

Salinas Valley Water Coalition

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Transmitted Via Email
board@svbgsa.org

22 October 2025

Chair Janet Brennan and Board of Directors
Salinas Valley Basin Groundwater Sustainability Agency
P.O. Box 1350
Carmel Valley, CA 93924

Dear Chair Brennan,

The Salinas Valley Water Coalition (SVWC) submits this letter in response to the misleading statements that have been made that landowners in the southern portion of the Salinas Valley receive 70% of the Salinas River's water, while northern landowners pay the majority of the costs for this water supply.

That allegation is a misleading myth that continues to divide Salinas Valley landowners just as we need to come together to develop projects and/or management actions necessary to achieve, and/or maintain, groundwater sustainability in the Salinas Valley and particularly through projects and measures that directly address the needs of the critically overdrafted subbasin, the 180/400-Foot Aquifer Subbasin.

This letter seeks to reduce division by confronting myths with the facts, science and law that got us here and that should help us move forward together as the Salinas Valley Basin Groundwater Sustainability Agency (SVBGSa) strives to make factually, scientifically, and legally informed decisions to protect existing sustainability and to achieve future sustainability in the Salinas Valley's groundwater subbasins, as required by the Sustainable Groundwater Management Act (SGMA).

The Salinas Valley has a long history of what is often referred to as the "north-south divide." That is truly unfortunate, as there is so much information and scientific data that we should all be able to accept as a common reality to move forward with finding solutions to our water problems. Unfortunately, it has often come down to the pointing of fingers for who is at fault for what. In fact, the Salinas Valley has the water resources it needs to solve our water sustainability problems. An average of 240,000-acre feet per year (AFY) of Salinas River water is lost to the ocean. We need to come together to protect and preserve the Salinas Valley's existing water supply infrastructure investments and resulting benefits, while developing cost-effective new projects, and/or management actions, to help the critically overdrafted 180/400 Subbasin and the adjacent Eastside Subbasin achieve sustainability, and other subbasins maintain their

Mission Statement: The water resources of the Salinas River Basin should be managed properly in a manner that promotes fairness and equity to all landowners within the basin. The management of these resources should have a scientific basis, comply with all laws and regulations, and promote the accountability of the governing agencies.

sustainability. We need to be realistic and reasonable and willing to accept responsibility for achieving success.

It has been often stated to your Board and in SVBGSA and others, committee meetings, that the southern end of the Valley gets 70% of the water¹ while the northern end of the Valley pays for the majority of the costs of providing that water. What isn't stated, is that the Salinas Valley Water Project (SVWP), the project by which the reservoirs are operated, did **not** allocate water, but rather allocated the costs of that project proportionate to the special benefits conferred to the lands. That Zone 2C cost allocation was made in proportion to all the SVWP's special benefits that were detailed in a published Engineer's Report in compliance with Article XIID, Section 4 of the California Constitution (aka Proposition 218).

The SVWP and its Zone 2C Assessment were approved by Salinas Valley landowners pursuant to Proposition 218, with an 85% margin of approval. Proposition 218 requires that an assessment **must** be levied in proportion to the cost of providing special benefits to real property. The amount of an assessment varies in proportion to the cost of providing special benefits to each parcel of land subject to the assessment. In other words, Proposition 218 requires the amount to be paid by the landowner to be proportionate to the costs of providing special benefits. Where a range of existing and new infrastructure facilities are developed in different combinations to provide different combinations of special benefits to a geographically broad range of real properties, one cannot evaluate fairness of an assessment's cost allocation based on simplistic claims, like "they are taking most of the water, while we are paying most of the costs." That simplistic rhetoric seeks to distract from a more complex reality in which MCWRA has developed a series of interconnected infrastructure projects to mitigate seawater intrusion caused by overdraft pumping in the 180/400 and Eastside subbasins, among other special benefits for other subbasins.

Proposition 218 ballot by which Salinas Valley landowners approved the Zone 2C Assessment to pay for the SVWP defined four distinct components:²

1. Reservoirs Operations (Nacimiento and San Antonio)
2. Spillway (modification of spillway at Nacimiento)
3. Diversion (rubber dam, aka Salinas River Diversion Facility or "SRDF")
4. Assessment for Administration

As explained in the SVWP Engineer's Report, the Zone 2C Assessment allocates MCWRA's costs to construct, operate and maintain the preceding infrastructure components in proportion to the special benefits the SVWP was approved to provide to landowners in the Salinas Valley's different subbasins—as required by Proposition 218.

¹ It is not clear if the speaker(s) are referring to 70% of the natural river flow, 70% of the reservoir releases or what. But it is assumed here that the reference is to the reservoir releases and the Salinas Valley Water Project implemented by the Monterey County Water Resources Agency (MCWRA) since it is then related to the costs being paid.

² You can find a copy of the ballot, Engineer's Report and all other documents associated with the SVWP at: [MCWRA SVWP](#)

Approximately half of the total costs to be recovered by the SVWP Zone 2C Assessment arise from construction, operation, and maintenance of infrastructure to control seawater intrusion at the coast, so the lands that would benefit from stopping/controlling seawater intrusion were assessed in proportion to that special benefit. Pumping in the Pressure Subarea (aka 180/400-Foot Aquifer Subbasin) and Eastside Subarea most directly causes the seawater intrusion problem and it was determined, would most directly receive the special benefits of controlling seawater intrusion, so they pay the most—as detailed in the SVWP Engineer’s Report. Northern and southern landowners affirmatively approved that allocation.³

The other half of the SVWP Zone 2C Assessment costs were associated with modifications to and operations of the existing reservoirs, and these costs were allocated in proportion to the resulting special benefits planned for each subarea. There were 8 different special benefits considered, including controlling seawater intrusion,⁴ increasing groundwater recharge, controlling the timing and location of recharge, drought protection, and flood control, along with a few other special benefits identified in the Engineer’s Report. The SVWP Zone 2C Assessment was approved by landowners in proportion to the various special benefits to be received.

The allocation of costs went through a detailed and open process that was initiated by Monterey County Superior Court Judge Richard Silver. It included a Cost Allocation Committee with representatives from throughout the Salinas Valley, including urban and agricultural stakeholders. Having personally invested significant time in the process, along with many others, including Chris Bunn Sr., Rich Smith and Bob Antle, I can attest that the SVWP and its corresponding Zone 2C Assessment were developed through a transparent and diligent effort supported by technical experts selected by stakeholders, including the following:

Dan Anderson – Forebay	Steve Jensen – East Side Alliance
Bob Antle – Pressure Area	Jim Manassero – East Side Alliance
Mike Armstrong – Urban Community	Bob Martin – Forebay
Chris Bunn – Pressure Area	Roger Moitoso – Upper Valley
Don Chapin, Jr. – North Monterey County	Arvid Myhre – Upper Valley
Carl Chase – North Monterey County	Greg O’Neal – Pressure Area
Jan Collins – Urban Community	Jim Perrine – Urban Community
Matt Gourley – Urban Community	Rich Smith – Arroyo Seco
Chris Indelicato – Upper Valley	Jim Smith – Urban Community
Nancy Isakson – Arroyo Seco	

You will find the Cost Allocation Committee Report to the MCWRA Board of Directors here [CAC](#). The Report provides a thorough and detailed description of the participants and process that developed the SVWP cost allocation recommendations to the MCWRA BOD. It was the opposite of a backroom deal as has been stated.

³ 64% of the weighted assessment landowners voted and 85% voted YES to go forward with the Project and assessments.

⁴ The reservoirs are operated in part to provide water to the SRDF (aka rubber dam) as stated/shown in the Engineer’s Report.

The following table was provided on the mail-in ballot for the SVWP's proposed Zone 2C Assessment that landowners voted to approve by an 85% margin. The table below shows examples of the first-year assessment dollar amounts contemplated for properties classified as irrigated agricultural, residential, commercial or institutional on a per-acre basis.

Subarea/Subarea Code	Reservoir Operations	Spillway	Diversion	Assessment Administration	Proposed Total Assessment per Acre
Extended Upper Valley Above Dam (AD)	\$7.04	\$1.82	—	\$1.03	\$9.89
Extended Upper Valley Below Dam (BD)	\$7.55	\$1.28	—	\$1.03	\$9.86
Upper Valley (UV)	\$6.77	\$1.05	—	\$1.03	\$8.85
Forebay (FB)	\$7.03	\$1.14	—	\$1.03	\$9.20
Pressure (PR)	\$14.85	\$2.87	\$6.18	\$1.03	\$24.93
East Side (ES)	\$8.07	\$2.19	\$5.15	\$1.03	\$16.44
Arroyo Seco (AS)	\$2.60	\$0.46	—	\$1.03	\$4.09

As shown on the above table, the Pressure Subarea (aka 180/400-Foot Aquifer Subbasin) does pay more than other subareas; but that is because the costs of the project infrastructure components to control seawater intrusion were a large portion of the SVWP's implementation costs. Those costs included construction, operation and maintenance of entirely new infrastructure, like the Salinas River Diversion Facility, its regulating reservoir, and its connection to the Castroville Seawater Intrusion Project (CSIP)—expensive facilities that provide no benefit to the Upper Valley and Forebay Subbasins.

