

White Wolf Subbasin Groundwater Sustainability Agency Regular Board Meeting of the Board of Directors

Agenda January 7, 2025 at 1:00 p.m.

Public may attend in-person, via telephone, or Web-based service:

In Person: Wheeler Ridge-Maricopa Water Storage District Headquarters
12109 Highway 166
Bakersfield, CA 93313

Or Virtual Option:

Go To Meeting: <https://meet.goto.com/911605181>
Call by Phone: (872) 240-3311 Access Code: 911-605-181

- 1. Call to Order**
- 2. Recognition of Guests**
- 3. Approval of Minutes of the Regular Board Meeting of November 5, 2024**
- 4. Financial Accounting Report (Robert Velasquez)**
- 5. California Department of Water Resources (DWR) SGMA Implementation Round 2 grant update (Angelica Martin)**
- 6. Updates on actions discussed or authorized on November 5, 2024 (EKI)**
 - a. Update on Groundwater Sustainability Plan (GSP) implementation activities
 - i. November 2024 groundwater levels
 - ii. Dedicated monitoring wells planning
 - iii. Model updates and re-calibration
 - b. Landowner recharge leave-behind discussion
- 7. Correspondence**
- 8. Public Comment**

At this time, the public may address the Board on any item not appearing on the agenda that is within the subject matter jurisdiction of the Board. Comments will be limited to three minutes.

- 9. Consider and provide direction on future agenda items**

In compliance with the Americans with Disabilities Act, if you need disability-related modifications or accommodations, including auxiliary aids or services, please call Angelica Martin (661) 663-4262.

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Regular Board Meeting of the Board of Directors**

**Agenda
January 7, 2025 at 1:00 p.m.**

10. Closed Session – Conference with Real Property Negotiators (Gov. Code § 54956.8):

Property: Various parcels comprising potential monitoring well sites

Agency Negotiators: Jeevan Muhar, Sheridan Nicholas, and Angelica Martin

Negotiating Parties: Diamond Farming Company and Sapphire Prop Holdings LLC

Under Negotiation: Price and terms of payment

11. Report out of Closed Session

12. Adjourn

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**White Wolf Subbasin Groundwater Sustainability Agency
Wheeler Ridge-Maricopoa Water Storage District
12109 Highway 166, Mettler, CA 93313**

MINUTES OF THE REGULAR BOARD OF DIRECTORS MEETING

Date of Meeting: Tuesday, November 5, 2024

Location: Remote and In-Person

Meeting Commenced at 1:02 p.m.

DIRECTORS PRESENT: Tito Martinez, Jeff Giumarra, Colby Fry, Dolores Salgado, Jeff Mettler.

ALTERNATES:

DIRECTORS ABSENT: Allen Lyda

PUBLIC AND STAFF: Christina Lucero, Anona Dutton, and Sarah Gerenday from EKI, Alanna Goodall with AECOM, Eric McDaris, Tom Suggs, Sam Blue, Robert Velasquez, and Legal Counsel Alan Doud.

President Martinez did a recognition of guests followed by an announcement from Sheridan Nicholas regarding the new appointment of Director Colby Fry to the WWGSA Board, who is replacing Director Jon Reiter as the new representative for WRMWSD. President Martinez continued to the review of the draft meeting minutes of the Regular Board Meeting of October 1, 2024. On motion by Director Mettler and seconded by Director Giumarra, with one abstain from Director Fry, the minutes were approved unanimously.

While waiting for Mr. Velasquez to figure out technical difficulties, Ms. Martin proceeded to item five of the agenda and gave a grant update. She advised the grant payment for invoice No. 2 had been received on October 28.

Robert Velasquez gave a report on the financial statements. He also provided an update of grant money received. He also provided a forecast until the end of the year, as well as a list of checks registered for 2025 fiscal year. On motion by Director Mettler, seconded by Director Giumarra, the amendment was unanimously approved.

