years for authorized role review.	R
28.2.5.2	The system must flag (for authorized staff and non-staff roles) data that is outside permissible allowances.	R
28.2.5.3	The system must trigger the violation workflow when annual report information is not submitted, by facilities with biosolids requirements, by the administratively indicated due date (SOC).	R
28.2.5.4	The system must update the associated SOC with the received date and notify the AR when annual report information is received and trigger a review workflow.	R
28.2.6	Authorized roles must have the ability to send annual report information to the EPA.	R
28.4	Authorized roles must have the ability to track annual crop information on land application sites and view crop history for each land application site.	R
28.5	Authorized roles must have the ability to view the related permit or SOC requiring the biosolids information.	R
28.6	Authorized roles must have the ability to issue field site approvals or deny a request, or place partial restrictions on a request to land apply biosolids.	R
28.6.1	The system must trigger notification/workflow to review/approve/deny a request and provide administratively set deadlines/due dates.	R
28.6.2	The system must notify authorized roles that the request was approved due to the timeframe constraint for approvals.	R
28.7	Authorized roles must have the ability to track land application contractors.	R
28.7.1	Authorized roles must have the ability to trigger contractor information updates that apply to all the sites that a contractor handles.	R
28.7.1.1	Authorized roles must have the ability to view a list of existing contractors and add new ones.	R
28.7.2	Authorized roles must have the ability to inactivate contractors.	R
28.7.2.1	The system must not modify historical information when a contractor is modified or inactivated.	R
28.8	The system must retain land application site information for an administratively set period of time, with the ability to indicate a time period for sites to not be in the active view.	R
28.10	Authorized roles must have the ability to import a new batch of sites for a given facility.	R
28.11	Authorized roles must have the ability to track land application sites.	R
28.11.1	Authorized roles must have the ability to view/enter/print land application site information.	R
28.11.2	Authorized roles must have the ability to attach files to the record.	R
28.11.3	Authorized roles must have the ability to relate the land application site to a generating facility	R
28.12	Authorized roles must have the ability to spatially combine and divide sites.	R
28.13	Authorized roles must have the ability to view/enter/modify a site address and one or more farmer, and/or landowner contacts per site.	R
28.14	Authorized roles must have the ability to add one quarter or half sections to the site TRS location descriptions.	R
28.15	The system must lock a site once the CPLR has been exceeded and warn users if they are attempting to transfer a locked CPLR site.	R
28.16	The system must display (during site creation) similar nearby sites to prevent site duplication. The system must display the existing site information and let the user proceed to create a new site if they determine there is no duplication.	R

Financial Assurances Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
24.0	The system must accommodate the DEQ financial assurances business process.	R
24.1	Authorized roles must have the ability to view financial instrument work in a workflow list.	R
24.1.2	Authorized roles must have the ability to view/enter/update the financial institution upon which the financial instrument is issued.	R
24.1.2.1	Authorized roles must have the ability to view/enter/update the financial assurance number provided by the financial institution.	R
24.2	Authorized roles must have the ability to view DEQ legal documents requiring financial assurances.	R
24.3	Authorized roles must have the ability to view/enter/update information on financial assurances.	R
24.3.1	Authorized roles must have the ability to view/indicate the type of financial instrument	R
24.3.2	Authorized roles must have the ability to view/indicate whether or not the instrument is valid.	R
24.3.2.1	Authorized roles must have the ability to view/indicate why the instrument is not valid if the authorized role indicated that the instrument is not valid.	R
24.3.2.1.1	Authorized roles must have the ability to view/enter/update narrative to provide additional detail as to why the instrument is not valid.	R
24.4	Authorized roles must have the ability to view/enter/update the financial assurance beginning date	R
24.5	Authorized roles must have the ability to view/indicate that a financial instrument will be auto-renewed by the financial institution until the DEQ acts on the instrument.	R
24.6	Authorized roles must have the ability to view/enter/update the financial instrument status review date	R
24.6.1	The status review date must be based on an administratively maintained variable that auto-populates with a calculation that includes the beginning date and the variable.	R
24.6.2	Authorized roles must have the ability to modify the auto-populated status review date as business needs dictate.	R
24.7	Authorized roles must have the ability to apply one or more financial instruments to a legal document.	R
24.8	Authorized roles must have the ability to view/enter/update comments regarding the financial assurance.	R
24.9	Authorized roles must have the ability to view/enter/update the expiration/end date of the financial assurance.	R
24.10	Authorized roles must have the ability to relate the financial instrument to one or more legal document(s) requiring it (permit, lease/agreement number).	R
24.11	Authorized roles must have the ability to view a scanned image of the financial instrument.	R
24.12	Authorized roles must have the ability to view/enter/update information on financial assurance renewals/amendments.	R
24.13	Authorized roles must have the ability to view/indicate that a new or amended financial assurance was received.	R
24.14	Authorized roles must have the ability to release the expired or expiring financial assurance.	R
24.15	The system must notify authorized roles that a financial instrument was not received within an administratively maintained timeframe before the current financial assurance expires.	R
24.16	Authorized roles must have the ability to create/view/update/print a communication regarding the cancelation.	R
24.16.1	Authorized roles must have the ability to trigger a draw if the property owner does not respond to the communication regarding the cancelation.	R
24.17	Authorized roles must have the ability to view/enter/update a financial assurance release date.	R
24.18	Authorized roles must have the ability to create/view/update/print a communication indicating that the financial assurance was released.	R
24.19	Authorized roles must have the ability to view/indicate that the financial instrument is being released due to successful mitigation.	R
24.20	Authorized roles must have the ability to view/indicate full or partial release.	R
24.21	Authorized roles must have the ability to trigger draws on financial instruments.	R
24.21.1	Authorized roles must have the ability to view/indicate the draw amount.	R

24.21.2	Authorized roles must have the ability to view/enter/update narrative on why the draw is occurring.	R
24.21.2.1	Authorized roles must have the ability to relate the draw to one or more violations.	R
24.21.3	Authorized roles must have the ability to route the draw request for approval.	R
24.21.4	Authorized roles must have the ability to view/indicate that the financial institution was notified of the draw.	R
24.21.4.1	Authorized roles must have the ability to view/enter/update narrative on financial institution notification.	R
24.22	Authorized roles must have the ability to view/enter/update the draw date.	R
24.23	Authorized roles must have the ability to view/enter/update information on partial reductions in financial assurances.	R
24.23.1	Authorized roles must have the ability to view/indicate that a request for a partial reduction was received.	R
24.23.1.1	Authorized roles must have the ability to attach the partial reduction request letter to the file.	R
24.24	Authorized roles must have the ability to view/indicate whether or not the request is valid.	R
24.25	Authorized roles must have the ability to view/enter/update narrative on why the request is not valid if the authorized role view/indicated that the request is not valid.	R
24.26.4	Authorized roles must have the ability to approve a partial reduction in a financial assurance	R
24.26.4.1	Authorized roles must have the ability to create/view/update/print a communication approving the financial assurance reduction.	R
24.27	Authorized roles must have the ability to modify the financial institution information tied to the instrument without losing historical financial institution information.	R
24.28	Authorized roles must have the ability to attach files to the financial assurance record.	R
24.29	Authorized roles must have the ability to view/indicate the location of the original financial instrument.	R
24.30	The system must display the amount of the original financial assurance.	R
24.31	Authorized roles must have the ability to release a financial assurance.	R
24.31.1	Authorized roles must have the ability to view/enter/update the release date.	R
24.31.2	Authorized roles must have the ability to view/indicate that the original document was returned.	R
24.32	Authorized roles must have the ability to view/enter/update information on financial assurances tied to legal documents that are transferring ownership.	R
24.32.1	Authorized roles must have the ability to notify other authorized roles that a transfer request with an associated financial assurance was received.	R
24.32.2	Authorized roles must have the ability to release the current financial assurance upon acceptance of the replacement financial instrument.	R
24.32.3	Authorized roles must have the ability to process the replacement financial assurance.	R
24.35	Authorized roles must have the ability to view/print reports on financial assurances.	R
24.36	Authorized roles must have the ability to search financial assurances by Permit number, Permittee name, Amount, Financial Institution, and Financial Assurance number, all date elements, at a minimum.	R
24.37	The system must not allow the release of a financial instrument until the related conservation easement is recorded, if a conservation easement exists.	R
24.38	Authorized roles must have the ability to "hot-link" from a financial assurance to the related permit and back.	R

Shorelands Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
18.0	The system must support the DEQ business process for Great Lakes Shorelands.	R
18.1	The system must support the DEQ business process for bottomland conveyances.	R
18.1.1	Authorized roles must have the ability to view/enter bottomland conveyance statuses	R
18.1.1.1	Authorized roles must have the ability to modify bottomland conveyance statuses	R
18.1.1.2	Authorized roles must have the ability to inactivate bottomland conveyance statuses	R
18.1.1.3	The system must not modify historical bottomland conveyance status information if a status is modified or inactivated.	R

18.1.2	The system must link to a secure online public-facing form that allows non-staff authorized roles to apply for a bottomland conveyance	R
18.1.3	Authorized roles must have the ability to view/enter information on bottomland conveyance applications.	R
18.1.3.1	Authorized roles must have the ability to indicate whether or not the application is administratively complete.	R
18.1.3.1.1	Authorized roles must have the ability to create/view/print a communication indicating that the application is not complete with reasons cited.	R
18.1.3.1.1.1	The system must notify authorized roles if a response is not received by the applicant within a timeframe that is administratively maintained.	R
18.1.3.1.1.1.1	Authorized roles must have the ability to indicate a status of "closed."	R
18.1.3.2	Authorized roles must have the ability to indicate whether the application is for a lease, agreement, certificate or deed.	R
18.1.3.3	Authorized roles must have the ability to create/view/print a Public Notice regarding the bottomland conveyance application if the application is administratively complete.	R
18.1.3.3.1	Authorized roles must have the ability to view/indicate/enter public notice recipients.	R
18.1.3.4	Authorized roles must have the ability to indicate that a site inspection is required.	R
18.1.3.4.1	The system must trigger a site inspection workflow if an authorized role indicates a site inspection is required.	R
18.1.3.5	Authorized roles must have the ability to view/enter whether or not the bottomland conveyance is related to a permit application.	R
18.1.3.5.1	The system must display related conveyances with permits and related permits with conveyances for authorized roles.	R
18.1.3.5.2	Non-staff authorized roles must have the ability to relate a conveyance to a permit if both are accessible to the specified user.	R
18.1.4	Authorized roles must have the ability to view/enter public notice comment information into the system.	R
18.1.4.1	Authorized roles must have the ability to attach files regarding public notice comments.	R
18.1.4.1.1	Authorized roles must have the ability to enter narrative on how DEQ responded to public notice comments	R
18.1.4.2	Authorized roles must have the ability to relate the public comments to the bottomland conveyance application.	R
18.1.5	Authorized roles must have the ability to create/view/print a denial communication regarding the bottomland conveyance.	R
18.1.6	Authorized roles must have the ability to indicate whether or not the lease/agreement is for public use or private use..	R
18.1.6.1	Authorized roles must have the ability to enter narrative on a fee determination.	R
18.1.7	Authorized roles must have the ability to indicate a set fee or appraisal fee for the deed.	R
18.1.7.1	Authorized roles must have the ability to request an appraisal with the DNR if the fee will be determined via an appraisal.	R
18.1.7.2	Authorized roles must have the ability to indicate that the DNR will conduct an appraisal of the site.	R
18.1.8	Authorized roles must have the ability to create/view/print a communication to the applicant regarding fees.	R
18.1.9	Authorized roles must have the ability to create/view/update a draft of the Conveyance Memo.	R
18.1.10	Authorized roles must have the ability to route the draft Conveyance Memo for approval	R
18.1.11	Authorized roles must have the ability to approve or deny the draft Conveyance Memo.	R
18.1.11.1	Authorized roles must have the ability to enter narrative as to why the memo was not approved.	R
18.1.12	Authorized roles must have the ability to create/view/print conveyance memo files to provide to State Administrative Board subcommittee members.	R
18.1.13	Authorized roles must have the ability to indicate whether or not the application was approved by the ad board.	R
18.1.13.1	Authorized roles must have the ability to close the file if the ad board does not approve and the application process ends.	R
18.1.13.2	Authorized roles must have the ability to create/view/print a notification letter to the applicant that the Ad Board has approved the conveyance application.	R

