aquilogic, Inc.
environment ● water ● strategy

245 Fischer Avenue, Suite D-2
Costa Mesa, CA 92626
Tel. +1.714.770.8040
Web: www.aquilogic.com

MEMORANDUM

To: Board of Directors, Salinas Valley Basin Groundwater Sustainability Agency (SVBGSA)

Cc: Piret Harmon and Emily Gardner, SVBGSA
Abby Ostovar and Derrik Williams, Montgomery & Associates
Amy Woodrow, Monterey County Water Resources Agency
Christopher Bunn, Salinas Basin Water Alliance
Stephanie Hastings and Chris Guillen, Brownstein Hyatt Faber Schrek, LLP

From: Anthony Brown, Principal-In-Charge, aquilogic, Inc.
Robert H. Abrams, PhD, PG, CHg, Senior Principal Hydrogeologist, aquilogic, Inc.

Date: January 5, 2026

Subject: Results of Inter-Subbasin Impact Modeling
Project No.: 018-09

Montgomery & Associates (M&A), on behalf of the Salinas Valley Basin Groundwater Sustainability Agency (SVBGSA), prepared a memorandum, "*Results of Computer Modeling Agreement for the Salinas Valley Water Coalition (SVWC) and Salinas Basin Water Alliance (SBWA)*," dated December 19, 2025. The M&A memorandum summarizes the results of a hydrologic modeling exercise (hereafter referred to as "inter-subbasin impact modeling") designed to isolate and individually evaluate the impacts of pumping in the Upper Valley Aquifer Subbasin (UV), the Forebay Aquifer Subbasin (FB), the 180/400-Ft Aquifer Subbasin (180/400), and the East Side Aquifer Subbasin (ES), one subbasin at a time, on the water resources[1] of the other three subbasins.[2]

The inter-subbasin impact modeling was jointly requested by SBWA and SVWC. SVBGSA agreed that the modeling would be beneficial and instructed M&A to proceed. The M&A memorandum only presents a descriptive summary of the inter-subbasin impact modeling results. The purpose of this Aquilogic, Inc. (**aquilogic**) memorandum is to provide interpretation of the results, in the context of water availability, for the primary areas of Salinas Valley Groundwater Basin (SVGB) (i.e., UV, FB, 180/400, and ES).

The modeling described in the M&A memorandum is hypothetical in nature. The modeling was conducted in a "what if" (i.e., hypothesis testing) mode using the principle of superposition. As

---

[1] In this context, the term "water resources" has the same meaning as "water availability." Water availability in the Salinas Valley Groundwater Basin (SVGB) primarily concerns both stream flows in the Salinas River and groundwater.

[2] The inter-subbasin impact modeling was conducted by M&A using the version of the Salinas Valley Hydrologic Model (SVIHM) released by the United States Geological Survey (USGS) in April 2025.

such, the modeling results were not expected to be precise. Instead, the results should be considered as “order-of-magnitude” accuracy (e.g., 10,000 to 15,000, instead of 13,051).

As described in the M&A memorandum, the modeling was conducted by: (1) turning pumping on in one subbasin at a time using a “full basin” as a starting point (i.e., the initial condition is no pumping anywhere); and (2) turning pumping off in one subbasin at a time using the simulated historical condition as a starting point (i.e., the initial condition is pumping everywhere).

For case (1), there were four separate simulations in addition to the no-pumping initial condition (i.e., pumping was on in only one subbasin in each subsequent simulation). For case (2), there were also four separate simulations in addition to the historical pumping initial condition (i.e., pumping was off in only one subbasin in each subsequent simulation). Thus, there were a total of ten simulations, which were run from water year (WY) 1967 through WY 2022. However, only the period WY 1980 though WY 2022 was considered for the analysis. For each of these scenarios, Salinas River flow and groundwater flow between the subbasins, as well as groundwater elevations and groundwater storage in all four subbasins, were then compared with the respective starting points to quantify approximately the impact caused by pumping.

GENERAL HYDROLOGY OF THE SVGB

Water in the SVBG is a resource shared by all beneficial users. The hydrology of the SVGB is highly integrated and essentially represents a single water resource composed of interconnected surface water and groundwater. The hydrology of the SVGB dictates that groundwater pumping can impact Salinas River stream flows and these stream flows can impact groundwater elevations.

Under current conditions, groundwater recharge in the SVGB is primarily derived from stream bed seepage. During the primary agricultural growing season, most of this recharge is derived from conservation releases from Nacimiento and San Antonio Reservoirs, which flow to the Salinas River. During the offseason, groundwater recharge in the SVGB is mostly derived from reservoir releases related to other factors such as bypass flows, environmental flows, and flood protection. Lesser amounts of recharge are derived from direct precipitation on the valley floor and bed seepage from smaller streams.

By volume, most reservoir releases occur during the primary agricultural growing season (e.g., March through October) (**Figure 1**; **Table 1**), when the Salinas River could be dry under natural conditions. Precipitation in the SVGB is minor to negligible during the primary agricultural growing season, compared with the offseason (e.g., November through February). Thus, flow in the Salinas River and groundwater recharge from stream bed seepage during the agricultural growing season are primarily controlled by reservoir conservation releases.

Figure 1 shows combined reservoir releases from Nacimiento and San Antonio Reservoirs for a normal WY (2003) and a wet-normal WY (2024).[3] The majority of these releases occur during the primary agricultural growing season for these two example WYs.[4] **Table 1** summarizes the results shown on **Figure 1** for the primary agricultural growing season and the offseason. As shown in **Table 1**, 97% of reservoir release occurred during the primary agricultural growing season in WY 2003. In WY 2024, 93% of reservoir release occurred during the primary agricultural growing season. Further, the average monthly combined reservoir releases during the primary agricultural growing season in WY 2003 were 6,946,690 acre-feet (AF), versus 428,970 AF during the offseason. For WY 2024, the average monthly combined reservoir releases during the primary agricultural growing season were 10,557,006 AF, versus 1,687,282 AF during the offseason.

Figure 2 shows the monthly distribution of groundwater extractions for WYs 2003 and 2024 in the Monterey County Water Resources Agency (MCWRA) designated subareas of the SVGB.[5] Comparison of **Figures 1** and **2** illustrates the relationship between pumping and reservoir releases. As shown by these two figures, significant portions of the total annual groundwater pumping occur coincident with reservoir conservation releases during the primary agricultural growing season.

INTER-SUBBASIN IMPACT MODELING RESULTS AND DISCUSSION

Aquilogic has independently reviewed the inter-subbasin impact modeling results, which are summarized on **Figures 3** through **19**. It should be noted that changes in Salinas River stream flows from one subbasin to another caused by pumping in the various subbasins are approximated on **Figures 3** through **6** by changes in stream flows at the Soledad stream gage (UV to FB) and Chualar stream gage (FB to 180/400).

Changes in Inter-Subbasin Flows

Figure 3 shows the changes in Salinas River stream flows and groundwater flow between subbasins caused by pumping in the UV. **Figure 4** shows the changes in Salinas River stream flows and groundwater flow between the subbasins caused by pumping in the FB. **Figure 5**

---

[3] Monterey County Water Resources Agency (MCWRA) designates water year type based on the average annual stream discharge measured at the Arroyo Seco near Soledad stream gage, as described in Appendix A of the 2005 Salinas Valley Water Project Flow Prescription for Steelhead Trout in the Salinas River.

[4] Reservoir releases follow a complex set of operating guidelines, which as noted, include, but are not necessarily limited to, rules for bypass flows, environmental releases, flood control, and conservation releases (groundwater recharge). Thus, the distribution of releases throughout the year can vary year to year. The monthly distribution of reservoir releases for WY 2003 and WY 2024 are typical and represent two different water year types.

[5] Data provided by MCWRA. Subareas designated by MWRCA are approximately coincident with the Upper Valley Aquifer Subbasin, the Forebay Aquifer Subbasin, the 180/400-Ft Aquifer Subbasin (Pressure Subarea), and the East Side Aquifer Subbasin designated by the California Department of Water Resources (DWR).

shows the changes in Salinas River stream flows and groundwater flow between the subbasins caused by pumping in the 180/400. **Figure 6** shows the changes in Salinas River stream flows and groundwater flow between the subbasins caused by pumping in the ES.

Figures 3 through **6** illustrate the following:

1. Changes in Salinas River stream flows are significantly larger than changes in groundwater flow between the UV, FB, and 180/400:
    a. The Salinas River is a significant hydrologic connection between the UV, FB, and 180/400
    b. Pumping in the UV removes approximately 40,000 acre-feet per year (AFY) from the Salinas River (caused by 105,370 AFY total UV groundwater pumping[6]), reducing water availability in the FB by approximately 40,000 AFY and in the 180/400 by approximately 35,000 AFY, some of which would replenish groundwater in those subbasins and ES (**Figure 3**)
        i. Therefore, approximately 38% of the pumping in the UV is derived directly from the Salinas River via stream bed seepage of reservoir conservation releases during the primary agricultural growing season (**Table 2**)
    c. Pumping in the FB removes approximately 40,000 AFY from the Salinas River (caused by 118,320 AFY total FB groundwater pumping[7]), reducing water availability in the 180/400, some of which would replenish groundwater in the 180/400 and ES (**Figure 4**)
        i. Therefore, approximately 35% of the pumping in the FB is derived directly from the Salinas River via stream bed seepage of reservoir conservation releases during the primary agricultural growing season (**Table 2**), potentially with contributions from the Arroyo Seco early in the agricultural growing season
2. Together, pumping in the UV and FB removes approximately 80,000 AFY from the Salinas River (i.e., stream depletion), reducing water availability and groundwater replenishment in the 180/400
3. Pumping in the 180/400 reduces Salinas River flow in the 180/400 by approximately 10,000 AFY (caused by 103,980 AFY total 180/400 groundwater pumping[8]) (**Figure 5**)
    a. Therefore, approximately 10% of the pumping in the 180/400 is derived directly from Salinas River via stream bed seepage of reservoir conservation releases during

---

[6] Water Year 2024 Annual Report, Upper Valley Aquifer Subbasin, Table 3-2, p. 16). https://svbgsa.org/wp-content/uploads/2025/04/UpperValley_AnnualReport2024_Final-Cond.pdf, accessed October 27, 2025.

[7] Water Year 2024 Annual Report, Forebay Aquifer Subbasin, Table 3-2, p. 16. https://svbgsa.org/wp-content/uploads/2025/04/Forebay_AnnualReport2024_Final-Cond.pdf, accessed October 27, 2025.

[8] Water Year 2024 Annual Report, 180/400-Ft Aquifer Subbasin, Table 3-1, p. 10. https://svbgsa.org/wp-content/uploads/2025/04/180400_AnnualReport2024_Final-Cond.pdf, accessed October 27, 2025.

the primary agricultural growing season (**Table 2**), potentially with contributions from the Arroyo Seco early in the agricultural growing season

4. Pumping in the ES removes approximately 35,000 AFY of groundwater from the 180/400 and less than 5,000 AFY of groundwater from the FB (caused by approximately 81,540 AFY total ES groundwater pumping[9]), reducing water availability in the 180/400 (**Figure 6**)
    a. The 180/400 is a significant source of water for the ES
    b. Approximately 45% of the pumping in the ES is supplied by groundwater from the 180/400
5. Pumping in the 180/400 reduces water availability in the FB by less than 5,000 AFY.
6. Pumping in the ES reduces water availability in the FB by approximately 2,500 AFY.

Changes in Groundwater Elevations

Groundwater elevations in the UV, FB, 180/400, and ES depend on several factors in addition to in-subbasin groundwater pumping. The results of the inter-subbasin impact modeling show that increases in groundwater elevations occur in multiple subbasins when pumping is turned off in one subbasin (i.e., with the simulated historical condition as the starting point) (**Figures 7** through **17**).[10] For example, **Figures 7** and **8** show that for the modeling scenario in which UV pumping is turned off, groundwater elevations increase in the FB, 180/400, and ES, in addition to the UV. These increases occur at the water table (**Figure 7**, model layer 1) and in the 180-Ft Aquifer and equivalent (**Figure 8**, layer 3). M&A did not provide a map of groundwater elevation changes for the 400-Ft Aquifer and equivalent (layer 5).

The increases in 180/400 groundwater elevations occur when UV pumping is turned off because the large increase in Salinas River flow that occurs allows approximately 30,000 to 35,000 AFY of additional surface water to flow to the 180/400 (**Figure 3**). In turn, the increased Salinas River flow facilitates additional stream recharge in the 180/400. **Figures 7** and **8** show that the *average* changes in groundwater elevations generally range from 1 to 5 feet (ft). However, the *maximum* changes in groundwater elevations must therefore be greater than 1 to 5 ft, depending on hydrologic conditions in any given WY.

Figures 9 through **11** show the groundwater elevation changes for the FB pumping-off scenario. These results are similar to the results shown on **Figures 7** and **8**, in that groundwater elevations in the 180/400 increase by a similar amount. In the 180-Ft Aquifer and equivalent and the 400-Ft Aquifer and equivalent, the average changes in groundwater elevations in the southern

---

[9] Water Year 2024 Annual Report, East Side Aquifer Subbasin, Table 3-1, p. 12. https://svbgsa.org/wp-content/uploads/2025/04/Eastside_AnnualReport2024_Final-Cond.pdf, accessed October 27, 2025.

[10] Increases in groundwater elevations do not occur for the scenarios in which pumping is turned on because all subbasins are already "full." Decreases in groundwater elevations in other subbasins when pumping is turned on in one subbasin are much less significant than the increases observed in the pumping-off scenarios. This is because groundwater levels in the pumped subbasin start off "full," thereby reducing the impact on other subbasins.

portion of the ES are as high as 5 to 10 ft (**Figures 10** and **11**) (maximum changes would be higher). As with **Figures 7** and **8**, the large increase (approximately 40,000 AFY) in Salinas River flow between the FB and 180/400 (**Figure 4**) facilitates additional stream recharge in the 180/400. However, **Figures 9** through **11** also demonstrate the minimal increase in groundwater elevations in the upstream subbasin (i.e., the UV) when pumping is turned off in a downstream subbasin (i.e., the FB) and some increased groundwater elevations in the ES.

Figures 12 through **17** show the significant groundwater connections between the 180/400 and the ES. Pumping in either subbasin strongly impacts groundwater elevations in both the pumped subbasin and the adjacent subbasin. **Figures 12** through **17** also show the minimal increase in groundwater elevations in the upstream subbasins (i.e., the FB and UV) when pumping is turned off in a downstream subbasin.

Impact on Groundwater Storage in the 180/400

As noted, turning pumping off in the UV and FB allowed additional Salinas River water to reach the 180/400. Some of this water would remain surface water and continue flowing in the river channel, potentially discharging to Monterey Bay. However, some of this water would become stream recharge to groundwater in the 180/400, which increases groundwater elevations in the 180/400 and ES.

Figures 3 through **6** show the changes in groundwater flow across subbasin boundaries. For the pumping-off scenarios, these changes indicate increased flow to the 180/400. For the UV-off scenario, the increase in groundwater inflow to the 180/400 averaged less than 5 AFY. For the FB-off scenario, the increase in groundwater inflow to the 180/400 averaged approximately 1,900 AFY. However, these figures do not represent the change in groundwater storage in the 180/400 caused by pumping in the UV and FB, which can be estimated based on groundwater elevations.

Annual Reports for the 180/400 are submitted to California Department of Water Resources (DWR) to partially meet compliance requirements for the Sustainable Groundwater Management Act (SGMA). These reports include calculations of the change in groundwater storage based on changes in groundwater elevations. SVBGSA calculates storage change for individual aquifers in the 180/400, as well as for the subbasin as a whole.[11] This calculation estimates the groundwater storage change by using the estimated area of the subbasin over which the change in groundwater elevations occurred, an estimated storage coefficient, and the average change in groundwater elevation.

[11] https://svbgsa.org/wp-content/uploads/2025/04/180400_AnnualReport2024_Final-Cond.pdf, accessed 12/31/2025.

