From:
 Christopher Bunn

 To:
 Azhderian, Ara

 Cc:
 Marieke Desmond

Subject: Alliance comments related to the MCWRA July workshop on Dam Safety projects etc

Date: Thursday, September 11, 2025 8:51:01 AM

Attachments: 2025.07.02 Alliance Letter to MCWRA re April 2025 HBA Update(34192149.pdf

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Ara.

We appreciate the opportunity to comment on how the Dam Safety projects might be funded, as well as related issues.

For the Alliance, there are three key issues at this point in the discussion: whether or not the methodology used to fund the Dam Safety projects should be the same methodology that will fund future operations and maintenance etc of the dams, whether or not the four main benefits of the dams are defensible and, consequently, how those benefits then instruct funding, and whether or not a sufficient array of financial structure options in terms of loans vs bonds vs other are being considered.

First, the Alliance thinks that the methodology used to fund the Dam Safety projects should be the same methodology used to fund future operations, maintenance and administration etc of the dams. There is no convincing argument and rationale to decouple the methodology of those two funding needs. We believe that the new draft HBA should inform the funding for the Dam Safety projects, even as it will inform the funding of the future operations etc of those same dams. Of course, the draft HBA needs some adjustment in terms of modeling and interpretation, but we expect that to be addressed over the near future.

That said, we expect that the draft HBA will instruct an assessment structure that will replace current Zone 2C assessments. The current Zone 2C assessments do not equitably and adequately represent where the dam water goes when released, as analyses clearly show that a majority of that water infiltrates in the southern half of the valley, providing sustainability to that portion of the valley, even though the northern half of the valley pays more.

Second, as far as the four main benefits of the dams—water supply, flood control, hydropower and recreation—while we expect a robust critique and discussion about those benefits in the near future (and would appreciate a more robust explanation of how the recreations values would be applied in terms of assessments), we believe that the water supply benefit should not be based on avoided costs; rather, it should be calculated based on where the water goes in terms of availability. In addition to that perspective, we firmly believe the models used in the draft HBA analyses have to be improved and rerun before we can more accurately identify where the water goes. As we all have realized, the model outputs appear erroneous for surface and groundwater budgets in various parts of the valley (good examples of that are the peculiar increases in outflow to drains, as well as plant uptake volumes from higher groundwater levels). Furthermore, as stated in the groundwater budge discussion of the draft HBA for simulated sweater intrusion, the SVIHM can only simulate seawater intrusion as a flux across the location of the coast and cannot predict the extent of onshore seawater intrusion. The calculated groundwater level response to CSIP operations appears to be exaggerated in ESU 3

(the model calculated as much as 67' of additional groundwater level benefit, which does not seem reasonable).

Third, while it is sensible to examine various bond and loan scenarios to finance the Dam Safety projects, we would like to also examine a pay-as-you-go scenario, in which assessments would be paid on an acre/unit/etc basis in order to fund the immediate annual costs of the project, spread over the X number of years of the project and without incurring debt.

We look forward to discussing all of these concepts more with you. Our initial draft HBA critique letter from earlier in the year is also attached as a reiteration of those points.

Sincerely, Christopher Bunn President, Salinas Basin Water Alliance

Salinas Basin Water Alliance



Members

Bengard Ranch

Christensen &

Giannini

"Preserve and Protect Salinas Valley Water"

July <mark>XX</mark>, 2025

VIA ELECTRONIC MAIL — MCWATER@COUNTYOFMONTEREY.GOV

Monterey County Water Resources Agency

Board of Directors c/o Clerk of the Board

Boutonnet Farms 1441 Schilling Pl., North Bldg.

Louie Calcagno 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

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

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.

- I. The HBA Update must reflect an accurate accounting of the proportional benefits and burdens of the Agency's Water Infrastructure Projects.
 - A. Issues regarding the Agency's approach to quantifying economic benefits
 - 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 any 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-98 should be modeled and analyzed in comparison to benefits post-98. 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 in comparison to the benefits received.
 - 3. 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 fails to account for the FB / UV gwl level benefits of not having to drill deeper wells because of reservoir release recharge.
 - 1. In 2017, the 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."