18.1.14	Authorized roles must have the ability to indicate if lease fees are paid in full.	R
18.1.15	Authorized roles must have the ability to create/view/print a Claim of Interest.	R
18.1.15.1	Authorized roles must have the ability to indicate that the Claim of Interest is with the Division Chief for Signature	R
18.1.15.2	Authorized roles must have the ability to indicate that the original Claim of Interest was sent to the Register of Deeds.	R
18.1.15.3	Authorized roles must have the ability to indicate that a copy of the Claim of Interest was sent to the owner.	R
18.1.16	Authorized roles must have the ability to create/view/print a memo to send to the DNR requesting processing of a bottomland conveyance deed.	R
18.1.16.1	Authorized roles must have the ability to indicate that the deed was sent to the DNR for processing.	R
18.1.16.2	Authorized roles must have the ability to indicate that the original deed was sent to the Register of Deeds.	R
18.1.16.3	Authorized roles must have the ability to indicate that original deed was sent to applicant.	R
18.1.17	Authorized roles must have the ability to create/view/print the legal document.	R
18.1.17.1	Authorized roles must have the ability to indicate that the legal document has been sent out for applicant signature.	R
18.1.17.2	Authorized roles must have the ability to indicate whether or not the applicant accepted (signed and returned) the document.	R
18.1.17.2.1	The system must notify authorized roles at periodic intervals that are administratively maintained that the applicant has not returned the legal document if the legal document is out for applicant signature.	R
18.1.17.4	Authorized roles must have the ability to trigger the Claim of Interest process if the applicant does not accept the document and there is an associated permit with that document.	R
18.1.17.6	Authorized roles must have the ability to indicate that the document, signed by both parties, was sent to the Register of Deeds.	R
18.1.17.6.1	Authorized roles must have the ability to indicate the specified Register of Deeds that received the document.	R
18.1.17.7	Authorized roles must have the ability to indicate that the original lease was sent to the applicant.	R
18.1.18	Authorized roles must have the ability to indicate that the conveyance holder defaulted on the agreement.	R
18.1.19	Authorized roles must have the ability to enter the amount of the annual fee.	R
18.1.19.1	Authorized roles must have the ability to create/view/print an annual invoice.	R
18.2	The system must accommodate the St. Clair Flats business process.	R
18.2.1	Authorized roles must have the ability to view/enter St. Clair flats statuses.	R
18.2.1.1	Authorized roles must have the ability to modify St. Clair flats statuses.	R
18.2.1.2	Authorized roles must have the ability to inactivate St. Clair flats statuses.	R
18.2.1.3	The system must not modify historical flats status information if a status is modified or inactivated.	R
18.2.2	A secure, public-facing online St. Clair Flats lease assignment or deed application form that allows authorized non-staff roles to apply for an assignment or deed must link to the system.	R
18.2.2.1	Authorized non-staff roles must have the ability to relate an application to an existing lease assignment.	R
18.2.3	Authorized roles must have the ability to view/enter/update received St. Clair Flats lease assignment or deed application information.	R
18.2.3.1	Authorized roles must have the ability to create/view/print a communication to applicants that the application was not complete.	R
18.2.3.1.1	System must notify authorized roles if response is not received by the applicant within a specified timeframe that is administratively maintained of communication to applicant that application was not complete.	R
18.2.3.1.2	Authorized roles must have the ability to close the application file if a response is not received by the applicant within specified timeframe.	R
18.2.3.2	Authorized roles must have the ability to trigger an inspection.	R
18.2.3.3	Authorized roles must have the ability to indicate if the application is denied or approved.	R
18.2.3.3.1	The system must prompt authorized roles to create a denial communication to send to the applicant if authorized role indicates the application is denied.	R

18.2.3.3.1.1	Authorized roles must have the ability to view/print the denial communication.	R
18.2.3.4	Authorized roles must have the ability to process a lease assignment.	R
18.2.3.5	Authorized roles must have the ability to view/enter information on St. Clair Flats deeds.	R
18.2.3.5.1	Authorized roles must have the ability to enter the estimated value of the property provided by the township via the applicant.	R
18.2.3.5.2	Authorized roles must have the ability to indicate that the value has been verified.	R
18.2.3.5.3	Authorized roles must have the ability to create/view/print a letter to the applicant regarding the fees for the deed.	R
18.2.3.5.4	Authorized roles must have the ability to create/view/print a draft of the approval memo.	R
18.2.3.5.5	Authorized roles must have the ability to route the draft memo for approval	R
18.2.3.5.5.1	Authorized roles must have the ability to approve or deny the draft memo.	R
18.2.3.5.6	Authorized roles must have the ability to electronically provide State Administrative Board sub-committee members copies of any documents required.	R
18.2.3.5.7	Authorized roles must have the ability to create/view/print a letter notifying the applicant that the State Ad Board approved the deed.	R
18.2.3.5.8	Authorized roles must have the ability to indicate that an applicant has paid in full.	R
18.2.3.5.11	Authorized roles must have the ability to send a reminder communication to an applicant to indicate that an applicant has not paid in full and the account will be closed in an administratively set amount of time.	R
18.2.3.5.9	The system must prompt authorized roles to close the file if one year has elapsed and the applicant has not paid in full. (Must re-apply)	R
18.2.3.5.10	Authorized roles must have the ability to create/view/print a memo on behalf of the Division Chief to the DNR to process the deed.	R
18.2.4	Authorized roles must have the ability to indicate that a copy of the document was sent to the Register of Deeds	R
18.2.5	Authorized roles must have the ability to indicate that the original document was sent to the applicant.	R
18.2.6	All global requirements apply to Great Lakes Shorelands requirements.	R

Navision/Payment Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
30.0	MiWaters must display DEQ-related Navision payment information as the record for all payments for MiWaters activities.	R
30.1	MiWaters must interface with Navision via the legal document id (i.e., permit) or Navision validation ID.	R
30.1.1	MiWaters must interface with Navision via a web service.	R
30.1.1.1	MiWaters must consume a subset of Navision data for use in administrative queries.	R
30.1.2	MiWaters must interface with Navision to obtain information on customer payment received via US Mail.	R
30.1.3	MiWaters must interface with Navision to obtain information on customer payment via check.	R
30.1.4	MiWaters must interface with Navision to obtain information on customer payment via money order.	R
30.1.5	MiWaters must interface with Navision to obtain information on customer payment via Electronic Funds Transfer.	R
30.2	MiWaters must interface with Navision to obtain information on customer payments received online.	R
30.2.1	MiWaters must interface with Navision to obtain information on customer payment by electronic check (E-check)	R
30.2.3	MiWaters must interface with Navision to obtain information on customer payment by debit card.	R
30.2.5	MiWaters must interface with Navision to obtain information on customer payment via Automated Clearing House (ACH).	R
30.2.6	MiWaters must interface with Navision to obtain information on customer payment via the Consumer Payments web site, (Pay Place).	R

| 30.3	MiWaters must read, from Navision, payment information related to a specific MiWaters activity.	R
30.3.1	Authorized roles must have the ability to view the confirmation number associated with the payment.	R
30.3.2	Authorized roles must have the ability to view the form of payment.	R
30.3.3	Authorized roles must have the ability to view the amount paid.	R
30.3.4	Authorized roles must have the ability to view remitter information.	R
30.3.5	Authorized roles must have the ability to view the payee.	R
30.3.6	Authorized roles must have the ability to view the received date of the payment	R
30.3.7	Authorized roles must have the ability to view the payment purpose.	R
30.3.8	The system must display all (historical) payment information associated with a specified legal document (i.e. permit) number.	R
30.3.9	MiWaters must rely on Michigan Department of Transportation Accounting Service Center (ASC) to handle proper distribution and coding of multiple payments from one single payment in Navision	R
30.4	Authorized roles must have the ability to indicate, in MiWaters, that a refund is to be issued to the customer.	R
30.4.1	Authorized roles must have the ability to indicate the confirmation number of the original payment transaction.	R
30.4.2	Authorized roles must have the ability to enter the amount of the refund to be issued.	R
30.4.3	Authorized roles must have the ability to indicate whether or not the refund amount represents a full or partial refund to the customer.	R
30.4.3.1	Authorized roles must have the ability to indicate a reason why the refund amount is either full or partial.	R
30.4.4	Authorized roles must have the ability to indicate the customer to which a refund is to be issued.	R
30.4.5	Authorized roles must have the ability to indicate the customer mailing address to which a refund is to be issued.	R
30.4.6	Authorized roles must have the ability to indicate the reason for issuing a refund.	R
30.4.7	Authorized roles must have the ability to enter additional comments regarding the refund.	R
30.4.8	Authorized roles must have the ability to generate/view a refund request indicating that a refund is to be processed.	R
30.4.8.1	Authorized roles must have the ability to print a refund request	R
30.4.9	Authorized roles must have the ability to maintain a domain for reason for issuing a refund	R
30.4.9.1	Authorized roles must have the ability to view/enter reason for issuing a refund	R
30.4.9.2	Authorized roles must have the ability to edit a reason for issuing a refund	R
30.4.9.3	Authorized roles must have the ability to inactivate a reason for issuing a refund	R
30.4.9.3.1	The system must not modify historical "reason" information if a reason for issuing a refund is inactivated or modified.	R
30.5	MiWaters must utilize Navision for processing of annual customer invoicing	R
30.5.1	Authorized roles must have the ability to indicate full, or partial, or no payment of the invoiced amount.	R
30.5.2	The system must prompt authorized roles to create an "incomplete" communication if the authorized role indicated partial payment.	R
30.6	The system must trigger the violation workflow if payment that was expected from any DEQ business process was not received on the due date.	R
35.0	The system must utilize Michigan Business One Stop (MBOS) as the portal for customer access to MiWaters functionality available on the Internet	R
35.1	The system must have the ability to be launched from Michigan Business One Stop Application Launcher (AppL)	R
35.2	The system must have the ability to read and use an HTTP Cookie written by MBOS Application Launcher	R
35.3	The system must have the ability to provide seamless authentication to the authorized customer	R
35.3.1	The system must have the ability to use MBOS credentials passed to MiWaters online if MiWaters online application exists in the same State of Michigan Single Sign On (SSO) domain	R
35.3.2	The system must use a custom authentication mechanism via Application Launcher if the MiWaters online application does not exist in the same State of Michigan Single Sign On (SSO) domain	R
35.4	Authorized roles must have the ability to pay for a desired MiWaters activity	R
35.4.1	The system must provide the ability for authorized roles to pay for a desired MiWaters activity	R

	online	
35.4.1.1	The system must have the ability to determine the success or failure of an online payment transaction	R
35.4.1.1.1	The system must store the payment transaction confirmation number related to a successful online payment transaction	R
35.4.1.1.2	Authorized roles must have the ability to view a confirmation number related to a successful online payment transaction	R
35.4.1.1.3	The system must notify authorized roles making payment if a payment transaction attempted online was unsuccessful	R
35.4.2	Authorized roles must have the ability to pay for a desired MiWaters activity via US Mail	R
35.5	The system must not store any customer-specific account information used by the customer to make a payment	R