The SVWP Zone 2C Assessment cost allocation reflected north-south stakeholder agreement on the SVWP's proportional special benefits to all subareas, which were weighted from 1 to 5 for each component of the SVWP. For example, Table 3-6d from the SVWP Zone 2C Assessment Engineer's Report details the special benefits from reservoir operations as follows:

Benefit	Weighting Factor	Extended Upper Valley Above Dam	Extended Upper Valley Below Dam	Upper Valley	Forebay	Pressure	East Side	Arroyo Seco
Control of Seawater Intrusion	3	0	0	0	0	15	12	0
Flood Control	3	3	9	9	9	15	3	3
Increased Recharge	1	1	1	1	3	3	2	1
Groundwater Quality	1	2	3	3	2	0	0	0
Timing and Location of Recharge	1	5	4	2	2	1	0	1
Drought Protection	1	5	3	3	3	2	2	2
Preservation of Aquifer Storage	1	0	0	0	0	4	3	0
Recreation	1	3	0	0	0	0	0	0
Total		19	20	18	19	40	22	7

And Table 3-6f of the Engineer's Report details the special benefits from the SRDF as follows:

Benefit	Weighting Factor	Extended Upper Valley Above Dam	Extended Upper Valley Below Dam	Upper Valley	Forebay	Pressure	East Side	Arroyo Seco
Control of Seawater Intrusion	3	0	0	0	0	15	12	0
Flood Control	3	0	0	0	0	0	0	0
Increased Recharge	1	0	0	0	0	1	1	0
Groundwater Quality	1	0	0	0	0	0	0	0
Timing and Location of Recharge	1	0	0	0	0	0	0	0
Drought Protection	1	0	0	0	0	0	0	0
Preservation of Aquifer Storage	1	0	0	0	0	1	1	0
Recreation	1	0	0	0	0	0	0	0
Total		0	0	0	0	17	14	0

The costs of building and operating various infrastructure components to provide special benefits varies and is not necessarily in proportion to the amount of resulting water supply. The Zone 2C Assessment accounts for the variation in facilities and operations costs to provide such special benefits, which makes it misleading and divisive to mischaracterize the approach as simply dollars for acre-feet of water. The landowners overwhelmingly approved the SVWP and the Zone 2C Assessment after a robust and transparent stakeholder process. The SVWP Zone 2C Assessment was lawfully enacted as a direct result.

The SVWC had hoped that MCWRA's update to its 1998 Historic Benefit Analysis (HBA) would remind everyone about how we got here and set the stage for allocating costs to repair Nacimiento and San Antonio dams. Unfortunately, the HBA Update (HBAU) used the problematic 2023 "provisional" version of the new SVIHM, which is so fundamentally flawed that its results distract from understanding the special benefits arising from MCWRA's construction and operation of its two reservoirs, implementation of the SVWP, including its SRDF, and implementation of CSIP. The SVWC understands that the SVBGSA's consultant, Montgomery & Associates, has been working to update the SVIHM to correct its most significant flaws and enable its use to help inform water management and sustainability planning.

The original HBA⁵ was published in 1998 to identify who actually benefitted in what ways from MCWRA's construction and operation of Nacimiento and San Antonio reservoirs. The original HBA was developed in an open and transparent stakeholder process that included the collaboration of technical hydrology experts and economists⁶ along with input from stakeholders. The HBA presented the special benefits that had been realized throughout the Salinas Valley due to the operation of Nacimiento and San Antonio reservoirs. The section on hydrologic and water supply benefits reported on the beneficial impacts of reservoir operations through increased groundwater levels, lower pumping lifts, and a reduction in seawater intrusion.

A principal benefit-evaluation method used in the HBA equated the physical benefits from reservoir operations with the measured difference in groundwater elevations "with" and "without" reservoir operations and under the same level of development and associated water use for agricultural and urban land uses. The HBA concluded:

Groundwater Levels: "A total of 30 thousand acre-feet per year (TAF/yr) of fresh ground water has been added to the ground water storage through recharge from the Salinas River as a result of operation of the reservoirs during water years 1958 through 1994. This additional recharge has resulted in generally high ground water levels throughout most of the Valley. Consequently, the **average rate of seawater intrusion has been reduced by 7 thousand acre-feet per year**".... and "This would have resulted in an additional **230 TAF (thousand acre feet) of seawater intruding into the ground water aquifer** of the Salinas Valley during the periods of 1958-1994." [emphasis added]

The HBA Table ES-1 below presents the average, minimum, and maximum differences in groundwater elevations during 1958-94 in each economic study unit, or "ESU,"⁷ between historical conditions with the reservoirs and "without reservoir"

⁵ Please find the report at this link [MCWRA 1998 HBA](#)

⁶ Individuals and/or organizations had the opportunity to have their hydrologic expert and/or economist participate in the development of the framework and modeling details – all in an open and transparent process. The technical experts included three/four of the most renowned at the time and the same for the economists. They represented interests such as T&A and the Bunn Family, SVWC and the Orradre (et al) along with the MCWRA's experts.

⁷ The HBA divided the Salinas Valley into 12 Economic Study Units (ESUs) to separate the geographic areas in the Valley that have received similar average benefits for higher ground water levels due to the operation of the

conditions. That table shows all areas of the Salinas Valley benefited from an average increase in groundwater levels:

Table ES-1
Impact of Historical Operations of Reservoirs
on Ground Water Levels
(Average Annual for 1958-94)

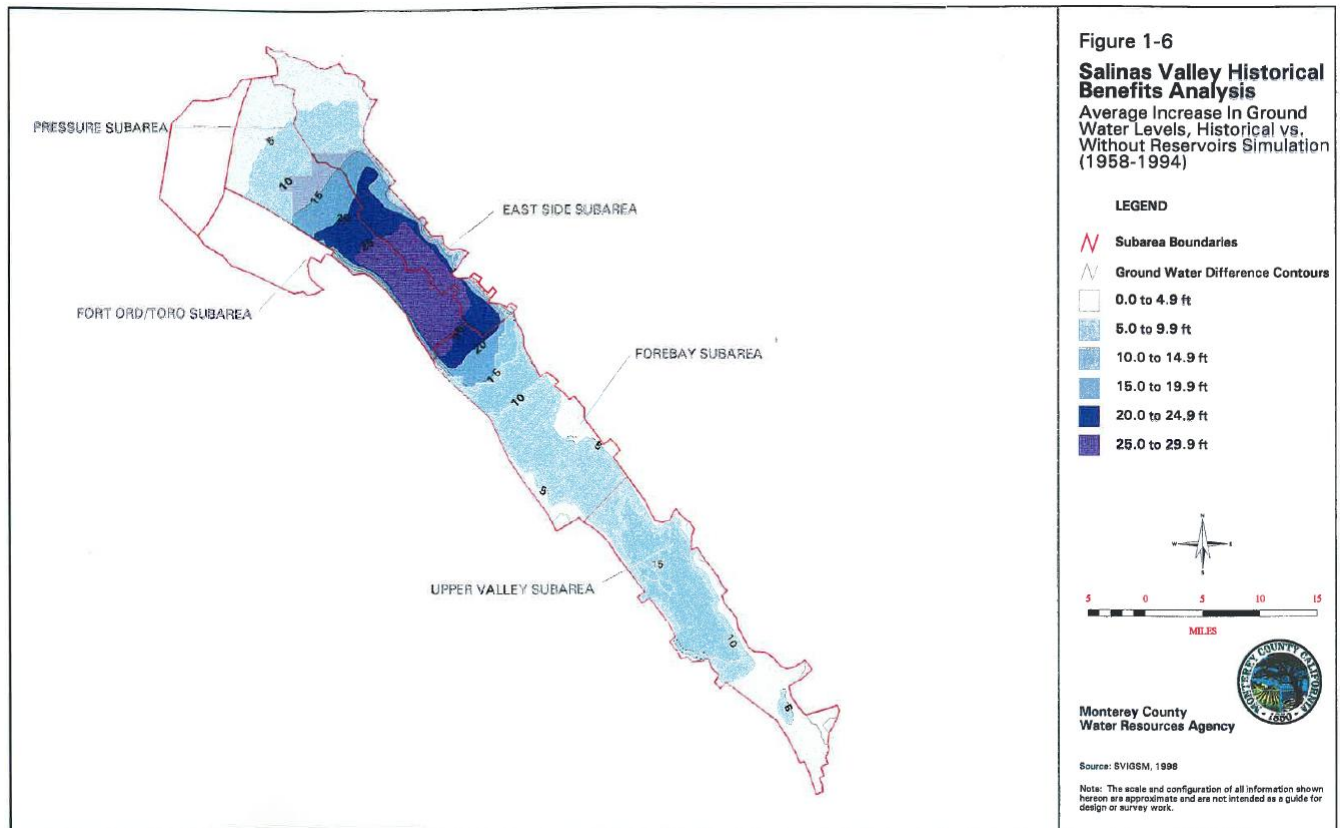
Increase in Regional Average Annual Ground Water Levels
With and Without Reservoirs (feet)

ESU	Minimum Increase	Maximum Increase	Average Increase
1	1.1	7.0	4.5
2	1.6	19.0	14.2
3	5.5	28.6	16.9
4	N/A	N/A	N/A
5	8.7	47.8	26.9
6	2.3	34.9	23.3
7	2.1	35.1	16.8
8A	0.6	11.9	5.9
8B	1.4	13.2	6.4
9	4.2	26.7	9.7
10	0.6	4.6	2.3
11	N/A	N/A	N/A

The HBA report showed that the 3 ESUs in the Pressure Area (Nos. 1, 3 and 5) had significant average increases in groundwater levels, with ESU 3 having an average increase of 16.9 feet and ESU 5 having an average increase of 26.9 feet. The Eastside subarea (Nos. 2 and 6) also received significant increases, with ESU 2 having an average increase of 14.2 feet and ESU 6 an average increase of 23.3 feet. In the Forebay (Nos. 7, 8A, and 8B), the northern portion (ESU 7) received an average increase of 16.8 feet, while the southern portion of the Forebay (ESU 8B) had an average increase of 6.4 feet, while the Arroyo Seco portion of the Forebay (ESU 8A) had an average increase of 5.9 feet. The Upper Valley's ESU 9 received an average increase of 9.7 feet and ESU 10 had an average increase of 2.3 feet.

