Attachment A

(Phase 2 Direct Testimony of David J. Stoldt)

Decision 18-09-017 September 13, 2018

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of California-American Water Company (U210W) for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates.	Application 12-04-019

DECISION APPROVING A MODIFIED MONTEREY PENINSULA WATER SUPPLY PROJECT, ADOPTING SETTLEMENT AGREEMENTS, ISSUING CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND CERTIFYING COMBINED ENVIRONMENTAL REPORT

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4.2.1. Forecasts of Demand for the Monterey District

The Commission has a considerable record in this case of the parties' projections of demand for the Cal-Am system in Monterey. The assigned Commissioner and Administrative Law Judges recognized in 2017 that given the passage of time, positions of parties on issues of material fact may have changed during the course of this proceeding, and in 2017 asked parties to identify issues for further hearing.[39] When seeking input on the issues to consider within the scope of the most recent phase of this proceeding, the first issue identified was an update to estimates and analysis of demand.[40] Parties' initial demand projection

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[37] *See*, WD-15 at 4-5.

[38] SB 606 (Stats. 2018; ch. 14); AB 1668 (Stats. 2018; ch. 15). *See also*, Exhibit MNA-2, at 6, 8-9, and Attachments 1 and 2. The legislation establishes guidelines for statewide water efficiency standards to be in place by 2022. The guidelines include indoor water use goals, incentives for water suppliers to recycle water, and requiring water suppliers to set water budgets and prepare for drought. The Monterey District is already a leader in using water efficiently, minimizing both indoor and outdoor water use, using recycled water, setting water budgets, and preparing for drought. *See,* Exhibit CA-55 at 8-13.

[39] Administrative Law Judge's Ruling Requesting Parties to Identify Issues for Further Evidentiary Hearings, June 9, 2017.

[40] *See*, August 7, 2017 Assigned Commissioner and Administrative Law Judge's Ruling Setting Prehearing Conference and Identifying Issues for Further Hearings, August 7, 2017.

positions were widely divergent, and while their demand projection positions did narrow over the four years between hearings, they remain significantly apart.[41] The estimates of demand as of December 2017 range from 9,675 to 15,000 afy. No party estimated demand at a level that was equal to or less than the available supply (9,044 afy).[42]

Cal-Am averages the results of two methods to forecast annual system water demand in 2021 when the desalination plant is expected to be operational. First, Cal-Am uses an averaging process to arrive at a historical figure of 11,745 afy. Second, Cal-Am forecasts the system water demand based on population growth and a return to 2010-2013 per customer usage amounts attributing the per customer declines to conservation measures implemented during the drought from 2011-2015. That second method results in a forecasted demand figure of 12,971 afy in 2021. Cal-Am then averages the results of these two methods to arrive at its recommended 12,350 afy (rounded up) as normalized system demand. Finally, Cal-Am adds additional demand to account for new connections (lots of record) (1,180 afy), Pebble Beach (325 afy), and tourism bounce back (500 afy) to arrive at a total forecasted demand of 14,355 afy.[43]

City of Marina argues that the high prices paid by Cal-Am customers along with continuation of water conservation efforts will result in a total

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[41] *See, e.g.*, Exhibits CA-6, CA-51, MCD-1A, MCD-36A, PCL-1, SF-12, WD-5, WD-15. For other parties we could not identify recent, comprehensive projected demand figures, though some did provide comment on other parties' projections. *See, e.g.*, Opening Brief of the Office of Ratepayer Advocates, Dec. 15, 2017, at 3-7, Opening Brief of Monterey Regional Water Pollution Control Agency at 3, PTA-2A at 3-4, Opening Brief of Public Water Now, Dec. 15, 2017, at 2.

[42] Appendix B contains a chart summarizing the parties' position on available supply and projected demand.

[43] Exhibit CA-51 at 10-14.

forecasted demand of 10,599 afy.[44] City of Marina bases its projection on the most recent 10 year usage statistics, noting its downward trend, and arguing that the California Waterworks standards are not applicable as Cal-am already has sufficient capacity to meet other standards.[45] City of Marina uses the California Waterworks standards to calculate that Cal-Am is required to have sufficient capacity to meet an MDD of 60.48 acre-feet[46] and four hours of PHD totaling 15.12 acre-feet.[47] City of Marina further asserts that Cal-Am has sufficient supplies to meet this standard. City of Marina also argues that no additional demand should be included for tourism rebound,[48] and reduces the projected demand for legal lots of record by seventeen percent based on its belief that the estimate for legal lots of record water demand is outdated.[49] City of Marina asserts that the annual demand has dropped to around 9,300 afy and that an addition of 974 afy for legal lots of record and 325 afy for Pebble Beach result in a total forecasted demand of 10,599 afy.[50]

Marina Coast Water District argues that Cal-Am's demand projection is not reasonable as the system demand has declined over the past decade and that the Commission should use an average annual demand for providing service to

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[44] Exhibit MNA-2 at 3-13.

[45] Exhibit MNA-2 at 12-13.

[46] 22 C.C.R. § 64554(a).

[47] *Id.* at § 64554(a)(1).

[48] Exhibit MNA-2 at 10.

[49] Exhibit MNA-2 at 10. As noted above, one of the objectives of the MPWSP is to provide sufficient water supplies to serve existing vacant legal lots of record. *See*, D.11-03-048 authorizing Cal-Am to implement moratorium on new connections mandated in the 2009 CDO.

[50] Exhibit MNA-2 at 12, Table 2.

existing customers of 9,375 afy.[51] Marina Coast Water District cites D.09-07-021 at 22 to justify its methodology, stating "the consequences of overestimating" demand in a system with "stable or declining customer demand" can be "overbuilding resources that may never be used." Marina Coast Water District then argues the demand for future growth, including growth in lots of record and Pebble Beach development, should be estimated at no more than 925 afy altogether,[52] and that a reasonable conservative future growth estimate would be 300 afy.[53] Taken together, Marina Coast Water District argues that adding these low and high "bookends" of additional future demand to the current average demand of 9,375 afy results in a range of reasonable future demand between 9,675 and 10,300 afy.[54]

Monterey Peninsula Regional Water Authority argues that a round number estimate of 12,000 afy for existing demand should be used and that additional demand from legal lots of record, Pebble Beach, and future rebound of the hospitality sector should be about 2,000 afy for a combined total planning demand estimate of 14,000 afy.[55] Monterey Peninsula Regional Water Authority states that "reasonable water supply planning should anticipate that existing system demand is likely to rise to some extent during normal years," and that a projection of approximately 12,000 afy is "appropriately conservative and

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[51] Exhibit MCD-59 (based on Oct. 2014 to Sept. 2017 figures).

[52] Exhibit MCD-36A at 4-5, 10.

[53] Exhibit SF-12 at 6, 8-9.

[54] Marina Coast Water District's Opening Brief and Request for Oral Argument, Dec. 15, 2017, at 12.

[55] Exhibit RWA-27 at 6-8.

reasonable."[56] Monterey Peninsula Regional Water Authority argues that the MPWSP must be sized to meet maximum monthly demands and that its projection provides a 20% "contingency buffer" above recent drought year existing system demand. Monterey Peninsula Regional Water Authority states such a contingency is necessary "to accommodate potential fluctuations in demand, drought periods when other elements of Cal-Am's water supply portfolio may be diminished, or other unanticipated limitations on one or more facets of the Cal-Am supply."[57] Monterey Peninsula Regional Water Authority points out that the average demand for the eight year period between 2007 and 2014 was 12,454 afy, and that recent drought years with low demand should not drive the projection of future demand unreasonably low.[58] Monterey Peninsula Regional Water Authority argues that the Commission need not be precise in forecasting future demand, as

> [I]t would be an extreme disservice to the public interest if the project were undersized to meet future demands, requiring a new project to be permitted and constructed. Because the Monterey Peninsula is already one of the most efficient water use communities in the state, it is "drought hardened," and therefore, meaningful additional conservation will not be a reasonable option to accommodate an inaccurately low projection of future water demands within the system.[59]

Monterey Peninsula Regional Water Authority argues that even the most meager demand estimates require the additional water the MPWSP would

[56] Exhibit RWA-27 at 6-7.

[57] Exhibit RWA-27 at 7.

[58] Exhibit RWA-27 at 6.

[59] Exhibit RWA-27 at 7.

provide and that reducing the project size because a lower demand was used would not result in a large savings to customers. "In other words, small adjustments in project sizing are likely neither feasible nor economically merited."[60] Thus, projecting demand at any amount less than approximately 14,000 afy "presents unreasonable risk without commensurate public benefit."[61]

Monterey Peninsula Water Management District calls 10,400 afy "a reasonable estimate" of use by existing customers based on the most recent 5-year average demand for those customers.[62] Monterey Peninsula Water Management District states that while the near-term market absorption of housing stock will not be immediate, over the long term it believes the 1,181 afy estimate for legal lots of record is reasonable.[63] Monterey Peninsula Water Management District also states that the 325 afy for Pebble Beach remains a reasonable estimate and that it is a legal entitlement to the Pebble Beach Company.[64] Monterey Peninsula Water Management District argues to reduce the hospitality industry economic recovery addition to 250 afy as the conservation efforts have led to permanent demand reductions.[65] Monterey Peninsula Water Management District then adds an additional 303 afy to account for non-revenue water that is the result of system loss. It uses a 2.5% loss factor, excluding return flows, which is a factor lower than national averages.[66]

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[60] Exhibit RWA-27 at 7-8.

[61] Exhibit RWA-27 at 8.

[62] Exhibit WD-15 at 10-11.

[63] Exhibit WD-15 at 11-13.

[64] Exhibit WD-15 at 13-14.

[65] Exhibit WD-15 at 14.

[66] Exhibit WD-15 at 15.

Monterey Peninsula Water Management District also adds an additional 683 afy for "Salinas Valley Return Flows" calculated as 7% of source water.[67] Taken together, Monterey Peninsula Water Management District argues that 13,142 afy should be the district's updated demand estimate.[68]

The Planning and Conservation League Foundation, jointly with Sierra Club and LandWatch Monterey County, argues that demand is only 9,698 afy.[69] They argue that a good demand supply balance is comprised of 9,398 afy of use by existing customers based on the most recent 3-year average demand for existing customers,[70] and 300 afy of projected future growth.[71]

Surfrider argues that 10,635 afy is "a much more accurate, yet still conservative, estimate of future demand in Cal-Am's service territory."[72] Surfrider states its estimate is comprised of 10,085 afy for existing customers, 200 afy for Pebble Beach, and an additional 325 afy for growth and long term development in the remainder of Cal-Am's service territory.[73] Surfrider states that while it recommended using a three-year demand average to represent existing customer demand in its testimony,[74] a five-year average is more conservative as it does not over-emphasize the recent downward trend.

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[67] Exhibit WD-15 at 15.

[68] Exhibit WD-15 at 15.

[69] Opening Brief of Planning and Conservation League Foundation, Sierra Club and LandWatch Monterey County at 3-5.

[70] SF-12 at 5.

[71] SF-12 at 6, 8.

[72] Surfrider Foundation's Phase 1 Opening Brief, Dec. 15, 2017, at 4.

[73] Surfrider Foundation's Phase 1 Opening Brief at 6, 10.

[74] SF-12 at 5.

Surfrider asserts that the estimate of demand from existing customers in Cal-Am's service territory should be 10,085 afy.[75] Surfrider recommends reducing the additional demand allocated to Pebble Beach to 200 afy based on its interpretation of the testimony of Monterey Peninsula Water Management District witness David Stoldt that Pebble Beach build out would occur on existing lots of record and that Pebble Beach's 2012 environmental review envisioned only 147 afy of water needs.[76] Surfrider based its recommendation of 350 afy for growth and long term development on the Marina Coast Water District 2017 analysis of historical use of water allotments on the peninsula[77] along with an "additional buffer" to accommodate demand from future growth in Cal-Am's service territory.[78]

Coalition of Peninsula Businesses recommends using 15,000 afy as the estimated demand,[79] comprised of 13,000 afy for current peak demand, and 2,000 afy for growth attributable to the development of legal lots of record, Pebble Beach, and economic recovery of the tourism industry.[80] Coalition of Peninsula Businesses bases part of its additional need on its assertion that the "tourism industry intends to increase hotel occupancy by approximately 12 to 15 percent over the next two decades to re-attain the occupancy levels of decade ago."[81] The

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[75] Surfrider Foundation's Phase 1 Opening Brief at 6.

[76] Surfrider Foundation's Phase 1 Opening Brief at 18-19, *citing* RT Vol. 24 at 4191:21-23, 4206:11-20, WD-15 at 13.

[77] Exhibit SF-12 at Attachment A.

[78] Surfrider Foundation's Phase 1 Opening Brief at 21.

[79] Exhibit CPB-1A at 4.

[80] Exhibit CPB-1A at 5.

[81] Exhibit CPB-1A at 5. RT Vol. 23 at 3888, 3896, 3900.

remainder comes from Coalition of Peninsula Businesses' belief that it is simply a matter of fulfilling a legal obligation to the owners of the legal lots of record and Pebble Beach as the basis for its estimate for those figures.[82]

Water Plus "agrees with the long-term estimation" of 14,355 afy put forth by Cal-Am,[83] but disagrees with Cal-Am's 12,350 "short-term" demand estimate.[84] Water Plus argues that the short-term demand estimate fails to recognize the "marked[]" increase in costs that ratepayers have seen over the past decade and the impact that cost has had on demand.[85] Water Plus criticizes using the California Waterworks Standards found in 22 C.C.R. as "it applies to a steady state of water usage" when the Monterey District is in an environment of declining usage.[86] Water Plus attempts to chart the supply and demand of water with its analysis of cost "to determine the cost where supply and demand are equal."[87] Water Plus presents a range of figures based on its interpretation of potential costs to argue that the demand for water will be between 8,000 afy[88] and 11,000 afy.[89] Water Plus argues that if Cal-Am is required to pay for some of the hypothetical Pure Water Monterey (PWM) project expansion at its estimated cost, and purchase some water from Marina Coast Water District, the cost would

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[82] Exhibit CPB-1A at 5-6.

[83] Opening Brief of Water Plus, Dec. 15, 2017, at 3, 5 ("Water Plus has no quarrel with long-terms estimates of around 14,000 [afy]").

[84] Opening Brief of Water Plus at 3.

[85] Opening Brief of Water Plus at 3.

[86] Opening Brief of Water Plus at 3.

[87] Opening Brief of Water Plus at 4.

[88] Opening Brief of Water Plus at 4, Reply Brief of Water Plus at 6.

[89] Opening Brief of Water Plus at 6.

be $5,348 per acre-foot, which would correspond to a demand of 9,800 afy "at the point where the curves cross."[90]

[90] Opening Brief of Water Plus at 4-7 and Appendix 1.

[91] Cal-Am's has an adjudicated right to 1,474 afy from the Seaside Groundwater Basin. *See, Cal-Am v. City of Seaside et al.*, Super. Ct. Monterey County, 2006, No. M66343. However, Cal-Am must also repay the Seaside Basin for overdrafts and has therefore assumed a reduction of supply of 700 afy over 25 years, resulting in a net supply available to Cal-Am of 774 afy from the Seaside Groundwater Basin.

[92] While we include 3,500 afy from the PWM project in our supply projection, that project is currently under construction and water supply delivery has not yet begun; the promised reliability of the supply remains to be seen. *See*, Opening Comments of Monterey Regional Water Pollution Control Agency at 1-2; *see also,* D.16-09-021.

[93] *See, e.g.*, Exhibit CA-51 at 14, Exhibit MNA-2 at 14, Exhibit MCD-36A at 9-10, Exhibit RWA-27 at 6-7, Exhibit WD-15 at 16, Opening Brief of Planning and Conservation League Foundation, Sierra Club and LandWatch Monterey County at 6, Exhibit SF-12 at 6, Exhibit WP-9 at 18.

[94] *E.g.*, Exhibit MNA-2 at 14, Exhibit MCD-36A at 9-10,

4.4. Sizing of the Monterey Peninsula Water Supply Project in Light of Water Supply Shortfall.

Cal-Am in its initial application requested that the Commission authorize either a 9.0 or 5.4 mgd desalination plant and related facilities.[125] Pursuant to a February 22, 2016 ruling of the assigned Commissioner,[126] Cal-Am filed an amended application on March 14, 2016 that included an updated project description with new proposed production capacity volumes for the desalination plant. The updated "production capacity of the proposed MPWSP desalination plant is 9.6 million gallons per day (mgd)." This same document also describes the MPWSP as including "a variation of the proposed action that combines a reduced capacity desalination plant [6.4 mgd] with water purchase agreement for 3,500 afy product water from the Monterey Regional Water Pollution Control Agency."[127] D.16-09-021 authorized Cal-Am to enter into the water purchase agreement for 3,500 afy product water from Monterey One Water.[128]

For the reasons stated below, we conclude Cal-Am should be granted a CPCN to construct and operate the MPWSP variation with the 6.4 mgd reduced capacity desalination plant[129] to meet reasonable demand (e.g., existing

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[125] Application of Cal-Am for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates, filed April 23, 2012, at 7.

[126] Assigned Commissioner's Ruling Directing Cal-Am Water Company to Amend Application with New Project Description issued February 22, 2016.

[127] Appendix H attached to Amended Application of Cal-Am Water Company, filed March 14, 2016, at 1.

[128] *See*, Section 1.3 above, The Monterey Regional Water Pollution Control Agency has been renamed Monterey One Water.

[129] All references to the MPWSP in this decision refer to the 6.4 reduced capacity desalination plant unless otherwise stated. This decision adopts the 6.4 reduced capacity desalination plant and rejects the 9.6 production capacity desalination plant.

customers, lots of record, Pebble Beach, tourism rebound), provide a reliable and secure supply, include a reasonable "buffer" against uncertainties, satisfy all other reasonable needs, and ensure that Cal-Am remains within its legal water rights as to its diversions from the Carmel River in response to the CDO issued by the State Water Resources Control Board as well as other constrained water supply sources such as the Seaside Basin. The Commission evaluated all of the evidence presented along with the arguments of the parties and determines that Cal-Am's water supply portfolio will not provide sufficient water to its customers after December 31, 2021, absent a new source of supply,[130] and the MPWSP is the most reasonable solution to provide that supply. Based on the evidence presented in support of the project, when weighed with that opposed to it, the supporting evidence has more convincing force and the greater probability of truth.

None of the intervenors present demand forecasts that are equal to or less than the supply (9,044 afy) that will be available to Cal-Am at the end of 2021. Marina Coast Water District, City of Marina, and Surfrider all present demand projections around 10,300-10-700 afy, and Planning and Conservation League Foundation provides the lowest projection of 9,698 afy (Marina Coast Water District's lower bound uses Planning and Conservation League Foundation's growth forecast to arrive at a similar figure).[131] Water Plus's proposed range between 8,000 and 11,000 afy is both overly broad and lacks analysis of the

[130] RT Vol. 22 at 3794 ("Cal-Am has an explicit legal right to 3,376 acre-feet per year. They are currently drawing about 8,500 acre-feet per year. And it means we need to get about 5,000 acre-feet from another source to get off the Carmel River. It's just that simple.")

[131] *See,* Appendix B; Marina Coast Water District's Opening Brief and Request for Oral Argument at 11.

standards and requirements needed for the system to be considered reliable for our purposes. Water Plus's selection of 9,800 afy as the intersection of supply and demand relies on assumptions of supply and costs that fail to reasonably include all necessary elements (e.g., variations in population growth or economic growth, and the need for a reasonable "buffer" or reserve margin against unknowns). Monterey Peninsula Water Management District's projection of 13,142 afy and Monterey Peninsula Regional Water Authority's projection of 14,000 afy are persuasive in their analysis (as discussed more below). What they all share is to show that additional water source(s) are needed to allow Cal-Am to continue to provide service to customers after Cal-Am reduces its draw from the Carmel River to allowable levels.

In January 2013, Cal-Am forecast a system demand of 15,296 afy.[132] Cal-Am revised that figure to 14,355 afy in 2017. In revising its forecast Cal-Am took into consideration how water demand has declined over the last ten years, and considered the many factors contributing to the decline, including economic factors, multi-year drought conditions, aggressive conservation efforts, and a moratorium on new service connections that began in 2010.[133] While the averaging of the two methods used by Cal-Am to project demand for existing customers is somewhat complicated, the Commission finds that both methods provide reasonable results and that the average is a reasonable figure to use for forecasting demand for existing customers. Cal-Am has met its burden of proof in that its forecast of demand, when weighed with those opposed to it, has more

[132] Exhibit CA-12.

