

**OLYMPIC VALLEY GROUNDWATER MANAGEMENT PLAN (OVGMP)
ADVISORY GROUP MEETING #20
305 OLYMPIC VALLEY ROAD, COMMUNITY ROOM, OLYMPIC VALLEY, CA
AND AVAILABLE VIRTUALLY VIA ZOOM
JANUARY 21, 2025 – 1:00 P.M.**

**EXHIBIT
OVGMP IG
8 Pages**

Attendees: Melanie Arens, Olympic Valley Mutual Water Company; Jessica Asher, OVPSD; Sam Donahue, OVPSD; Tiffany Barulich, Lahontan Water Quality Control Board; Michael Gross, Palisades Tahoe; Ed Heneveld, Olympic Valley Watershed Alliance; Dave Hunt, OVPSD; Alexa Kinsinger, OVPSD; Nic Massetani; Charley Miller, OVPSD; Andre Priemer, Everline Resort; Dwight Smith, UES; Katrina Smolen, OVPSD and Olympic Valley Watershed Alliance; and Stacy Wydra, Placer County Planning Services Division

A. Call to Order

Dave Hunt called the meeting to order at 1:00 P.M.

B. Introductions

All attendees introduced themselves.

Minutes for the Advisory Group Meeting of May 22nd, 2024.

Mr. Gross moved to approve the minutes of May 22nd, 2024, which Mr. Hunt seconded. The motion passed unanimously (Arens, Gross, Hunt, Priemer).

C. Groundwater Database Project Update

Ms. Kinsinger provided a project update, including a slideshow, which is included in the minutes. She reported that UES has been working under contract for several months following the Advisory Group's recommendation to update the groundwater database. Ms. Kinsinger and Mr. Smith provided background on the database and reviewed progress on the updates, completed work, budget status, proposed water quality database enhancements, future system options, and public portal possibilities.

The group discussed improvements to the water quality data entry process, noting that data could be uploaded automatically from Excel rather than entered manually. Additionally, the District could work with labs to merge reporting templates to further enhance efficiency. District staff recommended continuing with Access as the preferred data management system and requested approval to utilize the full Task 3 budget of \$14,831 for automated data input improvements. The District will continue managing the data upload process moving forward.

The Advisory Group appreciated the District's analysis of various options and agreed that the current Access database meets the District's needs. They determined that a public portal or software change is unnecessary at this time but requested ongoing updates on technology advancements.

Mr. Gross moved to approve the full Task 3 spending for automated data input improvements, which Mr. Hunt seconded. The motion passed unanimously (Arens, Gross, Hunt, Priemer).

D. Washeshu Creek Stream Gauging - CA DWR Stream Gage Improvement Program (CaSIP) Grant Opportunity

Mr. Hunt informed the group that District staff are pursuing a grant opportunity on behalf of the OVGMP. He reviewed a slideshow, included in the minutes. He highlighted that a key priority in the Six-Year Review and Report (SYRR) is the reactivation of stream gage monitoring along Washeshu Creek. A potential grant from the Department of Water Resources (DWR) could provide funding to support this effort.

Mr. Smith emphasized the value of maintaining historical datasets and provided examples of their practical applications. He reviewed the grant funding request and operational budget, noting that ongoing management is modest unless a significant flood occurs, which would require the rating curve to be re-established. The grant would cover the installation of new stream gauges and operational costs for 2.5 years; however, the voting members of the OVGMP would need to secure approximately \$10,000 per year per site for continued operations and data collection. Routine manual measurements, including rating curve verification, are conducted approximately every six weeks. The group discussed potential cost-saving opportunities, suggesting that UES/Mr. Smith could train District staff, Palisades Tahoe personnel, and local community organizations or schools to help reduce long-term expenses and provide an educational experience.

