

I hereby certify that the foregoing Agenda was posted at least 72 hours prior to the time of the Regular Meeting so noticed below, at the usual agenda posting location of the San Juan Basin Authority.



Daniel R. Ferons  
SAN JUAN BASIN AUTHORITY  
and the Board of Directors thereof

## AGENDA

### SAN JUAN BASIN AUTHORITY BOARD OF DIRECTORS' MEETING SANTA MARGARITA WATER DISTRICT BOARD ROOM

**February 14, 2012**

**1:30 p.m.**

*Upon Request, this agenda will be made available in appropriate alternative formats to persons with disabilities, as required by Section 202 of the Americans with Disabilities Act of 1990. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to Daniel Ferons, Secretary, Board of Directors, at (949) 459-6590 at least 48 hours before the meeting if possible.*

### ITEMS DISTRIBUTED TO THE BOARD LESS THAN 72 HOURS PRIOR TO MEETING

Pursuant to Government Code section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection in the lobby of the Authority's business office located at 26111 Antonio Parkway, Rancho Santa Margarita, California 92688, during regular business hours. When practical, these public records will also be made available on the Santa Margarita Water District's Internet Web Site, accessible at <http://www.smwd.com>. All documents available for public review are on file with the Authority's Secretary located at 26111 Antonio Parkway, Rancho Santa Margarita, California 92688.

I. CALL MEETING TO ORDER

II. PLEDGE OF ALLEGIANCE

III. ORAL COMMUNICATIONS

- A. Persons wishing address the Board of Directors on matters not listed on the Agenda may do so at this time. "Request to be Heard" forms are available at the entrance to the Board Room. Comments are limited to three minutes, unless further time is granted by the Presiding Officer. Please submit the form to the Secretary prior to the beginning of the meeting.

Those wishing to address the Board of Directors on any items listed on the Agenda should submit a "request to be Heard" form to the Secretary before the Presiding Officer announces that agenda item. Your name will be called to speak at that time.

IV. CONSENT CALENDAR

- A. Consideration and Action on Minutes of Regular Meeting of November 8, 2011.....**Page 4**

**Staff Recommendation:** Approve subject minutes.

- B. Consideration and Action on Monthly Financial Statements for October and November 2011 .....**Page 8**

**Staff Recommendation:** Receive and file the Monthly Financial Statements.

Note: Items on the CONSENT CALENDAR will be considered for approval without discussion in one vote. A Director may request that an item be taken off the Consent Calendar for full discussion.

**[END OF CONSENT CALENDAR]**

V. ACTION ITEMS

- A. Consideration and Action on Revised Schedule to Complete the Update of San Juan Basin Groundwater Management and Facilities Plan .....**Page 11**

**Staff Recommendation:** Provide direction as appropriate.

- B. Consideration and Action on Acceptance of Proposal for 2012 San Juan Basin Monitoring Program .....**Page 14**

**Staff Recommendation:** Authorize monitoring services by Wildermuth Environmental Inc. in the amount not to exceed \$96,381.

VI. ATTORNEY'S REPORT

VII. OTHER MATTERS

- A. Open Discussion or items received too late to be agendized.

VIII. INFORMATION ITEMS

- A. Presentation by West Curry on the City of San Juan Capistrano Groundwater Recovery Plant Current Status.

IX. ADJOURNMENT

The next Regular Board of Directors' meeting is scheduled for **March 13, 2012 at 1:30 p.m.** at the Santa Margarita Water District, 26111 Antonio Parkway, Rancho Santa Margarita, California.



V. ACTION ITEMS

A. Consideration and Action on Independent Financial Audit for Fiscal Year 2010-2011

Kristin Griffith reported there were no findings in the audit.

Director Dunbar questioned the comments regarding the lack of an investment policy for the SJBA. It was noted that SJBA follows the investment and financial policies of the Santa Margarita Water District.

Attorney Burns confirmed that in the absence of its own financial and investment policies it is acceptable to follow the rules of the host entity.

**MOTION NO. 2011-xx**

Thereafter, upon a motion duly made and seconded to receive and file the Independent Financial Audit for Fiscal Year 2010-2011 prepared by Craig R. Fechter, CPA. Motion passed 3-0-1 with Director Schatz absent.

B. Consideration and Action on Annual Monitoring Program.

Mark Wildermuth provided a review of the amendments to the Water Rights Permit.

- Extended the completion date of the project under condition 6 to December 31, 2035.
- Deleted and rewrote the original Condition 16 in its entirety.
- Deleted and rewrote the original Condition 17 in its entirety.
- Modified Condition 23 eliminating the need to monitor vegetation for the Phase I project.

John Thornton noted the monitoring has been changed from monthly to quarterly and the reduced monitoring requirements involve monitoring water levels and electrical conductivity. Options to consider:

- Develop a Request for Proposals based on a revised scope of work including the noted changes.
- Request a proposal from Wildermuth Environmental, Inc. for continued monitoring services based on a revised scope of work.

West Curry commented that from an operational viewpoint, there is no reason why the current contract couldn't be extended reducing the cost to be in alignment with the reduced monitoring efforts. It was noted that the Phase II monitoring requirement would be reduced to an estimated \$70,000. The current agreement extends to December 31, 2011 for \$102,000.

John Schatz arrived at 1:49 p.m.

**MOTION NO. 2011-xx**

Thereafter, upon a motion duly made by Director McKenney, seconded by Director Dunbar to direct staff to obtain a proposal from Wildermuth Environmental, Inc. for reduced monitoring services and authorize staff to initiate an extension of one year for an amount not to exceed \$70,000. Motion passed 4-0.

VI. ATTORNEY'S REPORT

Attorney Burns stated she has no report for this meeting.

VII. OTHER MATTERS

- A. Open Discussion or items received too late to be agendized.

VIII. INFORMATION ITEMS

- A. Presentation by West Curry on the City of San Juan Capistrano Groundwater Recovery Plant Current Status.

