
SSO 700 Integrated Watershed Action Plan Progress Report No. 3 March 2015

PREPARED FOR: Metropolitan Sewer District of Greater Cincinnati
PREPARED BY: Frank Duran
DATE: April 8, 2015
PROJECT NUMBER: MSDGC: 11140010
CH2M HILL: 498759

Purpose: The purpose of this report is to document the progress of the SSO 700 Integrated Watershed Action Plan (IWAP) from the **February 28, 2015** through **March 27, 2015**. For each task, a summary of work performed during the reporting period and the work planned for the upcoming reporting period are presented. A discussion of the project schedule and outstanding project issues is also presented.

Overview: This third reporting period for the SSO 700 IWAP captures the execution of the first meeting with a political jurisdiction; the development and submission of the project management plan, QA/QC plan, and Risk Management Plan; the review and analysis of received data and submission of a draft Inventory and Gap Analysis Technical Memorandum; the analyses of the watershed and water quality models and the development and submission of the draft water quality model assessment technical memorandum; receipt of approval to move forward with development of the scopes of work and levels of effort for both the water quality sampling plan and the water quality model development; and the approval to move forward with validation of the hydraulic model using the data recommended by CH2M HILL. The project is on or ahead of schedule for all critical path tasks; however, a couple of non-critical tasks have lagged behind slightly. At this time, two issues remain from last month that have some potential to negatively affect project schedule or progress: (1) scheduling of meetings with political jurisdictions, and (2) agreement on the method of calibration for the collection system model.

Section 1 - Work Progress

This section summarizes project progress by CH2M HILL during the reporting period and identifies work planned for the upcoming reporting period by task as listed in the Contract scope of work. A log of project deliverables is attached at the end of this progress report.

Task 1.0: Project Administration

1.1 Project Management

Work completed during the reporting period:

- Submission of the draft Project Management Plan to MSDGC.
- Submission of February 2015 progress report.

Work planned for the upcoming reporting period:

- Finalization of the Project Management Plan with responses to MSDGC and County review comments.

- Submission of March 2015 progress report.

1.2 Project Meetings

Work completed during the reporting period:

- Political jurisdiction stakeholder meeting was held with City of Reading on March 18th.
- March progress meeting was held on March 19th.
- Submission of final meeting summary for March project progress meeting.
- Plans for meetings with political jurisdictions were developed.

Work planned for the upcoming reporting period:

- April progress meeting will be held on April 27th.
- Meeting with Sharonville officials scheduled for April 8th
- Additional meetings with political jurisdictions will be held.

1.3 Quality Assurance and Quality Control

Work completed during the reporting period:

- Submission of the draft QA/QC plan with the Project Management Plan to MSDGC.

Work planned for the upcoming reporting period:

- Finalization of QA/QC plan with the Project Management Plan with responses to MSDGC and County review comments.

1.4 Risk Management

Work completed during the reporting period:

- Submission of draft Risk Management Plan with the Project Management Plan to MSDGC.

Work planned for the upcoming reporting period:

- Finalization of the Risk Management Plan with the Project Management Plan with responses to MSDGC and County review comments.

1.5 Schedule

Work completed during the reporting period:

- Progress schedule was developed and submitted with the February progress report.

Work planned for the upcoming reporting period:

- Development of monthly progress schedule.

Task 2.0: Watershed and Source Characterization

2.1 Watershed Selection and Delineation

Work completed during the reporting period:

- Addressed review comments on study area boundary in draft Task 2.4 deliverable, *Inventory and Gap Analysis Technical Memorandum*.

Work planned for the upcoming reporting period:

- No further work is anticipated on this task.

2.2 Data Collection

Work completed during the reporting period:

- Miscellaneous data collection tasks were performed to collect remaining outstanding data and data identified at the March 19th progress meeting.

Work planned for the upcoming reporting period:

- No further work is anticipated on this task other than perhaps some remaining miscellaneous data collection efforts. Task is essentially complete.

2.3 Site Visits

Work completed during the reporting period:

- Completion of two site visits:
 - March 11th site visit to SSO 700 Storage and Treatment Facility.
 - March 26th general site visit to locations of interest within study area.

Work planned for the upcoming reporting period:

- Completion of draft *Watershed Site Conditions Technical Memorandum*.

2.4 Inventory and Gap Analysis

Work completed during the reporting period:

- Completion and submission of draft *Inventory and Gap Analysis Technical Memorandum* on March 9th.
- Presentation of technical memorandum findings at March 19th progress meeting.

Work planned for the upcoming reporting period:

- Revisions to technical memorandum per comments received.

2.5 Water Quality Data Collection Program – Optional Task

Work completed during the reporting period:

- Received authorization to proceed with development of the Water Quality Data Collection Program scope of work and level of effort.