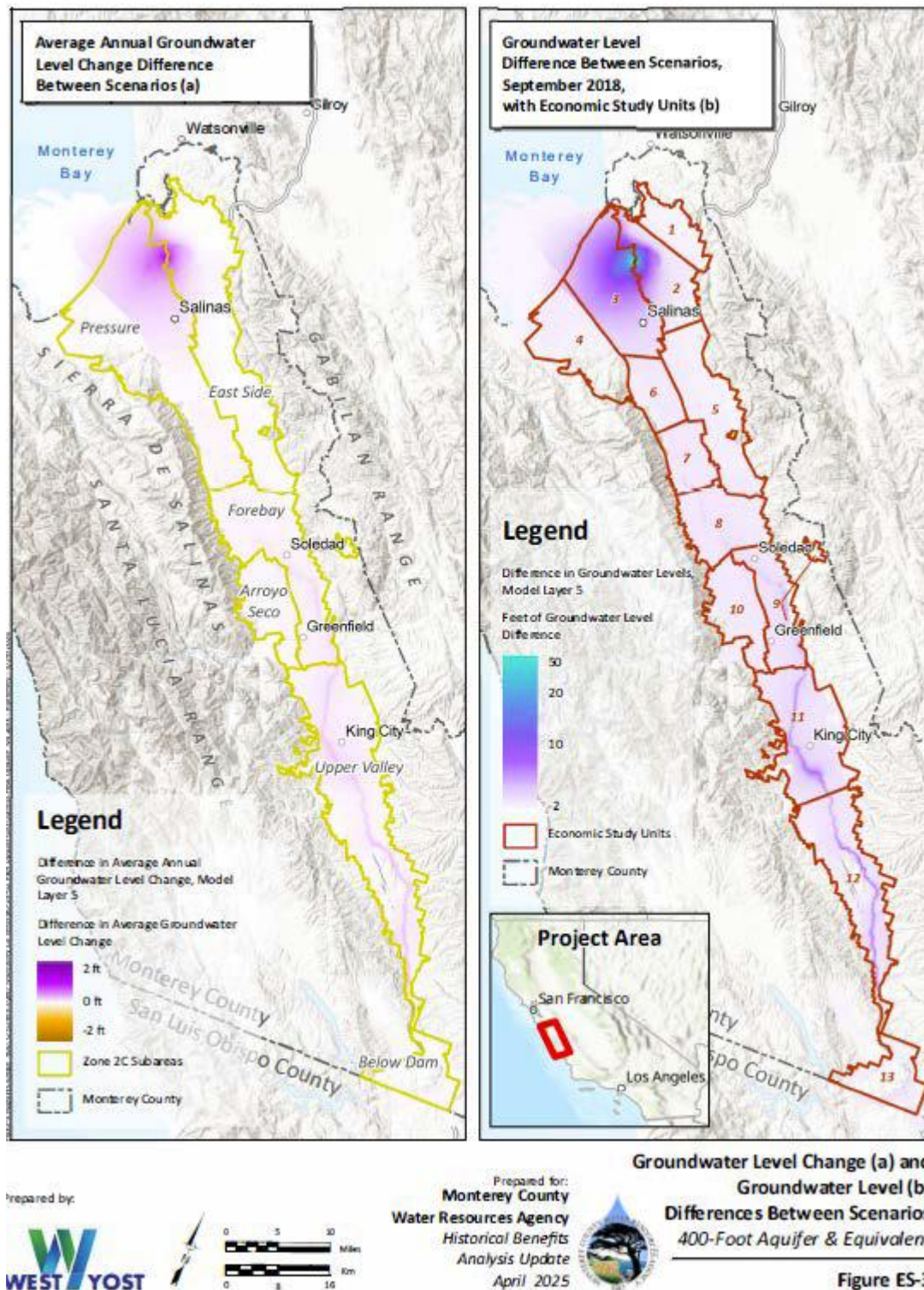
The following HBA figure shows the preceding average water-level increases in a map encompassing all the subareas and their ESUs:

reservoirs. As an example, the Pressure Subarea was divided into 3 study units – ESU 1, 3,5; the Forebay into 3 (with the Arroyo Seco)—ESU 7, 8B and 8A (8A is the arroyo seco cone); the Upper Valley was divided into 2 study units—ESU 9 and 10.



To state that the northern end of the Valley has not received significant benefits from the operations of the reservoirs is just not true as the 1998 HBA data shows.

Fast forward to today and the disagreement as to who has benefited from MCWRA's reservoir operations and related projects continues. MCWRA developed an update to the 1998 HBA (HBAU) as a deliverable required by the State's grant funding to evaluate the Interlake Tunnel Project. It was hoped that the HBAU would provide additional information to drive consensus on who has benefited from the construction, operation and maintenance of MCWRA's infrastructure projects, including the two reservoirs, the SRDF rubber dam, and CSIP.



Although the preceding HBAU maps show a concentration of water-level benefits in the 180/400 and Eastside subbasins that seems generally similar to what the 1998 HBA showed, the draft HBAU unfortunately falls short, and stakeholders like the SVWC

and Salinas Basin Water Alliance have requested a re-do. (September 2, 2025, SVWC written comments to MCWRA; July 3, 2025, SBWA written comments to MCWRA.)

The draft HBAU was released in April 2025 with a stated purpose “to develop an updated analysis of hydrologic, flood control, and economic benefits resulting from the existing suite of Agency projects and present-day operation of those projects, using best available data and modeling tools.” (April 2, 2025, MCWRA Staff Report re “Overview of the Salinas Valley Historical Benefits Analysis Update” [April 2025 Staff Report].) However, the HBAU was prepared using a 2023 “provisional” version of the new SVIHM, which was subsequently updated and is being further updated by the SVBGSA to resolve serious problems impairing the SVIHM’s utility to inform decision-making. The SVWC’s technical expert analyzed the draft HBAU and its underlying groundwater flow modeling and concluded that they fail to meet professional standards. For example, the model showed less groundwater elevation benefits than the 1998 HBA while developing non-existent tile drains to eliminate more than 200,000 AFY of groundwater from the model. The SVWC has asked MCWRA to use a Technical Advisory Committee to ensure the re-done modeling for a re-done HBAU meets professional standards and stakeholder needs.⁸

The law and best available science do not support the erroneous and divisive contention that the southern end of the Salinas Valley gets most of the benefits of MCWRA’s infrastructure projects, while the northern end pays most of the costs. For individuals to make that allegation and cite the draft HBAU knowing it is seriously flawed, is irresponsible and misleads rather than informs.

As our mission statements says: The SVWC believes that the water resources of the Salinas River Basin should be managed properly in a manner that promotes fairness and equity to all landowners within the basin, and that the management of these resources should have a scientific basis, comply with all laws and regulations and promote the accountability of the governing agencies.

To that end, this letter provides additional information, including historical data, about which many decisionmakers may be unaware. The SVWC respectfully asks that the SVBGSA’s Board of Directors and staff consider this data and historical information as you move forward in making groundwater sustainability decisions that will have significant consequences to landowners and the Salinas Valley as a whole. We hope to inspire some hope and optimism by shedding more light on how we got here, and by highlighting that we have previously enjoyed successes by from working together – such as the development of the 1998 HBA and the subsequent Salinas Valley Water Project through an open and transparent collaborative process.

⁸ Attached is a copy of the SVWC’s comments and tech memo submitted to MCWRA. While the Salinas Basin Water Alliance (Alliance) and the SVWC may disagree on how to interpret the results of the draft HBAU, both organizations have stated its underlying modeling is seriously flawed and must be corrected. A copy of the Alliance comments on the HBAU is attached for your information.

We ask for your consideration of these items as you move forward with your decision making. We look forward to working together to ensure a sustainable future for the Salinas Valley.

Sincerely,

A handwritten signature in cursive script that reads "Nancy Isakson".

Nancy Isakson, President
Salinas Valley Water Coalition

Encs: (1) September 2, 2025, SVWC comments to MCWRA re HBAU
(2) July 3, 2025, SBWA comments to MCWRA re HBAU

Cc: SVBGSA Board of Directors
MCWRA Board of Directors



ERIC N. ROBINSON
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September 2, 2025

VIA ELECTRONIC MAIL

Ara Azhderian, General Manager
Board of Supervisors
Monterey County Water Resources Agency
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Re: Comments on April 2025 Salinas Valley Historical Benefits Analysis Update and May 29, 2025,
Draft Interlake Tunnel and San Antonio Spillway Modification Assessment Engineers Report

Dear Mr. Azhderian and Board of Supervisors:

This letter is submitted on behalf of the Salinas Valley Water Coalition (Coalition) to provide comments on the April 2025 Salinas Valley Historical Benefits Analysis Update (HBA Update) and May 29, 2025, Draft Interlake Tunnel and San Antonio Spillway Modification Assessment Engineers Report (Draft ILT Engineer's Report). These comments incorporate the attached September 2, 2025, Memorandum from UES providing Technical Review Comments on the MCWRA Historical Benefits Analysis and Draft Interlake Tunnel Engineers Report (September 2025 UES Memo).

The Coalition submits that the water resources of the Salinas River Basin should be managed properly in a manner that promotes fairness and equity to all landowners within the basin, and that the management of these resources should have a scientific basis, comply with all laws and regulations, and promote the accountability of the governing agencies.

To that end, the Coalition appreciates MCWRA's request for comments on the HBA Update and Draft ILT Engineer's Report. The Coalition submitted verbal comments during the July 9, 2025, workshop conducted by MCWRA's Board of Directors on the two reports and now submits these additional written comments.

MCWRA describes the purpose of the HBA Update as "to develop an updated analysis of hydrologic, flood control, and economic benefits resulting from the existing suite of Agency projects and present-day operation of those projects, using best available data and modeling tools." (April 2, 2025, MCWRA Staff Report re "Overview of the Salinas Valley Historical Benefits Analysis Update" [April 2025 Staff Report].) The Draft ILT Engineer's Report relies on the HBA Update, (April 2025 Staff Report), which estimates the extent and degree of special hydrologic benefits to landowners arising from the combined operation of the Nacimiento and San Antonio reservoirs, the Salinas Valley Recycling Project (SVRP), the Castroville Seawater Intrusion Project (CSIP), and the Salinas Valley Water Project (SVWP), including

its Salinas River Diversion Facility (SRDF). (See Draft ELT Engineer's Report at p. 15 [citing HBA Update's modeled change in groundwater storage as basis for estimating special benefits for Draft ILT Engineer's Report].)

