

## ATTACHMENT 7

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### 7.0 SCHEDULE

Attachment 5 Work Plan, outlines the work tasks for the proposed projects. The project schedule for the development of the GWMP is anticipated to be 18-months in duration. The GWRFS is expected to require approximately 14-months to complete. The GWRFS will be completed shortly before the GWMP. The hydrologic tools developed for the GWRFS will be used in preparation of the GWMP. In order to meet grant schedule requirements, Project 1 is assumed to begin in June 2013 and be completed in December 2014 in accordance with schedule outlined in the Table 3. Project 2 is assumed to begin in June 2013 and be completed in August 2014 as shown in Table 4. The tables present the technical analysis and the development and implementation of the Plan. A general project schedule of tasks is presented below.

#### 7.1. Project 1

##### 7.1.1. Task 1 –Administrative Requirements of Ground Water Management Plan Process

The purpose of this task is to provide support to the project participants to satisfy the administrative requirements for completing an SB 1938-compliant Plan.

*Estimated Time Frame: June 1, 2013 – August 31, 2013*

##### 7.1.2. Task 2 – Public Outreach and Stakeholder Involvement

This task includes activities associated with the public outreach and stakeholder involvement process, such as communication with Stakeholders and other interested parties. This will include six scheduled meetings with the Banning Storage Unit GWAC to report on project progress, review of project deliverables, and receipt of comments on the plan development and interim deliverables.

*Estimated Time Frame: June 1, 2013 – December 31, 2014*

##### 7.1.3. Task 3 – Identify Ground Water Issues and Develop Basin Management Objectives

The purpose of this task is to identify the ground water management issues within the project location and develop BMOs that identify the ground water management activities that are linked to each BMO.

*Estimated Time Frame: July 1, 2013 – January 31, 2014*

#### 7.1.4. Task 4 – Prepare Ground Water Management Plan

A draft and final version of the GWMP will be completed as part of this task. The draft document will be distributed to the project participants, Stakeholders, and DWR for review and comment. The final document will be prepared, based on information collected on the draft document.

*Estimated Time Frame: January 1, 2014 – December 31, 2014*

#### 7.1.5. Task 5 – Technical Review – QA/QC

This task includes an independent technical review by the members of the consulting team and city staff experienced in ground water management, but not directly involved in the development of this GWMP. This internal QA/QC will provide additional review and expertise to the project to ensure it meets the expectations of the local project participants and Stakeholders, provides a vision and framework for the implementation of ground water management in the storage units, and meets the requirements for SB 1938.

*Estimated Time Frame: January 1, 2014 – January 31, 2014 and November 1, 2014 - November 31, 2014*

#### 7.1.6. Task 6 – Project Management

This task includes general project management and coordination during the development of the GWMP.

*Estimated Time Frame: June 1, 2013 – December 31, 2014*

## 7.2. Project 2

### 7.2.1. Task 1 – Administrative Requirements of Ground Water Recharge Feasibility Study

The purpose of this task is to provide support, reporting, and coordination for disseminating information, soliciting and reviewing responses, and communicating with the consultant, DWR, and Banning Storage Unit GWAC throughout the project.

*Estimated Time Frame: June 1, 2013 – August 15, 2014*

#### 7.2.2. Task 2 - Supporting Document Review - Background Data Collection, Review and Database Update

Review all relevant background reports, data, well logs, geophysical borehole logs (i.e. "E logs"), geologic maps, hydrologic maps, geophysical surveys conducted in the area will be conducted as well as an update to the current geohydrologic database.

*Estimated Time Frame: June 1, 2013 – August 31, 2013*

#### 7.2.3. Task 3 - Analyze Potential Storm Flow Capture, Recycled Water, and Imported Water Volumes

Analysis of potential storm water flow, recycled water, and imported water volumes to the project area.

*Estimated Time Frame: July 1, 2013 – September 31, 2013*

#### 7.2.4. Task 4 - Construct "Basemap" of Project Area

Construct a "working" basemap showing area of interest, known wells, faults and other relevant features.

*Estimated Time Frame: July 1, 2013 – September 15, 2013*

#### 7.2.5. Task 5 - Field Reconnaissance

Conduct a field reconnaissance (and mapping) using aerial photos as required.

*Estimated Time Frame: August 1, 2013 – August 31, 2013*

#### 7.2.6. Task 6 - Assess Field Parameters Based on Pumping Tests

Analyze pumping test data on the wells to determine formation parameters (transmissivity, storativity and leakance). Based on saturated thickness at the well, estimate hydraulic conductivity and specific storativity.