[133] Exhibit CA-51 at 8-9. *See also*, D.07-05-062, Attachment A, page A-23 (forecasts for class-A water utility general rate cases should remove historical data when drought related rationing or authorized drought memorandum accounts are in place).

convincing force and the greater probability of truth. Cal-Am appropriately considers the maximum demand year, 2012, within ten years of the anticipated in-service date, 2021. It also considered the Urban Water Management Plan projection methods to forecast water use reduction targets. Both methods have merit given how water use fluctuates over the course of a day, month, season, and year.[134] Both methods used by Cal-Am are designed to reasonably project demand amounts that are compliant with the California Waterworks Standards, 22 C.C.R. § 64554, requirements that the system's water sources have capacity to meet maximum day demand and peak hour demand. Cal-Am presented the last ten years of demand by month that shows the demand in July 2011 of 1,250 acre-feet, that July and August have the highest demand for each of the last ten years and that high demand months begin in May and end in October.[135] The Commission agrees with Cal-Am that the system must provide enough water to be used in those high demand months. In 2016, what is characterized as a low demand year,[136] the six high demand months used over 5,000 acre-feet of water.[137] Given that annual water demand characterizes the overall system demand expected to occur within a service area, actual water use fluctuates over the course of a day, month, season and year. For example, people use less water at night, more during warmer and drier months, and less in wet years. The fluctuations in Cal-Am's Monterey District over the past decade make it easy for us to understand the temptation to understate annual forecasts of demand. But

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134 *See*, Exhibit MCD-59.

135 Exhibits CA-51 at 9, 15, MCD-59.

136 *See e.g.*, Exhibits CA-51 at 10, RWA-27 at 6, MNA-2 at 2.

137 Exhibits CA-51 at 9, MCD-59.

we are convinced that 12,350 afy represents an appropriate estimate of annual demand to use in assessing the adequacy of Cal-Am's water supply to meet peak demands and regulatory supply capacity requirements. While the methodologies put forward by Cal-Am may not be perfect, that is not the standard they are required to meet. The methodologies are persuasive in providing a reasonable estimate of annual demand in the district going forward.

As noted above, a strict application of the maximum day demand guidelines would justify total system sources exceeding 22,000 afy (based on 60.48 acre-feet maximum day demand).[138] However, we are persuaded that Cal-Am's projection of demand is reasonable based on the evidence it has provided regarding the seasonal nature of demand and the ten-year historic period in the record.

Conservation has been extraordinary but may not continue when the tourism industry in the area returns to pre-2008 levels and with the expected growth in the region. All parties that made projections included a figure representing growth from the demand they projected for existing customers.[139] While some parties projected minimal growth,[140] over half projected more than

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[138] Exhibit MNA-2 at 12-13. In addition, a reasonable ten percent buffer for contingencies could justify a system source requirement exceeding 24,000 afy. We discuss below that based on seasonality and the maximum demand year within ten years of the anticipated MPWSP in-service date, that a lower demand figure is more appropriate in this case.

[139] *See e.g.*, Exhibit CA-12, Exhibit CA-51 at 10-14, Exhibit MNA-2 at 11-12, Marina Coast Water District's Opening Brief and Request for Oral Argument, Dec. 15, 2017, at 12, Exhibit RWA-27 at 6-8, Exhibit WD-15 at 15, Opening Brief of Planning and Conservation League Foundation, Sierra Club & LandWatch Monterey County at 3-5, Surfrider Foundation's Phase 1 Opening Brief at 21, Exhibit CPB-1A at 4-6, Opening Brief of Water Plus at 4-7 and Appendix 1.

[140] *See e.g.*, Marina Coast Water District's Opening Brief and Request for Oral Argument, Dec. 15, 2017, at 12, Opening Brief of Planning and Conservation League Foundation,

Footnote continued on next page

1,299 afy in total.[141] With all of the fluctuations in demand, where only five years ago 11,356 afy was delivered,[142] we are convinced that a larger growth figure provides the best solution to ensure Cal-Am ratepayers continue to have adequate supplies of water.

Over the course of this proceeding Cal-Am maintained its projections for legal lots of record (1,180 afy), Pebble Beach entitlements (325 afy), and economic recovery of the tourism industry (500 afy).[143] After considering all of the testimony in the record,[144] the Commission is persuaded by Cal-Am that these projections of future demand are reasonable based on growth of population, development, and tourism. In projecting water demand for the next 10-20 years, the assumptions Cal-Am has made for development of the lots of record and for Pebble Beach are reasonable because growth will occur, development is halted pending adequate water, and Pebble Beach has a reasonable claim on more water.[145] We are convinced that system expansion will occur and the projections put forth by Cal-Am are persuasive in quantifying that growth, when weighed

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Sierra Club & LandWatch Monterey County at 3-5, Surfrider Foundation's Phase 1 Opening Brief at 21, Opening Brief of Water Plus at 4-7 and Appendix 1.

[141] *See e.g.*, Exhibit CA-51 at 10-14, Exhibit MNA-2 at 11-12, Exhibit RWA-27 at 6-8, Exhibit WD-15 at 15, Exhibit CPB-1A at 4-6.

[142] Exhibit MCD-59.

[143] Exhibits CA-12, CA-51 at 13-14.

[144] *E.g.*, Exhibit CA-12, Exhibit CA-51 at 10-14, Exhibit MNA-2 at 11-12, Marina Coast Water District's Opening Brief and Request for Oral Argument, Dec. 15, 2017, at 12, Exhibit RWA-27 at 6-8, Exhibit WD-15 at 15, Opening Brief of Planning and Conservation League Foundation, Sierra Club & LandWatch Monterey County at 3-5, Surfrider Foundation's Phase 1 Opening Brief at 21, Exhibit CPB-1A at 4-6, Opening Brief of Water Plus at 4-7 and Appendix 1.

[145] Exhibit CA-12. These projections prove a reasonable forecast given the puts and takes of development and the non-revenue water and Salinas Valley Return Flows projected by WD. Exhibit WD-15 at 15.

against all of the other evidence presented.[146] The Commission recognizes that growth due to new demand will not occur immediately, but will take time to develop. In planning for the future, Cal-Am has shown that the growth it is projecting is reasonable under the California Waterworks standards, and we are persuaded that it represents the best projection of demand from future customers outside Pebble Beach. The tourism industry recovery projection of 500 afy is also reasonable under the California Waterworks standards. The evidence in this case persuasively shows that the tourism industry on the Monterey Peninsula has not fully recovered from the economic downturn that started in 2008, and to the extent it has recovered, it has taken steps to conserve water in ways it would not do if there were no constraints on the water supply in the area.[147] A figure of 500 afy is a reasonable figure to represent the additional demand Cal-Am will have to meet in the future. Cal-Am has shown that it does not have sufficient supply to meet the projected water demand in 2021 and beyond. Accordingly, Cal-Am has met its burden to prove that 14,355 afy is a reasonable projection for the system's projected demand.

The parties that presented lower demand projections argue that a much smaller source or set of water sources is needed.[148] City of Marina also argues that Cal-Am itself will be jeopardized by building a high cost solution to the

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[146] California-American Water Company Comments on Proposed Decision at 16-17.

[147] *See*, Exhibit CPB-1A at 5-6, RT Vol. 23 at 3905, 3906.

[148] *E.g.*, Exhibit MNA-2 at 14, Marina Coast Water District's Opening Brief and Request for Oral Argument, Dec. 15, 2017, at 12, Opening Brief of Planning and Conservation League Foundation, Sierra Club & LandWatch Monterey County at 3-5, Surfrider Foundation's Phase 1 Opening Brief at 21, Opening Brief of Water Plus at 4-7 and Appendix 1.

problem.[149] The parties that presented higher demand projections argue the MPWSP is needed to meet that demand.[150]

While City of Marina asserts that Cal-Am has sufficient supplies to meet the California Waterworks standards, it failed to show how Cal-Am would accomplish this requirement. 22 C.C.R. §64544(a) is clear that the system's water source shall have the capacity to meet the system's MDD "[a]t all times." City of Marina did not explain how Cal-Am's current system can provide 60.48 acre-feet to meet its maximum day demand, or how it could provide 15.12 acre-feet to meet its peak hourly demand.[151] City of Marina's analysis begins in the correct place with the maximum day demand and how that translates to the four or five months of high demand.[152] However, City of Marina then argues the most recent annual demand figure demonstrates that Cal-Am has sufficient supply.[153] The Commission is not persuaded by the City of Marina that sufficient reason exists to deviate from the requirements set forth in statute and our general order and that its method is better than any other. The Commission is not convinced that the downward trend in water use in the District will continue and that only minimal growth will occur in demand after 2021. Such an assertion fails to consider that water use is not likely to go any lower (maximum month usage increased in 2017 compared to 2016) as conservation funding is projected to go down, and the "extreme conservation and moratorium measures implemented

[149] Exhibit MNA-2 at 14.

[150] *E.g.*, Exhibit CA-51 at 10-14, Exhibit MNA-2 at 11-12, Exhibit RWA-27 at 6-8, Exhibit WD-15 at 15, Exhibit CPB-1A at 4-6.

[151] MNA-2 at 12-13.

[152] MNA-2 at 13.

[153] MNA-2 at 13.

during the drought" will end.[154] City of Marina fails to persuade us that the reasonable demand projections set forth by Cal-Am should be rejected. City of Marina fails to include an adequate "buffer" for unknowns. Accordingly, we were not persuaded by the City of Marina to reduce the demand projections to its recommended 10,599 afy.

Marina Coast Water District asserts that Cal-Am's current daily and annual water use will continue at current levels and that additional use will be between 300 to 925 afy, at most.[155] However, Marina Coast Water District fails to persuade the Commission to deviate from the statutory and general order methods for determining existing demand.[156] We see no reason why the three-year average is a better predictor of the future compared to any other period of time or methodology. In fact, we find that most recent three years of demand data is insufficient to predict the next ten plus years of demand the Commission is examining in this proceeding. After reviewing all of the evidence presented, the Commission determines that a reasonable evaluation of source capacity requirements should consider the MDD and PHD for the past ten years. Marina Coast Water District's approach does not do this. Marina Coast Water District also recommends projecting demand growth between 300 and 925 afy. Marina Coast Water District cites evidence presented by Surfrider to support the 300 afy

[154] MCD-59, CA-48 at 14, CA-52 at 5.

[155] Marina Coast Water District's Opening Brief and Request for Oral Argument at 9, 11-12.

[156] Marina Coast Water District does not use the methods it advocates we apply to Cal-Am for its own planning purposes. CA-53 at 13. If we were to use the design criteria Marina Coast Water District uses for its own projects it would result in a demand forecast of approximately 14,000 afy, and changes it was considering could justify a much higher figure. RT Vol. 26 at 4729-4743.

portion of its recommendation.[157] As explained below, the Commission is not persuaded that the low growth projections set forth by Surfrider are reasonable. Marina Coast Water District's recommendation of a 925 afy growth projection is also not persuasive. Marina Coast Water District estimates no more than 600 afy will be needed for development of the lots of record,[158] and that the 325 afy for Pebble Beach may be reasonable,[159] but that no additional projection should be made for the economic recovery of the tourism industry.[160] While the Commission agrees with Marina Coast Water District that development will occur gradually,[161] that does not mean that development will not occur. Cal-Am's projection reasonably assumes that the lots of record will be developed and will require water when they are developed. Marina Coast Water District asserts that "many" of the lots of record may not be developed, but presents no facts in support.[162] Thus, the Commission is not persuaded by Marina Coast Water District's reduction in the projected demand for the development of the lots of record from 1,180 afy to 600 afy. Marina Coast Water District argues that no additional projection for the economic recovery of the tourism industry is needed as any decline in water demand due to the economic downturn that started in 2008 has been recouped by now.[163] However, Marina Coast Water District has

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[157] Marina Coast Water District's Opening Brief and Request for Oral Argument at 11-12, *citing,* SF-12 at 1-3.

[158] Exhibit MCD-36A at 4-5.

[159] Exhibit MCD-36A at 5.

[160] Exhibit MCD-36A at 5.

[161] Exhibit MCD-36A at 4.

[162] Exhibit MCD-36A at 4.

[163] Exhibit MCD-36A at 5.

not shown us that such a recovery has occurred, and the Commission is convinced by other evidence that the industry has not fully recovered yet.[164] Thus, the Commission is not convinced by Marina Coast Water District to adopt no additional demand for tourism industry recovery. Marina Coast Water District fails to persuade us that the reasonable demand projections set forth by Cal-Am should be rejected. Accordingly, the Commission is not persuaded by Marina Coast Water District to reduce the demand projections to Marina Coast Water District's recommended range between 9,675 and 10,300 afy.

Monterey Peninsula Regional Water Authority "urges that the Commission adopt a long-term demand estimate of 14,000 afy …, with a projection of 12,000 afy for existing customers and 2,000 afy for future customer demand expansion."[165] The Commission agrees that Monterey Peninsula Regional Water Authority's projection of demand for existing customer of approximately 12,000 afy is appropriately conservative and reasonable.[166] Monterey Peninsula Regional Water Authority balances the low system demand experienced during recent drought years with the longer term history through 2014 in making its recommendation of 12,000 afy for existing customers. It recognizes the imprecisions in forecasting future demand and reasonably allows for potential fluctuations in demand, drought periods or other unanticipated limitations that may impact other elements of Cal-Am's water supply portfolio. The same reasoning supports its recommendation of 2,000 afy to meet future demands, *e.g.*, lots of record, Pebble Beach, and tourism rebound. With all of the

[164] Exhibit CPB-1A at 5-6, RT Vol. 23 at 3905, 3906.

[165] Opening Brief of the Monterey Peninsula Regional Water Authority at 2.

[166] Exhibit RWA-27 at 7.

fluctuations in water consumption over the past decade, the constraints on demand, and considering non-revenue water and Salinas Valley Return Flows,[167] we agree that a projection of demand for future customer needs of approximately 2,000 afy is appropriately conservative and reasonable. In addition, the Commission agrees that a significant criterion regarding plant size is to ensure the MPWSP is sized to meet maximum monthly demands rather than annual total demand. The Commission also agrees with Monterey Peninsula Regional Water Authority's assessment that "projecting any amount less than approximately 14,000 [afy]" presents "unreasonable risk without commensurate public benefit."[168] Accordingly, the public interest considerations weigh heavily in favor of the balanced demand projection of 14,000 afy put forward by Monterey Peninsula Regional Water Authority. It would be a disservice to the public interest if the project were undersized to meet future demands, requiring yet another project to be permitted and constructed:

> [I]t is imperative that the MPWSP be sized sufficiently to serve these demands. The Monterey Peninsula has faced water supply shortages for decades, which has frustrated land use planning and impaired economic, social, and environmental interests. Of course, in recent years, the community has been unable to prudently plan and evolve land uses because of the current moratorium on new service connections. We now have the opportunity to correct these water supply challenges. But it is in practical effect a "one-shot" opportunity. Indeed, the length and delay of this proceeding illustrates the immense difficulty of permitting and developing new water supplies in this region. For this reason, [we] view[] the MPWSP as a rare opportunity to obtain the water supply we

[167] Exhibit WD-15 at 11-15.

[168] Exhibit RWA-27 at 8.

> need. We urge the Commission to not unduly restrict the size of the MPWSP such that the community is at risk of again facing water supply shortages in the future.[169]

Monterey Peninsula Regional Water Authority is also correct that the desalination project can only be sized up or down by the size of each desalination train (each desalination train is approximately 1.6 million gallons per day).[170] As such, a downsizing would cut supply by almost 1,800 afy, and as explained below, there is little to no ratepayer savings if the Commission were to limit the size of the desalination project to 4.8 million gallons per day.

Monterey Peninsula Water Management District argues that the second method used by Cal-Am overstates demand as conservation programs coupled with permanent statewide conservation requirements, increased rates, and other legislative action impose constraints on customer demand.[171] Monterey Peninsula Water Management District argues that 10,400 afy is a reasonable estimate for existing customer demand as that is approximately the most recent 5-year average demand for existing customers.[172] Monterey Peninsula Water Management District states that even if this recommendation is low, it allows some leeway for increased water use in its analysis of potential growth in the

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[169] Exhibit RWA-27 at 8.

[170] Exhibit RWA-27 at 7. The desalination process usually goes through a set of sub-processes or a "desalination train." A desalination train typically comprises three stages: pre-treatment; main treatment, and post-treatment. The 6.4 mgd MPWSP proposal consists of four 1.6 mgd desalination trains, and thus can be sized up or down by the size of each desalination train. A 1.6 mgd per train is roughly 1,792 afy if the train were to run constantly. *See*, Exhibit CA-51 at 17.

[171] Exhibit WD-15 at 8-9.

[172] Exhibit WD-15 at 10-11.

system.[173] Monterey Peninsula Water Management District would add 2,742 afy for future demand for lots of record, Pebble Beach, tourism rebound, system loss, and Salinas Valley Return Flow.[174] In normal circumstances, using the most recent 5-year average to forecast future existing customer demand could be justified. However, in this case, limiting the selection to the most recent five years without justifying the selection of that period of time is not persuasive, especially given the reasons for the fluctuations in monthly and annual demand levels over the past decade.[175] Absent persuasive evidence to the contrary, Monterey Peninsula Water Management District's showing justifying its existing customer demand figure is not compelling.[176] Monterey Peninsula Water Management District does provide reasons why it thinks additional demand due to tourism rebound will be 250 afy instead of the 500 afy projected by Cal-Am. Monterey Peninsula Water Management District claims that some permanent demand reductions have occurred in that sector due to targeted rebates, mandated conservation standards, and non-residential inspections and enforcement by Monterey Peninsula Water Management District, but it is not convincing to explain why the 250 afy tourism rebound figure should be adopted. Monterey Peninsula Water Management District may be correct that some of the reductions that have occurred will lower the future tourism rebound, and when taken as a whole with its additions for non-revenue water and Salinas Valley Return Flows, the Commission agrees that a total growth figure of 2,742

[173] Opening Brief of the Monterey Peninsula Water Management District at 4.

[174] Exhibit WD-15 at 11-15.

[175] *See,* CCR Title 22 Section 64554(b)(1).

[176] Exhibit WD-15 at 6-9.

afy is compelling support for adopting an overall demand figure of at least 14,000 afy.

The Commission is not persuaded by the arguments of Planning and Conservation League Foundation, jointly with Sierra Club and LandWatch Monterey County that the most recent 3-year average demand for existing customers of 9,398 afy is reasonable. For similar reasons as Monterey Peninsula Water Management District, Planning and Conservation League Foundation fails to convince us that the most recent three years should be used to model existing customer demand for the next ten plus years. If the Commission were only forecasting the next few years, then the conservation measures cited by Planning and Conservation League Foundation might make the most recent three year average a more reasonable alternative, though even in that case there are other factors to consider (e.g., ending of extreme conservation and moratorium measures). Planning and Conservation League Foundation, and others, fail to quantify how much of the recent reductions in demand are due to permanent conservation measures compared to other explanations offered for why demand has gone down. We are not persuaded by Planning and Conservation League Foundation's premise that none of the almost 3,000 afy reduction in existing customer demand over the past eight years will return after 2021.[177] Given the speed and timing of the reductions, it is not clear if Planning and Conservation League Foundation is correct and the system has a new normal, whether other factors are at play, or if we have reached the limits of conservation and demand will rebound. Planning and Conservation League Foundation has not put

[177] Exhibit CA-51 at 9, MCD-59.

persuasive evidence in the record that shows us it is correct and demand has stabilized at the average of the most recent three years.[178] Planning and Conservation League Foundation does not show how much of the recent demand reductions are related to the constraints Cal-Am has placed on the system, and Planning and Conservation League Foundation has not argued we should continue those constraints. Thus, Planning and Conservation League Foundation did not present evidence that convinces us that it is more likely that demand will continue as it projected for the future of the system. Further, Planning and Conservation League Foundation's projection does not account for peak demand obligations nor does it account for the seasonal availability of supply sources, or how those supply sources will be constrained in a multi-year drought. It is not reasonable to plan the future of the system needed to serve the customers of the Monterey District based on the snapshot of data used by the Planning and Conservation League Foundation.[179] Further, Planning and Conservation League Foundation's demand estimate does not account for the MDD and thus fails to account for the month-to-month fluctuations experienced by the system.

Without that context the Commission cannot find that the recent averages are more compelling than the longer-term averages the Commission has found persuasive. In evaluating the system demand for at least the next 10 years we are not convinced that a short-term snapshot fairly balances the system fluctuations and long-term demand.

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[178] *Cf.*, Exhibit CBP-1A at 5-6, WD-15 at 11, 13-15, RWA-27at 7.

[179] *Cf.*, Comments of Planning and Conservation League Foundation on Proposed Decision at 1-2.

Planning and Conservation League Foundation also advocates the smallest amount be allocated for future growth, 300 afy. Planning and Conservation League Foundation justifies this low number based on its professional opinion.[180] However, despite the expertise of the witness, there is no presentation as to any facts supporting this opinion.[181] Planning and Conservation League Foundation may or may not be correct in its criticism that the lots of record figure proposed by Cal-Am is inflated and that any tourism rebound has already occurred. It did not prove either of those allegations through facts or testimony, and absent evidence, we decline to adopt the Planning and Conservation League Foundation's estimate based solely on its professional opinion. Rather, we find the professional opinion (along with evidence) presented by other experts as more persuasive. Further, even Planning and Conservation League Foundation's own estimate of demand, 9,698 afy, is more than the supply it projects Cal-Am has available, 9,044 afy, and it does not propose a viable alternative to the MPWSP to close that gap.[182]

Surfrider states its estimate of 10,085 afy for existing customers is based on the five-year average demand methodology originally proposed by Cal-Am.[183] Surfrider argues that Cal-Am switched methods to calculate demand to use longer periods and more complicated methodologies after customers cut their water use. Surfrider's reason to use a five-year average does not convince us that its five-year average provides a more reasonable approach to forecasting demand

[180] Exhibit SF-12 at 8.

