

MINUTES

Owens Valley Groundwater Authority

Board Members:

INDIAN CREEK-WESTRIDGE CSD	Luis Elias	BIG PINE CSD	BryAnna Vaughan
COUNTY OF MONO	Fred Stump	LONE PINE PAIUTE SHOSHONE TRIBE	Mel Joseph
CITY OF BISHOP	Chris Costello	OWENS VALLEY COMMITTEE	Mary Roper
COUNTY OF INYO	Dan Tothoroh		

November 12, 2020

The Owens Valley Groundwater Authority meeting was called to order at 2:04 p.m. via videoconference.

1. Pledge of allegiance

The Chairman led the pledge of allegiance.

Vice Chairperson Vaughan shared the loss of Bob Steele of Big Pine, his years of service to the water projects, and that his passing is a great loss to the community. The Chairperson called for a moment of silence in memory of Bob Steele.

2. Public Comment

The Chairperson opened up public comment and there was no one wishing to address the Board.

3. Introductions

The Board introduced themselves with no alternates in attendance. The Chairperson introduced Rhonda Duggan of Mono County, Supervisor elect, which will be taking his place in January 2021.

4. Approval of minutes from the October 8, 2020 OVGA Board meeting

The Chairperson requested a motion to approve the minutes of the October 8, 2020 meeting. Motion to approve by Dan Tothoroh, seconded by Luis Elias. The Chairperson requested a roll call vote; Luis Elias – Y, Fred Stump – Y, Chris Costello – Y, Dan Tothoroh – Y, BryAnna Vaughan – abstain, Mel Joseph – Y, Mary Roper – Y. Motion passed 6 Yes, 1 abstention.

5. Board Member Reports

Chris Costello stated unless elections results change this would be his last OVGA Board meeting representing the City of Bishop and thanked the Board for the opportunity to serve. Dan Tothoroh thanked both the Chairperson and Chris Costello for their time on the OVGA Board. The Chairperson stated if anyone was interested in the spike of COVID cases on the marine base to contact him for further information.

6. OVGA staff reports

- Financial Report
- Report on website development

Aaron Steinwand, Executive Manager provided the financial report due to technical difficulties on Laura Piper's connection and stated the OVGA cash balance is \$468,010.91, with no revenue or expenses since last meeting. Aaron Steinwand stated the first draft of the website is almost complete and next week the website should be live, ovga.us.

Philip Anaya asked if there would be someone monitoring the new website and a new communication link to Aaron Steinwand. Aaron Steinwand stated yes.

7. Presentation from Daniel B. Stephens and Associates on elements of the Groundwater Sustainability Plan

Tony Morgan provided a brief introduction on the Owens Valley GSP update; stated the GDE and water budget will be reviewed again; and in addition will continue groundwater dependent ecosystem discussion; projected future water budgets; summary of monitoring plan and data gap analysis; the timeline schedule; and the goal is to have administrative draft of the GSP in Feb 2021. Bruce Orr reviewed the GDE background and updates since the last meeting; GDE mapping with new source data and potential GDE extent; and the vegetation mapping. Alyssa Elsworth (CDFW) inquired about VegCAMP data, and that it was still not finalized. Bruce stated there is a more formal process for review yet, but it is usable at this point for GDE data and should be considered final as a formality in the next month or two. Christian Brauderick discussed the GDE assessment, mapping and grouping of vegetation and surface water polygons, the division of preliminary GDE units; and monitoring. Philip Anaya inquired if there is a distinction between surface flow and riparian vegetation along the streams and how do you address that in GDE, and aside from runoff doesn't the natural flow that comes from the mountains make the surface flow like a continuous GDE in a sense. Christian and Bruce provided a detailed explanation. Lynn Boulton asked if there is flexibility if something is not a current GDE but becomes a GDE temporarily through a few wet years or changes in dry years, and how does the model keep up with temporary short term changes. Tony Morgan stated the plants are based on a basin wide evaluation so short interim changes in conditions are not going to be captured in a document that is looking at sustainability in 20 years. He stated the Board has an option during the 5 year updates to revise that classification. Dr. Shey Rajagopal provided a presentation and review of the future water budget for the OVGA; climate models, methods, and water budget schematics. April Zrelak stated SGMA's increase in precipitation is .3 not 3% so how do you get 5% increase in runoff in the BCM model and 10% in the basin; will DWR accept this since their estimates are so much lower; and does the contributing area include the groundwater basin. Dr. Shey Rajagopal and Gus Tolley provided a detailed explanation. April Zrelak stated the water budget will equal zero and under what condition will it become unbalanced. Tony Morgan stated for the GSP purposes the water budget isn't what they are looking at to determine sustainability; it's the lack of undesirable results. Gus Tolley provided a presentation on monitoring plan and data gaps analysis; trend analysis and future conditions, water levels, flow trends, and water quality. The Board and staff discussed these presentations in detail. Sally Manning stated it's important to know how much drought affects depth to water on the fan vs the valley floor, because the valley floor water table doesn't really change year to year and the only thing that makes it change is pumping but the fan is different, it is what's feeding the valley floor. How much pumping on the valley floor is influencing what you think is a drought effect on the fan. She stated now is a good time to look at this data for the GSP and look at what the GSP will be applied to vs DWP and what's excluded from it. She fears this GSP will come out stating DWP is doing a great job at groundwater management and storage; in terms of vegetation groundwater dependent resources on the valley floor she does not agree with that statement. April Zrelak stated in regards to the subsidence on the Owens Lake bed, more than just the costs of LADWP's infrastructure there's a long term decrease in water storage with subsidence so that really isn't just a DWP issue. Gus Tolley stated this isn't really true because typically the substance you're seeing is from the compaction of the clay layers not the aquifers. April Zrelak asked if that was controversial. Gus stated not in the hydrology community, the physics or science doesn't support it. Lynn Boulton asked how are concerns such as Sally's being noted. Gus stated this is where the GDE analysis comes in.