The group discussed funding sources for historical data collection, which has been collected from approximately 2002-2020 and was previously supported by organizations such as Hydrometrics, Balance Hydrologics, USGS, Olympic Valley Watershed Alliance, Palisades Tahoe, and Trout Unlimited. Mr. Heneveld inquired about adding additional measurements, such as a turbidity sensor, given the requirements of the Washeshu Creek Total Maximum Daily Load (TMDL) for Sediment as prescribed by the Lahontan Regional Water Quality Control Board; Mr. Smith indicated DWR would likely support this additional monitoring.

E. Water Management Action Plan (WMAP) Update

Mr. Hunt reviewed a slideshow, which is included in the minutes. He provided background on the purpose of the WMAP, its connection to the OVGMP and SYRR, and the next steps to prepare a draft memorandum of agreement (MOA) for consideration by the Advisory Group meeting. The group suggested holding a Technical Advisory Committee (TAC) workshop, incorporating portions of the October 2023 presentation to provide background, and a roundtable on the MOA that can be reviewed with respective organizations before finalization. The group scheduled the TAC workshop for May 1st from 1:00 to 3:00 PM.

F. Updates – Roundtable

Mr. Hunt provided updates on several initiatives, including Well 3, which has been out of service due to iron bacteria issues, the cost of service and rate study set to be presented at the District's January 28th Board meeting, and a Water Master Plan scheduled for summer/fall, which encompasses capital improvements and replacements and water resources. He also reported that the Mutual Water Company Emergency Intertie Project is nearing completion.

Ms. Arens noted that the Mutual Water Company is collaborating effectively with the District and mentioned that elections are complete, with Mr. Koffler now serving on both boards.

Mr. Gross reported that snowmaking operations are ongoing, utilizing water primarily from Everline, supplemented by wells near the ski school. He stated that there are no issues with water storage or production and that efforts are underway to explore efficiency upgrades and opportunities to expand snow storage, focusing on maximizing storage capacity on the mountain.

Tiffany Barulich introduced herself and noted that she will attend these meetings in the future.

G. Recommendation to OVGMP Implementation Group – January 28, 2025

None.

H. Other Items

None.

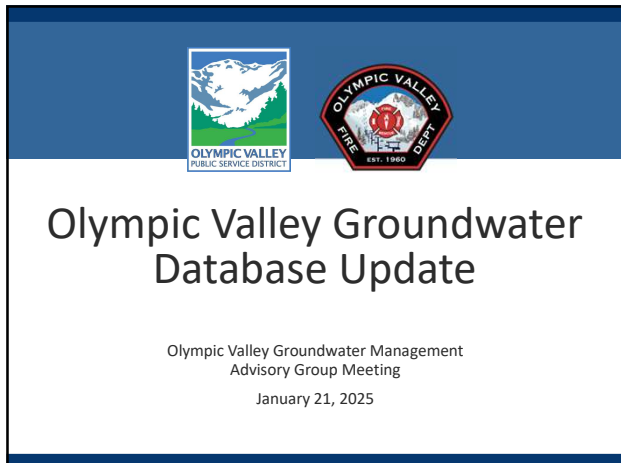
I. Future Advisory Group Meeting Date & Time

The group scheduled the TAC workshop for May 1st from 1:00 to 3:00 PM but did not set a future Advisory Group meeting.

J. Adjourn

Mr. Gross motioned to adjourn the meeting at 2:42 P.M., which was seconded by Mr. Hunt and approved unanimously (Arens, Gross, Hunt, Priemer).