The groundwater storage change calculation for the 180/400 as a whole uses an estimated area of 76,000 acres and a storage coefficient of 0.078. It should be noted that the estimated area does not include the seawater intruded area.

Figures 18a, **18b**, and **18c** show the areal extents of the average increases in groundwater elevations for the water table, the 180-Ft Aquifer and equivalent, and the 400-Ft Aquifer and equivalent, respectively, for the 180/400 and ES, when UV pumping is turned off. Inspection of these figures shows that groundwater elevations increased by 1 to 5 ft across approximately 70% of the 180/400. A conservative estimate of the increase in groundwater storage in the 180/400 can be calculated as:

45,600 acres (60% of 76,000) X 0.078 X 1 ft

This calculation yields an estimated change in groundwater storage in the 180/400 of approximately 3,500 AF. However, groundwater elevations increased by up to 5 ft over the areas shown in **Figures 18a**, **18b**, and **18c**. Therefore, a conservative estimate of the increase in groundwater storage in the 180/400 when UV pumping is turned off ranges from approximately 3,500 AFY to 17,000 AFY.

Figures 19a, **19b**, and **19c** show the areal extents of the average increases in groundwater elevations for the water table, the 180-Ft Aquifer and equivalent, and the 400-Ft Aquifer and equivalent, respectively, for the 180/400 and ES, when FB pumping is turned off. Inspection of these figures shows approximately the same range of increased groundwater elevations in the 180/400 as the UV-off scenario. Therefore, the same conservative estimate of increased groundwater storage of 3,500 AFY to 17,000 AFY occurs in the 180/400 when FB is turned off.

Thus, simulated pumping in the UV and FB reduces groundwater storage in the 180/400 by more than 7,000 AFY due to reduced flow in the Salinas River. Considering that the increased groundwater elevations shown on **Figures 18** and **19** represent a minimum increase of 1 ft across much of the 180/400, it is reasonable to conclude that the average increase would at least 2 ft. Some areas of the 180/400 would experience increases greater than 2 ft (up to 5 feet). Thus, a reasonable conservative estimate of the groundwater storage increase in the 180/400 is a minimum of 15,000 AFY.

Conclusions

The inter-subbasin impact modeling demonstrates that significant portions of the groundwater water extracted from upstream subbasins are derived directly from reservoir conservation releases during the primary agricultural growing season. The decreases in Salinas River flow between subbasins reduces water availability in the 180/400. This result is consistent with data provided by MCWRA Salinas River Discharge Measurements Series Results (River Series), which show significant reductions in stream flow from north to south (i.e., stream losses to groundwater).[12] Pumping in the ES also reduces water availability in the 180/400.

The inter-subbasin impact modeling also demonstrates that pumping in any one of the subbasins in the SVGB impacts water availability in at least one other subbasin. Groundwater elevations in downstream subbasins increase when pumping in upstream subbasins is turned off (**Figures 7** through **19**). Thus, it is reasonable to conclude that groundwater elevations and groundwater storage in downstream subbasins would decrease with increased pumping in upstream subbasins, thereby reducing water availability in downstream subbasins. The decreases in water availability are most apparent in the changes in inter-subbasin Salinas River flows and groundwater elevations. The decreases in groundwater elevations and groundwater storage caused in downstream subbasins by pumping in upstream subbasins occur primarily because less water is available in the Salinas River for stream recharge in the downstream subbasins.

[12] https://www.countyofmonterey.gov/government/government-links/water-resources-agency/documents/salinas-river-discharge-measurement-series, accessed 12/31/2025.

Table 1: Comparison of Reservoir Releases

Salinas Basin Water Alliance

Water Year	Water Year Type[1]	Annual Reservoir Releases (AF)	Primary Growing Season (March through October)			Off Season (November through February)		
			Reservoir Releases (AF)	Percentage of Annual Reservoir Releases	Monthly Average Reservoir Release (AF)	Reservoir Releases (AF)	Percentage of Annual Reservoir Releases	Monthly Average Reservoir Release (AF)
2003	Normal	57,289,396	55,573,516	97%	6,946,690	1,715,880	3%	428,970
2024	Wet-Normal	91,205,176	84,456,048	93%	10,557,006	6,749,128	7%	1,687,282

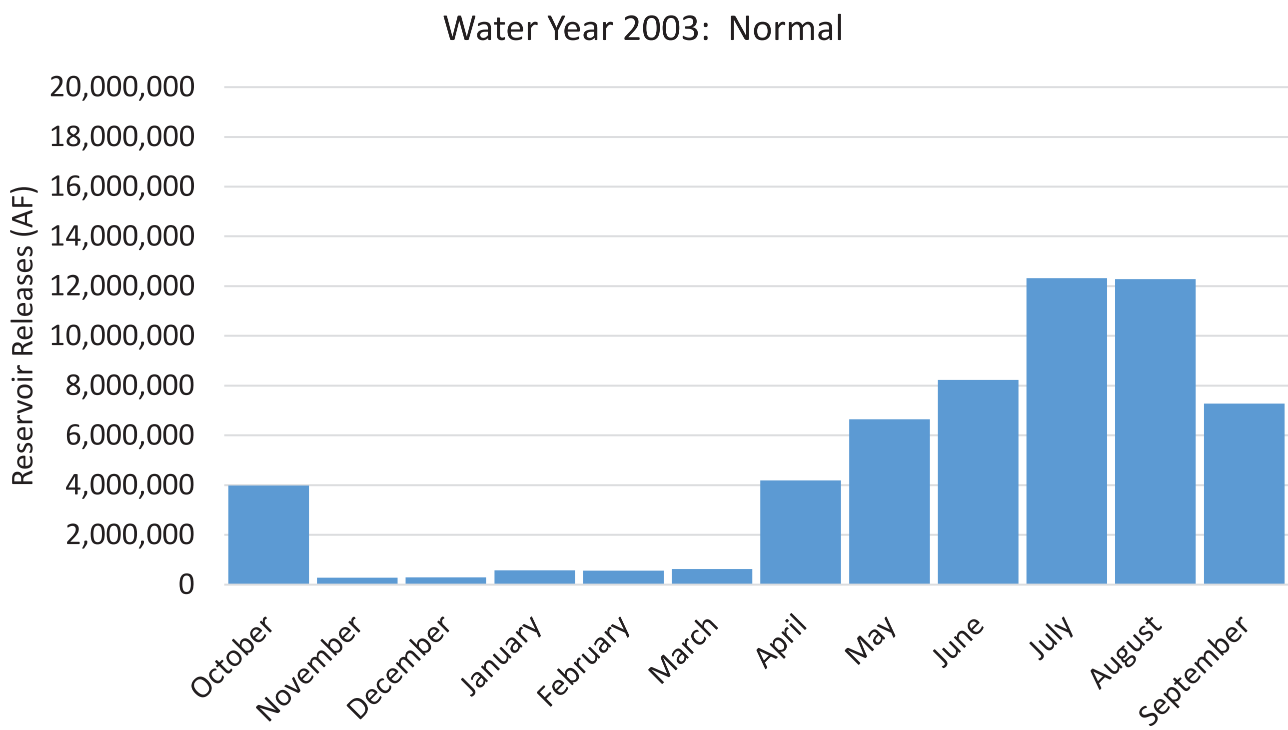
Notes:
AF: acre-feet
MCWRA: Monterey County Water Resources Agency
All reservoir release data are from https://www.countyofmonterey.gov/government/government-links/water-resources-agency/projects-facilities/dams-and-reservoirs/historical-data.
Data shown are the combined releases from Nacimiento and San Antonio Reservoirs
1. MCWRA designates water year type based on the average annual stream discharge measured at the Arroyo Seco near Soledad stream gage, as described in Appendix A of the 2005 Salinas Valley Water Project Flow Prescription for Steelhead Trout in the Salinas River (https://www.countyofmonterey.gov/home/showdocument?id=19068).

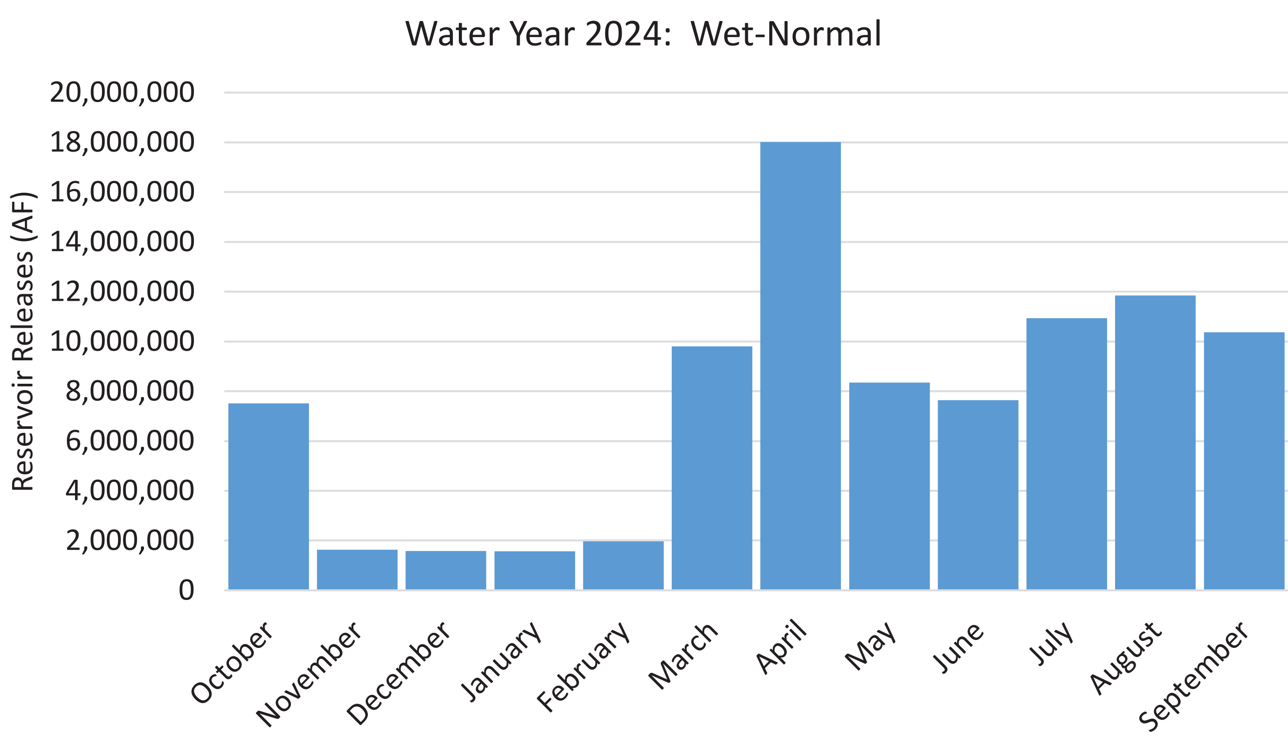
Table 2: Impacts of Pumping on Salinas River Flow

Salinas Basin Water Alliance

		Change in Salinas River Flow UV to FB (AFY)				Change in Salinas River Flow FB to 180/400 (AFY)			
	WY 2024 Annual Report Total Pumping (AFY)	Pumping Turned On Decrease	Pumping Turned Off Increase	Average	Approximate Percent of UV Pumping Derived from Salinas River[1]	Pumping Turned On Decrease	Pumping Turned Off Increase	Average	Approximate Percent of FB Pumping Derived from Salinas River[1]
UV	105,370	41,942	38,033	39,988	38%	40,117	33,166	36,642	--
FB	118,320	28,169	26,412	27,291	--	43,747	38,236	40,992	35%
180/400	103,980	4,474	5,212	4,843	--	9,956	9,640	9,798	--
ES	81,540	2,860	2,366	2,613	--	6,026	4,423	5,225	--

Notes:
AFY: Acre-feet per year
UV: Upper Valley Aquifer Subbasin
FB: Forebay Aquifer Subbasin
180/400: 180/400-Ft Aquifer Subbasin
ES: East Side Aquifer Subbasin
--: Not applicable
1. This represents extracted groundwater derived from bed seepage of reservoir conservation releases.





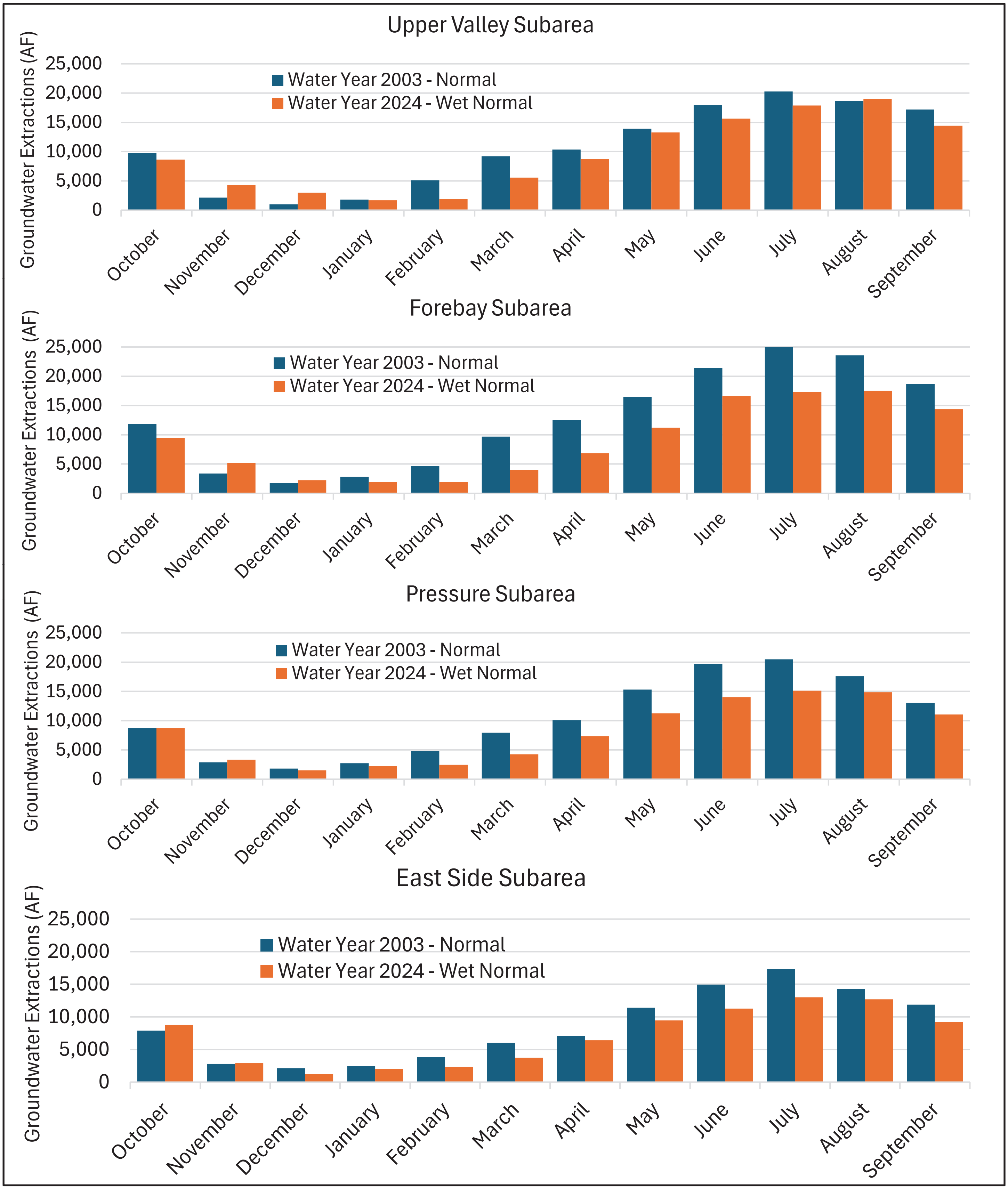
Notes:
AF: acre-feet
Graphs show the combined reservoir releases from Nacimiento and San Antonio Reservoirs.
The terms "Normal" and "Wet-Normal" refer to water year types as designated by Monterey County Water Resources Agency.

aquilogic, Inc.

