eSMR Re-Design

LEVEL 2
Requirement Document Version 3.0

Request Date: January 7, 2008
Module:

☐	General/Other	☐	Administration and Security	☐	Places
☐	Parties	☐	Regulatory Measures	☐	Inspections
☐	Allegations and Violations	☐	Enforcement	☐	Invoices and Payments
☒	Self Monitoring Reports	☐	Compliance Checks	☐	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

☐ Approved Requirements

☐ Approved Design

☐ Approved Technical Approach

☐ Tested and Approved Test Environment Implementation

☐ Tested and Approved Production Environment Implementation

☐ 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.
4/18/08	Ron Robinette	2.2	Marked items as "desired" vs. "required" depending on level of effort provided by programmers.
4/22/08	eSMR2 Reports Subcommittee	2.3	Made design changes to eSMR2 Reports.
5/13/08	Ron Robinette	3.0	Added "alpha test known issues" section.

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 *Functional Area*			
	4627-1	If DNQ is chosen for "qualifier", then: Result, MDL, ML OR RL are required fields.	M
	4627-2	If ND is chosen for "qualifier", then: MDL is a required field.	M
	4627-3	Display DNQ as the result, along with the estimated concentration (result).	M
	4627-4	Have a column to display both RL, ML and RML values as required by the permits	M
	4627-5	No ability to edit submission on data summary screen.	M
	4627-6	Separate tables for both Raw Data and Calculated Data	M
	4627-7	Data summary screen should be sortable by up to six levels and able to export to Excel.	D
	4627-8	Toggle between analytical and calculated data.	D
ANALYTICAL DATA *Functional Area*			
	4626-1	Add check boxes to the Raw Data parameter table to allow users to select multiple parameters for deletion/duplication.	D
	4626-2	Add additional values to the qualifier dropdown ($<$, $<=$, $>=$, $>$).	M
	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.	D
	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.).	D
	4626-5	Notifying the user when a pair or group of entered parameters that are too similar (copies) of one another.	D
	4626-6	Sequence the dates when duplicating, if the original was 02/01/2008 the duplicate will be 02/02/2008.	D

Functional Requirements	Ref #	System Requirement	Mandatory/ Desirable
	4626-7	Insert recently added parameters at the top of the table instead of at the bottom.	M
	4626-8	Freeze the header.	D
	4626-9	Templates for groups of parameters.	M
	~~4626-10~~	~~Provide an "Enter your own" option for parameters in case CIWQS doesn't contain the one requested~~	~~D~~
EDF/Water Board Data Entry Tool *Functional Area*			
	4696-1	Hide Sample Medium *(Assumption)*Sample Medium always = 'water' EDF MATRIX field should be set to 'water' for each record	M
	4696-2	Add Columns: 1. Sample Type *(Drop-Down Menu)* Daily Maximum, Daily Minimum, Daily Average, Single 2. Reporting Limit (RL) 3. Comments (a comment per data point)	M
	4696-3	Rearrange Column Order: A - Monitoring Location ID B - Parameter C - Sample Type D - ???????? E - Analytical Method F - Sample Collection Date G - Sample Collection Time H - Sample Analysis Date I - Qualifiers =; <=; >=; >; < ND *If selected (MDL is required)* DNQ *If selected (result, MDL and ML are required)* J - Results K - Units L - MDL M - ML N - RL 0 - 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.	D
	4696-5	Tool Checking Logic: If the value enter in the ML field is less than the MDL value display Error Message: ML must be greater than or equal to MDL.	M
	4696-6	Level 2 screens will accept both new Entry Tool and old CDF tool. Existing eSMR screens will only accept CDF tool.	M
	4838-1	Store analytical vs. calculated values correctly in database, and upload.	M
	4838-2	The EDF/CDF tab needs to have 2 section for uploading data; one for analyical data and the other for calculated/summary data. Also change the uploading logic not to flag Primary Key Violations.	M
CALCULATED *Functional Area*			
	4625-1	Fields: Parameter (Required), Calculation Type (Optional), Bound (Required), Limit (Required), Units (Required), Results (Required), ND/DNQ (Optional), Comment (Optional)	M
	4625-2	Add list of calculation types. See Mantis issue 4625.	M
ATTACHMENTS *Functional Area*			
			M
SELF-DETERMINED VIOLATION *Functional Area*			
	4695-1	Clicking Copy launches Pop-up window requesting how many copies are needed.	M
	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