Christina Lucero provided an update on Groundwater Sustainability Plan (GSP) implementation activities. She presented the September and October 2024 water levels. No exceedance of MOs and MTs to report. She also pointed out a new intermediate line showing the interim milestone had been added to the graphs, which will be useful to help meet the 2027 water level goals. She talked about the water level trends during the year 2024. Starting from October 1, 2023, to September 30th, 2024. She also updated on interconnected surface water systems. Christina continued to provide an update on the El Paso Creek streamflow, as well as the work underway to gather the data for the 2024 WY annual report. She gave an update about the CASP letter received last month, and the response letter that had been sent asking for clarification of some discrepancies in data presented in the letter. The Board asked to receive a copy of the response letter.

Ms. Martin informed the Board there was an email received from DWR, asking for updates on Project and Management Actions.

Ms. Martin recommended cancelling the next WWGSA Regular Board meeting of December 3, 2024, since it was during the week of ACWA and many of the people that attend the meeting, including directors, will be at the conference. The Board agreed.

There was no public comment

There was no closed session.

On motion by Director Giumarra, seconded by Director Mettler, the White Wolf GSA meeting was adjourned at 1:34 p.m.

Angelica Martin, Secretary, White Wolf Subbasin GSA

Approved by: White Wolf Subbasin GSA Board of Directors

Dated: January 7, 2025

DEPARTMENT OF WATER RESOURCES

P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

December 20, 2024

Ms. Angelica Martin - Water Resources Director
White Wolf Groundwater Sustainability Agency
4436 Lebec Rd.
Lebec, CA 93243

Dear Ms. Martin:

We have received your November 4, 2024 letter, requesting clarification regarding some of the data underlying the Precise Survey Information which the State Water Project's (SWP's) California Aqueduct Subsidence Program (CASP) transmitted to you on September 10, 2024. This letter is in response to your request, as well as seeking clarification of our own, with respect to your ongoing efforts to assess subsidence rates along the California Aqueduct (Aqueduct) within the White Wolf GSA (WWGSA). It is our hope that this mutual engagement will continue to foster understanding and cooperation among our respective entities, in furtherance of protecting the Aqueduct from future subsidence impacts.

