



SQUAW VALLEY PUBLIC SERVICE DISTRICT

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COPY

October 29, 2008



Harold Singer, Executive Director
Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

RE: Grant Request

Dear Mr. Singer:

This letter serves as a request for a grant from the Squaw Valley Red Dog Diesel Fuel Spill Mitigation Fund in the amount of \$46,216. The grant will be utilized to develop a database and monitoring plan for the Olympic Valley Groundwater Management Plan.

In May 2007 the Squaw Valley Public Service District adopted the Olympic Valley Groundwater Management Plan (GMP). A copy of this Plan is available in your office. This plan provides for the formation of two groups: an Advisory Group and an Implementation Group. Representatives from entities that pump water from the basin, Placer County Environmental Health, and the Regional Board make up the Advisory Group. The Advisory Group provides community input, technical review of plans and programs and recommendations to the Implementation Group. The locally elected Board of Directors of the Squaw Valley Public Service District also serves as the GMP Implementation Group. The Implementation Group, among other things, secures funds and manages contracts.

The GMP requires the production of an Annual Review and Report (ARR). The Water Year 2007 Annual Review and Report (adopted March 25, 2008) makes the following high priority recommendations:

- Coordinate Existing Monitoring Programs. The three existing groundwater monitoring programs should be combined into a single, coordinated groundwater monitoring program. This unified program will be designed to monitor both groundwater levels and groundwater quality throughout the GMP management area. Coordinating the existing monitoring plan will have the advantage of producing a single, consistent data set that can be used for basin analysis.
- Monitoring Programs should be expanded to monitor both static and pumping groundwater levels at all production wells. This will allow future management of pumping in relation to screen levels and pump settings. This may impact future estimates of pumping capacity.

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The Advisory Group met on September 10, 2008 and considered the attached Scope of Work (Exhibit A) proposed by HydroMetrics LLC. This Scope of Work will implement Element 1.2 of the GMP and fulfill the recommendations above for developing a monitoring plan and database for groundwater management in Squaw Valley. The Advisory Group adopted a recommendation that the attached Scope of Work be approved and that a letter requesting a grant in the amount of \$46,216 should be presented to the Lahontan Regional Water Quality Control Board requesting funds from the Squaw Valley Red Dog Diesel Fuel Spill Mitigation Funds.

The recommendations were presented to the Implementation Group at a public meeting on September 30, 2008. The Implementation Group considered and approved the recommendations and directed staff to prepare this request.

Harold, thank you in advance for considering our request. If you have any questions, I would be pleased to discuss the proposal with you.

Sincerely,



Richard L. Lierman
General Manager

RLL/jrs

Enclosure

cc: Olympic Valley GMP Advisory Group (w/o enc) ✓
Olympic Valley GMP Implementation Group (w/o enc)



519 17th Street, Suite 500
Oakland, CA 94612

Mr. Dale Cox
President, Squaw Valley Public Service District Board of Directors
P.O. Box 2026
Olympic Valley, CA 96146-2026

September 9, 2008

Subject: Squaw Valley Monitoring Plan and Database

Mr. Dale Cox:

This letter summarizes the scope and cost for developing a monitoring plan and database for groundwater management in Squaw Valley. The monitoring plan and database implements Element 1.2 of the Olympic Valley Groundwater Management Plan (GMP), which calls for coordination of existing monitoring plans. Implementing this Element was identified as a high priority action in the 2007 Olympic Valley Groundwater Basin Annual Review and Report.

The goals of this project are to put an appropriate level of existing water level, well construction, groundwater pumping, and water quality data into a single database; and to develop a formal coordinated monitoring plan for collecting high quality data useful for managing groundwater in Olympic Valley.

GROUNDWATER MANAGEMENT DATABASE

The proposed groundwater management database is designed to coordinate groundwater data from various entities in Olympic Valley. Entities with useful groundwater data include SVPSD, Squaw Valley Mutual Water Company, Squaw Valley Ski Corporation, Resort at Squaw Creek, and Plumpjack. The database will not hold all the groundwater data in the Valley, but will coordinate only specific data that assists with groundwater management. Each entity in Olympic Valley will continue to be responsible for their own data collection. The database will be maintained by the SVPSD.

The database will be designed with the following five data tables:

- Well location, including reference point elevations;
- Well construction;
- Groundwater levels;
- Groundwater quality from SVPSD and SVMWC production wells;
- Groundwater production.