Work planned for the upcoming reporting period:

- Develop and submit detailed scope of work and level of effort for Water Quality Data Collection Program to support the development of water quality model(s).

2.6 Watershed Water Quality Models Update & Development

Work completed during the reporting period:

- Completion and submission of preliminary draft *Watershed Water Quality Models Gap Analysis and Update Assessment Technical Memorandum*.
- Presentation of proposed water quality modeling framework at water quality meeting held on March 19th.
- Received authorization to develop level of effort and detailed scope of work for the development of water quality model(s) to support the IWAP.

Work planned for the upcoming reporting period:

- Revise technical memorandum per comments received from MSDGC and Hamilton County.
- Develop and submit detailed scope of work and level of effort for development of water quality model(s) to support the IWAP.

2.7 Hydraulic Model Update & Development

Work completed during the reporting period:

- Meeting with representatives of MSDGC and Hamilton County on March 9th to discuss the recommended validation periods and the calibration method recommended to be utilized in metersheds that do not meet current MSDGC calibration modeling standards.
- Received approval from MSDGC and Hamilton County to proceed with model validation using the recommended validation periods.
- Completed model validation runs and began development of the *Watershed Collection System Hydraulic Models Gap Analysis and Update Assessment Technical Memorandum*.

Work planned for the upcoming reporting period:

- Complete and submit a preliminary draft of the *Watershed Collection System Hydraulic Models Gap Analysis and Update Assessment Technical Memorandum*.
- Seek and receive authorization to prepare detailed scope of work and level of effort to recalibrate the hydraulic model.
- Achieve agreement among the project team members on the method of model calibration for this project.

Task 3.0: Identify Pollution Sources & Use Tools to Evaluate Collection System Response & Waterway Response

This task shall be funded and authorized through a task order modification.

Task 4.0: Summary Report

This task shall be funded and authorized through a task order modification.

Section 2 - Schedule

Attached to this progress report are three schedules representing the progress of the IWAP. The first schedule presents only the progress of the critical path tasks. The second schedule presents a high level overview of all the project tasks. The third schedule presents the latest project schedule by each detailed task with the progress of the work by task shown versus the baseline schedule.

The critical path tasks are currently on schedule; however, the schedule for a few non-critical path tasks have been adjusted in response to the scheduling of the meetings with political jurisdictions. Political jurisdiction meetings are estimated to be completed by May 23rd. The political jurisdiction meetings are a predecessor to the completion of the Task 2.4 deliverable, *Data Inventory and Gap Analysis Technical Memorandum*, which is now estimated to be completed at this same time. This adjustment does not affect the critical path, which remains focused on the water quality data collection program and development of the updated water quality model.

Section 3 – Project Issues

Two project issues continue to have the potential to impede project progress and negatively impact project schedule:

1. Scheduling of meetings with political jurisdictions
2. Agreement on the calibration method for the collection system model

Scheduling of the meetings with political jurisdictions has begun and must be persistently pursued to achieve project goals. Discussions amongst the project team, MSDGC, and Hamilton County on the model calibration method have begun. A final decision has been postponed pending the outcome of the model validation. However, agreement on an approach will need to be made quickly once validation results are reported to maintain the project schedule.

No other project issues have been identified at this time.