Wastewater Notice of Coverage (NOC) Requirements

Business Req. No.	Detailed Business Requirement Description	R/O
32.0	The system must accommodate the DEQ wastewater NOC business process.	R
32.1	Authorized roles must have the ability to relate the site of a proposed permitted activity to a part 91 local agency.	R
32.2	Authorized roles must have the ability to enter information on the site where the proposed NOC activity will occur.	R
32.2.1	Authorized roles must have the ability to enter one or more certified operators for the site.	R
32.2.2	Authorized roles must have the ability to enter the MDOT reference number if MDOT is the applicant.	R
32.2.3	A public-facing online NOC application form must link to MiWaters.	R
32.2.3.1	Authorized non-staff roles must have the ability to enter application information.	R
32.2.3.2	Authorized non-staff roles must have the ability to attach files to the NOC application.	R
32.2.4	Authorized roles must have the ability to view/enter NOC application information.	R
32.2.5	The system must notify authorized roles if payment has not yet been received for the NOC application.	R
32.2.6	The system must notify authorized non-staff roles of coverage upon acceptance of payment and acknowledgement of complete application by authorized roles.	R
32.2.7	The system must notify authorized non-staff roles within an administratively maintained timeframe that the NOC will expire.	R
32.2.7.1	The notification must provide a link to allow authorized non-staff roles to renew.	R
32.2.8	Authorized roles must have the ability close out a permit.	R
32.2.8.1	The system must trigger the close out workflow if a permit expires and no renewal application is received.	R
32.2.8.2	Authorized roles must have the ability to trigger an inspection on a site covered by an NOC.	R
32.2.9	The system must notify authorized non-staff roles if data entered does not meet conditions for a permit, but should let them proceed.	R
32.2.10	Authorized non-staff roles must have the ability to indicate notice of termination on the NOC.	R
32.2.10.1	The system must notify authorized roles of the termination.	R
32.2.10.2	The system must send a communication to the authorized non-staff role confirming the termination.	R
32.2.11	Authorized roles must have the ability to view/enter/update dates for the construction site.	R
32.2.12	Authorized roles must have the ability to view/enter/update a start date for the construction site.	R
32.2.13	Authorized roles must have the ability to view/enter/update an end date for the construction site.	R

Appendix D - Interfaces

MiWaters
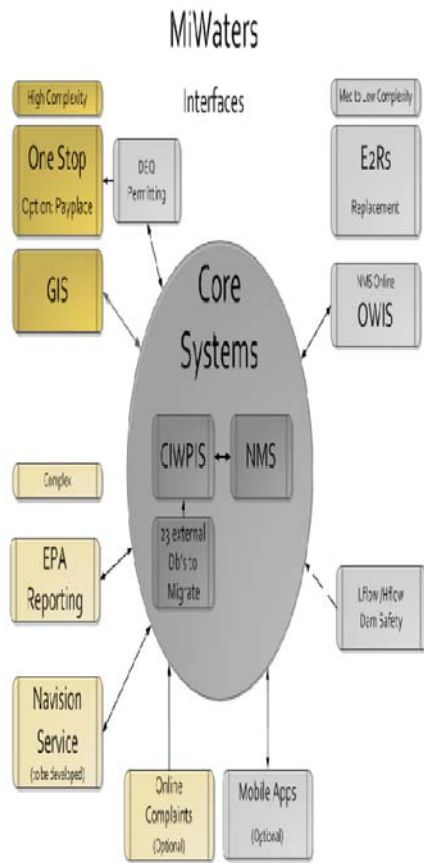
Interfaces

Interfaces

Within the MiWaters system

System Interfaces:

E2RS
The contractor shall modify or replace the existing E2RS system to parse the inputted data to the new MiWaters database. At a minimum, this requires changes to stored procedures and the web.config file for the application (to modify the database connection string). If there is inline SQL within the application then modifications will need to be made there as well.

EPA
Environmental Protection Agency, is the federal agency that ultimately gets copies of this data. DEQ sends copies of their data that was submitted through the E2Rs system to the EPA through what's called the "Michigan NODE".

OWIS
The contractor shall modify or replace the existing OWIS system to display the data in the MiWaters database. At a minimum, this requires changes to stored procedures and the web.config file for the application (to modify the database connection string). If there is inline SQL within the application then modifications will need to be made there as well.

Navision
Navision is now an MDOT administrated system. Any interface built for MiWaters will need the approval/oversight of DTMB MDOT Agency Services. MDOT cashiers will enter data into the MiWaters system when they receive payments that are applicable to the MiWaters program area. This data would establish the link between the payment information in Navision and the permit/permit application information in MiWaters. A service would need to be built to establish the interface that would allow the data in Navision to be visible in MiWaters.

CSS – GIS Interface
MiWaters will integrate with a GIS capable system/service. Currently, requirements have been identified to provide the ability to draw points, lines and polygons on a map along with other resources/sites/points of interest and be able to save that layer for future reference. The program area(s) would also like to be able to view other permitted activity on the map within a defined distance of a given site. Discussions have focused on where to draw data from (National Wetland Inventory, Current CSS GIS Data, Army Corp of Engineers System, etc.)

One Stop
One Stop is a LARA administrated system. MiWaters will accept online permit applications via integration with the One Stop application. There are several integration options available for the agency.

Forms: One Stop contains its own forms engine that is capable of generating online forms according to business rules established by the program area. All form entry would be done within the One Stop application. Payment is also made via the shopping cart functionality within the One Stop application. Once an application is submitted (and if required, payment is made) the data can be transmitted to the program area via DEQ OneStop Payment Notification Service (requires that program staff manually import data into Navision). Once in Navision payment information can be read via a web service by MiWaters)

Custom App: The second option for integration is to build a custom application that contains the permit forms. One Stop would link to this application via workspace tasks. Once a task is executed, information can be passed from One Stop to the custom application to prevent the user from having to re-authenticate. Payment can be made via the One Stop application by using web service calls to the shopping cart. This integration method allows the agency to collect application data from One Stop users as well as those who may wish to apply without establishing a One Stop account (individuals).

If the One Stop shopping cart is used for processing payments it is the desire of DEQ to not accept credit card payments as this will result in additional costs to DEQ. A design decision will be made, as to whether PayPlace is used.

Online Complaints Submission

If this option is exercised, the contractor shall provide allowing system for the public to submit online complaints regarding activities regulated by the MiWaters program areas. This interface would likely be a standalone site requiring no authentication. DEQ would like the complainant to be able to upload photos and/or videos. Discussions are needed for further requirements for this site as well as options for storage/retrieval and virus scanning of uploaded photos/videos.

Mobile Apps

If this option is exercised, the contractor shall provide mobile applications to facilitate data collection for:

- submission of complaints via a mobile web application from the general public with browser-based access to the Internet from a mobile device (smartphone) connected to a wireless network
- processing of inspections in the field from a mobile application on a laptop, tablet PC, or other ruggedized mobile device

Appendix E – Suite Methodology and PMM Examples - RESERVED

Appendix F – Service Levels Requirements (SLR) and Service Levels

Contractor must meet the following listed Service Level Requirements for the MiWaters system.

Tracking and reporting against the SLA begins upon deployment of the system into production. This includes the production monitoring period prior to entering "Maintenance and Support."

Requirements	Contractor's Comments
SERVICE LEVEL REQUIREMENTS	
1. The systems update and changes must meet all DTMB requirements for coding standards and system security. section 1.103 Environment	Windsor understands that new system architecture must adhere to SOM security standards. The SOM Office of Enterprise Security will be provided the opportunity to review the application architecture design as outlined in the SUITE process

2. Both online inquiry and online update of single transactions shall be achieved in a reasonable time depending on the complexity of the transaction or query. A targeted average of fifteen (15) seconds or less ninety percent (90%) of the time.
     i. Measurement – Time will be measured from the time the request arrives in the application server until the final response leaves the application server.
     ii. Target Performance – 99.7 % compliance with target service level.
     iii.   Period of Review – Monthly.
	Windsor will work with SOM to ensure that the designed application architecture adheres to these responsiveness standards within the agreed-upon hosting environment. Any exceptions will be documented and agreed upon with SOM.

3. Maintenance to commence at the end of the warranty period. (Section **1.104, Maintenance and Support)**	
4. All maintenance will be performed by qualified personnel familiar with the newly developed system.	Windsor agrees to involve the assigned technical architect and/or lead developer in all maintenance activities.
5. Diagnostic capabilities used by the Contractor are to be provided to the State Of Michigan	Should Windsor utilize any tools to diagnose reported system defects, these tools and appropriate guidance will be provided to the State of Michigan. Windsor will endeavor to use toolsets with which State of Michigan personnel are familiar (where appropriate) to minimize support impacts.
6. The application maintenance includes all future source code and related functionality updates and system enhancements applicable to system modules.	
7. Technical support is available during State Of Michigan business hours with escalation as necessary. (Section 1.104, Maintenance and Support)	
8. Calls for service will be returned within 2-4 hours or to be specified in the (SEM-0301) Maintenance plan and SLA Deliverable for MiWaters. (Section 1.104, Maintenance and Support)	
9. Error Correction. Upon notice by State of a problem with the Software, reasonable efforts to correct or provide a working solution for the problem will be made following the State Of Michigan SUITE Project Management Methodology.	Under normal circumstances, Windsor staff will be able to respond to high-priority system defects within one hour of being reported. Windsor and SOM will prioritize each system defect when reported, and response time expectations will be clearly set. Note that the time required to fully address and fix the reported system defect may exceed an hour.
10. Updates. All new releases and bug fixes (collectively referred to as "Changes") for any software deliverable developed or published by Contractor and made generally available to its other customers at no additional charge will be provided to the State at no additional charge.	

Appendix G – Cost Tables and Payment Schedule

Table 1 - Payment Schedule for One-Time Project Costs, summary of Payment Milestones

The following table outlines the payment milestones for this project. On-going costs such as licensing and hosting are not covered in this table.

Upon receipt of the DTMB Project Manager's written acceptance of a specific SUITE Phases work deliverables, the Contractor may submit an invoice for the milestone payment associated with this Phase. There may be adjustments to the Invoice / payment schedule in phases that are determined to be too long, for example Phase II Requirements or Phase V Development.