The 2025 HBA Update follows MCWRA's completion of the original Historic Benefits Analysis in 1998 (1998 HBA). To estimate special benefits, the 1998 HBA used a well-vetted version of the Salina Valley Integrated Groundwater Surfacewater Model (SVIGSM) to calculate groundwater elevation changes arising from MCWRA's construction and operation of Nacimiento and San Antonio reservoirs. (HBA Update at p. 1-5 to 1-6; 1998 HBA Appendix A SVIGSM Model Extension and Verification.)¹

The HBA Update Significantly Understates Actual Groundwater Recharge Special Benefits Because it Relies Upon a Superseded Groundwater Flow Model Suffering From Fundamental Flaws

When the HBA Update was prepared, it relied upon a 2023 "provisional" version of a new groundwater flow model recently developed by the U.S. Geological Survey (USGS). Internal peer review of the 2023 provisional model showed a poor fit between model-estimated groundwater pumping amounts and metered pumping data and a poor fit between modeled Salinas River surface flows and its interaction with groundwater and measured data for these parameters. (September 2025 UES Memo at 2.)

A peer review of the provisional and subsequent versions of the USGS model and use of it to conduct certain hydrologic planning revealed more errors, including understatement of low-flow conditions in the Salinas River, extensive reliance on hypothetical "drains" and water level elevation constraints in vast areas where no such drains or limits physically exist, and Salinas River bed elevations that fail to match measured land surface elevations. (September 2025 UES Memo at 2.)

Almost any groundwater model could be critiqued for being imperfect, but the 2023 provisional Salinas Valley Integrated Hydrologic Model (SVIHM) model version used to prepare the HBA Update is so deeply flawed and misleading that it cannot reasonably be used to estimate the groundwater recharge benefits arising from construction and operation of local water management infrastructure, including Nacimiento and San Antonio reservoirs, the SVRP, the CSIP, and the SVWP (including its SRDF). (September 2025 UES Memo at p. 2-6.)

For example, the HBA Update's groundwater modeling says 177,000 acre-feet per year (AFY) of groundwater flows out of hypothetical drains in the Upper Valley, Forebay, and Arroyo Seco—when no such drains actually exist. (September 2025 UES Memo at p. 4 [excerpting and evaluating HBA Update Table 3-6].) Essentially, the 2023 provisional model was not ready for use to support any policy evaluation or decisionmaking, because it still used hypothetical groundwater elevation constraints that pushed groundwater through hypothetical drains in order to try to get modeled groundwater elevations to match measured groundwater elevations throughout the valley:

¹ The 1998 HBA documents are available on MCWRA's website at:
<https://www.countyofmonterey.gov/government/government-links/water-resources-agency/documents/historic-benefits-analysis> (last accessed September 2, 2025).



Use of the SVIHM model version with the unacceptable use of “fictitious” drains extensively over the model domain to resolve or mask water budget errors or water elevation errors in the model renders the simulated scenario differences useless for the intended purpose.

(September 2025 UES Memo at p. 3.) In other words:

[T]he use of fictitious drains in the 2023 provisional SVIHM model presents a severe and nonrectifiable deficiency in the HBA Update work renders the results of the modeling unusable for quantifying groundwater elevation changes over the valley as a result of historically implemented projects, especially the effects of the reservoirs in the southern Pressure Subbasin and the entire Forebay and Upper Valley Subbasins.

(September 2025 UES Memo at p. 4.)

The unacceptable use of hypothetical water-level constraints and drains in the SVIHM model version used for the HBA Update analysis helps to explain the very different model outcomes for predicted groundwater elevation changes with and without the reservoirs in the original 1998 HBA and the 2025 HBA Update. (September 2025 UES Memo at 3.) The 1998 HBA described recharge and related groundwater elevation benefits in a way that generally reflected observed reality. Rather than showing that the 1998 HBA Update overstated groundwater recharge/elevation benefits from the reservoirs, the 2025 HBA Update provides useless information that cannot meaningfully be compared to the 1998 HBA Update to learn anything about the benefits of MCWRA’s reservoirs and related projects.

Given the widely varying views of stakeholders about who receives what water supply benefits from MCWRA’s reservoirs and related projects, the HBA Update is a like a head-fake that misleads and confuses the players rather than pointing the way toward consensus. In that respect, it is notable that the Salinas Basin Water Alliance (SBWA) says “[t]he HBA Update contains a variety of modeling issues that must be addressed.” (July 3, 2025, SBWA Comment Letter re Concerns Regarding Monterey County Water Resources Agency’s April 2025 Update to Historic Benefits Assessment of Water Infrastructure Projects for Salinas Valley at p. 6.) The Coalition agrees.

MCWRA Should Re-do The HBA Update Using Updated Models

MCWRA should re-do the HBA Update using an updated version of the 2025 SVIHM that corrects the fundamental flaws described above, in the attached September 2025 UES Memo, and which already are being addressed by the Salinas Valley Basin Groundwater Sustainability Agency’s (SVBGSA) modeling team. When it does so, MCWRA should convene qualified stakeholder experts to confirm consensus on use of the then-current version of the SVIHM and of the SVBGSA’s Seawater Intrusion Model developed in 2023 by consultant Montgomery & Associates (SWI Model). That SWI Model should be used to evaluate the extent of seawater intrusion with and without MCWRA’s reservoirs and projects. Just as with the 2025 HBA Update’s significant understatement of groundwater elevation benefits, the HBA Update also significantly understates the reduction in seawater intrusion compared to 1998 HBA (1,000 AFY of avoided seawater intrusion versus 7,000 AFY documented in 1998 HBA). (September 2025 UES Memo



at 5-6.) Use of a corrected SVIHM together with an up-to-date SWI Model should produce the best estimates of groundwater recharge and water level benefits and avoided seawater intrusion).

When MCWRA re-does the HBA Update analysis using current model versions, it should clearly document all the assumptions used as inputs for modeling the without projects/no reservoirs scenarios. That includes documenting how MCWRA estimated the native/no-reservoirs inflow to the model. The native no-reservoir inflow estimates are used to create the baseline conditions from which the HBA Update's hydrologic benefits are identified and evaluated. For example, use of gaged stream data from surface streams entering MCWRA's reservoirs excludes surface flows from a significant portion of the relevant watersheds, which would understate native or natural inflow as a model input for calculating downstream hydrologic conditions, like groundwater elevations, without the reservoirs and related projects. (September 2025 UES Memo at p. 6.)

When MCWRA re-does the HBA Update, it should assign an economic value to avoidance of seawater intrusion that goes beyond relative crop benefit to include the benefit to domestic, municipal and industrial water use in the vicinity of the seawater intruded area. (September 2025 UES Memo at pp. 6-7.) Implementation of the Sustainable Groundwater Management Act (SGMA) in the Salinas Valley is highlighting the cost of responding to seawater intrusion, and any HBA Update should acknowledge and assign value to MCWRA project benefits that avoid seawater intrusion that otherwise would occur.

When MCWRA re-does the HBA Update, it should address all the issues detailed in the attached September 2025 UES Memo.

MCWRA Should Re-do The Draft ILT Engineer's Report That Relies Upon the Flawed HBA Update

The Draft ILT Engineer's Report relies on the HBA Update and its flawed modeling of special benefits, so it suffers from the same foundational problems that are detailed in our comments on the HBA Update. All the preceding modeling and valuation problems require the Draft ILT Engineer's Report to be re-done before MCWRA or anyone else may rely upon it to inform policymaking or other decisions. (September 2025 UES Memo at pp. 7-9.)

First, any Engineer's Report published to support financing of major proposed infrastructure, like the Interlake Tunnel Project (ILT), must detail the anticipated new special benefits of the proposed infrastructure separately from the special benefits provided by operations of existing infrastructure. (September 2025 UES Memo at p. 7.) Only that approach would enable compliance with Proposition 218's substantive limitations on new assessments, including its limiting an assessment to paying the proportional cost of special benefits provided by a project. (See Cal. Const., art. XIII D, § 4 ["No assessment shall be imposed on any parcel which exceeds the reasonable cost of the proportional special benefit conferred on that parcel. Only special benefits are assessable, and an agency shall separate the general benefits from the special benefits conferred on a parcel."].)

Second, the Engineer's Report should be re-done to use the Salinas Valley Operations Model (SVOM), which was specifically developed to provide an appropriate modeling tool to predict future reservoir reoperation scenarios. The Draft ILT Engineer's Report failed to rely upon the SVOM and instead assumed that future reservoir operations with the ILT constructed and operating would cause the same geographical and temporal distribution of special recharge benefits as estimated by the backwards-



looking SVIHM. That approach reflects an inaccurate assumption that past operations will be repeated in the future, even though the whole point of the ILT is to change future reservoir operations. (September 2025 UES Memo at p. 8.)