[181] *See*, Exhibit SF-12 at 8.

[182] Exhibit SF-12 at 6-7, 12-15.

[183] Surfrider Foundation's Phase 1 Opening Brief at 4, *citing,* CA-12 at 5, Attachment 1 at 3-4.

for the next ten plus years. For example, as stated earlier in response to Monterey Peninsula Water Management District's use of a five-year average,[184] in normal circumstances, using the most recent five-year average to forecast future existing customer demand would provide a reasonable approach. However, in this case, limiting the selection to the most recent five years without justifying the selection of that period of time is not persuasive, especially given the reasons for the fluctuations in monthly and annual demand levels over the past decade. Surfrider does argue that the conservation measures that Cal-Am and Monterey Peninsula Water Management District have undertaken will result in permanent reductions in use and that the most recent periods thus reflect a better projection of the future. [185] However, it is unable to quantify how much of this reduction is due to conservation, and how much is attributable to other factors.[186] Surfrider also projects additional demand of 200 afy for Pebble Beach and 350 afy for growth and long term development in the remainder of Cal-Am's service territory.[187] The Commission does not find merit in Surfrider's characterization of Monterey Peninsula Water Management District testimony that only 217 afy is needed before 2035.[188] Monterey Peninsula Water Management District indicated that it supported a 1,181 afy figure,[189] though less

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[184] WD-15 at 11 uses full calendar years 2011-2016 for its five-year average calculation.

[185] SF-12 at 5.

[186] SF-12 at 5 ("This dramatic reduction in water use is the result of a variety of factors.")

[187] Surfrider Foundation's Phase 1 Opening Brief at 6, 10.

[188] Surfrider Foundation's Phase 1 Opening Brief at 18. However, parties have not presented credible, reliable, and persuasive evidence that double counting between the lots of records and Pebble Beach allocations has occurred.

[189] WD-15 at 13 ("long-term water supply planning should incorporate the full 1,181 [afy]. Failure to provide water for legal lots of record infringes on property rights and would

Footnote continued on next page

than half of that would likely be needed in the next 10-15 years.[190] Further, even if correct, we have already considered and rejected the concept that just because the additional water demand will not be needed immediately, that we should reduce the overall projected demand for the system. In looking at the long-term water supply planning, Surfrider fails to persuade the Commission to use a lower projected demand figure. Surfrider does agree that it would be prudent to provide an additional buffer to accommodate demand from future growth.[191] However, the Commission disagrees with its argument that growth will be slow.[192] The Commission has been given no basis to believe the current framework that limits growth will permanently continue in the same way after 2021. Rather, growth is just as likely to return to pre-2008 levels or be something different. We do have evidence that the Monterey District and its customers are already "drought-hardened" and the cost of additional conservation measures would be high,[193] and the Monterey District customers are already highly efficient water users.[194] Our adopted demand estimate considers all of these factors to reasonably account for growth limits while accommodating growth.

The Commission is persuaded by Coalition of Peninsula Businesses' testimony that there is additional water demand that the hospitality industry will

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perpetuate a state of "water poverty" in our communities, hence should be avoided by planning for sufficient water.").

[190] WD-15 at 13.

[191] Surfrider Foundation's Phase 1 Opening Brief at 21.

[192] Surfrider Foundation's Phase 1 Opening Brief at 19-20.

[193] RT Vol. 21 at 3576-3578, Vol. 22 at 3699, Vol. 23 at 3907; Exhibit RWA-27 at 7.

[194] CA-55 at 8-13 (Monterey District already has near the lowest average per person and per household usage in the state.), RT Vol. 25 at 4377.

require when mandatory conservation measures are removed.[195] Coalition of Peninsula Businesses provided testimony that the hospitality industry had reduced its water use by more than 40 percent over the past decade and needs to grow by 12-15% to re-attain occupancy levels of a decade ago.[196] While some of the reductions in water use may not be temporary,[197] others such as "shipping the actual linen and terrys out of the area to be serviced elsewhere," are temporary.[198] Further, hotel occupancy is not back to pre-2008 levels, and additional water will be needed to provide service for that 12-15% growth. In addition, if the industry is to grow beyond 2008 levels, additional water will be needed over the next 20 years.[199] Coalition of Peninsula Businesses has shown that there is a need to include additional water to account for the tourism rebound category and the Commission supports the addition of 500 afy in the projection of demand offered by Cal-Am.

Water Plus fails to show how its economic analysis complies with our General Order and statutory requirements that the capacity of the system will meet the system's maximum demand. Water Plus assumes water demand fits within the traditional basic economic analysis of rational consumer decision making.[200] Water Plus's theory assumes that at least some of the decline in demand over the past few years is due to higher prices, but Water Plus failed to

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[195] Exhibit CPB-1A at 5-6, RT Vol. 23 at 3905, 3906.

[196] Exhibit CPB-1A at 5-6.

[197] Exhibit WD-15 at 14.

[198] RT Vol. 23 at 3606.

[199] CPB-1A at 5.

[200] WP Reply Brief at 5 (cost to customers drives demand).

explain how its supply and demand curves fit with the past decade of water use in the district. Water is not a traditional consumable that fits neatly into the economic theories of supply and demand. There is no easy or perfect substitutable product for water. Water Plus's analysis is based on the assumption that water consumption rises and falls based solely on cost, but Water Plus's analysis does not take into account many other costs, influences, or externalities such as population change, costs of water conservation activities, public campaigns to conserve water, declarations of states of water emergency, or environmental changes. In addition, Water Plus's analysis is flawed by the assumptions it makes in costs of potential new water supplies. Many of the potential costs used by Water Plus were put forth by the sponsoring witnesses as hypothetical costs, and others are based on offers that have not been accepted by the buyers, and thus the Commission does not know what the final costs might be. The Commission is not persuaded that those costs can be relied upon. Moreover, if the costs are higher, or lower, Water Plus's projection of future cost-driven demand will change. Accordingly, the Commission is not persuaded that Water Plus's approach provides a reasonable solution in this case.

4.4.1 Authorizing a 6.4 mgd Desalination Plant Is Most Reasonable.

Cal-Am has proposed the MPWSP as either a 9.6 mgd production capacity desalination plant or a reduced capacity, 6.4 mgd production capacity desalination plant combined with a water purchase agreement for 3,500 afy product water from Monterey One Water Groundwater Replenishment (GWR) Project. The authorization for the 3,500 afy GWR WPA was approved in D.16-09-021, making the 6.4 mgd reduced capacity desalination plant the most reasonable option, which is also supported by the CEQA findings set out at Appendix C.

Even the most conservative demand estimate, 9,698 afy, is more than the supply the Commission has found to be reasonably available, 9,044 afy. The proponent of the lowest demand figure, Planning and Conservation League Foundation, would have Cal-Am eliminate the gap between available supply and expected demand with additional storage and "other available supplies."[201] The problem with all of the ideas to close the gap between available supply and future demand is that they are at the concept stage. The particular ideas raised fail to persuade us that they would be sufficient to provide a reliable water supply for the Monterey District for the peak day and month demand as they lack specifics, fail to be concrete, do not include credible cost estimates, and do not give enough detail to weigh the costs and benefits. Absent credible evidence of feasibility, cost reliability of supply, timeframes for development, potential for opposition, and more, we are not persuaded that these ideas can close the gap between supply and demand. Monterey District customers have faced shortages for decades and while some approaches have worked, others have not.[202] Intervenors have not persuaded the Commission that these particular ideas are viable alternatives to the MPWSP. Other than the MPWSP and the alternatives presented within the FEIR/EIS, the Commission does not have viable alternative proposals before us today.[203] Cal-Am must have additional water supply to serve its customers. The MPWSP is the most reasonable approach to solving the long-term problem of water supply in the Monterey District.

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[201] SF-12 at 7-8.

[202] *E.g.,* A.04-09-019 and D.16-09-021 in this proceeding.

[203] *See,* Appendix C, CEQA Findings, Section X; FEIR/EIS at Vol. IV, Section 5.

As the supply available is insufficient to satisfy an estimated demand of 14,000 afy, failure to approve the project would have significant impacts on the region's economy. The project's local and regional economic benefits by way of project construction and operation would be lost. There would not be temporary and permanent new local employment opportunities nor increased spending on construction and operating materials, equipment and/or services. Regarding long-term impacts, the lack of water supply would adversely affect the region's economic vitality, including the County's "four pillars" – agriculture, tourism, education, and research – by substantially reducing the reliability of water resources and water infrastructure. As persuasively stated by Mayor Kampe:

> Because the future is very uncertain. It's hard to tell exactly what's going to happen. There are a number of elements that I think are going to surprise us when we get beyond the current water poverty situation. And we're looking at a 50-year project. Why in the world are we trying to look at the -- the tiny microscopic level details of today's demand as the exclusive basis for projecting 50 years in the future? To me, and I don't have water demand experience, but I do have significant experience in forecasting in business environment, you just can't know the future that well. And to handicap ourselves over that period of time strikes me as – as just it doesn't make any sense.[204]

Finally, the approval of the MPWSP provides additional resource diversity and further ensures that Cal-Am has a portfolio of reliable water supply to meet fire flow requirements for public safety and overall water demand.

The Commission evaluated all of the evidence presented along with the arguments of the parties and determines that Cal-Am's water supply portfolio

[204] RT Vol. 22 at 3795.

will not exceed 9,044 afy. The Commission similarly evaluated all of the evidence presented along with the arguments of the parties and determines that Cal-Am's future water demand will be approximately 14,000 afy. The resulting supply deficit of at least[205] 4,956 afy needs to be addressed in this proceeding to comply with the State Water Resources Control Board's 2016 amended Cease and Desist Order (WR 2016-0016).

In addition, we have considered the seasonal supply and demand variations and how Cal-Am uses its sources of water to meet peak demands over the course of the year.[206] While Cal-Am can use the Seaside Groundwater Basin aquifer to hold excess winter supplies, we are not convinced that the aquifer reserves or other current sources of supply will allow Cal-Am to meet peak day or maximum month demands, particularly in drought years.

Cal-Am's Monterey District will not have sufficient source water to meet the anticipated demand of its customers after December 31, 2021, absent a new source of supply. The MPWSP is the most reasonable solution to provide that supply, and therefore, we find that the 6.4 mgd size MPWSP is the best option to ensure Cal-Am customers have a sufficient water source going forward. We conclude that a CPCN is needed to authorize Cal-Am to construct and operate the MPWSP so that it may replace water supplies for Cal-Am's Monterey District in response to the CDO issued by the State Water Resources Control Board to

[205] The gap between projected supply and projected demand reflects not only considerations of average year supplies, but also the need to plan for dry years. *See e.g.,* SB 606 (Stats. 2018; ch. 14); AB 1668 (Stats. 2018; ch. 15). *See also*, Exhibit MNA-2, at 6, 8-9, and Attachments 1 and 2.

[206] *See*, D.16-09-021 at 3, fn. 1 ("The Monterey ASR project involves the injection of excess Carmel River water into the Seaside Groundwater Basin for later extraction and use. Future water sources for ASR may include the Pure Water Monterey Groundwater Replenishment Project and a desalination plant.").

cease excess diversions from the Carmel River by December 31, 2021, meet reasonable demand (e.g., existing customers, lots of record, Pebble Beach, tourism rebound), provide a reliable and secure supply, include a reasonable "buffer" against uncertainties, and satisfy all other reasonable needs.

We find the 6.4 mgd desalination plant to be superior to a 4.8 mgd desalination plant based on the little to no cost differential, and that the 4.8 mgd sized desalination plant would produce approximately 4,700 afy in non-drought years. This amount of water is not sufficient to close the 4,956 afy gap between existing supply and projected demand. Further, the 4.8 mgd desalination plant would provide no buffer for contingencies. Given the gap between existing supply and projected demand there is a potential that additional capacity would need to be added to the MPWSP in the future. If so there is a higher likelihood that any expansion that includes permitting, drilling, and construction of an additional well to increase capacity will increase environmental impacts, face additional scrutiny in the permitting review process, and increase costs to ratepayers. In addition, a 4.8 mgd desalination plant would not avoid or substantially lessen any significant impacts of the project: the significant impacts that would result from construction would be the same as the plant would have the same footprint, and require the same pipelines, and while one fewer well would be drilled, it would still require five well pads at the CEMEX site. As all greenhouse gas emissions will be mitigated no matter the size of the plant, a 4.8 mgd desalination plant would not alleviate or substantially reduce the greenhouse gas emission impacts of the project.

Moreover, a 4.8 mgd desalination plant would fail to provide sufficient supply to reliably meet, and be able to satisfy, peak month and peak day demands. Though a 4.8 mgd desalination plant, compared to no plant or any

plant less than 4.8 mgd, would provide some additional supply under drought circumstances when less water or even no water is available from other water sources, there would not be sufficient supply to reliably meet, and be able to satisfy peak month and peak day demands. Seasonal variability and potential drought conditions would exacerbate the water deficit of a 4.8 mgd desalination plant when other sources would be restricted. Thus, as a 4.8 mgd desalination plant would not alleviate or substantially reduce significant environmental impacts of the project, and would not meet the basic project objectives, we conclude it is inferior to the 6.4 mgd desalination plant.

We determine that a 6.4 mgd desalination plant that will produce approximately 6,250 afy of desalinated water in non-drought years (and approximately 7,167 afy in drought years) that would be delivered to Cal-Am customers is the best option to ensure Cal-Am is able to meet its maximum day demand and peak hour demand requirements.[207]

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[207] *See,* Exhibit CA-51 at 14, 17.

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10. Assignment of Proceeding

Liane M. Randolph is the assigned Commissioner and Robert W. Haga, Darcie L. Houck, and Gary Weatherford are the assigned ALJs in this proceeding.

Findings of Fact

1. Cal-Am is a Class A investor-owned water utility, regulated by this Commission. Its Monterey District serves most of the Monterey Peninsula, including Carmel-by-the-Sea, Del Rey Oaks, Monterey, Pacific Grove, Sand City, and Seaside, as well as the unincorporated areas of Carmel Highlands, Carmel Valley, Pebble Beach, and the Del Monte Forest.

2. Cal-Am supplies the Monterey District with surface water and groundwater from the Carmel River System and the coastal subarea of the Seaside Groundwater Basin (also known as the Seaside Basin). Cal-Am also operates small independent water systems along the Highway 68 corridor east of Monterey that draw water from the Laguna Seca subarea of the Seaside Basin.

3. Water supply on the Monterey Peninsula is available largely from rainfall and has long been constrained due to frequent drought conditions on the semi-arid Peninsula.

4. The Monterey Peninsula population has been dealing with documented water constraints dating back to the 1940s.

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13. Cal-Am's existing water supply will consist of 3,376 afy from the Carmel River, 774 afy from the Seaside Groundwater Basin, an average of 1,300 afy from the Aquifer Storage and Recovery, 94 afy from the Sand City Desalination Project, and 3,500 afy from the Monterey One Water Groundwater Replenishment Project. This provides a total water supply of 9,044 afy.

14. The Commission evaluated all of the evidence presented along with the arguments of the parties and determines that Cal-Am's water supply portfolio will not exceed 9,044 afy.

15. In 2006, the Monterey Peninsula Water Management District issued a technical memorandum, updating the demand in Cal-Am's service territory. The replacement water supply then required to meet total updated demand was 12,500 afy.

16. The estimates of demand in Cal-Am's Monterey service territory as of November 2017 range from 9,675 afy to 15,000 afy.

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30. The selection of the most recent three years of demand data does not present a more compelling predictor for the next ten plus years of demand the Commission is examining in this proceeding compared to other methods.

31. A projection of demand for existing customers of approximately 12,000 afy is appropriately conservative and reasonable.

32. A projection of additional demand of approximately 2,000 afy is appropriately conservative and reasonable.

33. The maximum daily demand can be calculated to be 60.48 acre-feet and the peak hour demand can be calculated to be 15.12 acre-feet.

34. Strictly following the methodologies set forth in the Waterworks Standards would result in a projected demand that is significantly higher than is needed given the changes in water use in this system on a month by month basis.

35. A significant criterion regarding plant size is to ensure the MPWSP is sized to meet maximum monthly demands rather than annual total demand.

36. It would be a disservice to the public interest if the project were undersized to meet future demands, requiring yet another project to be permitted and constructed.

37. Both methods used by Cal-Am to forecast demand for existing customers provide reasonable results and their average is a reasonable figure to use for forecasting demand for existing customers.

38. In projecting water demand for the next 10-20 years, the assumptions Cal-Am has made for development of the lots of record and for Pebble Beach are reasonable.

39. The evidence persuasively shows that the tourism industry on the Monterey Peninsula has not fully recovered from the economic downturn that started in 2008, and to the extent it has recovered, it has taken steps to conserve water in ways it would not do if there were no constraints on the water supply in the area.

40. Coalition of Peninsula Businesses has shown that there is a need to identify additional water supply to account for the tourism rebound demand category.

41. An additional 500 afy is a reasonable figure to represent the additional demand Cal-Am will have to meet in the future to serve the tourism industry.

42. Public interest considerations weigh heavily in favor of the balanced demand projection of approximately 14,000 afy.

43. The Commission evaluated all of the evidence presented along with the arguments of the parties and determines that Cal-Am's future water demand will be approximately 14,000 afy.

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Conclusions of Law

1. Cal-Am is a Water Corporation as defined in Pub. Util. Code § 241, and may not proceed with the proposed project, or an alternative, absent our certification that the present or future public convenience and necessity require this project.

2. We have considered how the widely-recognized need may best be met by various water supply alternatives, as evaluated according to the statutory framework established by Pub. Util. Code. § 1001 et seq.

3. As the basis for granting a Certificate of Public Convenience and Necessity, the Commission must consider the need for the project, community values, recreational and park areas, historical and aesthetic values, and the influence on the environment, as set forth in Pub. Util. Code § 1002(a).

4. Cal-Am should be granted a CPCN to construct and operate the MSWSP to meet reasonable demand (e.g., existing customers, lots of record, Pebble Beach, tourism rebound), provide a reliable and secure supply, include a reasonable "buffer" against uncertainties, satisfy all other reasonable needs, and ensure that Cal-Am remains within its legal water rights as to diversions from the Carmel River in response to the CDO issued by the SWRCB as well as other constrained water supply sources such as the Seaside Basin.

5. Sufficient reason does not exist to deviate from the requirements set forth in statute and our general order regarding the considerations to estimate demand.

6. A reasonable evaluation of source capacity requirements considers the maximum day demand and peak hour demand for the past ten years.

7. There is no requirement in Section 64554 that the Commission only look at the maximum daily demand, peak hour demand, or maximum month in the historical period for water systems such as Cal-Am's.

8. Our goal, and the goal of Section 64554, is to ensure a public water system can meet the maximum daily demand and for a system of Cal-Am's size to meet peak hour demand for 4 hours in a day with source capacity, storage capacity, and/or emergency connections.

9. The Commission is not persuaded that we can rely upon the offers made by Marina Coast Water District or the proposed PWM expansion as available sources of water to Cal-Am.

10. Projecting any future demand amount less than approximately 14,000 afy presents unreasonable risk without commensurate public benefit.

11. Cal-Am has met its burden of proof in that its forecast of demand when weighed with those opposed to it has more convincing force and the greater probability of truth.

12. Cal-Am has shown that its forecast of demand considers the maximum day demand and peak hour demand for the past ten years.

13. Cal-Am has met its burden of proof that its projections of future demand are reasonable in the circumstances of this case.

