

eSMR Re-Design

**LEVEL 2
Requirement Document Version 2.1**

Request Date: January 7, 2008

Module:

- | | | |
|---|--|--|
| <input type="checkbox"/> General/Other | <input type="checkbox"/> Administration and Security | <input type="checkbox"/> Places |
| <input type="checkbox"/> Parties | <input type="checkbox"/> Regulatory Measures | <input type="checkbox"/> Inspections |
| <input type="checkbox"/> Allegations and Violations | <input type="checkbox"/> Enforcement | <input type="checkbox"/> Invoices and Payments |
| <input checked="" type="checkbox"/> Self Monitoring Reports | <input type="checkbox"/> Compliance Checks | <input type="checkbox"/> GeoWBS |

Description:

These functions allow dischargers to submit electronic data into CIWQS. CIWQS currently has this in limited functionality but it was not implemented with correct functionality. Currently, there are missing drop-down values, poor work flow, and missing functionality. These inconsistencies are not allowing the dischargers to submit their Self-Monitoring Reports electronically.

Level of Effort Estimate:

Hours	Rate	Total Hours	Total Estimated Cost
TBD	TBD	TBD	TBD

- | | |
|--|------|
| | Date |
| <input type="checkbox"/> Approved Requirements | |
| <input type="checkbox"/> Approved Design | |
| <input type="checkbox"/> Approved Technical Approach | |
| <input type="checkbox"/> Tested and Approved Test Environment Implementation | |
| <input type="checkbox"/> Tested and Approved Production Environment Implementation | |
| <input type="checkbox"/> Task Order Complete | |

Change Record

Date	Author	Version	Change Reference
1/7/08	Ron Robinette	1.0	No previous document.
4/15/08	Ron Robinette	2.1	Updated requirements from discussions with user group team.

Business Requirements (Desired Functionality):

The following major business functional requirements have been identified during the information collection associated with this task order. The columns are defined as follows:

- Requirement type:
 - Functional: A capability the application must be able to perform
 - Report/Query: The ability to produce a formatted electronic and/or hard copy report or an online query of the information
 - Interface: The ability to communicate with another application or system
 - Security: A system feature that contributes to securing the application as required by SWRCB security policy
 - Architecture: An attribute of the technical architecture, platform, and/or development tool set must be complied with
 - Implementation: An aspect of the implementation process that must be completed

- Functional area – This row describes the portion of the eSMR process that is the focus of the requirement. “General” refers to requirements that apply to the program as a whole or are not applied to a particular area.
- Requirement – This column provides a narrative description of each requirement
- Source – This column notes where the information that led to the requirement was captured

Functional Requirements	Ref #	System Requirement	Mandatory/Desirable
DATA SUMMARY <i>Functional Area</i>			
	4627-1	Display DNQ as the result when the estimated concentration is in the DNQ range.	M
	4627-2	Discharger should not have to indicate that a result is DNQ.	M
	4627-3	Discharger should upload the result value, MDL, RML and ML and system should determine whether the result value is in the DNQ range.	M
	4627-4	Display DNQ as the result, along with the estimated concentration.	M
	4627-5	have a column to display both RL, ML and RML values as required by the permits	M
	4627-6	Minimum Sampling Frequency column -- inaccurately displays "1/Day" for all results uploaded through CDF/EDF. Needs to display the proper minimum sampling frequency from the permit requirements (1/month, 1/quarter, etc.).	M
	4627-7	Sample Type column -- inaccurately displays "Single" for all results uploaded through CDF/EDF. Needs to display proper sample type (24-hr Composite, Grab, Continuous, etc.) from the permit requirements.	M
	4627-8	Keep the "estimated concentration" in the Result column, and have DNQ in a separate column.	M
	4627-9	NO Ability to edit submission on data summary screen	M
	4627-10	Mixed table with both Raw Data and Calculated Data	M
	4627-11	Data summary screen should be sortable by up to six levels and able to export to Excel	M
	4627-12	Toggle between analytical and calculated data	D
ANALYTICAL DATA <i>Functional Area</i>			
	4626-1	Add check boxes to the Raw Data parameter table to allow users to select multiple parameters for deletion/duplication	M
	4626-2	Add additional values to the qualifier dropdown (<, <=, >=, >)	M