Third, just as with the HBA Update, the Draft ILT Engineer's report should assign economic value to the special benefits of avoided seawater intrusion and SGMA compliance. (September 2025 UES Memo at p. 9.) That special benefit goes above and beyond increased groundwater elevations, which reduce pump lifts or avoid the need to deepen wells. Any Engineer's Report for a project to increase groundwater recharge and reduce seawater intrusion must put a value on avoided seawater intrusion. (*Ibid.*)

Finally, the Draft ILT Engineer's Report describes changes in groundwater storage amounts that seem to conflict with the values in the HBA Update. The Engineer's Report refers to the HBA Update's Table 3-8 for reported changes in storage values by subarea, but these values should be derived from the SVOM modeling described above—not from the SVIHM's modeling of past project operations. (*Ibid.*) Of course, the storage changes estimated by the HBA Update's use of the superseded 2023 provisional SVIHM are inaccurate and cannot be used because of the widespread use of groundwater elevation constraints and fictitious drains. (*Ibid.*)

Conclusion

The Coalition thanks MCWRA for soliciting stakeholder input on the 2025 HBA Update and Draft ILT Engineer's Report. Updating the 1998 HBA could help stakeholders develop consensus on who receives what level of special benefits from MCWRA reservoir and related project operations. Unfortunately, the deep foundational problems with the 2023 provisional groundwater flow model used to prepare the HBA Update make its results inaccurate and misleading. The Coalition respectfully requests that MCWRA collaborate with qualified technical experts of the Coalition and others to ensure that a re-do of the HBA Update reflects consensus on the underlying groundwater modeling. Resolving this problem with the HBA Update would help MCWRA re-do its Draft ILT Engineer's Report, if it ever seeks to impose a new special assessment for this project.

Sincerely,

KRONICK, MOSKOVITZ, TIEDEMANN & GIRARD
A Professional Corporation



ERIC N. ROBINSON

ENR

Enclosure

cc: Kelly Donlon, County Counsel's Office (donlonkl@co.monterey.ca.us)
Kevin O'Brien, Special Water Counsel to MCWRA (kobrien@downeybrand.com)
Nancy Isakson, SVWC President (nisakson@mbay.net)



MEMORANDUM

To: Nancy Isakson, President, Salinas Valley Water Coalition
CC: Eric Robinson, Kronick Moskovitz Tiedemann & Girard
From: Dwight L. Smith, PG, CHg, Principal Hydrogeologist
Date: September 2, 2025
Subject: **Technical Review Comments on the MCWRA Historical Benefits Analysis and Draft Interlake Tunnel Engineers Report**

1.0 INTRODUCTION

This memorandum summarizes my technical review comments made on behalf of the Salinas Valley Water Coalition. The documents reviewed are listed below, and these comments focus on hydrologic and hydrogeologic aspects of the reports.

- Salinas Valley Historical Benefits Analysis Update, Final Report, dated April 2025, prepared by West Yost, and referred to in this memorandum as the HBA Update report.
- Economic Benefits of MCWRA's Investments in Water Infrastructure Projects for Salinas Valley, Final Report, April 2025, prepared by One Water Econ.
- Interlake Tunnel and San Antonio Spillway Modification Assessment Engineers Report, Draft, May 29, 2025, prepared by Bartle Wells Associates, and referred to in the memorandum as the ILT Engineers Report.

2.0 CONCLUDING RECOMMENDATIONS

2.1 HBA

Use of a superseded model, which at the time contained wide-spread use of fictitious drain cells to moderate (constrain) shallow water level elevations and potentially address water balance inaccuracies, has created significant inaccuracies in the model results for the HBA Update. Principally, historical water level changes (increases) associated with implementation of the reservoirs cannot be accurately simulated. The issue is clearly evident in the HBA Update results, which produced little to no significant water level changes that can be associated with implementation of the reservoirs, a notable difference from the 1998 HBA work, in which the modeling predicted an average 5-10 ft higher water level elevations under reservoir operations that is wide-spread through the valley, and up to 25 ft of water level elevation increases in the southern Pressure Subbasin and northern Forebay Subbasin. The HBA Update analysis will need to be redone using either the USGS (2025) published SVIHM model version, or preferably, an upcoming update to the 2025 published SVIHM. The USGS (2025) published model version partially addresses the use of wide-spread drain cells by returning the captured shallow groundwater by the drains to the Salinas River, but this adjustment does not address the fictitious constraint of water levels to set elevations by the cell drains. It is our understanding that the fictitious drain cells are currently being addressed (removed from the model) in an ongoing model update being implemented by the SVBGSA.

2.2 ILT ENGINEERS REPORT

In my opinion, this body of work falls short of meeting professional standards for an Engineers Report, including utilization of incorrect modeling tools (relying on the SVIHM rather than the SVOM), numerous inaccurate or incomplete assumptions, and reliance on the HBA Update modeling results which has serious inaccuracies. My recommendation, if this draft body of work is to progress, is to re-engage and redo the ILT Engineers Report, in an approach similar to that described for the Engineers Report conducted for the SVWP in 2003, which includes technical peer reviews by qualified professionals and representatives of key stakeholders in the valley.

3.0 TECHNICAL EVALUATION POINTS

3.1 SALINAS VALLEY HISTORICAL BENEFITS ANALYSIS UPDATE, FINAL REPORT, APRIL 2025

3.1.1 Use of a Superseded Version of the SVIHM Model

The HBA Update needs to be conducted using the most current available version of the numerical flow model. The 2023 “provisional” model version that has been used in the analysis underwent important modifications and additional model calibration to address deficiencies revealed during internally conducted peer review by the USGS. Only the USGS and cooperating agencies understand the full spectrum of model adjustments made during the 2023 and 2024 timeframe and prior to the publication of the model in 2025, but some corrected issues that we are aware of include important modeling attributes associated with:

- a. Representation of agricultural pumping and fit of the model simulated pumping to actual metered agricultural pumping.
- b. Representation of Salinas River flows and water balances reporting to the river.

Peer review of the 2025 USGS published model along with ongoing use of the model for other hydrological and planning purposes has revealed some additional model shortfalls that can and should be addressed through additional model adjustments and calibration, including:

- a. Under-simulation of low flow conditions in the Salinas River,
- b. Conceptual use of drains for water balance and water level elevation constraints in areas for which drains do not physically exist (see Section 3.1.2 below), and
- c. River bed elevations that do not accurately represent actual land surface elevations.

Furthermore, there have been additional scientific evaluations that improve the understanding of the hydrogeologic framework of Salinas Valley, including the deep aquifers, and to provide more advanced modeling tools for representation of seawater intrusion. The HBA Update modeling analysis needs to be updated to benefit from this work.

It is our understanding that the SVBGSA is advancing development of an updated SVIHM model version (v2) to address issues identified above. In order to gain credibility and confidence in the HBA Update work, it will be important for MCWRA to use the most-up-to-date numerical flow models available.

3.1.2 Notable Apparent Issue Related to Use of Fictitious Drain Cells in the Provisional SVIHM Model Version

It is notable in the HBA Update water balance tables and schematics that a large portion of the water budget in the SVIHM model version is allocated to drain discharge, in subbasins in which agricultural subdrains are not physically present (see HBA Update Table 3-6, copy provided below, highlight added). This use of “fictitious” drains in the 2023 provisional SVIHM model version regulated water level elevations from encroaching to land surface, thus enforcing maximum water level elevations to be maintained at or below the drain elevations. In areas where physical subsurface drains are present to maintain shallow groundwater elevations beneath agricultural lands (portions of the Pressure – 180/400 Subbasin), the use of the drains in the model is appropriate and represents a physical condition. But in areas where subsurface drains do not exist (Forebay, Upper Valley, and Eastside Subbasins), the use of drains is concealing unresolved water balance and groundwater elevation issues in the model. In the published version of the SVIHM (2025), water collected by the drains was routed to the Salinas River, which may partially correct water balance concerns, but the drains are still present, and function to artificially suppress shallow groundwater elevations. It is our understanding the SVBGSA is presently working on correcting this issue in the model by removing drains at locations where they do not exist and recalibrating the model to achieve reasonable match to measured groundwater elevations (SVBGSA Groundwater Technical Advisory Committee presentation, 2025).

The drain issue in the 2023 provisional version of the SVIHM used for the HBA Update has particular relevance to objectives of the modeling and the HBA Update, because the analysis relies heavily on groundwater elevation differences simulated by the model with and without the reservoirs along with CSIP and SVWP to quantify benefits. I believe that the use of the SVIHM model version with the unacceptable use of “fictitious” drains extensively over the model domain to resolve or mask water budget errors or water elevation errors in the model renders the simulated scenario differences useless for the intended purpose. For note, one of the largest water budget parameter changes observed in the HBA Update modeling is the change in drain outflows (see Table 3-2 from the HBA Update, copy provided below, highlight added)

The unacceptable use of the drains in the SVIHM model version used for the HBA Update analysis is also a likely explanatory reason for the noticeably different model outcomes for predicted water level elevation changes with and without the reservoirs in the 1998 versus 2025 HBA modeling. Predicted groundwater elevation changes as a result of historical reservoir operations were notable in the southern Pressure Subbasin and north Forebay Subbasin in the 1998 SVIGSM modeling, with average water level elevation increases of 10-25 ft (see Figure 1-6 from the 1998 HBA report, included below). Over most of the Salinas Valley, the 1998 modeling indicated a 5-10 ft average water level increase. By comparison, the 2025 HBA Update modeling predicts essentially no average annual water level increase as a result of the reservoirs, with only modest increase directly along the river, and more substantial water level increases in the northern Pressure subbasin as a direct result of CSIP/SRDF. In review of available historical water level elevation data, it appears that a historical rise in water level elevations post-reservoirs (1958 for Nacimiento) as represented in the 1998 modeling is supported by the data, but perhaps of a more modest magnitude of approximately 5-15 ft (reference is made to hydrographs of water level elevations for 1948-1994 in the Appendix A to the HBA, Montgomery Watson, 1998).

The lack of predicted water level elevation responses from the reservoir operations and inconsistency with the prior body of work from the 1998 HBA modeling, which was a significantly peer reviewed effort, should have led to questioning of the validity of the results being observed in the HBA Updated modeling.

In summary, the use of fictitious drains in the 2023 provisional SVIHM model presents a severe and non-rectifiable deficiency in the HBA Update work, renders the results of the modeling unusable for quantifying groundwater elevation changes over the valley as a result of historically implemented projects, especially the effects of the reservoirs in the southern Pressure Subbasin and the entire Forebay and Upper Valley Subbasins.

