

# Attachment 6 - Schedule

## Introduction

Attachment 6 contains the overall proposal schedule, project schedules, and schedule justification. The project schedules are consistent with the tasks discussed in the Attachment 4 - Work Summary. The project schedules demonstrate that the majority of the projects will be ready for construction and implementation by April 1, 2015, and describe the steps necessary to ensure that the proposed schedules can be met. The table below lists each of the 17 projects in the Proposal. Of these projects, 13 are either already commencing with construction activities or will be ready to commence by October 2014, three will be ready to commence by April 2015, and only one (Project #9) will commence after April 15. Project 9 is intentionally being delayed until October 2015, because the ditch will be in use from spring into fall to supply needed water to customers.

Project #	Project Name	Construction/Implementation Start Date		
		October 2014	Before April 2015	After April 2015
1	Lower American River Pipeline		X	
2	Hazel/50 Intertie Improvements	X		
3	Well #2 Reactivation	X		
4	Nelson Well Improvements	X		
5	PFE and Zone 4 Transfer Pump Stations	X		
6	Phase 2B Well Rehabilitations	X		
7	Sacramento River Pump Station Modifications	X		
8	Lower American River Pump Station Modifications	X		
9	Main Ditch Piping			X
10	Madison Well Construction	X		
11	American River Pump Station Improvements	X		
12	Agricultural Rural Residential Drought Response Incentives Program	X		
13	Regional Water Efficiency Drought Measures		X	
14	Striker Well Upgrades	X		
15	Antelope Booster Pump Station Phase 2	X		
16	Enterprise Intertie Improvements		X	
17	Barton Road Intertie	X		

Note that in the following project schedules, we display January 2013 through December 2016 for consistency. However, some project activities commenced several years ago for some of the projects but completion had been deferred because these were not the highest priorities of the water suppliers. The depth of the current drought has brought to light the need to implement these projects to ensure a reliable water supply for the Region. Where projects commenced prior to 2013, this is noted on the individual project schedule.

This attachment is organized into the following sub-sections:

- Project Schedules
- Project Schedule Descriptions
- Proposal Schedule

*Project 1: Lower American River Pipeline*

**Implementing Agency:** Carmichael Water District

Project Start Date: 9/1/12  
Project End Date: 12/31/15

Category	2013					2014					2015					2016																			
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
<b>A. Direct Project Administration</b>																																			
Project Administration																																			
Labor Compliance																																			
Quarterly Progress Reports																																			
Project Completion Report																																			
<b>B. Land Purchase/Easement</b>																																			
<i>Easement and Property Lease Acquisition</i>																																			
<b>C. Planning/Design/Engineering/Environmental Documentation</b>																																			
Planning <i>Feasibility Technical Memorandum</i> <i>Preliminary Design Technical Memorandum</i>																																			
Design/Engineering <i>60% Design Submittal</i> <i>90% Design Submittal</i> <i>100% Design and bid-ready plans</i>																																			
Environmental Documentation <i>CEQA Initial Study/Mitigated Negative Declaration and Notice of Determination</i>																																			
Construction & Environmental Permitting <i>Completed procurement of permits</i>																																			
<b>D. Construction/Implementation</b>																																			
Bidding and Award <i>Open Cut Construction Bid</i> <i>River Channel Construction Bid</i>																																			
Construction <i>Mobilization and Site Preparation</i> <i>Project Construction</i> <i>Performance Testing, Startup, and Demobilization</i>																																			
Construction Management																																			

*Project 2: Hazel/50 Intertie Improvements*

**Implementing Agency:** City of Folsom (Folsom)

Project Start Date: 6/1/14

Project End Date: 3/31/15

Category	2013												2014												2015												2016											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
<b>A. Direct Project Administration</b>																																																
Project Administration																																																
Labor Compliance																																																
Quarterly Progress Reports																																																
Project Completion Report																																																
<b>B. Land Purchase/Easement</b>	Land is already owned by the Golden State Water Company. No additional land acquisitions/easements are needed.																																															
<b>C. Planning/Design/Engineering/Environmental Documentation</b>																																																
Planning <i>Hydraulic Analysis Completed</i>																																																
Design/Engineering 60% Design Submittal 90% Design Submittal 100% Design and bid-ready plans																																																
Environmental Documentation Initial Study/Mitigated Negative Declaration																																																
Environmental Permitting No environmental Permitting																																																
<b>D. Construction/Implementation</b>																																																
Construction Permitting Completed procurement of permits																																																
Bidding and Award Construction Awarded																																																
Construction Records, approved submittals, change orders, daily inspection reports Operational																																																
Construction Management																																																