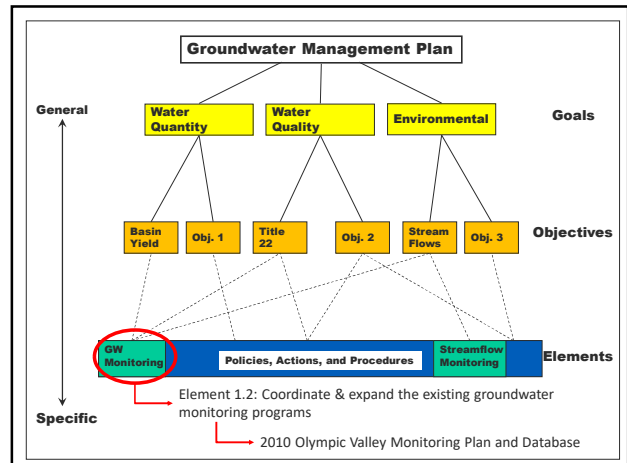
By, J. Asher, OVPSD



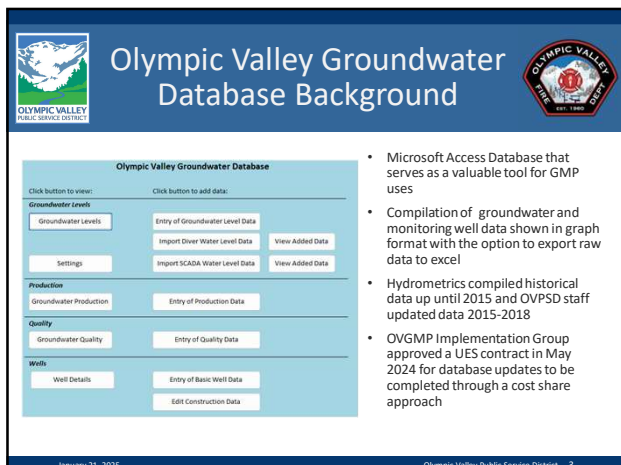
Olympic Valley Groundwater Database Update

Olympic Valley Groundwater Management Advisory Group Meeting
January 21, 2025

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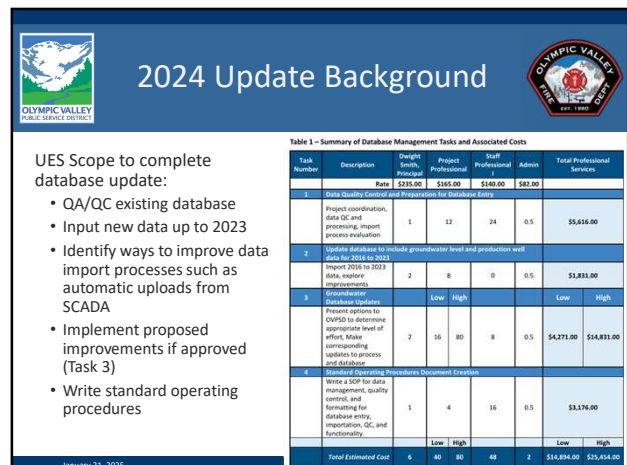
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Olympic Valley Groundwater Database Background

- Microsoft Access Database that serves as a valuable tool for GMP uses
- Compilation of groundwater and monitoring well data shown in graph format with the option to export raw data to excel
- Hydrometrics compiled historical data up until 2015 and OVPSD staff updated data 2015-2018
- OVGMP Implementation Group approved a UES contract in May 2024 for database updates to be completed through a cost share approach

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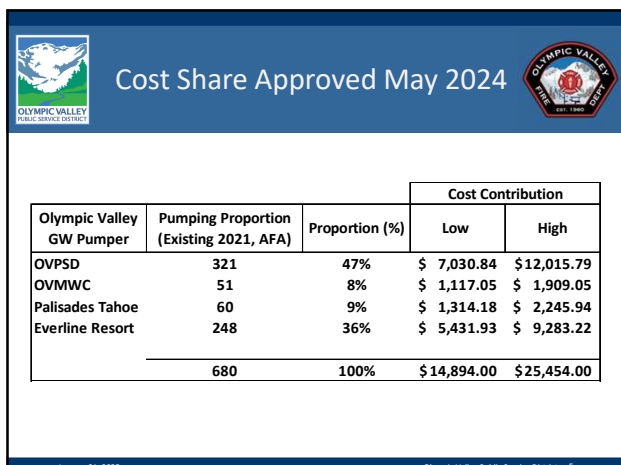
2024 Update Background