The Chairperson called a break at 3:47 pm and reconvened the meeting at 3:56 pm.

8. Discussion regarding future agenda items and set next OVGA meeting

Future agenda items discussed were consultants presentations; selection of Chairperson and Vice Chairperson; and an update on Indian Wells Valley.

The next meeting was scheduled for December 10, 2020 via videoconference.

11. Adjourn

The Chairperson adjourned the meeting at 5:02 pm.

SORT ORDER: OBJECT within BUDUNIT

SELECT BUDGET UNIT: 621601

Lg BUDGET UNIT	Primary Ref	Transaction Description	SS Ref	Date	Job No	Debit	Credit	NET
GL 621601-1000	YEAREND	3. Balance Forward 2019/2020	JE	07/01/20	02811356		0.00	257,728.58
GL 621601-1000	JE37035	AutoID: JS20722C Job: 2728031	JE	07/22/20	02728031	257,728.58		0.00
GL 621601-1000	TTLCR	AutoID: CS20722A Job: 2728577	CR	07/22/20	02728577	75,513.66		0.00
GL 621601-1000	JE37069	AutoID: JS20729D Job: 2733834	JE	07/29/20	02733834	52,859.66		0.00
GL 621601-1000	TTLOH	AutoID:WD19721A Job:2734188	OH	07/29/20	02734188	22,654.00		0.00
GL 621601-1000	TTLOH	AutoID:WD19721B Job:2734188	OH	07/29/20	02734188		165.40	408,755.90
GL 621601-1000	INTRCBL	AutoID: JA20806A Job: 2740435	JE	08/04/20	02740435		66.24	408,590.50
GL 621601-1000	TTLCR	AutoID: CR20805A Job: 2739981	CR	08/05/20	02739981	1,371.90		409,524.26
GL 621601-1000	TTLOH	AutoID:WD19805A Job:2747387	OH	08/17/20	02747387	22,654.00		409,896.16
GL 621601-1000	TTLCR	AutoID: CT20818A Job: 2749131	CR	08/18/20	02749131		2,174.85	432,550.16
GL 621601-1000	TTLOH	AutoID:WD19811A Job:2749832	OH	08/19/20	02749832	75,513.66		430,375.31
GL 621601-1000	TTLOH	AutoID:OW20827C Job:2758428	OH	08/31/20	02758428		0.00	505,888.97
GL 621601-1000	TTLOH	AutoID:WD19825A Job:2760763	OH	09/02/20	02760763		1,438.50	504,450.47
GL 621601-1000	JE37592	AutoID: JR20C15B Job: 2787152	JE	10/15/20	02787152		33,944.66	470,505.81
GL 621601-1000	TTLOH	AutoID:OB20C30A Job:2796630	OH	11/02/20	02796630		2,494.90	468,010.91
GL 621601-1000	TTLOH	AutoID:WD20O28B Job:2798921	OH	11/04/20	02798921		3,000.00	465,010.91
GL 621601-1000	TTLOH	AutoID:OB20N12B Job:2804082	OH	11/13/20	02804082		2,275.00	462,735.91
GL 621601-1000	TTLOH	AutoID:OB20N24F Job:2813653	OH	12/01/20	02813653		5,673.75	457,062.16
GL 621601-1000	TTLOH	AutoID:OB20N30A Job:2813653	OH	12/01/20	02813653		78,259.75	378,802.41
GL 621601-1000	*****Total *OBJT 1000	CLAIM ON CASH				508,295.46		368,002.41