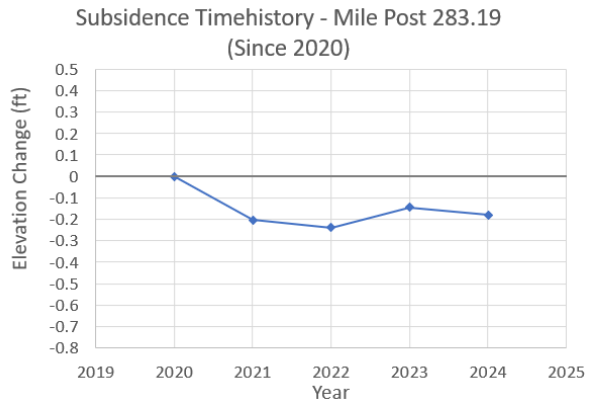
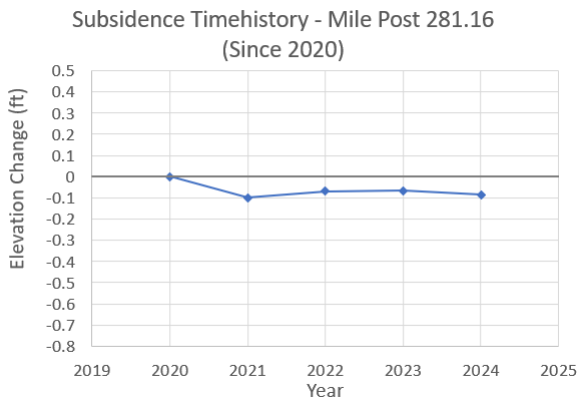
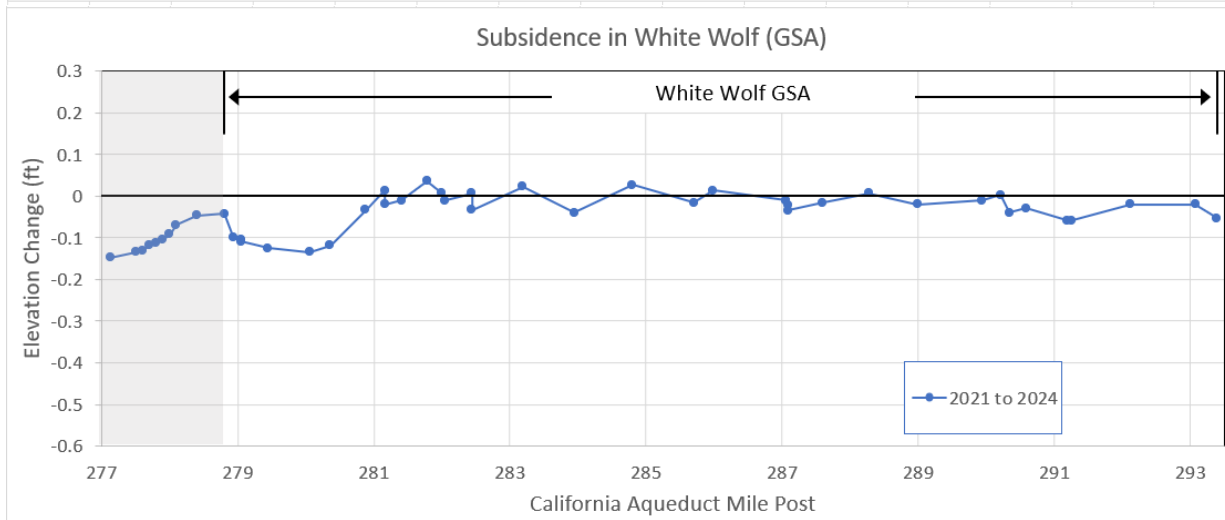
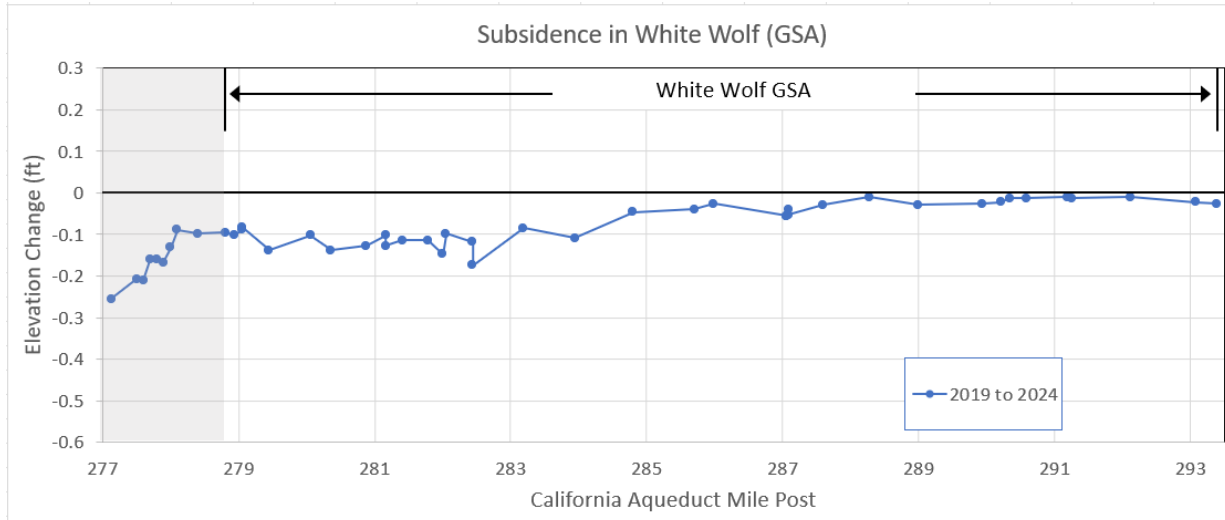
1. Clarification Regarding the Precise Survey "Sawtooth" Pattern.

Your November 4 letter observes that the "sawtooth pattern" between Mile Posts 281 and 284 may be related to "diverging data recorded at adjacent points, particularly in 2020." You ask if the CASP could "provide insight into what might have produced these numbers, and whether they are anomalous."

Following our comprehensive review of the collected data, including an in-depth examination of the raw data files, we have found no evidence of data transposition during collection or reporting. However, we acknowledge the presence of the "sawtooth" anomaly you have highlighted in the dataset. Further analysis by CASP indicates that excluding the 2020 survey dataset for mileposts centered on Pool 37 resolves much of the observed irregularity, preserving the overall subsidence trend and mitigating the anomalous "sawtooth" appearance.