UES Scope to complete database update:

- QA/QC existing database
- Input new data up to 2023
- Identify ways to improve data import processes such as automatic uploads from SCADA
- Implement proposed improvements if approved (Task 3)
- Write standard operating procedures

Task Number	Description	Weight (Smith)	Project Principal	Staff Professional	Admin	Total Professional Services			
1	Data Quality Control and Preparation for Database Entry		Rate \$235.00	\$685.00	\$480.00	\$82.00			
1	Project coordination, data QC and processing, import process evaluation	1	12	24	0.5	\$5,816.00			
2	Update database to include groundwater level and production well data from 2015 to 2023	2	8	0	0.5	\$1,893.00			
3	Groundwater Database Updates		Low	High					
	Present options to OVPSD to determine appropriate level of effort. Make corresponding updates to process and database.	2	16	80	8	0.5	\$4,271.00		
4	Standard Operating Procedures Document Creation								
	Write a SOP for data management, quality control, and formatting for database entry, importation, QC, and functionality.	1	4	16	0.5	\$3,176.00			
			Low	High					
			6	40	80	48	2	\$16,894.00	\$25,454.00

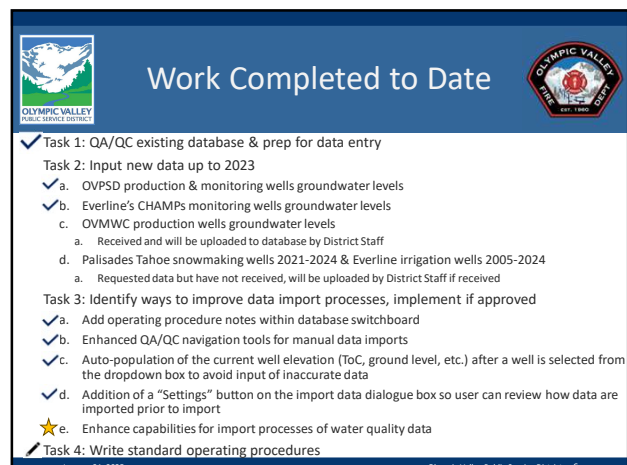
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Cost Share Approved May 2024

Olympic Valley GW Pumper	Pumping Proportion (Existing 2021, AFA)	Proportion (%)	Cost Contribution	
			Low	High
OVPSD	321	47%	\$ 7,030.84	\$12,015.79
OVMWC	51	8%	\$ 1,117.05	\$ 1,909.05
Palisades Tahoe	60	9%	\$ 1,314.18	\$ 2,245.94
Everline Resort	248	36%	\$ 5,431.93	\$ 9,283.22
680	100%		\$14,894.00	\$25,454.00

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Work Completed to Date

- Task 1: QA/QC existing database & prep for data entry
- Task 2: Input new data up to 2023
 - OVPSD production & monitoring wells groundwater levels
 - Everline's CHAMPS monitoring wells groundwater levels
 - OVMWC production wells groundwater levels
 - Received and will be uploaded to database by District Staff
 - Palisades Tahoe snowmaking wells 2021-2024 & Everline irrigation wells 2005-2024
 - Requested data but have not received, will be uploaded by District Staff if received
- Task 3: Identify ways to improve data import processes, implement if approved
 - Add operating procedure notes within database switchboard
 - Enhanced QA/QC navigation tools for manual data imports
 - Auto-population of the current well elevation (ToC, ground level, etc.) after a well is selected from the dropdown box to avoid input of inaccurate data
 - Addition of a "Settings" button on the import data dialogue box so user can review how data are imported prior to import
 - Enhance capabilities for import processes of water quality data
- Task 4: Write standard operating procedures