APPENDIX B
Parties Positions on Supply and Demand

SYSTEM DELIVERY

Monterey Main, Hidden Hills, Ryan Ranch & Bishop*
(All units in acre feet)

Month	2013	2014	2015	2016	2017	2018
Jan	745	893	730	597	624	
Feb	710	667	671	635	581	
Mar	853	757	771	623	653	
Apr	957	800	814	742	645	
May	1,079	982	814	836	861	
Jun	1,056	975	853	912	878	
Jul	1,127	1,018	942	946	962	
Aug	1,131	1,023	956	944	957	
Sep	1,027	906	893	909	902	
Oct	1,002	897	840	826		
Nov	861	707	640	670		
Dec	809	627	621	646		
Total	11,356	10,250	9,545	9,285	7,063	
Max Month	1,131	1,023	956	946	962	

*These values represent the amount of water delivered to the system to serve customer demand. This includes delivered water lost to leaks and fire-flow protection. This data does not include ASR injection

Based on Evidence Submitted and Summarized in Briefs submitted Dec. 2017 and Jan. 2018

Demand and Supply Acre-Feet per Year (AFY)	Existing Customers	Lots of Record	Pebble Beach	Toursim Rebound	Other	DEMAND Total	Carmel River	Groundwater Recharge (GWR)*	Aquifer Storage and Recovery (ASR)	Seaside Basin	Sand City Desal	Other	SUPPLY Total
California-American Water Company (CA)	12,350	1,180	325	500	0	14,355	3,376	3,500	1,300	774	94	-	9,044
City of Marina (MNA)	9,300	974	325	0	0	10,599	3,376	3,500	1,300	774	200	-	9,150
Marina Coast Water District (MCD)	9,375	300-925				9,675 - 10,300	3,376	3,500	1,300	1,474	200	500	10,350
Monterey Peninsula Regional Water Authority (RWA)	12,000	2,000				14,000	3,376	3,500	1,300	774	94	-	9,044
Monterey Peninsula Water Management District (WD)	10,400	1,180	325	250	987	13,142	3,376	3,500	1,300	774	94	-	9,044
Planning and Conservation League Foundation (PCL), Sierra Club, & LandWatch Monterey County	9,398	300				9,698	3,376	3,500	1,300	774	94	-	9,044
Surfrider Foundation (SF)	10,085	0	200	0	350	10,635	3,376	3,500	1,300	774	94	-	9,044
Coalition of Peninsula Businesses (CPB)	13,000	2,000				15,000							n/a
Water Plus (WP)	8,000 - 11,000					9,800	3,376	3,500	1,300	774	94	-	9,044

Demand figures derived from:

Exhibit CA-51 at 10-14, Exhibit MNA-2 at 11-12, Marina Coast Water District's Opening Brief and Request for Oral Argument, Dec. 15, 2017, at 12, Exhibit RWA-27 at 6-8, Exhibit WD-15 at 15, Opening Brief of Planning and Conservation League Foundation, Sierra Club & LandWatch Monterey County at 3-5, Surfrider Foundation's Phase 1 Opening Brief at 21, Exhibit CPB-1A at 4-6, Opening Brief of Water Plus at 4-7 and Appendix 1.

Supply figures derived from

Exhibit CA-51 at 14, Exhibit MNA-2 at 14, Exhibit MCD-36A at 9-10, Exhibit RWA-27 at 6-7, Exhibit WD-15 at 16, Opening Brief of Planning and Conservation League Foundation, Sierra Club and LandWatch Monterey County at 6, Exhibit SF-12 at 6, Exhibit WP-9 at 18, Opening Brief of City of Marina on Certificate of Public Convenience and Necessity Issues at 22.

Comprehensive supply and demand figures for parties not included in the table above could not be identified in testimony or briefs.

Attachment B

(Phase 2 Direct Testimony of David J. Stoldt)

CALIFORNIA AMERICAN WATER

MONTEREY DISTRICT

URBAN WATER MANAGEMENT

AND

WATER SHORTAGE CONTINGENCY PLAN

2006 - 2010

California American Water
303 H Street, Suite 250
Chula Vista, CA 91910

Monterey Office
50 Ragsdale Drive
Monterey, CA 93940

FEBRUARY 2006 REVISION

MONTEREY DISTRICT
URBAN WATER MANAGEMENT
AND
WATER SHORTAGE CONTINGENCY PLAN

2006 - 2010

California American Water
303 H Street, Suite 250
Chula Vista, CA 91910
(619) 409-7735

Monterey Office
50 Ragsdale Drive, Suite 100
P. O. Box 951
Monterey, CA 93942
(831) 646-3200

Steven Leonard, Vice-President and Manager

Prepared by:
Douglas Donaldson, AICP
Donaldson Associates
627 Spokane Avenue
Albany, CA 94706
(510) 528-3684

December 2004
Revised February 2006

TABLE 9
PROJECTED DEMAND AND SUPPLY SCENARIOS
AVERAGE AND WET YEARS (AFY)
2005 – 2025

YEAR	2005	2010[a]	2015	2020	2025
Projected Demand (Stage 1 Conservation in effect.)	15,550	-	-	-	-
Projected Demand per General Plans	-	17,900[b]	20,750[c]	23,600[c]	26,450[c]
Projected Supply by Source:					
Carmel River System – Firm Water Rights[d]	3,376	3,376	3,376	3,376	3,376
Carmel River System - Interim Supply[d]	7,909	0	0	0	0
Groundwater:					
Seaside Basin, Coastal sub-basin	3,576[e]	2,218[f]	1,607[f]	1,607[f]	1,607[f]
Seaside Basin, Laguna Seca sub-basin	446[e]	401	325	325	325
ASR Project Water	500	1,300	1,300	1,300	1,300
Desalination:					
Coastal Water Project Moss Landing Plant	0	11,730	11,730	11,730	11,730
Recycled Water:					
Pebble Beach augmentation	N.A.[g]	136	136	136	136
Regional Water Augmentation Project	0	300	1,400	1,400	1,400
Total Water Supply	15,807	19,461	19,874	19,874	19,874
Difference: Surplus/(Shortage)	257	1,561	(876)[h]	(3,726)[h]	(6,576)[h]

[a] The 2010 scenario assumes that the Coastal Water Project is completed and in operation.
[b] Assumes water consumption increases to about 107 gpcpd (15% increase) when the Coastal Water Project becomes operational, ending the "regulatory drought." No significant growth in population or connections is assumed between 2005 and 2010.
[c] Prorates potential General Plan build out between 2010 and 2025. Because of water supply deficits (bottom row) not all planned growth may occur. Also, applicable General Plans may be revised.
[d] Per SWRCB Decision WR 95-10.
[e] California American Water's share of the adjudicated allocations for 2006 through2008.
[f] Assumes California American Water applies 1,000 AFY from the Coastal Water Project to offset a portion of its maximum pumping allocation.
[g] Recycled water demand is supplied by others and not included above. The existing supplies are about 660 AFY.
[h] Not all growth anticipated by current General Plans can be accommodated. Additional supplies would have to be developed, and/or water conservation programs and General Plan revisions would have to be implemented to reduce demand and offset these deficits.

Final

2010 Urban Water Management Plan

for the

Central Division – Monterey County District

Prepared for:

California-American Water Company

CALIFORNIA
AMERICAN WATER

Prepared Under the Responsible Charge of:

Jeffery M. Szytel

California R.C.E. No. 63004

9/7/2012

WSC
WATER SYSTEMS CONSULTING, INC.

Table 3-2: Past, Current, and Project Deliveries by Service Area (AFY)

System Name	2005[1]	2010[1]	2015[2]	2020[2]	2025[2]	2030[2]
Monterey Main	12,202	10,466	10,923	11,244	11,564	11,884
Bishop	186	164	175	161	147	133
Hidden Hills	176	143	146	158	170	183
Ryan Ranch	66	52	54	54	54	54
Ambler	226	166	172	172	172	172
Chualar	153	116	105	93	81	69
Ralph Lane	8	8	8	7	6	6
Toro	0	204	177	152	128	103
Total	**13,017**	**11,320**	**11,760**	**12,042**	**12,323**	**12,605**

[1] All volume data comes from Customer and Consumption Data by Political Jurisdiction from California American Water
[2] Projected deliveries do not reflect the Cease and Desist Order or the Seaside Basin Adjudication restrictions on supply.

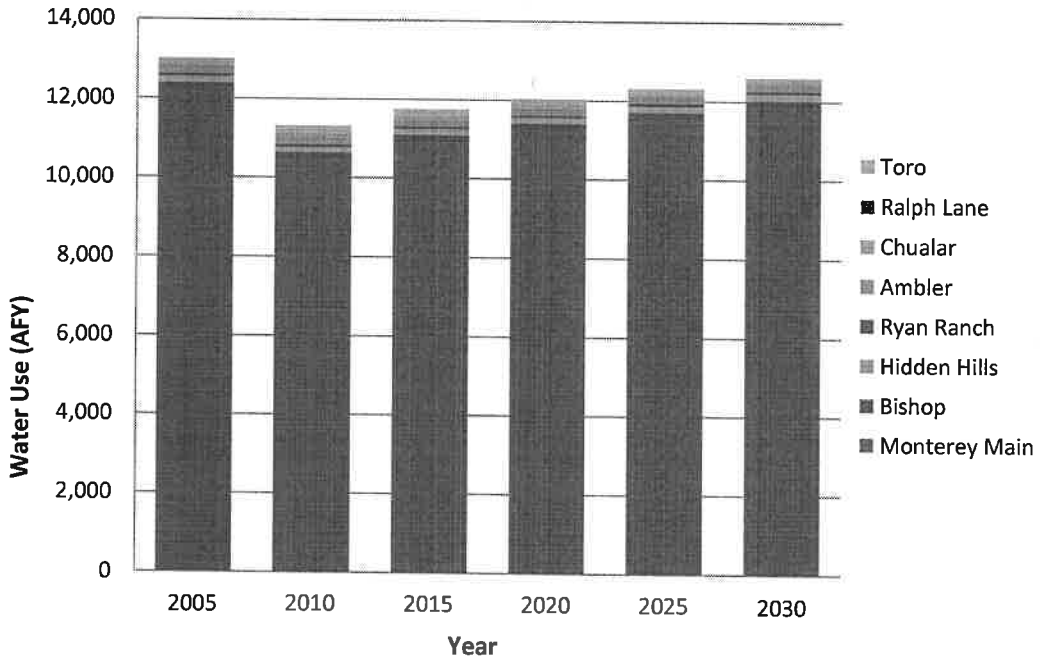

Figure 3-2: Deliveries by Service Area[1]

[1] Projected deliveries do not reflect the Cease and Desist Order or the Seaside Basin Adjudication restrictions on supply.

Final

2015 Urban Water Management Plan

for the

Central Division – Monterey County District

Prepared for:

CALIFORNIA
AMERICAN WATER

Prepared by:

WSC
WATER SYSTEMS CONSULTING, INC.

6/30/2016

ACKNOWLEDGEMENTS

California American Water's Central Division – Monterey County District 2015 Urban Water Management Plan was prepared by Water Systems Consulting, Inc. The primary authors are listed below.

WSC
WATER SYSTEMS CONSULTING, INC.

Adam Rianda, E.I.T.

Chris Malejan, P.E.

Heather Freed, E.I.T.

Jeffery Szytel, P.E., M.S., M.B.A.

Lianne Westberg, E.I.T.

Ron Munds

Spencer Waterman

Water Systems Consulting, Inc. would like to acknowledge the significant contributions of California American Water and the following California American Water staff.

CALIFORNIA
AMERICAN WATER

Christopher Cook

Deana Donohue

Eric Sabolsice

Ian Crooks

Joe Dimaggio

Mark Reifer

Mark Schubert

Patrick Pilz

Richard Svindland

Patricia Glass

Uriel Moreno

Table 4-2: Past, Current, and Project Deliveries by Service Area (AFY)

System Name	2010[1]	2015[2]	2020[2]	2025[2]	2030[2]	2035[2]
Monterey Main	10,466	8,973	11,498	11,682	11,869	12,060
Bishop	166	133	168	168	168	168
Hidden Hills	164	130	164	164	164	164
Ryan Ranch	116	96	121	121	121	121
Ambler	143	113	143	143	143	143
Chualar	8	6	8	9	9	9
Ralph Lane	52	47	60	60	60	60
Toro	204	149	188	188	188	188
Garrapata	0	30	35	35	35	35
Total	**11,320**	**9,678**	**12,386**	**12,571**	**12,758**	**12,948**

[1] All volume data comes from Customer and Consumption Data by jurisdiction from California American Water
[2] Projected deliveries do not reflect the Cease and Desist Order or the Seaside Basin Adjudication restrictions on supply.

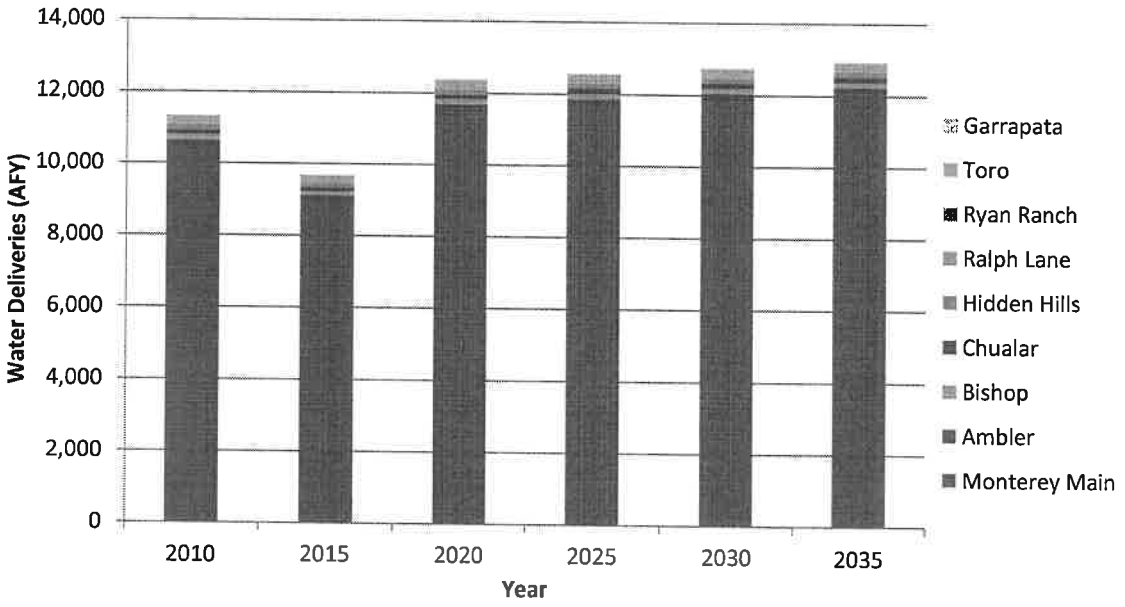

Figure 4-2: Deliveries by Service Area[1]

[1] Projected deliveries do not reflect the Cease and Desist Order or the Seaside Basin Adjudication restrictions on supply.

Attachment C

(Phase 2 Direct Testimony of David J. Stoldt)

Nina Miller

From:	Nina Miller
Sent:	Sunday, April 18, 2021 11:56 AM
To:	Nina Miller
Cc:	Ian C Crooks; Catherine A Stedman; Jeroen Olthof
Subject:	California American Water Monterey Division 2020 Urban Water Management Plan
BCC	mckeec@co.monterey.ca.us; crerig@ci.carmel.ca.us; citymanager@delreyoaks.org; uslar@monterey.org; bharvey@cityofpacificgrove.org; aaron@sandcityca.org; cmalin@ci.seaside.ca.us; Dave Stoldt

California American Water Monterey Division 2020 Urban Water Management Plan

California American Water is in the process of preparing its Monterey County District 2020 Urban Water Management Plan (UWMP) as required by the Urban Water Management Planning Act (Act). The Act requires California American Water to notify cities and counties within its service areas that it is preparing its 2020 UWMP 60 days prior to holding a public hearing thereby encouraging public involvement and agency coordination. California American Water will notify you of the specific date, time, and location of this public hearing when finalized.

This letter serves as your official notice of preparation and intent to adopt the UWMP. A draft of the UWMP will be available for review in June 2021. Until that time, if you have any questions or comments regarding the Monterey County District UWMP, please contact Water Systems Consulting, Inc., the consultant responsible for the preparation of the UWMP at:

Jeroen Olthof, P.E.
Water Systems Consulting, Inc.
9815 Carroll Canyon Road, Suite 205
San Diego, CA 92131
(858) 397-2617 ext. 301
jolthof@wsc-inc.com

Sincerely,

Nina Miller
Manager, Capital Program and Asset Planning
California American Water

Dave Stoldt

From: Candace Coleman <Candace.Coleman@amwater.com>
Sent: Monday, July 26, 2021 3:27 PM
To: mckeec@co.monterey.ca.us; crerig@ci.carmel.ca.us; citymanager@delreyoaks.org; uslar@monterey.org; bharvey@cityofpacificgrove.org; aaron@sandcityca.org; cmalin@ci.seaside.ca.us; Dave Stoldt
Cc: Nina Miller; Catherine A Stedman; Jeroen Olthof
Subject: 2020 Urban Water Management Plan and Water Shortage Contingency Plan

Follow Up Flag: Follow up
Flag Status: Flagged

California American Water has prepared and adopted its 2020 Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP) for its Monterey County District as required by the Urban Water Management Planning Act (UWMP Act).

An official notice of preparation and intent to adopt the 2020 UWMP and WSCP was sent to you on April 18, 2021. The 2020 UWMP and WSCP drafts were available on June 10, 2021 for review prior to the public hearing and adoption on June 17, 2021. The UWMP Act requires California American Water to notify cities and counties within its service area that it adopted its 2020 UWMP and WSCP within 30 days of adoption. This email serves as California American Water's official notice. The 2020 UWMP and WSCP have been successfully submitted to DWR and are available for download on DWR's website here:

https://wuedata.water.ca.gov

Sincerely,

Candace Coleman
Senior Project Engineer
California American Water
916-541-9942

MARINA COAST WATER DISTRICT

11 RESERVATION ROAD, MARINA, CA 93933-2099
Home Page: www.mcwd.org
TEL: (831) 384-6131 FAX: (831) 883-5995

May 20, 2021

Mr. David J Stoldt, General Manager
Monterey Peninsula Water Management District
5 Harris Court, Bldg G
Monterey, CA 93940

Dear Mr. Stoldt:

The Marina Coast Water District (MCWD) is preparing an updated Urban Water Management Plan (UWMP) for submittal to the California Department of Water Resources, pursuant to the Urban Water Management Planning Act, as codified in the California Water Code Sections 10610-10656. The plan is a projection of water supply and demand through the year 2040.

The draft UWMP is now available for public review and comment. The Executive Summary of the report is attached. The full report and appendices are available on the District's website, www.mcwd.org. A public hearing on the plan will be held during our Board of Directors meeting on June 21, 2021.

Please provide comments to our consultant, Schaaf & Wheeler Consulting Civil Engineers, Attn: Andy Sterbenz, 3 Quail Run Circle, Suite 101, Salinas, CA, 93907. Andy may be contacted by phone at (831) 883-4848, or by e-mail at asterbenz@swsv.com. You may contact me by direct phone at (831) 883-5951, or e-mail pbreen@mcwd.org.

Sincerely,

Patrick J. Breen
Water Resources Manager

Attachment D

(Phase 2 Direct Testimony of David J. Stoldt)

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

June 28, 2012

Mr. Eric Sabolsice, General Manager
California American Water, Monterey County District
511 Forest Lodge Rd., Suite 100
Pacific Grove, California 93950

Subject: Draft 2010 Urban Water Management Plan for the Central Division, Monterey County District

Dear Eric:

Thank you for the opportunity to review and comment on the 2010 Urban Water Management Plan (UWMP) for the Monterey County District. The Monterey Peninsula Water Management District (District) offers the following comments on the draft document:

As you know, Monterey Peninsula Water Management District (MPWMD) and California American Water's (CAW) collaborate on all aspects of the water conservation program for the Monterey area. This partnership was minimized in the UWMP. In addition to activities undertaken by MPWMD that are funded through the Conservation Surcharge, MPWMD and CAW regularly coordinate all programs undertaken to avoid duplication of service and to maximize resources. The annual Conservation Program Reports required by the California Public Utilities Commission should be included in the UWMP for each of the years covered, including the most recent year to provide information about the future goals of the conservation program.

MPWMD was not given an opportunity to comment on the first draft of the UWMP. This is relevant as MPWMDhas regulatory power related to a number of programs reported in the UWMP. MPWMD received notice of the release of the draft UWMP in June 2012 after the public hearing was noticed. This is insufficient time to adequately review and provide comments on a plan that includes significant information related to activities undertaken by MPWMD.

The following numbered comments include reference to the section of the report that they address:

1. 1.2.3: MPWMD requests clarification as to CAW's statement that it is noncompliant with CUWCC BMPs. The author refers to not having received approval from the Department of Water Resources. If that is the case, CAW should immediately request approval, as this may have an impact on future grant applications.

2. 2.2: CAW maintains survey data that includes the number of residents for every residential service in its Monterey Main, Bishop and Hidden Hills systems. Although the survey data appears to differ significantly from the census data, it should be referenced.

3.

4. Given the unique circumstances of the Monterey Peninsula's water situation, grouping Ambler Park, Ralph Lane, Toro and Chualar with Monterey for reporting purposes distorts the significant level of conservation that has taken place on the Peninsula since 1995 (SWRCB Order 95-10). MPWMD recommends that per capita use be broken out in separate tables that combine the Peninsula systems (i.e., Monterey Main/Bishop/Ryan Ranch and Hidden Hills) and the other Monterey District systems (i.e., Chualar, Ralph Lane, Toro and Ambler).

5. 3.1 -- The Monterey Peninsula's conservation budget differs significantly from the other CAW systems and should be explained.

