

### Proposal Full View

**Applicant Information**

Organization Name Squaw Valley Public Service District \* \*  
 Tax ID 999999914  
 Proposal Name Olympic Valley Creek/Aquifer Interaction Study Phase II \* \*  
 Proposal Objective The primary purpose of this project is to evaluate data already collected in Olympic Valley Creek/Aquifer Interaction Project Phase I, and to incorporate those data in a groundwater flow model that will be used as a tool to improve basin management with respect to reducing impacts on Squaw Creek and increasing basin storage. The project's goals are: 1. Improve and quantify our understanding of creek/aquifer interaction; 2. Diminish groundwater pumping impacts on Squaw Creek and the associated Truckee River; and 3. Increase groundwater storage in Olympic Valley. Specific objectives of the project include: 1. Quantify the impact of pumping wells on Squaw Creek; 2. Quantify the amount of groundwater being drained by the trapezoidal channel in Squaw Creek; 3. Quantify climate change impacts on Squaw Creek; 4. Improve the existing groundwater model to more confidently evaluate groundwater and stream impacts from pumping; 5. Provide a management tool that can be used for Squaw Creek restoration being undertaken by Friends of Squaw Creek and Truckee River Watershed Counsel; and 6. Develop data that can be shared with other Stakeholders. \* \*

**Budget**

Other Contribution	\$0.00
Local Contribution	\$0.00
Federal Contribution	\$0.00
Inkind Contribution	\$0.00
Amount Requested	\$250,000.00 *
Total Project Cost	\$250,000.00 *

**Geographic Information**

Latitude \* DD(+/-)  MM  SS   
 Longitude \* DD(+/-)  MM  SS   
 Longitude/Latitude Clarification Location  
 County Placer \*  
 Ground Water Basin Olympic Valley  
 Hydrologic Region North Lahontan  
 Watershed

**Legislative Information**

Assembly District 4th Assembly District \*  
 Senate District 1st Senate District \*  
 US Congressional District District 4 (CA) \*

**Project Information**

Project Name Olympic Valley Creek/Aquifer Interaction Study

Implementing Organization	Squaw Valley Public Service District
Secondary Implementing Organization	
Proposed Start Date	4/1/2013
Proposed End Date	3/7/2014
Project Scope	Existing data will be used to quantify creek/aquifer interactions. An existing model will be updated, recalibrated, and used for basin management.
Project Description	The Olympic Valley Creek/Aquifer Interaction Project Phase II will quantify the impact of groundwater pumping on stream flows in Squaw Creek. Phase II will furthermore minimize future pumping impacts to Squaw Creek and increase the amount of water that could be stored in local aquifers by developing and implementing different stream and/or pumping management strategies. Overall, the project will advance water supply reliability, promote groundwater storage, promote fisheries restoration and protection, and address impacts from anticipated climate change. Depth specific temperature data collected from the streambed will be used as a tracer to track the movement of water between Squaw Creek and the underlying groundwater system. This will quantify creek/aquifer interactions along a key stretch of the trapezoidal channel, alongside the primary production wells in the basin. Aquifer test data analyzed in conjunction with stream data will be used to establish pumping impacts on Squaw Creek. The above analyses will be integrated with LLNL climate change and tracer study data for Olympic Valley. Tracer data will be interpreted to identify locations of groundwater inflow and to quantify groundwater inflow to Squaw Creek. An existing groundwater flow model for Olympic Valley will be updated based on the results of the depth specific temperature data, aquifer

	test analysis, and findings of the LLNL tracer study. Integrating these results with the Olympic Valley groundwater flow model will allow the model to accurately predict seasonal interactions between shallow aquifers and Squaw Creek, and the impact of pumping on Squaw Creek flows. The model can then be used to establish groundwater management guidelines that minimize pumping impacts on Squaw Creek and maximize groundwater storage in the basin. Apart from using the model to answer some immediate questions, it will be used as an ongoing tool to manage the basin with respect to climate change and increased development.
Project Objective	Quantify the impact of pumping wells on Squaw Creek; Quantify the amount of groundwater being drained by the trapezoidal channel; Quantify climate change impacts on Squaw Creek; Improve the existing groundwater model to evaluate groundwater and stream impacts from pumping; Provide a management tool that can be used for Squaw Creek restoration being undertaken by Friends of Squaw Creek and Truckee River Watershed Counsel; and Develop data to be shared with other Stakeholders.

**Project Benefits Information**

Project Benefit Type	Benefit Type	Measurement	Description
Primary	Land Restoration	0	Understanding the creek/aquifer interactions will allow restoration of Squaw Creek to support aquatic life as it did before the trapezoidal channel was constructed.
Secondary	Water Storage -- Groundwater-Water Supply Enhancement	0	By using the groundwater flow model to predict seasonal creek/aquifer interactions, guidelines developed will be used to minimize creek impacts and maximize groundwater storage.