*Estimated Time Frame: September 1, 2013 – October 31, 2013*

#### 7.2.7. Task 7 - Construct GIS Database of Well Data

Incorporate data into electronic database (GIS format).

*Estimated Time Frame: September 15, 2013 – October 31, 2013*

#### 7.2.8. Task 8 - Construct "Layered" Geohydrologic Basemap

Construct "layered" geohydrologic basemap using data obtained from background research and field inventory.

*Estimated Time Frame: October 1, 2013 – November 15, 2013*

#### 7.2.9. Task 9 - Identify Data Gaps

Based on the available data and geohydrologic basemap, identify "data gaps" or areas where additional data needs to be obtained.

*Estimated Time Frame: August 1, 2013 – November 30, 2013*

#### 7.2.10. Task 10 - Refine USGS Regional Ground Water Model

Refine USGS Regional Ground Water Model of the Beaumont and Banning Storage Units.

*Estimated Time Frame: September 1, 2013 – December 31, 2013*

#### 7.2.11. Task 11 - Develop a Watershed Model

Develop a Watershed Model for the surface watersheds that contribute to the Banning Storage Units.

*Estimated Time Frame: September 1, 2013 – February 28, 2014*

#### 7.2.12. Task 12 – Develop a Hydrologic Water Balance

The maximum perennial yield for each storage unit will be calculated using the selected hydrologic base period established from a cumulative departure from mean precipitation chart prepared from representative precipitation station(s) within or near the study area.

*Estimated Time Frame: January 1, 2014 – March 1, 2014*

#### 7.2.13. Task 13 - Run Selected Scenarios for the Surface and Ground Water Model

Run the combined surface water and ground water model for various pumping and artificial recharge scenarios.

*Estimated Time Frame: March 1, 2014 – April 30, 2014*

#### 7.2.14. Task 14 - Preparation of Ground Water Recharge Feasibility Study

Consist of preparation of the Ground Water Recharge Feasibility Study presenting the results of the recharge feasibility study.

*Estimated Time Frame: January 1, 2014 – August 15, 2014*

### 7.3. Project Deliverables (Project 1 and Project 2)

The project deliverables identified in the work plan are listed below.

- Participation in six project meetings and up to eight briefings.
- Interim technical memorandum documenting the ground water issues and BMOs.
- Technical Memorandum presenting the Ground Water Monitoring Program and water level and water quality data management system.
- Draft and Final GWMP.
- Draft and Final GWRFS Report.
- Quarterly progress reports to DWR.

PROJECT 1 SCHEDULE FOR DEVELOPMENT OF A GROUND WATER MANAGEMENT PLAN

Task	Description	2013								2014														
		Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
1.0	Administrative Requirements of Ground Water Management Plan																							
2.0	Public Outreach and Stakeholder Involvement		◆			◆			◆			◆			◆			◆						
3.0	Identify Ground Water Issues and Develop Basin Management Objectives									TM														
4.0	Prepare Ground Water Management Plan																		D		F			
5.0	Technical Review – QA/QC																							
6.0	Project Management			U				U			U				U			U			U		FS	

- ◆ Banning Storage Units Ground Water Advisory Committee Meeting
- TM Technical Memorandum
- D Draft Report
- F Final Report
- Quarterly Progress Update (monthly invoices and progress updates will additionally be submitted via email)
- U
- FS Final Summary Update

PROJECT 2 SCHEDULE FOR DEVELOPMENT OF A GROUND WATER RECHARGE FEASIBILITY STUDY FOR THE BANNING STORAGE UNITS

Task	Description	2013								2014											
		Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1.0	Administrative Requirements of Ground Water Recharge and Feasibility Study		◆			◆			◆			◆			◆						
2.0	Supporting Document Review - Background Data Collection and Review																				
3.0	Analyze Potential Storm Flow Capture, Recycled Water, and Imported Water Volumes																				
4.0	Construct "Basemap" of Project Area																				
5.0	Field Reconnaissance																				
6.0	Assess Field Parameters Based on Pumping Tests																				
7.0	Construct GIS Database of Well Data																				
8.0	Construct "Layered" Geohydrologic Basemap																				
9.0	Identify Data Gaps																				
10.0	Refine USGS Regional Ground Water Model																				
11.0	Develop a Watershed Model																				
12.0	Develop a Hydrologic Water Balance																				
13.0	Run Selected Scenarios for the Surface and Ground Water Model																				
14.0	Preparation of Ground Water Recharge Feasibility Report																				

- ◆ Banning Storage Units Ground Water Advisory Committee Meeting
- D Draft Report
- F Final Report