6. Figure 3-2 – MPWMD questions the increased deliveries projection for 2015. Monterey Peninsula systems should be reducing production and delivery. Again, this may be better depicted in separate tables.

7. 3.3 – The water reduction plan statement is not accurate if you include the non-Peninsula systems. MPWMD recommends that the 2009 Annual Conservation Program Report be included in place of the annual BMP report.

8. 4.3.1 – This section needs to clarify that the Laguna Seca Subbasin water rights reduce to zero by relying on conservation in the Main System. This is an important point for the reader to understand, In addition, the report does not acknowledge the emergency tie in between the Ryan Ranch system and the Main system.

9. 4.8.1.3 – Clarify that the Carmel Area Wastewater District (CAWD)/Pebble Beach Community Services District (PBCSD) Recycled Water Project waters golf courses and other recreational open space (i.e., Stevenson School ball fields) in the Del Monte Forest.

10. 4.8.3 – This section refers to availability of recycled water for areas of the Peninsula by 2015. Is this still accurate?

11. 5.2.2.1 – A production number of 11,385 Acre-Feet should cite the year.

12. The "water reduction measures" listed in this section are actually Water Waste actions defined by the District. They are not water reduction measures. MPWMD suggests that the report include MPWMD Regulation XIV, which includes conservation requirements for New Construction, Remodels/Additions, Change of Ownership and Use, and Existing Non-Residential Users as an example of water reduction measures for the Monterey Peninsula.

13. 6.2.2 – Water Waste prevention is an effort that involves both CAW and MPWMD. MPWMD Rule 171 and the MPWMD definitions of Water Waste and Non-Essential Water Use should be included in the report.

14. 6.2.6 – Retail conservation pricing reference to "MPWMD Municipal Water System Water Conservation Program" is incorrect. The correct title is MPWMD Regulation XV, the Expanded Water Conservation and Standby Rationing Plan.

15. Table 6-6 – This table does not include MPWMD's outreach efforts regarding conservation.

16. 6.2.9.1 – This section should reference MPWMD Regulation XIV.

17. Table 6-13 – The numbers in this table are significantly lower than historic trends. It appears that this table does not accurately reflect equipment distribution within the Monterey system.

18. Table 6-15 – There is no rain sensor rebate. MPWMD requires rain sensors when a property with an automatic irrigation system transfers ownership, changes use or remodels. They are also required in New Construction. CAW has a rain sensor installation program.

19. 6.2.11 – The joint CAW/MPWMD Rebate Program has historically offered a more aggressive rebate for High Efficiency Clothes Washers (HECW). The current rebate is $500 per HECW, not the amount referenced in the report.

20. 6.2.12 – No rebates for Ultra Low Flush Toilets are available and there is a rebate for Ultra High Efficiency Toilets (0.8 gallon per flush). This should be corrected.

21. 6.2.13.2 – A list of the current rebates should be included in the report. The provided information does not include a number of significant rebate incentives aimed at the CII sector. There are also two corrections in this section: "Rotating hose nozzles" should be deleted, and the statement that savings are calculated with both the audit and the rebate savings should be amended to reflect savings from one or the other programs. Counting both double counts the savings.

22. 6.2.13.1 – The savings calculation for Large Landscape audits assumes that the recommendations are implemented. At this time, implementation of recommendations is not required.

Thank you again for the opportunity to comment on the draft UWMP. MPWMD remains committed to its highly successful conservation partnership with CAW.

Sincerely,

Stephanie Pintar
Water Demand Manager

Enclosures

Draft Pre-Letter

MPWMD

Memo

To: California American Water Company

From: Stephanie Pintar, MPWMD Water Demand Manager

Date: June 27, 2012

Re: Draft 2010 Urban Water Management Plan for the Central Division – Monterey County District

---

Comments from MPWMD on Draft UWMP 2010-2014

1. Monterey Peninsula Water Management District (MPWMD) and California American Water's (CAW) partner in the water conservation program. This partnership was minimized in the document. MPWMD and CAW regularly coordinate all programs undertaken to avoid duplication of service and to maximize resources. In this regard, MPWMD should have been given an opportunity to comment on the first draft of the UWMP, particularly as it has regulatory power related to a number of programs reported in the UWMP.

2. MPWMD received notice of the release of the draft UWMP in June 2012 when the public hearing was noticed. This is insufficient time to adequately review and provide comments on a plan that includes significant information related to activities undertaken by MPWMD.

3. 1.2.3: MPWMD requests clarification as to CAW's noncompliance with CUWCC BMPs.

4. 2.2: CAW maintains survey data that includes the number of residents for every residential service in its Monterey Main, Bishop and Hidden Hills systems. The survey data appears to differ significantly from the census data.

5. Given the unique circumstances of the Monterey Peninsula water situation, lumping Ambler, Ralph Lane and Chualar in with Monterey does not accurately represent the significant level of conservation that has taken place since 1995 (SWRCB Order 95-10). MPWMD recommends that the per capita use be broken out to show Monterey Main/Bishop/Ryan Ranch and Hidden Hills separate from Chualar, Ralph Lane, Toro and Ambler.

6. Pages 5-8: Minor grammatical and punctuation corrections shown on attached copy of Draft UWMP.

7. Page 8, Section B, third paragraph: What is the source for the number of people served by the Monterey District? Is it the latest census?

8. Page 8, Section C, first paragraph, fifth line: The sentence states that the Carmel River is an additional

9. Pages 31-32: Minor grammatical and punctuation corrections shown on attached copy of Draft UWMP.

10. Page 33, fifth paragraph, *Use of Leak Detection Equipment*: This information needs to be updated with Cal-Am's 2004 leak audit information.

11. Page 34, first paragraph: Rewrite first part of this paragraph as follows: "Kit *Distribution*. ~~The MPWMD has been providing free water saving devices since 1978 and continues to provide free kits~~ ***~~equipment~~*** ~~to customers requesting them~~. ***During 1988-1989, more than 42,000 water conservation kits consisting of low-flow shower heads, toilet water dams, dye tablets for toilet leak detection and a list of household water conservation ideas were distributed throughout the Monterey system by contractors retained by the MPWMD***. ~~The kits consist of low-flow shower head inserts, toilet water dams, dye kits for toilet leak detection and a list of household conservation ideas. More than 42,000 kits were distributed.~~ The program was aggressively promoted in 1987 and 1988, when, in a ten month period, kits were distributed to residential customers throughout the Cal Am service area by a "Water Corps" of contract workers……

12. Page 34, second paragraph, third line: Change "ULFT" to "ULF toilets" for consistency.

13. Page 34, third paragraph, first through fourth lines: Rewrite as follows: "In 1987, the MPWMD adopted Ordinance No. 30 ***(MPWMD Regulation 14)***, requiring water conservation retrofits upon change of ownership or use, the addition of 25% or more to existing floor area, or the addition of a bathroom. The ~~ordinance~~ ***regulation*** requires 1.6 gallon per flush toilets, ***showerheads, rain bars, or body sprays designed to emit a maximum of 2.5 gallons per minute of water; faucet aerators designed to emit a maximum of 2.2 gallons per minute,*** ~~2.5 gallon per minute faucets and showerheads, drip irrigation systems for plants and hot water recycling systems~~. ***In addition to the previously listed requirements, new construction***

is required to install an instant-access hot water system and drip irrigation where appropriate. Inspections are conducted….."

14. Page 34, third paragraph, seventh line: There should be a comma after "served by Cal Am,".

15. Page 34, third paragraph, eighth line: Amend the toilet retrofit data to year 2004. Through 2004, "more than _____ ULF toilets" were installed under the requirements of Regulation 14. Update footnote to reflect the information was provided by MPWMD.

16. Page 34, fourth paragraph, first line: Indicates footnote "1". Should be footnote "3".

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    (NOTE: MPWMD does not have information on the current status of landscape water budgets. Based on the most recent reporting of audits needed, MPWMD believes that approximately 13 percent of the required audits and landscape water budgets have been completed.)

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46. Page 52, last paragraph: Insert a line between this paragraph and the preceding paragraph. Change "Ordinance 30" to "Regulation 14" in the next to last line.

47. Page 53, first paragraph: Delete "all" in the last sentence. Add a period to the last sentence.

48. Page 55, second paragraph after heading "D": The paragraph is split in the middle after the line "Company had previously assumed…"

49. Page 59, last paragraph, fourth line from bottom: Replace "has the right to sell 175 connections" with "has the right to sell 175 ***acre-feet of water entitlements***".

50. Page 61, first paragraph: About half-way through the paragraph in the sentence that starts "Although the Monterey District has flexibility…" add "as amended by Ordinance No. 119 in March 2005" after "Ordinance 92".

51. Page 61, first paragraph explaining Stage 2: Amend the second sentence to read, "It expands the parameters of water waste to include ~~excessive~~ use ***above the established landscape water budget*** by large ~~turf~~ ***residential*** ~~customers~~ ***users, users of***

dedicated landscape meters and users that irrigate more than three acres."

52. Page 61, second paragraph explaining Stage 2: Delete "Ordinance" and replace with "Expanded Water Conservation and Standby Rationing Plan." Delete the next sentence as the revised rule does not require Cal Am to meet the 7% goal during Stage 2.

53. Page 61, first paragraph explaining Stage 3: There is an extra space between this paragraph and the last. The criteria for Stage 3 have been changed. Stage 3 Water Conservation shall be enforced when any of the following criteria has been met: 1) the average of Cal-Am's year-to-date production from the MPWRS for each month has exceeded the year-to-date at month-end production target for Cal-Am from the MPWRS for a second time during the period from October 1 through March 31 in any water year, or 2) the average of Cal-Am's year-to-date production from the MPWRS for each month has exceeded the year-to-date at month-end production target for Cal-Am from the MPWRS once during the period from April 1 through September 30 in any water year, or 3) a Resolution has been adopted by the Board when there is need for an immediate water use reduction requirement in response to an unexpected water production increase.

54. Page 62, paragraph explaining Stage 4, second sentence: Ordinance No. 119 amended the total usable storage numbers. Stage 4 is triggered by storage of less than 27,807 AF but more than 21,802 AF.

55. Page 62, paragraph explaining Stage 4, next to last sentence: Amend this sentence as follows: "~~The~~ ***s*****S**tage 4 water rationing ~~plan~~ would have the same features as the Stage 3 plan, ***with the addition of all water users within the effected water system*** ~~but compliance is mandatory, not voluntary~~."

56. Page 62, paragraph explaining Stage 5, first sentence: Ordinance No. 119 amended the total usable storage numbers. Stage 5 has the same total usable storage numbers as Stage 4.

57. Page 62, paragraph explaining Stage 6, first sentence: Ordinance No. 119 amended the total usable storage numbers. Stage 6 is triggered by storage of less than 15,615 AF but more than 9,610 AF.

58. Page 63, paragraph explaining Stage 7, first sentence: Ordinance No. 119 amended the total usable storage numbers. Stage 7 is triggered by storage of less than 9,610 AF.

59. Page 63: Insert a space between the second paragraph of Section E and Section F.

60. Page 63, Section F, last sentence: Delete "the size of the lot served, and other factors for" and substitute "served by" in its place. There will be no increment of water for "other factors."

61. Page 63, Section G, last sentence: Replace "Excesss use charges" with "Water waste fees".

62. Page 64, Section I, third line: Add "as amended by Ordinance No. 119 (adopted March 21, 2005)" following "March 1, 1999". Add reference to Ordinance 119 in the Appendix and add the document to as Appendix C.

MPWMD

Memo

To: California American Water Company

From: Stephanie Pintar, MPWMD Water Demand Manager

Date: June 26, 2005

Re: Review of Cal Am's Draft Urban Water Management Plan 2005-2010

Comments from MPWMD on Draft UWMP 2005-2010

1. For all BMPs: MPWMD recommends Cal Am develop and submit to MPWMD an implementation plan, specific timelines and a budget for each BMP for the 2005-2010 period. MPWMD can then prepare its conservation budget to best achieve the highest water savings.

2. MPWMD Ordinance No. 119 (attached) should be added to the Appendix.

3. Page 5, first paragraph: Delete the space after "1990".

4. Page 5, third paragraph, first sentence: "Programmed" is misspelled.

5. Page 6: There appears to be a text box listing abbreviations in the middle of the text at the bottom of the page. This is distracting. Outline the text box or place it elsewhere.

6. Pages 6-7: The map of the Monterey Peninsula Water Resources System is duplicated. The map on page 6 should be deleted and the map on page 7 should be labeled "Figure 1".

7. Page 7, second paragraph: The abbreviation for the California Public Utilities Commission should be CPUC.

8. Page 8, Section B, first paragraph, first sentence: Insert a comma after "in the north".

9. Page8, Section B, Second paragraph: Figure 2 is not shown.

10. Page 8, Section B, third paragraph: What is the source for the number of people served by the Monterey District? Is it the latest census?

11. Page 8, Section C, first paragraph, fifth line: Correct the number of wells. There are 26 wells, not 45. Eighteen are located in Carmel Valley and eight are in Seaside.

12. Page 12, first paragraph: Amend paragraph to read, "In the early 1990's, the MPWMD developed plans for a New Los Padres Dam, designed to replace the existing facility with a larger ***downstream*** dam. The project received necessary state and federal permits, but Peninsula voters rejected bonds to finance construction of the project in 1995. Cal Am subsequently attempted to build the project privately, but in ~~August~~ ***September*** 2003, the ***CPUC dismissed Cal-Am's application for the proposed Carmel River Dam without prejudice and directed Cal Am to file a new application to seek CPUC authorization to pursue the proposed Coastal Water Project*** ~~State Water Resources Control Board voted against letting the Company build the proposed 24,000 AF dam replacement project~~."

13. Page 12, third paragraph, first sentence: Change "California District of Safety of Dams (DSOD)" to "California ***Division*** of Safety of Dams (***C***DSOD)."

14. Page 12, third paragraph, third line from bottom: Delete "lost".

15. Page 12, third and fourth paragraphs: Change "DSOD" to "CDSOD" throughout document.

16. Page 12, fourth paragraph: There is an extra space between "restrictive" and "first" in the second sentence.

17. Page 12, fourth paragraph, last sentence: Sentence should read: "Actual surface water diversions have dropped from 29% of total supply in 1995 (4,422 AF) to a low of 0.~~5~~***0***% of total supply (~~92~~ ***0*** AF) in ~~2001 and 2002~~ ***Water Year 2004***."

18. Page 13, second full paragraph, second sentence: The Upper Carmel Valley system consists of ***nine*** wells, not five.

19. Page 14, Table 1, Carmel Valley Aquifer Wells: MPWMD would like to verify the source of the Maximum Pumping Capacity listed. Panetta #1 and #2 wells and Los Laureles #5 and #6 are missing from Upper Aquifer list.

20. Page 15, third paragraph under Seaside Basin heading: Second sentence should read, "Additional studies, completed in 200~~2~~***5***, lowered the annual ~~safe~~ ***sustainable*** yield to approximately ~~4,800~~ ***2,900*** AFY***, including yield due to artificial recharge***."

21. Page 15, fourth paragraph under Seaside Basin heading: Add "***starting in Water Year 1997"*** after "11,285 AFY" in the second line.

22. Page 15, fourth paragraph under Seaside Basin heading, last sentence: Add "***and began work on developing a Groundwater Management Plan (GMP) for the Seaside Basin in conformance with the California Groundwater Management Act (AB 3030 and SB 1958)***" to the end of the sentence.

23. Page 15, fifth paragraph under Seaside Basin heading: Replace "pilot project" in the first line with "***test*** project".

24. Page 15, fifth paragraph under Seaside Basin heading, third line: The correct title is "Seaside Basin Aquifer Storage and Recovery (ASR ***Project***."

25. Page 16, Table 2, Seaside Basin Wells: MPWMD would like to verify the source of the Maximum Pumping Capacity listed.

26. Page 17, first paragraph: Why are Ryan Ranch and Hidden Hills, and Bishop and Ambler, combined for purposes of reporting the number of wells serving each system?

27. Page 17, third paragraph: There is a hard break in the middle of the paragraph that should be removed after "However, due to…"

28. Page 17, fourth paragraph: There is a page break in the middle of the paragraph that should be reconsidered.

29. Page 17, footnote: Add "***, except during emergencies***" after "the Carmel River System". Bishop is within the MPWMD jurisdiction.

30. Page 19, first paragraph: Amend this paragraph to read, "The bulk of the District's production needs, approximately 71% on average, have come from the Carmel Valley well systems. However, Cal Am is restricted by SWRCB Order 95-10 to take no more than 11,285 AFY from the Carmel River surface diversions and the Carmel Valley wells, combined. In ~~w~~***W***ater ~~y~~***Y***ear 199~~7~~***6***-199~~8~~***7*** demand from the Carmel River system exceeded this limit and a fine of $168,000 was imposed on the Company ~~and ratepayers~~. ***In lieu of paying this civil liability, Cal Am agreed to sell its Forest Lake Reservoir to Pebble Beach Community Service District (PBCSD) and use the proceeds to provide improved fire protection with PBCSD.*** The Order 95-10 limit has not been exceeded since, and the withdraw***al***s from the Carmel River System are closely monitored to ensure the limits are not exceeded. In ~~w~~***W***ater ~~y~~***Y***ear 2000-01, production was 11,179 AF; in 2001-02, it was 10,721 AF and in 2002-03, it was 11,089 AF.

31. Page 19, second paragraph, second sentence: Modify to read, "It has become increasingly apparent that ***groundwater in*** the Seaside ***Groundwater Basin*** ~~Aquifer~~ is also a constrained resource."

32. Page 19, second paragraph, last sentence, last word: Change "aquifer" to "***basin***".

33. Page 19, third paragraph, fourth line: Add commas after "consumption" and "prepared".

34. Page 19, fourth paragraph, last sentence, last word: Change "aquifer" to "***basin***".

35. Page 19, last paragraph, fourth line: Delete "System" from "Carmel River System".

36. Page 19, last paragraph, next to last line: Change "normal or above-average precipitation" to "~~normal~~ ***average*** or above-average precipitation".

37. Page 20, first paragraph, third line: Add a comma after "At the same time".

38. Page 20, first paragraph, fourth line: Delete "15,970 AFY" and replace it with "***up to 42 cubic feet per second by direct diversion and 24,000 acre-feet per year by storage from November 1 through June 30.***"

39. Page 20, first paragraph, last sentence: Change sentence to read, "The ballot measure ***was rejected by 57% of the voters*** ~~did not obtain the 2/3 majority required~~, preventing the MPWMD from financing ***and constructing*** the project."

40. Page 20, second paragraph: Delete the duplicate "C" from ~~C~~CPUC. There is an extra space in the fifth line after "due to…" Close parentheses at the end of the paragraph.

41. Page 20, third paragraph, ninth line: Close parentheses after "north Monterey County area."

42. Page 21, second paragraph: Delete the second paragraph and insert the following text: "***Several local entities have proposed desalination projects of varying sizes to meet their respective needs. The City of Sand City has proposed a 300 acre-foot per year (AFY) desalination plant to meet its redevelopment needs. The Marina Coast Water District has proposed a plant to help meet the needs of its service area (Marina and former Fort Ord) and to provide up to 300 AFY on the Monterey Peninsula. The***

Monterey Peninsula Water Management District (MPWMD) had proposed a desalination project to be located in Sand City and former Fort Ord within the MPWMD boundaries. This facility would lie a short distance inland with seawater supplied from angle drilled wells reaching under the ocean. It would have a capacity of 8,409 AFY, which would legalize the community supply if there were no new water connections or intensified use, and the restrictions on the use of Carmel River and Seaside Basin water resources remains the same as those in place in 2003. An administrative Draft EIR on the project was completed in December 2003. The District Board placed the project on hold, pending the outcome of efforts currently underway to implement its 2004-05 Strategic Plan objectives by 1) coordinating with local land use jursidictions on projected future water demand; and 2) evaluating project opportunities for a regional solution(s) to the Monterey Peninsula's long-term water supply need. A supplemental appropriation, and at least one year, is required to complete the MPWMD Sand City desalination project Final EIR. Federal, state and local permits, final design and construction is estimated to take an additional four years. MPWMD Board action, and possibly local voter approval, would be required for the project to proceed.

43. Page 21, third paragraph: Delete "pilot" in third line.

44. Page 21, second sentence: Add a comma after "1995" and add "***of recycled water***" at the end of the sentence after "644 AFY".

45. Page 22, first paragraph: Delete "the" before "State Water Resources Control Board" in the fifth line, delete "drought" before "years of 1992" in the last line, delete "and" before "only 92 AF" in the last line, and add "0 AF in 2004" to the last line.

46. Page 27, fourth line: Delete the "Q" in the abbreviation "SWRQCB".

47. Page 27, footnote, second line: There is an unnecessary space in "Monterey's".

48. Page 28, first paragraph, end of sixth line: Contract "without".

49. Page 28, second paragraph, last line: The 2001 analysis included only vacant legal buildable lots of record. A subsequent analysis of water needs that included vacant legal buildable lots on improved parcels was not received by the Board.