Salinas Basin Water Alliance

Reservoir Releases

Date:1/4/2026	Project #: 018-09	**Figure 1**



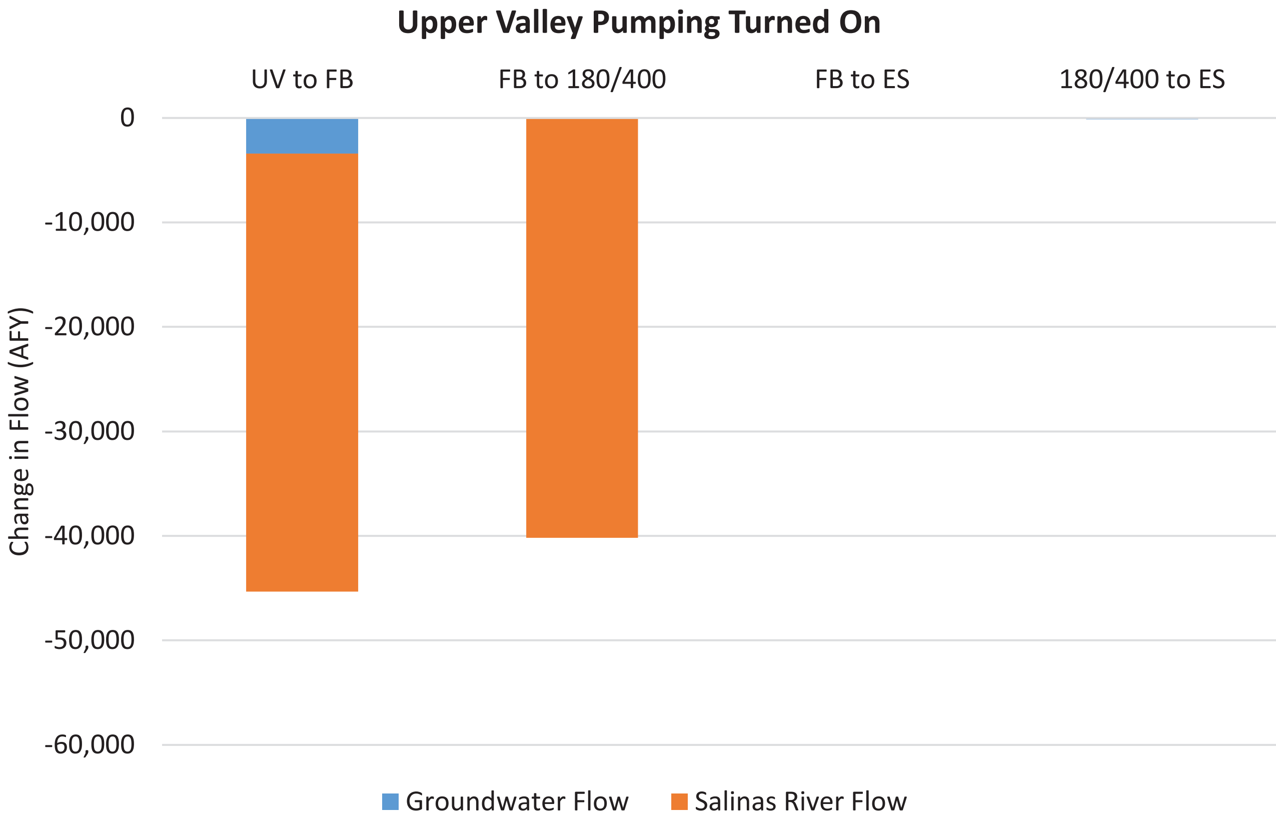
Notes:
AF: acre-feet.
Data provided by Monterey County Water Resources Agency (MCWRA). Subareas designated by MWRCA are approximately coincident with the Upper Valley Aquifer Subbasin, the Forebay Aquifer Subbasin, the 180/400-Ft Aquifer Subbasin (Pressure Subarea), and the East Side Aquifer Subbasin designated by the California Department of Water Resources (DWR).

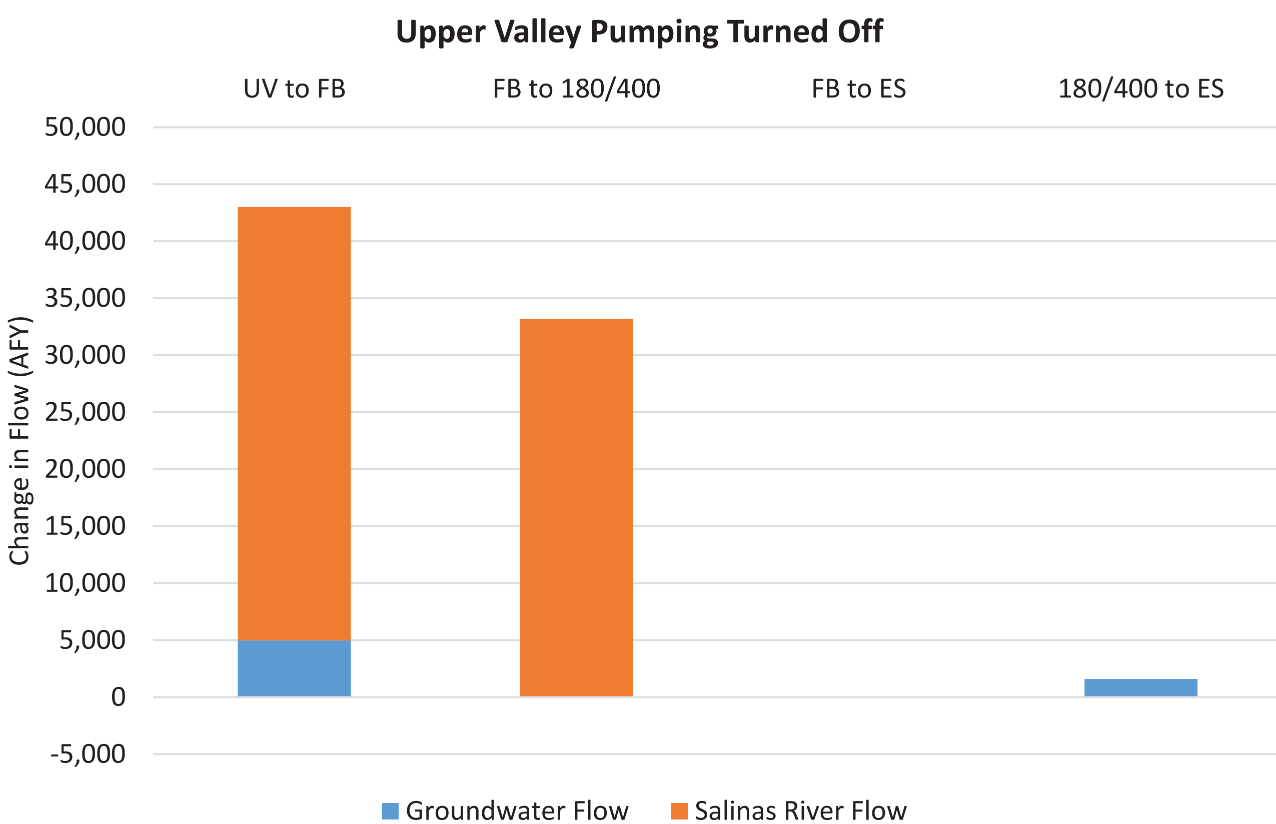
aquilogic, Inc.

Salinas Basin Water Alliance

Groundwater Extractions

Date:1/4/2026	Project #: 018-09	**Figure 2**





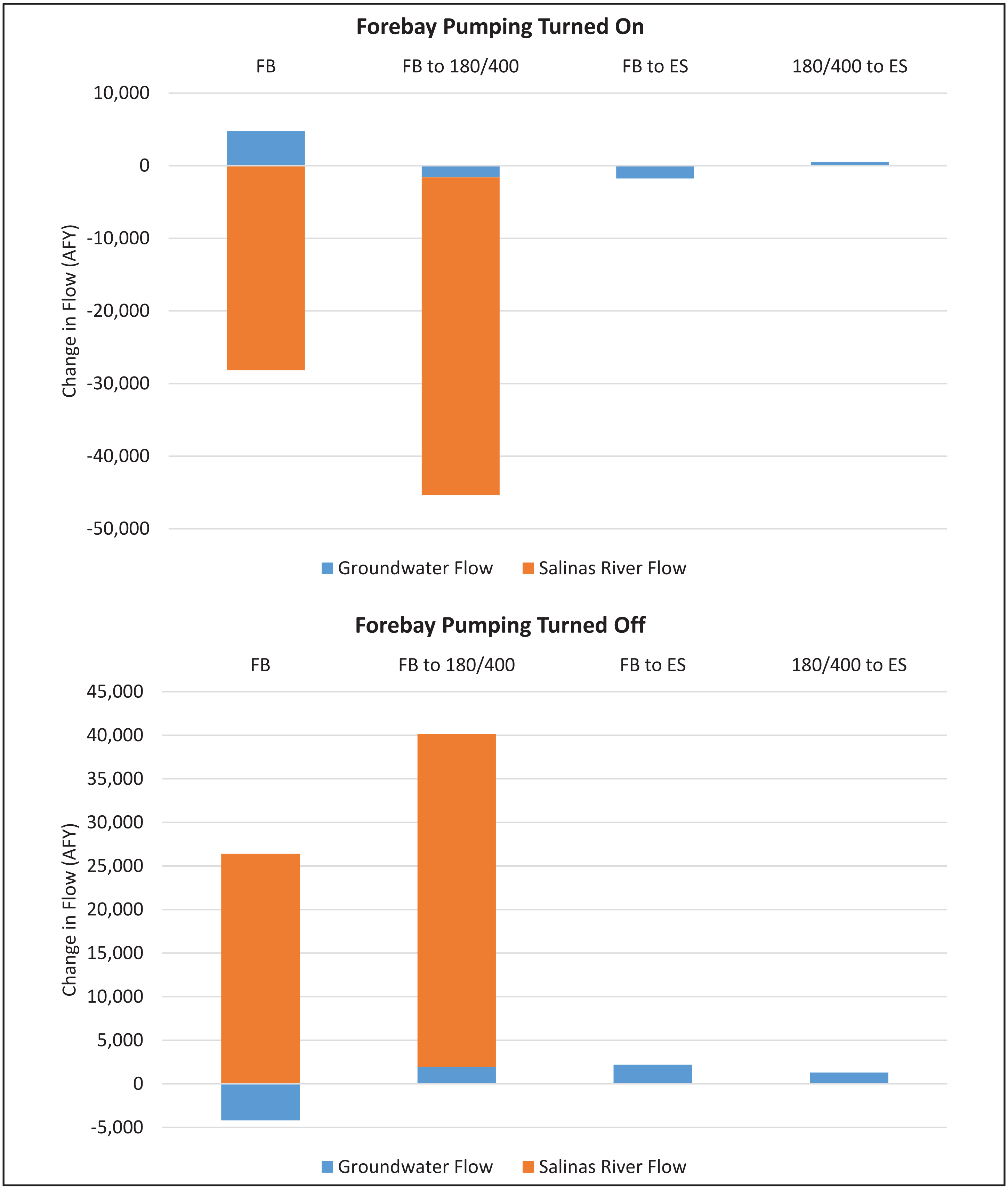
UV: Upper Valley Aquifer Subbasin
FB: Forebay Aquifer Subbasin
180/400: 180/400-Ft Aquifer Subbasin
ES: East Side Aquifer Subbasin
AFY: acre-feet per year

aquilogic, Inc.

Salinas Basin Water Alliance

Upper Valley Aquifer Subbasin Pumping Impacts on Other Subbasins

Date:1/4/2026	Project #: 018-09	**Figure 3**



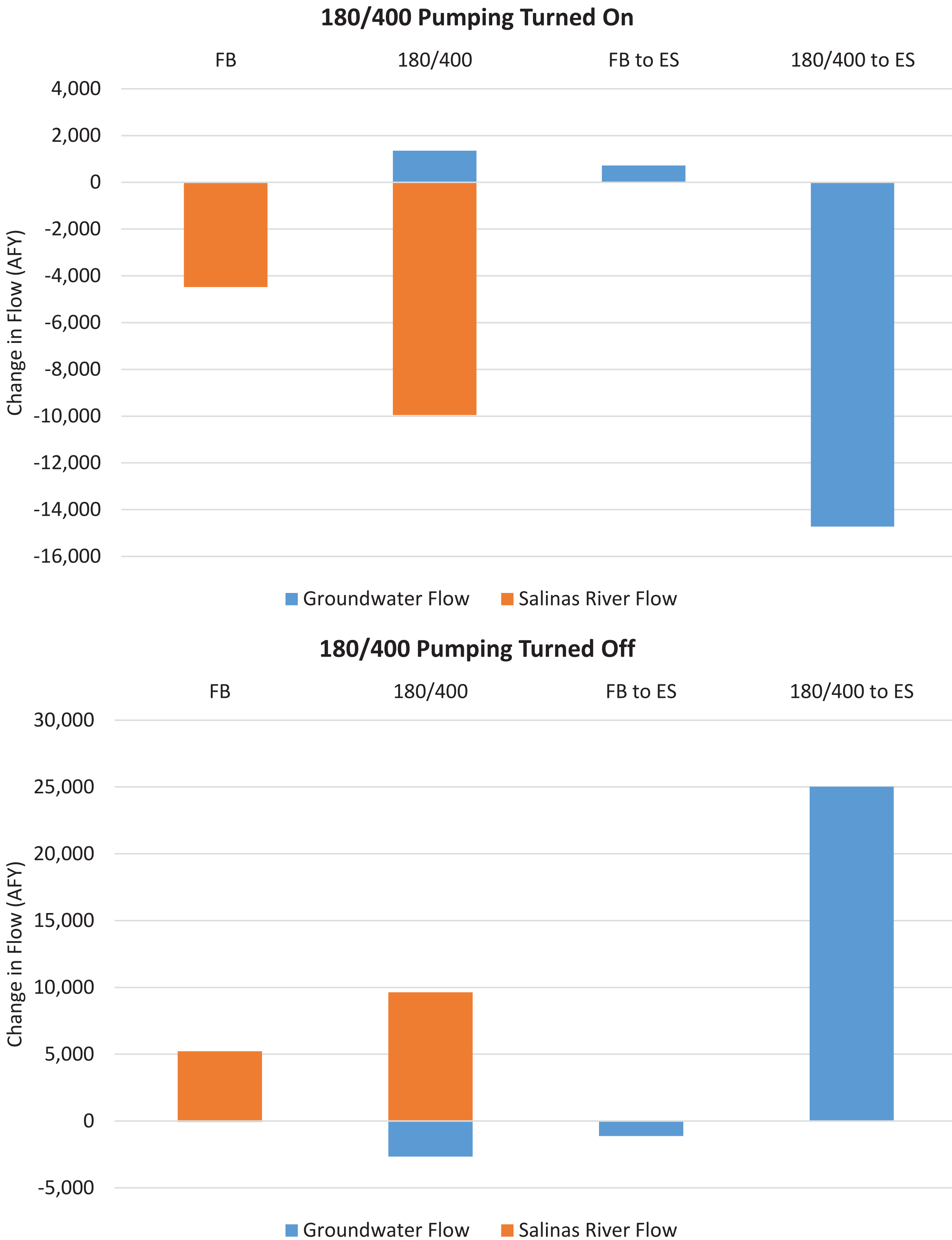
UV: Upper Valley Aquifer Subbasin
FB: Forebay Aquifer Subbasin
180/400: 180/400-Ft Aquifer Subbasin
ES: East Side Aquifer Subbasin
AFY: Acre-feet per year

aquilogic, Inc.