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Budget

District met with UES on Nov. 6 to review the work completed and the proposed data import processes enhancements and approved Task 3 items a-d on the previous slide be implemented

Updated 12/10/24

Task	Task Description	Contract Task Total (Upper Range)	Contract Task Total (Low Range)	Invoice 32680 7/31/24	Invoice 32857 8/31/24	Invoice 33002 10/31/24	Invoice 33369 11/31/24	Task Total Invoiced	Remaining Budget (Low Range Budget)
1	Data Quality Control and Prep for Database Entry	\$5,616.00	\$5,616.00	\$800.00	\$4,825.00			\$5,625.00	-\$9.00
2	Update Database through 2023	\$1,831.00	\$1,831.00		\$1,430.00	\$358.50		\$1,788.50	\$42.50
3	Groundwater Database Update / Reformatting (Upper Range)	\$14,831.00	\$4,271.00			\$560.00	\$5,963.50	\$6,523.50	-\$2,252.50
4	SOP Document Update	\$3,176.00	\$3,176.00					\$0.00	\$3,176.00
Total Invoiced				\$800.00	\$6,255.00	\$918.50	\$5,963.50	\$13,937.00	

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Water Quality Database

Water quality (WQ) sampling at production and monitoring wells is conducted many times annually and sample for many different WQ constituents each sampling event

Currently the database only allows for manual entry of one WQ constituent at one well at a time which is a slow and cumbersome process

UES proposes an import procedure to drastically improve this process

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Next Step: Water Quality Database Enhancements

Proposed Improvement:

- Add import option for water quality data upload consisting of an Excel template for data input
- Template would allow for input of all WQ constituents at any well location over several sampling events

Why?

- Template would allow for fast import, avoiding the need for manual entry of each WQ constituent and its result at each well
- Drastically improves the usability of the database
- Enhances capability of maintaining the database data
- Database is a useful tool that allows for quick review of WQ data and depicts data graphically
- If database user needs raw WQ data of a constituent at a specific well, this can be exported directly from the database

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Authorization for WQ Enhancements

- Estimate \$7,500 for coding of WQ import function, template for automated database import, functionality testing & confirmation, and additional Operating Procedures documentation.
- Can be completed within the upper-limit of range for Task 3 database improvement.
- Range Task 3 = \$4,271 to \$14,831, with \$6,523 expended to date on existing modifications/improvements – can remain within upper range limit.

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Future Steps: Database System Options

Option to Transition to Another Data Management System

- EQuiS (Earthsoft)
 - EQuiS handles a wide range of data types, covering chemistry, water quality, water usage, water levels and many other environmental monitoring attributes – geared toward compliance monitoring
 - Software-as-a-Service hosted by EarthSoft on Microsoft SQL Server
 - Cost per month = \$420 to \$700 (1 to 5 GB) (\$5000 to \$8,400 per year) + other fees
 - Total annual ~\$10,000-\$12,000 *per year*
 - Purchase License = \$22,000
 - Active Client Access = \$800 each
 - Professional Support from Earthsoft (*minimum* \$5,000)
 - Hybrid Hosting \$350 - \$480 per month (up 5 GB) (\$4,200 - \$5,800 per year)
- Mapistry
 - Similar capabilities
 - \$7,000 to \$13,000 *per year* (similar cost to Equis)

Recommend to continue with Access database, but with some functionality improvements

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Future Steps: Public Portal Option

- Data Portal Options**
 - Can be automated to connect with the Access database for updates.
 - Access Options:
 - Fully public facing (similar to SGMA basins)
 - Limited access (login and password protected)
 - Attributes:
 - Water Levels
 - Production Volumes
 - Water Chemistry
 - Streamflow (connect with gaging if re-established)
 - Climate – Precipitation / SNOTEL

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Example Data Portal Mammoth Lakes

The screenshot shows a web browser displaying the 'Mammoth Geothermal Complex Hydrology Monitoring Database'. On the left, there is a table listing various monitoring wells with columns for well name, location, and data availability. On the right, a map shows the geographic distribution of these wells in the Mammoth Lakes area, with a legend identifying different site categories like 'Geothermal Monitoring Site' and 'Abandoned Site'.