50. Page 29, third paragraph, second line: Add "be" after "The plant would ***be*** designed for…."

51. Page 29, third paragraph, third line: There is an extra space after "to a future…"

52. Page 29, third paragraph, sixth line: Delete "Aquifer" from "Seaside Basin ~~Aquifer~~ Recharge".

53. Page 29, fourth paragraph: There appears to be an extra space after "to supply known" in the sixth line.

54. Page 29, last paragraph, end of last line: The year should be "***2003***" not "2004".

55. Page 31, Section A, first paragraph: Add "***(UWMP)***" after "Urban Water Management Plan" in the first line.

56. Page 31, Section B, first paragraph: Check the location of Figure 6.

57. Page 32, first paragraph: Delete "In recent years" from the beginning of the third sentence.

58. Page 32, first paragraph: Delete "being" from last sentence so it reads "In addition, separate irrigation meters are ~~being~~ installed for large landscape areas."

59. Page 32, third paragraph, last sentence: The report that is available on the website is the "***Monthly Cal Am Water Company Production Report***" not the "General Manager's Weekly Summary Report."

60. Pages 31-32: Minor grammatical and punctuation corrections shown on attached copy of Draft UWMP.

61. Page 33, fifth paragraph, *Use of Leak Detection Equipment*: This information needs to be updated with Cal-Am's 2004 leak audit information.

62. Page 34, first paragraph: Rewrite first part of this paragraph as follows: "Kit *Distribution*. ~~The MPWMD has been providing free water saving devices since 1978 and continues to provide free kits~~ ***equipment*** ~~to customers requesting them~~. ***During 1988-1989, more than 42,000 water conservation kits consisting of low-flow shower heads, toilet water dams, dye tablets for toilet leak detection and a list of household water conservation ideas were distributed throughout the Monterey system by contractors retained by the MPWMD***. ~~The kits consist of low-flow shower head inserts, toilet water dams, dye kits for toilet leak detection and a list of household conservation ideas. More than 42,000 kits were distributed.~~ The program was aggressively promoted in 1987 and 1988, when, in a ten month period, kits were distributed to residential

customers throughout the Cal Am service area by a "Water Corps" of contract workers……

63. Page 34, second paragraph, third line: Change "ULFT" to "ULF toilets" for consistency.

64. Page 34, third paragraph, first through fourth lines: Rewrite as follows: "In 1987, the MPWMD adopted Ordinance No. 30 ***(MPWMD Regulation 14)***, requiring water conservation retrofits upon change of ownership or use, the addition of 25% or more to existing floor area, or the addition of a bathroom. The ~~ordinance~~ ***regulation*** requires 1.6 gallon per flush toilets, ***showerheads, rain bars, or body sprays designed to emit a maximum of 2.5 gallons per minute of water; faucet aerators designed to emit a maximum of 2.2 gallons per minute,*** ~~2.5 gallon per minute faucets and showerheads, drip irrigation systems for plants and hot water recycling systems~~. ***In addition to the previously listed requirements, new construction is required to install an instant-access hot water system and drip irrigation where appropriate.*** Inspections are conducted….."

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96. Page 49, last paragraph: Change "this" to "a" in the first sentence.

97. Page 52, last paragraph: Insert a line between this paragraph and the preceding paragraph. Change "Ordinance 30" to "Regulation 14" in the next to last line.

98. Page 53, first paragraph: Delete "all" in the last sentence. Add a period to the last sentence.

99. Page 55, second paragraph after heading "D": The paragraph is split in the middle after the line "Company had previously assumed…"

100. Page 59, last paragraph, fourth line from bottom: Replace "has the right to sell 175 connections" with "has the right to sell 175 ***acre-feet of water entitlements***".

101. Page 61, first paragraph: About half-way through the paragraph in the sentence that starts "Although the Monterey District has flexibility…" add "as amended by Ordinance No. 119 in March 2005" after "Ordinance 92".

102. Page 61, first paragraph explaining Stage 2: Amend the second sentence to read, "It expands the parameters of water waste to include ~~excessive~~ use ***above the established landscape water budget*** by large ~~turf~~ ***residential*** ~~customers~~ ***users, users of dedicated landscape meters and users that irrigate more than three acres***."

103. Page 61, second paragraph explaining Stage 2: Delete "Ordinance" and replace with "Expanded Water Conservation and Standby Rationing Plan." Delete the next sentence as the revised rule does not require Cal Am to meet the 7% goal during Stage 2.

104. Page 61, first paragraph explaining Stage 3: There is an extra space between this paragraph and the last. The criteria for Stage 3 have been changed. Stage 3 Water Conservation shall be enforced when any of the following criteria has been met: 1) the average of Cal-Am's year-to-date production from the MPWRS for each month has exceeded the year-to-date at month-end production target for Cal-Am from the MPWRS for a second time during the period from October 1 through March 31 in any water year, or 2) the average of Cal-Am's year-to-date production from the MPWRS for each month has exceeded the year-to-date at month-end production target for Cal-Am from the MPWRS once during the period from April 1 through September 30 in any water year, or 3) a Resolution has been adopted by the Board when there is need for an immediate water use reduction requirement in response to an unexpected water production increase.

105. Page 62, paragraph explaining Stage 4, second sentence: Ordinance No. 119 amended the total usable storage numbers. Stage 4 is triggered by storage of less than 27,807 AF but more than 21,802 AF.

106. Page 62, paragraph explaining Stage 4, next to last sentence: Amend this sentence as follows: "~~The~~ ***sS***tage 4 water rationing ~~plan~~ would have the same features as the Stage 3 plan, ***with the addition of all water users within the effected water system*** ~~but compliance is mandatory, not voluntary~~."

107. Page 62, paragraph explaining Stage 5, first sentence: Ordinance No. 119 amended the total usable storage numbers. Stage 5 has the same total usable storage numbers as Stage 4.

108. Page 62, paragraph explaining Stage 6, first sentence: Ordinance No. 119 amended the total usable storage numbers. Stage 6 is triggered by storage of less than 15,615 AF but more than 9,610 AF.

109. Page 63, paragraph explaining Stage 7, first sentence: Ordinance No. 119 amended the total usable storage numbers. Stage 7 is triggered by storage of less than 9,610 AF.

110. Page 63: Insert a space between the second paragraph of Section E and Section F.

111. Page 63, Section F, last sentence: Delete "the size of the lot served, and other factors for" and substitute "served by" in its place. There will be no increment of water for "other factors."

112. Page 63, Section G, last sentence: Replace "Excess use charges" with "Water waste fees".

Page 64, Section I, third line: Add "as amended by Ordinance No. 119 (adopted March 21, 2005)" following "March 1, 1999". Add reference to Ordinance 119 in the Appendix and add the document to as Appendix C

Attachment E

(Phase 2 Direct Testimony of David J. Stoldt)

State of California
The Natural Resources Agency DEPARTMENT OF WATER RESOURCES
Division of Regional Assistance, Water Use Efficiency Branch

Urban Water Management Plan Guidebook 2020

FINAL March 2021

Gavin Newsom
Governor
State of California

Wade Crowfoot
Secretary for Natural Resources
The Natural Resources Agency

Karla Nemeth
Director
Department of Water Resources

2.2 Basis for Preparing a Plan

The basis for preparing a UWMP is identified in the Water Code:

> *Water Code Section 10617*
>
> *"Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems.*
>
> *Water Code Section 10620*
>
> *(b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.*
>
> *Water Code Section 10621*
>
> *(a) Each urban water supplier shall update its plan at least once every five years on or before July 1, in years ending in six and one, incorporating updated and new information from the five years preceding each update.*

All Urban Water Suppliers

In accordance with the Water Code, Suppliers with 3,000 or more service connections, or those supplying 3,000 or more acre-feet of water per year, are required to prepare an UWMP every five years.

If any Supplier is under this defined threshold for the year that an UWMP is due, but meets this threshold before the next reporting cycle, the Supplier is required to adopt an UWMP within one year after meeting the reporting threshold.

Suppliers can provide a brief discussion of the applicability of Water Code Section 10617, in regard to their requirement to submit a UWMP.

2.2.1 Public Water Systems

Water Code Section 10644

> *(a)(2) The plan, or amendments to the plan, submitted to the department … shall include any standardized forms, tables, or displays specified by the department.*
>
> *California Health and Safety Code 116275*
>
> *(h) "Public Water System" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.*

All Urban Water Suppliers

Public water systems are the distribution systems that provide drinking water for human consumption. All public water systems are given a unique Public Water System Identification Number (PWSID).

These systems are regulated by the State Water Board's Division of Drinking Water.

The California Health and Safety Code defines a public water system as described above.

Retail Only

Public water system data, reported by Suppliers to the State Water Board, is used to determine whether or not an urban retail water supplier (Retail Supplier) has reached the UWMP reporting threshold of 3,000 or more connections or 3,000 acre-feet of provided water, per the public water system definition. This determination is done by reviewing the number of connections and volume of water supplied by each public water system. Those Suppliers with one or more public water systems that meet the above thresholds are considered an urban Supplier for purposes of submitting a UWMP.

Wholesale Only

Agencies that are exclusively or primarily **Wholesale Suppliers** are not required to provide public water system information.

2.2.2 Suppliers Serving Multiple Service Areas/Public Water Systems

Many Suppliers within the state have more than one public water system. Such Suppliers may determine regional groupings and reporting for these systems based on internal planning requirements, geographic distribution, and similarities between systems. It is

recommended that Suppliers specify which of the PWSIDs are covered within the UWMP, otherwise readers and data users will expect to see an analysis that includes all of the public water systems a Supplier is responsible for.

Submittal Table 2-1 Retail: Public Water Systems

Submittal Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020
	TOTAL	0	0
NOTES:			

The names and numbers of each Public Water Supplier (drinking water only) that is managed by the Supplier and reported in a UWMP should be provided in Table 2-1 R. For Regional UWMPs (i.e., RUWMP), Suppliers will use multiple versions of Table 2-1—one for each participating **Retail Supplier**.

2.3 Regional Planning

All Urban Water Suppliers

Regional planning can deliver mutually beneficial solutions to all agencies involved by reducing costs for the individual agency, assessing water resources at the appropriate geographic scale, and allowing for solutions that cross jurisdictional boundaries.

Some of the other possible benefits, depending on the level of regional cooperation, can include:

- More reliable water supplies
- Increased regional self-reliance

- Improved water quality
- Better flood management
- Increased economic stability
- Restored and enhanced ecosystems
- Reduced conflict over resources

In support of regional UWMPs and regional water conservation targets, the UWMP portion of the Water Code provides mechanisms for participating in area-wide, regional, watershed, or basin-wide urban water management planning.

2.4 Individual or Regional Planning and Compliance

All Urban Water Suppliers

Developing a cooperative 2020 UWMP may be a natural continuation of other regional coordination efforts, such as IRWM, or it may present an opportunity to begin regional collaboration.

Agencies may choose:

- **Individual Reporting.** An agency develops an UWMP that reports solely on its distribution service area. Individual UWMPs address all requirements of the Water Code including water use targets and baselines for Senate Bill Extraordinary Session 7-7 (SB X7-7) Water Conservation Act of 2009 reporting. The agency notifies and coordinates with appropriate regional agencies and constituents.
- **Regional Reporting.** Working with an IRWM group, wholesaler, other retailers, or another regional entity, a Supplier becomes part of a regional group that may develop either a:
  - **Regional Urban Water Management Plan (RUWMP).** A regional group develops a RUWMP that reports on their combined regional service area. The RUWMP must address all requirements of the Water Code, but the requirements of SB X7-7 targets and baseline reporting may be addressed by each participating Supplier, through a Regional Alliance, or both (see Section 2.3.2 below). RUWMPs submit data for multiple agencies, requiring duplication of many standardized tables. The submitter provides standardized tables for each

participating Supplier and notates each of the copies with the name of the Supplier to which the table pertains.

- **Regional Alliance.** A regional group that develops a Regional Alliance addresses the requirements of SB X7-7 for planning, reporting, and compliance as a Regional Alliance for 2020 water use targets and baselines. This is done by completing the SB X7-7 Verification Form and the SB X7-7 2020 Compliance Form for a Regional Alliance, Option 1, 2, or 3. All other elements of the Water Code must be addressed through either an individual or regional UWMP. Suppliers considering a Regional Alliance approach are strongly advised to read Methodology 9 of the *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* (Methodologies) document for detailed guidance on how to proceed. The Methodologies document is located at https://data.cnra.ca.gov/dataset/2015-urban-water-management-plans-uwmps-historic-information. This is also available in the Resources portion of the WUE Data Portal (wuedata.water.ca.gov)

2.4.1 Regional UWMP

Water Code Section 10620

(d)(1) An urban water supplier may satisfy the requirements of this part by participation in area wide, regional, watershed, or basin wide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation, efficient water use, and improved local drought resilience.

All Urban Water Suppliers

Suppliers may find it beneficial to collaborate with other Suppliers to develop a RUWMP.

The RUWMP must address all the requirements of the Water Code. The requirements of SBX7-7 may be addressed either by individual agencies, through a Regional Alliance, or both. Some elements of the RUWMP, such as each agency's supply and demand information, must be reported on an individual Supplier-by-Supplier basis within the RUWMP. Providing the sum of the supplies and demands from each

Supplier in order to report the regional supply and demand is not required, although it may be included.

Other elements in the RUWMP may be reported as an aggregate of all the agencies' information, such as a regional WSCP that clearly includes the actions and regional reliance of all Suppliers in response to a water shortage.

Each participating Supplier is required to adopt the RUWMP. Submitting each adoption resolution to DWR demonstrates compliance with this requirement.

If a Supplier participates in a RUWMP and also prepares its own individual UWMP, its governing board must adopt both the regional and individual plans.

Retail Only

Within the RUWMP, Suppliers may determine and report targets and baselines in one of two ways: either on a regional basis through a Regional Alliance (see Section 2.3.2) or by each individual Supplier.

2.4.2 Regional Alliance

Water Code Section 10608.20

(a)(1) …Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis as provided in subdivision (a) of Section 10608.28…

Water Code Section 10608.28

(a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement by any of the following:

(1) Through an urban wholesale water supplier.

(2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).

(3) Through a regional water management group as defined in Section 10537.

(4) By an integrated regional water management funding area.

(5) By hydrologic region.

(6) Through other appropriate geographic scales for which computation methods have been developed by the department.

(b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.

Retail Only

A group of Suppliers agreeing among themselves to plan, comply, and report as a region on the urban water use target requirements of SB X7-7 is referred to as a Regional Alliance. Each Regional Alliance will develop (or had developed previously in the 2015 plan) and demonstrate meeting its own set of 2020 urban water use targets.

A Regional Alliance allows Suppliers to work toward cooperatively developing programs and meeting regional water conservation targets, but not necessarily submitting a Regional Plan. Being a member of a Regional Alliance does not take the place of submitting an individual UWMP or RUWMP.

Note that an individual Supplier's compliance with its 2020 water use target will be assessed based upon how the individual Retail Supplier performs relative to its individual target, or how the Supplier's Regional Alliance performs as a whole in relation to its respective regional target.

Detailed guidance for a Regional Alliance, including criteria for participating in a Regional Alliance, reporting requirements, calculation of regional targets, and compliance assessments, is found in Methodology 9 of the *Methodologies* document. This document is located here: https://data.cnra.ca.gov/dataset/2015-urban-water-management-plans-uwmps-historic-information. Table 2-2 allows a

Supplier to identify whether or not it is submitting its UWMP as part of a RUWMP or a Regional Alliance, or as an individual UWMP.

Submittal Table 2-2. Plan Identification Type

Submittal Table 2-2: Plan Identification			
Select Only One	**Type of Plan**		**Name of RUWMP or Regional Alliance** *if applicable* *drop down list*
☐	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☐	Water Supplier is also a member of a Regional Alliance	
☐	**Regional Urban Water Management Plan (RUWMP)**		
NOTES:			

Attachment F

(Phase 2 Direct Testimony of David J. Stoldt)




Monterey Bay 2045

Moving Forward

Sustainability.
Mobility.
Accessibility.
Economy.
Social Equity.






2045 Metropolitan Transportation Plan / Sustainable Communities Strategy

Final
June 2022

Monterey Bay 2045 Moving Forward
Sustainability. Mobility. Accessibility. Economy. Social Equity.

Moving Forward Monterey Bay 2045

Final

June 2022

24580 Silver Cloud Ct.
Monterey, CA 93940

http://ambag.org/
https://www.facebook.com/MontereyBayAMBAG

development process faster and easier. The State of California offers grants to accelerate the production of housing and approves legislation that allows for more types of homes, like accessory dwelling units to be built statewide. Regionally, government agencies are considering how to better align housing policies with transportation initiatives because both contribute substantially to the region's cost of living.

The SCS land use pattern accommodates the more than 42,000 new households that will be needed over the next 25 years to serve a projected growth of nearly 108,000 additional people.

The SCS land use pattern addresses the needs of all economic segments of the population. Based on the capacity for planned housing development the region will be able to accommodate the projected housing needs for residents of all income levels.

Regional Housing Needs Allocation

California Housing Element law requires that every eight years, AMBAG shall develop a methodology for distributing projected housing need in four income categories – very low, low, moderate and above moderate – to local jurisdictions in Monterey and Santa Cruz Counties and sets forth a process, objectives and factors to use for that methodology. The Council of San Benito County Governments (SBtCOG) performs this function for San Benito County. This process, the Regional Housing Needs Allocation (RHNA), is coordinated by the California Department of Housing and Community Development (HCD). The 2045 MTP/SCS includes an updated RHNA. The 6th Cycle Regional Housing Needs Determination (RHND) from HCD to AMBAG is 33,274 units. SBtCOG's 6th Cycle RHND is 5,005 units.

In the past, the RHNA was conducted separately from the MTP process. SB 375 now links the RHNA and MTP/SCS processes to better integrate housing, land use, and transportation planning. Integrating processes helps ensure that the state's housing goals are met. The RHNA occurs before each housing element cycle, which SB 375 changed from a five-year to an eight-year cycle.

The AMBAG region received its RHNA Determination (for Monterey and Santa Cruz Counties) from HCD for the housing element cycle (2023-2031). The AMBAG RHNA Plan allocates the RHNA Determination by jurisdiction. (For the San Benito RHNA, refer to SBtCOG's RHNA Plan.) Based on the RHNA Plan each jurisdiction will need to

identify adequate sites to address its RHNA allocations in the four income categories when updating its housing element.

Monterey and Santa Cruz Counties have enough housing capacity to accommodate the RHNA allocations. San Benito County also has the housing capacity to accommodate the RHNA as described in the San Benito RHNA Plan. The allocations do not exceed forecasted growth and can be accommodated through infill and redevelopment. The AMBAG and SBtCOG RHNA Plans are under development and are expected to be consistent with the 2045 MTP/SCS. The 2045 MTP/SCS will be adopted within 18 months of the RHNA planning period and 6th Cycle Housing Element deadline as documented by HCD. This schedule follows the required statutory deadlines.

Meeting GHG Targets

In 2018, CARB set updated targets for lowering GHG in the Monterey Bay region. They call for a three percent reduction, in per capita GHG emissions from passenger vehicles by 2020 (compared with 2005); and a six percent per capita reduction by 2035 through land use and transportation planning.

The 2045 MTP/SCS demonstrates that the Monterey Bay region will meet these targets by focusing housing and employment growth in urbanized areas; protecting sensitive habitat and open space; and investing in a transportation system that provides residents, workers and visitors with transportation options that are more effective and diverse.

In addition, the 2045 MTP/SCS includes economic development strategies to encourage job growth in communities that are currently job poor as well as planning for new housing in communities that are currently job rich help to address the jobs/housing imbalance in the region and reduce vehicle miles traveled. The process to develop the MTP/SCS was based upon modeling these forecasted land use patterns and future transportation networks, along with the use of sustainable development principles that have been standard planning practice in the region for some time, and an extensive public outreach process.

California Environmental Quality Act (CEQA) Streamlining

Provisions in SB 375 include opportunities for streamlining the CEQA process, when certain conditions are met, as an incentive for implementing projects that are consistent with this SCS. Generally, there are two types of projects for which CEQA requirements can be streamlined, once the MPO adopts an MTP/SCS that meet the greenhouse gas targets established by CARB:

- Transit priority projects streamlining
- Residential/mixed use projects streamlining

SB 375 includes specific requirements for the CEQA streamlining. The discussion below provides a general outline of the requirements.