*Project 3: Well #2 Reactivation*

**Implementing Agency:** City of Lincoln (Lincoln)

Project Start Date: 5/1/14  
Project End Date: 12/31/14

Category	2013												2014												2015												2016											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
<b>A. Direct Project Administration</b>																																																
Project Administration																																																
Labor Compliance																																																
Quarterly Progress Reports	Project to be complete before first quarter report due.																																															
Project Completion Report																																																
<b>B. Land Purchase/Easement</b>	The City owns the land and the well was drilled in 1984.																																															
<b>C. Planning/Design/Engineering/Environmental Documentation</b>																																																
Planning <i>Complete planning.</i>																																																
Design/Engineering <i>60% Design Submittal</i> <i>90% Design Submittal</i> <i>100% Design and bid-ready plans</i>																																																
Environmental Documentation	Environmental documentation was completed for original well drill. As this project is simply a repair of an existing well and no drilling occurs no additional environmental documentation is needed.																																															
Environmental Permitting <i>Completed procurement of permits</i>																																																
<b>D. Construction/Implementation</b>																																																
Construction Permitting	As the City is the owner of said project, encroachment permitting is not necessary.																																															
Bidding and Award <i>Construction awarded.</i>																																																
Construction <i>Mobilization</i> <i>Construction activities</i> <i>Start-up and testing</i> <i>O&amp;M and as-built documents</i> <i>Demobilization</i>																																																
Construction Management																																																

*Project 4: Nelson Well Improvements*

**Implementing Agency:** City of Lincoln (Lincoln)

Project Start Date: 1/1/13  
Project End Date: 12/31/14

Category	2013	2014	2015	2016
	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D
<b>A. Direct Project Administration</b>				
Project Administration			██████████	
Labor Compliance		██████████		
Quarterly Progress Reports	Project to be complete before first quarter report due.			
Project Completion Report			██	
<b>B. Land Purchase/Easement</b>	The land is owned by the City and the well was drilled in May 2005.			
<b>C. Planning/Design/Engineering/Environmental Documentation</b>				
Planning	██████████			
Design/Engineering <i>100% Design Complete</i>	██████████			
Environmental Documentation	Environmental documentation was completed for original well drill. As this project is simply a repair of an existing well and no drilling occurs no additional environmental documentation is needed.			
Environmental Permitting	As per the bid requirements, the contractor is responsible for the necessary NPDES permit to conduct testing, leak testing, dewatering, and any other incidental discharges.			
<b>D. Construction/Implementation</b>				
Construction Permitting	As the City is the owner of this project, encroachment permitting is not necessary.			
Bidding and Award <i>Construction awarded</i>	██████████			
Construction <i>Mobilization Construction activities Start-up and testing O&amp;M and as-built documents Demobilization</i>		██████████		
Construction Management		██████████		

*Project 5: PFE and Zone 4 Transfer Pump Stations*

**Implementing Agency:** City of Roseville (Roseville)

Project Start Date: 1/6/14

Project End Date: 6/30/15

Category	2013												2014												2015												2016											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
<b>A. Direct Project Administration</b>																																																
Project Administration																																																
Labor Compliance																																																
Quarterly Progress Reports																																																
Project Completion Report																																																
<b>B. Land Purchase/Easement</b>	The proposed project will be constructed on existing City owned water facilities. Therefore, no land purchase or additional easement is necessary.																																															
<b>C. Planning/Design/Engineering/Environmental Documentation</b>																																																
Planning <i>Contract approval</i>																																																
Design/Engineering <i>30% Design submittal</i> <i>100% Design Complete</i>																																																
Environmental Documentation <i>CEQA Class 1 Exemption Documentation</i>																																																
Environmental Permitting	Since the project involves minor alterations of existing facilities, no environmental permitting is necessary.																																															
<b>D. Construction/Implementation</b>																																																
Construction Permitting																																																
Bidding and Award <i>Construction awarded</i>																																																
Construction <i>Records, approved submittals, RFI's, change orders, daily inspection reports</i>																																																
Construction Management																																																

*Project 6: Phase 2B Well Rehabilitations*

**Implementing Agency: City of Sacramento (Sacramento)**

Project Start Date: 12/1/13

Project End Date: 12/31/14

Category	2013					2014					2015					2016																			
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
<b>A. Direct Project Administration</b>																																			
Project Administration																																			
Labor Compliance																																			
Quarterly Progress Reports	Project to be complete before first quarter report due.																																		
Project Completion Report																																			
<b>B. Land Purchase/Easement</b>	No additional land is required as these locations are already owned by the City of Sacramento. The facilities are already list in the City's water supply permit.																																		
<b>C. Planning/Design/Engineering/Environmental Documentation</b>																																			
Planning																																			
Design/Engineering																																			
60% Design Submittal																																			
90% Design Submittal																																			
100% Design and bid-ready plans																																			
Environmental Documentation																																			
CEQA Class 1 Exemption Documentation																																			
Environmental Permitting																																			
Completed procurement of permits																																			
<b>D. Construction/Implementation</b>																																			
Construction Permitting																																			
Completed procurement of permits																																			
Bidding and Award																																			
Construction awarded																																			
Construction																																			
Well water quality testing																																			
Construction Management																																			