**MSDGC-Hamilton County
SSO 700 IWAP
Project Nos. 11140010 , 498759**



Project Deliverable Log as of 4/8/2015

TASK NO.	TASK NAME	DELIVERABLE TYPE	DELIVERABLE NAME	ORIGINAL SUBMITTED DATE	STATUS	FINAL VERSION DATE	COMMENT
Task 1 - Project Administration							
1.1	Project Management	Major Submittal	Schedule	Baseline Schedule	1/15/2015	Final	2/2/2015
1.1	Project Management	Informational	Progress Report and Schedule	Progress Report No. 1, January 2015	2/5/2015	Final	2/5/2015 Format of progress report accepted by MSDGC.
1.1	Project Management	Informational	Progress Report and Schedule	Progress Report No. 2, February 2015	3/18/2015	Final	3/18/2015
1.1	Project Management	Major Submittal	Plan	Project Management Plan, including Quality Control Document and Risk Register	3/5/2015	Final	4/3/2015 To be updated only as warranted after first draft is approved.
1.2	Project Meetings	Informational	Meeting Summary	Chartering Meeting Summary 12/17/2014	1/6/2015	Final	1/6/2015
1.2	Project Meetings	Informational	Meeting Summary	Steering Committee Meeting Summary 2/11/2015	2/16/2015	Final	2/16/2015 To be distributed to Steering Committee Members by Karen Ball or Dave Meyer.
1.2	Project Meetings	Minor Submittal	Charter	Project Charter	2/19/2015	Final	4/3/2015
1.2	Project Meetings	Informational	Meeting Summary	Progress Meeting Summary 2/19/2015	2/24/2015	Final	2/24/2015
1.2	Project Meetings	Informational	Meeting Summary	Progress Meeting Summary 3/19/2015	3/30/2015	Final	3/30/2015
1.2	Jurisdictional Meetings	Informational	Meeting Summary	City of Reading Meeting Summary 3/18/2015	4/2/2015	Submitted for review	
1.3	Quality Assurance and Quality Control	Major Submittal	Plan	Quality Control Document (included as part of PMP)	3/5/2015	Final	4/3/2015
1.4	Risk Management	Major Submittal	Plan	Risk Management Plan (Risk Register), (included as part of PMP)	3/5/2015	Final	4/3/2015 Risk register to be discussed at 3/19 progress meeting.
Task 2 - Watershed and Source Characterization							
2.1	Watershed Selection and Delineation	Major Submittal	Shapefile	SSO700_IWAP_StudyAreaBoundary.shp	1/30/2015	Final	1/30/2015
2.1	Watershed Selection and Delineation	Major Submittal	Shapefile	EBMC_Sewershed.shp	1/30/2015	Final	1/30/2015
2.1	Watershed Selection and Delineation	Major Submittal	Shapefile	EBMC_Watershed.shp	1/30/2015	Final	1/30/2015 May be further refined based on additional storm data received.
2.1	Watershed Selection and Delineation	Informational	Technical Memorandum	SSO 700 Integrated Watershed Action Plan Study Area Boundary Development	1/30/2015	Final	1/30/2015 Unofficial submittal; to be included with Data Inventory TM; comments received to be included with Data Inventory TM
2.2	Data Collection	Major Submittal	Technical Memorandum	SSO 700 Watershed Data Request	8/26/2014	Updated as required	Latest version 12/12/2014
2.3	Site Visits		Technical Memorandum	Watershed Site Conditions			
2.4	Inventory and Gap Analysis	Informational	Technical Memorandum Draft Outline	Inventory and Gap Analysis Draft Outline	2/10/2015	Comments Received	NA Comments will be addressed in draft Tech Memo
2.4	Inventory and Gap Analysis	Major Submittal	Technical Memorandum	Inventory and Gap Analysis	draft 3/9/2015	Updating per comments received; awaiting completion of jurisdictional meetings.	
2.5	<i>Water Quality Data Collection Program (OPTIONAL TASK)</i>		<i>Task Scope</i>	<i>Detailed scope of work to be submitted after completion of Task 2.4</i>			
2.6.1	Existing Watershed Water Quality Models Assessment	Informational	Technical Memorandum Draft Outline	Watershed Water Quality Models Gap Analysis and Update Assessment Draft Outline	2/10/2015	Comments Received	NA Comments will be addressed in draft Tech Memo
2.6.1	Existing Watershed Water Quality Models Assessment	Major Submittal	Technical Memorandum	Watershed Water Quality Models Gap Analysis and Update Assessment	draft 3/12/2015	Awaiting Comments by 4/10	
2.6.1	Existing Watershed Water Quality Models Assessment	Informational	Meeting Summary	Meeting Summary for Water Quality Framework Meeting 3/19/2015	3/30/2015	Final	3/30/2015
2.6.2	Watershed Water Quality Models Development		<i>Task Scope and Level of Effort</i>	<i>Detailed scope of work and estimated level of effort</i>			
2.7.1	Existing Hydraulic Model Assessment	Informational	Meeting Summary	Meeting Summary for Model Validation and Calibration Meeting 1/13/2015	1/20/2015	Final	1/20/2015
2.7.1	Existing Hydraulic Model Assessment	Informational	Technical Memorandum Draft Outline	Watershed Collection System Hydraulic Models Gap Analysis and Update Assessment Draft Outline	2/10/2015	Comments Received	NA Comments will be addressed in draft Tech Memo
2.7.1	Existing Hydraulic Model Assessment	Minor Submittal	Technical Memorandum	Hydraulic Model Validation Period Selection	2/27/2015	Final	2/27/2015 Comments will be addressed in Watershed Collection System Hydraulic Models Gap Analysis and Update Assessment TM. Approval to proceed with model validation received on 3/9/2015.
2.7.1	Existing Hydraulic Model Assessment	Informational	Meeting Summary	Meeting Summary for Model Calibration Meeting 3/9/2015	3/16/2015	Final	3/16/2015
2.7.1	Existing Hydraulic Model Assessment		Technical Memorandum	Watershed Collection System Hydraulic Models Gap Analysis and Update Assessment	4/20/2015		
2.7.2	Hydraulic Model Development		<i>Task Scope and Level of Effort</i>	<i>Detailed scope of work and estimated level of effort</i>			
2.7.3	<i>Flow Monitoring Data Collection Program (OPTIONAL TASK)</i>		<i>Task Scope and Level of Effort</i>	<i>Detailed scope of work and level of effort - if required</i>			