GL 621601-1160	YEAREND	3. Balance Forward 2019/2020	JE	07/01/20	02811356		0.00	331,184.41
GL 621601-1160	INTRCBL	4th QTR INTEREST RVRS	JE	08/04/20	02740435	1,371.90		331,184.41
GL 621601-1160	*****Total *OBJT 1160	INTEREST RECEIVABLE				1,371.90		331,184.41
GL 621601-2000	YEAREND	4. Balance forward 2019/2020	JE	07/01/20	02811356		0.00	37,624.25
GL 621601-2000	TTLOH	AutoID:WD19721A Job:2733181	OH	07/28/20	02733181		37,624.25	37,624.25
GL 621601-2000	TTLOH	AutoID:WD19721A Job:2734188	OH	07/29/20	02734188		165.40	37,789.65
GL 621601-2000	TTLOH	AutoID:WD19721B Job:2734188	OH	07/29/20	02734188	165.40		37,624.25
GL 621601-2000	TTLOH	AutoID:WD19805A Job:2747387	OH	08/17/20	02747387	66.24		37,558.01
GL 621601-2000	TTLOH	AutoID:WD19811A Job:2749832	OH	08/19/20	02749832	2,174.85		35,383.16
GL 621601-2000	TTLOH	AutoID:OW20827C Job:2758428	OH	08/31/20	02758428	1,438.50		33,944.66
GL 621601-2000	TTLOH	AutoID:WD19825A Job:2759412	OH	09/01/20	02759412	33,944.66		0.00
GL 621601-2000	TTLOH	AutoID:WD19825A Job:2760763	OH	09/02/20	02760763		2,494.90	2,494.90
GL 621601-2000	TTLOH	AutoID:OB20C30A Job:2796630	OH	10/30/20	02796630		0.00	0.00
GL 621601-2000	TTLOH	AutoID:OB20C30A Job:2796630	OH	11/02/20	02796630		2,275.00	2,275.00
GL 621601-2000	TTLOH	AutoID:WD20O28B Job:2798240	OH	11/03/20	02798240	2,275.00		0.00
GL 621601-2000	TTLOH	AutoID:WD20O28B Job:2798921	OH	11/04/20	02798921		0.00	0.00
GL 621601-2000	TTLOH	AutoID:OB20N12B Job:2803602	OH	11/12/20	02803602	5,673.75		5,673.75
GL 621601-2000	TTLOH	AutoID:OB20N12B Job:2804082	OH	11/13/20	02804082		0.00	78,259.75
GL 621601-2000	TTLOH	AutoID:OB20N24F Job:2811282	OH	11/24/20	02811282	78,259.75		0.00
GL 621601-2000	TTLOH	AutoID:OB20N30A Job:2812959	OH	11/30/20	02812959		10,800.00	10,800.00
GL 621601-2000	TTLOH	AutoID:OB20N24F Job:2813653	OH	12/01/20	02813653		36,818.00	47,618.00
GL 621601-2000	TTLOH	AutoID:OB20N30A Job:2813653	OH	12/01/20	02813653	10,800.00		36,818.00
GL 621601-2000	*****Total *OBJT 2000	ACCOUNTS PAYABLE				36,818.00		0.00
GL 621601-3000	YEAREND	1. Balance Forward 2019/2020	JE	07/01/20	02811356		0.00	174,111.05
GL 621601-3000	YEAREND	2. Balance Forward 2019/2020	JE	07/01/20	02811356		0.00	59,494.71
GL 621601-3000	*****Total *OBJT 3000	FUND BALANCE AVAILABLE				0.00		221,476.23
GL 621601-4599	JE37035	20/21 INYO OVGA CONTRIBUTION	JE	07/22/20	02728031		75,513.66	75,513.66