Functional Requirements	Ref #	System Requirement	Mandatory/ Desirable
	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: • 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 Paramenter 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 *Functional Area*			
	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.	D
	4628-3	Give text area so user may enter text in lieu of uploading cover letter.	M
	4628-4	If a user clicks the 'Certify and Submit' button without creating any violations, the user will receive the following question: "No violations were reported for this reporting period. Are you sure you want to certify and submit?"	D
POST CERTIFIED *Functional Area*			
	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: -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
REPORT SCHEDULE SCREEN *Functional Area*			
	4632-1	By default have all status checked and display current calendar year. Add status column for each row/report.	M
REGULATORY MEASURE *Functional Area*			
	4858-1	Instead of using numeric or narrative requirements we will be using paper requirements to generate the report schedule. The activation	M

Functional Requirements	Ref #	System Requirement	Mandatory/ Desirable
		process will need to be modified in order to handle Level II eSMR development. Paper Requirement Data: Report Type: eSMR Reporting Frequency: Monthly, Querterly, Semi-Annual, Annual and Once Only	
	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
	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
PREVIEW REPORT *Functional Area*			
	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	Default Display Order: No Discharge Violations Attachments Data Summary Table (Display Summary according to sort order from Data Summary)	M

Report/Query Requirements	Ref #	System Requirement	Mandatory/ Desirable
ANALYTICAL TOOL *Functional Area*			
	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 *Functional Area*			
	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 = Facilities (new) 1. Table showing: a. Facility name (w/hyperlink to facility at-a-glance report) b. Water Board Office c. Order # d. Case Worker e. # of reports	M
	5007-3	Detailed SMR: Drill Down #2 = Reports (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 g. # of violations	M

Report/Query Requirements	Ref #	System Requirement	Mandatory/ Desirable
		h. # of days late	
DETAILED VIOLATION REPORT *Functional Area*			
	5008-1	Detailed Violation Report: Search Criteria (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	Detailed Violation Report: Summary Results (existing)
		Changes requested:
		1. Add columns from eSMR2 violation add screen:
		    a. parameter
		    b. limit
		    c. result
		    d. limitation period
			M

	5008-3	Detailed Violation Report: Summary Results (existing)
		Changes requested:
		    a. date violation was changed to priority status
		    b. date violation was changed from "potential" to "
			D

eSMR DATA REPORT *Functional Area*			
	5009-1	eSMR Data Report: Search Criteria (new) 1. Facility Name 2. WDID 3. City 4. Region 5. Waterbody 6. Reporting Period (required field)	M
	5009-2	eSMR Data Report: Search Results (new) 1. Checkbox 2. Facility 3. Order number 4. Report 5. Submitted Date (results only show submitted reports)	M
	5009-3	eSMR Data Report: Detailed Data Display (new) -ability to sort by up to six levels and able to export to Excel 1. Facility Name 2. Location 3. Discharge Point 4. Report Name 5. Parameter 6. Analytical Method 7. Results 8. Units 9. MDL 10. ML 11. RL 12. Sample Date 13. Sample Time 14. Analysis Date 15. Comments 16. Data Source	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

Architecture Requirements	Ref #	System Requirement	Mandatory/ Desirable
	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:

Test environment: http://water24.waterboards.ca.gov/ciwqs_esmr2
username: sdischarger
password: Password1

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

Questions 4/18/08:

1. ND/DNQ on calculated tab.
2. Two sections on EDF/CDF tab, one for calc data, one for analytical data.

Alpha Test Issues 5/14/08:

Enhancements | Bugs

#	Functional Area	Ref #	System Requirement	Enhancement/Bug
1	Data Summary	4627-1	If DNQ is chosen for "qualifier", then: Result, MDL, ML OR RL are required fields.	B
2	Data Summary	4627-2	If ND is chosen for "qualifier", then: MDL is a required field.	B
3	Post Certified	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: -violation source -report receipt date -related regulatory measure -related parties (those related to the reg measure) -related places (those related to the reg measure)	B
4	Post Certified	new	Discharger should not be allowed to view Post Certified tab until report status = "submitted".	B
5	Preview Report	new	Change text "No Discharger" to "No Discharge"	B
6	Regulatory Measure	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.	B
7	Violation	4695-6	When Report is submitted populate violation record with additional violation module data according to business rules. Additional Data Fields are the following: • 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	B
8	Violation/Post Certified	new	Violations created by case workers will not appear on Violation tab.	B
9	Report	New	Staff can enter reports when status is other than "submitted"	B
10	Calculated	New	How do deal with ND on calc tab/CDF	B
11	Violation?	New	Occurrence date is out of reporting period	B
12	CDF Tool	New	Analytical result qualifier add: ND, <=	B
13	Violation	New	Making a limit a range of values	B
14	CDF Tool	New	Export > cancel > file still created	B
15	Calculated Data	New	Duplicate hyperlink doesn't work	B
16	Data Summary/Preview Report	New	Have to click 3 times on the Sort List drop down arrow before being able to make a selection	B
17	CDF Tool	New	Browse and load buttons move	B
18	Cover Letter	4628-4	If a user clicks the 'Certify and Submit' button without creating any violations, the user will receive the following question: "No violations were reported for this reporting period. Are you sure you want to certify and submit?"	E
19	Data Summary/Preview Report	new	Display "Total Data Record" count.	E
20	Database	4751-1	Add missing parameters to parameter table.	E
21	Preview Report	new	Message to user to save file.	E
22	Preview Report	new	Change "filter" button to "Generate Report", or something more obvious.	E
23	Water Board Data Entry Tool	new	Separate into two tabs, one for analytical and one for calculated data	E
24	Regulatory Measure	New	Allow RB coordinators to activate	E
25	Violation	New	Units drop down should be parameter specific	E
26	Violation	New	-Once new violation is entered need violation ID w/hyperlink - After entering and saving the new violation close the violation screen	E
27	Violation	New	Atox and ctox violation types not an option	E

#	Functional Area	Ref #	System Requirement	Enhancement/Bug
28	Violation	New	Violations – add a background value	E
29	CDF Tool	New	Change NPDES# -> order#	E
30	CDF Tool	New	Sample type add (composite and grab	E
31		New	Flow, Temp, etc. No MDL, ML, RL reported Need logic to keep fields blank w/o detection from error check	E
32		New	Hourly Max -can we report just result? -sample time is not feasible --default time perhaps? ex: 25:00	E
33		New	Analytical results qualifier -need to update	E
34		New	Min level -not always needed (don't always check)	E
35		New	Drop-down box -use keyboard to 'hotkey' value	E
36	CDF Tool	New	Calculation type table for CDF that is the same as calculation tab for calculated data	E
37	CDF Tool	New	Parameter add: radionuclide	E
38	Analytical Data	New	Analytical method limited based on parameter chosen	E
39		New	SMR's	facility	orders	need PDF link on page to order	E
40	Violation	New	Is the result is over/under the limt, how do you know? or between a range	E
41	Analytical/Calculated data	New	Calendar icon needed for dates	E
42	CDF Tool	New	When saving, no file location given	E
43	Violation	New	Include monitoring location	E
44	CDF Tool	New	Change to one tab, one upload	E
45	Data Summary/Preview Report	New	Save the sort order	E
46	Data Summary/Preview Report	New	Need to add "Units" to Sort lists on Data Summary and Preview Report.	E
47	Violation	New	How to handle serious and priority MMP violations	E