Functional Requirements	Ref #	System Requirement	Mandatory/Desirable
	4626-3	Ability to filter analytical method based on parameter, or an auto complete feature for the dropdown that filters the available options as the users type.	M
	4626-4	make multiple duplicates at once, instead of requiring that the "Duplicate" link be pressed multiple times (duplicate multiple parameters & one parameter multiple times.)	M
	4626-5	notifying the user when a pair or group of entered parameters that are too similar (copies) of one another.	M
	4626-6	sequence the dates when duplicating, if the original was 02/01/2008 the duplicate will be 02/02/2008	M
	4626-7	Insert recently added parameters at the top of the table instead of at the bottom	M
	4626-8	Freeze the header	M
	4626-9	Templates	M
	4626-10	Provide an "Enter your own" option for parameters in case CIWQS doesn't contain the one requested	M
	4626-11	Don't allow duplicate samples (same parameter/time, etc.)	M
EDF/State Board Data Entry Tool <i>Functional Area</i>			
	4696-1	Hide Sample Medium (<i>Assumption</i>)Sample Medium always = 'water' EDF MATRIX field should be set to 'water' for each record	M
	4696-2	Add Columns: Sample Type (<i>Drop-Down Menu</i>) Daily Maximum, Daily Minimum, Daily Average, Single Reporting Limit (RL) Comments (a comment per data point) Rearrange Order Column Order:	M
	4696-3	A - Monitoring Location ID B - Parameter C - Sample Type E - Analytical Method F - Sample Collection Date G - Sample Collection Time H - Sample Analysis Date I - Qualifiers =; <=; >=; >; < ND <i>If selected (MDL is required)</i> DNQ <i>If selected (result, MDL and ML are required)</i> J - Results K - Units L - MDL M - ML N - RL O - Scenario ID P - Comment	M
	4696-4	add column to the right of "File Description" column to display the number of rows of data uploaded.	M
	4696-5	Tool Checking Logic: If the value enter in the ML field is less than the MDL value display Errorr Message: ML must be greater than or equal to MDL.	M
	4838-1	store analytical vs. calculated values correctly in database	M
CALCULATED <i>Functional Area</i>			
	4625-1	Implement basic calculation entry first	M
	4625-2	Fields: Parameter (Required), Calculation Type (Optional), Bound (Required), Limit (Required), Units (Required), Results (Required), ND/DNQ (Optional), Comment (Optional)	M
	4625-3	Add list of calculation types. See Mantis issue 4625.	M
ATTACHMENTS <i>Functional Area</i>			
			M
SELF-DETERMINED VIOLATION <i>Functional Area</i>			
	4695-1	Clicking Copy launches Pop-up window requesting how many copies	M

