



## CHINO BASIN WATERMASTER

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### NOTICE OF MEETING

Land Subsidence Committee

11:00 a.m. – Thursday, March 20th, 2014

at

Chino Basin Watermaster

### AGENDA

The objective of this meeting is to provide a status report on Watermaster's land subsidence monitoring program for 2013 and to discuss the scope cost of the program for fiscal year 2014-15. Watermaster staff/consultants will provide an update on each agenda item and facilitate the discussion. The Land Subsidence Committee offers guidance based on the discussion.

**1. Update: Monitoring Program Status**

Time-series charts of groundwater levels and aquifer-system deformation at Ayala Park will be distributed and described at the meeting.

**2. Discuss: Proposed Scope and Budget for the Land Subsidence Monitoring Program for Fiscal Year 2014-15**

**Table 1**  
**Work Breakdown Structure**  
**Land Subsidence Monitoring Program -- FY2014-15**

Task/Subtask/Description	Notes	Labor		Total Labor	Other Direct Costs					Total ODC	Totals					2014-15 Budget Compared to 2013-14 Budget		
		Task Repetition Multiplier	Person Days		Travel	Equip and Expend	Subs	Repro	Misc.		Recommended Tasks 2014-15	Potential Carryover from 2013-14	Budget 2014-15	Estimated Future O & M	Potential Future Tasks	Approved Budget 2013-14	Variance with Carryover	Variance without Carryover
<b>Task 1 -- Setup/Maintenance of Monitoring Network</b>											<b>\$63,593</b>	<b>\$0</b>	<b>\$63,593</b>	<b>\$36,992</b>	<b>\$57,192</b>	<b>\$56,214</b>	<b>\$7,379</b>	<b>\$7,379</b>
1.1 Equipment maintenance	(1)																	
Routine maintenance of Ayala Park/CCWF extensometer facilities		12	12	\$9,330	\$384	\$278			\$662	\$9,992			\$9,992			\$9,942	\$50	\$50
Maintenance at horizontal extensometer site		2	4	\$3,940	\$64		\$11,400		\$11,464	\$15,404			\$15,404			\$17,264	-\$1,860	-\$1,860
Replacement/repair of equipment at extensometer facilities		1	17	\$18,420	\$32	\$13,435	\$3,000		\$16,467	\$34,887			\$34,887			\$27,412	\$7,475	\$7,475
1.2 Annual lease fees for CCWF extensometer site	(1)	1	0	\$0					\$1,596	\$1,596			\$1,596			\$1,596	\$0	\$0
1.3 Maintenance of PB facility	(3)																	
Remove in situ equipment from the wells		1	2	\$1,650	\$64				\$64	\$1,714			\$1,714		\$57,192	\$0	\$1,714	\$1,714
<b>Task 2 -- MZ-1: Aquifer-System Monitoring and Testing</b>											<b>\$198,761</b>	<b>\$191,608</b>	<b>\$7,153</b>	<b>\$16,371</b>	<b>\$19,030</b>	<b>\$83,841</b>	<b>-\$76,688</b>	<b>\$114,920</b>
Groundwater-level and extensometer data collection and organization	(1)																	
2.1 Download data from the Ayala Park facility		4	2.5	\$1,960	\$128	\$48			\$176	\$2,136			\$2,136			\$2,948	-\$813	-\$813
2.1 Download data from the Daniels Horizontal Extensometer facility		3	1.125	\$983	\$96	\$21			\$117	\$1,100			\$1,100			\$2,898	-\$1,798	-\$1,798
2.1 Download data from the CCWF facility		4	2.5	\$1,960	\$128	\$48			\$176	\$2,136			\$2,136			\$2,298	-\$163	-\$163
2.1 Process, check, and upload data to database		4	9	\$11,000					\$0	\$11,000			\$11,000			\$5,320	\$5,680	\$5,680
2.2 Conduct Long-Term Pumping Test in the Managed Area	(1)																	
Coordinate testing with pumpers		1	1	\$1,320					\$0	\$1,320			\$1,320			\$1,320	\$0	\$0
Collect field data; process and upload to database		1	2.8	\$2,823					\$0	\$2,823			\$2,823			\$7,290	-\$4,468	-\$4,468
Prepare, analyze, and distribute stress-strain diagrams to LSC		4	2.5	\$3,500			\$200		\$200	\$3,700			\$3,700			\$4,760	-\$1,060	-\$1,060
Adjust Extensometer Hardware		2	1	\$1,970					\$0	\$1,970			\$1,970			\$1,970	\$0	\$1,970
2.3 Conduct Injection Test in Managed Area	(1)																	
Well rehabilitation and retrofit		2	1.5	\$1,310			\$141,640		\$141,640	\$142,950	\$142,950		\$0			\$41,655	-\$41,655	\$101,295
Quarterly reports - LGA Grant		3	9	\$11,880					\$0	\$11,880	\$11,880		\$0			\$10,340	-\$10,340	\$1,540
Project administration - LGA Grant		1	4.4	\$5,868					\$0	\$5,868	\$5,868		\$0			\$0	\$0	\$5,868