West Curry provided an update on the repairs to the plant. He noted the maximum target for plant production is 5.2 million gallons of water per day; however, the plant has been on reduced production due to damage to two of the four filters. The plant is currently functioning at a reduced capacity of 4.1 million gallons per day.

Once the filters are replaced, production will be increased to the target production level.

Director Freese introduced Keith Van Der Maaten, the new Utilities Director for the City of San Juan Capistrano.

Karl Seckel updated the Board on the progress being made on the modeling that is needed for the SJBA to complete its Ground Water Management Plan. He noted that the report provided by PACE was not accepted and MWDOC will be working with GeoScience to finish the surface water hydrology. WEI will be providing technical support.

He noted a report is forthcoming to identify the balance of the project.

IX. ADJOURNMENT

There being no further business before the Board of Directors, a motion duly made and seconded to adjourn the meeting at 2:08 p.m. Motion passed unanimously.

Respectfully submitted,

Sharon D. Brimer, Recording Secretary

The next Regular Board of Directors' meeting is scheduled for December 13, 2011 at 1:30 p.m. at the Santa Margarita Water District, 26111 Antonio Parkway, Rancho Santa Margarita, California.

I DO HEREBY CERTIFY that the foregoing Minutes are true and correct copy of the Minutes adopted by the Board of Directors of the SAN JUAN BASIN AUTHORITY.

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Daniel R. Feron, Administrator  
SAN JUAN BASIN AUTHORITY

**San Juan Basin Authority  
Financial Statements  
November 2011**

	021	026	022	031	029	025	020	032	033	Total
	General Fund	P.C. 1 Ortega Well	P.C. 4 Desalter	P.C. 4 Debt Svc	P.C. 9 Well Field	P.C. 10 Monitoring	P.C.11 Future Projects	P.C. 13 USGS Co-Op GIS	P.C. 14 Local GIS Development	
<b>ASSETS</b>										
Cash and Investments	\$ 118,908	\$ -	\$ 50,117	\$ -	\$ -	\$ 266,094	\$ 3,816	\$ 49,039	\$ -	\$ 487,974
Cash and Investment-Restricted for Debt Service	-	-	-	2,280,804	-	-	-	-	-	2,280,804
Accounts Receivable - Lease prin	-	-	-	24,375,659	-	-	-	-	-	24,375,659
Prepays	-	-	-	-	-	-	-	8,133	-	8,133
Utility Plant in Service	147,274	493,254	-	-	489,004	42,187	-	-	-	1,171,719
(Less) Accumulated Depreciation	(147,274)	(414,452)	-	-	(456,835)	(40,769)	-	-	-	(1,059,330)
<b>TOTAL ASSETS</b>	<b>\$ 118,908</b>	<b>\$ 78,802</b>	<b>\$ 50,117</b>	<b>\$ 26,656,463</b>	<b>\$ 32,169</b>	<b>\$ 267,512</b>	<b>\$ 3,816</b>	<b>\$ 57,172</b>	<b>\$ -</b>	<b>\$ 27,264,959</b>
<b>LIABILITIES AND FUND EQUITIES</b>										
Current - Accounts Payable	\$ 6,562	\$ -	\$ 2,265	\$ 439,973	\$ -	\$ 6,926	\$ -	\$ -	\$ -	\$ 455,726
Bonds Payable	-	-	-	26,655,000	-	-	-	-	-	26,655,000
<b>TOTAL LIABILITIES</b>	<b>6,562</b>	<b>-</b>	<b>2,265</b>	<b>27,094,973</b>	<b>-</b>	<b>6,926</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>27,110,726</b>
<b>FUND EQUITIES</b>										
Contributed Capital - Fund Balance	\$ -	\$ -	\$ -	\$ 4,413	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,413
SMWD	14,338	41,803	-	-	16,988	28,404	954	6,670	-	109,157
MNWD	15,390	-	-	-	-	44,805	954	7,756	-	68,905
CITY OF SAN JUAN CAPISTRANO	15,374	41,804	36,689	-	16,989	49,899	954	7,756	-	169,465
SCWD	15,811	-	-	-	-	14,693	954	8,840	-	40,298
Current Year Fund Balance	51,433	(4,805)	11,163	(442,923)	(1,808)	122,785	-	26,150	-	(238,005)
<b>TOTAL FUND EQUITIES</b>	<b>112,346</b>	<b>78,802</b>	<b>47,852</b>	<b>(438,510)</b>	<b>32,169</b>	<b>260,586</b>	<b>3,816</b>	<b>57,172</b>	<b>-</b>	<b>154,233</b>
<b>TOTAL LIABILITIES AND FUND EQUITIES</b>	<b>\$ 118,908</b>	<b>\$ 78,802</b>	<b>\$ 50,117</b>	<b>\$ 26,656,463</b>	<b>\$ 32,169</b>	<b>\$ 267,512</b>	<b>\$ 3,816</b>	<b>\$ 57,172</b>	<b>\$ -</b>	<b>\$ 27,264,959</b>
<b>REVENUES</b>										
Special assessments	\$ 65,225	-	\$ 13,531	-	-	\$ 181,423	-	\$ 26,150	-	\$ 286,329
<b>TOTAL REVENUES</b>	<b>65,225</b>	<b>-</b>	<b>13,531</b>	<b>-</b>	<b>-</b>	<b>181,423</b>	<b>-</b>	<b>26,150</b>	<b>-</b>	<b>286,329</b>
<b>EXPENDITURES</b>										
Engineering Expense	\$ 6,380	\$ -	\$ 2,368	\$ -	\$ -	\$ 57,625	\$ -	\$ -	\$ -	\$ 66,373
Consulting Services	81	-	-	-	-	-	-	-	-	81
Legal Fees	1,146	-	-	-	-	-	-	-	-	1,146
Dues	685	-	-	-	-	-	-	-	-	685
Depreciation Expense	-	4,805	-	-	1,808	1,013	-	-	-	7,626
Debt Service and Interest Expense	-	-	-	442,923	-	-	-	-	-	442,923
Prior Year Expense	5,500	-	-	-	-	-	-	-	-	5,500
<b>TOTAL EXPENDITURES</b>	<b>13,792</b>	<b>4,805</b>	<b>2,368</b>	<b>442,923</b>	<b>1,808</b>	<b>58,638</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>524,334</b>
<b>TRANSFERS</b>										
Miscellaneous Transfers	-	-	-	-	-	-	-	-	-	-
<b>NET INCOME/(LOSS)</b>	<b>\$ 51,433</b>	<b>\$ (4,805)</b>	<b>\$ 11,163</b>	<b>\$ (442,923)</b>	<b>\$ (1,808)</b>	<b>\$ 122,785</b>	<b>\$ -</b>	<b>\$ 26,150</b>	<b>\$ -</b>	<b>(238,005)</b>