Payment Milestone, at acceptance of all deliverables within this phase, stage exit:	Percent to be invoiced upon Acceptance of Milestone	the one-time project cost	Payment Amount by Milestone (multiply the percentage times the one-time project cost)	Comments
SUITE Phase I	2%	$4,014,110.00	$80,282.00	Deliverables are in section 1.104, Phase 1
SUITE Phase II	6%	$4,014,110.00	$240,846.00	Deliverables are in section 1.104, Phase II
SUITE Phase III	5%	$4,014,110.00	$200,705.00	Deliverables are in section 1.104, Phase III
SUITE Phase IV	5%	$4,014,110.00	$200,705.00	Deliverables are in section 1.104, Phase IV
SUITE Phase V	50%	$4,014,110.00	$2,007,055.00	Deliverables are in section 1.104, Phase V
SUITE Phase VI Testing	10%	$4,014,110.00	$401,411.00	Deliverables are in section 1.104, Phase VI
Training	3%	$4,014,110.00	$120,423.00	Deliverables are in section 1.104, Training and Documentation
SUITE Phase VII Implementation and warranty	19%	$4,014,110.00	$762,680.90.00	Deliverables are in section 1.104, Phase VII
Total cost for one-time project costs	100%	N/A	$4,014,110.00	

Table 2

	On-Going/Future Project Costs		
Item	**Project Cost(s)**	**Cost ($)**	**Comments**
A.	**Software License, Maintenance and Support (help desk)** Give breakdown in Table 4, item J.	$250,000.00	Deliverables are in section 1.104, Maintenance and Support
B.	**Reserve Bank of Hours** Give breakdown in Table 5	$620,225.00	Deliverables shall be described in statements of work
C.	**Sub-total of the On-going/future Project Costs, items N - P**	$870,225.00	
	Total Project Cost	**$4,884,335.00**	

Windsor's solution does not require any additional COTS or Third Party Software applications.

Table 3: Training and Documentation Cost - Reserved

Table 4: Recurring Costs: Software License, and Maintenance and Support
This Table shows the annual cost of the maintenance and support of the system. The maintenance period will commence upon the completion of the one hundred twenty (120) business day warranty period and final acceptance of the system by the DTMB Project Manager.

Item	Cost Categories	Cost ($) for years 6 - 7	Cost ($) for years 1 - 5	Comments
	Software *MAINTENANCE AND SUPPORT* cost, for years 1 - 5			
	First Year (after warranty period)		$100,000.00	
	Second Year		$50,000.00	
	Third Year		$50,000.00	
	Fourth Year		$25,000.00	
	Fifth year		$25,000.00	
	Sixth year	$25,000.00		
	Seventh year	$25,000.00		
J	**Software License, Maintenance and Support costs, for years 1 - 5**		$250,000.00	

Windsor product components will be provided to the WRD, at no licensing cost to the division. Furthermore, underlying source code will be provided for the WRD's use and enhancement at no additional cost to the division. Windsor products components are: nPDES, nForm, nSpect, GIS Viewer, Exchange Network ICIS-NDPES Flow Plugin, and Dynamic Forms.

Table 5: Reserve Bank of Hours for Future Enhancements/Rate Card

Item	Staffing Category	Firm Fixed Hourly Rate (FIXED FOR THE 5-YEAR BASE PERIOD)	Est. Hours (5 year total)	Future Enhancement Cost
K.	Project Manager	$175.00	200	N/A
	Business Analyst	$104.00	675	N/A
	Lead Developer	$140.00	275	N/A
	System Architect	$175.00	850	N/A
	Developer	$104.00	1,575	N//A
	Data Analyst	$126.00	650	N/A
	Calculate the average hourly rate, of the staffing	$124.05		N/A
	Future Enhancement Cost (multiple the average hourly rate X 5,000 hours)	N/A	5,000	$620,225.00

Notes:

Future Enhancements / Contingency: The Contractor may be asked to provide additional hours for enhancements and modifications to the system resulting from state and federal legislative mandates, grant requirements, and changes to the network, security, or system platform such as service packs that require changed in the system for continued functionality.   The additional work will be delineated under Change Management (See 1.403 Change Management)

1. Hourly rates quoted are firm, fixed rates for the duration of the contract. Travel and other expenses will not be reimbursed. "Estimated Hours" and "Extended Price" are non-binding and will be used at the State's discretion to determine best value to the State. The State will utilize the fully loaded hourly rates detailed above for each staff that will be used as fixed rates for responses to separate statements of work.

2. The State intends to establish funding for up to **_5,000 hours_**. Actual funding for enhancements will occur on a yearly basis, and there is no guarantee as to the level of funding, if any, available to the project.

3. Unless otherwise agreed by the parties, each Statement of Work will include:
    a. Background
    b. Project Objective
    c. Scope of Work
    d. Deliverables
    e. Acceptance Criteria
    f. Project Control and Reports
    g. Specific Department Standards
    h. Payment Schedule
    i. Travel and Expenses
    j. Project Contacts
    k. Agency Responsibilities and Assumptions
    l. Location of Where the Work is to be Performed
    m. d Contractor Work Hours and Conditions

4. The parties agree that the Services/Deliverables to be rendered by Contractor using the future enhancements/rate card on this Contract will be defined and described in detail in separate Statements of Work. Contractor shall not be obliged or authorized to commence any work to implement a Statement of Work until authorized via a **_purchase order_** issued against this Contract.

Table 6: Optional

No.	Optional Components	Cost ($)	Comments
	Mobile Applications (this is an optional item)		**Complaint Submission by Public via Smartphone** If this option is exercised, the contractor shall provide a mobile web application to support the public submission of complaints. The application would provide the following capabilities: • Be a device independent, mobile browser based application. • Ability to submit required data to describe the complaint, • Ability to Submit contact information (if desired) • Ability to pick a point from a map to describe the location. • Ability to provide the complaint location by using the coordinates provided by the GPS on the device. • The ability to upload a photo or video (size limits), from the device storage. The user would have to specify the photo to submit from their gallery. • The ability to have a return email with confirmation of receipt of the complaint with perhaps a complaint tracking/confirmation number for reference. • Data would be submitted to the MiWaters System. These capabilities assume that the device has an active data connection. The underlying components employed for the nSpect shall be used to speed the development process, as the requirements are largely the same.
	Online Complaints (this is an optional item)		
	Total Cost	$25,000.00	

Table 7: Cost of Software Licenses, needed to add new State Agencies to this contract

No.	Software license(s) cost	Product Name and Version	Cost ($)	Comments
C.	Commercial Off The Shelf (COTS)	nForm Support: nSpect Support: nPDES Support: GIS Viewer Support: Dynamic Forms Support:	$60,000.00 (initial) $30,000.00 $40,000.00 (initial) $20,000.00 $60,000.00 (initial) $30,000.00 $10,000.00 (initial) $5,000.00 $10,000.00 (initial) $5,000.00	**Initial Licensing Costs:** Represents the initial licensing for the products and includes all the benefits itemized under Annual Support, for the first year. **Annual Support Agreement** This optional service provides ongoing support of the system. This option is available for years 2 forward. The support services include the following: :• Software upgrades upon release (including approved bug fixes) • Submission of enhancement ideas for review • Membership in user support group • Up to 50 hours of technical support for the following systems: nSpect, nForm, nPDES. • Up to 20 hours of technical support for the following systems: GIS Viewer, Dynamic Forms • Support will be provided through a formal support mechanism allowing the client to report issues and for Windsor to respond in a controlled manner.
	Report writers	N/A		
	Requirement analysis tools	N/A		
	Design tools	N/A		
	Drawing tools	N/A		
	Development environment tools	N/A		
	Testing tools: (such as issues tracking, defect testing, load/stress testing, configuration management (List and provide cost separately for each item) 1. 2.	N/A	GIS Viewer, , and Dynamic Forms.	
	Other system utilities (such as backup and disaster recovery, etc.) 1. 2.	N/A		
	Server software	N/A		
	Any other software (List): 1. 2.	N/A		
	Total Cost of Software Licenses including COTS and Third Party Software		**$ 180,000.00**	**Total costs represent the initial licensing costs. Additional Support and upgrades are optional and yearly and are therefore not factored into the total cost.**

The purpose of this table is to set fixed license costs for State agencies that want to use this contract in the future. Costs in Table 7 do not add to the contract value, until a contract amendment adds funding.

Appendix H – Glossary

Term	Definition
ACH	Automated Clearing House
ACO	Administrative Consent Order
AFO	Animal Feeding Operation
ANC	Aquatic Nuisance Control
ANC	Aquatic Nuisance Control. http://www.michigan.gov/deq/0,1607,7-135-3313_3681_3710---,00.html
APA	Authorized Public Agency
API	Application Programming Interface
Applicant	Entity/Person applying for a Permit
Areas Evaluated	Broad areas reviewed during an inspection (such as laboratory, wastewater treatment systems, record keeping). They vary depending on the type of inspection for the type of program.
Artifacts	Documents, Pictures, Emails, that are digitized and saved in the system
ASC	Michigan Department of Transportation Accounting Service Center
Basis	The "basis" for an inspection – field currently used in NMS
CAFO	Concentrated Animal Feeding Operation
CDA	Critical Dune Area
CEA	County Enforcing Agency
CEPAS	Centralized Electronic Payment Authorization System
CGI	Center for Geographic Information
CIWPIS	Coastal and Inland Waters permit Information System
COC	Certificate of Coverage (under a General Permit)
Complaint	Identifying a potential violation, regardless of the source (5/25/2011)… Receipt of a report of something that was observed
Composite Sample	24-hr sampling that gives data for a whole day
Conservation Easement	A legal agreement a land owner makes to restrict the type and amount of development that may take place on his or her property.
Corrected Violation	A violation that was created in administrative error
CSO	Combined Sewer Overflow – a specific type of partially-treated sewage (discharge) that is under permit. Statute calls them raw, partially treated sewage.
CSO / SSO	Combined Sewer Overflow and Sanitary Overflow
CSS	Center for Shared Solutions – State of Michigan
DACO	District Administrative Consent Order
Days	Means calendar days unless otherwise specified.
DEQ	Department of Environmental Quality
DM	Discharge Monitoring
DM	Discharge Monitoring
DMR	Discharge Monitoring Report
DNR	Department of Natural Resources
DNRE	Department of Natural Resources and Environment
DS	District Supervisor
EERT	Escalated Enforcement Review Team
EFT	Electronic Funds Transfer

FDGS	First Data Government Solutions, provider of the CEPAS system
Financial Assurance	An applicant may be required to provide the department with financial assurance to guarantee compliance with DEQ legal document conditions.
Floodplain	A river, stream, lake, or drain may on occasion overflow their banks and inundate adjacent land areas. The land that is inundated by water is defined as a floodplain. In Michigan, and nationally, the term floodplain has come to mean the land area that will be inundated by the overflow of water resulting from a 100-year flood (a flood which has a 1% chance of occurring any given year). It is estimated that about 6% of Michigan's land is flood-prone, including about 200,000 buildings.
French Claim	An alternate geospatial system to Section/Town/Range that is used in Southeast Michigan (Wayne and Monroe Counties) to describe an area of land.
Functional Area	Describes the major components of MiWaters, which together through links, establish the full operating system (such as Permits, Site of Environmental, compliance and enforcement, inspections, complaints, violations, etc.).
GP	General Permit
GPS	Global Positioning System
Grab Sample	Point in time sampling
HUC	Hydrologic Unit Code - sequence of numbers or letters that identify a hydrological feature like a river, river reach, lake, or area like a watershed
Inspection	What can be permitted within compliance with the law OR what a return to compliance with the law OR was an activity in compliance with the law
Inspection Type	Inspection types are unique names of inspections that are associated with different programs areas (such as groundwater or storm water), and also different levels of details of the inspections (thorough, complex inspections vs. simple, single focused inspections).
IP	Individual Permit
LWMD	Land and Water Management Division
MEA	Municipal Enforcing Agency
MGD	Millions of Gallons per Day
Mitigation Bank	Wetland, stream, or other aquatic resource area that has been restored, established, enhanced, or (in certain circumstances) preserved for the purpose of providing compensation for unavoidable impacts to aquatic resources permitted under Section 404 or a similar state or local wetland regulation.1 A mitigation bank may be created when a government agency, corporation, nonprofit organization, or other entity undertakes these activities under a formal agreement with a regulatory agency.
MP	Minor Project
MS4	Municipal Separate Storm Sewer System – A type of municipal wastewater site
NAVD	North American Vertical Datum
NGVD	National Geodetic Vertical Datum.
NMS	NPDES Management System
NOC	Notice of Coverage
Non-AFO	An agricultural site of environmental interest that is not an animal feeding operation. These sites are generally associated with complaints about a potential water pollution issue.
NPDES	National Pollutant Discharge Elimination System (NPDES)
OHWM	Ordinary High Water Mark