*Project 7: Sacramento River Pump Station Modifications*

**Implementing Agency:** City of Sacramento (Sacramento)

Project Start Date: 1/1/14  
Project End Date: 12/31/14

Category	2013					2014					2015					2016																			
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
<b>A. Direct Project Administration</b>																																			
Project Administration	[Gantt bar: 2014 J, J, A, S, O, N, D]																																		
Labor Compliance	[Gantt bar: 2014 J, J, A, S, O]																																		
Quarterly Progress Reports	Project to be complete before first quarter report due.																																		
Project Completion Report	[Gantt bar: 2015 J]																																		
<b>B. Land Purchase/Easement</b>	Land purchase was completed for the original pump station construction. Since this project is a modification of the existing facility owned by the City, no additional land purchase is required.																																		
<b>C. Planning/Design/Engineering/Environmental Documentation</b>																																			
Planning <i>Determine State and Federal projections for reservoir release patterns. Analysis of river elevation affect on facility performance</i>	[Gantt bar: 2014 J, J, A]																																		
Design/Engineering <i>60% Design Submittal 90% Design Submittal 100% Design and bid-ready plans</i>	[Gantt bar: 2014 J, J, A, S, O]																																		
Environmental Documentation	Environmental documentation was completed for original pump station construction. No additional documentation is necessary.																																		
Environmental Permitting	Environmental permitting was completed for original pump station construction. No additional permitting is necessary.																																		
<b>D. Construction/Implementation</b>																																			
Construction Permitting	As the City is the owner of the project, no construction permitting is necessary.																																		
Bidding and Award <i>Construction awarded</i>	[Gantt bar: 2014 J, J, A]																																		
Construction <i>Fabrication of Vortex breakers Install vibration monitoring equipment and vortex breakers</i>	[Gantt bar: 2014 J, J, A, S, O]																																		
Construction Management	[Gantt bar: 2014 J, J, A, S, O, N, D]																																		

*Project 8: Lower American River Pump Station Modifications*

**Implementing Agency:** City of Sacramento (Sacramento)

Project Start Date: 1/1/14  
Project End Date: 12/31/14

Category	2013					2014					2015					2016																			
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
<b>A. Direct Project Administration</b>																																			
Project Administration	[Gantt bar: July 2014 - June 2015]																																		
Labor Compliance	[Gantt bar: August 2014 - September 2014]																																		
Quarterly Progress Reports	Project to be complete before first quarter report due.																																		
Project Completion Report	[Gantt bar: November 2014 - December 2014]																																		
<b>B. Land Purchase/Easement</b>	Land purchase was completed for the original pump station construction. Since this project is a modification of the existing facility owned by the City, no additional land purchase is required.																																		
<b>C. Planning/Design/Engineering/Environmental Documentation</b>																																			
Planning <i>Determine State and Federal projections for reservoir release patterns. Analysis of river elevation affect on facility performance</i>	[Gantt bar: January 2014 - February 2014]																																		
Design/Engineering <i>60% Design Submittal 90% Design Submittal 100% Design and bid-ready plans</i>	[Gantt bar: March 2014 - June 2014]																																		
Environmental Documentation <i>Environmental documentation complete</i>	[Gantt bar: April 2014 - May 2014]																																		
Environmental Permitting	Environmental permitting was completed for original pump station construction. No additional permitting is necessary.																																		
<b>D. Construction/Implementation</b>																																			
Construction Permitting	As the City is the owner of the project, no construction permitting is necessary.																																		
Bidding and Award <i>Construction awarded</i>	[Gantt bar: July 2014 - August 2014]																																		
Construction <i>Fabrication of Vortex breakers Install vibration monitoring equipment and vortex breakers</i>	[Gantt bar: September 2014 - November 2014]																																		
Construction Management	[Gantt bar: October 2014 - December 2014]																																		

*Project 9: Main Ditch Piping*

Project Start Date: 3/1/13

Project End Date: 12/31/16

**Implementing Agency: El Dorado Irrigation District (EID)**

Category	2013					2014					2015					2016																			
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
<b>A. Direct Project Administration</b>																																			
Project Administration	[Bar chart showing activity from mid-2014 to mid-2016]																																		
Labor Compliance	[Bar chart showing activity from late 2015 to early 2016]																																		
Quarterly Progress Reports	[Bar chart showing quarterly reports from 2015 to 2016]																																		
Project Completion Report	[Bar chart showing report at the end of 2016]																																		
<b>B. Land Purchase/Easement</b> <i>Topographic survey</i> <i>Acquire easements</i>	[Bar chart showing survey in early 2014 and easements in mid-2015]																																		
<b>C. Planning/Design/Engineering/Environmental Documentation</b>	[Complex Gantt chart showing planning, design, and environmental documentation phases from 2014 to 2015]																																		
<b>D. Construction/Implementation</b>	[Complex Gantt chart showing construction permitting, bidding, and construction phases from 2015 to 2016]																																		