Transit Priority Projects

A Transit Priority Project (TPP) is a project within an Opportunity Area and is eligible for CEQA streamlining if it is:

- Consistent with the SCS;

Attachment G

(Phase 2 Direct Testimony of David J. Stoldt)

AMBAG Board of Directors Agenda

Association of Monterey Bay Area Governments
P.O. Box 2453, Seaside, California 93955-2453
Phone: (831) 883-3750
Fax: (831) 883-3755
Email: info@ambag.org

Meeting Via GoToWebinar
DATE: June 15, 2022
TIME: 6:00 PM

Please register for the AMBAG Board of Directors meeting at
https://attendee.gotowebinar.com/register/7191053858756174096

On September 16, 2021, Governor Newsom signed AB 361 into law**.** The provisions enacted by AB 361 provide flexibility to meet remotely during a proclaimed emergency and will sunset on January 1, 2024. The AMBAG Board of Directors meeting will be conducted via GoToWebinar as established by Resolution 2022-14 adopted by the AMBAG Board of Directors on May 25, 2022. The AMBAG Board of Directors will participate in the meeting from individual remote locations. Members of the public will need to attend the meeting remotely via GoToWebinar. We apologize in advance for any technical difficulties.

Persons who wish to address the AMBAG Board of Directors on an item to be considered at this meeting are encouraged to submit comments in writing at info@ambag.org by Tuesday, June 14, 2022. The subject line should read "Public Comment for the June 15, 2022 Board of Directors Meeting." The agency clerk will read up to 3 minutes of any public comment submitted.

To participate via GoToWebinar, please register for the June 15, 2022 AMBAG Board of Directors meeting using the following link: https://attendee.gotowebinar.com/register/7191053858756174096

You will be provided dial-in information and instructions to join the meeting.

If you have any questions, please contact Ana Flores, Clerk of the Board at aflores@ambag.org or at 831-883-3750 Ext. 300.

1. CALL TO ORDER

2. ROLL CALL

3. ORAL COMMUNICATIONS FROM THE PUBLIC ON ITEMS NOT ON THE AGENDA
(A maximum of three minutes on any subject not on the agenda)

4. ORAL COMMUNICATIONS FROM THE BOARD ON ITEMS NOT ON THE AGENDA

5. COMMITTEE REPORTS

A. Executive/Finance Committee
Recommended Action: INFORMATION
- President Brown

Receive oral report.

B. Monterey Bay National Marine Sanctuary (MBNMS) Advisory Council (SAC) Meeting
Recommended Action: DIRECT
- Director McAdams

The next meeting is scheduled on June 17, 2022. The agenda will be provided at the meeting.

6. EXECUTIVE DIRECTOR'S REPORT
Recommended Action: INFORMATION
- Maura Twomey, Executive Director

Receive a report from Maura Twomey, Executive Director.

7. CONSENT AGENDA
Recommended Action: APPROVE
Note: Actions listed for each item represents staff recommendation. The Board of Directors may, at its discretion, take any action on the items listed in the consent agenda.

A. Draft Minutes of the May 25, 2022 AMBAG Board of Directors Meeting
- Ana Flores, Clerk of the Board

Approve the draft minutes of the May 25, 2022 AMBAG Board of Directors meeting. (Page 5)

B. Draft Minutes of the May 11, 2022 AMBAG Board of Directors Meeting
- Ana Flores, Clerk of the Board

Approve the draft minutes of the May 11, 2022 AMBAG Board of Directors meeting. (Page 9)

C. AMBAG Regional Clearinghouse Monthly Newsletter

- Miranda Taylor, Planner

Accept the clearinghouse monthly newsletter. (Page 15)

D. AMBAG Sustainability Program Update

- Amaury Berteaud, Special Projects Manager

Accept the AMBAG Sustainability Program update. (Page 21)

E. Resolution in accordance with AB 361 regarding the Ralph M. Brown Act and Finding of Imminent Risk to Health and Safety of In-Person Meetings as a Result of the Continuing COVID-19 Pandemic State of Emergency Declared by Governor Newsom

- Maura Twomey, Executive Director

Adopt a Resolution 2022-15 in accordance with AB 361 regarding the Ralph M. Brown Act and finding of imminent risk to health and safety of in-person meetings as a result of the continuing COVID-19 pandemic state of emergency declared by Governor Newsom. (Page 25)

F. Extension of Legal Services Contract

- Errol Osteraa, Director of Finance & Administration

Approve a one year extension of the current contract for legal services and authorize the Executive Director to negotiate and execute the contract. (Page 27)

G. Revised Procurement Policies and Procedures Manual

- Diane Eidam, Retired Annuitant

Adopt the Procurement Policies and Procedures. (Page 33)

H. Financial Update Report

- Errol Osteraa, Director of Finance & Administration

Accept the financial update report which provides an update on AMBAG's current financial position and accompanying financial statements. (Page 35)

8. ITEMS REMOVED FROM CONSENT CALENDAR FOR DISCUSSION AND POSSIBLE ACTION

9. PLANNING

A. Final 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy and Environmental Impact Report
Recommended Action: PUBLIC HEARING / APPROVE

- Heather Adamson, Director of Planning

1. Hold public hearing; (Page 41)

2. Approve Resolution No. 2022-16 (Attachment 1) certifying the Final Environmental Impact Report prepared for the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (SCH#2020010204) and County RTPs and adopting Findings of Fact pursuant to the California Environmental Quality Act; a Statement of Overriding Considerations; and a Mitigation Monitoring and Reporting Program; (Page 45)

3. Approve Resolution No. 2022-17 (Attachment 2) finding the Sustainable Communities Strategy achieves the regional greenhouse gas reduction targets, adopting the Final 2022 Regional Growth Forecast, and adopting the 2045 Metropolitan Transportation Plan, including its Sustainable Communities Strategy. (Page 225)

B. Draft 6th Cycle Regional Housing Needs Allocation Plan: Appeals Received and Schedule Public Hearing
Recommended Action: APPROVE
- Heather Adamson, Director of Planning

AMBAG has received two appeals on the Draft 6th Cycle Regional Housing Needs Allocation (RHNA) Plan. The 45-day comment period on appeals received concludes on July 22, 2022. The Board is asked to schedule a public hearing to hear the appeals on August 10, 2022. The public hearing will be held as part of AMBAG's effort to prepare a Final RHNA Plan for the AMBAG region in accordance with state law. (Page 229)

10. ADJOURNMENT

REFERENCE ITEMS:

A. 2022 Calendar of Meetings (Page 251)
B. Acronym Guide (Page 253)

NEXT MEETING:

Date: August 10, 2022
Location: GoToWebinar
Executive/Finance Committee Meeting: 5:00 PM
Board of Directors Meeting: 6:00 PM

If requested, the agenda shall be made available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 USC Sec. 12132), and the federal rules and regulations adopted in implementation thereof. If you have a request for disability-related modification or accommodation, including auxiliary aids or services, contact Ana Flores, AMBAG, 831-883-3750, or email aflores@ambag.org at least 48 hours prior to the meeting date.

MEMORANDUM

TO:	**AMBAG Board of Directors**
FROM:	**Maura F. Twomey, Executive Director**
RECOMMENDED BY:	**Heather Adamson Director of Planning**
SUBJECT:	**Final 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy and Environmental Impact Report**
MEETING DATE:	**June 15, 2022**

RECOMMENDATION:

The Board of Directors is asked to:

1. Hold public hearing;

2. Approve Resolution No. 2022-16 (Attachment 1) certifying the Final Environmental Impact Report prepared for the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (SCH#2020010204) and County RTPs and adopting Findings of Fact pursuant to the California Environmental Quality Act; a Statement of Overriding Considerations; and a Mitigation Monitoring and Reporting Program;

3. Approve Resolution No. 2022-17 (Attachment 2) finding the Sustainable Communities Strategy achieves the regional greenhouse gas reduction targets, adopting the Final 2022 Regional Growth Forecast, and adopting the 2045 Metropolitan Transportation Plan, including its Sustainable Communities Strategy.

BACKGROUND:

The 2045 MTP/SCS is the blueprint for a regional transportation system that further enhances our quality of life, promotes sustainability, and offers more mobility options for people and goods. The MTP/SCS is built on an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system so it meets the diverse needs of our changing region through 2045.

DISCUSSION:

Final Environmental Impact Report

Attachment 1 is the resolution certifying the Final EIR prepared for the 2045 MTP/SCS and adopting the Findings, Statement of Overriding Considerations and Mitigation Monitoring and Reporting Program (Attachments A and B to the resolution).

The Final EIR consists of: (1) the Final EIR volume, which is a complete revision of the Draft EIR (which consists of the original Draft EIR and the Partially Recirculated Draft EIR); and (2) all appendices to the Final EIR (Appendices A-H), including Appendix H, which consists of comments received on the Draft EIR, a list of persons, organizations and public agencies commenting of the Draft EIR, responses to significant environmental issues raised in the review and consultation process, and other information.

The Final EIR incorporates changes made to the Draft EIR as a result of comments received during the public review periods for the original Draft EIR and Partially Recirculated Draft EIR, and minor changes made to the Draft 2045 MTP/SCS. Changes made to the Draft EIR did not result in any new significant impacts not addressed in the Draft EIR, increase the severity of significant impacts identified in the Draft EIR.

Pursuant to Public Resources Code §21081(a) and CEQA Guidelines §15091, AMBAG has prepared findings of fact for every significant impact identified in the EIR and for each alternative evaluated in the EIR. The findings are set forth in Attachment A to the CEQA Resolution (Attachment 1).

Even after adoption of all feasible mitigation measures, the 2045 MTP/SCS will have significant impacts that cannot be fully mitigated to less than significant levels. AMBAG has prepared a Statement of Overriding Considerations in compliance with Public Resources Code §21081(b) and CEQA Guidelines §15093, which finds that specific economic, legal, social, technological, and other benefits of the 2045 MTP/SCS outweigh the significant and unavoidable impacts identified in the EIR. The Statement of Overriding Considerations is set forth in Attachment A to the CEQA Resolution (Attachment 1).

Additionally, AMBAG has prepared a Mitigation Monitoring and Reporting Program in compliance with Public Resources Code §21081.6 and CEQA Guidelines §15097 to ensure compliance with the mitigation measures identified in the EIR during project implementation. The Mitigation Monitoring and Reporting Program is set forth in Attachment B to the CEQA Resolution (Attachment 1).

2022 Regional Growth Forecast

In November 2020, the Board of Directors accepted the Draft 2022 Regional Growth Forecast for planning purposes. More information regarding the Final 2022 Regional Growth Forecast is included in Appendix A of the 2045 MTP/SCS.

Final 2045 MTP/SCS

At its April 13, 2022, meeting, the Board accepted the comments and responses and proposed modifications to the Draft 2045 MTP/SCS. The changes were incorporated into the Final 2045 MTP/SCS.

Attachment 2 is the resolution finding that the SCS achieves the greenhouse gas reduction targets established by CARB, and adopting the 2045 MTP/SCS and the Final 2022 Regional Growth Forecast.

Next Steps

Following the above Board actions, staff will submit the Final 2045 MTP/SCS to Caltrans, Federal Highway Administration and Federal Transit Administration. The Final 2045 MTP/SCS also will be submitted to CARB to confirm the preliminary determination by its staff that implementation of the SCS would achieve the regional GHG reduction targets.

The 2045 MTP/SCS, including Appendices as well as the Final EIR and its Appendices, are available on the AMBAG website at www.ambag.org. Jump drives containing all documents are available by contacting AMBAG at (831) 883-3750.

ALTERNATIVES:

The Board could choose not to certify the Final EIR, not to adopt findings, not to adopt the MMRP, and could choose not to adopt the 2045 MTP/SCS. AMBAG staff does not recommend this alternative because it would delay the adoption of the 2045 MTP/SCS and potentially cause delay or loss of transportation funding to the AMBAG region.

FINANCIAL IMPACT:

Planning activities for the 2045 MTP/SCS are funded with FHWA PL, FTA 5303 and SB 1 planning funds and are programmed in the FY 2021-22 Overall Work Program and Budget.

COORDINATION:

All MTP/SCS planning activities are coordinated with the MTP/SCS Executive Steering Committee and Staff Working Group which includes participation from Caltrans District

5, Monterey Salinas Transit, Santa Cruz Metropolitan Transit District, Santa Cruz County Regional Transportation Commission, San Benito County Council of Governments, and the Transportation Agency for Monterey County, as well as the Planning Directors Forum and the RTPAs Technical Advisory Committees which includes the local jurisdictions.

ATTACHMENTS:

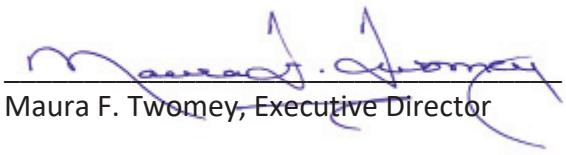
1. Resolution No. 2022-16 certifying the Final Environmental Impact Report prepared for the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (SCH#2020010204) and County RTPs and adopting Findings of Fact pursuant to the California Environmental Quality Act; a Statement of Overriding Considerations; and a Mitigation Monitoring and Reporting Program; (Page 45)

    A. Attachment A: CEQA Findings, Statement of Overriding Considerations and Mitigation Monitoring and Reporting Program (Page 51)

    B. Attachment B: Mitigation Monitoring and Reporting Program (Page 149)

2. Approve Resolution No. 2022-17 finding the Sustainable Communities Strategy achieves the regional greenhouse gas reduction targets, adopting the Final 2022 Regional Growth Forecast, and adopting the 2045 Metropolitan Transportation Plan, including its Sustainable Communities Strategy. (Page 225)

APPROVED BY:



Maura F. Twomey, Executive Director

A RESOLUTION OF THE ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS (AMBAG) BOARD OF DIRECTORS FINDING THE SUSTAINABLE COMMUNITIES STRATEGY ACHIEVES THE REGIONAL GREENHOUSE GAS REDUCTION TARGETS, ADOPTING THE FINAL 2022 REGIONAL GROWTH FORECAST, AND ADOPTING THE 2045 METROPOLITAN TRANSPORTATION PLAN, INCLUDING ITS SUSTAINABLE COMMUNITIES STRATEGY

WHEREAS, AMBAG is the federally designated metropolitan planning organization (MPO), pursuant to Title 23 United States Code Sections 134(a) and (g); and

WHEREAS, Title 23, Part 450 and Title 49 of the Code of Federal Regulations (CFR), require AMBAG as the MPO to prepare and update a long-range Metropolitan Transportation Plan (MTP) every four years; and

WHEREAS, Section 65080(d) of the California Government Code requires AMBAG to prepare and update a Sustainable Communities Strategy (SCS) every four years; and

WHEREAS, AMBAG has coordinated with the Santa Cruz County Regional Transportation Commission, the Transportation Agency for Monterey County and San Benito County Council of Governments, which each prepared a County Regional Transportation Plan; and

WHEREAS, each respective County Regional Transportation Plan is integrated within the 2045 MTP/SCS; and

WHEREAS, from March 2019 through June 2022, through the conduct of a continuing, comprehensive and coordinated transportation planning process in conformance with applicable federal and state requirements, AMBAG developed its latest MTP with a 2045 horizon year, which incorporates an SCS for the Monterey Bay Area region; and

WHEREAS, the 2045 MTP, including its SCS, contains an integrated set of public policies, strategies and investments to maintain, manage and improve the transportation system in the AMBAG region through the year 2045 and calls for development of an integrated intermodal transportation system that facilitates the efficient, economic movement of people and goods; and

WHEREAS, the 2045 MTP/SCS considers, analyzes and reflects, as appropriate, the metropolitan transportation planning process as identified in federal law, including the federal the Moving Ahead for Progress in the 21st Century Act and the Fixing America's Surface Transportation Act, as well as the National Highway System Designation Act of 1995, and is based on reasonably available funding provisions; and

WHEREAS, the 2022 MTP/SCS integrates a Congestion Management Process identifying the most serious congestion problems and evaluating and incorporating, as appropriate, all reasonably available actions to reduce congestion, such as travel demand management and operational management strategies for all corridors with any proposed capacity increase; and

WHEREAS, the North Central Coast Air Basin, within which the AMBAG region is located, meets Federal Criteria Pollutant Ambient Air Quality Standards, is in Attainment Status for these standards, and is therefore exempt from a Clean Air Act conformity analysis; and

WHEREAS, the 2022 Regional Growth Forecast was developed for planning purposes by working with local jurisdictions, and projects growth based on the most recent planning assumptions, including existing land use plans and policies and demographic and economic trends; and

WHEREAS, the Draft 2022 Regional Growth Forecast was accepted by the AMBAG Board of Directors on November 18, 2020, for planning purposes; and

WHEREAS, pursuant to Government Code Section 65080(b)(2)((E) and federal public participation requirements, the 2045 MTP/SCS, was developed through a strategic, proactive, comprehensive public outreach and involvement program, which included: an adopted public participation plan; advertising in local and regional newspapers; distribution of public information materials, such as brochures and newsletters; a dedicated website; nine noticed public hearings to receive testimony on the Draft 2045 MTP/SCS and its Environmental Impact Report; four workshops and public hearings in January 2022 to facilitate public comment on the Draft 2045 MTP/SCS, and interagency coordination and involvement; and

WHEREAS, pursuant to Government Code Section 65080(b)(2)(B), the AMBAG MTP/SCS: (i) identifies the general location of uses, residential densities and building intensities within the region; (ii) identifies areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth; (iii) identifies areas within the region sufficient to house an eight-year projection of the regional housing need for the region pursuant to Government Code Section 65584; (iv) identifies a transportation network to service the transportation needs of the region; (v) gathers and considers the best practically available scientific information regarding resource areas and farmland in the region as defined in subdivisions (a) and (b) of Government Code Section 65080.01; and (vi) considers the state housing goals specified in Sections Government Code 65580 and 65581; and

WHEREAS, pursuant to Government Code Section 65080(b)(2)(G), the SCS considered spheres of influence adopted by the Santa Cruz, Monterey and San Benito County Local Agency Formation Commissions; and

WHEREAS, pursuant to Government Code Section 65080(b)(2)(B)(vii), the SCS set forth a forecasted development pattern for the region, which, when integrated with the transportation network and other transportation measures and polices, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve the regional greenhouse gas emission targets set by the California Air Resources Board (CARB); and

WHEREAS, for the 2045 MTP/SCS, CARB set the per capita greenhouse gas emission reduction targets for automobiles and light trucks for the AMBAG region at 3 percent by 2020 and6 percent by 2035 from a 2005 base year; and

WHEREAS, by separate resolution on this date, the AMBAG Board of Directors certified the Final EIR for the 2045 MTP/SCS, and adopted Findings of Fact, a Statement of Overriding Considerations and a Mitigation Monitoring and Reporting Program, as required by the California Environmental Quality Act (CEQA); and

WHEREAS, on this date, the AMBAG Board of Directors held a duly noticed public hearing prior to considering certifying the Final EIR; adopting the CEQA findings, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Program; and adopting the Final 2045 MTP/SCS; and

WHEREAS, prior to taking action on the 2045 MTP/SCS, the AMBAG Board of Directors has heard, been presented with, reviewed and considered all of the information and data in the administrative record, including the Final EIR, and all oral and written evidence presented to it during all meetings and hearings;

NOW THEREFORE:

BE IT RESOLVED BY the AMBAG Board of Directors that the foregoing recitals are true and correct and incorporated by this reference; and

BE IT FURTHER RESOLVED that the AMBAG Board of Directors finds that the 2045 MTP/SCS achieves the regional greenhouse gas reduction targets established by the CARB and meets the requirements of Senate Bill 375 as codified in Government Code §65080(b) et seq.; and

BE IT FURTHER RESOLVED that the AMBAG Board of Directors does hereby adopt the Final 2022 Regional Growth Forecast and the Final 2045 MTP/SCS for the Monterey Bay Area region.

PASSED AND ADOPTED this 15th day of June 2022.

Kristen Brown, President

Maura Twomey, Secretary

DRAFT MINUTES OF THE PROCEEDINGS
OF THE BOARD OF DIRECTORS OF THE
ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

June 15, 2022

1. CALL TO ORDER

The Board of Directors of the Association of Monterey Bay Area Governments, President, Kristen Brown presiding, convened at 6:01 p.m. Wednesday, June 15, 2022 via GoToWebinar.

2. ROLL CALL

AMBAG Board of Directors

PRESENT:

Agency	Representative	Agency	Representative
Capitola	Kristen Brown	County of Monterey	John Phillips
Carmel	Karen Ferlito	County of San Benito	Betsy Dirks
Del Rey Oaks	Kim Shirley	County of San Benito	Bea Gonzales
Gonzales	Scott Funk	County of Santa Cruz	Greg Caput
Greenfield	Lance Walker	County of Santa Cruz	Manu Koenig
Hollister	Rick Perez		
King City	Carlos Victoria	**Ex-Officio Members:**	
Marina	Lisa Berkley	Caltrans, District 5	Jill Leal
Pacific Grove	Jenny McAdams	MPAD	LisAnne Sawhney
Salinas	Steve McShane	SCCRTC	Guy Preston
San Juan Bautista	John Freeman	SC Metro	Michael Tree
Santa Cruz	Justin Cummings	TAMC	Todd Muck
Seaside	Jon Wizard		
Watsonville	Eduardo Montesino		
ABSENT:			
Monterey	Ed Smith	**Ex-Officio Members:**	
Sand City	Mary Ann Carbone	3CE	Catherine Stedman
Scotts Valley	Derek Timm	MBARD	Richard Stedman
Soledad	Anna Velazquez	MST	Lisa Rheinheimer
County of Monterey	Mary Adams	SBtCOG	Veronica Lezama

Others Present: John Urgo, SC Metro; Dawn Hayes, MBNMS; Albert Herson and Mark Desrosiers, Sohagi; Anastacia Wyatt, City of Pacific Grove; Elisabeth Madrigal, MBEP; Michael Pisano; Beverly DesChaux; Charles Pooler; Amy Naranjo, SCCRTC; Diane Eidam, Retired Annuitant; Paul Hierling, Senior Planner; Amaury Berteaud, Special Projects Manager; Heather Adamson, Director of Planning; Bhupendra Patel, Director of Modeling; Miranda Taylor, Planner; Diane Eidam; Gina Schmidt, GIS Coordinator; Maura Twomey, Executive Director; and Ana Flores, Clerk of the Board.