**San Juan Basin Authority  
Budget Fiscal Year 2011/2012**

	Budget	July 2011	Aug	Sept	Oct	Nov	Dec	Jan 2012	Feb	March	April	May	June	Year to Date Expenditures	Budget Remaining
<b>GENERAL FUND (021)</b>	-														
Financial Services	\$ 6,225	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	\$ 6,225
Legal Fees	7,000	-	-	-	84	1,062	-	-	-	-	-	-	-	1,146	5,854
Secretarial Administration	4,000	-	-	-	-	-	-	-	-	-	-	-	-	-	4,000
Audit Services	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-	10,000
Miscellaneous	-	-	-	5,582	-	685	-	-	-	-	-	-	-	6,267	(6,267)
Project Management Services	66,000	-	-	880	5,500	-	-	-	-	-	-	-	-	6,380	59,620
	<u>\$ 93,225</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 6,462</u>	<u>\$ 5,584</u>	<u>\$ 1,747</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 13,793</u>	<u>\$ 79,432</u>
<b>Project Committee 4 (022)</b>															
Vegetation Monitoring	\$ 44,000	\$ -	\$ 1,520	\$ 847	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	2,367	\$ 41,633
	<u>\$ 44,000</u>	<u>\$ -</u>	<u>\$ 1,520</u>	<u>\$ 847</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 2,367</u>	<u>\$ 41,633</u>
<b>PROJECT COMMITTEE 10 (025)</b>															
Water Rights Monitoring - Field	\$ 124,000	\$ 3,865	\$ 5,007	\$ 1,454	\$ 1,675	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,001	\$ 111,999
Groundwater Management Plan	100,000	11,432	23,105	3,571	7,517	-	-	-	-	-	-	-	-	45,625	54,375
	<u>\$ 224,000</u>	<u>\$ 15,297</u>	<u>\$ 28,112</u>	<u>\$ 5,025</u>	<u>\$ 9,192</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 57,626</u>	<u>\$ 166,374</u>
<b>PROJECT COMMITTEE 13 (032)</b>															
USGS-Loop Agreement Steam Gauging	\$ 28,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 28,500
	<u>\$ 28,500</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 28,500</u>
<b>TOTAL BUDGETED EXPENDITURES</b>	<u>\$ 389,725</u>	<u>\$ 15,297</u>	<u>\$ 29,632</u>	<u>\$ 12,334</u>	<u>\$ 14,776</u>	<u>\$ 1,747</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 73,786</u>	<u>\$ 315,939</u>

**SAN JUAN BASIN AUTHORITY  
BUDGET DETAIL/CHECK REGISTER  
AS OF NOVEMBER 30, 2011**

					GENERAL FUND (21)					(021)	PC 4 DESALTER (22)	(022)	
					Financial	Legal Fees	Secretarial	Audit	Misc	Contingency	TOTAL	Veg Monitoring	TOTAL
BUDGET					\$ 6,225.00	\$ 7,000.00	\$ 4,000.00	\$ 10,000.00	\$ -	\$ 66,000.00	\$ 93,225.00	\$ 44,000.00	\$ 44,000.00
Ck #	Date	Vendor	CHECK AMOUNT	Prior Yr Expenses									
		ACCRUALS BAL FWD Prior Year		109,953.42									
2512	7/18/2011	WILDERMUTH ENVIRONMENTAL	52,130.91	(52,130.91)									
2513	8/15/2011	U.S. GEOLOGICAL SURVEY	24,650.00	(24,650.00)									
2514	8/18/2011	SHARON BRIMER	200.00	(200.00)									
2515	8/18/2011	STRADLING YOCCA CARLSON & F	649.00	(649.00)									
2516		VOID		-									
2517	8/18/2011	WILDERMUTH ENVIRONMENTAL	13,479.64	(13,479.64)									
2518		VOID		-									
2519	9/29/2011	WILDERMUTH ENVIRONMENTAL	25,803.48	(10,506.32)									
2520	10/13/2011	PSOMAS	5,500.00					5,500.00		5,500.00			
2521	11/14/2011	WILDERMUTH ENVIRONMENTAL	5,872.37								847.35	847.35	
2522	11/14/2011	PSOMAS	880.00										
2523	11/14/2011	STRADLING YOCCA CARLSON & F	84.20			84.20				880.00	964.20		
2524	11/17/2011	WILDERMUTH ENVIRONMENTAL	29,632.22									1,520.12	1,520.12
2525	11/17/2011	FECHTER & COMPANY	5,800.00	(5,800.00)									
2526	11/17/2011	SANTA MARGARITA WATER DISTRICT	2,619.27	(2,537.55)				81.72		81.72			
2527	11/17/2011	ST WATER RESOURCES CONTR	684.60					684.60		684.60			
		Prior year pending payment		(0.00)									
		Accruals from FY 11/12	(5,500.00)							6,562.00			2,264.59
<b>BUDGET REMAINING 2011.12</b>					<b>\$ 6,225.00</b>	<b>\$ 6,915.80</b>	<b>\$ 4,000.00</b>	<b>\$ 10,000.00</b>	<b>\$ (6,266.32)</b>	<b>\$ 65,120.00</b>	<b>\$ 79,432.48</b>	<b>\$ 41,632.53</b>	<b>\$ 39,367.94</b>