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Example Data Portal Mammoth Lakes

This screenshot shows the 'Variable/Site Query' interface of the data portal. It features a list of variables to be queried, such as 'Water level, depth (1500ftd_3)_Feet' and 'Flow (1500ftd_3)_Feet'. A 'New Query' button is visible. To the right, a line graph displays the data for the selected variables over time, showing fluctuations in water level and flow from 2021 to 2024.

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Data Portal – Estimated Development and O&M Costs

Task – Data Portal Development	Estimated Cost
Initial Data Portal Design using Mammoth as Template	\$16,000 - 21,000.00
Database Population, Website Link, and Testing	\$6,000.00
Data Hosting (annual)	\$2,000.00
Prototype Database Presentation to Stakeholders	\$4,000.00
Publish Final Data Portal	\$2,000 - 5,000.00
Estimated Total	\$31,000 - \$38,000.00

Task – Annual Costs	Estimated Cost
Data Hosting - Website	2,000.00
QA/QC and Administration (OVPSD staff to enter data quarterly)	3,000.00

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Questions & Discussion

Recommendations:

- Continue utilizing Access as preferred data management system
- Approve upper-limit Task 3 spending for water quality data import enhancements – not to exceed upper range cost of \$14,831

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CalSIP Stream Gage Improvement Program Grant

Olympic Valley Groundwater Management
Advisory Group Meeting
January 21, 2025

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Stream Flow Gaging

Stream Gage Improvement Program

As California experiences more frequent shifts between climate extremes, it's important for the water managers and residents to have reliable, real-time information about the conditions and amount of water flowing into our rivers and streams to better manage water resources for public safety, water supply and the conservation of freshwater species.

To help better understand water resources statewide, DWR is seeking to fund public entities to improve stream gage infrastructure and bridge data gaps as part of the Stream Gage Improvement Program (CalSIP).

Through CalSIP, public agencies can receive technical assistance to upgrade, reactivate, or install new surface water monitoring stations, at no additional cost to them, that will share important stream flow data that can help inform water management decisions.

Stream Gage Improvement Program (CalSIP)
Technician performing work on a digital stream gage.

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Six Year Review and Report – Recommendations

High Priority

- Initiate stakeholder communications to renew and finalize the WMAP effort.
- Reactivate Washeshu Creek stream gaging, at a minimum of two key locations: Western main channel below the confluence of primarily tributaries, and down-stream of the basin at the county bridge crossing (historical measurement location for outflow).
- OVPSD and SVMWC should continue to encourage residential water use conservation efforts. Palisades and RSC should likewise implement / adopt conservation practices.
- Continue to pursue metering all pumping wells, installing water level transducers in pumping wells, equipping monitoring wells with transducers, and adding wells to the CASGEM reporting program.

November 9, 2022 Draft SRR Overview 19

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Six Year Review and Report – Stream Flow Gaging

- South Fork Gage Discontinued
- North Fork and Down-stream at County Bridge Continued through WY2020
- No WY2021 Gaging
- No Active Gaging Ongoing

November 9, 2022 Draft SRR Overview 20

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Grant Funds Request

Task Number	Description	Principal	Project Professional	Staff Professional	Admin	Subtotal Professional Services	Cellular Telemetry Fees	Equipment Installation	Maintenance and Supplies	Task Total
1	First Year Washeshu Creek - North Fork	4	8	72	4	\$13,600.00	\$0.00	\$0.00	\$900.00	\$14,100.00
2	First Year Washeshu Creek - South Fork	2	0	4	0	\$1,200.00	\$0.00	\$0.00	\$3,000.00	\$4,100.00
3	First Year Washeshu Creek - At County Bridge	4	8	72	4	\$13,600.00	\$0.00	\$0.00	\$900.00	\$14,100.00
Total Estimated		40	80	384	22	\$83,980.00	\$1,000.00	\$0.00	\$12,000.00	\$113,980.00