Functional Requirements	Ref #	System Requirement	Mandatory/Desirable
		are needed.	
	4695-2	Discharger is then able to edit occurrence date range and click Save at top.	M
	4695-3	Clicking Add launches Self-Determined Violation Entry Screen	M
	4695-4	Top portion make option A (Select Parameter) or Option B (Select Violation Type)	M
	4695-5	Effluent Limit Exceedance only display for Violation Types [CAT1, CAT2, and OEV] and the constituent drop down menu is populated with parameters that are categories of [CAT1, CAT2, and OEV]	M
	4695-6	When Report is submitted populate violation record with additional violation module data according to business rules. Additional Data Fields are the following: <ul style="list-style-type: none"> • Related Place (facility) with relationship (originating) • Related Parties (organization) with relationship (responsible party) • Related Parties (regional board) with relationship (water board) • Program = NPDES for now • Staff Assigned = Case Worker • Status = Violation 	M
	4695-7	CAT1 and CAT2 are our Group I and Group II Parameters listed under the Parameter Templates. Reg Meas > Requirements > Numeric Requirement > Parameter Template Parameter Template Group I and Group II Pollutants	M
	4695-8	Will pre-populate the "Requirement" and "Description" fields based on already entered data.	M
	4695-9	Add limit qualifiers to the "Effluent Limit Exceedance" section.	M
COVER LETTER <i>Functional Area</i>			
	4628-1	"Certify and Submit" button allows user to formally submit the report to the regional board.	M
	4628-2	Have ability to browse to a file location and upload multiple files. Ability to remove file should be available.	M
	4628-3	Give text area so user may enter text in lieu of uploading cover letter.	M
POST CERTIFIED <i>Functional Area</i>			
	4631-1	Display source of original violation creation, discharger or case worker.	M
	4631-2	Display violation ID with hyperlink. Hyperlink for discharger should see the violation record in our public report	M
	4631-3	Hyperlink for case workers will display violation in violation module with appropriate rights as assigned.	M
	4631-4	Status column will correctly status violation as "violation" OR "dismissed".	M
	4631-5	For case worker the discharger will receive an email with a link to the submitted report. The submitted report will be locked down with the exception for the Add Violation button under the Post Certified Tab. The case worker then enters in the information and click saves. If they incorrectly enter a violation and want to -delete they need to go to Violation Module and delete the violation from there.	M
	4631-6	Add "Add Violation" button for case worker only to allow case worker to create new violation for report. Information should pre-populate with: <ul style="list-style-type: none"> -violation source -report receipt date -related regulatory measure -related parties (those related to the reg measure) -related places (those related to the reg measure) 	M
	4631-7	Allow display of "Post Certified" report showing agreement/non-agreement by case worker to discharger reported violations.	M
SELECT REPORT <i>Functional Area</i>			
	4754-1	When setting up the report due dates the Water Board needs the option to change the reporting period. For example, in Region 3 a Semi-Annual Reporting Period is not the 1st six months of a year.	M
	4632-1	By default have all status checked and display calendar year. Add	M

Functional Requirements	Ref #	System Requirement	Mandatory/Desirable
		status column for each row/report.	
REGULATORY MEASURE <i>Functional Area</i>			
	4858-1	Instead of using numeric or narrative requirements we will be using paper requirements to generate the report schedule. The activation process will need to be modified in order to handle Level II eSMR development. Paper Requirement Data: Report Type: eSMR Reporting Frequency: Monthly, Quarterly, Semi-Annual, Annual and Once Only	M
	4758-1	Allow case worker to manage whether discharger submits against current system or Level 2. We need a way to display either the current eSMR tabs or the new level II effort eSMR tabs to the dischargers. Current System needs coded requirements Level II System DOES NOT have coded requirements	M
PREVIEW REPORT <i>Functional Area</i>			
	4629-1	Before user can view Preview Report they need to select the multi-sort order for Data Summary. PDF report should have same sort order as used in data summary. If user logs out and then logs back in, then they have to pick the order again in data summary.	M
	4629-2	Display Order: No Discharge Violations Attachments Data Summary (Display Summary according to sort order from Data Summary)	M