					PC 10 MONITORING	(10)	PC 13 USGS CO-OP	(13)	(31)	TOTAL BUDGET	
					Grdwtr monitoring Grnd Mgmt Plan	TOTAL	Lp Agree Stm Gauging	TOTAL	Debt Svc Pmts	Used/Remaining	
BUDGET					\$ 124,000.00	\$ 100,000.00	\$ 224,000.00	\$ 28,500.00	\$ 28,500.00	\$ 389,725.00	
Ck #	Date	Vendor									
2512	7/18/2011	WILDERMUTH ENVIRONMENTAL									
2513	8/15/2011	U.S. GEOLOGICAL SURVEY									
2514	8/18/2011	SHARON BRIMER									
2515	8/18/2011	STRADLING YOCCA CARLSON & RAUTH									
2516		VOID									
2517	8/18/2011	WILDERMUTH ENVIRONMENTAL									
2518		VOID									
2519	9/29/2011	WILDERMUTH ENVIRONMENTAL			3,865.45	11,431.71	15,297.16			(15,297.16)	
2520	10/13/2011	PSOMAS								(5,500.00)	
2521	11/14/2011	WILDERMUTH ENVIRONMENTAL			1,453.82	3,571.20	5,025.02			(5,872.37)	
2522	11/14/2011	PSOMAS									
2523	11/14/2011	STRADLING YOCCA CARLSON & RAUTH								(964.20)	
2524	11/17/2011	WILDERMUTH ENVIRONMENTAL			5,006.80	23,105.30	28,112.10			(29,632.22)	
2525	11/17/2011	FECHTER & COMPANY									
2526	11/17/2011	SANTA MARGARITA WATER DISTRICT								(81.72)	
		Accruals from FY 11/12					6,926.46			15,753.05	
<b>BUDGET REMAINING</b>					<b>\$ 113,673.93</b>	<b>\$ 61,891.79</b>	<b>\$ 168,639.26</b>	<b>\$ 28,500.00</b>	<b>\$ 28,500.00</b>	<b>\$ -</b>	<b>\$ 315,939.68</b>



## SAN JUAN BASIN AUTHORITY

26111 Antonio Parkway • Rancho Santa Margarita, CA 92688 (949) 459-6400 FAX (949) 459-6463

**TO:** Board of Directors **DATE:** February 14, 2012

**FROM:** Dan Ferons  
West Curry

**SUBJECT:** **Revised Schedule to Complete the Update of San Juan Basin Groundwater Management and Facilities Plan**

### **SUMMARY**

**Issue:** The Authority is in the process of updating the San Juan Basin Groundwater Management and Facility Plan prepared in May 1994. The proposed update includes professional engineering, geotechnical, hydrology, hydraulic and other related services to develop a program for project implementation and groundwater monitoring addressing local water demands. Coordination of the groundwater modeling efforts with the South Orange County Ocean Desalter has influenced the project schedule. Wildermuth Environmental was requested to revise its schedule and approach to complete the project in parallel with the modeling efforts.

**Recommendation:** Provide direction as appropriate.

**Fiscal Impact:** Current Budget is not impacted.

**Previously Related Action:** The Authority authorized Wildermuth Environmental to prepare an updated Groundwater Management and Facilities Plan.

### **DISCUSSION**

Wildermuth Environmental Inc. (WEI) and the members of the Technical Advisory Committee met to review progress on the update of the Groundwater Management and Facilities Plan (Plan). The approach to the project has been to work closely with MWDOC and its consultants to develop a groundwater model of the basin for both the Plan and the South Orange County Ocean Desalter (SOCOD). Progress on the model has been steady; however, work is not complete.

The TAC requested WEI to review the scope of work and the proposed approach to the work to develop a parallel path allowing for progress on the Plan while the modeling is completed. A memo with the revised approach and proposed timeline for completion is attached. The basic concept is to work with the data developed to date to develop potential management strategies and projects and to fine-tune them when the modeling data is available. This approach will allow for starting the workshop process to solicit input into the strategies and review agency planning in conjunction with the San Juan Basin.



February 8, 2012

Santa Margarita Water District  
Attention: Dan Ferons  
26111 Antonio Pkwy  
Rancho Santa Margarita, CA 92688

City of San Juan Capistrano  
Attention: West Curry  
32400 Paseo Adelanto  
San Juan Capistrano, CA 92675

**Subject: Revised Schedule to Complete the Update of San Juan Basin Groundwater Management Plan and Facilities Plan**

Gentlemen:

Pursuant to your request, Wildermuth Environmental, Inc. (WEI) has prepared a revised schedule to complete the update of the San Juan Basin Groundwater Management and Facilities Plan. WEI provided the Technical Committee a set of tables and exhibits covering the first five tasks of our scope and we were waiting for the completion of the baseline groundwater production sustainability simulations by the Municipal Water District of Orange County (MWDOC) consultant to complete our assessment of state of the basin<sup>1</sup>. As you are aware there have been several setbacks in the development of the new MWDOC model and there is no certainty that the model will be ready for our use in the next six months. At your direction we have revised our approach to completing the update of the San Juan Basin Groundwater Management and Facilities Plan by eliminating the use of MWDOC model. The evaluation of updated management concepts will be less detailed than in our original proposal and we will be able to complete the plan sooner than if we were to wait until the MWDOC model is sufficiently calibrated and ready for planning projections.

Attached is a revised schedule prepared in Microsoft Project that shows the relationships among the tasks, their start and ending dates, etc. The highlights of the schedule are listed below.

- We have completed most of the technical parts of Tasks 1 through 5 and will pull together draft Sections 2 through 5 and submit them to the SJBA on or before March 9, 2012. We need to develop an estimate of the sustainable yield of the basin which will be done before the end of February.
- A workshop on the state of the basin and planning projections (the contents of draft Sections 2 through 5) should be held shortly thereafter. For planning purposes we show this workshop on March 13, 2012.
- We plan to complete Task 6 Define Alternative Plans by April 6, 2012 and allow up to three weeks for the Technical Committee to review.