SORT ORDER: OBJECT within BUDUNIT

SELECT BUDGET UNIT: 621601

Lg BUDGET UNIT	Primary Ref	Transaction Description	SS Ref	Date	Job No	Debit	Credit	NET
GL 621601-4599	CR119092	I#3 OVGA GSP CONTRIBUTION	CR	07/22/20	02728577	0.00	52,859.66	128,373.32
GL 621601-4599	JE37069	I#3 OVGA GSP DEVELOPMENT	JE	07/29/20	02733834	0.00	22,654.00	151,027.32
GL 621601-4599	CR119368	I#3 WESTRIDGE/INDIAN CREEK	CR	08/05/20	02739981	0.00	22,654.00	173,681.32
GL 621601-4599	CR119566	I#3 20/21 OVGA-MONO CO 2020-21	CR	08/18/20	02749131	0.00	75,513.66	249,194.98
*****Total *OBJT 4599		OTHER AGENCIES			CR	0.00	249,194.98	249,194.98
GL 621601-5155	GS200710060	GOLDEN STATE RI ACCT#OWENVAL	OH	09/01/20	02759412	2,494.90	0.00	2,494.90
*****Total *OBJT 5155		PUBLIC LIABILITY INSURANCE			DR	2,494.90	0.00	2,494.90
GL 621601-5263	70243	INYO REGISTER, CUST#01110862	OH	07/28/20	02733181	165.40	0.00	165.40
*****Total *OBJT 5263		ADVERTISING			DR	165.40	0.00	165.40
GL 621601-5265	042420	FECHTER & COMPA 18/19 AUDIT OV	OH	10/30/20	02796227	2,275.00	0.00	2,275.00
GL 621601-5265	244576	DANIEL B STEPHE INYO CO PROJ#D	OH	11/12/20	02803602	78,259.75	0.00	80,534.75
GL 621601-5265	6607	ALPEN ARETE OVGA WEBSITE DESIG	OH	11/24/20	02811282	10,800.00	0.00	91,334.75
GL 621601-5265	245042	DANIEL B STEPHE INYO CO PROJ#D	OH	11/30/20	02812959	36,818.00	0.00	128,152.75
*****Total *OBJT 5265		PROFESSIONAL & SPECIAL SERVICE			DR	128,152.75	0.00	128,152.75
GL 621601-5539	JE37592	OVGA-BOARD STAFF JUL-SEP20	JE	10/15/20	02787152	3,000.00	0.00	3,000.00
GL 621601-5539	202101	MONO COUNTY JUL-SEP 2020 OVGA	OH	11/03/20	02798240	5,673.75	0.00	8,673.75
*****Total *OBJT 5539		OTHER AGENCY CONTRIBUTIONS			DR	8,673.75	0.00	8,673.75
*****Total *BUDG 621601		OVGA-OWENS VALLEY GROUNDWATER			DR-CR	823,265.21	823,265.21	0.00
** G R A N D T O T A L **								
						823,265.21	823,265.21	0.00

COUNTY OF INYO
Budget to Actuals with Encumbrances by Key/Obj

Ledger: GL

As Of 12/3/2020

Object	Description	Budget	Actual	Encumbrance	Balance	%
Key: 621601 - OVGA-OWENS VALLEY GROUNDWATER						
Revenue						
4301	INTEREST FROM TREASURY	4,000.00	0.00	0.00	4,000.00	0.00
4498	STATE GRANTS	311,284.00	0.00	0.00	311,284.00	0.00
4599	OTHER AGENCIES	249,195.00	249,194.98	0.00	0.02	100.00
Revenue Total:		564,479.00	249,194.98	0.00	315,284.02	44.14
Expenditure						
5129	INTERNAL COPY CHARGES (NON-IS)	1,500.00	0.00	0.00	1,500.00	0.00
5155	PUBLIC LIABILITY INSURANCE	2,500.00	2,494.90	0.00	5.10	99.79
5263	ADVERTISING	2,000.00	165.40	0.00	1,834.60	8.27
5265	PROFESSIONAL & SPECIAL SERVICE	319,534.00	128,152.75	2,625.00	188,756.25	40.92
5291	OFFICE, SPACE & SITE RENTAL	1,500.00	0.00	0.00	1,500.00	0.00
5311	GENERAL OPERATING EXPENSE	500.00	0.00	0.00	500.00	0.00
5539	OTHER AGENCY CONTRIBUTIONS	104,470.00	8,673.75	0.00	95,796.25	8.30
5901	CONTINGENCIES	13,290.00	0.00	0.00	13,290.00	0.00
Expenditure Total:		445,294.00	139,486.80	2,625.00	303,182.20	31.91
621601	Key Total:	119,185.00	109,708.18	(2,625.00)	12,101.82	

COUNTY OF INYO
UNDESIGNATED FUND BALANCES

AS OF 12/03/2020

		Claim on	Accounts	Loans	Prepaid	Accounts	Loans	Deferred	Computed	Fund	
		Cash	Receivable	Receivable	Expenses	Payable	Payable	Revenue	Fund	Encumbrances	Balance
		1000	1100,1105,1160	1140	1200	2000	2140	2200	Balance		Undesignated
WDIR - WATER											
6272	OVGA-OWENS VALLEY	331,184							331,184	2,625	328,559
WDIR	Totals	331,184							331,184	2,625	328,559
Grand Totals		331,184							331,184	2,625	328,559