- 2. This value for the FB/UV needs to be accounted for in the HBA Update.
- b) Additionally, the HBA Update fails to account for water quality benefits in the FB/ UV due to high quality river recharge from reservoir releases.
- B. Flood Protection Benefits are unequally distributed across economic sectors and demographics
 - 1. In FSUs 2-7 (Pressure and East Side Areas):
 - a) There are a total of 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 a total of 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. 74% of structural, contents of buildings, and vehicle avoided flood damages are residential.
 - 4. Therefore, avoided agricultural losses are about the same in the north as in the south, but the north misleadingly appears to receive more flood protection benefits than the south, because most of the avoided damage is to structure, etc., and most of that is residential. There is far more agricultural acreage than residential acreage in Salinas Valley.
 - 5. Thus, flood protection benefits should be assessed by economic sectors and demographics.
 - 6. Given the precise geographic concentration of structures (ie., in the footprints of the valley cities), in addition to the fact that, outside the cities, there are hardly any structures at all, perhaps the FSU approach is not precise enough? Perhaps each valley city should each be given their own FSU?
 - 7. In terms of Vehicle Damage, was the total of \$9,563,000 over the 51 year period actually ground-truthed in any way? 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 many vehicles lost.

8. 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 equally distributed over the general public.

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C. Reduced seawater intrusion crop yield losses

The framework for the HBA double counts CSIP benefits without replacing the existing funding structure and fees that stakeholders already pay for those project benefits outside of the SVWP.

D. Environmental benefits

The HBA Update provides no assessment of value derived from environmental/biological flows—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 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 valley.

E. Water reliability and crop improvement

- 1. The HBA Update fails to assess 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 admits 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 economic benefit of improved reliability in ground water supply in the FB/UV from river recharge from reservoir releases. This extends potential growing season of 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, allows that area to be farmed more intensively and with reliability, etc. The projects, in effect, eliminate the impact of dry years.
- 3. Conversely, the HBA Update fails to assess the overall impact of more intensive farming in UV/FB, which results in consistent pumping of that area, which, in turn, means heavy river losses are sustained between the reservoirs and Gonzales due to that pumping steadily draining the aquifers, equating to 70+% of river loss between Bradley gauge and Gonzales gauge, which therefore means north of Gonzales receives a minority of the river flow.

What, then, does this mean for groundwater recharge in the north and the need to drill deeper wells?

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- 4. Avoided crop impacts due to less seawater intrusion is a range of \$21.7M to \$86.9M? This is a staggeringly wide range, so wide (and therefore demonstrating the opposite of precision) that it begs the question as to whether or not all the pertinent variables were properly determined. Analysis may be flawed in its assumption that growers wouldn't change crops or relocate to areas more suitable for production versus staying and incurring severe economic hardship due to impaired water quality? Private business is fluid and changes and does not stay until extinction.
- 5. In section 3.1.2 and 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 options to well replacement only.
- 6. How much of the "avoided replacement" of wells benefit in ESU 3 is due to the 12,000 acres of CSIP not needing wells? The report says 26 wells did not need to replaced in ESU 3 but it does not specify where in ESU 3 they occurred. A large percentage of ESU 3 is CSIP. And CSIP is already paying high fees via Zone 2B. Is this valuation of benefit for ESU 3 double-dipping? This needs to be carefully explained.
- 7. At the same time, in context of the previous comment, the remainder of ESU 3 that is not 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 been assigned a high value for this supposed benefit.
- 8. Finally, 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 fact is 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 fees. If this water quality benefit is now also assigned via the new HBA, please explain how this is not a double-dip.

- 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 renter 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.
 - 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!).

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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 that render it unreliable in terms of an accurate calculation of hydrological and economic values.

Respectfully submitted,

Christopher Bunn

President, Salinas Basin Water Alliance