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<sup>1</sup> The model results were to provide an estimate of the sustainable yield, developed yield and a characterization of the basin hydrology.

- 
- Assuming the Technical Committee completes their review by April 27, 2012, we plan to complete Task 7 Evaluate Alternative Management Plans June 22, 2012.
  - A workshop should be held to present the findings of Tasks 6 and 7. For planning purposes we have assumed that a workshop will be held on or around June 26, 2012.
  - Task 8 Describe Recommended Management Plan, Task 9 Develop Monitoring and Reporting Protocols, and Task 12 Preliminary CEQA Analysis will start after all comments on Tasks 6 and 7 and from the workshop have been addressed. These tasks will run in parallel and their draft sections will be submitted to the Technical Committee by about the end of July 2012. We have assumed that it will take up to three weeks for the Technical Committee to review.
  - A draft report for the groundwater management plan will be submitted to the Technical Committee for their review by the end of August 2012.
  - A workshop should be held to present the findings of the draft report. For planning purposes we have assumed that a workshop will be held in early September 2012.
  - The final report will submitted to the SJBA by the end of September 2012.

The Technical Committee will need to start meeting about twice per month starting in March to complete this work on this compressed schedule. These meetings are not shown on the attached schedule.

Please call me if you have any questions.

Very truly yours,

**Wildermuth Environmental, Inc.**



Mark J. Wildermuth, PE  
President

Encl. Figure 1 – Updated Project Schedule



## SAN JUAN BASIN AUTHORITY

26111 Antonio Parkway • Rancho Santa Margarita, CA 92688 (949) 459-6400 FAX (949) 459-6463

**TO:** Board of Directors **DATE:** February 14, 2012  
**FROM:** Dan Ferons  
**SUBJECT:** Acceptance of Proposal for 2012 San Juan Basin Monitoring Program

### SUMMARY

**Issue:** In November 2011, the Authority requested Wildermuth Environmental, Inc. to provide a proposal for monitoring under its Permit for Diversion and Use of Water from the State Water Resources Control Board as well as under the California Statewide Groundwater Elevation Monitoring (CASGEM) Program.

**Recommendation:** Authorize monitoring services by Wildermuth Environmental Inc. in the amount not to exceed \$96,381.

**Fiscal Impact:** Funds are provided in the Fiscal Year 2011/2012 budget for monitoring through June and will be included in the Fiscal Year 2012/2013 budget for the remainder of the year.

**Previously Related Action:** The Authority has an annual contract for monitoring services. The previous contract through December 2011 with Wildermuth Environmental was in the amount of \$102,241.

### DISCUSSION

Wildermuth Environmental Inc. (WEI) provided the attached proposal for monitoring services for the 2012 calendar year. The work is divided into three program elements:

1. Monitoring required per the Water Rights Permit at a level that anticipates the Authority pumping more than 4,800 Acre Feet, (\$55,844)
2. Monitoring and reporting required for compliance with CASGEM (\$1,860)
3. Basin management monitoring program (\$28,677)

The first two programs are regulatory in nature and the proposed work meets the requirements of the permitting agencies. The third program was requested by the member agencies to provide a database that links to the monitoring efforts of the multiple agencies to provide the means to access a comprehensive summary of the groundwater and surface water monitoring in a coordinated effort.



January 19, 2012

San Juan Basin Authority  
Attn: Dan Ferons and West Curry  
C/o Santa Margarita Water District  
P.O. Box 7005  
Mission Viejo, CA 92690-7005

**Subject: *Proposal – 2012 San Juan Basin Monitoring Programs***

Dear Messrs. Ferons and Curry:

Pursuant to your request, Wildermuth Environmental, Inc. (WEI) prepared this proposal for the San Juan Basin Authority (SJBA) to implement the monitoring programs described herein for the 2012 calendar year. The scope of work described in this proposal is divided into three monitoring programs. Programs I and II comply with the basic regulatory monitoring requirements described in the State Water Resources Control Board (SWRCB) Division of Water Rights diversion permit no. 21074 (diversion permit) and the Department of Water Resources (DWR) California Statewide Groundwater Elevation Monitoring (CASGEM) program. However, they do not provide for the collection and analysis of the data necessary to manage the basin's water resources. The scope of work described under Program III will create a new data collection and monitoring program that satisfies both regulatory and basin management data requirements in a more efficient and effective manner than has historically occurred. This proposal includes a description of each monitoring program, our scope of work, schedule and fee.

**Scope of Work**

**Program I - Integrated Groundwater and Vegetation Monitoring Program**

Beginning in 2004, the SJBA extracted or diverted groundwater from the basin under permit no. 21074, dated October 30, 2000. This permit describes, among other things, the groundwater, surface water, and vegetation monitoring requirements that must be satisfied to determine the impacts to water levels, water quality, and riparian vegetation that result from groundwater extractions related to the operation of the SJBA desalter facility at two levels of production: Phase I (groundwater extractions less than 4,800 acre-feet/yr) and Phase II (groundwater extractions in excess of 4,800 acre-feet/yr). On October 10, 2011, amended diversion permit no. 21074 was signed by the Deputy Director of the Division of Water Rights. The amended diversion permit provides for the reduction and/or elimination of monitoring requirements for Phase I production and amended monitoring requirements for Phase II production. The City of San Juan Capistrano, operator of the desalter facility, anticipates groundwater production will exceed 4,800 acre-feet in calendar year 2012. As such, the monitoring requirements for Phase II of the project under the amended permit will be implemented during the 2012 calendar year, as described below. The amended diversion permit will also require modifications to the existing monitoring plan that reflect the changed permit conditions. The new monitoring plan for Program I will be developed in conjunction with Program III, as described below.