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	The ordinary high water mark (OHWM) is defined in Section 30101 (i). This definition refers to the "natural" and long standing OHWM, and it is our interpretation that this elevation is not altered by the artificial withdrawal of water from a lake or stream. Any activity regulated by Part 301 that occurs below the OHWM will continue to be regulated whether or not the withdrawal of water results in exposure of bottomland. Should a withdrawal remove all the water from a lake or stream, the bottomlands remain regulated under Part 301.
	325
	Ordinary high water mark means the elevations above sea level, international Great Lakes datum of 1985: Lake Superior, 602.6 feet; Lakes Michigan and Huron, 580.5 feet; Lake St. Clair, 575.3 feet; and Lake Erie, 572.2 feet. When the soil, configuration of the surface, or vegetation has been altered by man's activity, the ordinary high water mark shall be located where it would have been if this alteration had not occurred.
Part 301	Inland Lakes and Streams, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.
Part 303	Wetlands Protection, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.
Part 31	Water Resources Protection, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.
Part 315	Dam Safety, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.
Part 323	Shorelands Protection and Management, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.
Part 325	Great Lakes Submerged Lands, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.
Part 326	Great Lakes Submerged Logs Recovery, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.
Part 353	Sand Dunes Protection and Management, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.
Part 41	Wastewater Construction
Part 91	Soil Erosion And Sedimentation Control, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. http://www.michigan.gov/documents/deq/wb-sesc-FAQ_261925_7.pdf
PCU	Permits Consolidation Unit
PEAS	Pollution Emergency Alert System
Permittee	Permit Holder
PN	Public Notice – this is used throughout the documents as both a noun and a verb
Program Area	Areas of regulatory authority administered by the Water Resources Division (NPDES, wetlands, critical dunes, floodplains, wastewater treatment construction, etc.). These areas often overlap and are inter-related and must be considered when coordinating inspections and other regulatory reviews.
Reach Code	A fourteen digit code consisting of the an eight digit HUC plus a six digit identifier unique within the eight digit HUC to uniquely identify each stream reach
Red File	EPA Review
RTB	Retention and treatment basin
Section 404	Permits for Dredged or Fill Material, Federal Clean Water Act, PL 92-500.
SHPO	State Historical Preservation Office
SI	Site Inspection – Physically visiting a site to gather information regarding whether or not a particular activity requested is within compliance of the law.
Site	Any physical location where the State is responsible to monitor. A site Location may include state-owned, leased, or rented space.
SOC	Schedule of Compliance – represents one or more compliance activities attached to a

	legal document that must be carried out to comply with that legal document. An action or set of actions associated with a date (either a narrative date, calendar date, or dependency) required by a Permittee or responsible party to comply with the permit/order
SOE	Site of Environmental Interest
SSO	Storm Sewer Overflow – Discharges from separate collection systems that are not under permit (they may be under order). The locations are generally unknown – owner/operator may not be in the system.
Stations	Stations are the subgroup of SEI that includes outfalls, intakes, monitoring wells, etc. Stations do not stand on their own, but must be a child of another SEI. Permit monitoring requirements for a SEI are associated with the station (for example, Steel Industries have 3 outfalls and an Intake. The permit specifies monitoring to be done at that station).
STORET	The STORET (short for STOrage and RETrieval) Data Warehouse is a repository for water quality, biological, and physical data and is used by state environmental agencies, EPA and other federal agencies, universities, private citizens, and many others.
Structure	A permanent structure that is erected, installed, or moved on a parcel of property, such as a residential, commercial, or industrial building, a mobile home, accessory buildings, septic systems, tile fields, and any other waste handling facilities.
Subviolation	A sub-condition of a requirement that is not met and is part of the cause of one violation. It is a violation in and of itself but is further categorized for cataloguing of violations.
SVN	Second Violation Notice (Compliance and Enforcement)
T&E	Threatened and Endangered
T&E	Threatened and Endangered
Termination	Termination is used when there is agreement on both sides (DEQ and Permittee) to terminate
TMDL	Total Maximum Daily Load When a lake or stream does not meet Water Quality Standards (WQS), a study must be completed to determine the amount of a pollutant that can be put in a waterbody from point sources and nonpoint sources and still meet WQS, including a margin of safety. A TMDL is used as a short hand acronym to describe the process used to determine how much pollutant load a lake or stream can assimilate.
TRS	Town Range and Section. 402ReferenceFiles\Location\ogs-oilandgas-mapping-t-r-s_263223_7.pdf
TTBEL	Treatment Technology Based Effluent Limits
USACE	United States Army Corps of Engineers
VN	Violation Notice (Compliance and Enforcement)
WIP	Wetland/Inland Permits
WQBEL	Water Quality Based Effluent Limits
WQS	Water Quality Standards
WRD	Water Resources Division

IT & Procurement terms

Days	Means calendar days unless otherwise specified.
24x7x365	Means 24 hours a day, seven days a week, and 365 days a year (including the 366th day in a leap year).
Additional Service	Means any Services/Deliverables within the scope of the Contract, but not specifically provided under any Statement of Work, that once added will result in the need to provide the Contractor with additional consideration.
Audit Period	See Section 2.110
Business Day	Whether capitalized or not, shall mean any day other than a Saturday, Sunday or State-recognized legal holiday (as identified in the Collective Bargaining Agreement for State employees) from 8:00am EST through 5:00pm EST unless otherwise stated.
Blanket Purchase Order	An alternate term for Contract as used in the States computer system.
Business Critical	Any function identified in any Statement of Work as Business Critical.
Chronic Failure	Defined in any applicable Service Level Agreements.
Deliverable	Physical goods and/or commodities as required or identified by a Statement of Work
DTMB	Michigan Department of Technology, Management and Budget
Environmentally preferable products	A product or service that has a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. Such products or services may include, but are not limited to, those that contain recycled content, minimize waste, conserve energy or water, and reduce the amount of toxics either disposed of or consumed.
Excusable Failure	See Section 2.244.
Hazardous material	Any material defined as hazardous under the latest version of federal Emergency Planning and Community Right-to-Know Act of 1986 (including revisions adopted during the term of the Contract).
Incident	Any interruption in Services.
ITB	A generic term used to describe an Invitation to Bid. The ITB serves as the document for transmitting the RFP to potential bidders
Key Personnel	Any Personnel designated in Article 1 as Key Personnel.
New Work	Any Services/Deliverables outside the scope of the Contract and not specifically provided under any Statement of Work, that once added will result in the need to provide the Contractor with additional consideration.
Ozone-depleting substance	Any substance the Environmental Protection Agency designates in 40 CFR part 82 as: (1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or (2) Class II, including, but not limited to, hydro chlorofluorocarbons
Post-Consumer Waste	Any product generated by a business or consumer which has served its intended end use, and which has been separated or diverted from solid waste for the purpose of recycling into a usable commodity or product, and which does not include post-industrial waste.
Post-Industrial Waste	Industrial by-products that would otherwise go to disposal and wastes generated after completion of a manufacturing process, but do not include internally generated scrap commonly returned to industrial or manufacturing processes.
Recycling	The series of activities by which materials that are no longer useful to the generator are collected, sorted, processed, and converted into raw materials and used in the production of new products. This definition excludes the use of these materials as a fuel substitute or for energy production.
Deleted – Not Applicable	Section is not applicable or included in this RFP. This is used as a placeholder to maintain consistent numbering.
Reuse	Using a product or component of municipal solid waste in its original form more than once.

RFP	Request for Proposal designed to solicit proposals for services
Services	Any function performed for the benefit of the State.
Source reduction	Any practice that reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment prior to recycling, energy recovery, treatment, or disposal.
State Location	Any physical location where the State performs work. State Location may include state-owned, leased, or rented space.
Subcontractor	A company Contractor delegates performance of a portion of the Services to, but does not include independent contractors engaged by Contractor solely in a staff augmentation role.
Unauthorized Removal	Contractor's removal of Key Personnel without the prior written consent of the State.
Waste prevention	Source reduction and reuse, but not recycling.
Waste reduction and Pollution prevention	The practice of minimizing the generation of waste at the source and, when wastes cannot be prevented, utilizing environmentally sound on-site or off-site reuse and recycling. The term includes equipment or technology modifications, process or procedure modifications, product reformulation or redesign, and raw material substitutions. Waste treatment, control, management, and disposal are not considered pollution prevention, per the definitions under Part 143, Waste Minimization, of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended.
Work in Progress	A Deliverable that has been partially prepared, but has not been presented to the State for Approval.
Work Product	Refers to any data compilations, reports, and other media, materials, or other objects or works of authorship created or produced by the Contractor as a result of an in furtherance of performing the services required by this Contract.

<u>**Exhibit A – EASA -**</u>

Enterprise Architecture Solution Review
Start Here > Contact Info Tab

As early as possible, but not later than the end of the design phase of any solution development effort, an Assessment must be completed, documenting the architectural details of the proposed solution. Any DTMB activity that requires the purchase of new licenses, components or development services will require an Assessment. Any DTMB activity that requires the development of new software components, the installation of new software components or the use of DTMB staff resources on any solution development project beyond the design phase will require an Assessment. All vendor proposals and new contracts must be accompanied by an Assessment, documenting the architectural details of the proposed solution. The timely completion and submission of the Assessment is the responsibility of the DTMB project manager, designated DTMB solution manager or DTMB vendor proposal or contract evaluation committee representative.

Version 2.6

Solution/Application Name	MiWaters
EASA/Project Name	MiWaters Assessment
Date Submitted	4/13/2013
Targeted Review Completed Date	

Solution Advocate	Syed Ahmed
Advocate Work City and State	Lansing, MI
Advocate Phone No.	(517) 241-0486
Advocate eMail	ahmeds2@michigan.gov

Sponsor Information	David Borzenski
Sponsor Work City and State	Lansing, MI
Sponsor Phone No.	517-241-4652
Sponsor eMail	BorzenskiD@michigan.gov

A Brief description of the solution and business purpose/process. *(please keep the description to 256 characters)*	The purpose of this proposal is to acquire a new custom-built or customized commercial off-the-shelf (COTS) software application for consolidating and replacing, in whole or in part, a number of applications utilized by the Michigan Department of Environmental Quality's (MDEQ) Water Resources Division (WRD). These include the NPDES Management System (NMS), the Coastal and Inland Waters Permit Information System (CIWPIS), Electronic Environmental Reporting System (E2RS), and a number of other smaller applications. There will also be interfaces to other systems including, but not limited to, GIS, Navision, E2RS replacement, and the Online Web Inquiry System (OWIS, aka NMS Online). The intent is for the new system to include all of the functionality of existing systems plus enhancements identified herein and through a business requirements process.

