

Business Case: Capital Asset Summary

Part I: Summary Information and Justification (All Capital Assets)

Section A: Overview & General Information

Date Investment First Submitted: 2009-06-30
Date of Last Change to Activities: 2020-11-30
Investment Auto Submission Date:
Date of Last Investment Detail Update: 2020-09-29
Date of Last Business Case Update: 2020-09-30
Date of Last Revision: 2021-01-29

Agency: 202 - U.S. Army Corps of Engineers **Bureau:** 00 - Agency-Wide Activity

1. Name of this Investment: Corps Water Management System (CWMS)

2. Unique Investment Identifier (UII): 202-000001051

Section B: Investment Detail

- Provide at least one Agency Strategic objective code ([A-11 Section 230](#)) and/or Agency Priority Goal code ([A-11 Section 250](#)) that this investment aligns to on performance.gov. If this investment aligns to more than one Agency strategic objective code and/or Agency Priority goal code list all that apply. If your agency does not report to performance.gov please use "0". This is required for Agency IT Portfolio Summary Part 1 and Part 2 Investments, not for Part 3 Investments.**

Agency Strategic Objective(s):

0: Not Applicable

Agency Priority Goal(s):

0: Not Applicable

- Briefly describe the investment's return on investment, including benefits internal and external to the government and outcomes achieved or planned.**
Use of CWMS results in a consistent, comprehensive Water Management System for the Corps of Engineers. This assures compatibility during flood fights and COOP situations as all models are built in the same horizontal projection and vertical datum. Builds modeling expertise and balances workload within the Corps. Supports many business lines in the Corps including the O&M, Planning Transformation, Flood Risk Management (FRM), Environmental, Navigation, Recreation, Emergency Planning and Response. Supports the FY18-FY22 Campaign Plan Goals of 'Delivering Integrated Water Resource Solutions', 'Preparing for Tomorrow', and 'Reducing Disaster Risks'. Used to operate the Corps infrastructure (Dams, levees, etc) to better inform decision makers to reduce damage and risk and save lives. As CWMS is progressively implemented by all districts it can: Be used to inform and enact flood impact and response activities to prepare for forecasted floods. Reduce costs and time by having

models readily available for other purposes. Report damage sooner so declaration of disaster areas can be made sooner so aid can reach the needy quicker. Be used to develop Annual Flood Damage/Benefit reports to Congress much more efficiently with up-to-date data. Save substantial amounts of time/labor developing flood inundation and risk maps during flood events because the same methodology and Tool (HEC-RAS) are used Corps wide.

3. **If this investment will result in the elimination or the reduction of another major or non-major investment(s), please complete the following:**

Table I.B.1 Affected Investment Information	
Investment UII	To Be Status
NONE	

4. **Does the Investment currently include an intra- or inter-Agency shared service (common, shared, or centralized solution)?:**

NO

5. **Does the Investment plan to include an Intra- or Inter-Agency shared service that it does not currently include (common, shared, or centralized solution)?:**

NO

6. **If systems contained in this Investment collect data from the public, please identify the OMB Control Numbers which authorize that data collection as per the Paperwork Reduction Act. Use [Reginfo](#) at the following link to identify information collection requests and OMB control numbers. Agencies can work with their Records Officers to determine the applicability.**

7. **Provide the name of the Investment-level project manager:**

Kristy Riley

8. **Select the qualification/experience level of the Investment-level project manager (select one):**

4 - Other certification with 4 or more years PM experience (within the last five years)

Section C: Life Cycle Costs

1. Provide the total estimated life cycle costs for the investment in millions. Note: Do not enter information in the grey cells as these will be calculated.

Table I.C.1 Life Cycle Costs				
	PY-1 & Prior	PY 2021	CY 2022	BY 2023
Planning Costs:	0	0	0	0
DME (Excluding Planning) Costs:	\$2.985000	\$2.920000	\$2.950000	\$2.980000
DME (Including Planning) Govt. FTEs:	\$0.085000	\$0.085000	\$0.080000	\$0.090000
Sub-Total DME (including Internal Labor (Govt. FTE)):	\$3.070000	\$3.005000	\$3.030000	\$3.070000
O & M Costs:	\$0.990000	\$1.125000	\$1.220000	\$1.180000
O & M Internal Labor (Govt. FTE):	\$0.240000	\$0.230000	\$0.200000	\$0.270000
Sub-Total O & M Costs (Including Internal Labor (Govt. FTE)):	\$1.230000	\$1.355000	\$1.420000	\$1.450000
Total Cost (Including Internal Labor (Govt. FTE)):	\$4.300000	\$4.360000	\$4.450000	\$4.520000
Total Cost Internal Labor (Govt. FTE) costs:	\$0.325000	\$0.315000	\$0.280000	\$0.360000
# of FTE rep by costs:	4	4	3	4
Total change from prior year final President's Budget (\$)		\$4.360000	\$4.450000	
Total change from prior year final President's Budget		0.00%	0.00%	

Table I.C.1 Life Cycle Costs

	PY-1 & Prior	PY 2021	CY 2022	BY 2023
(%)				

2.
 - a. In which year did or will this investment begin? (specify year - e.g., PY-1= 2019)
2002
 - b. In which year will this investment reach the end of its estimated useful life? (specify year - e.g., FY+5 = 2027)
2026
3. Compare the funding levels for PY and CY to the final FY 2022 President's Budget for those same years. Briefly explain any significant changes. When making comparisons, ensure that you compare same-year-to-same-year (e.g., the FY20 level for 2020 versus the FY21 level for 2020):
N/A

Business Case Detail: Performance Measurement Report

Section A1: General Information

1. **Name of this Investment:** CORPS WATER MANAGEMENT SYSTEM (CWMS)
2. **Unique Investment Identifier (UII):** 202-000001051

Section C1: Projects Table

Projects Table C.1

Unique Project ID	Project Name	Project Goal	Project Start Date	Project Completion Date	Project Lifecycle Cost (\$M)	Software Project?
FY16-001	MetVue: Program Enhancements II		10/01/2015	09/09/2016	\$0.4	
FY17-002	CWMS CAC Enablement		10/03/2016	06/30/2017	\$0.1	
FY17-001	CWMS jOOQ and Oracle 12c Driver Changes		08/01/2016	01/31/2017	\$0.1	
FY18-001	FY18 CWMS Software Maintenance		10/01/2017	09/30/2018	\$0.8	
FY18-002	CWMS v3.1 Release		10/01/2017	01/30/2018	\$0.3	
FY18-003	CWMS v3.2 Release	Release of the CWMS v3.2 update, * MetVue fully integrated into modeling process. * CAVI dashboard. * Ensemble Modeling.	10/01/2017	02/28/2019	\$0.8	
FY18-004	CWMS 4.0 Concepts / Requirements Document	Prepare Conceptual Design Document for the next major release of CWMS 4.0.	03/01/2018	06/30/2019	\$0.1	
FY19-100	CWMS v3.3 Beta Release	Development of CWMS v3.3 Beta Release. Provide software code repairs and enhancements to better support USACE Water Management mission.	03/01/2019	09/30/2019	\$0.8	Yes
FY20-007	FY20 Cyber Security	Maintain ATO	10/01/2019	09/30/2020	\$0.6	No
FY20-008	FY20 CWMS v3.2.1	Prepare/Code, test, deploy v3.2.1	10/01/2019	09/30/2020	\$0.5	Yes
FY20-001	FY20 Maintenance (Operations)	Field Software Support (24x7) - Bug Fixes	10/01/2019	09/30/2020	\$1.0	Yes

Section C2: Project Activities

1. Provide all non-agile project activities for projects in Table C.1 that started in a previous FY (PY and earlier) and that have not been completed by the beginning of the CY, as well as activities that are scheduled to start in the current FY and BY.