Groundwater Budget Component	Pressure	East Side	Arroyo Seco	Forebay	Upper Valley	Below Dam	Paso Robles Basin	Offshore	Other Non-Zone 2C Area
Inflows									
Net Recharge	18,000	29,000	8,000	-5,000	-36,000	-4,000	1,000	0	13,000
GW/SW Flux	133,000	16,000	14,000	171,000	279,000	6,000	1,000	0	7,000
Seawater Intrusion	9,000	< 1,000	0	0	0	0	0	0	5,000
GW Inflow from Other Subareas	11,000	32,000	9,000	1,000	4,000	< 1,000	1,000	0	2,000
GW Inflow from Ocean	0	0	0	0	0	0	0	15,000	0
Total In	172,000	76,000	32,000	167,000	247,000	2,000	3,000	15,000	27,000
Outflows									
M&I Pumping	24,000	12,000	2,000	5,000	4,000	< 1,000	< 1,000	0	2,000
Ag Pumping	99,000	68,000	35,000	88,000	119,000	1,000	< 1,000	0	8,000
Drains	31,000	< 1,000	3,000	49,000	125,000	1,000	0	0	< 1,000
GW Exchange with Pajaro Basin	0	< 1,000	0	0	0	0	0	0	< 1,000
GW Exchange with Paso Robles Basin	0	0	0	0	0	0	4,000	0	1,000
GW Outflow to Other Subareas	25,000	0	0	19,000	2,000	2,000	< 1,000	15,000	12,000
Total Out	178,000	81,000	40,000	161,000	250,000	4,000	4,000	15,000	23,000
Change in Storage	-4,000	-4,000	-8,000	+7,000	-2,000	-2,000	-1,000	< 1,000	+4,000
Mass Balance Difference	-1,000	< 1,000	< 1,000	-1,000	+1,000	< 1,000	< 1,000	< 1,000	< 1,000
Notes: - Groundwater budget components are rounded to the nearest 1,000 acre-feet per year; totals may not sum due to rounding									

Groundwater Budget Component	Historical Scenario	No Projects Scenario	Difference
Inflows			
Net Recharge	24,000	38,000	-14,000
GW/SW Flux	627,000	556,000	+72,000
GW Exchange with Ocean	15,000	16,000	-1,000
Total In	666,000	610,000	+56,000
Outflows			
M&I Pumping	48,000	48,000	< 1,000
Ag Pumping	419,000	429,000	-10,000
Drains	209,000	164,000	+45,000
GW Exchange with Pajaro Basin	< 1,000	< 1,000	< 1,000
GW Exchange with Paso Robles Basin	4,000	4,000	< 1,000
Total Out	680,000	645,000	+35,000
Change in Storage	-11,000	-31,000	+20,000
Mass Balance Difference	-4,000	-5,000	+1,000
Notes: - Groundwater budget components are rounded to the nearest 1,000 acre-feet per year; totals may not sum due to rounding - Difference between scenarios is calculated as Historical Scenario minus No Projects Scenario			

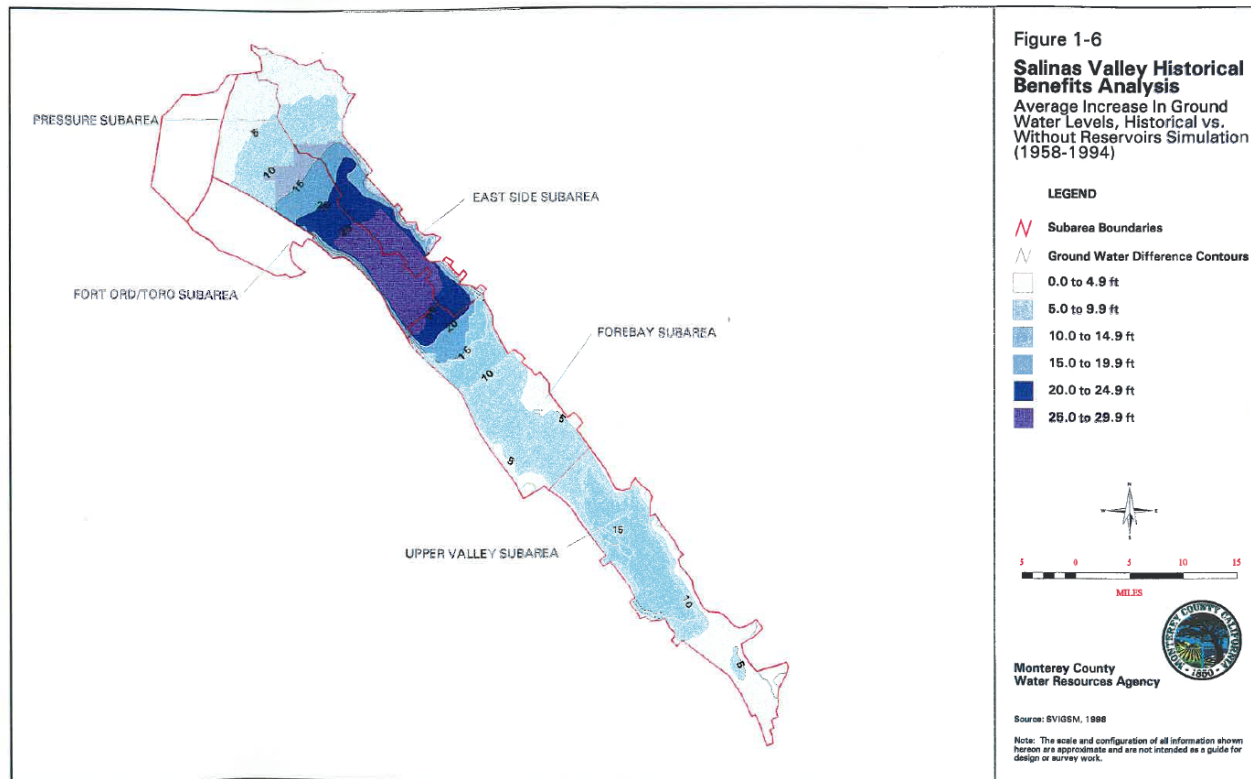


Figure 1-6 (HBA, 1998) of average increase in water levels elevations resulting from reservoir options from the 1998 HBA modeling.

3.1.3 Seawater Intrusion Simulated Differences

While unclear if associated with the use of drains in the provisional model version used for the HBA Update, it is notable that simulated reservoir operations appear to have little effect on predicted seawater intrusion in the HBA Update modeling. The 1998 HBA modeling predicted that seawater intrusion over the 1958 to 1994 period had been curtailed by 7,000 AFA (reduced from 18,000 AFA to 11,000 AFA). The HBA Update model indicates seawater intrusion has been curtailed by only 1,000 AFA over the period of 1968-2018 (16,000 AFA to 15,000 AFA) by mutual operation of the reservoirs, CSIP and the SVWP. However, the HBA Update indicates very little difference in seawater intrusion occurred prior to implementation of CSIP (p. ES-12), a significant difference from the 1998 HBA modeling results. Further work is needed to adequately quantify seawater intrusion differences using the most up-to-date and robust modeling tools available. To date, the most robust seawater intrusion model is recent work published by the SVBGSA (2023) called the SWI Model (Montgomery & Associates, 2023). The SWI model predicts an average annual seawater intrusion of 22,000 AFA over the period of 1974-2020, which differs notably in magnitude of simulated seawater intrusion from the modeling SVIHM model. The SWI up-gradient boundary conditions are associated with the SVIHM / SVOM and will likely need to be updated at some future time but this probably does not significantly influence the seawater intrusion predictive results of the SWI.

Because of the significant economic costs associated with impacts from and future management of seawater intrusion, the HBA Update needs to be based on quantifications of seawater intrusion made using the best available model and technical work, which at this time is the SWI model.

3.1.4 Lack of Documentation for the Computations of No-Reservoir Native Flows in Nacimiento and San Antonio Rivers

Details and documentation of methodology are needed for how the no-reservoir native flows in Nacimiento and San Antonio Rivers have been computed for the period 1958 to present. The draft HBA report references data provided by MCWRA, without any explanation of how the native no-reservoir flow estimates have been computed. As there are several approaches that may have been utilized to make the computations, the methodology needs to be adequately documented.

Critical questions on the computed no-reservoir native flow estimates include:

- a. Was the USGS rainfall-runoff model of the Salinas River watershed uplands model (Salinas Valley Watershed Model - SVWM) used to produce simulated the no-reservoirs river flows?
- b. Was the computed no-reservoir native flow estimates based on up-stream gage data on Nacimiento and San Antonio Rivers (USGS 11148900 NACIMIENTO R BL SAPAQUE C NR BRYSON CA, period of record 1971-present; USGS 11149900 SAN ANTONIO R NR LOCKWOOD CA, 1965-present), and if so, how were the tributary areas below the gages accounted for in the river flow estimates, and how were any data gaps at the gage records addressed (for example 1958-1970 for Nacimiento)? For note, the tributary area to Nacimiento Reservoir below the Sapaque gage is 108,620 acres, which is greater than the up-stream watershed tributary to the gage of 99,940 acres; and the tributary area below the Lockwood gage is 68,190 acres, contrasted with 138,630 acres up-stream of the gage. Significant un-gaged watershed area produces runoff below the stream gages that reports to both reservoirs.
- c. Was a water balance approach used, that factored into consideration historical evaporation losses from the reservoir, changes in reservoir storage volume, and both gaged and non-gaged runoff into the reservoir?
- d. How was the gaged reservoir releases and outflow data used, or compared and contrasted with the computations of no-reservoir flows (USGS 11149400 NACIMIENTO R BL NACIMIENTO DAM NR BRADLEY CA, period of record 1957-present; MCWRA reservoir release records)?

Since the native no-reservoir flow estimates are used to create the baseline condition from which HBA Update hydrologic changes are interpreted, it is important that the assumptions imbedded in the baseline condition be presented, utilize best available data and methodologies, and be presented in a manner that can be sufficiently peer reviewed.