Project Objective

**Budget**

Other Contribution	<input type="text" value="0"/>
Local Contribution	<input type="text" value="0"/>
Federal Contribution	<input type="text" value="0"/>
Inkind Contribution	<input type="text" value="0"/>
Amount Requested	<input type="text" value="250000"/>
Total Project Cost	<input type="text" value="250000"/>

**Geographic Information**

Latitude DD(+/-)  MM 11

Longitude DD(+/-)  MM 13

Longitude/Latitude Clarification  Location

County Placer Ground Water Basin Olympic Valley Hydrologic Region North Lahontan WaterShed

**Legislative Information**

Assembly District	4th Assembly District
Senate District	1st Senate District
US Congressional District	District 4 (CA)

**Section : Applicant Information and Question's Tab**

APPLICANT INFORMATION AND QUESTION'S TAB

**Q1. Applicant Information**

Provide the agency name, address, city, state, and zip code of the applicant submitting the application.  
 Squaw Valley Public Service District P.O. Box 2026 305 Squaw Valley Road Olympic Valley, CA 96146

**Q2. Proposal Description:**

Provide a brief abstract of the Proposal. This abstract must provide an overview of the proposal including the main issues and priorities addressed in the proposal. Within the abstract, please describe how the proposal relates to the GWMP's BMO's.

The proposed project will quantify the impact of groundwater pumping on stream flows in Squaw Creek. It will furthermore minimize future pumping impacts to Squaw Creek and increase the amount of water that could be stored in local aquifers by developing and implementing creek and/or pumping management strategies. Overall, the

project will advance water supply reliability, promote groundwater storage, promote fisheries restoration and protection, and address impacts from anticipated climate change. Depth specific temperature data collected from the streambed will be used as a tracer to track the movement of water between Squaw Creek and the underlying groundwater system. This will quantify creek/aquifer interactions along a key stretch of the trapezoidal channel, alongside the primary production wells in the basin. Aquifer test data analyzed in conjunction with stream data will be used to establish pumping impacts on Squaw Creek. The above analyses will be integrated with LLNL climate change and tracer study data for Olympic Valley. Tracer data will be interpreted to identify locations of groundwater inflow and to quantify groundwater inflow to Squaw Creek. An existing groundwater flow model for Olympic Valley will be updated based on the results of the temperature data, aquifer test analysis, and findings of the LLNL tracer study. Integrating these results with the Olympic Valley groundwater flow model will allow the model to accurately predict seasonal interactions between shallow aquifers and Squaw Creek, and the impact of pumping on Squaw Creek flows. The model will be used to establish groundwater management guidelines that minimize pumping impacts on Squaw Creek and maximize groundwater storage in the basin. The final product of the project will be a document that implements objectives of both the Tahoe Sierra Integrated Regional Water Management Plan and the Olympic Valley Groundwater Management Plan (GWMP). Specific project actions that address many Basin Management Objectives (BMOs) in the GWMP are: BMO 1-1: Maintain groundwater supplies sufficient to provide water for current and future domestic, municipal, commercial, private, and fire protection uses during summer and autumn of the second consecutive year of low rainfall. The project develops pumping management strategies that help ensure adequate water supplies. Additionally, the improved groundwater model will be an important tool for predicting and assuring future groundwater supplies BMO 1-2: Minimize drawdown and maximize use of basin storage. The pumping management strategies produced during this project will address this specific objective, providing management options to best achieve optimal storage conditions. BMO 2-1: Comply with existing water quality standards. The water quality of Squaw Creek is influenced by the amount and sources of water it receives. Shallow groundwater is one of those components. Understanding creek/aquifer interactions will improve our ability to manage the shallow aquifer contribution to the creek and thus its water quality. BMO 3-2: Promote viable and healthy riparian and aquatic habitats by avoiding or minimizing future impacts from pumping on stream flows. The groundwater model will provide us with a tool to optimize groundwater pumping and minimize its impact on Squaw Creek's riparian and aquatic habitats. BMO 3-3: Minimize future impacts from pumping on identified wetlands. Wetlands associated with the meadow downstream of the trapezoidal channel will benefit from the management actions aimed to minimize creek impacts and increase groundwater storage. BMO 3-4: Support ongoing stream restoration efforts as they relate to groundwater management. This objective is the primary focus of this project. The analysis will quantify pumping impacts on Squaw Creek, allowing future pumping to minimize creek impacts. The updated groundwater model can furthermore be used to simulate various stream restoration options.