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
FY16-001	Meeting to Set Program Release Requirements	Meeting to set requirements and "burn-down list" for official HEC release of MetVue.	FY16-001.11	2015-10-16	2015-10-16	2015-09-29	2015-12-18	2015-11-28	2015-11-20	0.016100	0.016100	0.015535
FY16-001	Modifications to TIN De-aggregation Process and Depth-Area-Duration Process	Adds features to increase the program's flexibility in analyzing historical storms. Designed by staff at Portland district funded by HQ (Chandra Pathak).	FY16-001.4	2015-10-05	2015-10-05	2015-09-29	2016-01-15	2016-02-26	2016-03-03	0.033500	0.033500	0.033500
FY16-001	Extreme Storm Application Planning Meeting	Meeting to coordinate and plan development of hypothetical storm modules for MetVue. Set strategy for MetVue's role in the use and development of the Extreme Storm Database	FY16-001.5	2015-11-02	2015-11-02	2015-09-29	2016-02-12	2016-01-27	2016-02-22	0.030000	0.030000	0.030000
FY16-001	Convert HEC-MetVue to Use File Based Preferences for Application Settings	MetVue currently uses the java preferences to store all user settings, including the definitions of	FY16-001.9	2015-11-02	2015-11-02	2015-09-29	2016-02-12	2016-01-27	2016-01-12	0.003400	0.003400	0.003400

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
		<p>sessions and map panels. In Windows computers, these are stored in the Windows registry, which makes them hard to access and especially difficult to transfer between computers. This task moves those preferences to files, which will improve accessibility and portability.</p>										
FY16-001	Develop a Formal API for Exporting TIN and Grid Data from HEC-MetVue	<p>Reorganizes the data output components of MetVue so that the writing of TINs or grids to different file formats can be done by plug-in modules. This result in a better-organized program and will allow developers outside of HEC to write their own output modules without requiring access to the</p>	FY16-001.1	2015-11-02	2015-11-11	2015-09-29	2016-03-14	2016-02-26	2016-01-12	0.042300	0.042300	0.042300

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
		MetVue source code.										
FY16-001	Incorporate a Plug-in Manager into HEC-MetVue	MetVue uses a lot of plug-in modules. Many of them are useful only to a small audience. The plug-in manager will allow users to select which plug-ins to activate in their installation of the program without requiring them to alter the program's installation.	FY16-001.8	2016-01-11	2016-01-11	2015-09-29	2016-04-15	2016-03-27	2016-01-12	0.014400	0.014400	0.014400
FY16-001	Data Exporter Implementation	Produces data output plug-in modules using the API developed in task 1.	FY16-001.7	2016-02-01	2016-02-01	2015-09-29	2016-05-13	2016-04-26	2016-04-06	0.050700	0.050700	0.050732
FY16-001	Document the Storm Analysis Plug-in Facilities in HEC-MetVue	HMR-52 and HMR-55a design storm modules were developed as plug-ins to MetVue. Documentation will support developers outside of HEC who want to develop their own design-storm modules	FY16-001.13	2016-03-01	2016-03-01	2015-09-29	2016-05-13	2016-04-26	2016-01-12	0.008100	0.008100	0.008100

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
		without access to MetVue source code.										
FY16-001	Time Zone Implementation	Adds features to track and reconcile time zones for TINs and grids used in MetVue.	FY16-001.2	2016-04-04	2016-04-04	2015-09-29	2016-06-17	2016-05-26	2016-03-21	0.019900	0.019900	0.019979
FY16-001	Time-Shift Enhancement for TIN and Grid I/O Components	Adds features to allow users to save TINs or grids with altered time stamps. Required to synthesize hypothetical events from historical events.	FY16-001.3	2016-04-04	2016-04-04	2015-09-29	2016-06-17	2016-05-26	2016-03-21	0.003200	0.003200	0.003235
FY16-001	Sub-Region Extract Enhancement for TIN and Grid I/O Components	Adds feature to clip and save a small region of a TIN or grid as a separate data set from a larger original.	FY16-001.14	2016-05-02	2016-05-02	2015-09-29	2016-07-15	2016-06-25	2016-03-15	0.008100	0.008100	0.008118
FY16-001	HEC-MetVue User Documentation Updates	Documentation of new features	FY16-001.10	2016-01-04	2016-01-04	2015-09-29	2016-08-12	2016-09-16	2016-09-12	0.015700	0.015700	0.015700
FY16-001	Implement New HEC-MetVue Forecasting Features	Add features to MetVue and the CWMS MetVue plug-in to further integrate MetVue in CWMS. Display TINs directly in	FY16-001.12	2015-11-02	2015-11-02	2015-09-29	2016-08-12	2016-09-16	2016-09-12	0.093200	0.093200	0.093200

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
		CWMS maps. Handle mixed data sources and provide HMS inputs for lookback and forecast periods in a CWMS modeling alternative.										
FY17-001	Establish Oracle 12c Databases and Load CWMS Schema/API, Verify Operation of Current CWMSDB JPublisher API against Oracle 12c	Establish a development and quality assurance (QA) environment suitable for verifying that the current CWMS JPublisher database API will operate correctly against an Oracle 12c database.	FY17-001.1	2016-08-01	2016-08-01	2016-08-01	2016-10-17	2016-10-17	2016-11-09	0.015127	0.015127	0.015127
FY17-001	Provide jOOQ Codegen against Oracle 12c CWMS Database	The contractor shall update the prototype jOOQ codegen developed as described in reference document 1.b. The update shall bring the jOOQ libraries up to the currently available release	FY17-001.2	2016-08-01	2016-08-01	2016-08-01	2016-11-14	2016-11-14	2016-11-09	0.013435	0.013435	0.013435

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
		version. Subsequent work will have the contractor operate the jOOQ codegen process against the CWMS Oracle 12c database to produce Java source for the CWMS schema.										
FY17-002	CAC Authentication Module	Prepare the CWMS CAC Authentication Modules/Classes	FY17-002.1	2016-10-03	2016-10-03	2016-10-03	2016-11-30	2016-11-30	2016-11-10	0.022880	0.022880	0.022880
FY17-001	Develop Low-Level CWMS_TS jOOQ API in CWMSDB, Unit Test CWMS_TS jOOQ APIs used by Low-Level CWMSDB and High-Level CWMS APIs, verified by unit tests	Develop a low-level jOOQ implementation for the CWMS Oracle database's CWMS_TS package in the CWMSDB depot. This implementation will push down the existing JPublisher implementation and stand up a new jOOQ implementation under the same interfaces.	FY17-001.3	2016-11-14	2016-11-14	2016-11-14	2016-12-08	2016-12-08	2016-12-14	0.024646	0.024646	0.024646
FY17-001	Develop High-Level jOOQ CWMS_TS API	Develop high-level jOOQ CWMS_TS API	FY17-001.4	2016-12-08	2016-12-08	2016-12-07	2016-12-30	2016-12-30	2017-01-11	0.011608	0.011608	0.011608

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
	used by CWMS Applications and Servers (ProcessSHEFIT & CWMSVue)	that is suitable for use by CWMS applications and servers. This shall be done in a manner that allows side-by-side existence of both the JPublisher and jOOQ APIs without requiring re-compilation										
FY17-001	Produce Performance Metrics for jOOQ CWMS_TS API	Analyze the performance metrics of the jOOQ CWMS_TS API vs the JPublisher API. This will involve preparing and documenting a strategy for the performance metrics.	FY17-001.5	2016-12-08	2017-01-01	2017-01-11	2016-12-30	2017-01-31	2017-01-26	0.006805	0.006805	0.006805
FY17-001	Establish CC Builds for jOOQ Codegen and Dependent APIs	Update the WCDBA Cruise Control (CC) build to add in projects that shall operate the jOOQ Codegen, compile the resulting source, and compile dependent	FY17-001.6	2016-08-02	2016-08-02	2016-08-02	2016-12-30	2017-01-31	2017-01-27	0.003204	0.003204	0.003204

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
		APIs. This effort shall be done against a newly stood up Oracle 12c database suitable for use by the WCDBA CC build.										
FY17-002	QC/QA Testing	Test CAC Authentication Modules in various test modes.	FY17-002.2	2016-12-01	2016-12-01	2016-11-14	2017-01-31	2017-04-28	2017-04-28	0.019400	0.019400	0.019400
FY17-002	Deploy into production	Deploy the now CAC enabled CWMS to field users.	FY17-002.3	2017-02-01	2017-03-27	2017-03-27	2017-06-30	2017-06-30	2017-06-30	0.010000	0.010000	0.010000
FY18-001	1st Qtr FY18 Software Maintenance	1st Qtr FY18 Software Maintenance, Bug Fixes, and Issue Resolution Activities.	FY18-001.1	2017-10-01	2017-10-01	2017-10-01	2017-12-31	2017-12-31	2017-12-31	0.187500	0.187500	0.187500
FY18-002	Beta to Release Testing	Testing of the Beta CWMS v3.1 update both in-house and with select field users. Objective is finalization of the CWMS v3.1 Release Version.	FY18-002.1	2017-12-01	2017-12-01	2017-12-01	2018-01-30	2018-01-30	2018-01-30	0.250000	0.250000	0.250000
FY18-001	2nd Qtr FY18 Software Maintenance	2nd Qtr FY18 Software Maintenance, Bug Fixes, and Issue Resolution	FY18-001.2	2018-01-01	2018-01-01	2018-01-01	2018-03-31	2018-03-31	2018-03-31	0.187500	0.187500	0.187500