Enterprise Architecture Solution Assessment   version 2.6

Additional description of the solution and business purpose. *(please expand the row as much as needed)*	Windsor's proposed solution is outlined as specified in the remainder of this proposal. Rather than repeating the voluminous description already presented elsewhere, a very brief synopsis is provided in this table: To address the needs articulated in the MiWaters system requirements, Windsor is proposing a hybrid approach to architecting the solution—a best of breed approach. We envision the MiWaters system to be a custom developed application that will leverage a series of proven solutions developed by Windsor that will be customized and integrated together to meet the WRD's requirements. These solutions include: • nPDES – a complete NPDES data management system used by several state programs. • nForm (http://www.windsorsolutions.com/nform) – a complete package for the management of online submissions for permit applications and complaints. • nSpect (http://www.windsorsolutions.com/nspect/) – a comprehensive mobile inspection application • Windsor GIS Viewer (Web-based GIS/mapping) • Windsor Exchange Network ICIS-NDPES Flow Plugin • Windsor Dynamic Forms –a solution for adding new elements, rules and business logic to the system. Windsor anticipates that these solutions will serve as a foundational base for the MiWaters application. Many of the technical challenges that a pure custom built application will encounter have already been solved through our offerings. However, because no two states needs are the same, these systems will need to be enhanced, customized and in some cases entirely new custom modules developed to address the WRD's unique needs.
Security Requirements Discussion *(What are the security implications of this solution? What security measures will be taken to protect data and resources?)*	Application Data is non sensitive or Sensitive with no PII data.
List changes and additions from previous version *(if applicable)*	N/A - new application development.

Send completed assessment to: EA-Administrator@michigan.gov

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Enterprise Architecture Solution Review

Alt Analysis Tab

Create additional option blocks for each option as needed.

Rows 6 to 11 are copied automatically from the Start Here tab	
Project Name *(autofill)*	MiWaters Assessment
Date Submitted *(autofill)*	4/13/2013
Review Completed Date *(autofill)*	
Solution Advocate *(autofill)*	Syed Ahmed
Sponsor Information *(autofill)*	David Borzenski
Describe the solution and business purpose. *(autofill)*	The purpose of this proposal is to acquire a new custom-built or customized commercial off-the-shelf (COTS) software application for consolidating and replacing, in whole or in part, a number of applications utilized by the Michigan Department of Environmental Quality's (MDEQ) Water Resources Division (WRD). These include the NPDES Management System (NMS), the Coastal and Inland Waters Permit Information System (CIWPIS), Electronic Environmental Reporting System (E2RS), and a number of other smaller applications. There will also be interfaces to other systems including, but not limited to, GIS, Navision, E2RS replacement, and the Online Web Inquiry System (OWIS, aka NMS Online). The intent is for the new system to include all of the functionality of existing systems plus enhancements identified herein and through a business requirements process.

High-level Requirements *What are the high-level requirements or the business problem that you are trying to satisfy?*	DEQ is looking for a a new custom-built or customized commercial off-the-shelf (COTS) software application for consolidating and replacing a number of applications utilized by the Michigan Department of Environmental Quality's (MDEQ) Water Resources Division (WRD). These include the NPDES Management System (NMS), the Coastal and Inland Waters Permit Information System (CIWPIS), Electronic Environmental Reporting System (E2RS), and a number of other smaller applications. There will also be interfaces to other systems including, but not limited to, GIS, Navision, E2RS replacement, and the Online Web Inquiry System (OWIS, aka NMS Online). The intent is for the new system to include all of the functionality of existing systems plus enhancements identified herein and through a business requirements process.

Option 1 *What is the first option considered for satisfying the high-level requirements? How will this option solve the business problem?*	New custom-built or customized commercial off-the-shelf (COTS) software Custom developed application by DTMB Approved Vendor.

Enterprise Architecture Solution Assessment   version 2.6

Advantages What are the advantages of this option over the other options considered?				
Disadvantages What are the disadvantages of this option, compared with the other options considered?				
Costs What are the costs associated with this option, compared with the other options considered?				
	Relative to other options	One Time Estimate	Annual Recurring Estimate	Sources
Hardware purchase/maintenance		$ -	$ -	
Software purchase/maintenance		$ -	$ -	
Installation Charges		$ -	$ -	
Hosting and Storage Charges		$ -	$ -	
User and DIT staff training		$ -	$ -	
Application Development		$ -	$ -	
Testing Overhead		$ -	$ -	
Project Management		$ -	$ -	
Support Costs		$ -	$ -	
	Total	$ -	$ -	

Option 2 What is the second option considered for satisfying the high-level requirements? How will this option solve the business problem?				
Advantages What are the advantages of this option over the other options considered?	[enter response here]			
Disadvantages What are the disadvantages of this option, compared with the other options considered?	[enter response here]			
Costs What are the costs associated with this option, compared with the other options considered?	[enter response here]			
	Relative to other options	One Time Estimate	Annual Recurring Estimate	Sources

Enterprise Architecture Solution Assessment version 2.6

Hardware purchase/maintenance		$	-	$	-	
Software purchase/maintenance		$	-	$	-	
Installation Charges		$	-	$	-	
Hosting and Storage Charges		$	-	$	-	
User and DIT staff training		$	-	$	-	
Application Development		$	-	$	-	
Testing Overhead		$	-	$	-	
Project Management		$	-	$	-	
Support Costs		$	-	$	-	
	Total	**$**	**-**	**$**	**-**	

Alt Analysis tab   Page 5 of 17   EA Solution Assessment

Enterprise Architecture Solution Review

Pilot Adoption Request (or POC)

The goal of a Pilot is to assess and determine the compatibility of a proposed technology with the State's hardware and network infrastructure along with DTMB's ability to support it in a production environment. Information in this section discusses the reasons why this Pilot is being assessed and what the effort is intended to accomplish. This tab can be deleted if not needed.

State the business requirements or technology need(s) that will be addressed by this technology.	
Proposed Pilot (or POC) Solution	
Areas Impacted	
Measurable Pilot Objectives	
Critical Success Factors List high-level factors that will determine the success fo this Pilot.	
Conclusion List how the results or findings of this Pilot will be documented or described.	
Schedule Information List milestone dates such as the start and end dates	

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Enterprise Architecture Solution Review

Disaster Planning tab
Business Continuity / Disaster Recovery Requirements
Provisions for recovering the hardware and software in case of an outage or disaster will determine how extensive redundant resources are provided. Business continuity is determined by the business requirements and the operational availability of the application. The time required to recover from an outage will determine the type and level of disaster recovery required to keep the application operational. These requirements normally take into account the application and infrastructure's need for short planned maintenance recovery time and availability.

Rows 7 to 12 are copied automatically from the Start Here tab	
Project Name (autofill)	MiWaters Assessment
Date Submitted (autofill)	4/13/2013
Review Completed Date (autofill)	
Solution Advocate (autofill)	Syed Ahmed
Sponsor Information (autofill)	David Borzenski
Describe the solution and business purpose. (autofill)	The purpose of this proposal is to acquire a new custom-built or customized commercial off-the-shelf (COTS) software application for consolidating and replacing, in whole or in part, a number of applications utilized by the Michigan Department of Environmental Quality's (MDEQ) Water Resources Division (WRD). These include the NPDES Management System (NMS), the Coastal and Inland Waters Permit Information System (CIWPIS), Electronic Environmental Reporting System (E2RS), and a number of other smaller applications. There will also be interfaces to other systems including, but not limited to, GIS, Navision, E2RS replacement, and the Online Web Inquiry System (OWIS, aka NMS Online). The intent is for the new system to include all of the functionality of existing systems plus enhancements identified herein and through a business requirements process.

Business Continuity requirements for this application.	**Describe below**
The business requirement(s) that determine the amount of time and the operational availability of the application to the end-user. Business requirements or federal / state mandate(s) may require an application be available within a pre-determine timeframe. Application availability requirements may vary depending on the time of day or week or other time frames. Also, availability of portions of the functionality of an application is acceptable for a period of time.	Application should be available 24/7 for WRD use but the application will only be supported 8am - 5pm M-F

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Disaster Recovery Requirements include the time required to recover the application and data from an outage which will determine the type and level of business continuity required to keep the application operational. These requirements normally take into account the application's need for short maintenance recovery time and availability requirements. The requirements will also note whether the business has a requirement or a federal/state mandate that the application is available within a pre-determined timeframe.

Number of Individuals	Number	Comments
Describe the number of individuals who use the Business function / Application on a daily basis.	100-350	

Hours of operations	Hours	Other
Describe the hours of operation for this Business function / Application. Example: Hours of the Day & Days of the Week	6 AM to 6 PM (5 Days Monday thru Friday)	

Application Criticality Level	

Availability Requirement Category – *Availability Requirement is divided into three different levels. These levels define the continuous service availability requirements of the application. .Based on the following definitions, please indicate the level of availability required for this Business Function / Application.*

Definitions	Choose One
URGENT - Business Function / Application outage has potential to cause loss of life or risk of injury to a citizen. see comments for additional information.	
HIGH – Business Function / Application outage will have a high non-life threatening impact on the public. If this application is not available, there may be an adverse impact on a large number of business clients who use the application. see comments for additional information.	**Medium**
MEDIUM – Business Function / Application not meeting the Urgent or High criteria will be assigned Medium priority status; this default will be considered the third priority and reflect a situation where there is no risk of personal injury, and the public is not being directly effected. see comments for additional information	

Critical Business Function		
Application Recovery Time Objective	Choice	Other (specify)
Recovery Time Objective (RTO) is the maximum amount of time that can elapse until a system / application / function must be returned to service	24 hours	
Application Recovery Point Objective	Choice	Other (specify)
Recovery Point Objective (RPO) is the maximum amount of data loss a business function can sustain during an event	24 hours	

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Enterprise Architecture Solution Review

Assessment Tab	

A response is required (acknowledgement) for rows 14 and higher.

Create a separate tab for each subsystem/software component.

Create additional rows for each category as needed to select all that apply.

Please add additional comments to the right of the field.

Rows 8 to 13 are copied automatically from the Start Here tab		
Project Name *(autofill)*	MiWaters Assessment	
Date Submitted *(autofill)*	4/13/2013	
Review Completed Date		
Solution Advocate *(autofill)*	Syed Ahmed	
Sponsor Information *(autofill)*	David Borzenski	
Describe the solution and business purpose. *(autofill)*	The purpose of this proposal is to acquire a new custom-built or customized commercial off-the-shelf (COTS) software application for consolidating and replacing, in whole or in part, a number of applications utilized by the Michigan Department of Environmental Quality's (MDEQ) Water Resources Division (WRD). These include the NPDES Management System (NMS), the Coastal and Inland Waters Permit Information System (CIWPIS), Electronic Environmental Reporting System (E2RS), and a number of other smaller applications. There will also be interfaces to other systems including, but not limited to, GIS, Navision, E2RS replacement, and the Online Web Inquiry System (OWIS, aka NMS Online). The intent is for the new system to include all of the functionality of existing systems plus enhancements identified herein and through a business requirements process.	
		Comments here
Proof of Concept / Pilot		
Access		
User Interface Type	Browser	Mobile Browser as well
Public/Private Access	Both Internal & External	
User Access Type	Internet	Both Internet and Intranet
Data Exchange Interface	Web Service	XML, Flat File, JSON data exchange format
Remote Access for System and Maintenance	No	
Communication with external systems or trading partners?		
Data Protection		
Personal ID Info (PII)	No	
Data Classification	Sensitive w/ no personal info	
CEPAS / PCI	No CC accepted	
Regulatory Compliance		
Security Equipment	No	
Data Audit Trail	Database Audit Files	Application cade, DB Triggers
Software		
COTS Software Packages	No	Hybrid System
3rd Party Dev Tool Use	No	This needs some explanation
Solution Pattern		

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Reference Model	

Emerge : In pilot or in deployment phase.
Standard : Enterprise-wide standard with full deployment and support.
Supported : Alternative to the standard.   For use where currently implemented only.
Frozen: Reduce use and dependence on over time. No new development. Must justify use.
Sunset: No implementation, development or support. Must justify use.