Activity ID	Activity Name	Remaining Duration	Start	Finish	2015				2016				2017				2018				
					Q4	Q1	Q2	Q3	Q4												
498759	SSO 700 Watershed Integrated Watershed Action Plan	1191	20-Mar-15	29-Jun-18																	
498759.2	Watershed and Source Characterization	251	20-Mar-15	02-Dec-15																	
498759.2.5	Water Quality Data Collection Program	206	20-Mar-15	18-Oct-15																	
A2100	Develop and Submit WQ Data Collection Program Scope and LOE	22	20-Mar-15	17-Apr-15																	
A2110	MSDGC/County Authorize WQ data Collection Program	10	27-Apr-15	06-May-15																	
A2120	Obtain WQ Data	165	07-May-15	18-Oct-15																	
498759.2.6	Watershed Water Quality Model Development	140	16-Jul-15	02-Dec-15																	
A2180	Develop Updated WQ Model	140	16-Jul-15	02-Dec-15																	
498759.3	Identify Pollution Sources and Evaluate System Resonse	60	03-Dec-15	31-Jan-16																	
A3000	Identify Pollution Sources and Evaluate System Response	60	03-Dec-15	31-Jan-16																	
498759.5	Prepare Draft Integrated Watershed Action Plan	515	01-Feb-16	29-Jun-17																	
A4550	Potential Projects Identification and Selection	300	01-Feb-16	26-Nov-16																	
A4570	Final Project Suite Selection	120	27-Nov-16	26-Mar-17																	
A4580	Finalize Plan and Seek BOCC Approval	90	27-Mar-17	24-Jun-17																	
A5410	Submittal to Regulators	5	25-Jun-17	29-Jun-17																	
498759.6	Regulatory Review and Approval	365	30-Jun-17	29-Jun-18																	
A5420	Regulatory Review and Approval	365	30-Jun-17	29-Jun-18																	

▬ Primary Baseline
 Remaining Work
 ◆ Milestone
 ◆ Milestone
 ▬ Critical Remaining Work
 ▾ Summary
 Actual Work

TASK filter: Critical.

Activity ID	Activity Name	2015					2016				2017				2018			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
498759 SSO 700 Watershed Integrated Watershed Action Plan		[Summary bar spanning all quarters from 2015 Q4 to 2018 Q3]																
498759.1 Project Administration		[Summary bar spanning 2015 Q4 to 2016 Q4]																
498759.1.1 Project Management		[Actual work bar in 2015 Q4]																
498759.1.2 Project Meetings		[Summary bar spanning 2015 Q4 to 2016 Q4]																
498759.1.2.0 Kickoff Meeting		[Actual work bar in 2015 Q4]																
498759.1.2.1 Monthly Status Meetings		[Actual work bars in 2015 Q1-Q4]																
498759.1.2.2 Jurisdictional Meetings		[Actual work bars in 2015 Q2-Q3]																
498759.1.2.3 Stakeholder Steering Committee Meeting		[Actual work bars in 2015 Q1, Q2, Q3, Q4]																
498759.1.2.4 Regulatory Meetings		[Actual work bars in 2015 Q2, Q3, Q4]																
498759.1.3 QA/QC		[Actual work bars in 2015 Q4]																
498759.1.4 Risk Management		[Actual work bars in 2015 Q4]																
498759.2 Watershed and Source Characterization		[Summary bar spanning 2015 Q4 to 2016 Q4]																
498759.2.1 Watershed Selection and Delineation		[Actual work bars in 2015 Q4]																
498759.2.2 Data Collection		[Actual work bars in 2015 Q4]																
498759.2.3 Site Visits		[Actual work bars in 2015 Q2]																
498759.2.4 Inventory and Gap Analysis		[Actual work bars in 2015 Q1]																
498759.2.5 Water Quality Data Collection Program		[Actual work bars in 2015 Q1-Q2]																
498759.2.6 Watershed Water Quality Model Development		[Actual work bars in 2015 Q1-Q2]																
498759.2.7 Watershed Hydraulic Model Development		[Actual work bars in 2015 Q1-Q2]																
498759.3 Identify Pollution Sources and Evaluate System Resonse		[Actual work bars in 2015 Q4]																
498759.4 Summary Report		[Actual work bars in 2016 Q1]																
498759.5 Prepare Draft Integrated Watershed Action Plan		[Summary bar spanning 2016 Q1 to 2017 Q4]																
A4560	Cost Estimating	[Actual work bar in 2016 Q1]																
A4550	Potential Projects Identification and Selection	[Actual work bar in 2016 Q1]																
A4570	Final Project Suite Selection	[Actual work bar in 2016 Q2]																
A4580	Finalize Plan and Seek BOCC Approval	[Actual work bar in 2016 Q3]																
A5410	Submittal to Regulators	[Actual work bar in 2016 Q4]																
498759.6 Regulatory Review and Approval		[Summary bar spanning 2017 Q1 to 2018 Q2]																