*Project 10: Madison Well Construction*

**Implementing Agency:** Fair Oaks Water District

Project Start Date: 5/1/07  
 Project End Date: 12/31/14

Category	2013												2014												2015												2016											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
<b>A. Direct Project Administration</b>																																																
Project Administration																																																
Labor Compliance																																																
Quarterly Progress Reports	Project to be complete before first quarter report due.																																															
Project Completion Report																																																
<b>B. Land Purchase/Easement</b>	Began in 2007, completed in Oct. 2011.																																															
<b>C. Planning/Design/Engineering/Environmental Documentation</b>																																																
Planning																																																
Design/Engineering <i>100% Design completed.</i>																																																
Environmental Documentation <i>Environmental compliance documentation completed</i>																																																
Environmental Permitting <i>Completed procurement of permits</i>	Began in 2004, completed Jan. 2014.																																															
<b>D. Construction/Implementation</b>																																																
Construction Permitting <i>Obtain Permits</i>																																																
Bidding and Award <i>Construction awarded</i>																																																
Construction <i>Construction records</i> <i>Construction completed</i>																																																
Construction Management																																																

*Project 11: American River Pump Station Improvements*

**Implementing Agency:** Placer County Water Agency

Project Start Date: 3/31/14

Project End Date: 6/30/15

Category	2013												2014												2015												2016											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
<b>A. Direct Project Administration</b>																																																
Project Administration																																																
Labor Compliance																																																
Quarterly Progress Reports																																																
Project Completion Report																																																
<b>B. Land Purchase/Easement</b>	This is an existing PCWA site so no land purchase is necessary.																																															
<b>C. Planning/Design/Engineering/Environmental Planning</b>																																																
Design/Engineering																																																
50% Design Submittal																																																
90% Design Submittal																																																
100% Design and bid-ready plans																																																
Environmental Documentation																																																
Notice of Exemption																																																
Environmental Permitting																																																
Completed procurement of permits																																																
<b>D. Construction/Implementation</b>																																																
Construction Permitting	This is an existing PCWA site so no construction permitting is necessary.																																															
Bidding and Award																																																
Construction awarded																																																
Construction																																																
Construction records, approved submittals, RFI's, change orders, daily inspection reports																																																
Construction Management																																																



*Project 13: Regional Water Efficiency Drought Measures*

**Implementing Agency:** Regional Water Authority

Project Start Date: 9/1/14  
Project End Date: 12/31/16

Category	2013												2014												2015												2016											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
<b>A. Direct Project Administration</b>																																																
Project Administration																																																
Labor Compliance	Not applicable.																																															
Quarterly Progress Reports																																																
Project Completion Report																																																
<b>B. Land Purchase/Easement</b>	Not applicable.																																															
<b>C. Planning/Design/Engineering/Environmental Documentation</b>																																																
Planning																																																
Design/Engineering																																																
Environmental Documentation	Not applicable.																																															
Environmental Permitting	Not applicable.																																															
<b>D. Construction/Implementation</b>																																																
Construction Permitting	Not applicable.																																															
Bidding and Award	Not applicable.																																															
Construction (Implementation)																																																
<i>Landscape survey documents</i>																																																
<i>Number of incentives distributed and amounts</i>																																																
<i>Number and type of irrigation equipment installed</i>																																																
<i>Number and amount of landscapes converted to native and low water use</i>																																																
<i>Water savings estimates</i>																																																
Construction Management	Not applicable.																																															



*Project 15: Antelope Booster Pump Station Phase 2*

**Implementing Agency:** Sacramento Suburban Water District

Project Start Date: 1/1/13

Project End Date: 9/30/15

Category	2013					2014					2015					2016																			
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
<b>A. Direct Project Administration</b>																																			
Project Administration																																			
Labor Compliance																																			
Quarterly Progress Reports																																			
Project Completion Report																																			
<b>B. Land Purchase/Easement</b>	Land purchase/easements were completed for Phase 1 of this project.																																		
<b>C. Planning/Design/Engineering/Environmental Documentation</b>																																			
Planning																																			
Design/Engineering																																			
50% Design Submittal																																			
90% Design Submittal																																			
100% Design and bid-ready plans																																			
Environmental Documentation																																			
Notice of Exemption																																			
Environmental Permitting																																			
Completed procurement of permits																																			
<b>D. Construction/Implementation</b>																																			
Construction Permitting																																			
Completed procurement of permits																																			
Bidding and Award																																			
Construction awarded																																			
Construction																																			
Construction records, approved submittals, RFI's, change orders, daily inspection reports																																			
Construction Management																																			

*Project 16: Enterprise Intertie Improvements*

**Implementing Agency:** Sacramento Suburban Water District

Project Start Date: 1/1/13

Project End Date: 5/31/15

Category	2013		2014		2015		2016					
	J	F	M	A	M	J	J	A	S	O	N	D
<b>A. Direct Project Administration</b>												
Project Administration												
Labor Compliance												
Quarterly Progress Reports												
Project Completion Report												
<b>B. Land Purchase/Easement</b>	No land purchase/easement is required for this project.											
<b>C. Planning/Design/Engineering/Environmental Documentation</b>												
Planning <i>Hydraulic modeling</i> <i>Field flow tests</i>												
Design/Engineering <i>50% Design Submittal</i> <i>90% Design Submittal</i> <i>100% Design and bid-ready plans</i>												
Environmental Documentation <i>Notice of Exemption</i> <i>Categorical Exemption</i>												
Environmental Permitting	No permits are needed for this project.											
<b>D. Construction/Implementation</b>												
Construction Permitting	No permits are needed for this project.											
Bidding and Award												
Construction <i>Construction records, approved submittals, RFI's, change orders, daily inspection reports</i>												
Construction Management												