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
Activities.												
FY18-001	3rd Qtr FY18 Software Maintenance	3rd Qtr FY18 Software Maintenance, Bug Fixes, and Issue Resolution Activities.	FY18-001.3	2018-04-01	2018-04-01	2018-04-01	2018-06-30	2018-06-30	2018-06-30	0.187500	0.187500	0.187500
FY18-001	4th Qtr FY18 Software Maintenance	4th Qtr FY18 Software Maintenance, Bug Fixes, and Issue Resolution Activities.	FY18-001.4	2018-07-01	2018-07-01	2018-07-12	2018-09-30	2018-09-30	2018-09-30	0.187500	0.187500	0.187500
FY18-003	CWMS v3.2 Development	Development of the CWMS v3.2 Beta Release. * MetVue fully integrated into modeling process * CAVI dashboard * Ensemble Modeling	FY18-003.1	2017-10-01	2017-10-01	2017-10-01	2018-10-31	2018-10-31	2018-10-31	0.550000	0.550000	0.550000
FY18-003	Beta to Release Testing Phase 2	Testing of the Beta CWMS v3.2 update, both in-house and select field office testing. Objective is finalization of the CWMS v3.2 Release Version	FY18-003.2	2018-11-01	2018-11-01	2018-11-01	2019-02-28	2019-02-28	2019-02-28	0.250000	0.250000	0.250000
FY18-004	CWMS v4.0 Conceptual Design Document	Develop an overview design document describing	FY18-004.1	2018-09-01	2018-09-01	2018-09-01	2019-06-30	2019-06-30	2019-06-30	0.100000	0.100000	0.100000

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
		CWMS 4 and how it will be run by users. CWMS 4 plans on storing model objects and information in an object-oriented database, and retrieving the appropriate objects for executions. This allows for mode										
FY19-100	CWMS v3.3 Development	Development of CWMS v3.3 Beta Release. Provide software code repairs and enhancements to better support USACE Water Management mission.	FY19-100.1	2019-03-01	2019-03-01	2019-03-01	2019-09-30	2019-09-30	2019-09-30	0.750000	0.750000	0.750000
FY20-001	1st Qtr Maintenance (Operations)	Provide support to field offices for unforeseen issues/challenges during flood events, provide bug fixes. First quarter will likely focus on help with Districts/Division transition to CWMS database	FY20-001.1	2019-10-01	2019-10-01	2019-10-01	2019-12-31	2019-12-31	2019-12-31	0.125000	0.125000	0.125000

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
		schema version 1.18										
FY20-008	CWMS v3.3 Enhancements	Further enhance CWMS v3.3 Beta Release based on feedback from the CWMS User Representative Group. Continue to make enhancements to better support USACE Water Management mission	FY20-008.2	2019-10-01	2019-10-01	2019-10-01	2020-03-31	2020-03-31	2020-03-31	0.350000	0.350000	0.350000
FY20-001	2nd Qtr Maintenance (Operations)	Provide support to field offices for unforeseen issues/challenges during flood events, provide bug fixes. Second quarter will likely focus on support for all CWMS systems upgrading to CWMSv3.2.1 or higher.	FY20-001.2	2020-01-01	2020-01-01	2020-01-01	2020-03-31	2020-03-31	2020-03-31	0.125000	0.125000	0.125000
FY20-001	3rd Qtr Maintenance (Operations)	Provide support to field offices for unforeseen issues/challenges during flood events, provide	FY20-001.3	2020-04-01	2020-04-01	2020-04-01	2020-06-30	2020-06-30	2020-06-30	0.125000	0.125000	0.125000

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
		bug fixes. Third quarter will likely focus on continued support for CWMSv3.2.1 and testing of CWMS v3.3										
FY20-007	Cyber Security	Current ATO expires on 30 July 2020. This activity is to demonstrate compliance with relevant controls and guidelines from NIST, DISA and SRG to renew ATO and maintain operational status. Including SCA-V assessment.	FY20-007.1	2020-02-01	2020-02-01	2020-02-01	2020-07-30	2020-07-30	2020-08-05	0.550000	0.550000	0.550000
FY20-008	CWMS v3.3 Testing	Testing of the Beta CWMS v3.3 update, both in-house and select field office testing. Objective is finalization of the CWMS v3.3 Release Version	FY20-008.1	2020-04-01	2020-04-01	2020-04-01	2020-09-30	2020-09-30	2020-09-30	0.150000	0.150000	0.150000
FY20-001	4th Qtr Maintenance (Operations)	Provide support to field offices for unforeseen issues/challenges during flood events, provide	FY20-001.4	2020-07-01	2020-07-01	2020-07-01	2020-09-30	2020-09-30	2020-09-30	0.125000	0.125000	0.125000

Project Activity Table C.2.1

Unique Project ID	Activity Name	Activity Description	Structure ID	Planned Start Date	Projected Start Date	Actual Start Date	Planned Completion Date	Projected Completion Date	Actual Completion Date	Planned Total Costs	Projected Total Costs	Actual Total Costs
		bug fixes. Forth quarter will likely focus on field support while users test CWMSv3.3										

Section D: Operational Data

1. Provide the date and results of the last Operational Analysis (for operational and mixed life cycle systems/Investments):

1. Date of Analysis:

2. Analysis Results:

3. Analysis Conclusion: continue as is

2. Report a minimum of 5 metrics using the following table to provide metrics and actual results for each individual metric:

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
30254	USACE has scheduled the deployment/build-out of 10 watersheds in FY21. The projected schedule is 1st	Percent	2 - Strategic and Business Results			100.000000	Over target	Quarterly		No

Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment
30254	289890	100.000000	06/30/2021	Implementation of CWMS continues to progress. The updated status totals are: 167 basins completed; 14 basins in-progress; 20 basins not started
30254	284165	100.000000	03/31/2021	Implementation of CWMS continues to progress. The updated status totals are: 165 basins completed; 16 basins in-progress; 20 basins not started
30254	277560	100.000000	12/31/2020	Implementation of CWMS continues to progress. The updated status totals are: 159 basins completed; 21 basins in-progress; 21 basins not started

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Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									basins in-progress 35 basins not started	
					28166	244958	100.000000	07/01/2019	Implementation of CWMS continues to progress. The updated status totals are: 130 basins completed, 34 basins in-progress, 37 basins not started	
					28166	240741	100.000000	04/01/2019	Implementation of CWMS continues to progress. The updated status totals are: 123 basins completed 39 basins in-progress 39 basins not started	
					28166	236084	100.000000	12/31/2018	Implementation of CWMS continues to progress. The updated status totals are: 117 basins completed 38 basins in-progress 46 basins not started	
27493	Respond to CWMS HelpDesk questions. Percent of time that response rates are 1 day or less for non-emergency events and 12 hours or less for emergency events.	Percent	1 - Customer Satisfaction (Process Results)	0.000000	95.000000	95.000000	Over target	Quarterly		No
					Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment	
					27493	289891	99.000000	06/30/2021	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix	
					27493	284166	99.000000	03/31/2021	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix.	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					27493	277562	99.000000	12/31/2020	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix.	
					27493	277561	99.000000	10/01/2020	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix	
					27493	267719	99.000000	07/01/2020	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix	
					27493	260516	99.000000	04/01/2020	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix	
					27493	254846	99.000000	01/01/2020	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix.	
					27493	250059	99.000000	10/01/2019	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix	
					27493	244957	99.000000	07/01/2019	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix.	
					27493	240740	99.000000	04/01/2019	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix.	
					27493	236088	99.000000	12/31/2018	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix.	
					27493	231902	99.000000	09/30/2018	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
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27492

Expenditure of 90% or more of the quarterly expend plan.