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Grant Program Requirements

- Grant will fund installation of new stream gages, upgrades/reactivation of historical stream gages, O&M of stream gages installed under CalSIP program for a limited time
- Gages should be fully operational by October 1, 2026
- Telemetry must be installed at each gage and data published real time to DWR website (CDED) for public viewing
- Entities must commit to operating and maintaining stream gages through useful life of gage (minimum 5 years)
 - Preference given to entities that commit to long-term O&M beyond life of grant agreement

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CalSIP Grant Application Status

- Submitted CalSIP Stream Gage Improvement Map Survey – 11/15/24
- Submitted CalSIP Stream Gage Improvement Application Questionnaire – 11/29/24
 - 0442-01 North Fork Washeshu Creek at Olympic Valley
 - 2876-01 South Fork Washeshu Creek
 - 2877-01 Washeshu Creek Above Olympic Valley Road at County Bridge, Palisades Tahoe CA
- Awaiting word from DWR


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Water Management Action Plan Update

Olympic Valley Groundwater Management Advisory Group Meeting
January 21, 2025

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Water Management Action Plan

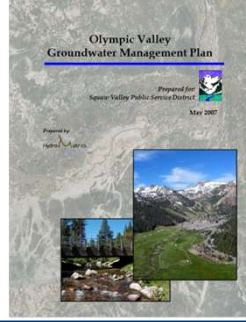
- The goal of the WMAP is to safeguard against the possibility of future groundwater levels declining in the summer or fall to a point that could threaten municipal well functionality.
- Establish aquifer water level triggers or climate conditions for implementing water conservation measures to help assure sustainability of municipal water supply at all times.
- The WMAP is a basin wide plan that triggers appropriate water conservation measures during drought conditions.

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OVGMP/WMAP Nexus



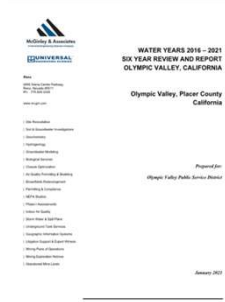
- Goal 1: *“Manage the groundwater in a manner that provides a sustainable supply for current and future beneficial uses.”*
- Basin Management Objective (BMO) 1.1:
“Maintain groundwater supplies sufficient to provide water for current and future domestic, municipal, commercial, private, and fire protection uses during summer and autumn of the second consecutive year of low rainfall.”

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Six Year Review and Report - 2021



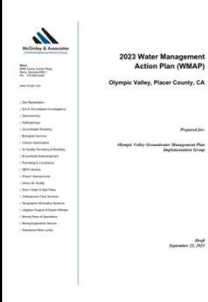
- WMAP High Priority Recommendation for Water Years 2022-2026
“Initiate stakeholder communications to renew and finalize the WMAP effort. Technical components of the WMAP have been developed, with preliminary climate and water level triggers and management/conservation actions that support several BMOs and improve collaborative groundwater management within the basin. The WMAP should be completed in the forthcoming year, if consensus can be reached.”

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2023 Water Management Action Plan



- The need to complete the WMAP was discussed at the November 8, 2022 OVGMP Advisory Committee meeting
- Valley pumpers (OVPSD, SVMWC, Everline, Palisades Tahoe/Alterra) committed to cost share agreement to prepare Final WMAP Technical Memorandum
- Final Draft WMAP Technical Memorandum presented at 10-12-23 Technical Advisory Group Meeting
- Prepare draft Memorandum of Agreement for consideration at next Advisory Group meeting

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Discussion & Questions

Thank you!

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