*Project 17: Barton Road Intertie*

**Implementing Agency:** San Juan Water District

Project Start Date: 12/31/13

Project End Date: 5/31/14

Category	2013					2014					2015					2016																				
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
<b>A. Direct Project Administration</b>																																				
Project Administration																																				
Labor Compliance																																				
Quarterly Progress Reports																																				
Project Completion Report																																				
<b>B. Land Purchase/Easement</b>																																				
Acquire easements																																				
<b>C. Planning/Design/Engineering/Environmental Documentation</b>																																				
Planning																																				
Design/Engineering 90% Design submittal 100% Design submittal																																				
Environmental Documentation Notice of Exemption																																				
Environmental Permitting Completed procurement of permits																																				
<b>D. Construction/Implementation</b>																																				
Construction Permitting Completed procurement of permits																																				
Bidding and Award Construction Awarded																																				
Construction Construction records, approved submittals, RFI's, change orders, daily inspection records																																				
Construction Management																																				

## Project Schedule Descriptions

### *Project 1: Lower American River Pipeline*

**Implementing Agency:** Carmichael Water District (CWD)

#### **Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

#### **Land Purchase/Easements**

The proposed easements have been identified and initial talks have been initiated to obtain these easements.

#### **Planning/Engineering/Design/Environmental Documentation**

The project is currently 60% complete with design and will continue to 100% by September 2014. The next steps of the project will include procuring the required permitting, and proceeding with completion of the CEQA Initial Study/Mitigated Negative Declaration prior to bidding of the project. The timeline for completing permitting and CEQA has been reviewed and is shown in the detailed project schedule.

#### **Construction/Implementation**

Since the permitting for the river crossing element of work may not be completed until approximately July 2015, the project may be bid in two phases or sequence to allow for construction of the interconnecting pipeline through the open cut portions of the alignment, while acquisition of the permits required for the river crossing are obtained.

*Project 2: Hazel/50 Intertie Improvements***Implementing Agency:** City of Folsom (Folsom)**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

No land or easements will have to be purchased.

**Planning/Engineering/Design/Environmental Documentation**

Due to the size of the project (relatively small in design and engineering terms) and based on previous experience for similar-sized projects, producing the plans and specifications can be completed within the timeframe provided. Given the environmental requirements of an initial study/mitigate negative declaration, the schedule for the environmental requirements has been reduced. Typically environmental documents would take quite a bit more time, thus extending the schedule. The Governor's drought declaration also includes language to help move environmental documents through the system in a more timely manner to address drought specific projects.

**Construction/Implementation**

Due to the relatively small size of the project, the construction schedule is fairly conservative. Typically pumps are the long lead-time items in a construction project of this type, but the type of booster pumps required are fairly common and would not require special construction or long lead times. For new electrical connections, SMUD is expediting new electrical applications for drought related projects, which will save time on the schedule during the design and construction phases by at least two months. If SMUD did not expedite the review process, the schedule above would be pushed out by at least two months, meaning construction would not end until March 30, 2015.

*Project 3: Well #2 Reactivation*

**Implementing Agency:** City of Lincoln (Lincoln)

**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

No land or easements will have to be purchased.

**Planning/Engineering/Design/Environmental Documentation**

This project is moving toward the 90% design phase, and planned completion.

**Construction/Implementation**

The project is already underway. Discussions with Contractors were used to develop a conservative project schedule. The City has met with Contractors who have prepared the bids and provided schedule information based on their work loads and availability of equipment.

No major delays are foreseen and time to complete construction is adequate to allow for possible delays. Possible delays in the receipt of the pump equipment have been addressed through discussions with the contractors and their suppliers. Should equipment availability become an issue, alternatives will be discussed between the City and the contractor.

*Project 4: Nelson Well Improvements***Implementing Agency:** City of Lincoln (Lincoln)**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

No land or easements will have to be purchased.

**Planning/Engineering/Design/Environmental Documentation**

All the planning, engineering, design, and environmental documentation has been completed for this project.

**Construction/Implementation**

The project is already underway. Discussions with contractors were used to develop a conservative project schedule. The City has met with Contractors who have prepared the bids and provided schedule information based on their work loads and availability of equipment.

No major delays are foreseen and time to complete construction is adequate to allow for possible delays. Possible delays in the receipt of the pump equipment have been addressed through discussions with the contractors and their suppliers. Should equipment availability become an issue, alternatives will be discussed between the City and the contractor.

*Project 5: PFE & Zone 4 Transfer Pump Stations*

**Implementing Agency:** City of Roseville (Roseville)

**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

The proposed project will be constructed on existing Roseville owned water facilities.