Activity ID	Activity Name	Physical % Complete	Remaining Duration	Start	Finish	Predecessors	Total Float	2015												2016			
								Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
498759	SSO 700 Watershed Integrated Watershed Action Plan		1191	09-Dec-14 A	29-Jun-18		0	[Gantt bar for 498759]															
498759.1	Project Administration		329	09-Dec-14 A	01-Mar-16		850	[Gantt bar for 498759.1]															
498759.1.1	Project Management		0	18-Dec-14 A	03-Apr-15 A			[Gantt bar for 498759.1.1]															
A1000	Develop and Submit Project Management Plan	100%	0	18-Dec-14 A	05-Mar-15 A	A1030, A1060, A1100		[Task bar for A1000]															
A1010	MSDGC/County Review of PMP	100%	0	05-Mar-15 A	16-Mar-15 A	A1000		[Task bar for A1010]															
A1020	Finish and Submit PMP	100%	0	17-Mar-15 A	03-Apr-15 A	A1010, A1050, A1080		[Task bar for A1020]															
498759.1.2	Project Meetings		329	09-Dec-14 A	01-Mar-16		850	[Gantt bar for 498759.1.2]															
498759.1.2.0	Kickoff Meeting		0	09-Dec-14 A	05-Jan-15 A			[Gantt bar for 498759.1.2.0]															
A1100	Kickoff Meeting	100%	0	09-Dec-14 A	09-Dec-14 A			[Task bar for A1100]															
A1110	Prepare and Submit Meeting Summary	100%	0	18-Dec-14 A	24-Dec-14 A	A1100		[Task bar for A1110]															
A1120	MSDGC/County Review Meeting Summary	100%	0	25-Dec-14 A	31-Dec-14 A	A1110		[Task bar for A1120]															
A1130	Finish and Submit Meeting Summary	100%	0	01-Jan-15 A	05-Jan-15 A	A1120		[Task bar for A1130]															
498759.1.2.1	Monthly Status Meetings		295	19-Feb-15 A	15-Feb-16		865	[Gantt bar for 498759.1.2.1]															
498759.1.2.1.2	Feb 2015		0	19-Feb-15 A	06-Mar-15 A			[Gantt bar for 498759.1.2.1.2]															
A4070	Meeting	100%	0	19-Feb-15 A	19-Feb-15 A			[Task bar for A4070]															
A4080	Prepare and Submit Meeting Summary	100%	0	20-Feb-15 A	24-Feb-15 A	A4070		[Task bar for A4080]															
A4090	MSDGC/County Review Meeting Summary	100%	0	24-Feb-15 A	06-Mar-15 A	A4080		[Task bar for A4090]															
A4100	Finish and Submit Meeting Summary	100%	0	06-Mar-15 A	06-Mar-15 A	A4090		[Task bar for A4100]															
498759.1.2.1.3	Mar 2015		0	19-Mar-15 A	07-Apr-15 A			[Gantt bar for 498759.1.2.1.3]															
A4110	Meeting	100%	0	19-Mar-15 A	19-Mar-15 A			[Task bar for A4110]															
A4120	Prepare and Submit Meeting Summary	100%	0	20-Mar-15 A	26-Mar-15 A	A4110		[Task bar for A4120]															
A4130	MSDGC/County Review Meeting Summary	100%	0	27-Mar-15 A	02-Apr-15 A	A4120		[Task bar for A4130]															
A4140	Finish and Submit Meeting Summary	100%	0	03-Apr-15 A	07-Apr-15 A	A4130		[Task bar for A4140]															
498759.1.2.1.4	Apr 2015		20	27-Apr-15	16-May-15		1140	[Gantt bar for 498759.1.2.1.4]															
A4150	Meeting	0%	1	27-Apr-15*	27-Apr-15		3	[Task bar for A4150]															
A4160	Prepare and Submit Meeting Summary	0%	7	28-Apr-15	04-May-15	A4150	1140	[Task bar for A4160]															
A4170	MSDGC/County Review Meeting Summary	0%	7	05-May-15	11-May-15	A4160	1140	[Task bar for A4170]															
A4180	Finish and Submit Meeting Summary	0%	5	12-May-15	16-May-15	A4170	1140	[Task bar for A4180]															