3.2 ECONOMIC BENEFITS OF MCWRA'S INVESTMENTS IN WATER INFRASTRUCTURE PROJECTS FOR SALINAS VALLEY FINAL REPORT APRIL 2025

3.2.1 Seawater Intrusion Does Not Appear to be Adequately Valued

The economic value of seawater intrusion reduction is not adequately represented in the analysis. Only a relative crop value benefit is the basis for the assessed value. The value related of other components of

water supply is not included, such as provision of domestic, municipal and industrial water in the vicinity of the seawater intruded area. Seawater intrusion has driven up the cost to maintain municipal water supplies of suitable quality and has necessitated desalinization facilities and drilling of deep wells into the Deeper Aquifers. These are quantifiable expenses that need to adequately factored into consideration for the valuation of seawater intrusion benefits.

3.2.2 Lack of Consideration of SGMA Implementation Costs

The historical economic benefit is not applicable to a forward analyses in time and is not consistent with regulatory statutes implemented in the past decade. Notably, there is a very substantial cost directly associated with seawater intrusion mitigation and management resulting from the Sustainable Groundwater Management Act (SGMA). Use of the economic model to project potential benefits for existing infrastructure and future projects like the proposed Interlake Tunnel Project will not be accurate without inclusion of projected costs associated with SGMA implementation, especially as it relates to mandates for the seawater intrusion mitigation and management.

3.2.3 Inaccurate Allocation of Avoided Well Construction and Replacement Costs

The approach of assigning value as it relates to avoidance of well deepening does not make physical sense in some geographic areas, notably for the Upper Valley Subbasin and much of the Forebay Subbasin, because there does not exist a deeper aquifer from which drilling of deeper wells could benefit. This attribute of benefit is not applicable to geographic areas where no deeper aquifer system exists, and existing wells effectively penetrate the known productive thickness of the aquifer.

3.3 DRAFT INTERLAKE TUNNEL AND SAN ANTONIO SPILLWAY MODIFICATION ASSESSMENT ENGINEERS REPORT, MAY 29, 2025

Technical comments in this review relate to *Option 2 – Historical Benefit Weighting Approach*.

3.3.1 Projects Have Unique Effects

There is a fundamental deficiency in assuming that benefits derived from a cumulative set of historically implemented projects will have the same proportional effects as a specific proposed project. The Draft EIR completed for the proposed Interlake Tunnel project utilized a project-specific evaluation completed using the USGS SVOM model version (provisional). This technical work was conducted in 2022 and 2023 to quantify the unique predicted outcomes to water supply availability and flood flow releases from the reservoirs associated with the proposed ILT project. A similar project-specific quantification approach should have been utilized by the ILT Engineers Report. Specifically, the technical analysis in the ILT Engineers Report should have relied upon project-specific modeling as conducted using the SVOM to determine geographic distributions and magnitudes in water level elevation changes and seawater intrusion flows, consistent with the DEIR, to quantify the unique benefits of the proposed project and determine allocation of benefits by special benefit areas. The geographic resolution might be more appropriately defined on the HBA economic subunit scale rather than the hydrographic subarea scale. The assumption that past distributions and allocations of benefits can represent a specific future project is both inconsistent with the technical work conducted for the EIR and is not consistent with professional standards for assessment of project-specific associated effects.

3.3.2 Incorrect Modeling Tool has been used to Quantify Hydrologic Benefits

The USGS Salinas Valley Operations Model (SVOM) has been *specifically* developed to provide an appropriate modeling tool for predication of future reservoir reoperation or modification scenarios yet the SVOM was not used to quantify the benefits in the Engineers Report. To the extent that modeling is going to inform future predicted benefits, the appropriate modeling tool, the SVOM needs to be used to determine (estimate) future changes in the aquifer water levels, storage, and seawater intrusion resulting from the proposed Interlake Tunnel and Spillway modification projects. This is completed by running future scenarios with and without the proposed projects and comparing the results, as approached in the Draft EIR for the project. The use of the historical modeling results from the SVIHM, comingles historically implemented projects that came on-line over various times in the modeling period, accompanied with reservoir operational changes. The proposed projects are presumed to result in reservoir operational changes. To assume that any future proposed reservoir change will enact the same geographical and temporal effects is simply an inaccurate assumption, especially in light of the appropriate modeling tool having been developed and published in 2025 to look at future reservoir operations including the Interlake Tunnel. It should be noted that the SVOM published by the USGS in 2025 also has the drain issues that requires addressing before reliable results can be derived.

3.3.3 Special Benefits are Not Adequately Defined and Integrated

Seawater intrusion management, recreation and other benefits do not appear to be adequately factored into consideration in the ILT Engineers Report. The 2025 Engineers report appears to simply apply special benefits for water supply (based on change in storage only) and flood control. Other special benefits are reviewed in the updated HBA, but do not appear to be integrated into the 2025 Engineers Report. For reference, see the 2003 Engineers Report for the SVWP (RMC, 2003, Table ES-3, copy provided below) applied a weighting factor approach to integrate all identified special benefits. Additional general public benefits related to environmental considerations and habitat conservation for steelhead trout needs to be included in the current analysis. Weighting factors also need to be considered in light of today's important issues and regulatory requirements.

Table ES-3: Special Benefits (RMC, 2003)

Special Benefit	Weighting Factor
Control of Seawater Intrusion	3
Flood Control	3
Increased Recharge	1
Groundwater Quality	1
Timing and Location of Recharge	1
Drought Protection	1
Preservation of Aquifer Storage	1
Recreation	1

3.3.4 SGMA Implementation as a Special Benefit

Today's reality is that significant efforts are required to meet the compliance with state regulations for the Sustainable Groundwater Management Act (SGMA). SGMA compliance should be viewed as a special benefit as characterized on an economic unit area scale. The critical overdraft designation for the 180/400 subarea and priority need to control seawater intrusion has significant financial implications for the Salinas Valley communities – focusing much greater weight on seawater intrusion than when the 2003 Engineers Report was completed for the SVWP. Any Engineers Report prepared today to assess future proposed projects in Salinas Valley needs to acknowledge and appropriately weight into the analysis the costs and hydrologic benefits that will help facilitate implementation of SGMA, notably for seawater intrusion mitigation and management that is confronting the community. The lack of recognition of SGMA and associated weighting relevant to SGMA implementation necessities for the community is unacceptable in the ILT 2025 Engineers Report.

3.3.5 Storage Change Inconsistencies and Accuracy

The change in storage values in the ILT Engineers Report do not appear to match the values reported in the HBA Update. Reference is made to HBA Update Table 3-8 for reported changes in storage by subarea. However, these values need to be derived from the SVOM modeling as explained above, and not the SVIHM from past projects operation. Also of note, the accuracy of the storage change attribute derived from the 2023 provisional SVIHM is also in question due to the wide-spread use of fictitious drains.



Salinas Basin Water Alliance

"Preserve and Protect Salinas Valley Water"

July 3, 2025

VIA ELECTRONIC MAIL — MCWATER@COUNTYOFMONTEREY.GOV

Monterey County Water Resources Agency
Board of Directors
c/o Clerk of the Board
1441 Schilling Pl., North Bldg.
Salinas, CA 93901

RE: Concerns Regarding Monterey County Water Resources Agency's April 2025 Update to Historic Benefits Assessment of Water Infrastructure Projects for Salinas Valley

Dear Mr. Azhderian and Honorable Directors:

The Salinas Basin Water Alliance ("Alliance") is a California nonprofit mutual benefit corporation formed to preserve the viability of agriculture and the agricultural community in the greater Salinas Valley. Alliance members include agricultural businesses and families that own and farm more than 80,000 acres within the Salinas Valley. To that end, the Alliance has a significant interest in the long-term sustainability of the water supplies in the Salinas Valley, supports the integrated and equitable management of both surface and groundwater resource to achieve sustainability, and has diligently worked with the Monterey County Water Resources Agency ("Agency") and other stakeholders to achieve these critical goals.

We submit these comments to express our concerns regarding the Agency's April 2025 Update to its Historic Benefits Assessment of Water Infrastructure Projects for Salinas Valley ("HBA Update"). Specifically, the HBA Update does not accurately reflect the proportional benefits/burdens of the operation of the Agency's water infrastructure projects across all users in the system and contains a variety of technical issues. Accordingly, the Alliance respectfully requests the Agency revise the HBA Update to address the Alliance's concerns as articulated in the questions and comments provided in this letter.

Bengard Ranch
Boutonnet Farms
Christensen &
Giannini
Cooper Land Corp.
D'Arrigo Bros.
Dole Fresh
Vegetables
Fontes Farms
General Farm
Investment
Higashi Farms
Huntington Farms
Lanini Family
Merrill Farms
Norcal Harvesting
Nunes Vegetables
Ocean Mist Farms
Panziera Ranches
Pedrazzi Farms
Queen Victoria
Farms
R.C. Farms
Secondo Farms
Scattini Family LP
Springfield Farms
Sunberry Growers
Sunset Farms
Tanimura & Antle
The Tottino Group

I. The HBA Update must reflect an accurate accounting of the proportional benefits and burdens of the Agency's Water Infrastructure Projects.

A. The Agency should evaluate water infrastructure project benefits individually

1. The analysis should consider the various components of the Salinas Valley Water Project—i.e., the reservoirs, CSIP, the rubber dam—separately.
 - a) The HBA Update states: “ESUs in the northwest part of the Basin (ESUs 1 through 4) experienced little effect from the Projects until 1998 when CSIP started operating. For instance, in ESU-3, the Projects resulted in less than a foot of groundwater level increase by the end of WY 1997, with substantial impact starting in WY 1998 when CSIP came online.” This begs the question—how much did ESUs 1 through 4 pay for operation of the reservoirs without experiencing corresponding water supply benefits?
 - b) This analysis is required as the Agency may consider projects in the future that only pertain to a component of the Project, which may only benefit certain portions of the Valley.
 - c) Benefits pre-1998 should be modeled and analyzed in comparison to benefits post-1998. This would equitably identify which areas of the basin benefited during the respective time periods.
2. Alternatively, the HBA Update should compare costs paid by each of the ESUs since construction of the reservoirs, compared to the benefits each ESU received.