OWENS VALLEY GROUNDWATER AUTHORITY

Members: Big Pine CSD — City of Bishop — County of Inyo — County of Mono — Indian Creek-Westridge CSD

Interested Parties: Lone Paiute Shoshone Tribe — Owens Valley Committee

P.O. Box 337
135 Jackson Street
Independence, CA 93526

Phone: (760) 878-0001
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www.inyowater.org

Staff Report

Date: December 10, 2020

Subject: Item #7 Update on Tri-Valley Groundwater Management District request to Mono County and possible authorization for Executive Manager to submit public comment to the Mono County Board of Supervisors.

Introduction

This item provides an opportunity for the OVGA to weigh and discuss the potential implications of Mono County's Board of Supervisors consideration of a request from the Tri-Valley Groundwater Management District (TVGMD) that Mono County request to be terminated from the OVGA. Staff requests direction whether to provide public comment to the Mono County Board of Supervisors on the potential impacts if Mono County were no longer a member of the OVGA. We are informed that Mono County will consider TVGMD's request during the December 15 regular meeting.

Since at least September, the TVGMD Board has formally considered whether to apply to the Department of Water Resources to reacquire their exclusive GSA status. At their November 24 meeting, TVGMD directed staff to schedule a public hearing to adopt a resolution stating their intent to seek GSA status. The hearing is tentatively scheduled for January. TVGMD staff were also directed to prepare a letter requesting that Mono County request to be terminated from the OVGA based on the advice given to the TVGMD that the absence of Mono County from the OVGA would improve TVGMD's chance to be recognized as the exclusive GSA for the portion of the Basin within their boundary.

As presently constituted, the OVGA has jurisdiction to implement groundwater management throughout the entire basin. In 2019, the Basin was re-prioritized to be "low priority." SGMA

does not require a GSP to be developed and implemented in a low priority basin. Just prior to that change in status, the members of the OVGA (including Mono County) affirmatively decided to continue to move forward developing a GSP even if the Basin was reprioritized to be low. Following that decision, Daniel B. Stephens and Associates (DBSA) was directed to accelerate work on the GSP, and the OVGA has now expended approximately 85% of the available grant funds.

The absence of Mono County from the OVGA creates potential grant and GSP development and implementation problems given that the OVGA JPA would no longer have a member with SGMA authority whose boundaries cover the Tri-Valley or Mono County areas of the Basin.

Grant Implications

The OVGA acquired a planning grant administered by DWR with funding provided through Proposition 1 (Grant Agreement). The project description contained in the Grant Agreement is:

"The work plan includes activities associated with planning, development, and the preparation of a GSP for the Owens Valley Groundwater Basin (Basin). The resulting GSP will incorporate appropriate Best Management Practices (BMPs) as developed by the Department of Water Resources (DWR), and will result in a more complete understanding of the groundwater Basin to guide future groundwater management in the Basin. (Grant Agreement, Exhibit A-Work Plan)

The State requires notification and approval of changes to the project:

"The Grantee agrees that no substantial change in the scope of a project will be undertaken until written notice of the proposed change has been provided to the State and the State has given written approval for such change" (Grant Agreement, Section 19)

The intent of the project and understanding by DWR is that the scope of the GSP will include the entire Basin unless the State agrees otherwise. Should the OVGA be compelled or choose to write a GSP that excludes a portion of the Basin or only includes areas within the jurisdiction of the GSA members, the State could consider the OVGA in default of the Grant Agreement:

"The Grantee will be in default under this Grant Agreement if any of the following occur: ...

3. Failure to operate or maintain project in accordance with this Grant Agreement. "
(Grant Agreement, Section 12)

Should a default occur, the State will provide notice and an opportunity to correct, but if the State determines that a project is not being implemented in accordance with the provisions of the Grant Agreement, the State may:

"...withhold from the Grantee all or any portion of the State funding...." (Grant Agreement Section 11)

This provision would apply to the portion of the Grant budget not yet reimbursed by the State and/or the 10% retention on invoices submitted (and for the advance payment). The State will release those funds upon successful completion of the Grant Agreement. Additionally:

“The state may demand repayment from the Grantee of all or any portion of the advanced State funding along with interest....” (Grant Agreement, Section 10)

Finally, the State may:

.....Declare the funding be immediately repaid, with interest...” (Grant Agreement, Section 12, #9).