Prepare final report for LGA Grant		1	8.9	\$11,880					\$0	\$11,880	\$11,880		\$0			\$0	\$0	\$11,880
Injection pilot testing - collect and process data from transducer network 1 time during cycle testing and contribute the analysis of data.		1	7.9	\$8,987	\$44				\$44			\$9,031	-\$9,031		\$9,031	\$5,012	-\$14,043	-\$5,012
Analyze data collected during cycle tests and contribute interpretation to LSC Annual Report		1	7.8	\$9,999					\$0			\$9,999	-\$9,999		\$9,999		-\$9,999	\$0
<b>Task 3 -- Basin Wide: InSAR</b>											<b>\$92,830</b>	<b>\$0</b>	<b>\$92,830</b>	<b>\$92,830</b>	<b>\$0</b>	<b>\$92,830</b>	<b>\$0</b>	<b>\$0</b>
3.1 InSAR data collection	(1)	1	1	\$1,320			\$90,000		\$90,000	\$91,320			\$91,320			\$91,320	\$0	\$0
3.2 Process and upload data to database/GIS	(1)	1	1.25	\$1,510					\$0	\$1,510			\$1,510			\$1,510	\$0	\$0
<b>Task 4 -- Ground-Level Surveys</b>											<b>\$123,955</b>	<b>\$37,260</b>	<b>\$86,695</b>	<b>\$86,695</b>	<b>\$44,265</b>	<b>\$121,880</b>	<b>-\$35,185</b>	<b>\$2,075</b>
4.1 Replace destroyed benchmarks	(2)	1	0	\$0			\$5,000		\$5,000	\$5,000			\$5,000			\$5,400	-\$400	-\$400
4.2 Conduct Fall 2014 ground-level and EDM survey in Managed Area	(1)	1	0.25	\$330			\$34,770		\$34,770	\$35,100			\$35,100			\$28,560	\$6,540	\$6,540
4.3 Conduct Fall 2014 ground-level survey in Central MZ-1 Area	(3)	1	0.25	\$330			\$19,855		\$19,855					\$20,185				
4.4 Conduct Fall 2014 ground-level survey in Southeast Area (CCWF)	(3)	1	0.25	\$330			\$26,315		\$26,315	\$26,645			\$26,645			\$27,700	-\$1,055	-\$1,055
4.5 Conduct Fall 2014 ground-level and EDM survey in Pomona Area (Ayala Park start)	(3)	1	0.25	\$330			\$23,750		\$23,750					\$24,080		\$29,480	-\$29,480	-\$29,480
4.6 Conduct Fall 2014 ground-level and EDM survey at the Pomona Fault Zone	(3)	1	0.25	\$330			\$17,860		\$17,860	\$18,190			\$18,190			\$18,190	\$0	\$18,190
4.7 Conduct Spring 2015 ground-level and EDM survey in Managed Area	(1)	1	0.5	\$660			\$36,600		\$36,600	\$37,260	\$37,260		\$0			\$28,560	-\$28,560	\$8,700
4.8 Process and upload data to database	(1)	1	1.5	\$1,760					\$0	\$1,760			\$1,760			\$2,180	-\$420	-\$420
<b>Task 5 -- Data Analysis and Reporting</b>											<b>\$68,720</b>	<b>\$0</b>	<b>\$68,720</b>	<b>\$68,720</b>	<b>\$15,840</b>	<b>\$68,770</b>	<b>-\$50</b>	<b>-\$50</b>
5.1 Data analysis in Managed Area	(1)																	
Production/pezometric/extensometer		1	6	\$7,360			\$20,000		\$20,000	\$27,360			\$27,360			\$27,590	-\$230	-\$230
EDM and ground-level survey data		1	5	\$5,180					\$0	\$5,180			\$5,180			\$8,000	-\$2,820	-\$2,820
InSAR data		1	1	\$1,160					\$0	\$1,160			\$1,160			\$1,160	\$0	\$0
Tectonic data		1	0.5	\$500					\$0	\$500			\$500			\$500	\$0	\$0
Recycled water reuse data		1	3.5	\$3,660					\$0	\$3,660			\$3,660			\$660	\$3,000	\$3,000
5.2 Prepare MZ-1 Annual Report	(1)																	
Prepare draft technical memorandum		1	20	\$23,560					\$200	\$23,760			\$23,760			\$23,760	\$0	\$0
Prepare final technical memorandum		1	5.5	\$6,800					\$300	\$7,100			\$7,100			\$7,100	\$0	\$0
5.3 Update MZ-1 Plan (if necessary)	(1)	1	10.5	\$15,640					\$200	\$200				\$15,840			\$0	\$0
<b>Task 6 -- Meetings and Administration</b>											<b>\$28,077</b>	<b>\$0</b>	<b>\$28,077</b>	<b>\$28,077</b>	<b>\$0</b>	<b>\$27,675</b>	<b>\$402</b>	<b>\$402</b>
6.1 Prepare for and attend Land Subsidence Committee meetings	(1)	2	6	\$8,720	\$91				\$91	\$8,811			\$8,811			\$9,630	-\$819	-\$819
6.2 Ad hoc meetings	(1)	1	3	\$4,360	\$46				\$46	\$4,406			\$4,406			\$3,186	\$1,220	\$1,220
6.3 Project Administration and Financial Reporting	(1)	12	7.5	\$10,500					\$0	\$10,500			\$10,500			\$10,500	\$0	\$0
6.4 Scope and Budget for FY2015/16	(1)	1	3	\$4,360					\$0	\$4,360			\$4,360			\$4,360	\$0	\$0
<b>Totals</b>											<b>\$575,936</b>	<b>\$228,868</b>	<b>\$347,067</b>	<b>\$329,684</b>	<b>\$136,327</b>	<b>\$451,210</b>	<b>-\$104,143</b>	<b>\$124,726</b>

Notes:

- (1) Required by MZ-1 Plan and/or Peace Agreement
- (2) Contingency budget. Spent only if necessary.
- (3) Discretionary task. Performed if recommended by the Land Subsidence Committee