Attributes that will be included in each table will be standard groundwater attributes that are found in many similar databases. Queries that rely on the relational aspect of the tables will be designed and incorporated into the database to facilitate data review and export.

Once all the attributes for each table have been designed, we will populate the database with historical data that is already available. Entities will be asked to provide data in electronic format where possible, for ease of input into the database. Data not in electronic format will be input by hand. Regulatory agencies, such as California Department of Health Services, will also be contacted to determine if water quality data via electronic data transfer (EDT) data can be obtained for public water supply wells.

Quality control (QC) will be an important aspect of database construction. Controls will be built into the database that will flag data that appear anomalous within a specified range. This will prevent typos and indicate if the original data may be incorrect.

The database will be documented in a report that will include a detailed description of the structure and contents of the database. Instructions for accessing and updating the database will be included in the documentation.

GROUNDWATER MONITORING PLAN

The proposed groundwater monitoring plan will coordinate the timing and methodology for collecting groundwater level data. This will facilitate groundwater management by ensuring that complete and accurate groundwater level data are available for the Valley. The schedule for water quality data collection will not be changed from the current monitoring schedules required for municipal water supply wells and for the meadow monitoring wells under the CHAMPS program.

Developing the groundwater monitoring plan will include identifying a set of wells in which water level data will be collected on a routine basis. This task will include one or more site visits to inspect some of the wells, to check reference points and access for sounding and logging equipment, and to assist with data logger installation. For QC purposes reference point elevations may be surveyed

at selected wells. Two days of surveying are included as an optional task in the project costs.

A monitoring schedule will be developed for each well. This schedule will include the frequency of hand measurements of depth to water, retrieval of data from loggers, and of logger measurements. Data collection procedures will be developed and will include a format for field data collection, format for electronic data submission, regular simultaneous measurements of depth to water and water level sensor readings for QC, and calibration of water level sensors. In addition, Hydrometrics LLC will perform an initial inspection of each well with a water level sensor/logger to verify sensor depth measurement, logger setup, and obtain a simultaneous depth to water and sensor measurement.

ONGOING DATA COLLECTION (OPTIONAL)

After the database has been developed and populated with historical data, it will be updated regularly as data become available. We have included a cost for updating the database quarterly for one year. This is an optional task, because it may be a task the SVPSD wishes to perform with its own staff.

ESTIMATED COST

The estimated costs for the various tasks are presented in Table 1.

Cost assumptions include the following:

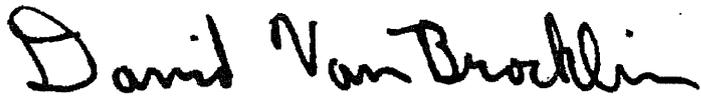
- Data, either electronic or written, are relatively easily accessible. Data that are not easily accessible may be left for future database updates.
- Formal QA/QC has already been performed on the groundwater level and groundwater quality data. We will check the data entry procedures, but not the quality of the raw data.
- Multiple iterations of the monitoring plan are not necessary.

Do not hesitate to call us with any questions.

Sincerely,

A handwritten signature in black ink that reads "Derrick Williams". The script is fluid and cursive.

Derrick Williams

A handwritten signature in black ink that reads "David Van Brocklin". The script is bold and cursive.

David Van Brocklin

Task	Hours		Costs		Direct Costs	Total Costs
	Project Manager	Senior Geologist	Project Manager	Senior Geologist		
Task 1: Develop Database						
Task 1A: Database Design	16	4	\$2,640	\$500	\$0	\$3,140
Task 1B: Data Collection and table Population	24	70	\$3,960	\$8,750	\$238	\$12,948
Task 1C: Report	30	20	\$4,950	\$2,500	\$400	\$7,850
Task 1 Total	70	94	\$11,550	\$11,750	\$638	\$23,938
Task 2: Develop Monitoring Plan						
Task 2A: Field Inspection <i>include the wells</i>		24	\$330	\$3,000	\$648	\$3,978
Task 2B: Write Monitoring Plan <i>write script data logger installation</i>	12	40	\$1,980	\$5,000	\$0	\$6,980
Task 2 Total	14	64	\$2,310	\$8,000	\$648	\$10,958
Task 3 (Optional): Reference Point Surveying	0	8	\$0	\$1,000	\$4,000	\$5,000
Task 4 (Optional): One Year Database Upkeep	8	40	\$1,320	\$5,000	\$0	\$6,320
Totals	92	206	\$15,180	\$25,750	\$5,286	\$46,216