Report/Query Requirements	Ref #	System Requirement	Mandatory/Desirable
ANALYTICAL TOOL <i>Functional Area</i>			
	4682-1	Capture eSMR data	M
	4682-2	Create plug-in	M
	4682-3	'Search by Date' should be labeled 'Search by Sampling Date'	M
	4682-4	Results screen should match the Data Summary	M
SUMMARY SMR <i>Functional Area</i>			
	5007-1	Summary SMR: Summary Results (existing) Changes requested: 1. Show search criteria in header 2. drill-down into numbers a. DrillDown1: Total Facilities w/reports due, Total Facilities w/reports submitted late, Total facilities w/reports past due, >30 days past due: #facilities b. DrillDown2: Total Reports due, Reports that showed one or more violations, Total Reports submitted late, >30 days late: #reports, Total Reports Past Due, >30 days past due: #facilities	M
	5007-2	Detailed SMR: Drill Down #1 (new) 1. Table showing: a. Facility name (w/hyperlink to facility at-a-glance report) b. Water Board Office c. Order # d. Case Worker	M
	5007-3	Detailed SMR: Drill Down #2 (new) 2. Table showing: a. Facility name (w/hyperlink to facility at-a-glance report) b. Due date of report c. report name d. reporting period e. status f. date submitted	M

Report/Query Requirements	Ref #	System Requirement	Mandatory/Desirable
DETAILED VIOLATION REPORT <i>Functional Area</i>			
	5008-1	<u>Detailed Violation Report: Search Criteria</u> (existing) Changes requested: 1. Ability to search by water body 2. search by parameter 3. search by source of violation (ddl w/ paper, esmr, inspection)	M
	5008-2	<u>Detailed Violation Report: Summary Results</u> (existing) Changes requested: 1. Add columns from eSMR2 violation add screen: a. parameter b. limit c. result d. limitation period	M
DATA SEARCH <i>Functional Area</i>			
	5009-1	eSMR Data Report: Search Criteria (new) 1. Waterbody? 2. Place Type? 3. Facility? 4. Date Range of reporting	M
	5009-2	eSMR Data Report: Summary (new) 1. Use data summary from eSMR 2. DNQ/ND? 3. discharge point?	M

Architecture Requirements	Ref #	System Requirement	Mandatory/Desirable
DATABASE TABLE STRUCTURE			
	4697-1	Stored comments in COMMENTS.COMMENT_TEXT and linked to MEASUREMENTS.	M
	4697-2	Need to modify the BIUR trigger to enforce the rule that no two consecutive REG_MEAS_ESMR_LEVELS records can have the same LI_LI_ID_ESMR_LEVEL value	M
	4697-3	Add Fields: Data Type - (Matches Calculation Types) Reporting Limit (RL)- Numeric Field - Comments - Text Field - Comment Field per Data Point eSMR Level Flag - "level 1 (Current)", Level II, Level III, ETC	M
	4697-4	Upload CDF Map data into new fields (sample type, reporting limit and comments)	M
	4697-5	Raw Data Entry Map data into new fields (reporting limit and comments)	M
	4751-1	Add missing parameters to parameter table.	M
	4695-A	adding the following 4 new optional columns to the EVENT_SUBSTANCES table to track additional information on limit exceedances: RESULT_VALUE NUMBER (27,12) ==> Result LIMIT_VALUE NUMBER (27,12) ==> Limit UOM_UNIT_OF_MEAS_ID NUMBER(38) ==> Unit WPROC_WRITTEN_PROCEDURE_ID NUMBER(38) ==> Limit Basis In addition, the existing arc columns (ATTBL_TABLE_ID_CHARACTERIZING and PARENT_ID_CHARACTERIZING) will be used to record "parameter." Please refer to the data use case (issue4695_limit_exceedance_data_use_case.xls)for detailed information.	M

Technical Requirements:

1. The system must implement the correct data mapping and usage of EDM.
2. The system must make clear distinction between database objects and avoid creating unnecessary duplicate records.
3. The developers must work with the DIT data modelers and DBAs to develop any necessary changes to the EDM and CIWQS database to support SMR functionality.
4. Coding should not start until the technical approach is documented and approved by DIT.

Design:

To be determined.

Technical Approach:

To Be Determined.

This section should include:

1. Data Mapping
2. Data Maintenance Rules (page rules to insert, update, delete)
3. Data Structure Impact
4. Pages Modified
5. Design Mock up