Salinas Basin Water Alliance

Forebay Aquifer Subbasin Pumping Impacts on Other Subbasins

Date:1/4/2026	Project #: 018-09	**Figure 4**



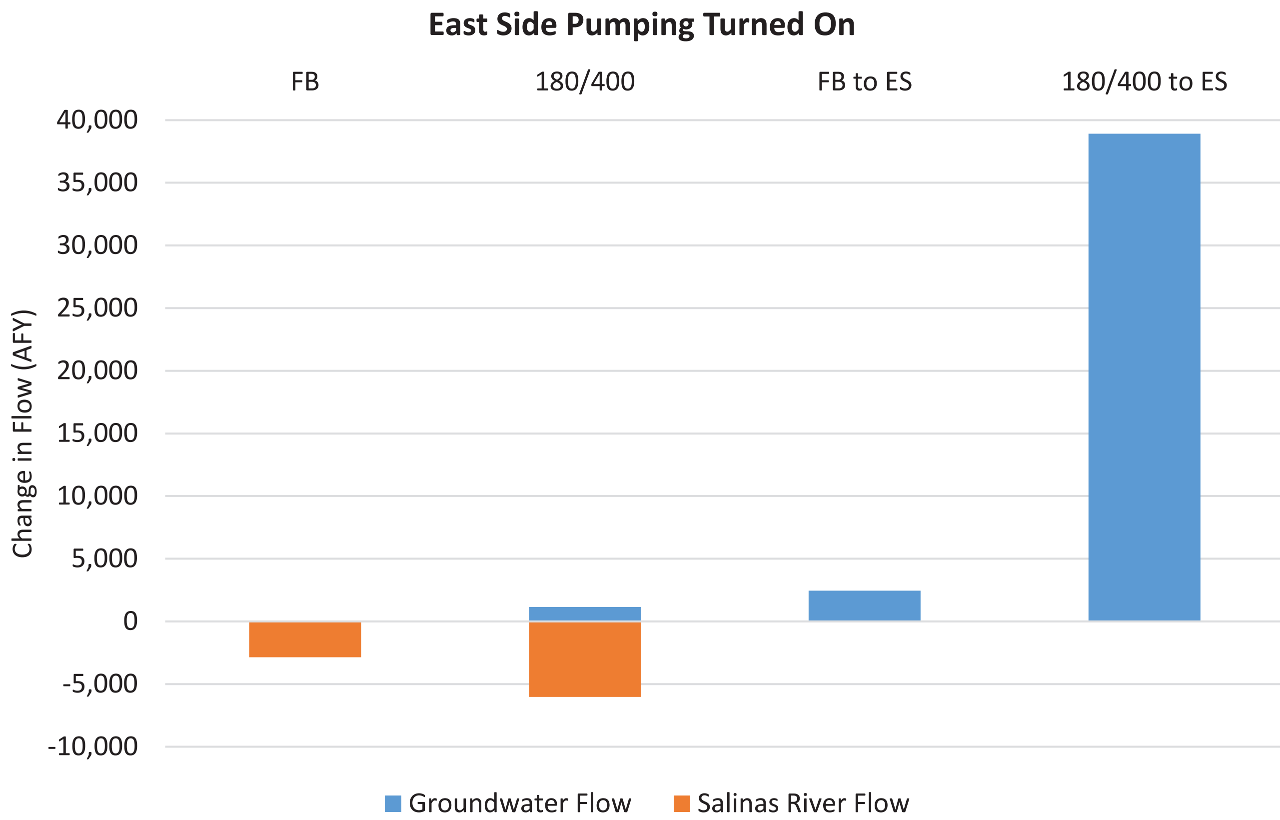
UV: Upper Valley Aquifer Subbasin
FB: Forebay Aquifer Subbasin
180/400: 180/400-Ft Aquifer Subbasin
ES: East Side Aquifer Subbasin
AFY: Acre-feet per year

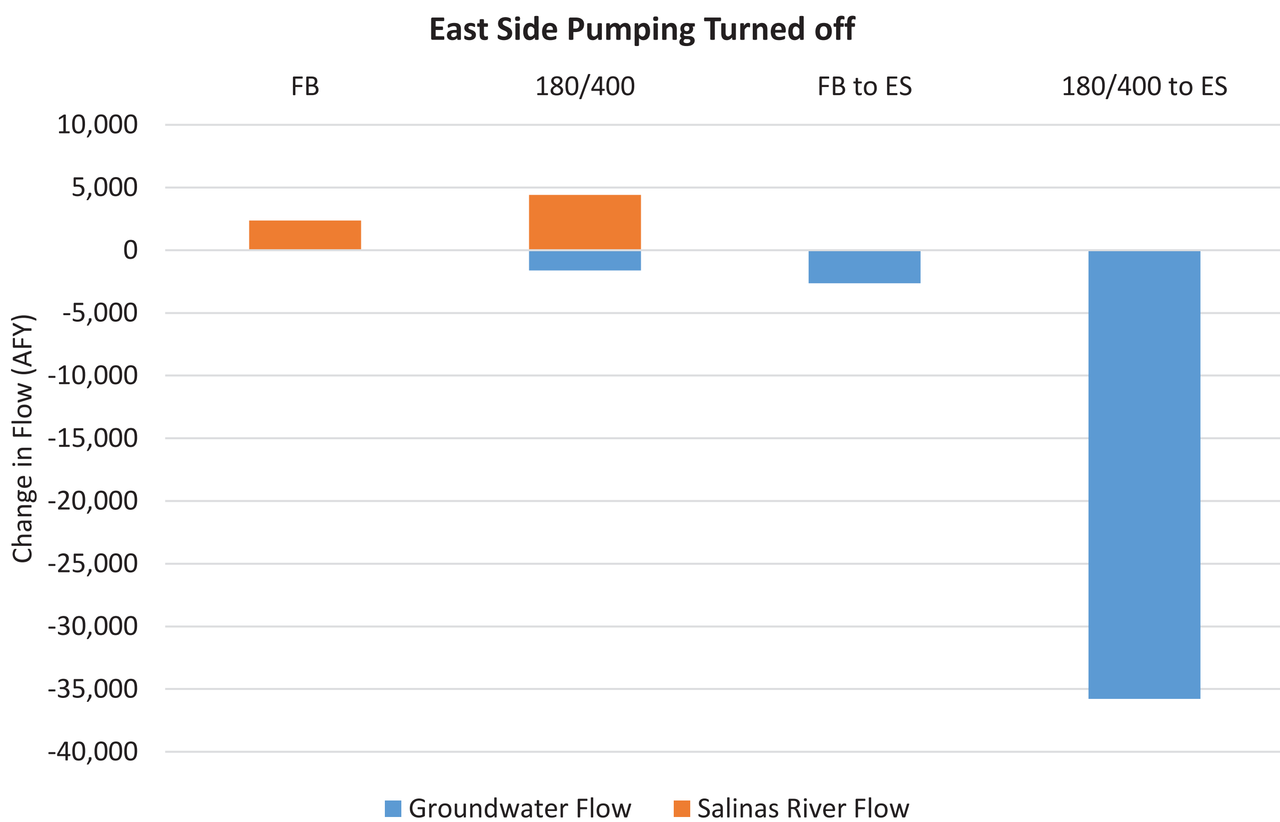
aquilogic, Inc.

Salinas Basin Water Alliance

180/400-Ft Aquifer Subbasin Pumping Impacts on Other Subbasins

Date:1/4/2026	Project #: 018-09	**Figure 5**





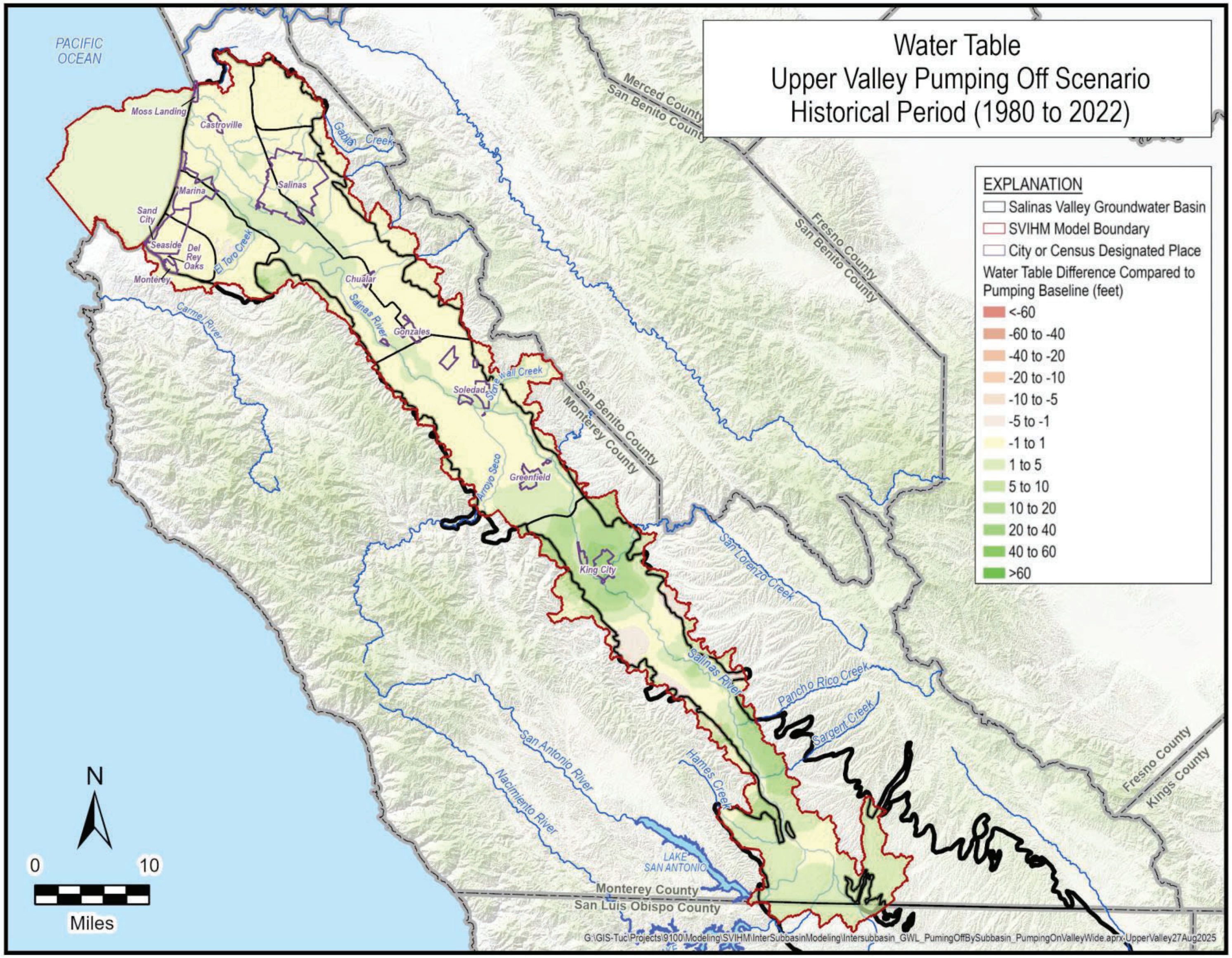
UV: Upper Valley Aquifer Subbasin
FB: Forebay Aquifer Subbasin
180/400: 180/400-Ft Aquifer Subbasin
ES: East Side Aquifer Subbasin
AFY: Acre-feet per year

aquilogic, Inc.

Salinas Basin Water Alliance

East Side Aquifer Subbasin Pumping Impacts on Other Subbasins

Date:1/4/2026	Project #: 018-09	**Figure 6**



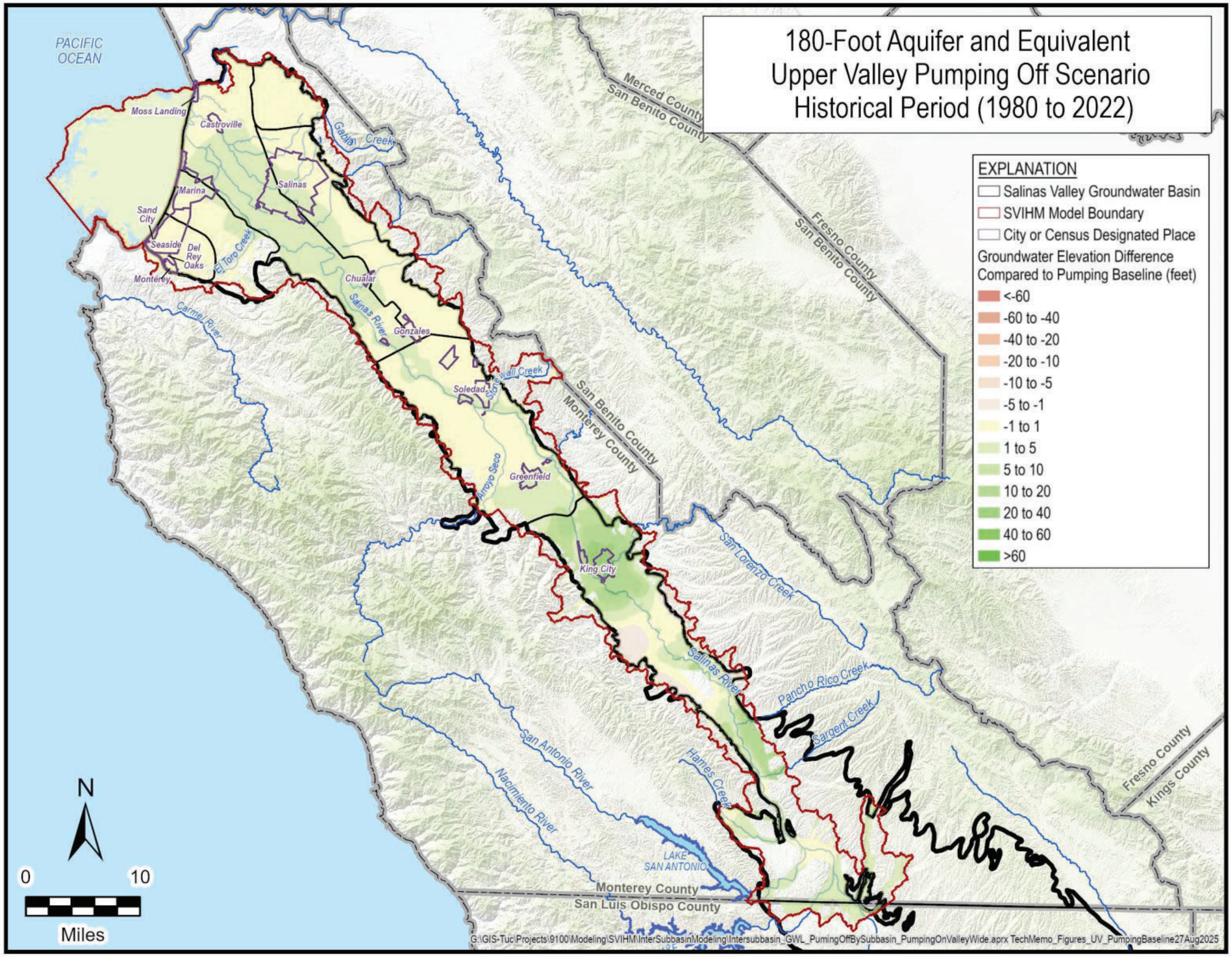
Average change in water table elevations.
From M&A (2025b). Results of Computer Modeling Agreement for the Salinas Valley Water Coalition (SVWC) and Salinas Basin Water Alliance (SBWA). Revised figures for draft memorandum prepared by Montgomery and Associates (M&A). August 22.

aquilogic, Inc.