B. The Agency should reevaluate its criteria for assessing Well Replacement Benefits

1. The Well Replacement Benefit criteria skews the assessment of economic benefits associated with the dams. The criteria should be modified to account for the value of the added water supply from the dams—in other words, what benefit is derived from having dry season flows in each of the ESUs?
 - a) The HBA Update should account for the Forebay / Upper Valley (FB/UV) groundwater level benefits of not having to drill deeper wells because of reservoir release recharge.
 1. In 2017, the Salinas Valley Water Coalition filed a complaint against the Agency and alleged the following: “[T]he groundwater aquifer in the Upper Valley is shallow, narrow, and tight against the Salinas River and, according to the Agency, at most receives minor subsurface inflow contributions from the upper Salinas Basin in San Luis Obispo County. That means Upper Valley

Subarea wells are more directly and immediately affected by the Agency's reservoir release operations than wells located farther downstream in the Valley, where the groundwater aquifer system is deeper, broader and holds far more groundwater in subterranean storage to buffer against cuts or delays in the historic pattern of reservoir recharge releases." This value for the FB/UV should be included in the HBA Update.

2. In section 3.1.2 in the HBA Update's discussion of "Avoided well construction / replacement costs," there is no distinction between well replacement and well deepening. The report asserts that "declines in groundwater head and storage have the potential to negatively affect the ability of groundwater wells to operate, particularly when head falls below the bottom of a well's intake screen or within the impact zone between the top and bottom of the screen." However, when this occurs, well deepening should have been included and analyzed as an option, as opposed to restricting analysis to well replacement only.
3. In ESU 3, the Agency does not specify how much of the "avoided replacement" of wells benefit is due to CSIP's in-lieu water distribution to 12,000 acres. The HBA draft cites 26 wells as avoiding replacement in ESU 3 but if those wells occurred specifically in the CSIP area, landowners already pay for this benefit fees via Zone 2B fees.
4. Conversely, the remainder of ESU 3 outside CSIP has seen a large increase in new Deep Aquifer wells, which explicitly do not avoid "costs from reduced agricultural pumping and pumping lift." On the contrary, their pumping lift costs are higher than all other wells. However, ESU 3 has still been assigned a disproportionately high value for its supposed Well Replacement Benefit.

C. The Agency should distribute Flood Protection Benefits equally across economic sectors and demographics

1. In FSUs 2-7 (Pressure and East Side Areas):
 - a) There are 10,749 structures; 8,813 of these are considered residential (82%).
 - b) Total structural, contents of buildings, and vehicle avoided flood damages of \$202,216,000.
 - c) Avoided crop damage in 2017 of \$2,173,000.
 - d) Land cleanup costs of \$3,044 per acre.

2. In FSUs 8-12 (Forebay and Upper Valley Areas):
 - a) There are 6,325 structures; 5,461 of these are residential (86%).
 - b) Total structural, contents of buildings, and vehicle avoided flood damages of \$8,302,000.
 - c) Avoided crop damage in 2017 of \$1,942,000.
 - d) Land cleanup costs of \$4,025 per acre.
3. Although there is considerably more agricultural acreage than residential acreage in the Salinas Valley, 74% of structural, contents of buildings, and vehicle avoided flood damages are residential. Whereas avoided agricultural losses are about the same in the North as in the South, the North misleadingly appears to receive more flood protection benefits than the South, because most of the avoided damage is to structure, etc., (which is predominantly residential). Given the precise geographic concentration of structures in the Salinas Valley cities, perhaps each valley city should each be given their own FSU to more equitably assess and distribute the economic benefits of flood protection.
4. In addition to questions of benefit formulation, how did the Agency calibrate the estimated total of \$9,563,000 of vehicle damage over the 51-year period? Vehicles tend to be portable, a quality that calls into question this level of loss. During the flood of 2023, the worst flood since 1995, the Alliance does not recall any vehicles lost.
5. Finally, the study does not analyze the benefit value of avoidance of environmental loss due to flood damage. This is a general public good that should be assessed and distributed valley-wide across the general public.

D. The Agency must re-evaluate its assessment of reduced seawater intrusion crop yield losses

1. The HBA draft outlines crop impacts due to decreased seawater intrusion in the range of \$21.7M to \$86.9M. The Agency will need to quantify this benefit with more care and precision moving forward with this HBA draft and ensure it is not relying on flawed analysis assuming seawater intrusion risk alone is responsible for production changes as opposed to other economic factors that result in similar outcomes.
2. The framework for the HBA double counts CSIP benefits without replacing the existing funding mechanisms and fees that stakeholders already pay for those project benefits outside of the SVWP. On page 18 of the HBA Update discussing the impacts of reduced seawater intrusion on agricultural productivity, the report states that such “impacts could range from \$21.7 to \$86.9 M over the 51-year analysis period Most of this benefit

largely accrued to growers beginning in 1998, coinciding with deliveries of recycled water from CSIP.” The report itself acknowledges that the benefit specifically and mostly accrued to the acreage within the CSIP delivery area itself, as opposed to a blanket benefit to ESU 3 in general. Acreage that was previously laboring along with salty wells and was unable to grow lettuces, suddenly could grow lettuces, etc., due to receiving the CSIP delivered water. This benefit was paid for and is being paid for via Zone 2B fee. If the Agency folds it into the SVWP, it must assess the entire area for CSIP and replace existing funding structures.

E. Environmental benefits

The HBA Update provides no assessment of value derived from environmental/biological flows despite the fact that County water infrastructure is being used to “ensure adequate instream flows in the Salinas River for wildlife migration and habitat.” Wildlife migration and habitat are a public good, as evidenced by the number of agencies and sheer body of law and regulation the government devotes to their protection. As the County’s water infrastructure is partially being operated on behalf of species and habitat due to the general public good assigned to them, the general public needs to be assessed for this cost, as this benefit is not being carried out for the sole good of the landowners and homeowners of the Salinas Valley.

F. The Agency should include water reliability and crop improvement as an additional economic benefit

1. While the HBA assesses benefit of increased water quality in the Pressure / 180/00 Subbasin, it fails to assess the economic benefit of improved crop quality and crop yields in the FB/UV due to improved water quality from consistent river recharge from reservoir releases. Page 12 of the HBA Update acknowledges that “the reservoirs could be expected to have positive effects on groundwater quality in the Basin because of increased recharge in the riparian area [but that impacts on groundwater quality] are not valued as part of the economic assessment.”
2. Additionally, the HBA Update fails to assess the economic benefit of improved reliability in ground water supply in the FB/UV from river recharge from reservoir releases. This extends the potential growing season of the FB/UV, extends groundwater recharge into dry years due to reservoir storage, keeps shallow FB/UV aquifers topped up through the growing season due to consistent releases, all resulting in the ability to farm an area more intensively and with reliability than would otherwise be possible, in effect eliminating the impact of dry years.
3. Conversely, the HBA Update fails to assess the overall impact on the Salinas River of more intensive farming in UV/FB. According to historic Agency data, consistent pumping in the

UV/FB corresponds with more than 70% of river discharge losses occurring between the Bradley and Gonzales gauges on the Salinas River. This has an impact on the so-called benefits afforded to other ESUs, including groundwater recharge and well drilling in the North.

II. The HBA Update contains a variety of modeling issues that must be addressed.

A. The Salinas Valley Integrated Hydrologic Model (“SVIHM”), which was used to determine hydrologic benefits, is seriously flawed. Furthermore, a provisional version of this flawed model was used for the HBA Update, which is also seriously flawed.

1. Tile drains:

- a) Agricultural tile drains are known to exist only in the northern, coastal areas of Salinas Valley (i.e., they are not widespread across the entire valley).
- b) However, SVIHM contains drain boundary conditions in **every cell** of model layer 1.
- c) There are also drain boundary conditions in the south and valley margins in layers 7, 8, and 9, which are deep underground and below the aquifer(s).
- d) It appears that water removed from the subsurface by these drain boundary condition cells may become surface flow or used to meet water demand, but that is not certain.
- e) Therefore, although the model appears to be “calibrated,” it is “right” for the wrong reasons and will need to be fixed and recalibrated (M&A).
- f) The HBA scenarios will need to be re-run with the revised, recalibrated model.

2. Stream channel geometry:

- a) Much if not most of the stream channel bottoms in SVIHM are at elevations far above the land surface.
- b) It is unknown what impact this error has on model results and calibration, which renders model results unreliable.

3. Finally, there are several additional flaws in SVIHM, which render the results highly uncertain.

B. The HBA Update states that modeled groundwater levels are high enough in many places that crops are able to access groundwater directly via their roots, thereby reducing groundwater pumping. Table 3.2 illustrates the increase in drain discharge associated with projects. Overall net recharge appears very low due to the increase in drain discharge.

1. The high modeled groundwater elevations likely caused the USGS to improperly include the drain boundary condition cells.

July 3, 2025

Page 7

2. The process of direct use of groundwater by crops (similar to phreatophytes/riparian vegetation) is not known to occur in Salinas Valley. Such high water levels would ruin most crops (which is the reason growers sometimes use real tile drains!).

In conclusion, although no model or formula is perfect, the HBA draft contains a considerable amount of contradiction and inaccuracy. Accordingly, the Alliance respectfully requests that the Agency revise the HBA Update to address these questions and concerns regarding the allocation of benefits and burdens of the Agency's Water Infrastructure Projects and address the modeling flaws in the SVIHM to reach a more accurate calculation of hydrological and economic values. We look forward to working with you to accomplish a more reliable and equitable framework to fund the vital projects in our Valley for decades to come.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Chris Bunn", with a stylized, flowing script.

Christopher Bunn

President, Salinas Basin Water Alliance