**Planning/Engineering/Design/Environmental Documentation**

Completion of the 100% design will take no more than 3 months based on a similar pump station Roseville completed in 2006 by the same engineering firm.

Roseville, as the local lead agency, has prepared a categorical exemption for the proposed project. Roseville Council, the approving authority, received the exemption at it June 2014 council meeting.

**Construction/Implementation**

The construction period is 6 months to allow for manufacturing of the pumps and associated electrical equipment. This schedule is based on similar pump station constructed in 2006.

*Project 6: Phase 2B Well Rehabilitations*

**Implementing Agency:** City of Sacramento (Sacramento)

**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

No additional land will be required as the City of Sacramento owns these facilities.

**Planning/Engineering/Design/Environmental Documentation**

All design, CEQA analysis, bidding, and contracting are completed. All work to be performed by the Contractor has been approved and the emergency (As identified in the City Council 1/14/2014 water shortage declaration [“2014-00057 Water Shortage Contingency Plan,” page 1 (City of Sacramento, 2014)] restoration of the existing groundwater wells is proceeding, as identified in city council report authorizing the work contained herein [“2014-00143\_Well2B\_CO” (City of Sacramento, 2014)].

**Construction/Implementation**

All equipment currently on order (electrical and chemical feed systems) are standards in the industry. There are no exotic aspects to the project that might suggest undue delay.

Between the rapid and advanced stage of project development, and the City's recent history with other groundwater well rehabilitation projects, a high degree of confidence is warranted that there are few impediments to project completion.

*Project 7: Sacramento River Pump Station Modifications*

**Implementing Agency:** City of Sacramento (Sacramento)

**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

No additional land will be required as the City of Sacramento owns these facilities.

**Planning/Engineering/Design/Environmental Documentation**

The technical analysis and design are complete. The activity is considered a modification of existing equipment and is considered categorically exempt from a CEQA perspective (CEQA documentation included in the technical analysis section). Fabrication of the vortex breakers is presently occurring through use of in-house staff skilled in welding.

**Construction/Implementation**

Competitive bids for the furnishing and installing vibration monitoring equipment and for installation of city constructed vortex breakers on the intake pumps have been secured. Given the significant progress made, City staff have a high degree of confidence that the project will be accomplished and the schedule is reasonable.

*Project 8: Lower American River Pump Station Modifications*

**Implementing Agency:** City of Sacramento (Sacramento)

**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

No additional land will be required as the City of Sacramento owns these facilities.

**Planning/Engineering/Design/Environmental Documentation**

The technical analysis and design are complete for the City's sister facility on the Sacramento River and is in progress for this project. The activity is considered a modification of existing equipment and will be considered categorically exempt from a CEQA perspective. Fabrication of the vortex breakers by in-house staff is presently occurring for the City's sister facility on the Sacramento River and will commence for the EA Fairbairn structure on completion of engineering analysis and design.

**Construction/Implementation**

Bids for furnishing and installing vibration monitoring equipment and for installation of City constructed vortex breakers on the intake pumps have been secured. Given the significant progress made, City staff have a high degree of confidence that the project will be accomplished and the schedule is reasonable.

*Project 9: Main Ditch Piping*

**Implementing Agency:** El Dorado Irrigation District (EID)

**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

The property title research is underway to determine easements and ownership. A contract will need to be developed for licensed surveyor to develop topographic maps for final designs.

**Planning/Engineering/Design/Environmental Documentation**

The planning, engineering, design and environmental stage includes grant administration and management, right-of-way activities, pre-project water accounting determinations, and engineering plans preparation and would continue through the project duration.

Phase 2 would include environmental review and permitting with completion of an environmental document which typically takes about 1-year after design is complete to prepare an EIR.

**Construction/Implementation**

The project schedule incorporates construction, testing, and final completion of the project. Note that construction is intentionally being delayed for this project beyond April 2014, because the ditch will be in use for water supply deliveries at that time. A typical El Dorado Canal outage occurs between October and December, however for this project EID may extend the canal outage through February. Construction and testing schedule components will need to occur during the canal outage. Using the revised Canal outage schedule, the outage is approximately 21 weeks. A work week is assumed to be Monday through Friday. In this time period, approximately 10,500 feet of 36-inch PVC and 4,900 feet of 42-inch PVC waterline will need to be installed, tested, and accepted by the District. Pipe installation and backfill is the largest single activity. This schedule assumes approximately 114 days to install the pipeline. This is based on the following assumptions:

- Locations where there is limited access to the construction area assume 100 feet/day pipe installation.
- Locations where there is adequate access to the construction area assume 300 feet/day pipe installation.
- Assume 40% of the preferred alignment has adequate access and 60% of the alignment has limited access.

The schedule indicates that the project cannot be completed within a single Canal outage with a single construction crew. The use of multiple crews for the pipeline construction may reduce the project time down to one canal outage, but could increase the overall construction costs and increase the traffic impacts. Therefore it is anticipated that the project will occur over two construction seasons.