498759.1.2.1.5	May 2015		20	27-May-15	15-Jun-15		1110	[Gantt bar for 498759.1.2.1.5]															
A4190	Meeting - Date TBD	0%	1	27-May-15*	27-May-15		1110	[Task bar for A4190]															
A4200	Prepare and Submit Meeting Summary	0%	7	28-May-15	03-Jun-15	A4190	1110	[Task bar for A4200]															
A4210	MSDGC/County Review Meeting Summary	0%	7	04-Jun-15	10-Jun-15	A4200	1110	[Task bar for A4210]															
A4220	Finish and Submit Meeting Summary	0%	5	11-Jun-15	15-Jun-15	A4210	1110	[Task bar for A4220]															
498759.1.2.1.6	June 2015		20	24-Jun-15	13-Jul-15		1082	[Gantt bar for 498759.1.2.1.6]															
A4230	Meeting - Date TBD	0%	1	24-Jun-15*	24-Jun-15		1082	[Task bar for A4230]															
A4240	Prepare and Submit Meeting Summary	0%	7	25-Jun-15	01-Jul-15	A4230	1082	[Task bar for A4240]															
A4250	MSDGC/County Review Meeting Summary	0%	7	02-Jul-15	08-Jul-15	A4240	1082	[Task bar for A4250]															
A4260	Finish and Submit Meeting Summary	0%	5	09-Jul-15	13-Jul-15	A4250	1082	[Task bar for A4260]															
498759.1.2.1.7	July 2015		20	22-Jul-15	10-Aug-15		1054	[Gantt bar for 498759.1.2.1.7]															
A4270	Meeting - Date TBD	0%	1	22-Jul-15*	22-Jul-15		1054	[Task bar for A4270]															
A4280	Prepare and Submit Meeting Summary	0%	7	23-Jul-15	29-Jul-15	A4270	1054	[Task bar for A4280]															
A4290	MSDGC/County Review Meeting Summary	0%	7	30-Jul-15	05-Aug-15	A4280	1054	[Task bar for A4290]															
A4300	Finish and Submit Meeting Summary	0%	5	06-Aug-15	10-Aug-15	A4290	1054	[Task bar for A4300]															
498759.1.2.1.8	Aug 2015		20	26-Aug-15	14-Sep-15		1019	[Gantt bar for 498759.1.2.1.8]															
A4310	Meeting - Date TBD	0%	1	26-Aug-15*	26-Aug-15		1019	[Task bar for A4310]															
A4320	Prepare and Submit Meeting Summary	0%	7	27-Aug-15	02-Sep-15	A4310	1019	[Task bar for A4320]															
A4330	MSDGC/County Review Meeting Summary	0%	7	03-Sep-15	09-Sep-15	A4320	1019	[Task bar for A4330]															
A4340	Finish and Submit Meeting Summary	0%	5	10-Sep-15	14-Sep-15	A4330	1019	[Task bar for A4340]															
498759.1.2.1.9	Sep 2015		20	23-Sep-15	12-Oct-15		991	[Gantt bar for 498759.1.2.1.9]															
A4350	Meeting - Date TBD	0%	1	23-Sep-15*	23-Sep-15		991	[Task bar for A4350]															
A4360	Prepare and Submit Meeting Summary	0%	7	24-Sep-15	30-Sep-15	A4350	991	[Task bar for A4360]															
A4370	MSDGC/County Review Meeting Summary	0%	7	01-Oct-15	07-Oct-15	A4360	991	[Task bar for A4370]															
A4380	Finish and Submit Meeting Summary	0%	5	08-Oct-15	12-Oct-15	A4370	991	[Task bar for A4380]															
498759.1.2.1.10	Oct 2015		20	28-Oct-15	16-Nov-15		956	[Gantt bar for 498759.1.2.1.10]															
A4390	Meeting - Date TBD	0%	1	28-Oct-15*	28-Oct-15		956	[Task bar for A4390]															
A4400	Prepare and Submit Meeting Summary	0%	7	29-Oct-15	04-Nov-15	A4390	956	[Task bar for A4400]															
A4410	MSDGC/County Review Meeting Summary	0%	7	05-Nov-15	11-Nov-15	A4400	956	[Task bar for A4410]															
A4420	Finish and Submit Meeting Summary	0%	5	12-Nov-15	16-Nov-15	A4410	956	[Task bar for A4420]															