Category	***Respond to all***	Comments
Centers of Excellence	Server Virtualization (standard)	
additional choice		
Other		
Database	MSSQL Server 2008 & R2 (standard)	
additional choice		
Other		

Database Modeling Tools	MSSQL Server Mgmt Studio (follow db)	
additional choice		
Other		

Development Language	ASP.Net 2010 (emerge)	
additional choice	ASP.Net 2008 (standard)	
Other	CSS Level 3, JavaScript, HTML5	XML Schema 1.1

Development Framework	.NET Framework 3.5, 4.0 (standard)	Much of the existing system components have been developed in .NET Framework 4.0.
additional choice		
Other		

Development Platform	Microsoft Visual Studio 2008, 2010 (standard)	
additional choice	Hybernate 3.x (standard)	
Other	Spring.Net 1.3.x	Spring.Net is packaged and deployed with the application. No separate server software installation is required.

Web Server	Microsoft IIS 7.x/2008[R2] (standard)	
additional choice		
Other		

Application Server	.NET Framework 3.5, 4.0 (standard)	
additional choice		
Other		

HW Platform	x86 Virtualization (standard)	
additional choice	Dell (standard)	
Other		

O/S	Microsoft Windows 2008 (standard)	
additional choice		
Other		

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Document Management	MS SharePoint Server 2007 EE (standard)	
additional choice	HP Trim (standard)	Final determination will be made during functional design phase
Other		

Testing Tools	Selenium 1.x, 2.x (standard)	
additional choice		
Other	xUnit and jMeter	xUnit is used for unit testing. jMeter is used for load testing.

Identity Management	Microsoft AD 2008 (standard)	
additional choice		
Other	Windsor's solutions can use either AD or internal identity management. Selection is made through configuration.	

Project Management	MS Project 2007, 2010 (standard)	
additional choice		
Other		

Requirements Gathering	Microsoft Office & Visio (standard)	
additional choice	SEM Templates (standard)	
Other		

Design Tools	Microsoft Visio (standard)	
additional choice	MSSQL Server Mgmt Studio (follow db)	
Other		

Version Control	Subversion 1.6 (standard)	State will use SVN
additional choice		
Other	Mercurial	Windsor uses Mercurial distributed version control.

Issue Defect Tracking	(response required)	
additional choice		
Other	Windsor iTest	Windsor iTest (proprietary) for issue and bug tracking during the development project.

Message Queuing	N/A (Not Applicable)	MSMQ (where necessary)
additional choice		
Other		

Business Integration	N/A (Not Applicable)	
additional choice		
Other		

Database Tools	MSSQL Server Mgmt Studio (follow db)	
additional choice		
Other		

Enterprise Architecture Solution Assessment   version 2.6

Reporting Tools	MSSQL Reporting Services (follow db)	
additional choice		
Other		
End-User Tools	N/A (Not Applicable)	
additional choice		
Other		
Deployment Tools		
additional choice		
Other	**Microsoft Web Deploy**	Microsoft Web Deploy is typically used for deployment.
Build Tools		
additional choice		
Other	**MS Build**	MSBuild is included with the .NET framework.
Job Schedulers		
additional choice		
Other	**Quartz**	Quartz integrated with Spring.NET and is embedded as part of the deployed application
GIS Technologies	ArcGIS Server 9.3 (standard)	Generally Windsor solutions are built to operate with ArcGIS Server 10.x as RESTful feature editing is possible.
additional choice		
Other		

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Enterprise Architecture Solution Review

Platform tab	
Server Info - New & Repurposed	

Information entered here will expedite the mini-quote process for platform purchasing.

Describe the solution and business purpose. (autofill)	The purpose of this proposal is to acquire a new custom-built or customized commercial off-the-shelf (COTS) software application for consolidating and replacing, in whole or in part, a number of applications utilized by the Michigan Department of Environmental	
Infrastructure		
Hosting Location	Internally hosted	
Virtual Servers Utilized?	Yes	
Enterprise Storage Type	CAS / NAS	
Storage Size Required	10GB-500GB (medium)	
Server Acquisition	Reconfigure existing	
Chip Architecture	64-bit (Intel)	

Mini-quote exemption		
Is server virtualization supported?	**Yes**	If Yes then possibly exempt from mini-quote process
Justification for exemption (for VMs only)		
_all virtual servers must be managed by the VCoE _all OS on the VM's must be standard _non-virtual servers which are part of solution must be addressed below		

Type 1 procurement		
Does this request build a new solution or system?	**No**	multiple-quotes required
Type 1 procurement justification		
The mini-quote bid process must be followed. Details will be handled by Solutions Engineering during the server IMAC process.		

Type 2 procurement		
Does this solution replace an entire server tier (i.e. web servers)?	**No**	multiple-quotes required
Type 2 procurement justification		
The mini-quote bid process must be followed. Details will be handled by Solutions Engineering during the server IMAC process.		

Type 3 procurement		
Does this solution add to an existing server cluster?	**Yes**	single quote required - provide additional justification below
Type 3 procurement justification		

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Use the Alt Analysis tab to provide additional justification for exemption from mini-quote process. Examples include:
_no vendor software support on different hardware
_software not certified on different hardware
_continuity to current environment
_potential PCI vulnerabilities
_increase complexity of patch management in cluster
_adherence to terms in original contract

Type 4 procurement		
Does this solution add to an existing server tier?	Yes	single quote required - provide additional justification below
Type 4 procurement justification		

Use the Alt Analysis tab to provide additional justification for exemption from mini-quote process. Examples include:
_continuity to current environment
_potential PCI vulnerabilities
_increase complexity of patch management in cluster
_increase complexity of administration & support
_adherence to terms in original contract

Enterprise Architecture Solution Review

Other Products tab		
Project Name *(autofill)*	MiWaters Assessment	

Please add any additional software that is not on the Assessment Tab.

Software

How are you going to pay for these products?		(add payment discussion)
Name	**Type**	**Purpose**

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Diagrams will be used to show the interaction of technologies. Detailed drawling may benefit other approval process as well. The "Current Server Diagram" is intended to allow the EA (Enterprise Architecture) Core Team to understand the relationship between the existing system and the enhancements.

Current Server Diagram tab   Page 16 of 17   EA Solution Assessment

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The "New Server Diagram" is intended to allow the EA (Enterprise Architecture) Core Team to understand the relationship between the existing system and the enhancements.
Feel free to copy this tab to add additional drawling.

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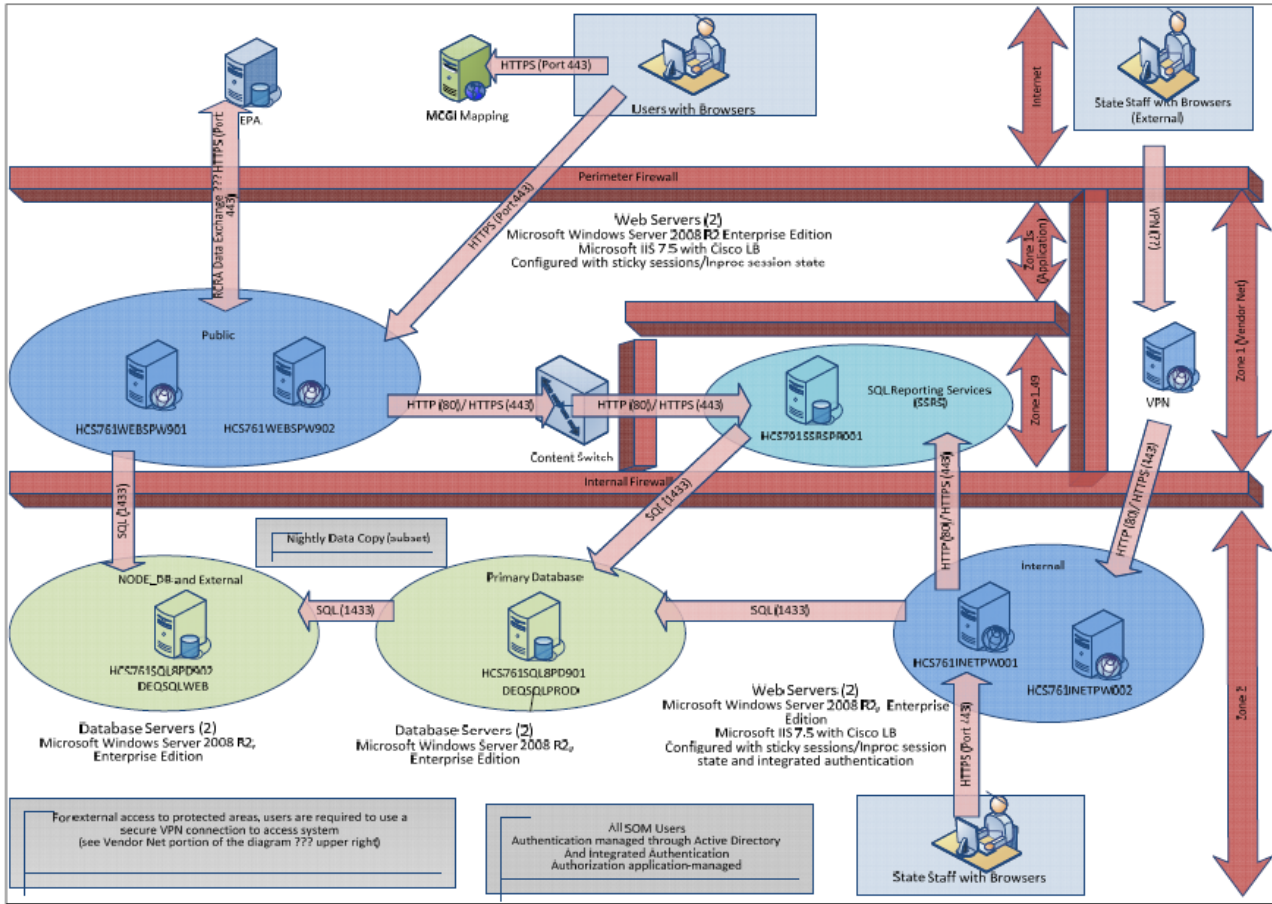
Exhibit B – Organization Chart

The design and development work will be performed as three parallel tracks of work based on these areas of functionality:

- Track 1: Infrastructure: GIS Viewer, Document Management System, nForm, nSpect, Interfaces (Navision, MI Business One-Stop, etc.)

- Track 2: NPDES and e-DMR

- Track 3: CIWPIS, Smaller Water Applications (28), MiWaters on-line, Compliance and Enforcement Tracking, Exchange Network.