Percent

3 - Financial Performance

0.000000

90.000000

90.000000

Over target

Quarterly

and scheduled for fix.

No

Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment
27492	289892	98.000000	06/30/2021	The expend plan thru June had a goal of \$1,266,000 and the actual expenditures reached was \$1,242,374 or 98% of planned.
27492	284167	101.000000	03/31/2021	The expend plan thru March had a goal of \$973,000 and the actual expenditures reached was \$982,600 or 101% of planned.
27492	277564	100.000000	12/31/2020	The expend plan thru December had a goal of \$443,500 and the actual expenditures reached was \$443,703 or 100% of planned.
27492	277563	100.000000	09/30/2020	The expend plan thru September had a goal of \$2,075,000 and the actual expenditures reached was \$2,075,824 or 100% of planned
27492	267720	100.000000	07/01/2020	The expend plan thru June had a goal of \$1,250,000 and the actual expenditures reached was \$1,249,751 or 100% of planned
27492	260515	120.000000	04/01/2020	The expend plan thru March had a goal of \$735,900. Due to the Finance Center processing a large contract invoice sooner than expected, actual expenditures reached \$897,100 or 120% of planned
27492	254845	103.000000	01/01/2020	The expend plan thru December had a goal of \$365,010. The actual expenditures reached \$376,860 or 103% of planned.

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					27492	250058	99.000000	10/01/2019	The expend plan thru September had a goal of \$1,450,000. The actual expenditures reached \$1,438,782 or 99% of planned	
					27492	244956	100.700000	07/01/2019	The expend plan thru the month of June had a goal of \$1,010,437. The actual expenditures reached \$1,017,743 or 100.7% of planned.	
					27492	240739	101.000000	04/01/2019	The expend plan thru the month of March had a goal of \$711,412. The actual expenditures reached \$717,947.20 or 101% of planned.	
					27492	236087	99.000000	12/31/2018	The expend plan thru the month of December had a goal of \$231,535. The actual expenditures reached \$229,832 or 99% of planned.	
					27492	231901	107.000000	09/30/2018	The expend plan thru the month of September had a goal of \$1,271,688. The actual expenditures reached \$1,359,060 or 107% of planned.	
27491	System availability 99% of the time. Percent of time system us up.	Percent	2 - Strategic and Business Results	0.000000	99.000000	99.000000	Over target	Monthly		No
					Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment	
					27491	291325	99.000000	08/01/2021	No reported major/significant outage(s) for the month of July 2021 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged	
					27491	289893	99.000000	07/01/2021	No reported major/significant outage(s) for the month of June 2021 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					27491	287831	99.000000	06/01/2021	No reported major/significant outage(s) for the month of May 2021 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	286480	99.000000	05/01/2021	No reported major/significant outage(s) for the month of April 2021 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	284168	99.000000	04/01/2021	No reported major/significant outage(s) for the month of March 2021 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	281776	99.000000	03/01/2021	No reported major/significant outage(s) for the month of February 2021 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	278360	99.000000	02/01/2021	No reported major/significant outage(s) for the month of January 2021 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	277569	99.000000	01/01/2021	No reported major/significant outage(s) for the month of December 2020 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	277568	99.000000	12/01/2020	No reported major/significant outage(s) for the month of November 2020 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	277567	99.000000	11/01/2020	No reported major/significant outage(s) for the month of October 2020 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					27491	277566	99.000000	10/01/2020	No reported major/significant outage(s) for the month of September 2020 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged	
					27491	277565	99.000000	09/01/2020	No reported major/significant outage(s) for the month of August 2020 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged	
					27491	267723	99.000000	08/01/2020	No reported major/significant outage(s) for the month of July 2020 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged	
					27491	267722	99.000000	07/01/2020	No reported major/significant outage(s) for the month of June 2020 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	267721	99.000000	06/01/2020	No reported major/significant outage(s) for the month of May 2020 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	261294	99.000000	05/01/2020	No reported major/significant outage(s) for the month of April 2020 were reported. Therefore, we assumed 99%+ uptime for all sites/servers is logged.	
					27491	260514	99.000000	04/01/2020	No reported major/significant outage(s) for the month of March 2020 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged	
					27491	257794	99.000000	03/05/2020	No reported major/significant outage(s) for the month of February 2020 were reported. Therefore, we assumed 99%+ uptime for all	

Metrics Definitions and Actual Results Table D.2 / D.3										
Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									sites/servers is logged.	
					27491	256907	99.000000	02/01/2020	No reported major/significant outage(s) for the month of January 2020 were reported. Therefore, we assumed 99%+ uptime for all sites/servers is logged.	
					27491	254844	99.000000	01/01/2020	No reported major/significant outage(s) for the month of December 2019 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	253079	99.000000	12/01/2019	No reported major/significant outage(s) for the month of November 2019 were reported. Therefore, we assumed 99%+ uptime for all sites/servers is logged.	
					27491	251565	99.000000	11/01/2019	No reported major/significant outage(s) for the month of October 2019 were reported. Therefore, we assumed 99%+ uptime for all sites/servers is logged.	
					27491	250057	99.000000	10/01/2019	No reported major/significant outage(s) for the month of September 2019 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	244955	99.000000	07/01/2019	No reported major/significant outage(s) for the month of June 2019 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	243623	99.000000	06/01/2019	No reported major/significant outage(s) for the month of May 2019 were reported. Therefore, we assumed 99%+ uptime for all sites/servers is logged.	
					27491	242813	99.000000	05/01/2019	No reported major/significant outage(s) for the month of April 2019 were reported. Therefore, we	

Metrics Definitions and Actual Results Table D.2 / D.3										
Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									assumed 99%+ uptime for all sites/servers is logged.	
					27491	240738	99.000000	02/28/2019	No reported major/significant outage(s) for the month of February 2019 were reported. Therefore, we assumed 99%+ uptime for all sites/servers is logged.	
					27491	240737	99.000000	04/01/2019	No reported major/significant outage(s) for the month of March 2019 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	236945	99.000000	01/31/2019	No reported major/significant outage(s) for the month of January 2019 were reported. Therefore, we assumed 99%+ uptime for all sites/servers is logged.	
					27491	236086	99.000000	12/31/2018	No reported major/significant outage(s) for the month of December 2018 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					27491	235171	99.000000	11/30/2018	No reported major/significant outage(s) for the month of November 2018 were reported. Therefore, assume 99%+ uptime for all sites/servers is logged.	
					27491	233899	99.000000	10/31/2018	No reported major/significant outage(s) for the month of October 2018 were reported. Therefore, assume 99%+ uptime for all sites/servers is logged.	
					27491	231900	99.000000	09/30/2018	No reported major/significant outage(s) for the month of September 2018 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
27490	Provide Customers	Days	2 - Strategic and Business Results	0.000000	7.000000	7.000000	Over target	Quarterly		No

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
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Quarterly Status reports on the Top Ten list one week or more in advance of quarterly meetings.

Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment
27490	289894	7.000000	06/30/2021	"Top Ten" updates were sent out to the Water Management CoP 7 days prior to the CWMS User Representatives Group (CURG) meeting held on 6 May 2021.
27490	284169	7.000000	03/31/2021	"Top Ten" updates were sent out to the Water Management CoP 7 days prior to the CWMS User Representatives Group (CURG) meeting held on 4 Feb 2021.
27490	277571	7.000000	12/31/2020	"Top Ten" updates were sent out to the Water Management CoP 7 days prior to the CWMS User Representatives Group (CURG) meeting held on 5 Nov 2020.
27490	277570	7.000000	10/01/2020	"Top Ten" updates were sent out to the Water Management CoP 7 days prior to the CWMS User Representatives Group (CURG) meeting held on 27 July 2020.
27490	267724	7.000000	07/01/2020	"Top Ten" updates were sent out to the Water Management CoP 7 days prior to the CWMS User Representatives Group (CURG) meeting held on 7 May 2020.
27490	260513	7.000000	04/01/2020	"Top Ten" updates were sent out to the Water Management CoP 7 days prior to the CWMS User Representatives Group (CURG) meeting held on 6 February 2020

Metrics Definitions and Actual Results Table D.2 / D.3										
Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					27490	254843	7.000000	01/01/2020	"Top Ten" updates were sent out to the Water Management CoP 7 days prior to the CWMS User Representatives Group (CURG) meeting held on 7 November 2019.	
					27490	250056	7.000000	10/01/2019	"Top Ten" updates were sent out to the Water Management CoP 7 days prior to the CWMS User Representatives Group (CURG) meeting held on 30 July to 1 August	
					27490	244954	7.000000	07/01/2019	"Top Ten" updates were sent out to the Water Management CoP 7 days prior to the CWMS User Representatives Group (CURG) teleconference held on 2 May.	
					27490	240736	7.000000	04/01/2019	"Top Ten" updates were sent out to the Water Management CoP 7 days prior to the CWMS User Representatives Group (CURG) teleconference held on 17 February.	
					27490	236085	7.000000	12/31/2018	"Top Ten" updates were sent out to the Water Management CoP 7 days prior to the CWMS User Representatives Group (CURG) first quarter teleconference held on 1 November.	
					27490	231899	7.000000	09/30/2018	Supporting documents for the CWMS User Representatives Group (CURG) meeting held July 31- Aug 2 were sent out 7 days prior to meeting.	
27270	The USACE has scheduled the deployment/build-out of 21 watersheds in FY18. The projected schedule is: 1st Qtr - 3	Percent	2 - Strategic and Business Results	0.000000			Over target	Quarterly		Yes

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
	watersheds2nd Qtr - 12 watersheds3rd Qtr - 3 watersheds4th Qtr - 3 watershedsGoal is to stay on target with the outlined completion schedule.									

Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment
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27270	231898	100.000000	09/30/2018	115 basins were completed in FY18, as scheduled.
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27270	225812	100.000000	06/30/2018	The updated status totals are: - 112 basins completed - 30 basins in-progress - 59 basins not started
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27270	224395	100.000000	05/02/2018	The updated status totals are: - 110 basins completed - 27 basins in-progress - 62 basins not started
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771	Provide Management/Customers with quarterly status reports. Number of days prior to scheduled meeting that report is provided.	Number	2 - Strategic and Business Results	0.000000		Over target	Quarterly	Yes
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Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment
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771	267725	5.000000	09/30/2015	The CWMS User Representatives Group (CURG) and the CWMS Advisory Group (AG) held their Joint technical meeting at HEC in August. Coordination material and
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Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
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presentations were prepared for the group meeting several weeks prior to the actual meeting. This metric was, therefore met.

771	225808	30.000000	06/30/2018	The 3rd Qrtly CURG call was scheduled for May 3rd, 2017. Solicitation for agenda topics was sent out on Apr 3rd. A first draft agenda was release Apr 5th. A second draft agenda was released Apr 10th. A third draft was release Apr 16th. A fourth draft was release Apr 25th along with the quarterly release of the CWMS Top Ten list status report. Final agenda was released Apr 30th.
771	222159	30.000000	04/30/2018	The 3rd Qrtly CURG call was scheduled for May 3rd, 2017. Solicitation for agenda topics was sent out on Apr 3rd. A first draft agenda was release Apr 5th. A second draft agenda was released Apr 10th. A third draft was release Apr 16th. A fourth draft was release Apr 25th along with the quarterly release of the CWMS Top Ten list status report. Final agenda was released Apr 30th.
771	217608	11.000000	01/31/2018	The 1st Qrtly CURG CURG call was scheduled for Nov 2nd, 2017. Solicitation for agenda topics were sent out as early as Oct 18th, 2017, eleven work days prior to the teleconference.
771	212598	10.000000	09/30/2017	The last quarterly CWMS Advisory Group meeting occurred during the face-to-face annual CURG/AG meeting that was held from Aug 1st thru 3rd. Information on the meeting was provided to the AG membership prior to the meeting.

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					771	212597	10.000000	10/31/2017	The last quarterly CWMS Advisory Group meeting occurred during the face-to-face annual CURG/AG meeting that was held from Aug 1st thru 3rd. Information on the meeting was provided to the AG membership prior to the meeting.	
					771	194218	5.000000	06/30/2017	The last quarterly CWMS Advisory Group meeting occurred on May 9th, 2017. Information on the meeting was provided to the AG membership on May 2nd, five business days prior to the teleconference/meeting.	
					771	187280	1.000000	03/31/2017	The last quarterly CWMS Advisory Group meeting occurred on Feb 9th, 2017. Information on the meeting was provided to the AG membership on Feb 6th, a day prior to the meeting.	
					771	181891	4.000000	12/31/2016	The last quarterly CWMS Advisory Group meeting occurred on Nov 8th, 2016. Information on the meeting was provided to the AG membership on 4 Nov, 4 days prior to the meeting.	
					771	175660	8.000000	10/31/2016	The last quarterly CWMS Advisory Group meeting occurred on July 19th, 2016. Information on the meeting was provided to the AG membership on 11 July, 8 days prior to the meeting.	
					771	171293	5.000000	06/30/2016	The last quarterly CWMS Advisory Group Teleconference was scheduled for 10 May and information on the meeting was provided to the AG membership on 05 May, 5 days prior to the meeting.	
					771	163437	5.000000	03/31/2016	The last quarterly CWMS Advisory Group Teleconference was scheduled for 09 Feb and	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					771	156901	5.000000	12/31/2015	information on the meeting was provided to the AG membership 5 days prior to the meeting.	
					771	145265	10.000000	06/30/2015	The last quarterly CWMS Advisory Group Teleconference was scheduled for 10 Nov and information on the meeting was provided to the AG membership 5 days prior to the meeting.	
					771	134485	4.000000	03/31/2015	The next CURG/AG meeting is scheduled for August 11th. The CURG Agenda and current CWMS Status report will be sent out by July 28th, which is 10 business days before the meeting start date.	
					771	120789	0.000000	12/31/2014	The last quarterly CWMS Advisory Group was scheduled for 10 Feb and information on the meeting was provided on 04 Feb, 4 working days prior to the meeting.	
					771	110303	1.000000	09/30/2014	Read-ahead s for the quarterly Nov 12 CWMS AG meeting were sent out on the same day as the AG meeting itself.	
					771	99451	6.000000	07/15/2014	The last quarterly AG Teleconference was held on August 12. Read ahead material to the AG was sent out the day before the call.	
					771	87917	8.000000	04/14/2014	The annual CURG/AG meeting was held at HEC on June 24-26. Read ahead material to the AG was sent out on 6/13, six business days in advance of the meeting.	
					771	77097	11.000000	01/15/2014	E-mail was sent with Strawman writeup/Agenda to AG/CCB on 1/29/14 for 2/11/2014 meeting, i.e., 8 days before the meeting.	
									E-mail was sent with Strawman writeup/Agenda to AG/CCB on	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									10/31/13 for 11/12/2013 meeting, i.e., 11 days before the meeting.	
					771	61132	2.000000	06/30/2013	Expect to met for next AG.	
					771	39413	5.000000	12/31/2012	na	
					771	29693	5.000000	09/30/2012	na	
					771	28407	5.000000	07/13/2012	na	
					771	2477	9.000000	05/29/2015	na	
770	System Operable 99% Time. Percent of time system us up.	Percent	2 - Strategic and Business Results	0.000000			Over target	Monthly		Yes
Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment						
770	267727	99.000000	09/30/2015	No reported major/significant outage(s) for the month of September 2015 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.						
770	267726	99.000000	08/31/2015	No reported major/significant outage(s) for the month of August 2015 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.						
770	225809	99.000000	06/30/2018	No reported major/significant outage(s) for the month of June 2018 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.						
770	224396	99.000000	05/31/2018	No reported major/significant outage(s) for the month of May 2018 were reported. Therefore, an assumed 99%+ uptime for all						