Salinas Basin Water Alliance

Upper Valley Aquifer Subbasin Pumping Impacts on Other Subbasins

Date: 1/4/2026	Project #: 018-09	**Figure 7**



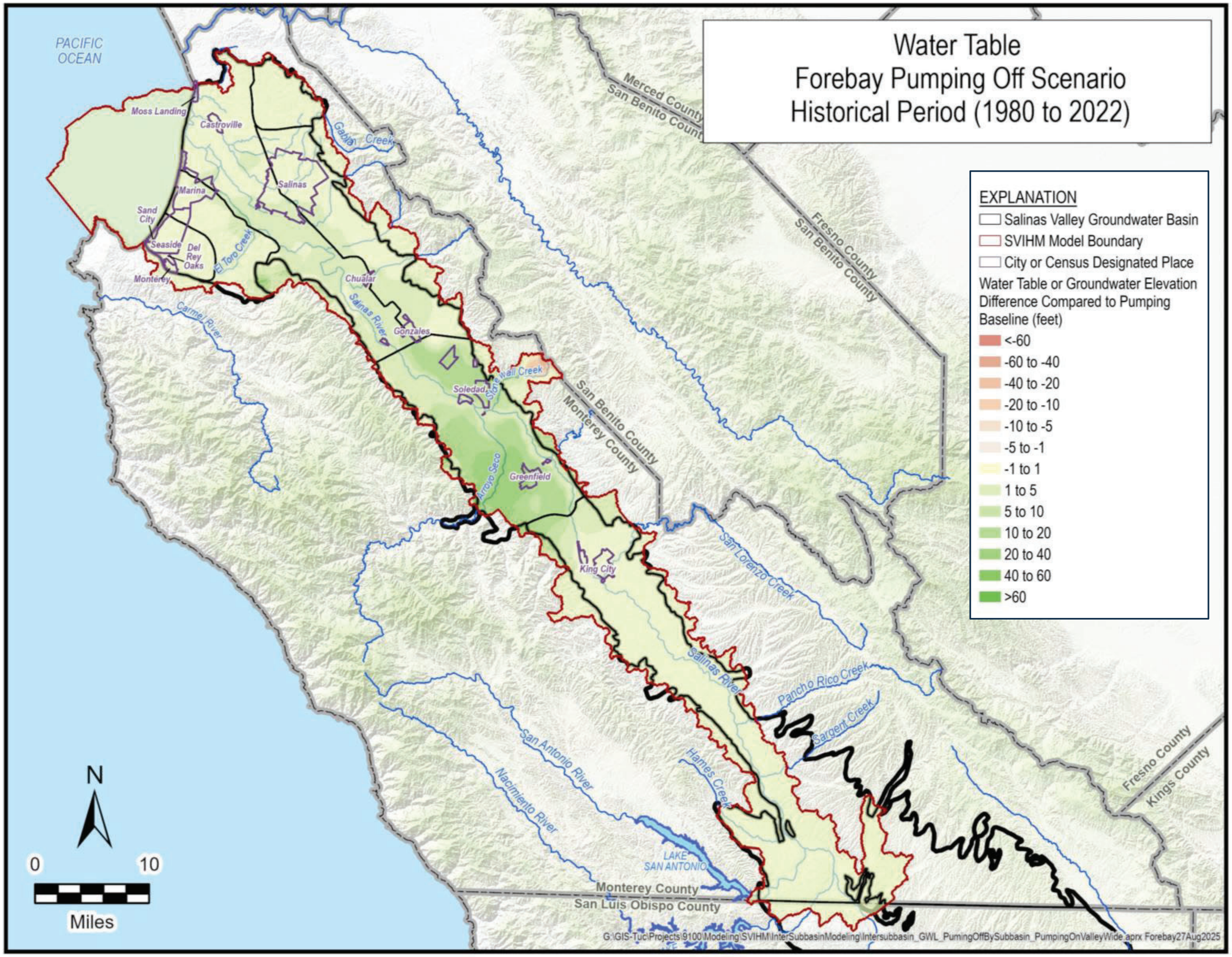
Average change in groundwater elevations in model layer 3 (180-Ft Aquifer and equivalent)
From M&A (2025b). Results of Computer Modeling Agreement for the Salinas Valley Water Coalition (SVWC) and Salinas Basin Water Alliance (SBWA). Appendix figures for draft memorandum prepared by Montgomery and Associates (M&A). August 22.

aquilogic, Inc.

Salinas Basin Water Alliance

Upper Valley Aquifer Subbasin Pumping Impacts on Other Subbasins

Date: 1/4/2026	Project #: 018-09	**Figure 8**

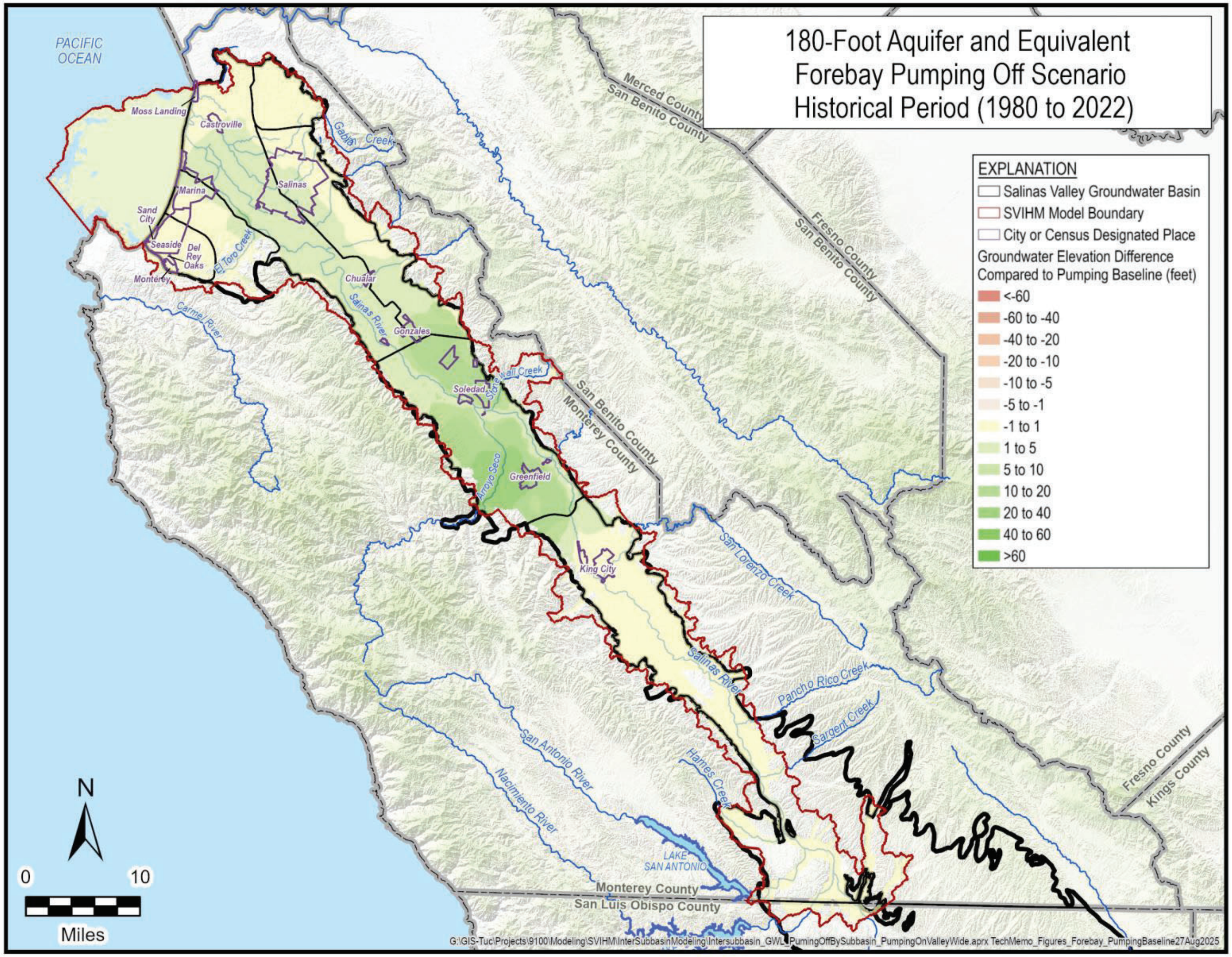


Average change in water table elevations.
From M&A (2025a). Results of Computer Modeling Agreement for the Salinas Valley Water Coalition (SVWC) and Salinas Basin Water Alliance (SBWA). Appendix figures for draft memorandum prepared by Montgomery and Associates (M&A). August 22.

aquilogic, Inc. | Salinas Basin Water Alliance

Forebay Aquifer Subbasin
Pumping Impacts on Other Subbasins

Date: 1/4/2026	Project #: 018-09	**Figure 9**



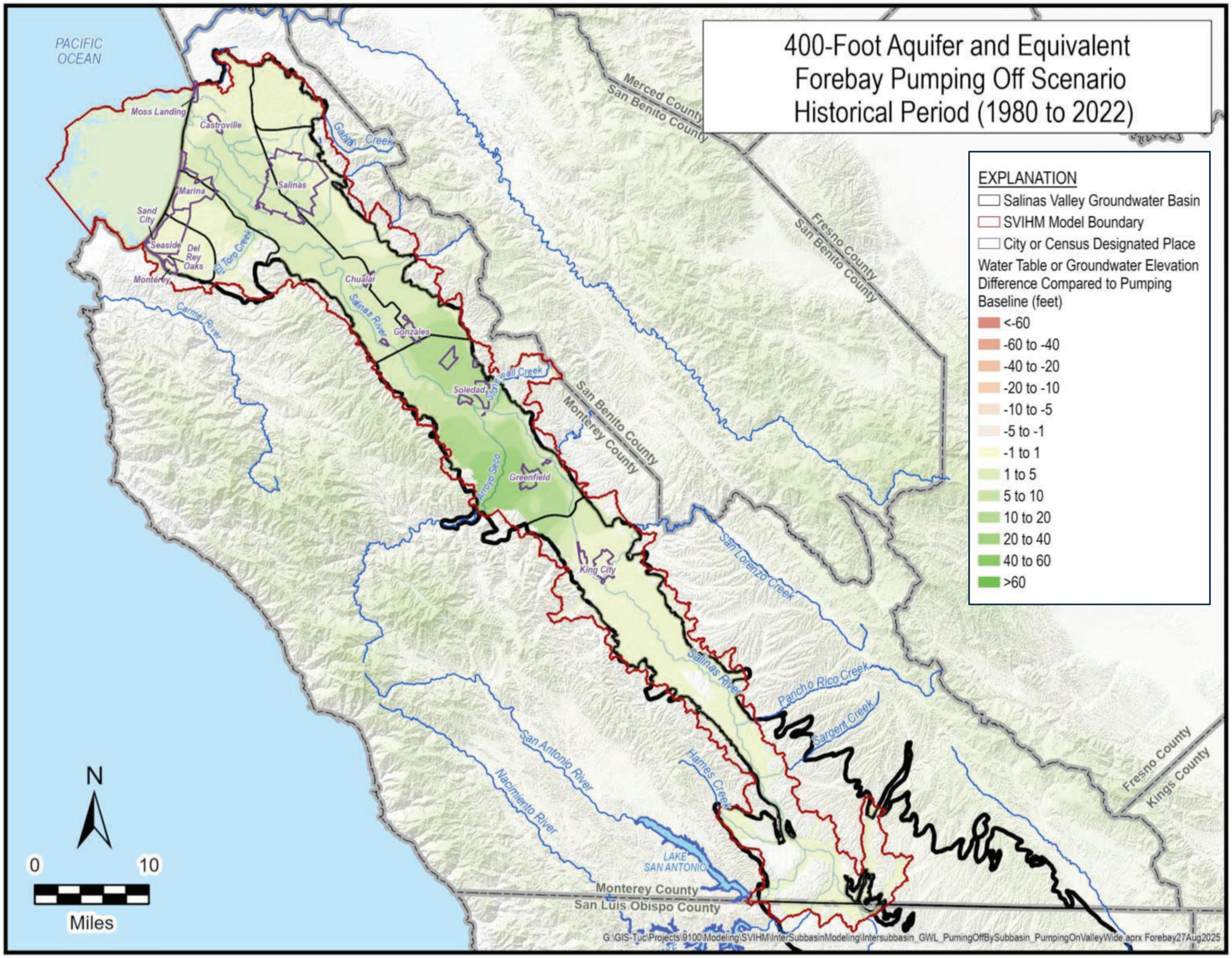
Average change in groundwater elevations in model layer 3 (180-Ft Aquifer and equivalent) *From* M&A (2025b). Results of Computer Modeling Agreement for the Salinas Valley Water Coalition (SVWC) and Salinas Basin Water Alliance (SBWA). Revised figures for draft memorandum prepared by Montgomery and Associates (M&A). August 22.

aquilogic, Inc.

Salinas Basin Water Alliance

Forebay Aquifer Subbasin Pumping Impacts on Other Subbasins

Date: 1/4/2026	Project #: 018-09	**Figure 10**



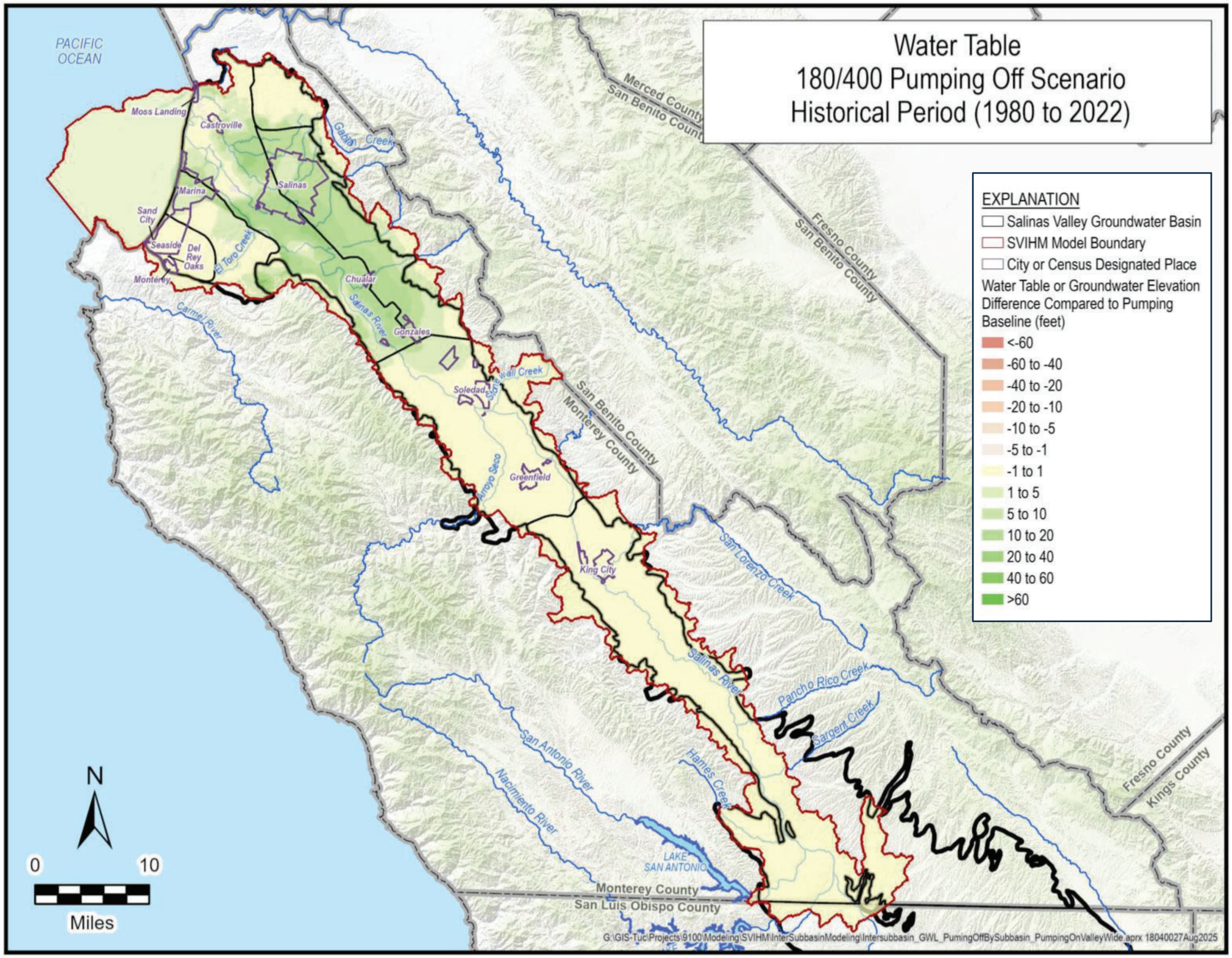
Average change in groundwater elevations in model layer 5 (400-Ft Aquifer and equivalent) *From* M&A (2025b). Results of Computer Modeling Agreement for the Salinas Valley Water Coalition (SVWC) and Salinas Basin Water Alliance (SBWA). Appendix figures for draft memorandum prepared by Montgomery and Associates (M&A). August 22.

aquilogic, Inc.