These provisions would apply to advance payment funds received in 2019 and to funds provided for expenses already incurred and reimbursed for grant administration by OVGA staff and GSP preparation by DBSA.

Implications for the Basin

The OVGA Guiding Principles recognize that “sustainable groundwater management is critical to support, preserve, and enhance the economic viability, social well-being, environmental health, and culture of all beneficial users and uses including tribal, domestic, municipal, agricultural, environmental, and industrial users.” Mono County and Inyo County constituents, as well as area visitors, could be affected by declining water levels within the 20-year planning horizon of the GSP. Absence of sound scientific information and well-informed groundwater planning can compound known problems before conditions are grave or solutions are imposed with a short time to design and implement corrective measures, which magnifies the social and economic hardship.

Implications for State approval of the GSP

The validity of the GSP may also be called into question during DWR’s assessment if there is no agency overlying the Mono County portions of the Basin with SGMA jurisdiction participating in the Joint Powers Agreement at the time the GSP is submitted. SGMA requires the entirety of medium and high priority basins be covered by a GSA and managed according to a GSP. It is not certain how GSPs submitted for low priority basins will be evaluated, but it is reasonable to assume DWR will apply a uniform checklist of required GSP contents regardless of basin status.

Although there is no SGMA requirement for a GSP in a low priority basin, at the time the OVGA weighed whether to proceed developing the GSP in October 2019, your Board recognized that there are advantages to preparing a plan that complies with SGMA and ready to be implemented should the basin be reprioritized in the future. In other words, submitting a complete and adequate GSP to the State now will avoid the need for the OVGA to revise the GSP and restart this process later if the Basin is reprioritized. No grant funding is guaranteed for a future GSP revision or development endeavor.

Conclusion

The grant agreement clearly requires the GSP to address conditions and groundwater management of the *entire* Basin and creates a compelling financial incentive for the OVGA to ensure it does not default on the grant. The absence of Mono County as a member of the OVGA would also complicate preparation of the GSP. Similarly, Mono County membership in the OVGA allows the OVGA meet its requirement to show that it has the legal authority to implement the GSP in the entire Basin.

Based on the above, the Executive Manager seeks direction whether to prepare written public comment for the Mono Board to consider in its deliberations and consideration of TVGMD's request.



Questions from November Meeting?

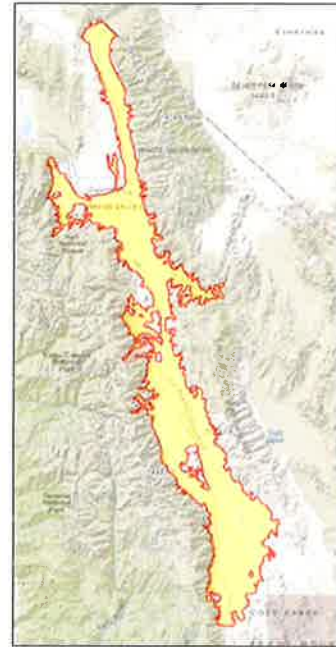
- Topics covered:

- ✓ Groundwater Dependent Ecosystems (GDEs)
- ✓ Future Land Surface Water Budgets
 - Basin Characterization Model (BCM)
- ✓ Monitoring Plan & Data Gaps Analysis Tech Memo



Today's Topics...

- General GSP Status Update
- Sampling and Analysis Plan
- Sustainable Management Criteria



Sampling and Analysis Plan (SAP) *Summary and Progress Report*



Reference / Background Materials

- **BMP #1 - Monitoring Protocols, Standards, and Sites**
- **CCR Subarticle 5 Projects and Management Actions (Emergency Regulations)**

DWR BMP #1 Monitoring Protocols, Standards, and Sites:

https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/BMP-1-Monitoring-Protocols-Standards-and-Sites_av_19.pdf

DRAFT SAP prepared to satisfy criteria of 23 CCR:

- § 352.2 - Monitoring Protocols
- § 352.4 - Data and Reporting Standards
- § 352.6 - Data Management System



SAP Purpose

Establish SGMA Compliant Monitoring Protocols and Standard Methods for:



- Water sample collection procedures (GW & SW)
- Analytical sample analysis methods
- Groundwater level measurement protocol
- Data QA/QC procedures.

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SAP does NOT do the following...

- Define which wells are monitored for WLs or water quality
- Define what streams are monitored for flow rate or water quality
- Define the monitoring frequency
- Define the laboratory analytical program

Where are these elements defined?

 Monitoring Program / Data Gap Analysis

Existing Monitoring Networks

The SAP is not intended to impose specific schedules or monitoring wells and/or sampling locations on OVGA or other entities.