█ Actual Work █ Critical Remaining Work Summary
█ Remaining Work ◆ Milestone Primary Baseline

TASK filter: All Activities
WBS-Phase1 Focused

Activity ID	Activity Name	Physical % Complete	Remaining Duration	Start	Finish	Predecessors	Total Float	2015												2016			
								Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
498759.1.4 Risk Management								498759.1.4 Risk Management															
A1060	Develop and Submit Risk Management Plan	100%	0	18-Dec-14 A	03-Apr-15 A	A1100		Develop and Submit Risk Management Plan															
A1070	MSDGC/County Review of RMP	100%	0	05-Mar-15 A	26-Mar-15 A	A1060		MSDGC/County Review of RMP															
A1080	Finish and Submit RMP	100%	0	26-Mar-15 A	03-Apr-15 A	A1070		Finish and Submit RMP															
498759.2 Watershed and Source Characterization								498759.2 Watershed and Source Characterization															
498759.2.1 Watershed Selection and Delineation								498759.2.1 Watershed Selection and Delineation															
A2000	Develop and Submit GIS File of Study Area Boundary	100%	0	12-Jan-15 A	30-Jan-15 A	A2040		Develop and Submit GIS File of Study Area Boundary															
A2010	MSDGC/County Review of Study Area Boundary	100%	0	30-Jan-15 A	24-Feb-15 A	A2000		MSDGC/County Review of Study Area Boundary															
A2020	Finish and Submit Study Area Boundary	100%	0	24-Feb-15 A	09-Mar-15 A	A2010		Finish and Submit Study Area Boundary															
498759.2.2 Data Collection								498759.2.2 Data Collection															
A2030	Develop and Submit Data Request Memo	100%	0	09-Dec-14 A	12-Dec-14 A			Develop and Submit Data Request Memo															
A2040	Receive Requested Data from MSDGC	100%	0	13-Dec-14 A	26-Jan-15 A	A2030		Receive Requested Data from MSDGC															
A2050	Develop SP Library of Received Data	100%	0	27-Jan-15 A	27-Feb-15 A	A2040		Develop SP Library of Received Data															
498759.2.3 Site Visits								498759.2.3 Site Visits															
A2060	Visit Watershed Area and Submit Technical Memo	75%	22	11-Mar-15 A	17-Apr-15		20	Visit Watershed Area and Submit Technical Memo															
A5310	MSDGC/County Review of Watershed Conditions TM	0%	10	18-Apr-15	27-Apr-15	A2060	72	MSDGC/County Review of Watershed Conditions TM															
A5320	Finish and Submit Watershed Conditions TM	0%	7	28-Apr-15	04-May-15	A5310	72	Finish and Submit Watershed Conditions TM															
498759.2.4 Inventory and Gap Analysis								498759.2.4 Inventory and Gap Analysis															
A2070	Develop and Submit Data Inventory TM	85%	5	18-Feb-15 A	05-May-15	A2000, A2040, A4950	54	Develop and Submit Data Inventory TM															
A2080	MSDGC/County Review of Data Inventory TM	0%	10	06-May-15	15-May-15	A2070	54	MSDGC/County Review of Data Inventory TM															
A2090	Finish and Submit Data Inventory TM	0%	7	16-May-15	22-May-15	A2080	54	Finish and Submit Data Inventory TM															
498759.2.5 Water Quality Data Collection Program								498759.2.5 Water Quality Data Collection Program															
A2100	Develop and Submit WQ Data Collection Program Scope and LOE	50%	22	20-Mar-15 A	17-Apr-15	A2130	0	Develop and Submit WQ Data Collection Program Scope and LOE															
A2110	MSDGC/County Authorize WQ data Collection Program	0%	10	27-Apr-15	06-May-15	A2100	0	MSDGC/County Authorize WQ data Collection Program															
A2120	Obtain WQ Data	0%	165	07-May-15	18-Oct-15	A2110	0	Obtain WQ Data															
498759.2.6 Watershed Water Quality Model Development								498759.2.6 Watershed Water Quality Model Development															
A2125	Receive Water Quality Data from MSDGC	100%	0	23-Jan-15 A	06-Feb-15 A			Receive Water Quality Data from MSDGC															
A2130	Develop and Submit Draft WQ Model Assessment TM	100%	0	07-Feb-15 A	12-Mar-15 A	A2125, A2040		Develop and Submit Draft WQ Model Assessment TM															
A2160	Submit WQ Model Update Plan and LOE	50%	22	20-Mar-15 A	17-Apr-15	A2130	79	Submit WQ Model Update Plan and LOE															
A2170	MSDGC/County Approve WQ Model Plan	0%	10	18-Apr-15	27-Apr-15	A2160	79	MSDGC/County Approve WQ Model Plan															
A2135	Develop and Submit Final Draft WQ Model Assessment TM	0%	36	26-Mar-15 A	01-May-15	A2130, A2060, A4590	58	Develop and Submit Final Draft WQ Model Assessment TM															