Salinas Basin Water Alliance

Forebay Aquifer Subbasin Pumping Impacts on Other Subbasins

Date: 1/4/2026	Project #: 018-09	**Figure 11**



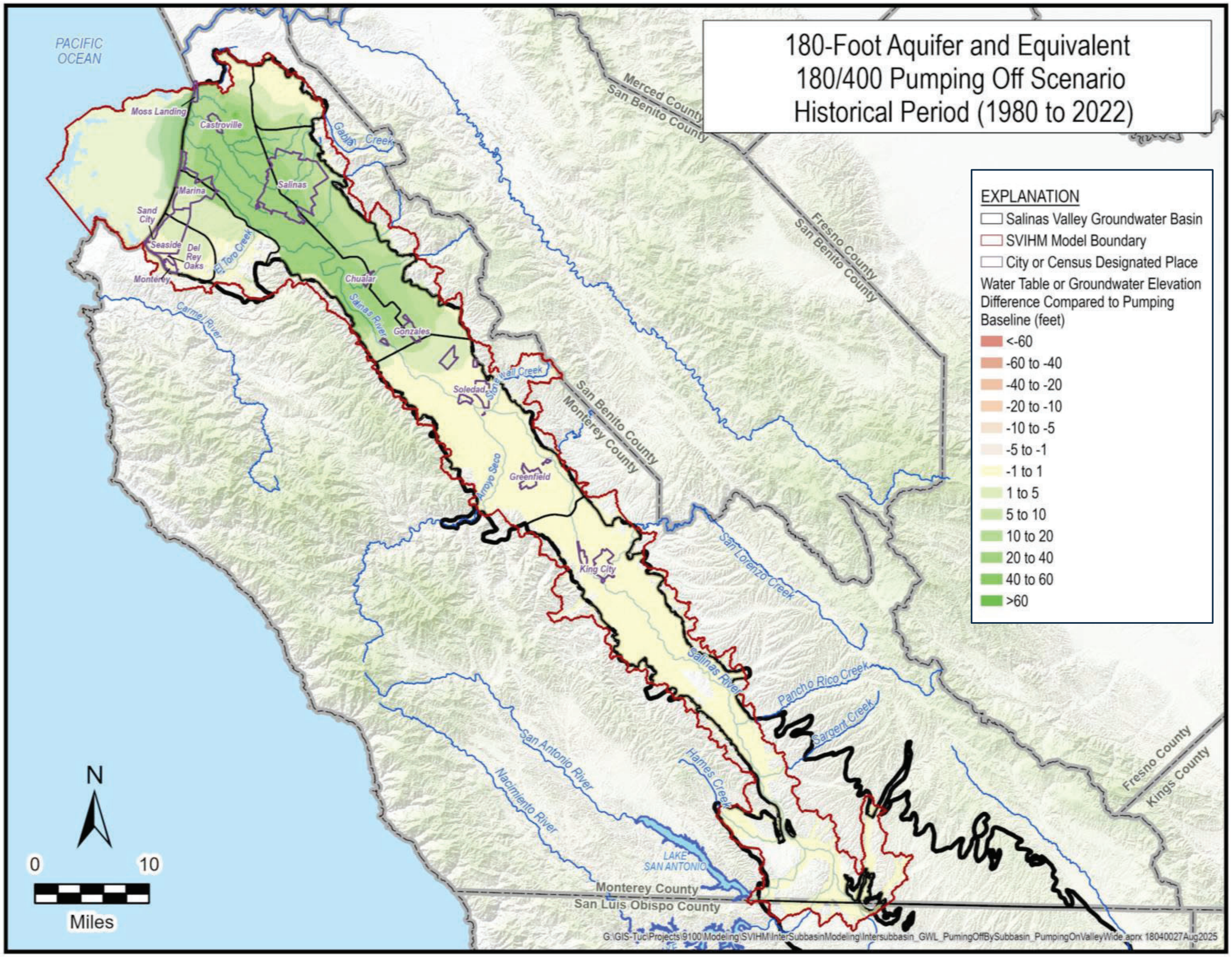
Average change in water table elevations.
From M&A (2025a). Results of Computer Modeling Agreement for the Salinas Valley Water Coalition (SVWC) and Salinas Basin Water Alliance (SBWA). Appendix figures for draft memorandum prepared by Montgomery and Associates (M&A). August 22.

aquilogic, Inc.

Salinas Basin Water Alliance

180/400-Ft Aquifer Subbasin Pumping Impacts on Other Subbasins

Date: 1/4/2026	Project #: 018-09	**Figure 12**



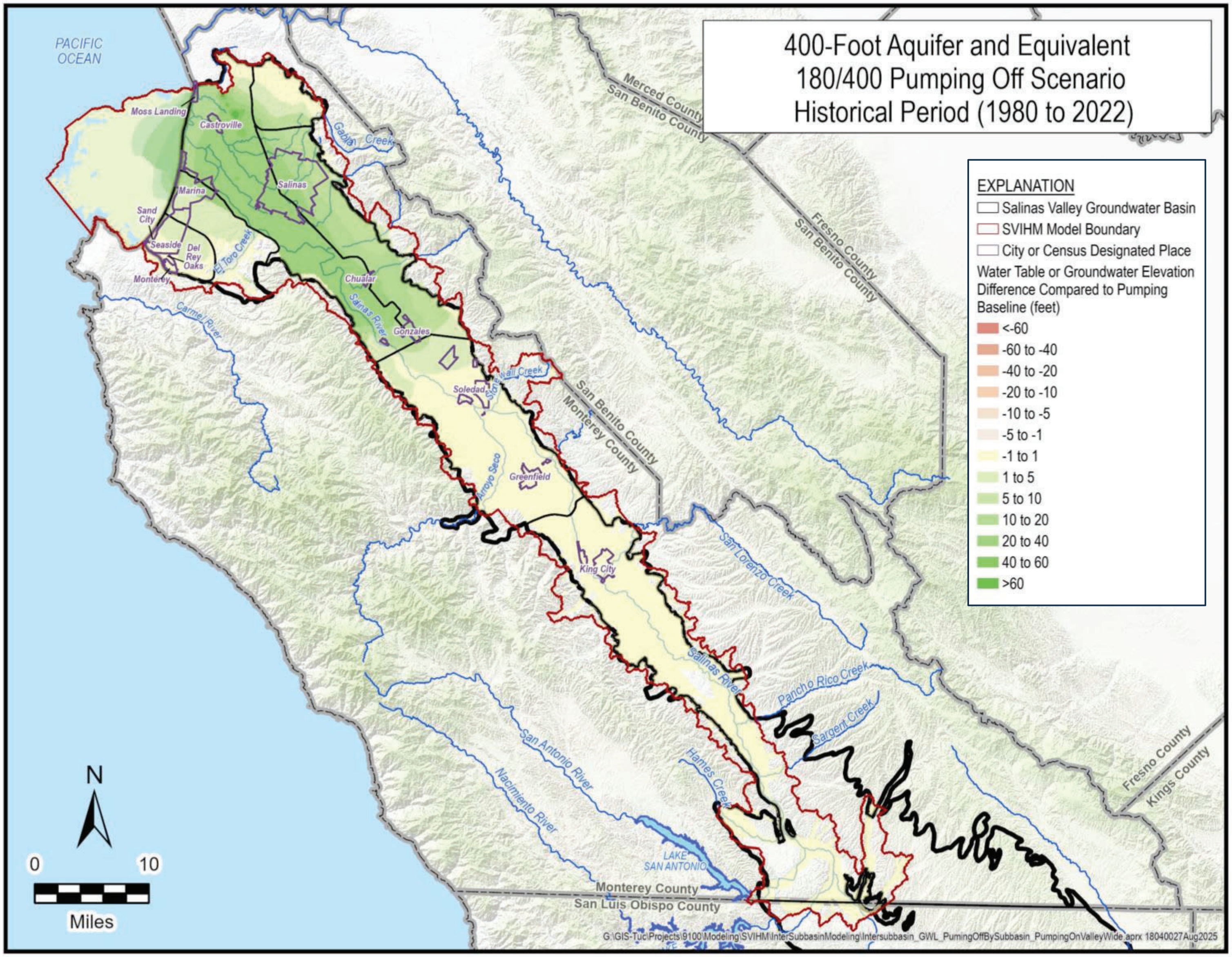
Average change in groundwater elevations in model layer 3 (180-Ft Aquifer and equivalent)
From M&A (2025b). Results of Computer Modeling Agreement for the Salinas Valley Water Coalition (SVWC) and Salinas Basin Water Alliance (SBWA). Revised figures for draft memorandum prepared by Montgomery and Associates (M&A). August 22.

aquilogic, Inc.

Salinas Basin Water Alliance

180/400-Ft Aquifer Subbasin Pumping Impacts on Other Subbasins

Date: 1/4/2026	Project #: 018-09	**Figure 13**



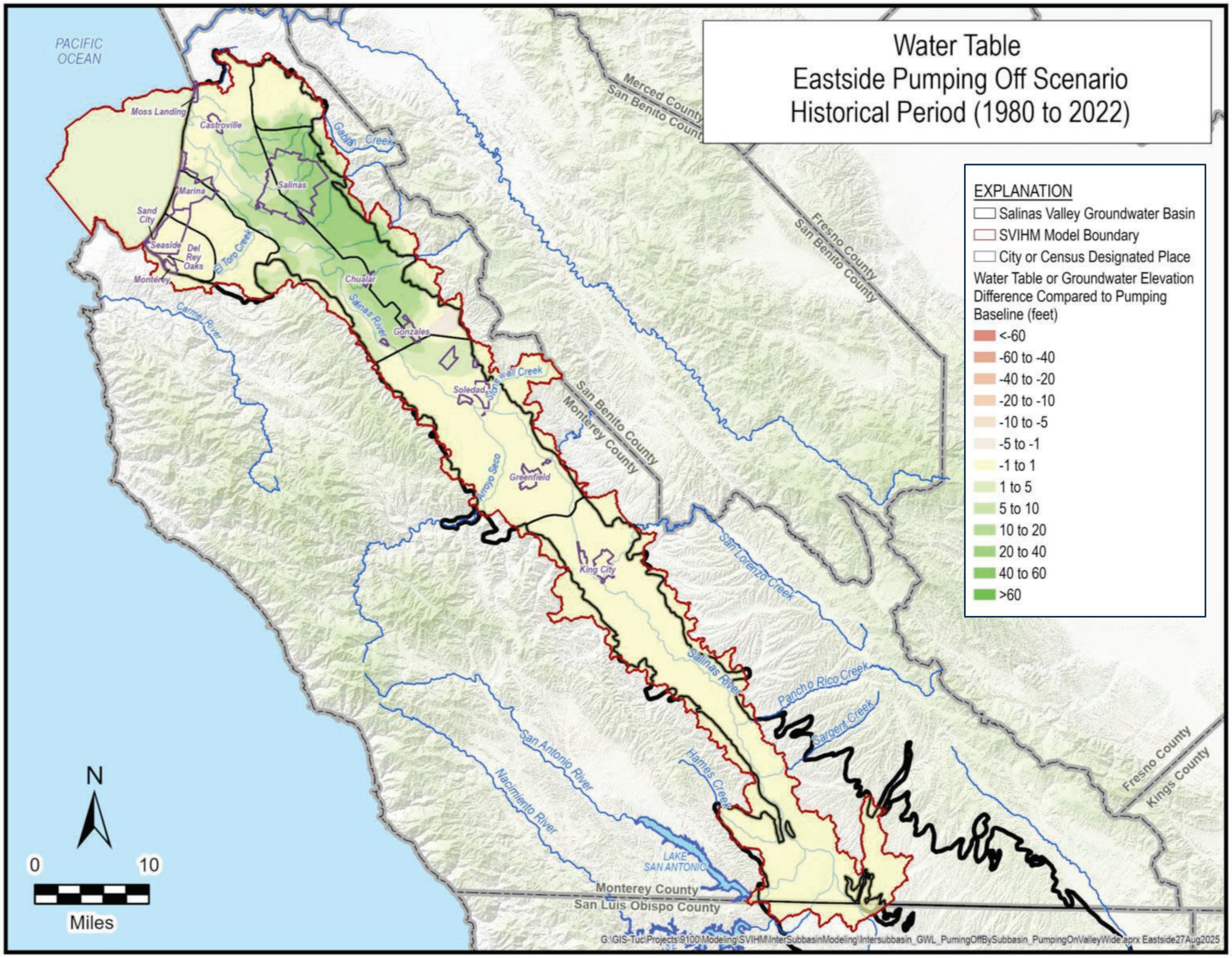
Average change in groundwater elevations in model layer 5 (400-Ft Aquifer and equivalent) *From* M&A (2025b). Results of Computer Modeling Agreement for the Salinas Valley Water Coalition (SVWC) and Salinas Basin Water Alliance (SBWA). Appendix figures for draft memorandum prepared by Montgomery and Associates (M&A). August 22.

aquilogic, Inc.