It is notable that the 2020 survey was conducted in August, during the summer months, rather than within the typical survey window of January through March reflected in all other datasets included in this analysis. Complicating this issue, while the specific data points referenced in our correspondence exhibit a pronounced "sawtooth" pattern, adjacent points within the same 2020 dataset do not display similar irregularities. This inconsistency reinforces CASP's conclusion that the top-of-liner Pool 37 elevations from the 2020 dataset are unreliable for accurate trend analysis.

In light of these unexplainable anomalies within the 2020 dataset for Pool 37, CASP has determined that this dataset will be excluded from future representations and calculations related to subsidence trends across the relevant mileposts; please see the following 2019-2024 and 2021-2024 plots showing a more consistent representation.



The WWGSA Groundwater Sustainability Plan (GSP) indicates that in the future, monitoring of land subsidence along the Aqueduct will include review of “land surface elevation” data.¹ As such, we appreciate WWGSA’s analysis of the Precise Survey Data transmitted to you in September and we look forward to your incorporation of these types of analyses, additional monitoring, and any attendant modifications to subsidence-related Sustainability Management Criteria (e.g. minimum thresholds and measurable objects) into your future updated GSP.

2. Observations Regarding the 2023 WWGSA Annual Report.

We noted in our review of the WWGSA Annual Report (AR), prepared by EKI Environment & Water, Inc., submitted in March 2024 (for the 2023 Water Year (October 1, 2022 through September 30, 2023))², that there were three areas where further information from WWGSA would help the SWP/CASP better understand WWGSA’s subsidence-prevention goals and methods of achievement.³ They include the following:

a. “Proxies” for Determining Undesirable Results for Subsidence.

The January 2022 WWGSA GSP (approved by SGMO on October 26, 2023), does not establish land surface elevation Sustainable Management Criteria (SMCs) to gauge Undesirable Results (URs). Rather, the GSP uses a “proxy” SMC for subsidence – that which is associated with the “Chronic Lowering of Groundwater Levels.”⁴

Thus, the GSP, as well as all prior and current Annual Reports⁵, employ changes in groundwater elevations (GWE) as a proxy for changes in the land surface elevation: (i) to develop land subsidence SMCs; and (ii) as a basis for monitoring subsidence. As such, WWGSA’s use of the “chronic lowering of groundwater” proxy gives rise to the following CASP questions:

¹ Section 14.5.1 of the WWGSA GSP states that the DWR precise survey data along the Aqueduct and publicly available data from UNAVCO GPS sites will be “compiled together with other readily available data for analysis at the next five-year update of the GSP.” The GSP further notes:

“In addition to the RMW-WLs for land subsidence, two Land Surface Checkpoints will be established and monitored as part of GSP implementation. These sites have not yet been installed, are not considered representative sites, and currently have no MTs established for them. Once installed, MTs for these sites may be developed in the future after data are collected and analyzed by the GSA.” (GSP, Footnote 88 to Section 14, p. 162).

² WWGSA has previously submitted Annual Reports for water years (WY) 2021 and 2022.

³ These CASP inquiries are posed within the context of the SWP’s position as the owner/operator of the California Aqueduct. SWP observations/comments do not reflect the views of DWR’s Sustainable Groundwater Management Office (SGMO).

⁴ The CASP recognizes that for the “representative value” established by groundwater elevation to be deemed “a reasonable proxy,” the Annual Reports must be “supported by adequate evidence.” (23 California Code of Regulations (CCR) §354.28).

⁵ The CASP notes that the WY 2021 Annual Report does not address subsidence, either directly or via proxy, and the WY 2022 Annual Report only notes that the proxy indicators “...are not yet occurring, based on the definition in the GSP.”

- Can WWGSA share its data and analyses which it has used to establish an empirical relationship between changes in groundwater elevations and changes in land surface elevation?⁶
- The GWE proxy approach assumes that no new subsidence will occur until groundwater elevations drop below the pre-consolidation head, which is assumed to be equivalent to the historic low GWEs. Does WWGSA have any data or analyses which it can share demonstrating the historic low GWEs are equivalent to the pre-consolidation heads in the aquifer?