Many of the field techniques and procedures presented in the SAP may already be in place.

SAP Next Steps

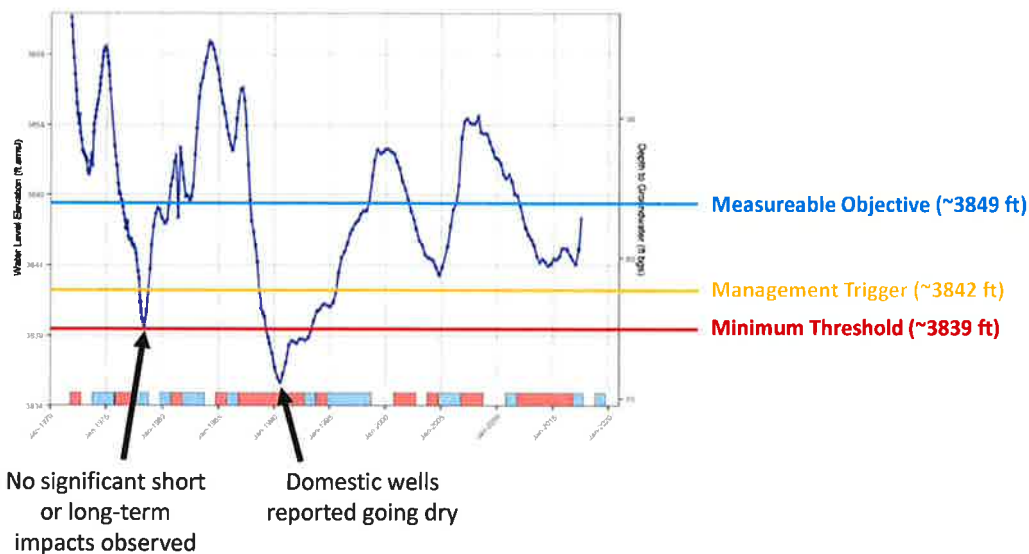
- DBS&A internal review
- OVGA staff review
- SAP will be included as an Appendix in the GSP



Sustainable Management Criteria

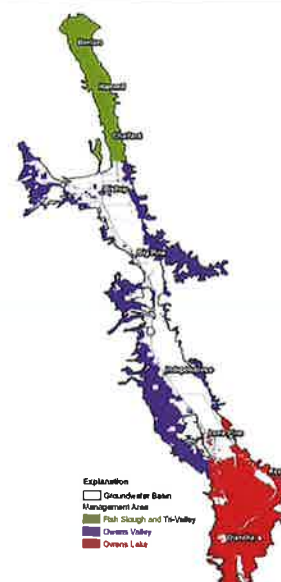


SMC Development - Hypothetical Example



Basin-Wide SMCs

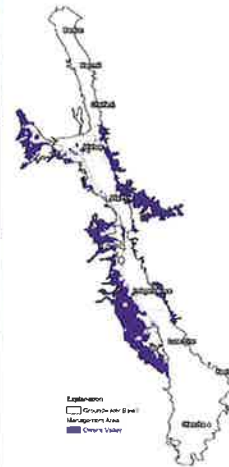
SMC	Undesirable Results	Metric	Minimum Threshold	Measureable Objective
Degraded WQ	Increased treatment costs, loss of potable water supplies	Solute concentrations	Included in existing or future regulations	No MOs to be set ¹
Seawater Intrusion	N/A	N/A	N/A	N/A



1. Elevated solute concentrations are naturally occurring, localized groundwater contamination (e.g., leaking USTs) is already regulated, OVGA not a public water supplier

Owens Valley SMCs

SMC	Undesirable Results	Metric	Minimum Threshold	Measureable Objective
GW elevation	Increased pumping costs, drying out of shallow domestic wells, loss of existing monitoring wells, depletion of surface water	GW elevation	Lowest GW elevation during 2012-2016 drought OR lowest GW elevation available since 2000	Average GW elevation from WY 2001-2010 OR Average GW elevation for most recent 10 years
GW Storage Reduction	Decreased ability to maintain status quo pumping during extended drought periods	GW elevation	Lowest GW elevation during 2012-2016 drought OR lowest GW elevation available since 2000	Average GW elevation from WY 2001-2010 OR Average GW elevation for most recent 10 years
SW Depletion	Reduction of groundwater discharged to the surface resulting in impairment of GDEs	GW elevation	Lowest GW elevation during 2012-2016 drought OR lowest GW elevation available since 2000	Average GW elevation from WY 2001-2010 OR Average GW elevation for most recent 10 years
Land Subsidence	General infrastructure damage	InSar GW elevation	Lowest GW elevation estimated to result in 0.3 ft of subsidence in a single year or over 5 years OR 0.3 ft of subsidence within a single year or over 5 years	Average GW elevation from WY 2001-2010 OR Average GW elevation for most recent 10 years AND 0 ft of subsidence