*Project 10: Madison Well Construction*

**Implementing Agency:** Fair Oaks Water District (FOWD)

**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

Land required for the pump station construction was acquired in 2011. No additional land or easements will need to be acquired.

**Planning/Engineering/Design/Environmental Documentation**

The planning, engineering, design, and environmental documentation has been completed.

**Construction/Implementation**

Fair Oaks Water District issued construction contract to Zim Industries Inc. to drill and construct groundwater well at the Madison well site on April 7, 2014. Zim Industries Inc. mobilized on site and began drilling operations on June 16, 2014 and will continue drilling and well development operations for the next 4 weeks. It is anticipated that development and pump base will be finished by the end of July, 2014.

*Project 11: American River Pump Station Improvements***Implementing Agency:** Placer County Water Agency (PCWA)**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

No additional land will be required as the Placer County Water Agency owns these facilities.

**Planning/Engineering/Design/Environmental Documentation**

The design of the project improvements was awarded in March 2014. The 50% and 90% submittals have been received and reviewed by the Agency. Final Completion of the design is anticipated by July 21, 2014. The project will be advertised for bids in August, with award anticipated in September 2014. The Agency entered into an agreement with Weir Floway Inc. to furnish the 41 cfs and deliver it by January 2015 as required in the agreement or be subjected to liquidated damages.

Article 19 of the CEQA guidelines lists categorical exemptions from CEQA, Section 15303, New Construction or Conversion of Small Structures, Class 3 consists of construction of a new small facility or structure; installation of small new equipment and facilities in small structures; including utility extensions to serve such construction. This project is consistent with this guideline, therefore it is exempt from CEQA (CEQA Guidelines Article 19, Section 15303). The Board date to declare the project categorically exempt from CEQA and authorize the Clerk to the Board to file the Notice of Exemption is proposed for August 7, 2014. The Agency routinely prepares and processes exemptions and this timeline is adequate for this project.

**Construction/Implementation**

Construction by a general contractor is anticipated to begin in September 2014. Substantial completion is expected by March 2015. This is a reasonable schedule based on similar projects completed by PCWA given the fact that the long lead item (pump and motor) is being pre-procured.

*Project 12: Agricultural and Rural Development Drought Response Incentives Program*

**Implementing Agency:** Placer County Water Agency (PCWA)

**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

No land purchase or easements will be required for this project.

**Planning/Engineering/Design/Environmental Documentation**

The project will extend ongoing irrigation water management services and cash-for-grass incentives that are currently provided by PCWA. In addition, the project will extend the ongoing NRCS Environmental Quality Incentives Program implemented by local resource conservation districts. Because this is an extension of an existing program, minimal planning is required. In addition, existing rebate forms, advertisements, and record keeping will be utilized. The project is ready to go and requires no land purchases, environmental documentation, permitting, or bidding.

**Construction/Implementation**

There is no construction associated with this project. Implementation is scheduled to begin in December of 2014.

*Project 13: Regional Water Efficiency Drought Measures***Implementing Agency:** Regional Water Authority (RWA)**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

No land purchase or easements will be required for this project.

**Planning/Engineering/Design/Environmental Documentation**

The project would link into RWA's existing Regional Water Efficiency Program's public outreach campaign and landscape incentives and upgrades projects. Aside from some time for planning and design needed to outline how to scale up both projects and include cash for grass, RWA and its member agencies are ready to implement these activities. Existing programs are in place to manage paperwork, surveys, and customer calls. The majority of water agency conservation staff members have already developed expertise on performing surveys and recommending water saving equipment and landscape upgrades. However additional education may be needed, especially for some of the region's smaller agencies. RWA and its member agencies can utilize existing media and event outreach channels to ramp up communicating regional drought messages. The schedule extends until 2016 to cover two outdoor watering seasons. This is necessary because behavior change is a result of continual, consistent messaging. To accompany this messaging, tools in the form of surveys, incentives and upgrades are needed to support the message to effectively save water outdoors.

**Construction/Implementation**

Due to the nature of this nonstructural project, land purchase/easement, environmental documentation, environmental permitting, construction permitting and construction bidding/award are not applicable.

*Project 14: Striker Well Upgrades*

**Implementing Agency:** Sacramento County Water Agency (SCWA)

**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

The land was acquired several years ago and not included in the project schedule description.

**Planning/Engineering/Design/Environmental Documentation**

The planning, some permitting and environmental determination was prepared several years ago and is 100% complete and not included in the project schedule description.

**Construction/Implementation**

Well water pump and motor installed. In July 2014 the existing well hole is being developed (i.e. pumped hard) and will then be sampled for water quality. This task was performed in 2002, but is being repeated due to the time that has elapsed. Once the well development has concluded, a motor and pump can be sized for the probable production level and purchased. The updated well operation permit from the Health Department is being reviewed by the Health Department and should be completed by August.