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									sites/servers is logged.	
					770	222160	99.000000	04/30/2018	No reported major/significant outage(s) for the month of Apr 2018 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	220580	99.000000	03/31/2018	No reported major/significant outage(s) for the month of Mar 2018 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	219606	99.000000	02/28/2018	No reported major/significant outage(s) for the month of Feb 2018 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	217609	99.000000	01/31/2018	No reported major/significant outage(s) for the month of Jan 2018 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	216138	99.000000	12/31/2017	No reported major/significant outage(s) for the month of Dec 2017 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	214147	99.000000	11/30/2017	No reported major/significant outage(s) for the month of Nov 2017 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	212600	99.000000	09/30/2017	No reported major/significant outage(s) for the month of Sep 2017 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	212599	99.000000	10/31/2017	No reported major/significant outage(s) for the month of Oct 2017 were reported. Therefore, an	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									assumed 99%+ uptime for all sites/servers is logged.	
					770	194220	97.000000	05/31/2017	Several database outage occurred impacting district systems, therefore, for May 2017 we are reporting a system wide overall uptime of only 97%.	
					770	194219	99.000000	06/30/2017	No reported major/significant outage(s) for the month of Jun 2017 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	189492	97.000000	04/30/2017	A significant network service outage occurred at MVR, which hindered data acquisition and upward reporting for a two week period. Therefore, for Apr 2017 we are reporting a system wide overall uptime of only 97%.	
					770	187281	99.000000	03/31/2017	No reported major/significant outage(s) for the month of Mar 2017 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	184450	99.000000	02/28/2017	No reported major/significant outage(s) for the month of Feb 2017 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	183804	99.000000	01/31/2017	No reported major/significant outage(s) for the month of Jan 2017 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	181892	99.000000	12/31/2016	No reported major/significant outage(s) for the month of Dec 2016 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					770	178078	99.000000	11/30/2016	No reported major/significant outage(s) for the month of Nov 2016 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	175661	99.000000	10/31/2016	No reported major/significant outage(s) for the month of Oct 2016 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	171295	98.000000	06/30/2016	CESAJ district reported a nine day outage that resulted from a loose network cable between their switches and the storage devices. The site s COOP system provided limited local operational functionality during the outage. This multi-day outage lowered the June Up-Time percentage for SAJ to 70%, which lowered the overall up-time percentage for the entire system of 34 Water Management systems to 98%.	
					770	171294	99.000000	07/31/2016	No reported major/significant outage(s) for the month of Jul 2016 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	168117	99.000000	05/31/2016	No reported major/significant outage(s) for the month of May 2016 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	165837	99.000000	04/30/2016	No reported major/significant outage(s) for the month of April 2016 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	163439	90.000000	03/31/2016	One of our offices (MVR) reported a multi-day outage that required on-	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									site support from the hardware vendor to correct. The site's COOP system was also off-line as it was being upgraded. This multi-day outage lowered the March Up Time percentage to about 90%	
					770	161295	99.000000	01/31/2016	No reported major/significant outage(s) for the month of January 2016 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	161294	99.000000	02/29/2016	No reported major/significant outage(s) for the month of February 2016 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	156902	99.000000	12/31/2015	No reported major/significant outage(s) for the month of December 2015 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	154310	99.000000	11/30/2015	No reported major/significant outage(s) for the month of November 2015 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	153035	99.000000	10/31/2015	No reported major/significant outage(s) for the month of October 2015 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	145267	99.000000	06/30/2015	No reported major/significant outage(s) for the month of June 2015 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	141885	99.000000	05/31/2015	No reported major/significant outage for the month of May 2015 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									logged.	
					770	135577	99.000000	04/30/2015	No reported major/significant outage for the month of Apr 2015 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	134487	99.000000	03/31/2015	No reported major/significant outage for the month of Mar 2015 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	129505	99.000000	01/30/2015	No reported major/significant outage for the month of Jan 2015 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	129503	99.000000	02/28/2015	No reported major/significant outage for the month of Feb 2015 were reported. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	120793	99.000000	12/31/2014	No reported major/significant outage for the month of Dec 2014 were reported. Routine maintenance for software patches and/or hardware upgrades were applied with success and no disruptions in required service occurred. Maintenance outages were closely coordinating with the local WM App Admins. Therefore, an assumed 99%+ uptime for all sites/servers is logged.	
					770	116693	99.000000	11/30/2014	No reported major/significant outage for the month of Nov 2014 were reported. Routine quarterly DB and OS patches were applied with success and no disruptions in required service by closely coordinating with the local WM App Admins. Therefore, an assumed	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									99%+ uptime for all sites/servers is logged.	
					770	112503	99.000000	10/31/2014	No reported major/significant outage for the the month of Oct 2014 were reported. Therefore assumed a 99%+ uptime for all servers over the past month.	
					770	110305	99.000000	09/30/2014	No reported major/significant outage for the quarter were reported. Therefore assumed a 99%+ uptime for all servers over the past month.	
					770	106457	99.000000	08/15/2014	No reported major/significant outage for the month of July were reported. Therefore assumed a 99%+ uptime for all servers over the past month.	
					770	99455	99.000000	07/15/2014	No reported major/significant outage for the quarter were reported. Therefore assumed a 99%+ uptime for all servers over the past month.	
					770	94117	99.000000	06/13/2014	No reported major/significant outage for the quarter were reported. Therefore assumed a 99%+ uptime for all servers over the past month.	
					770	91719	99.000000	05/13/2014	No reported major/significant outage for the quarter were reported. Therefore assumed a 99%+ uptime for all servers over the past month.	
					770	87921	99.000000	04/14/2014	No reported major/significant outage for the quarter were reported. Therefore assumed a 99%+ uptime for all servers over the past month.	
					770	84627	99.000000	03/12/2014	No reported major/significant outage for the month of February 2014 were reported. Therefore assumed a 99%+ uptime for all servers over the past month.	
					770	79267	99.000000	02/13/2014	No reported major/significant outage for the month of January 2014 were reported. Therefore assumed a	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									99%+ uptime for all servers over the past month.	
					770	77101	99.000000	01/15/2014	No reported major/significant outage for the quarter were reported. Therefore assumed a 99%+ uptime for all servers over the past month.	
					770	74993	99.000000	12/18/2013	During the month of Nov 2013, no significant outages were recorded/reported by the field; therefore a 99% uptime rating is being assessed for this month.	
					770	70541	99.000000	10/31/2013	na	
					770	68619	99.000000	09/30/2013	na	
					770	63937	99.000000	07/31/2013	na	
					770	59072	99.000000	05/31/2013	na	
					770	57405	99.000000	04/30/2013	na	
					770	53467	99.000000	03/31/2013	na	
					770	48569	99.000000	02/28/2013	na	
					770	44955	99.000000	01/31/2013	na	
					770	39411	99.000000	12/31/2012	na	
					770	36459	99.000000	11/30/2012	na	
					770	35047	99.000000	10/31/2012	na	
					770	29691	99.000000	09/30/2012	na	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					770	28895	98.000000	09/14/2012	na	
					770	28885	98.000000	08/17/2012	na	
					770	28405	97.000000	08/13/2012	na	
					770	24173	97.000000	07/01/2012	We completed deployment of CWMS v2.1 to the field in Jul, and the upgrade did require downtime on the individual systems. The targeted 99% uptime stat will be difficult to achieve until we have a functioning National CWMS system in place that will allow local offices to transition operations between their local systems and the national system during long maintenance windows.	
					770	16829	97.000000	05/01/2012	The targeted 99% uptime stat will be difficult to achieve until we have a functioning National CWMS system in place that will allow local offices to transition operations between their local systems and the national system during long maintenance windows. We are looking to have a pilot national implementation up by the end of this FY..	
					770	13325	97.000000	04/01/2012	Due to some major software upgrade (Oracle DB upgrade) and system patching activities did not reach 99%..	
					770	2475	97.000000	03/01/2012	Due to some major software upgrade (Oracle DB upgrade) and system patching activities, CWMS systems experienced a longer than normal down time during the month of March.	
769	Expenditure 85% or more of the	Percent	3 - Financial Performance	0.000000			Over target	Quarterly		Yes

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
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planned expenditures every quarter.

Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment
769	267729	92.300000	09/30/2015	Our goal is to be within 15% of our planned for expenditures, though the final FY expenditure target for the end of the FY is to be as close to 100% as possible. The final FY expenditure rate for the FY15 year was 92.3%. Several of the final billings for work completed in the last days of September weren't posted against the accounts, resulting in the lower than hoped for final FY expenditure rate.
769	267728	99.500000	08/31/2015	Planned expenditures thru 31 August were expected to reach \$1,220,077, actual expenditures reached \$1,214,369, resulting in a 99.5% expenditure rate. The aggressive work to move CWMS v3.0 forward is keeping the project on schedule.
769	225810	88.500000	06/30/2018	The expend plan thru the month of June had a goal of \$1,176,000. The actual expenditures reached \$1,040,175 or 88.5% of planned.
769	222161	95.400000	04/30/2018	The expend plan thru the month of Apr had a goal of \$961K. The actual expenditures reached \$918K or 95.4% of planned.
769	217610	100.400000	01/31/2018	The expend plan thru the month of Jan was \$433K. The actual expenditures reached \$436K or 100.4% of planned.
769	212602	105.700000	09/30/2017	The 4th Quarter (Thru 30 Sep 2017) expenditures totaled \$1.319M, which

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									was \$81.8k above the planned \$1.438M target (i.e., our expenditure rate is at 105.7%). The over expenditure was due to the increased pace of CWMS development over the past quarter and increased software support activities.	
					769	212601	86.000000	10/31/2017	The 1st month FY18 expenditures totaled \$90.0K. The expend plan for the 1st month was \$105K, meaning that we reached an 86% expend rate for the 1st month of FY18.	
					769	194221	104.900000	06/30/2017	The 3rd Quarter (Thru 30 Jun 2017) expenditures totaled \$1.129M, which was \$52.4k above the planned \$1.076M target (i.e., our expenditure rate is at 104.9%). The over expenditure was due to the increased pace of CWMS development over the past quarter and increased software support activities.	
					769	187282	110.500000	03/31/2017	The 2nd Quarter (Thru 31 Mar 2017) expenditures totaled \$696.3k, which was \$67.8k above the planned \$628.5k target (i.e., our expenditure rate is at 110.8%). The over expenditure was due to the increased pace of CWMS development over the past month and increased software support activities.	
					769	181893	75.100000	12/31/2016	The 1st Quarter (Thru 31 Dec 2016) expenditure rate was \$94.4K short of the overall goal of \$380K, resulting in a 75.1% expenditure rate. This expenditure deficit is attributed to the first quarter uncertainty regarding planned schedules. We have a better picture of our plans moving	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					769	178079	64.600000	11/30/2016	forward and will make schedule adjustments more in-line with our current expectations.	
					769	175662	71.900000	10/31/2016	Planned expenditures thru 30 Nov 2016 were expected to reach \$270K, actual expenditures were \$175K, resulting in the below target expenditure rate of 64.6%. The first few months of the new fiscal year are difficult to plan out accurately because carryover costs from the previous fiscal year do not always carryover as expected.	
					769	171297	94.500000	06/30/2016	Planned expenditures thru 30 Oct 2016 were expected to reach \$120K, actual expenditures were \$86K, resulting in the below target expenditure rate of 71.9%. The first few months of the new fiscal year are difficult to plan out accurately because carryover costs from the previous fiscal year do not always carryover as expected.	
					769	171296	114.900000	07/31/2016	Planned expenditures thru 30 Jun 2016 were expected to reach \$975K, actual expenditures reached \$966K, resulting in a 94.5% expenditure rate thru 30 Jun. Operational and maintenance costs to assure system functionality are tracking as expected for the recently released CWMS v3.0.	
					769				Planned expenditures thru 31 Jul 2016 were expected to reach \$970K, actual expenditures reached \$1,114K, resulting in a 114.9% expenditure rate. The above expectations expenditure rate is the result of maintenance contracts completing a bit ahead of expectations. Other than that,	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									operational and maintenance costs to assure system functionality are tracking as expected.	
					769	168118	95.700000	05/31/2016	Planned expenditures thru 31 May 2016 were expected to reach \$856K, actual expenditures reached \$819K, resulting in a 95.7% expenditure rate.	
					769	165838	112.000000	04/30/2016	Planned expenditures thru 30 Apr 2016 were expected to reach \$726K, actual expenditures reached \$816K, resulting in a 112% expenditure rate. The aggressive expenditure rate for this period was due to aggressively working fixes for the recently released CWMS v3.0 and preparing the v3.0.1 update.	
					769	163438	111.000000	03/31/2016	Planned expenditures thru 31 Mar 2016 were expected to reach \$630K, actual expenditures reached \$700K, resulting in a 111% expenditure rate. The aggressive expenditure rate for this period was due to aggressively working fixes for the recently released CWMS v3.0.	
					769	161297	100.000000	01/31/2016	The project's expend plan was re-base-lined because of the aggressive expenditures of the first quarter.	
					769	161296	77.000000	02/29/2016	Planned expenditures thru 29 Feb 2016 were expected to reach \$532K, actual expenditures only reached \$413K, resulting in a 77% expenditure rate. The lower than expected expenditure rate was due to lower than expected labor costs as staff were pulled off to other projects.	
					769	156904	202.900000	12/31/2015	Planned expenditures thru 31 Dec 2015 were expected to reach \$172K,	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									actual expenditures reached \$349K, resulting in a 202.9% expenditure rate. The aggressive expenditure rate resulted in final work completing the CWMS v3.0 release and deploying the new release to the field.	
					769	154309	96.000000	11/30/2015	Planned expenditures thru 30 Nov 2015 were expected to reach \$56,000, actual expenditures reached \$54,170, resulting in a 96% expenditure rate.	
					769	153034	100.000000	10/31/2015	With the uncertainty of actually getting funding on site during the first month of the FY, we planned for expenditure of zero dollars. . That goal was easily reached.	
					769	145271	101.000000	06/30/2015	Planned expenditures thru 30 June were expected to reach \$996,485, actual expenditures reached \$1,006,131, resulting in a 101.0% expenditure rate. The aggressive work to move CWMS v3.0 forward is keeping the project on schedule.	
					769	141887	99.900000	05/31/2015	Planned expenditures thru 31 May were expected to reach \$865.2K, actual expenditures reached \$864.4K, resulting in a 99.9% expenditure rate. The aggressive work to move CWMS v3.0 forward is keeping the project on schedule.	
					769	135575	97.100000	04/30/2015	Planned expenditures thru 30 Apr were expected to reach \$703.8K, actual expenditures reached \$683.3K, resulting in a 97.1% expenditure rate. The aggressive work to move CWMS v3.0 forward is keeping the project on schedule.	
					769	134489	108.000000	03/31/2015	Planned expenditures thru 31 Mar were expected to reach \$574K,	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									actual expenditures reached \$623K, resulting in a 108% expenditure rate. The aggressive work on CWMS v3.0 resulted in the project staying on track with the expenditure plan.	
					769	129509	98.900000	01/30/2015	Planned expenditures thru 31 Jan were expected to reach \$242K, actual expenditures reached \$240K, resulting in a 98.9% expenditure rate. The aggressive work on CWMS v3.0 resulted in the project's expenditures catching-up with the planned amount.	
					769	129507	100.800000	02/28/2015	Planned expenditures thru 28 Feb were expected to reach \$401K, actual expenditures reached \$433K, resulting in a 100.8% expenditure rate. The aggressive work on CWMS v3.0 resulted in the project's expenditures catching-up with the planned amount.	
					769	120791	70.000000	12/31/2014	Planned expenditures thru 31 Dec were expected to reach \$209K, however, actual expenditures only reached \$146K, resulting in a 70% expenditure rate. The lower than expected rate was the result of unexpected contracting delays. Those appear to have been overcome now and the January expenditure rate is expected to be met as aggressive work begins on the CWMS v3.0 work.	
					769	116691	122.000000	11/30/2014	Planned expenditures thru 30 Nov were \$78K - actual expenditures were \$96K, resulting in us being over target by 22%. This over target is the result of aggressive work being done on the CWMS v3.0 project.	
					769	112505	25.000000	10/31/2014	We only expended 25% of our planned expenditures in October.	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									The reduced expenditures were in part a result of delayed receipt of funds from HQ and in part by accelerated billings from the previous FY that then did not occur in October. Plan to recover work and expenditures for the quarter during November and December.	
769						110307	100.000000	09/30/2014	Expended thru 09/30/2014: \$968K. Which was the full FY14 authorized funding amount. Resulting expenditure rate thru the end of the FY was, therefore: 100%.	
769						106459	100.000000	08/15/2014	Expended thru 07/31/2014: \$808K. Planned expenditures were \$806K. Expenditures thru the month of July remain on track.	
769						99457	108.000000	07/15/2014	Expended thru 06/30/2014: \$712K. Planned expenditures were \$660K. Resulting expenditure rate thru June was 108%. With contracts in place, the contractor has been able to move forward with work. Expenditures thru the month of June remain on track.	
769						94115	98.900000	06/13/2014	Expended thru 05/31/2014: \$569K. Planned expenditures were \$575K. With contracts in place, the contractor has been able to move forward with work. Expenditures thru the month of May remain on track.	
769						91721	104.000000	05/13/2014	Expended thru 04/30/2014: \$505K. Planned expenditures were \$484K. With contracts in place, the contractor has been able to move forward with work. Expenditures thru the month of April are back on track.	
769						87923	81.000000	04/14/2014	Expended thru 03/31/2014: \$357K. Planned expenditures were \$440K. We're still playing catch-up on work	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
769									with delayed contracts. expect to see an uptick in expenditures thru the month of April.	
									Expended thru 02/28/2014: \$294,282. Planned expenditures were 363,000. Unanticipated delays in contracting resulted in under execution. The Maintenance contract was awarded at the end of February. Expect to return to planned levels over the next two months.	
									na	
									Expenditures for maintenance contracts were below expected values. This resulted in a slightly lower than expected expenditure rate.	
									The end-of-November expenditure rate for CWMS was at 94% of the planned amount, which exceeds the 85% goal for this metric.	
									na	
									na	
									na	
									na	
									This was caused by delayed task orders. Remaining months planned expenditures have been updated.	
									April's expenditure rate was 105%. Expect to continue gaining ground as FY continues.	
									Will rebaseline expenditure plan for	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
									3rd & 4th QTR to account for delayed expenditure of FY 13 contracts.	
					769	48567	70.000000	02/28/2013	We will be rebaselining our expenditure plan in March to account for the delayed execution on our FY13 contracts.	
					769	44953	71.000000	01/31/2013	The FY12 projects are pretty much closed out now but our FY12 contract work is lagging so we continue to show a lower than planned expenditure rate even though our obligations are on the mark. We will be rebaselining our expenditure plan in February to account for the delayed execution on our FY13 contracts.	
					769	39409	71.000000	12/31/2012		
					769	36457	60.000000	11/30/2012	A few FY12 projects are still being closed out in November and into December, so our November expenditures were lower than expected. Adding the low November execution to the low October execution resulted in us once again missing our desired 85%+ execution goal. We expect to improve on our expenditure percentage in December as delayed FY12 projects close-out and FY13 projects pick-up.	
					769	35045	28.000000	10/31/2012	Several of the expected accruals from FY12 were not billed in October, which resulted in CWMS only expending 28% of its planned for October expenditures. We expect to improve on our expenditure percentage in November as late billings are processed.	
					769	29689	93.000000	09/30/2012	na	