Salinas Basin Water Alliance

180/400-Ft Aquifer Subbasin Pumping Impacts on Other Subbasins

Date: 1/4/2026	Project #: 018-09	**Figure 14**



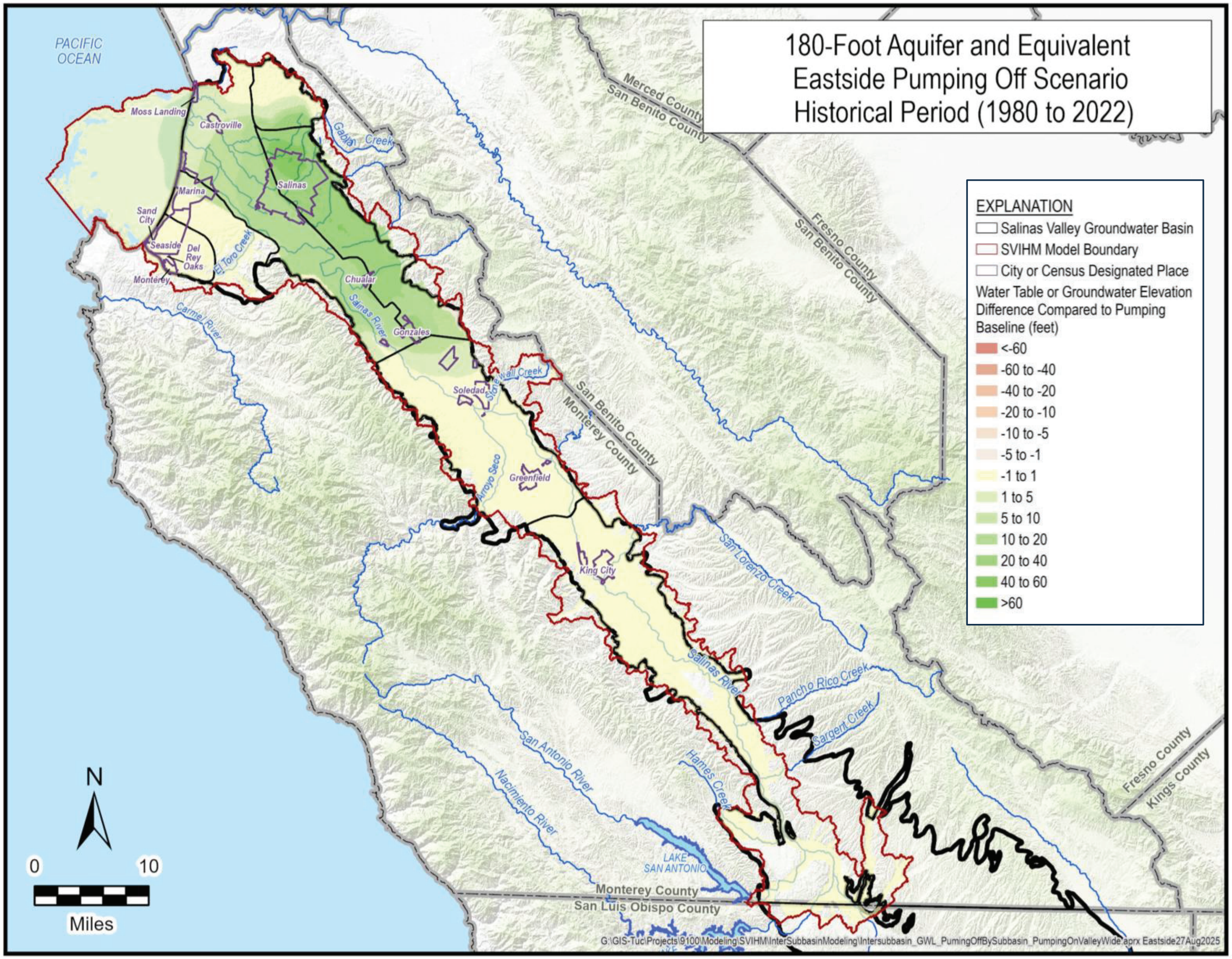
Average change in water table elevations.
From M&A (2025a). Results of Computer Modeling Agreement for the Salinas Valley Water Coalition (SVWC) and Salinas Basin Water Alliance (SBWA). Appendix figures for draft memorandum prepared by Montgomery and Associates (M&A). August 22.

aquilogic, Inc.

Salinas Basin Water Alliance

East Side Aquifer Subbasin Pumping Impacts on Other Subbasins

Date: 1/4/2026	Project #: 018-09	**Figure 15**



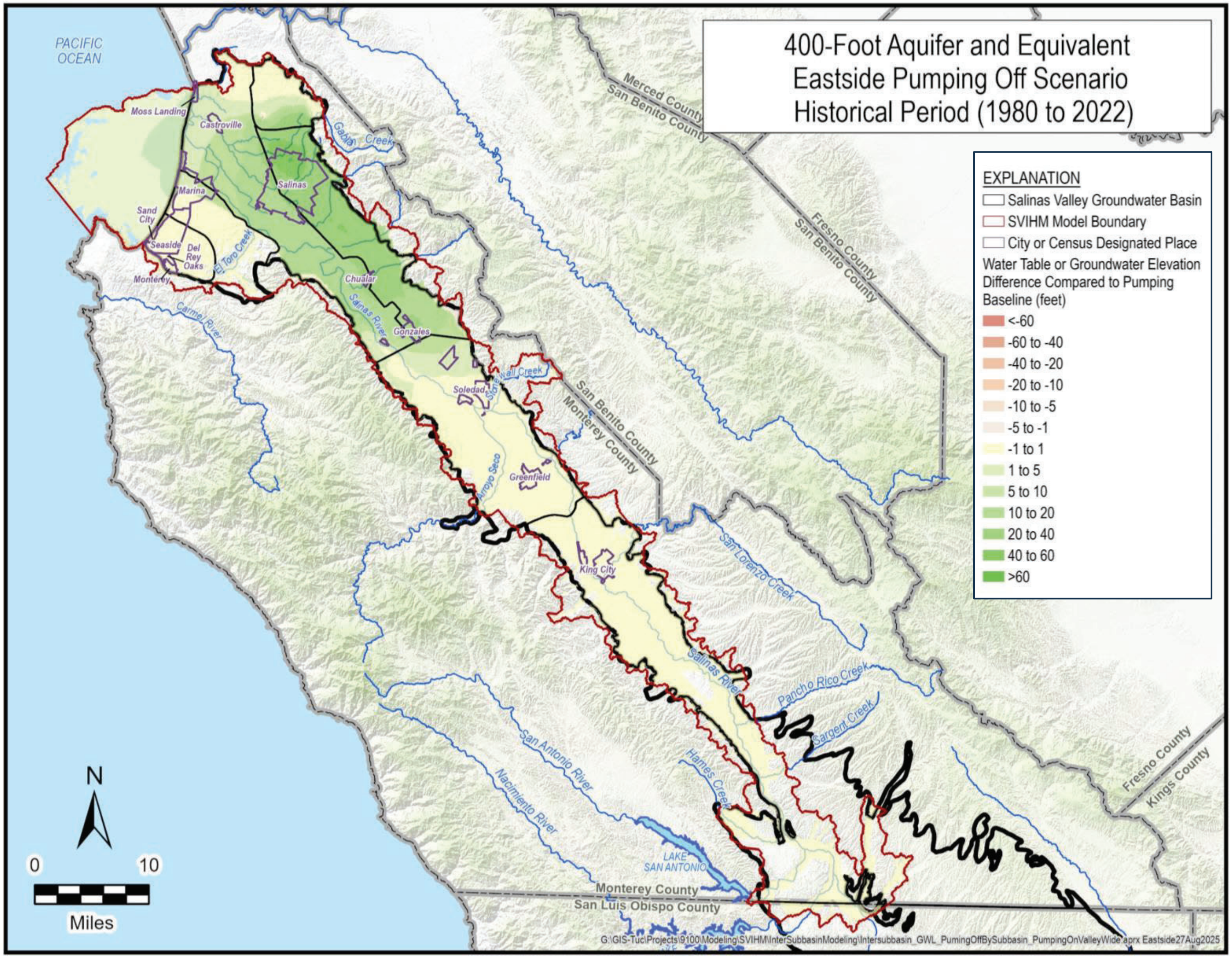
Average change in groundwater elevations in model layer 3 (180-Ft Aquifer and equivalent)
From M&A (2025b). Results of Computer Modeling Agreement for the Salinas Valley Water Coalition (SVWC) and Salinas Basin Water Alliance (SBWA). Revised figures for draft memorandum prepared by Montgomery and Associates (M&A). August 22.

aquilogic, Inc.

Salinas Basin Water Alliance

East Side Aquifer Subbasin Pumping Impacts on Other Subbasins

Date: 1/4/2026 | Project #: 018-09 | **Figure 16**



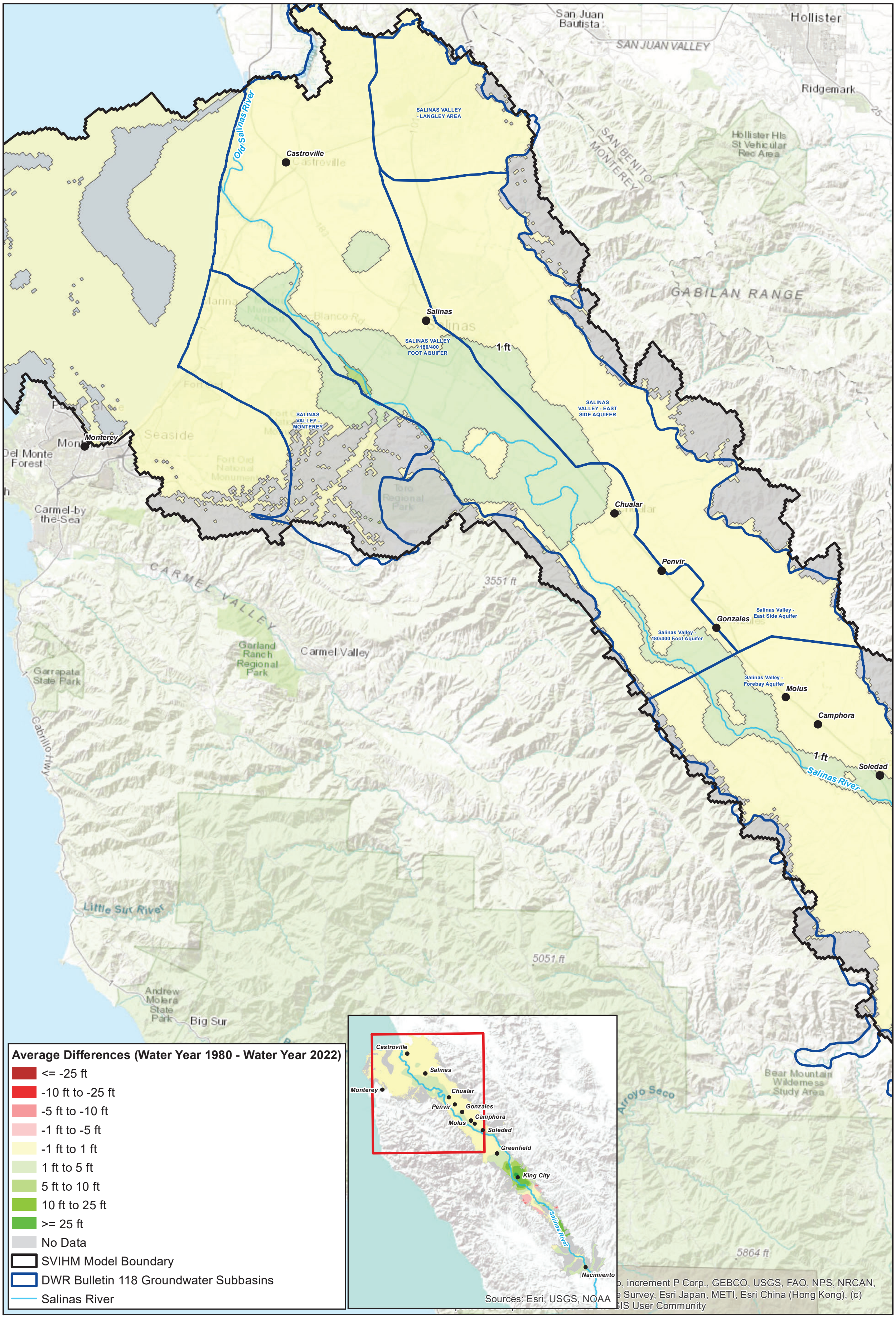
Average change in groundwater elevations in model layer 5 (400-Ft Aquifer and equivalent)
From M&A (2025b). Results of Computer Modeling Agreement for the Salinas Valley Water Coalition (SVWC) and Salinas Basin Water Alliance (SBWA). Appendix figures for draft memorandum prepared by Montgomery and Associates (M&A). August 22.

aquilogic, Inc.

Salinas Basin Water Alliance

East Side Aquifer Subbasin Pumping Impacts on Other Subbasins

Date: 1/4/2026	Project #: 018-09	**Figure 17**



Notes:
All locations approximate.

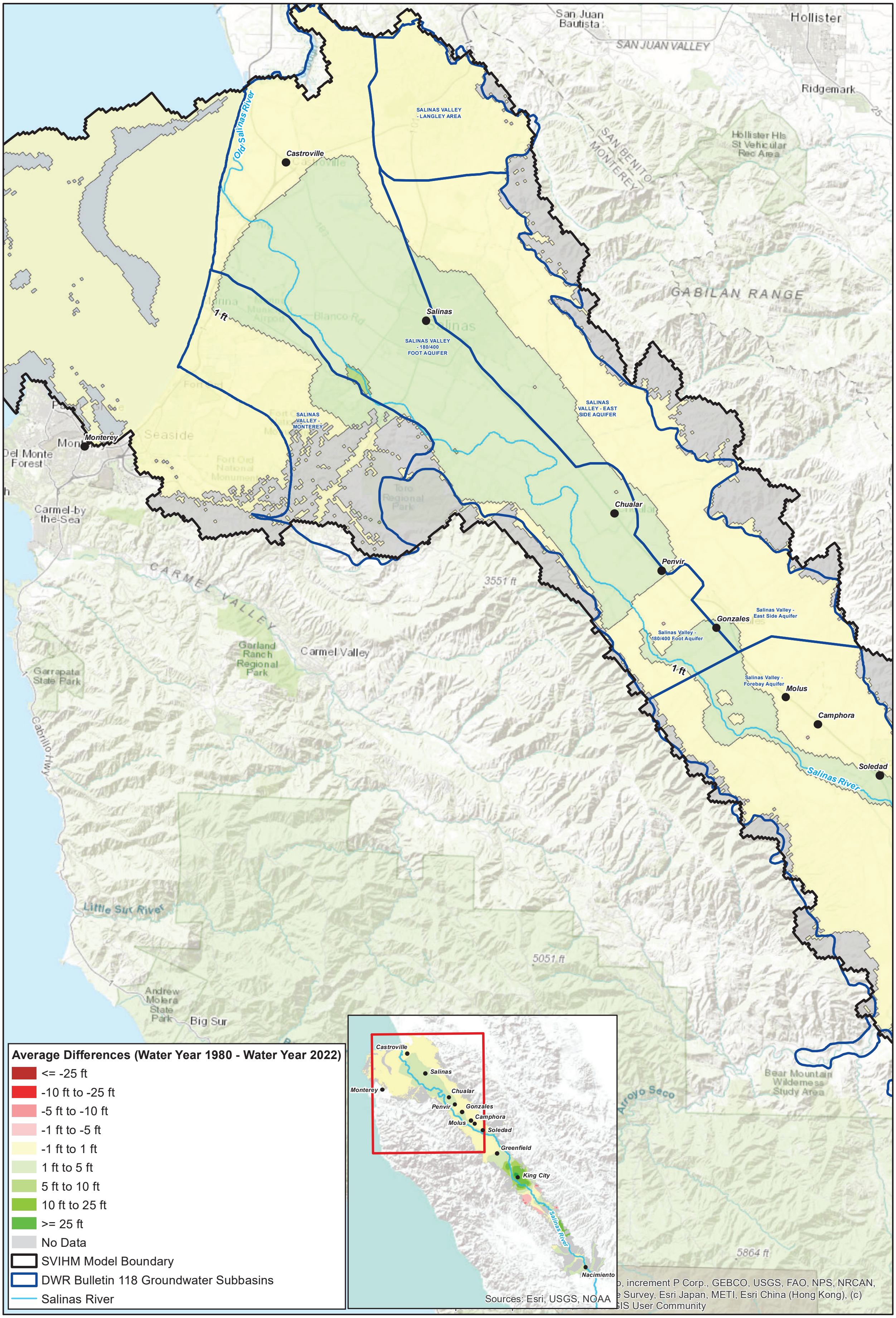
0 3.5
Miles

aquilogic, Inc.

BHFS - Salinas Basin Water Alliance

Upper Valley Pumping Off Scenario
Water Year 1980 - Water Year 2022
Layer 1 (Water Table)

Date: 1/3/2026 | Project #: 018-09 | **Figure 18a**



Notes:
All locations approximate.

0 3.5
Miles

aquilogic, Inc.