Pavement/drainage/landscaping. The pavement installation, including drainage system and landscaping, will be one of the last tasks to be completed. These will more likely be completed in late September early October as different phases of the project are completed. The drainage system connection for the future chlorine analyzer will be installed with the electrical conduits and other underground infrastructure earlier in the construction schedule. The site drainage will be overland release that includes grading the onsite pavement towards the street.

Back-up Power Generator Installation. Depending on the delivery date of the back-up power generator by the manufacturer, it will likely be installed after the paving is completed. The generator will be ordered once the motor size is determined. The Air Quality permit will be applied for once the generator is selected and ordered. Typically the turnaround for generator delivery is two to four months depending on the manufacturers back log. The generator delivery would not impede the start-up and operation of the well.

Automatic electrical switching gear. The automatic electrical switch will be ordered and installed with the generator towards the end of the project.

Electrical panels, SMUD transformer, and SMUD service. The electrical panels will be ordered once the motor selection is completed, estimated to be end of July. The concrete pads and conduits are estimated to be in place in early August. Deliveries of the electrical panels are anticipated to be mid to late August.

Chemical systems including associated shed, foundation, conduits, controls, pumps, and plumbing will be installed in September. SCADA system installed including; structure, pad, conduits, low voltage electrical, programming, hardware, transceiver, etc will be installed in September.

Miscellaneous on site plumbing including pipes, control valve, meter, standard valves, pipe restraining devices, pipes stands, etc. The miscellaneous on site improvements will be performed in timing with other major components. For example, the plumbing will be brought to the well head but not connected until the well work is completed. The production meter may be placed and connected any time prior, or even after, the well pump and motor installation are completed.

*Project 15: Antelope Booster Pump Station Phase 2*

**Implementing Agency:** Sacramento Suburban Water District (SSWD)

**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

There is no land or easement acquisition required for this project.

**Planning/Engineering/Design/Environmental Documentation**

Since the design is now 50% completed, Domenichelli & Associates is confident that the proposed schedule can be met and that the pump station can be constructed and in operation by July 1, 2015. Design work will be completed by the end of August 2014.

**Construction/Implementation**

A bidding and contract award period of seven (7) weeks is then anticipated. Construction is scheduled to begin on October 21, 2014, and be completed by June 30, 2015. This allows for approximately an 8 month construction period. This is considered reasonable by D&A based on the construction of similar facilities. Long lead time items such as the pumps, motors, and variable frequency drives (VFD's) are accounted for in this schedule.

*Project 16: Enterprise Intertie Improvements*

**Implementing Agency:** Sacramento Suburban Water District

**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

There is no land or easement acquisition required for this project.

**Planning/Engineering/Design/Environmental Documentation**

Planning work including field flow tests and hydraulic modeling has been completed. Design work has not been initiated but based on past experience with similar projects the design can be completed within proposed timeframe. A categorical exemption will be adequate to meet the environmental review requirements under CEQA. This is anticipated in the fall of 2014.

**Construction/Implementation**

The proposed construction schedule is reasonable based on the amount of work required to improve the existing intertie. This schedule was prepared based on past experience with similar projects.

*Project 17: Barton Road Intertie*

**Implementing Agency:** San Juan Water District (SJWD)

**Direct Project Administration**

Project administration includes grant application preparation; grant and project agreement execution work; project coordination meetings and communications between the Regional Water Authority (RWA), contractors, consultants, and staff at local agencies; and preparation of reimbursement invoices. This will coincide with the start of the planning stage and will continue through construction. Reports will be prepared on a quarterly basis with a culminating final report that will be submitted after construction completion.

**Land Purchase/Easements**

The acquisition of required property and easements is underway.

**Planning/Engineering/Design/Environmental Documentation**

Emergency drought project planning began in December 2013. This preliminary evaluation was focused on determining the need of SJWD Wholesale in the event that there is no surface water available during summer 2014. This intensive investigation included meeting with all of the water purveyors in the region to determine where conjunctive use opportunities existed. The February 2014 Report was based on this preliminary investigation.

Initially, the goal was to have the projects identified in the Feb. 2014 report installed by June 2014. However, with the recovery of Folsom Lake, SJWD was allowed time to refine the projects. The Barton Road Intertie is a project that has been refined since the initial planning efforts. Hydraulic modeling of the system has been evaluated, detailed coordination with PCWA has been achieved and a detailed design developed for the project.

Since PCWA operates at a higher pressure than SJWD near the intertie, a pressure control station will be installed. The new station will include provisions to, not only supply water to SJWD, but during times of emergency, supply water from SJWD to PCWA through a pumped system at the intertie. This will be a metered location for accountability of water transferred between agencies. SJWD is currently working with PCWA's Property Specialist to obtain the property for the pressure control station. This station will be located near the corner of Barton Road and Indian Springs Road.

The project plans and specifications are at the 90% design stage. SJWD's Engineer, Domenichelli & Associate, Inc. (D&A), has coordinated with contractors and developed the construction schedule and is confident the project can be completed within the estimated time of the construction.

**Construction/Implementation**

Based on the proposed construction schedule provided by D&A, the construction duration is estimated at 114 calendar days.