## **Task 1 – Groundwater, Surface Water, and Vegetation Monitoring**

Task 1.1 Groundwater Monitoring. Under the amended diversion permit, the SJBA is required to participate in the CASGEM program and measure groundwater elevations at selected wells on a quarterly basis. The CASGEM program is subsequently described under Program II. The amended diversion permit also requires that electrical conductivity (EC) be measured quarterly in conjunction with the groundwater elevation monitoring. Eight of the nine SJBA monitoring wells are currently equipped with a pressure transducer and data logger that measures and records groundwater elevation and EC on an hourly basis. Each quarter, WEI will manually measure the groundwater elevation at each well with an electric water-level sounder, download the groundwater elevation and EC data from the data loggers, calibrate the EC probes, and perform routine transducer maintenance. The transducer data will be processed, checked for accuracy, and loaded into HydroDaVE™.

Task 1.2 Surface Water and Vegetation Monitoring. Under the amended diversion permit, Phase II of the project requires monthly vegetation monitoring. Monthly vegetation monitoring consists of a biologist visiting five monitoring stations to collect written and photographic records of vegetation health and current climate conditions. During the vegetation monitoring site visits, field surface water quality monitoring for EC, pH, and temperature will also be performed. The field water quality data will be processed, checked for quality assurance/quality control (QA/QC), and loaded into HydroDaVE™.

## **Task 2 – Precipitation, Stream Flow, and Production Data Acquisition**

Each quarter, WEI will collect the data identified in the following subtasks. All of the data collected as part of this task will be processed and checked for QA/QC, and the stream flow data will be loaded into HydroDaVE™.

Subtask 2.1 Precipitation Data: The County of Orange operates and maintains an Automated Local Evaluation in Real Time (ALERT) flood detection system, which includes approximately 65 precipitation stations. The data from ALERT precipitation station nos. 207, 209, 213, 215, 232, and 297 will be collected quarterly.

Subtask 2.2 Stream Flow Data: Stream flow within the San Juan Creek and the Trabuco Creek is currently measured at two locations that are equipped with automated flow recording devices, maintained by the United States Geological Survey (USGS) through a cooperative agreement with the SJBA. San Juan Creek discharge is measured at La Novia Avenue near San Juan Capistrano (Station No. 11046530). Trabuco Creek discharge is measured at Del Obispo Street in San Juan Capistrano (Station No. 11047300). The discharge data from each station will be obtained from the USGS on a quarterly basis.

Subtask 2.3 Groundwater Production Data: Groundwater production data will be collected from the following agencies:

- The City of San Juan Capistrano (CVWD 5A, CVWD 1, Dance Hall, Hollywood 2A, Kinoshita, Mission Street, North Open Space, Rosenbaum 1, SJBA 2, SJBA 4, South Cooks, and Tirador)



- The South Coast Water District (Stonehill)
- The San Juan Hills Golf Course (SJHGC #s 2, 3, and 4, Large Well and Small Well)

### **Task 3 – Reporting**

Subtask 3.1 Annual Integrated Monitoring Report. WEI will prepare an *Annual Integrated Groundwater and Vegetation Monitoring Report*, summarizing the findings of the 2012 monitoring program. One draft report will be prepared and submitted in electronic format to the SJBA for review and comment. WEI will participate in one meeting with SJBA staff to review SJBA comments. Following incorporation of SJBA comments, WEI will prepare and submit four bound hard-copies of the final report to the SJBA—each with an electronic copy attached.

Subtask 3.2 SJBA Board of Directors Progress Reports. WEI will present two progress reports on the 2012 monitoring program to the SJBA Board of Directors. The progress reports will consist of a short presentation of the work completed to date and a summary of the findings.

Subtask 3.3 Miscellaneous Meetings and Data Requests. During the course of the year, WEI expects various meetings will be called and/or data requests will be made by the SJBA member agencies. It is assumed that WEI will participate in one meeting and respond to one data request each quarter during the 2012 calendar year. One principal-level staff will participate in each meeting.

### **Program II - California Statewide Groundwater Elevation Monitoring (CASGEM) Program**

Groundwater elevation monitoring is required in all groundwater basins in the State of California per senate bill SBX7 6. The SJBA volunteered to be the designated monitoring entity for the San Juan Valley Groundwater Basin. The SJBA prepared a groundwater monitoring plan that describes the CASGEM monitoring and reporting methods for the San Juan Basin. The DWR-approved monitoring plan requires that quarterly groundwater elevation measurements be collected from the nine SJBA monitoring wells and reported to the DWR through the online CASGEM reporting system.

#### **Task 1 – CASGEM Monitoring and Reporting**

Subtask 1.1 CASGEM Monitoring. The CASGEM program requirements will be satisfied through the implementation of Task 1 of Program I – Integrated Groundwater and Vegetation Monitoring Program. No additional monitoring is required under this subtask.

Subtask 1.2 CASGEM Reporting. During the 2012 calendar year, WEI will prepare and report quarterly groundwater elevation data to the DWR through the on-line CASGEM reporting system.

### **Program III – Basin Management Monitoring Program**

A basin management monitoring program is being proposed to ensure that the data necessary to comply with the regulatory requirements and to satisfy basin management needs are being collected in the most efficient and effective manner possible. The basin monitoring program will consist of two tasks. The first task is to collect and store all hydrologic data collected within the basin in one

centralized database, HydroDaVE™. The second task is to develop a monitoring program that satisfies both regulatory and basin management requirements.

The SJBA member agencies, the Municipal Water District of Orange County (MWDOC), private well owners, and others have a vested interest in the efficient management of the San Juan Basin's water resources. Currently, each agency collects, analyzes, and/or reports data in accordance with their own internal practices and purposes. This type of data management leads to inefficiencies related to overlap and duplication of data collection, dissemination, and analysis. The establishment of a basin-wide data management program is recommended to minimize these inefficiencies. This data management program would include the regular acquisition of all groundwater elevation and groundwater quality data collected by each agency within the basin and uploading that data into the HydroDaVE™ database.<sup>1</sup> The data would then be made available, as appropriate, to those agencies through HydroDaVE™ and would provide a means to access the most current, comprehensive and uniform hydrologic data available. The scope of work for this effort is described below under Task 1.