A2140	MSDGC/County Review of WQ Model Assessment TM	0%	10	02-May-15	11-May-15	A2130, A2135	58	MSDGC/County Review of WQ Model Assessment TM															
A2150	Finish and Submit WQ Model Assessment TM	0%	7	12-May-15	18-May-15	A2140	58	Finish and Submit WQ Model Assessment TM															
A2180	Develop Updated WQ Model	0%	140	16-Jul-15	02-Dec-15	A2170, A2120, A2240,	0	Develop Updated WQ Model															
498759.2.7 Watershed Hydraulic Model Development								498759.2.7 Watershed Hydraulic Model Development															
498759.2.7.1 Watershed Hydraulic Model Assessment								498759.2.7.1 Watershed Hydraulic Model Assessment															
498759.2.7.1.1 Watershed Hydraulic Model Assessment								498759.2.7.1.1 Watershed Hydraulic Model Assessment															
A2190	Develop and Submit Draft Hydraulic Model Assessment TM	75%	25	27-Jan-15 A	20-Apr-15	A2040	13	Develop and Submit Draft Hydraulic Model Assessment TM															
A2195	Develop and Submit Final Draft Hydraulic Model Assessment TM	0%	11	21-Apr-15	01-May-15	A2190, A2060	13	Develop and Submit Final Draft Hydraulic Model Assessment TM															
A2200	MSDGC/County Review of Hydraulic Model Assessment TM	0%	10	02-May-15	11-May-15	A2190, A2195	13	MSDGC/County Review of Hydraulic Model Assessment TM															
A2210	Finish and Submit Hydraulic Model Assessment TM	0%	7	12-May-15	18-May-15	A2200	13	Finish and Submit Hydraulic Model Assessment TM															
A2220	Submit Hydraulic Model Update Plan and LOE	0%	21	28-Apr-15	18-May-15	A4150	3	Submit Hydraulic Model Update Plan and LOE															
A2230	MSDGC/County Approve Hydraulic Model Plan	0%	10	19-May-15	28-May-15	A2220	3	MSDGC/County Approve Hydraulic Model Plan															
A2240	Develop Updated Hydraulic Model	0%	140	29-May-15	15-Oct-15	A2230, A2260, A2270,	3	Develop Updated Hydraulic Model															
498759.2.7.3 Flow Monitoring Program								498759.2.7.3 Flow Monitoring Program															
A2250	Submit Flow Monitoring Program Scope and LOE	0%	30	19-Apr-15	18-May-15	A2220	6	Submit Flow Monitoring Program Scope and LOE															
A2260	MSDGC/County Authorize Flow Monitoring Program	0%	7	19-May-15	25-May-15	A2250	6	MSDGC/County Authorize Flow Monitoring Program															
A2270	Obtain Flow Monitoring Data	0%	90	26-May-15	23-Aug-15	A2260	26	Obtain Flow Monitoring Data															
498759.3 Identify Pollution Sources and Evaluate System Resonse								498759.3 Identify Pollution															
A3000	Identify Pollution Sources and Evaluate System Response	0%	60	03-Dec-15	31-Jan-16	A2240, A2180	0	Identify Pollution Sources															
498759.4 Summary Report								498759.4 Sur															
A4000	Develop and Submit Draft Summary Report	0%	30	17-Jan-16	15-Feb-16	A3000	848	Develop and Submit															
A4010	MSDGC/County Review of Summary Report	0%	10	16-Feb-16	25-Feb-16	A4000	848	MSDGC/County															
A4020	Finish and Submit Final Summary Report	0%	7	26-Feb-16	03-Mar-16	A4010	848	Finish and Su															
498759.5 Prepare Draft Integrated Watershed Action Plan																							
A4560	Cost Estimating	0%	270	01-Feb-16	27-Oct-16	A3000	30																
A4550	Potential Projects Identification and Selection	0%	300	01-Feb-16	26-Nov-16	A3000	0																

█ Actual Work █ Critical Remaining Work Summary
█ Remaining Work ◆ Milestone Primary Baseline

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WBS-Phase1 Focused

Activity ID	Activity Name	Physical % Complete	Remaining Duration	Start	Finish	Predecessors	Total Float	2015												2016			
								Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
A4570	Final Project Suite Selection	0%	120	27-Nov-16	26-Mar-17	A4550, A4560	0																
A4580	Finalize Plan and Seek BOCC Approval	0%	90	27-Mar-17	24-Jun-17	A4570	0																
A5410	Submittal to Regulators	0%	5	25-Jun-17	29-Jun-17	A4580	0																
498759.6	Regulatory Review and Approval		365	30-Jun-17	29-Jun-18		0																
A5420	Regulatory Review and Approval	0%	365	30-Jun-17	29-Jun-18	A5410	0																

█ Actual Work
 █ Critical Remaining Work
 ▼ Summary
█ Remaining Work
 ◆ Milestone
 — Primary Baseline