Large annual reductions in groundwater elevation may indicate an increased likelihood of subsidence, but the occurrence and magnitude of subsidence cannot be determined without additional data and monitoring outside of groundwater levels. As such, CASP would suggest that time histories of groundwater elevations in the RMW-WWB-002 and RMW-WWB-003 monitoring wells could be plotted by WWGSA along with time histories of land elevation at nearby DWR Precise Survey stations to test whether a correlation exists between the two data sets. However, CASP per the statements below, like SGMO with their recommended corrective actions, encourages WWGSA to use direct measurements of land surface elevational changes (as Section 14.5.1 of your GSP implied you would, in the next update) as the basis for establishing the objectives, thresholds, and undesirable results to monitor on going subsidence against.

b. No URs Associated with Land Subsidence.

In addition to the GWE proxy information, Section 7.1.5 of the 2023 Annual Report also presents land surface elevation data to characterize current subsidence conditions in the basin, and based thereon, concludes that:

“No Undesirable Results associated with Land Subsidence were experienced during WY 2023.”⁷

We are requesting some additional clarification, given the specific definition WWGSA uses for land subsidence. Specifically, the GSP states that undesirable results for land subsidence, due to groundwater level declines, would be experienced in the Subbasin when it negatively affects the ability to use existing critical infrastructure with the Subbasin.⁸ Significant and unreasonable land subsidence conditions, as described in the GSP,

“... include subsidence-related damage to critical water conveyance infrastructure (i.e., the California Aqueduct ...), resulting in a loss of functional capacity of the infrastructure that prevents conveyance of

⁶ The CASP notes that the WY 2021 Annual Report does not address subsidence, either directly or via proxy, and the WY 2022 Annual Report only notes that the proxy indicators “...are not yet occurring, based on the definition in the GSP.”

⁷ 2023 Annual Report, p. 7-5.

⁸ WWGSA GSP, Section 13.5, p. 238.

available volumes of water that could otherwise be conveyed if the subsidence had not occurred.”⁹

But given that existing subsidence has already diminished the original lined freeboard of the Aqueduct, it is unclear what WWGSA means when it concludes that “No Undesirable Results associated with Land Subsidence were experienced during WY 2023.”

c. SGMO’S Recommended Corrective Actions

In the Staff Report submitted with the October 23, 2023 SGMO Determination letter, SGMO identified various “Recommended Corrective Actions” (RCAs) which, despite GSP approval, SGMO believed would “enhance the GSP and facilitate future evaluation by the Department.”¹⁰ SGMO further noted that if WWGSA failed to address these RCAs before future, subsequent plan evaluations, it might “...lead to a Plan being determined incomplete or inadequate.”¹¹

Two such recommendations included the following:

- RCA 2 recommended that WWGSA establish SMCs for land subsidence based on direct measurements of land elevation changes, to assess and confirm that no significant and unreasonable land subsidence is occurring.
- RCA 4 recommended that WWGSA expand the land subsidence monitoring network (e.g., additional GPS stations, extensometers, or publicly available remote sensing data, InSAR) to provide sufficient coverage of the Subbasin.¹²

The 2023 Annual Report does not make explicit what progress has being made on addressing these RCAs.

3. Concluding Remarks.

SWP/CASP values the candor and transparency WWGSA has shown in our ongoing interactions. It is our belief that we all have a shared goal of protecting California’s critical water conveyance infrastructure from the effects of subsidence. We look forward to continued collaboration with WWGSA on the work ahead, to achieve a sustainable water future, in accordance with SGMA.

Thank you for your engagement on this critical effort and please do not hesitate to contact me at (916) 699-8403 or jesse.dillon@water.ca.gov for any follow-up technical discussions on this matter.

⁹ WWGSA GSP, Section 13.5, p. 238.

¹⁰ SGMO Approval letter, p. 1.

¹¹ October 26, 2023 Statement of Findings, p. 6.

¹² Staff Report, p. 37.

Sincerely,

A handwritten signature in black ink, appearing to read 'JD', with a horizontal line extending to the right.

Jesse Dillon
Program Manager, California Aqueduct Subsidence Program
State Water Project – Department of Water Resources

cc: Mr. Paul Gosselin (Paul.Gosselin@water.ca.gov)
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