In addition to data management, a basin-wide groundwater and surface water monitoring program should be developed that not only satisfies the regulatory requirements of the SWRCB and CASGEM but the data needs of the basin managers as well. The SJBA currently has a monitoring plan for the CASGEM program, and a quasi-monitoring plan for the diversion permit that is based on the original diversion permit conditions. In addition to these monitoring plans, each agency has their own internal monitoring plan that satisfies their unique regulatory and management requirements. The purpose of this task is to create a single comprehensive groundwater and surface water monitoring program that reduces the duplication of data collection efforts, reduces monitoring costs, and meets the needs of basin managers. The data generated through the implementation of the monitoring plan may be used to support the following potential goals and objectives:

- Comply with the CASGEM program.
- Comply with the diversion permit.
- Calculate groundwater storage change.
- Calibrate the basin model.
- Determine salt and nutrient loads.
- Identify water quality threats to production wells.
- Identify adverse impacts to senior water rights.
- Improve desalter operations.
- Maximize basin yield.

The scope of work for the development of a basin-wide groundwater and surface water monitoring program is subsequently described under Task 2.

### **Task 1 – Groundwater Level and Groundwater Quality Data Management**

All available groundwater elevation and quality data through 2010 was collected from the basin stakeholders during the Groundwater Management Plan data collection effort and uploaded into in HydroDaVE™. The effort proposed herein includes the collection,

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<sup>1</sup> HydroDaVE is currently being used by the SJBA for their CASGEM, diversion permit, and groundwater management plan data storage.

processing, and upload of the data generated since 2010, and the ongoing collection of data through the end of calendar year 2012.

Subtask 1.1 Data Acquisition from Collecting Agencies. Groundwater elevation and quality data collected by the City of San Juan Capistrano, the South Coast Water District, and the MWDOC will be acquired on a quarterly basis. WEI will also work directly with the analytical laboratory performing water quality analyses for each agency to streamline the electronic data transmittal process. The groundwater elevation and/or quality data will be acquired for the wells shown in Table 1. Table 1 also identifies the current monitoring agency and the frequency of groundwater elevation and quality data collection at each well.

Subtask 1.2 Data Review and Upload to Database. All data collected in subtask 1.1 will be reviewed, checked for QA/QC, and uploaded to the database on a quarterly basis. Following upload, WEI will notify, via email, each data-providing agency that the data has been processed and is available through HydroDaVE™.

## **Task 2 – Development of a Basin Monitoring Program**

Subtask 2.1 Define Agency Data Needs and Monitoring Goals. WEI will meet with the SJBA member agencies and the MWDOC to determine 1) what data each agency currently collects and for what purpose, and 2) what questions each agency is trying to answer or would like answered to meet regulatory requirements and/or manage their water supplies and the water resources of the basin. These questions will be summarized into a single document and circulated through each agency for review and approval. This document will be used to define the goals and objectives of the monitoring program such that the data generated within the basin is done so in the most efficient and effective manner possible.

Subtask 2.2 Develop Monitoring Plan. A groundwater and surface water monitoring plan will be prepared to generate data that satisfies the goals and objectives defined in subtask 2.1.

The plan will:

- Summarize the data currently collected within the basin (collecting agency, type, location, frequency).
- Identify and summarize duplication/overlap of existing data collection efforts and provide recommendations for eliminating such duplication/overlap.
- Identify and summarize data collection gaps and recommendations for filling gaps to meet the monitoring goals and objectives.
- Identify and summarize recommended monitoring sites, monitoring site characteristics, sample type, sample frequency, and the program(s) for which the data from each site is intended to satisfy.
- Provide a description of how the monitoring data will be analyzed and reported to satisfy each condition defined in amended diversion permit no. 21074.
- Provide protocols for the collection, analysis, and reporting of data.
- Provide a monitoring program implementation cost estimate.

We anticipate two meetings will be conducted during this subtask to discuss, among other things, the refinement of monitoring goals, monitoring plan development, the availability and/or feasibility of using existing monitoring facilities, and the identification of sites for new monitoring facilities, if necessary. It is assumed the meetings will occur at the Santa

Margarita Water District and that staff from each agency will attend both meetings. For each meeting, WEI will prepare a meeting agenda and a summary of meeting minutes.

A draft monitoring plan will be submitted to the SJBA in electronic format (pdf) for review and comment. Following incorporation of SJBA comments, WEI will prepare and submit to the SJBA four bound copies of the final monitoring plan – each with an electronic copy attached. The SJBA, upon receipt of the revised plan, should submit the final plan to the SWRCB Division of Water Rights.

### **Schedule and Fee**

The duration of Programs I and II will be approximately 18 months. The duration of Program III will be approximately three months. The cost to complete the above scope of work is approximately \$96,000, which includes a \$10,000 contingency for unforeseen costs. The contingency will only be used upon prior written approval from the SJBA. Table 2 is a line-item work breakdown structure and fee schedule to complete the work.

### **Wildermuth Environmental, Inc.**



William E. Leever Jr., CHG  
Principal Hydrogeologist



Mark Wildermuth, PE  
President

#### Enclosures:

- Table 1 - Program III - Proposed Groundwater Data Collection Wells
- Table 2 - Work Breakdown Structure and Fee Estimate – 2012 San Juan Basin Monitoring Programs