The project team for the development effort is as follows:
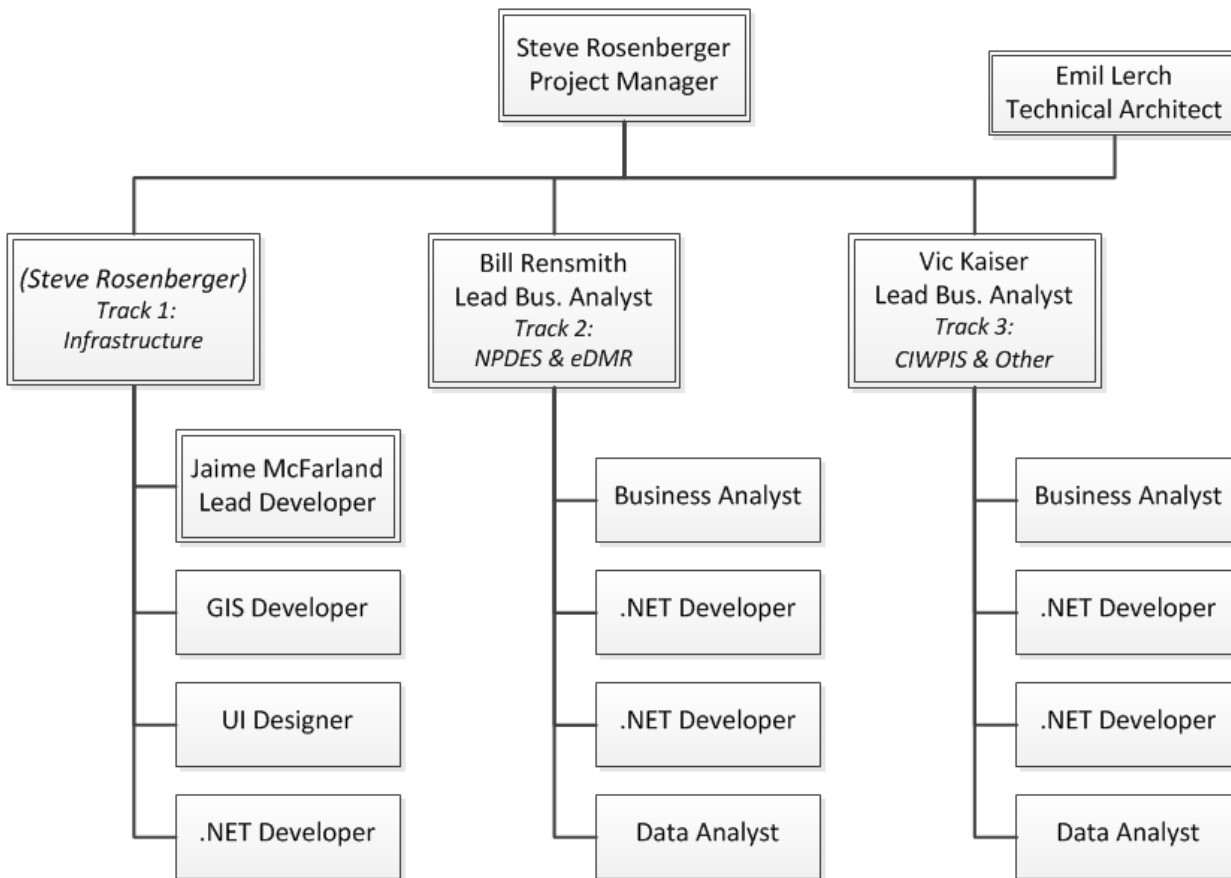
Testing, training, and documentation work is done by Business Analysts who have extensive experience in designing, developing, and implementing environmental systems.

Once the MiWaters system is in production use, the following team will support the software during the warranty period, as well as during on-going maintenance and support:

Help desk support is provided by Business Analysts who have extensive experience in supporting environmental systems.

Exhibit C – Preliminary Project Plan

Task Name	Start	Finish
MiWaters Development and Implementation	Mon 10/1/12	Wed 3/18/15
I. Project Planning	Mon 10/1/12	Tue 10/30/12
Milestone: Project Planning	Wed 10/31/12	Wed 10/31/12
II. Requirements Verification and Validation	Thu 11/1/12	Wed 1/30/13
Milestone: Requirements Verified	Thu 1/31/13	Thu 1/31/13
III. Functional Design	Fri 2/1/13	Mon 4/29/13
Milestone: Functional Design	Tue 4/30/13	Tue 4/30/13
IV. System Design	Wed 5/1/13	Sat 6/29/13
Milestone: System Design	Sun 6/30/13	Sun 6/30/13
V. Construction of New System	Mon 7/1/13	Tue 4/29/14
1. Infrastructure	Mon 7/1/13	Tue 4/29/14
2. NPDES & e-DMR	Mon 7/1/13	Tue 4/29/14
3. CIWPIS and Others	Mon 7/1/13	Tue 4/29/14
Data Migration and Cleansing	Mon 7/1/13	Tue 4/29/14
Milestone: Construction of the New System	Wed 4/30/14	Wed 4/30/14
VI. Testing	Thu 5/1/14	Wed 7/30/14
Training and Documentation	Tue 10/1/13	Wed 7/30/14
Milestone: Testing, Training, Documentation	Thu 7/31/14	Thu 7/31/14
VII. Implementation - System in Production	Fri 8/1/14	Wed 3/18/15
Implement in Production	Fri 8/1/14	Mon 9/29/14
Milestone: Implementation in Production	Tue 9/30/14	Tue 9/30/14
Warranty Period	Wed 10/1/14	Tue 3/17/15
Milestone: Warranty Period Completed	Wed 3/18/15	Wed 3/18/15

As discussed under Section 1.104, Work and Deliverables, in order to have the entire system in production in 24 months the design and development work will be performed as three parallel tracks of work:
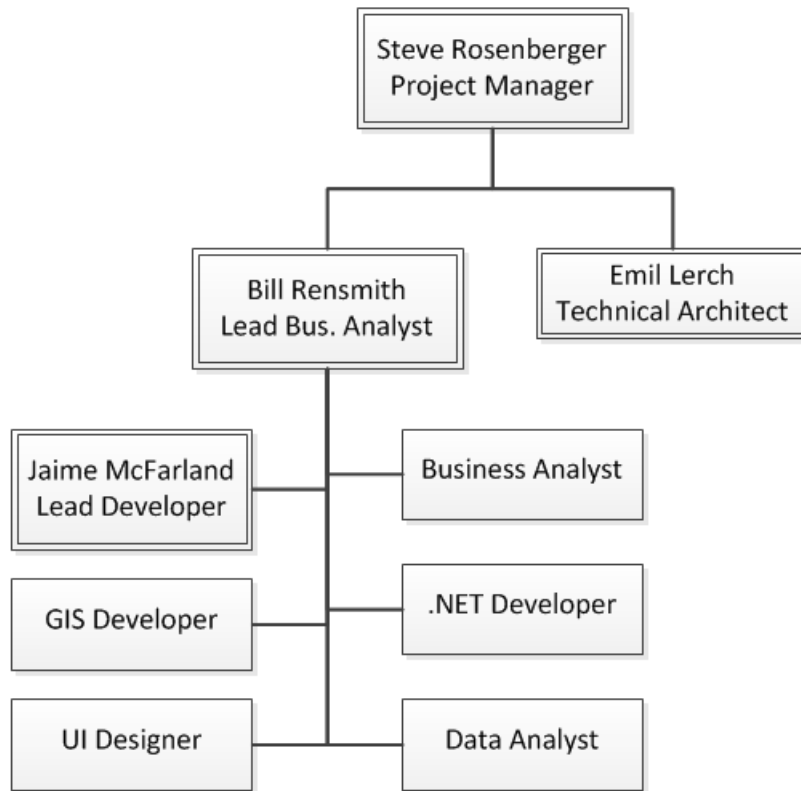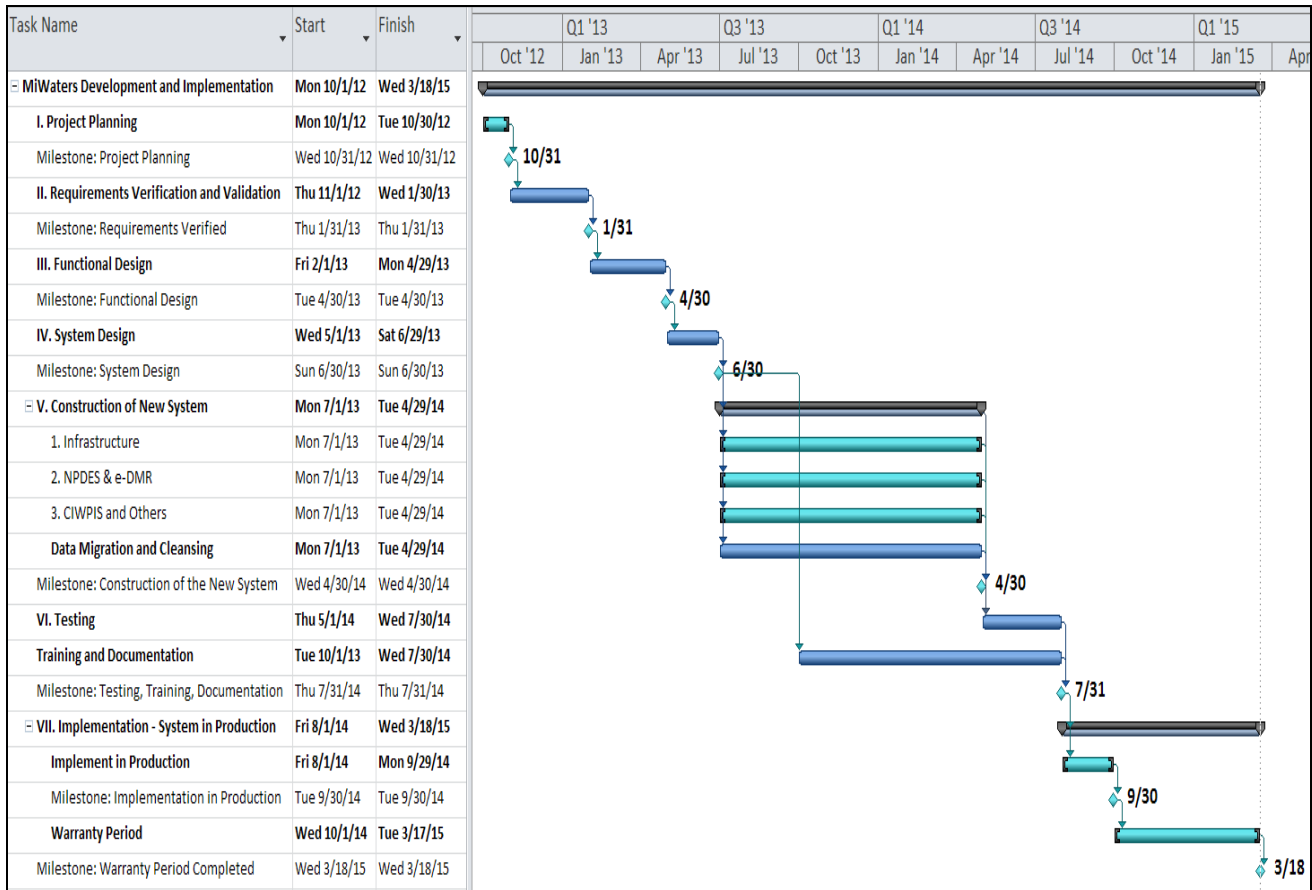
- Track 1: Infrastructure: GIS Viewer, Document Management System, nForm, nSpect, Interfaces (Navision, MI BOS, etc.)

- Track 2: NPDES and e-DMR

- Track 3: CIWPIS, Smaller Water Applications (28), MiWaters on-line, Compliance and Enforcement Tracking, Exchange Network.