Metrics Definitions and Actual Results Table D.2 / D.3										
Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					769	28893	89.000000	09/14/2012	na	
					769	28883	89.000000	08/17/2012	na	
					769	28403	87.000000	08/13/2012	na	
					769	24171	89.000000	07/01/2012	na	
					769	21457	88.000000	06/01/2012	na	
					769	16827	102.000000	05/01/2012	na	
					769	13323	90.000000	04/01/2012	null	
					769	2473	81.000000	03/01/2012	Our goal is to be within 15% of our planned for expenditures. We were within 19% of our target, or we missed our target by 4%. This miss is due to delayed contracting activities. We've made progress on our contracting activities and are looking to better meet our within 15% target over the next one to two month period	
768	Respond to CWMS Help Desk questions - both after-hour requests as well as business hour requests. Percent of Help Desk questions that were responded to in an appropriate amount of time.	Percent	1 - Customer Satisfaction (Process Results)	0.000000			Over target	Quarterly		Yes

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					Metric ID	Actual Result ID	Actual Result	Date of Actual Result	Comment	
					768	267730	99.000000	09/30/2015	CWMS HelpDesk requests were promptly responded too during the 4th quarter of FY15. Full attention by the CWMS Development team was focused on promptly addressing issues reported on by the CWMS v3 field testers.	
					768	225811	99.000000	06/30/2018	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix.	
					768	222162	99.000000	04/30/2018	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix.	
					768	217611	99.000000	01/31/2018	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix.	
					768	212604	99.000000	09/30/2017	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix.	
					768	212603	99.000000	10/31/2017	Prompt responses were provided to either resolve reported issues or to assure bugs were properly logged and scheduled for fix.	
					768	194222	99.000000	06/30/2017	Prompt responses were provide to either resolve reported issues or to assure bugs were properly logged and scheduled for fix. A CWMS v3.0.3 patch was released to the field in mid-May and deployed by the end of June.	
					768	187283	99.000000	03/31/2017	Prompt responses were provide to either resolve the reported issues or to assure bugs were properly logged	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					768	181894	99.000000	12/31/2016	and scheduled for fix. A CWMS v3.0.2 patch was released to the field in mid-December. CWMS v3.0.3 is on the cusps of release with the Release Candidate about to go out to early review offices in April.	
					768	175663	99.000000	10/31/2016	The use/implementation of CWMS v3.0 continues to grow as new CWMS models are deployed through the Nationwide CWMS Implementation push. The CWMS Development and Support team has been extra attentive to any issues reported from the field. Prompt responses were provide to either resolve the issue or to assure bugs were properly logged and scheduled for fix. A CWMS v3.0.2 patch was released to the field in mid-December.	
					768	171292	99.000000	06/30/2016	The use of CWMS v3.0 continues to grow as new CWMS models are deployed through the Nationwide CWMS Implementation push. The CWMS Development and Support team has been extra attentive to any issues reported from the field. Prompt responses were provide to either resolve the issue or to assure bugs were properly logged and scheduled for fix.	
					768	163440	99.000000	03/31/2016	With the release and deployment of CWMS v3.0, the CWMS Development and Support team has been extra attentive to any issues reported from the field. Prompt responses were provide to either resolve the issue or to assure bugs were properly logged and scheduled for fix.	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					768	156900	99.000000	12/31/2015	CWMS v3.0, the CWMS Development and Support team has been extra attentive to any issues reported from the field. Prompt responses were provide to either resolve the issue or to assure bugs were properly logged and scheduled for fix.	
					768	145269	95.000000	06/30/2015	With the release and deployment of CWMS v3.0, the CWMS Development and Support team were extra attentive to any issues reported from the field. Prompt responses were provide to either resolve the issue or to assure bugs were properly logged and scheduled for fix.	
					768	134491	95.000000	03/31/2015	CWMS HelpDesk requests were promptly responded too during the 3rd quarter of FY15. Only a few issues needed a second prompting from the field.	
					768	120795	95.000000	12/31/2014	CWMS HelpDesk Requests were promptly responded too during the month of Mar. Only a few issues needed a second prompting from the field.	
					768	110309	95.000000	09/30/2014	CWMS HelpDesk Requests were promptly responded too. Only a few issues needed a second prompting from the field.	
					768	99453	95.000000	07/15/2014	CWMS Helpdesk Requests were promptly responded too. Only a few issues needed a second prompting from the field.	

Metrics Definitions and Actual Results Table D.2 / D.3

Metric ID	Metric Description	Unit of Measure	Performance Measurement Category Mapping	Agency Baseline Capability	2020 Target	2021 Target	Measurement Condition	Reporting Frequency	Agency Strategic Objective / Agency Priority Goal	Is Metric Retired?
					768	87919	95.000000	04/14/2014	CWMS HelpDesk Requests were promptly responded too. Only a few issues needed a second prompting from the field.	
					768	77099	95.000000	01/15/2014	CWMS HelpDesk Requests were promptly responded too. Only a few issues needed a second prompting from the field.	
					768	68617	95.000000	09/30/2013	na	
					768	61129	95.000000	06/30/2013	na	
					768	53463	95.000000	03/31/2013	na	
					768	39407	95.000000	12/31/2012	na	
					768	29687	95.000000	09/30/2012	na	
					768	28401	100.000000	07/13/2012	na	
					768	21455	100.000000	06/01/2012	na	
					768	2471	99.000000	05/01/2012	na	