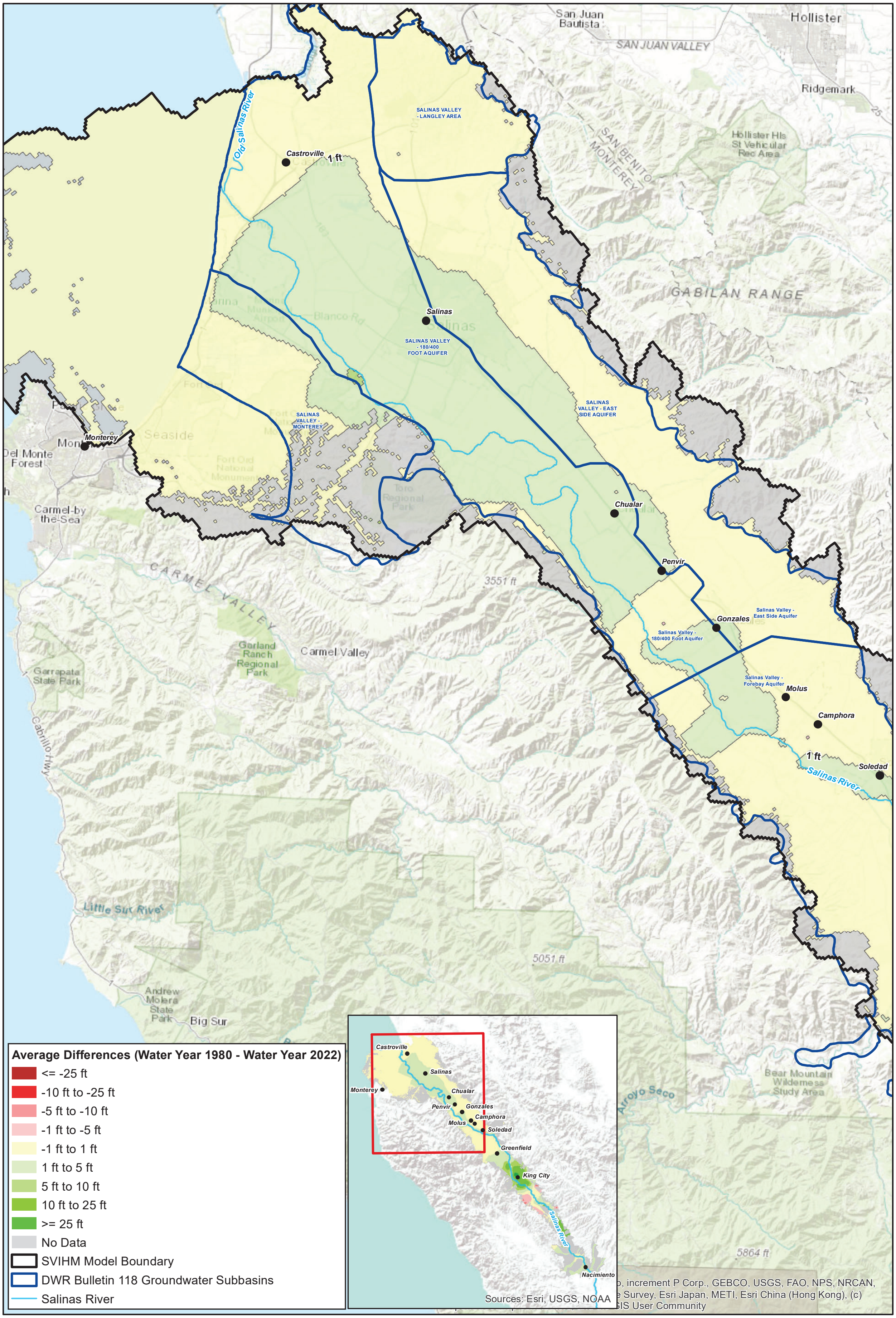
BHFS - Salinas Basin Water Alliance

Upper Valley Pumping Off Scenario
Water Year 1980 - Water Year 2022
Layer 3 (180-Ft Aquifer and Equivalent)

Date: 1/3/2026

Project #: 018-09

Figure 18b



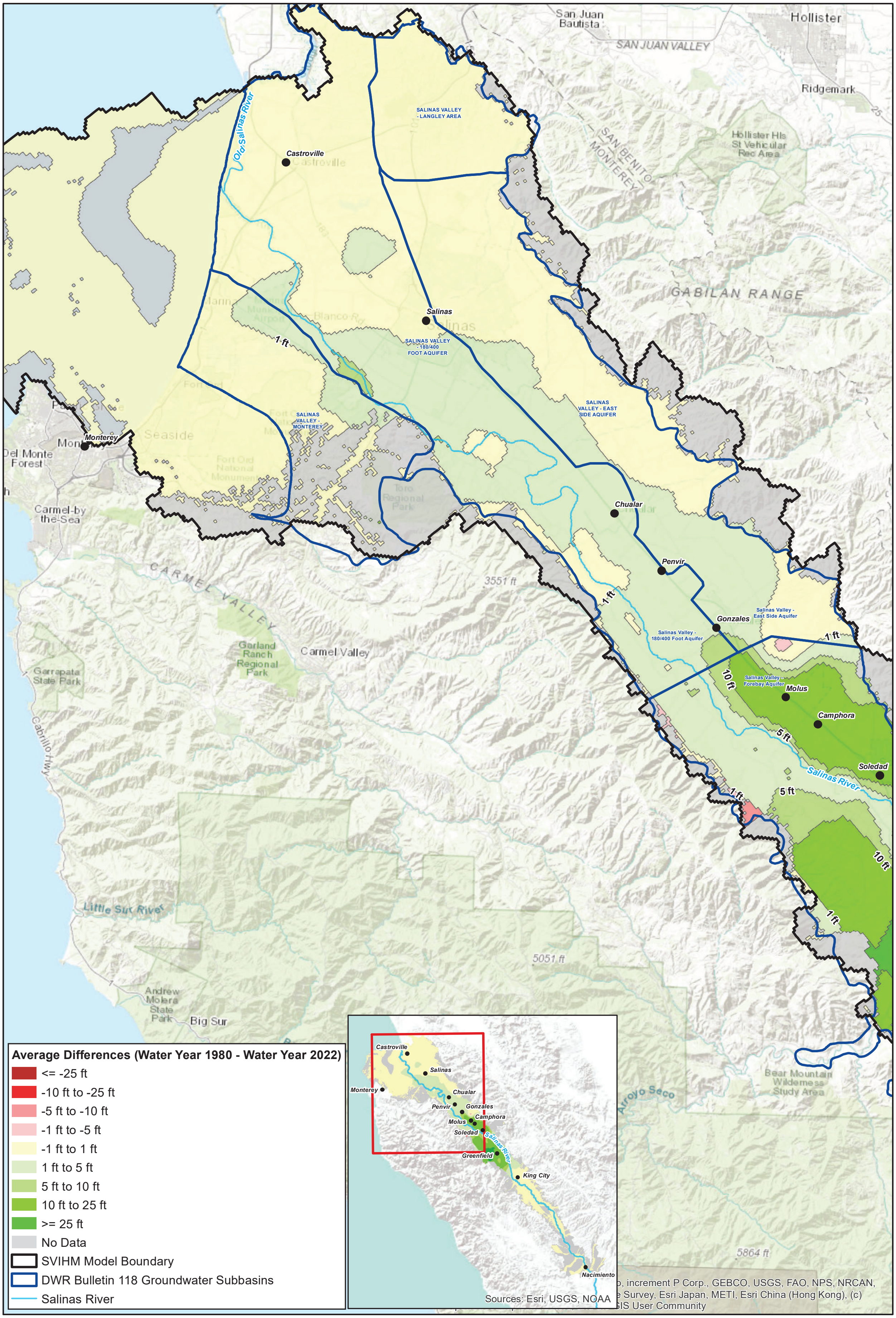
Notes:
All locations approximate.

0 3.5
Miles

aquilogic, Inc. BHFS - Salinas Basin Water Alliance

Upper Valley Pumping Off Scenario
Water Year 1980 - Water Year 2022
Layer 5 (400-Ft Aquifer and Equivalent)

Date: 1/3/2026 | Project #: 018-09 | **Figure 18c**



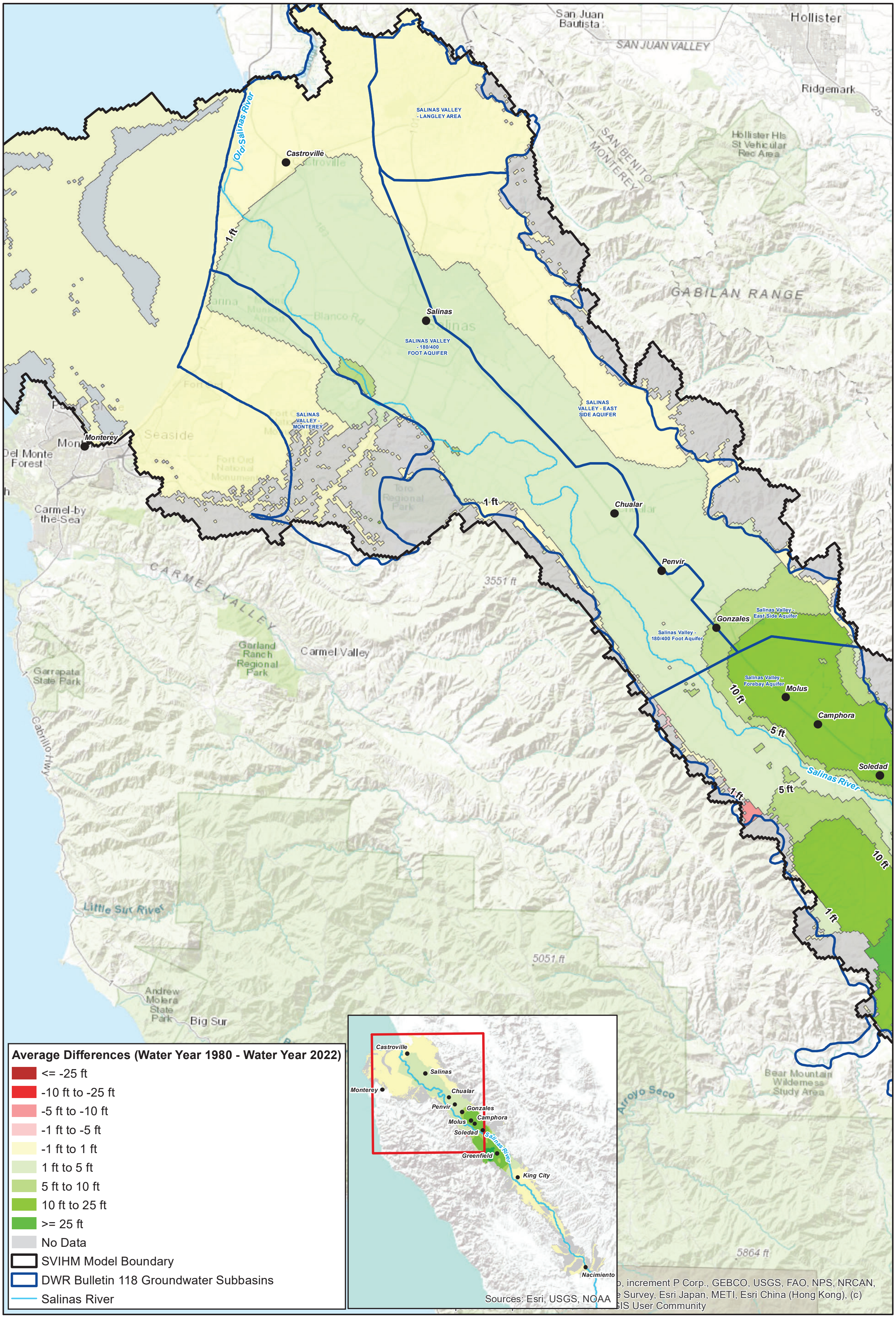
Notes:
All locations approximate.

aquilogic, Inc.

BHFS - Salinas Basin Water Alliance

Forebay Pumping Off Scenario
Water Year 1980 - Water Year 2022
Layer 1 (Water Table)

Date: 1/3/2026 | Project #: 018-0 | **Figure 19a**



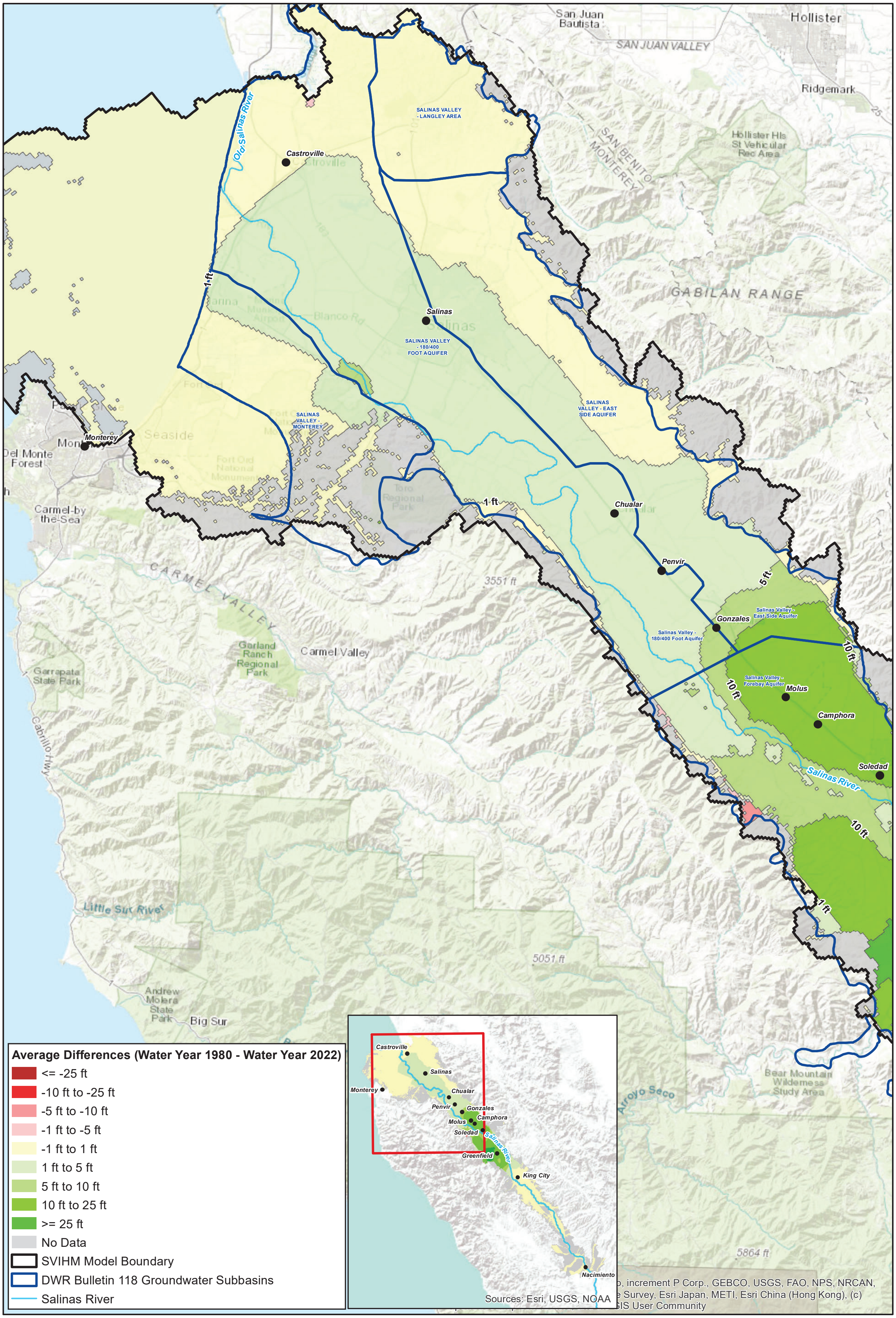
Notes:
All locations approximate.

0 3.5
Miles

aquilogic, Inc. BHFS - Salinas Basin Water Alliance

Forebay Pumping Off Scenario
Water Year 1980 - Water Year 2022
Layer 3 (180-Ft Aquifer and Equivalent)

Date: 1/3/2026 | Project #: 018-0 | **Figure 19b**



Notes:
All locations approximate.

0 3.5
Miles

aquilogic, Inc.

BHFS - Salinas Basin Water Alliance

Forebay Pumping Off Scenario
Water Year 1980 - Water Year 2022
Layer 5 (400-Ft Aquifer and Equivalent)

Date: 1/3/2026 | Project #: 018-0 | **Figure 19c**