### Q3. Project Director:

**Provide the name and details (including email) of the person responsible for executing the grant agreement for the applicant. Persons that are subcontractors to be paid by the grant cannot be listed as the Project Director.**

Michael Geary, General Manager Squaw Valley Public Service District P.O. Box 2026 Olympic Valley, CA 96146 530.583.4692 mgeary@svpsd.org

### Q4. Project Manager:

**Provide the name and contact information (including email) of the Project Manager from the applicant agency or organization that will be the day-to-day contact on this application.**

Derrick Williams, President HydroMetrics Water Resources Inc. 519 17th Street, Ste. 500 Oakland, CA 94612 510.903.0458 derrick@hydrometricsWRI.com

### Q5. Additional Information:

**Based on the region's location, what is the applicable DWR region office (Northern, North Central, South Central, or Southern)? The following link can be used to view each DWR region office boundaries:**

[http://www.water.ca.gov/groundwater/groundwater\\_basics/gw\\_contacts\\_info.cfm](http://www.water.ca.gov/groundwater/groundwater_basics/gw_contacts_info.cfm)

- 1)  Northern Region
- 2)  North Central Region
- 3)  South Central Region
- 4)  Southern Region

### Q6. Additional Information:

**Provide the Date of GWMP Adoption, if any, and list the pursuant Water Code Section or other legal Authority in which it was adopted.**

The Olympic Valley GWMP was adopted on May 29, 2007, pursuant to Water Code Section 10750 et seq.

### Q7. Additional Information:

**Provide a list of documents that support and indicate collaboration with other local public agencies with regard to the management of the affected groundwater basin (e.g., MOUs, MOAs, JPAs, adoption of a GWMP, recognition of county ordinances in permitting processes, or party to a groundwater basin adjudication order).**

SVPSD is the only entity in the basin that qualifies as a public agency. It is therefore the lead and only agency in the adopted GWMP. There are a number of Stakeholders who collaborate with SVPSD through a Technical Advisory Group, set up as part of the GWMP. The Stakeholders are: Friends of Squaw Creek, Squaw Valley Mutual Water Company, Squaw Valley Ski Corporation, Lahontan Regional Water Quality Control Board, Resort at Squaw Creek, and PlumpJack Inn. SVPSD has been party to a 2008 MOU regarding the Tahoe Sierra IRWM Plan ([http://www.water.ca.gov/irwm/docs/ResourcesLinks/Submitted\\_Applications/P1E\\_Round1\\_SWFM/Town%20of%20Truckee/Att2\\_SWF\\_Adopt\\_1of1.pdf](http://www.water.ca.gov/irwm/docs/ResourcesLinks/Submitted_Applications/P1E_Round1_SWFM/Town%20of%20Truckee/Att2_SWF_Adopt_1of1.pdf))

### Q8. Additional Information

**Name the entity(ies) providing the fund(s) reported in the above Budget section under the category "Other Contribution". If there are no "Other Contributions" Please answer this question with, "No Other Contributions".**

No Other Contributions

### Q9. Eligibility:

**List the urban water suppliers that will receive funding from the proposed grant. Please provide the agency name, a contact phone number and email address. Those listed must submit self certification of compliance with CWC §525 et seq. and AB1420, see Attachment 10. If there are none, so indicate.**

None

### Q10. Eligibility:

complete by DWR? If not, explain current status.

NA

**Q11. Completeness Check:**

Have all of the fields in the application been completed?

Yes

**Q.11. Completeness Check (cont)**

If no, please explain. If yes, answer this question with "NA".

NA

**Section : Application Attachments Tab**

APPLICATION ATTACHMENTS TAB

**Attachment 1. Authorizing Documentation**

Upload authorizing documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att1\_LGA12\_SVPSD\_AuthDoc\_1of1.pdf

**Attachment 2. Eligible Applicant Documentation**

Upload eligible documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att2\_LGA12\_SVPSD\_EligDoc\_1of1.pdf

**Attachment 3. Status of GWMP**

Upload the GWMP documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att3\_LGA12\_SVPSD\_GWMP\_1of1.pdf

**Attachment 4. Project Description**

Upload project description here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att4\_LGA12\_SVPSD\_ProjD\_1of1.pdf

**Attachment 5. Work Plan**

Upload work plan here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att5\_LGA12\_SVPSD\_WrkPln\_1of1.pdf

**Attachment 6. Budget**

Upload budget here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att6\_LGA12\_SVPSD\_BUDGET\_1of1.pdf

**Attachment 7. Schedule**

Upload schedule here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att7\_LGA12\_SVPSD\_SCHED\_1of1.pdf

**Attachment 8. Quality Assurance**

Upload quality assurance documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att8\_LGA12\_SVPSD\_QA\_1of1.pdf

**Attachemnt 9. Past Performance**

Upload past performance documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments:

Att9\_LGA12\_SVPSD\_PERFORM\_1of4.pdf,Att9\_LGA12\_SVPSD\_PERFORM\_2of4.pdf,Att9\_LGA12\_SVPSD\_PERFORM\_3of4.pdf,Att9\_LGA12\_SVPSD\_PERFORM\_4

**Attachment 10. AB1420 and Water Meter Implementation Compliance**

Upload 1420 and water meter implementation documentation here, if applicable. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".