**Table 1**  
**Program III - Proposed Groundwater Data Collection Wells**

Well Name	Monitoring Agency	Frequency <sup>1</sup>	
		Water Level	Water Quality
Kinoshita	San Juan Capistrano	Continuous	Monthly
Hollywood 2A	San Juan Capistrano	Continuous	Not sampled
Rosenbaum 1	San Juan Capistrano	Continuous	Annually
Dance Hall	San Juan Capistrano	Continuous	Monthly
Tirador	San Juan Capistrano	Continuous	Monthly
SJBA-4	San Juan Capistrano	Continuous	Monthly
CVWD-1	San Juan Capistrano	Continuous	Monthly
SJBA-2	San Juan Capistrano	Continuous	Monthly
Mission Street	San Juan Capistrano	Continuous	Not sampled
North Open Space	San Juan Capistrano	Continuous	Not sampled
South Cooks	San Juan Capistrano	Continuous	Monthly
CVWD #5A	San Juan Capistrano	Continuous	Monthly
Stonehill	South Coast Water District	Weekly	Monthly
SCWD MW-3	South Coast Water District	15 minutes	Not sampled
SCWD MW-2S	South Coast Water District	15 minutes	Not sampled
SCWD MW-2D	South Coast Water District	15 minutes	Not sampled
SCWD MW-1S	South Coast Water District	15 minutes	Not sampled
SCWD MW-1D	South Coast Water District	15 minutes	Not sampled
SCWD MW-4S	South Coast Water District	15 minutes	Not sampled
SCWD MW-4D	South Coast Water District	15 minutes	Not sampled
SJHGC-Small	San Juan Hills Golf Club	Irregular	Not sampled
SJHGC-Large	San Juan Hills Golf Club	Irregular	Not sampled
MW-1N	San Juan Basin Authority	Hourly	bi-annually
MW-1S	San Juan Basin Authority	Hourly	bi-annually
MW-2	San Juan Basin Authority	Hourly	bi-annually
MW-3	San Juan Basin Authority	Hourly	bi-annually
MW-4	San Juan Basin Authority	Hourly	bi-annually
MW-5	San Juan Basin Authority	Hourly	bi-annually
MW-6	San Juan Basin Authority	Hourly	bi-annually
MW-7	San Juan Basin Authority	Hourly	bi-annually
MW-8	San Juan Basin Authority	Hourly	bi-annually
MWDOC_MW1S	MWDOC	unknown	unknown
MWDOC_MW1M	MWDOC	unknown	unknown
MWDOC_MW2S	MWDOC	unknown	unknown
MWDOC_MW2M	MWDOC	unknown	unknown

Notes:

- The frequency of groundwater elevation and quality data is estimated for all but the SJBA wells and is based upon the data currently available in HydroDaVE™.

**Table 2  
Work Breakdown Structure and Fee Estimate  
2012 San Juan Basin Monitoring Programs**

Description	Notes	Labor										Other Direct Charges					Total Program Costs			
		Principal III	Principal I, II	Senior	DBA	Staff	Eng Tech	Field Tech	Task Rep Multiplier	Total Labor		Travel	Equipment		Subs	Repro	Total ODCs		Task	Program
										Person Hours	Cost		New	Rental			Sub-task	Task		
<b>Program I - Integrated Groundwater and Vegetation Monitoring Program</b>																	\$55,844			
<b>Task 1 – Groundwater, Surface Water, and Vegetation Monitoring</b>																	\$12,225			
1.1 Groundwater Monitoring		2	2		8	10	4	88		\$10,440	\$128	\$520	\$128			\$776		\$11,216		
1.2 Surface Water and Vegetation Monitoring	a	0.25			0.75			12	12	\$1,785				\$10,250	\$10,250			\$12,035		
<b>Task 2 - Precipitation, Stream Flow, and Production Data Acquisition</b>																	\$2,490			
2.1 Precipitation Data				0.5				4	6	\$830								\$830		
2.2 Stream Flow Data				0.5				4	6	\$830								\$830		
2.3 Groundwater Production Data				0.5				4	6	\$830								\$830		
<b>Task 3 - Reporting</b>																	\$28,060			
3.1 Annual Integrated Monitoring Report	a	4	8	64		64	8	1	148	\$21,600	\$14			\$2,000	\$2,014		\$23,614			
3.2 SJBA Board of Directors Progress Reports	b		2	2		4			2	\$2,480	\$29				\$29		\$2,509			
3.3 Miscellaneous Meetings and Data Requests	c	1	1	2		2			4	\$3,980							\$3,980			
<b>Program II - California Statewide Groundwater Elevation Monitoring (CASGEM) Program</b>																	\$1,860			
<b>Task 1 - CASGEM Monitoring and Reporting</b>																	\$1,860			
1.1 CASGEM Monitoring	d							4	0	\$0								\$0		
1.2 CASGEM Reporting			1			2		4	12	\$1,860								\$1,860		
<b>Program III - Basin Management Monitoring Program</b>																	\$28,677			
<b>Task 1 - Groundwater Level and Groundwater Quality Data Management</b>																	\$8,100			
1.1 Data Acquisition from Collecting Agencies				1		4		4	20	\$2,700								\$2,700		
1.2 Data Review and Upload to Database				2		8		4	40	\$5,400								\$5,400		
<b>Task 2 – Development of a Basin Monitoring Program</b>																	\$19,520			
2.1 Define Agency Data Needs and Monitoring Goals	e	2	2	2				2	12	\$2,320	\$29				\$29		\$2,349			
2.2 Develop Monitoring Plan	f	4	16	60	4	20	4	1	108	\$17,200	\$29			\$1,000	\$1,029		\$18,229			
<b>Sub-total</b>		<b>11</b>	<b>32</b>	<b>137</b>	<b>4</b>	<b>116</b>	<b>12</b>	<b>10</b>		<b>\$72,255</b>	<b>\$228</b>	<b>\$520</b>	<b>\$128</b>	<b>\$12,250</b>	<b>\$1,000</b>	<b>\$13,069</b>		<b>\$86,381</b>		
<b>Contingency</b>																		<b>\$10,000</b>		
<b>Total</b>																		<b>\$96,381</b>		

**Notes:**

- a Task support from our sub-consultant Glen Lukos Associates.
  - b Assumes a total of two meetings. Each meeting will be attended by one Principal and one Senior-level WEI staff member.
  - c Assumes one meeting and data request per quarter. Meetings are assumed to be via remote communication.
  - d CASGEM groundwater elevation monitoring is performed as part of Program I.
  - e Assumes a total of two meetings. Each meeting will include the SJBA member agencies and the MWDOC. Each meeting will be attended by one Principal and one Senior-level WEI staff member
  - f Assumes a total of two meetings with SJBA staff. Each meeting will be attended by one Principal and one Senior-level WEI staff member.
- All monitoring and data collection tasks identified in Programs I through III are for the 2012 calendar year.