Owens Lake SMCs

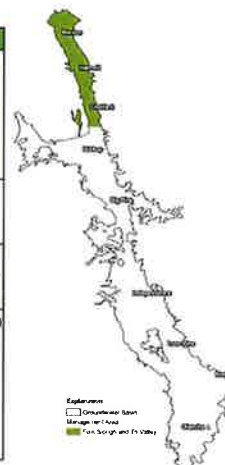
SMC	Undesirable Results	Metric	Minimum Threshold	Measureable Objective
GW elevation	Increased pumping costs, drying out of shallow domestic wells, loss of existing monitoring wells	GW elevation	GW elevation equal to some acceptable value between the long-term static water level and the top of the well screen for "Most Sensitive Wells" identified in H3MP	Average GW elevation from WY 2001-2010 OR Average GW elevation for most recent 10 years
GW Storage Reduction	Decreased ability to maintain status quo pumping during extended drought periods	GW elevation	GW elevation equal to some acceptable value between the long-term static water level and the top of the well screen for "Most Sensitive Wells" identified in H3MP	Average GW elevation from WY 2001-2010 OR Average GW elevation for most recent 10 years
SW Depletion	Reduction of groundwater discharged to the surface resulting in impairment of GDEs	GW elevation	Reduction of groundwater flow gradient toward springs below an acceptable percentage of the gradient measured during baseline period	Baseline period groundwater flow gradient towards springs
Land Subsidence	Damage to conveyance infrastructure general infrastructure damage	InSar GW elevation	0.3 ft of subsidence within a single year or over 5 years OR GW elevation equal to some acceptable value between the long-term static water level and the top of the well screen for "Most Sensitive Wells" identified in H3MP	Average GW elevation from WY 2001-2010 OR Average GW elevation for most recent 10 years AND 0 ft of subsidence



H3MP = Hydrologic Monitoring, Management, and Mitigation Plan for The Owens Lake Groundwater Development Program (A component of Owens Lake Master Project)

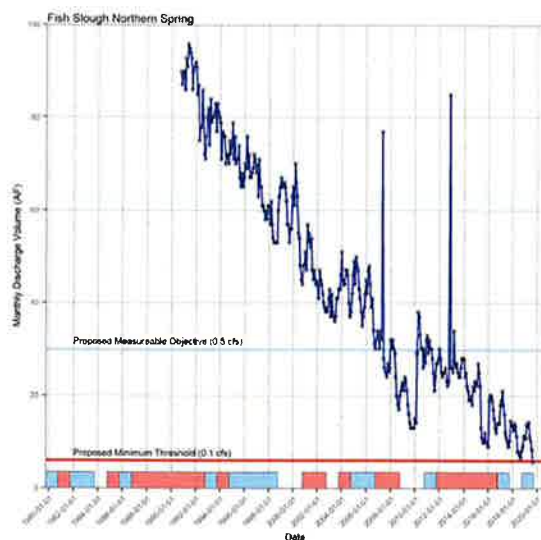
Fish Slough and Tri-Valley SMCs

SMC	Undesirable Results	Metric	Minimum Threshold	Measureable Objective
GW elevation	Increased pumping costs, drying out of shallow domestic wells, loss of existing monitoring wells, impairment of groundwater discharge to Fish Slough	GW elevation	Water levels from domestic well vulnerability assessment (in progress)	Jan 1st, 2015 water levels
GW Storage Reduction	Decreased ability to maintain status quo pumping during extended drought periods	GW elevation	Water levels from domestic well vulnerability assessment (in progress)	Jan 1st, 2015 water levels
SW Depletion	Reduction of groundwater discharged to the surface resulting in impairment of GDEs	GW elevation	0.1 cfs instantaneous flow ¹	0.5 cfs instantaneous flow ¹
Land Subsidence	General infrastructure damage	InSar GW elevation	Lowest GW elevation estimated to result in 0.3 ft of subsidence in a single year or over 5 years OR 0.3 ft of subsidence within a single year or over 5 years	Average GW elevation from WY 2001-2010 OR Average GW elevation for most recent 10 years AND 0 ft of subsidence



1. Recommended values from CADFW to maintain Owens Pupfish and Fish Slough Milk Vetch habitat

Northeast Spring Monthly Observed Flow Volume



Northeast Spring Annual Observed Flow Volume