3. ORAL COMMUNICATIONS FROM THE PUBLIC ON ITEMS NOT ON THE AGENDA

There were no oral communications from the public.

4. ORAL COMMUNICATIONS FROM THE BOARD ON ITEMS NOT ON THE AGENDA

There were no oral communications from the Board.

5. COMMITTEE REPORTS

A. Executive/Finance Committee

President Brown reported that the Executive/Finance Committee approved the consent agenda that included 1) Resolution 2022-6 regarding the Ralph M. Brown Act and finding of imminent risk to health and safety of in-person meetings as a result of the continuing COVID-19 pandemic state of emergency declared by Governor Newsom; 2) the minutes of the May 11, 2022 meeting; 3) list of warrants as of March 31, 2022; and 4) accounts receivable as of March 31, 2022. The Executive/Finance Committee also received a report on the financials from Maura Twomey, Executive Director.

B. Monterey Bay National Marine Sanctuary (MBNMS) Advisory Council (SAC) Meeting

President Brown stated that the next MBNMS SAC meeting is scheduled on June 17, 2022 at 8:30 am.

6. EXECUTIVE DIRECTOR'S REPORT

Maura Twomey, Executive Director announced that AMBAG filled a vacant Planner position and a vacant Intern position. They are both scheduled to start at the beginning of July. Ms. Twomey also reminded the Board that there is no regularly scheduled board meeting in July.

7. CONSENT AGENDA

A. Draft Minutes of the May 25, 2022 AMBAG Board of Directors Meeting

The draft minutes of the May 25, 2022 AMBAG Board of Directors meeting were approved.

B. Draft Minutes of the May 11, 2022 AMBAG Board of Directors Meeting

The draft minutes of the May 11, 2022 AMBAG Board of Directors meeting were approved.

C. AMBAG Regional Clearinghouse Monthly Newsletter

The AMBAG Clearinghouse monthly newsletter was accepted.

D. AMBAG Sustainability Program Update

The Sustainability Program update was accepted.

E. Resolution in accordance with AB 361 regarding the Ralph M. Brown Act and Finding of Imminent Risk to Health and Safety of In-Person Meetings as a Result of the Continuing COVID-19 Pandemic State of Emergency Declared by Governor Newsom

Resolution 2022-15 was adopted.

F. Extension of Legal Services Contract

The extension of Legal Services contract was approved.

G. Revised Procurement Policies and Procedures Manual

The revised Procurement Policies and Procedures manual was adopted.

H. Financial Update Report

The financial update report was accepted.

Motion made by Director Phillips seconded by Director Cummings to approve the consent agenda. The motion passed unanimously.

8. ITEMS REMOVED FROM CONSENT CALENDAR FOR DISCUSSION AND POSSIBLE ACTION

None.

9. PLANNING

A. Final 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy and Environmental Impact Report

Heather Adamson, Director of Planning gave a presentation on the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) Environmental Impact Report. The MTP/SCS 1) is a long range plan for transportation investments; 2) is required by federal and state law to be prepared every four years; 3) must provide a 20+ year horizon planning period; and 4) must be adopted in June 2022 to ensure transportation funds continue to flow to the region. The 2045 MTP/SCS policy goals are 1) Access and Mobility: 2) Economic Vitality; 3) Environment; 4) Healthy Communities; 5) Social Equity; 6) System Preservation and Safety. The basis for the MTP/SCS is 1) land use pattern that includes population, jobs and housing; and 2) transportation improvements that include transit services, active transportation projects, roadway improvements, and other transportation related strategies such as electric vehicles and telecommuting. The draft MTP/SCS includes $13.5 billion in transportation improvements, programs and services. It also meets CARB's GHG reduction targets (-3% and -6% per capita for 2020 and 2035, respectively) and implementation strategies. The draft 2045 MTP/SCS includes $13.3 billion in transportation improvements, programs, and services. The financial assumptions for local, state, and federal are $13.3 billion. Monterey County would receive $6.7 billion, San Benito County would receive $1.6 billion, and Santa Cruz County would receive $5.2 billion. Ms. Adamson added that transportation projects are developed with local and regional transportation partners. Mix of multimodal and regional/local projects include active transportation, maintenance and rehab projects, transit projects, and roadway projects. Ms. Adamson reported on the public participation effort by staff.

There was a comprehensive multi-year effort engaging a wide range of groups, stakeholders and the general public. Staff held meetings, workshops, surveys, and through the website. Ms. Adamson reported that AMBAG is the lead for developing the program EIR, working with the RTPA's to develop the EIR. The Draft EIR evaluates the impacts of the 2045 MTP/SCS on the physical environment at the program level. The EIR serves as the EIR for each of the RTPA's 2045 Regional Transportation Plans. The EIR analyzes a range of impacts resulting from future development and improvements to the regional transportation network. AMBAG circulated the draft EIR for 70-days. Nine comment letters and three verbal public comments were received. Staff included the responses to the comments in the Final EIR under Appendix H. AMBAG recirculated a partial draft EIR for 46-days. Two comment letters were received. The responses to comments are included in the Final EIR under Appendix H. Ms. Adamson reported that one additional comment was received after posting of the June 16, 2022 AMBAG Board of Directors agenda. A written response was included in the agenda packet. The EIR comments focused on greenhouse gas emissions, mitigations, and modeling. The final EIR includes responses to comments and additional language to address public comments. The next steps are 1) submit adopted 2045 MTP/SCS to Caltrans, FHWA, and FTA; 2) submit SCS to CARB for review; and 3) implementation.

President Brown opened the public hearing.

There were no comments.

President Brown closed the public hearing.

Motion made by Director Cummings, seconded by Director Berkeley to approve Resolution No. 2022-16 certifying the Final Environmental Impact Report prepared for the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy (SCH#2020010204) and County RTPs and adopting Findings of Fact pursuant to the California Environmental Quality Act; a Statement of Overriding Considerations; and a Mitigation Monitoring and Reporting Program. Motion passed unanimously.

Motion made by Director Berkeley, seconded by Director McShane to approve Resolution 2022-17 finding the Sustainable Communities Strategy achieves the regional greenhouse gas reduction targets, adopting the Final 2022 Regional Grow Forecast, and adopting the 2045 Metropolitan Transportation Plan, including its Sustainable Communities Strategy. Motion passed unanimously.

B. Draft 6th Cycle Regional Housing Needs Allocation Plan: Appeals Received and Schedule Public Hearing

Heather Adamson, Director of Planning gave a presentation on the draft 6th Cycle Regional Housing Needs Allocation Plan and appeals. Ms. Adamson reported that the draft 2023-2031 6th Cycle Plan was released on April 22, 2022. It initiated a 45-day appeal period allowing a jurisdiction for HCD to appeal for a revision of the share of the regional housing need proposed to be allocated. The close of the appeal period was June 6, 2022. AMBAG received two appeals on the draft 6th Cycle RHNA plan from the City of Sand City and the city of Greenfield. State law requires a 45-day comment period on any appeals received on the draft plan. Jurisdictions, HCD, and members of the public have until July 22, 2022 to comment on the appeals received. Comments on the appeals should be sent to hadamson@ambag.org. AMBAG also received two comment letters from local jurisdictions. The RHNA appeal procedures are 1) AMBAG must conduct a public hearing to consider appeals and

comments received on appeals; 2) RHNA appeals to be heard by the AMBAG Board; 3) a Board member must recuse her/himself from the discussion and vote on an appeal affecting her/his jurisdiction; 4) the basic structure for an appeals hearing is a) appellant makes initial argument; b) AMBAG staff response; c) rebuttal from the appellant; e) public comment; and f) board discussion and vote; 5) if an appeal is successful, AMBAG must redistribute the RHNA units to other local jurisdictions; 6) AMBAG will redistribute units to all local jurisdictions in proportion to the jurisdiction's share of the RHNA after appeals are determined and prior to the required distribution; and 7) applicants whose appeals are upheld are not excluded from redistribution. Next steps include 1) the comment period on appeals received from June 7, 2022 to July 22, 2022; and 2) upon approval from the Board of Directors, AMBAG will hold a public hearing to hear the appeals received on the draft 6th Cycle RHNA Plan on August 10, 2022. Brief discussion followed.

Motion made by Director Freeman, seconded by Director Phillips to approve the scheduling of a public hearing to hear appeals on August 10, 2022. Motion passed unanimously.

10. ADJOURNMENT

The Board of Directors meeting adjourned at 6:41 PM.

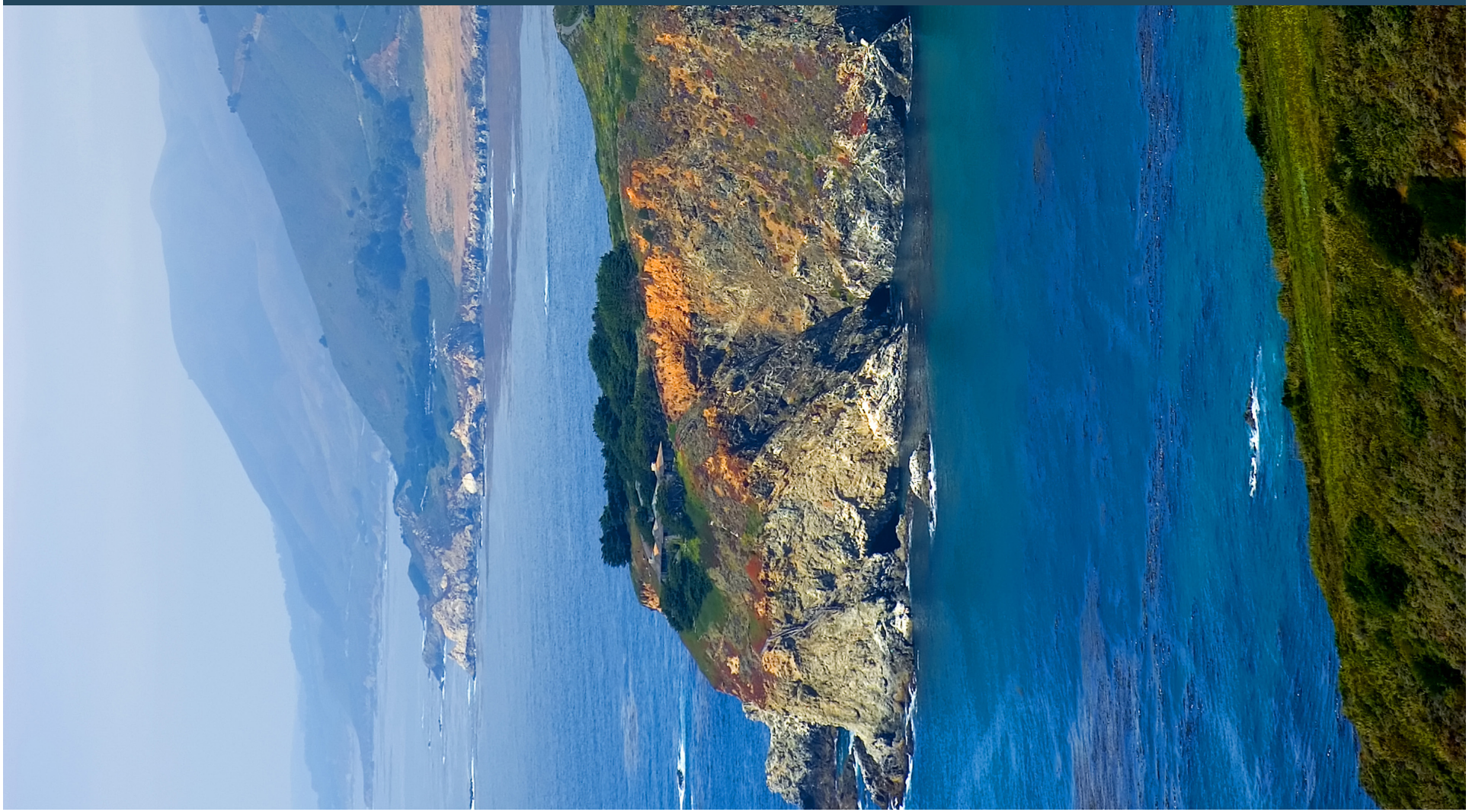
_____
Kristen Brown, President

_____
Maura F. Twomey, Executive Director

Attachment H

(Phase 2 Direct Testimony of David J. Stoldt)

A Regional Growth Forecast



2022 Regional Growth Forecast

Technical Documentation

Association of Monterey Bay Area Governments
Scheduled for Adoption June 2022

Contents

2022 Regional Growth Forecast

List of Figures & Tables

Executive Summary

As the Metropolitan Planning Organization (MPO), the Association of Monterey Bay Area of Governments (AMBAG) carries out many planning functions for the tri-county area including development and maintenance of the regional travel demand model (RTDM), long range transportation planning and programming and acting as a regional forum for dialogue on issues facing the region. Most of AMBAG's projects are carried out in support of these major functions, including but not limited to the regional growth forecast. AMBAG develops the forecast with a horizon year that matches the planning timeline of the Metropolitan Transportation Plan (MTP) and the model years for the Regional Travel Demand Model (RTDM). In addition to informing regional planning processes, the forecast is used by local jurisdictions and special districts to inform local and subregional planning.

The last regional growth forecast was adopted in 2018. AMBAG staff began the process of developing a new forecast in spring 2019. This new forecast is referred to as the 2022 Regional Growth Forecast (2022 RGF).

In preparation for this forecast, AMBAG staff conducted a review of recently completed population, housing and employment forecasts. The results of this review indicated that most of the other MPOs in California are using a methodology that emphasizes employment growth as the primary driver of long-term population change at the regional scale. The traditional approach to forecasting population uses a cohort-component approach that considers three factors: births, deaths and migration. While birth and death data are readily available and trends are relatively predictable over time, migration tends to be much more difficult to track and forecast as it is heavily influenced by political and economic climates. For the development of the new forecast, AMBAG chose to progress towards a more contemporary approach that places a greater emphasis on employment. The assumption is that the economy is a reliable predictor of population growth.

AMBAG implemented an employment-driven forecast model for the first time in the 2014 forecast and contracted with the Population Reference Bureau (PRB) to test and apply the model again for the 2018 RGF and the 2022 RGF. To ensure the reliability of the population projections, PRB compared the employment-driven model results with results from a cohort-component forecast, a growth trend forecast, and the most recent forecast published by the California Department of Finance (DOF). All four models resulted in similar population growth trends. As a result of these reliability tests, AMBAG and PRB chose to implement the employment-driven model again for the 2022 RGF.

To disaggregate the forecast for each jurisdiction, AMBAG and PRB used the most current data available to update a series of shift-share models and replicate the methodology used in the prior forecast.

This technical document provides a description of the methodology for the development of the regional growth forecast figures in addition to the methodology for disaggregation of those figures. The regional and subregional forecast figures for population, jobs and housing were accepted by the AMBAG Board of Directors at the November 18, 2020 meeting.

Summary of the Forecast

The 2022 RGF projects that the region will add 65,500 jobs between 2015 and 2045, for a total of just over 442,800 jobs by 2045. The regional growth rate is slightly slower than nation- and state-level forecasts, reflecting historical growth rates that have tended to be slightly slower than either the state or nation. Furthermore, job growth is expected across most employment sectors. The fastest-growing industries include Site-Based Skilled Trade, Health Care and Social Assistance, and Other Services. Conversely, Retail is expected to be the slowest-growing industry. Notably, while many models for the U.S. predict declines in agricultural job growth, the AMBAG region is experiencing steady agricultural job growth.

This forecast projects that the region's population will grow by approximately 107,500 people between 2015 and 2045, for a total population of just under 869,800 in 2045. This is slightly lower than prior forecasts and follows the slowing growth rates seen at both the state and national level. This revised growth trend also reflects the most current population estimate for the region. As a result of declining fertility, stalled improvements in life expectancy, and falling international migration, the 2020 population estimate was more than 16,000 lower than prior forecasts predicted. In addition to slower growth, the new forecast predicts an older age distribution, with a larger proportion of the population age 65 and older.

An aging population affects the household and housing unit forecasts. While population growth will slow, which reduces future housing demand, older people are more likely to live alone or in small households. This shift offsets the lower population forecast with a slight upward effect on housing demand. The net result is that the region is expected to build just over 42,200 housing units by 2045, for a total of approximately 304,900 units.

Section 1: Process for Forecast Completion

Following the preparation of the regional forecast figures, AMBAG staff began the process of disaggregating the figures to each of the jurisdictions using historical data to develop a baseline disaggregated forecast. The initial results were a purely quantitative application of the methodology. These preliminary draft disaggregated numbers were presented for discussion purposes at one-on-one meetings held by AMBAG staff with each of the jurisdictions, the Local Agency Formation Commissions,

the Fort Ord Reuse Authority, the University of California, Santa Cruz and the California State University, Monterey Bay. AMBAG staff also provided materials for these meetings that outlining the data sources and methodology for the regional forecast figures as well as the preliminary draft disaggregated forecast figures. The intent of the first round of meetings was to gather information and data that was then used to make adjustments to the forecast. (See Attachment 1 for a list of meeting dates, times and attendees.)

These preliminary draft disaggregated numbers were adjusted based on information and feedback provided by each jurisdiction. In addition, new data became available. The release of vintage 2020 estimates from the California Department of Finance showed 2019 population approximately 7,000 lower than in the preliminary estimate, although housing estimates were relatively stable. These updates necessitated minor revisions to the regional forecast.

Staff updated the regional growth forecast to reflect the most current information. The entire revised forecast, regional and subregional, was re-circulated for a second round of comments. After the second round of comments were received, AMBAG staff incorporated additional input and prepared a revised draft of the disaggregated forecast figures. Staff circulated the revised population, employment and housing forecast which incorporated additional comments from the Board of Directors. The final draft was accepted for planning purposes only by the AMBAG Board of Directors at its meeting on November 18, 2020. The final growth forecast is scheduled for adoption along with the 2045 Metropolitan Transportation Plan/Sustainable Communities in June 2022.

Section 2: Development of the Regional Growth Forecast

In spring 2019, AMBAG asked PRB to prepare regional employment, population and housing projections to 2045. This section documents the findings of the work by PRB and includes a summary of the methodology, a description of the projections and an explanation of past, current and projected job growth in the region.

Summary of the 2022 Regional Growth Forecast

The 2022 RGF projects that the region will add 65,500 jobs between 2015 and 2045, for a total of just over 442,800 jobs by 2045. (See Table 1) The regional growth rate is similar to national forecasts but slightly slower than state-level forecasts. Furthermore, job growth is expected across most employment sectors. The fastest-growing industries include Site-Based Skilled Trade, Health Care and Social Assistance, and Other Services. Conversely, Retail is expected to be the slowest-growing industry. Notably, while many models for the U.S. predict declines in agricultural job growth, the AMBAG region is experiencing steady agricultural job growth.

This forecast projects that the region's population will grow by approximately 107,500 people between 2015 and 2045, for a total population of just under 869,800 in 2045. (See Table 1) This is slightly lower than prior forecasts and follows the slowing growth rates seen at both the state and national level. This revised growth trend also reflects the most current population estimate for the region. Despite an upward revision to the estimate, the revised DOF population estimate for 2015 was more than 3,000 lower than prior forecasts predicted. As such, an adjustment was made in this forecast of population growth to account for the sharp fall in fertility rates and international migration that occurred during the recession years that have not fully rebounded. In addition to slower growth, the new forecast predicts an older age distribution, with a larger proportion of the population age 65 and older.

An aging population affects the household and housing unit forecasts. While population growth will slow, which reduces future housing demand, older people are more likely to live alone or in small households. This shift offsets the lower population forecast with a slight upward effect on housing demand. The net result is that the region is expected to build just over 42,200 housing units by 2045, for a total of approximately 304,900 units. (See Table 1)

Table 1: Forecast Summary

	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
Population	**710,598**	**719,561**	**732,708**	**762,241**	**774,729**	**800,726**	**824,992**	**842,189**	**857,828**	**869,776**
Change		8,963	13,147	29,533	12,488	25,997	24,266	17,197	15,639	11,948
% Change		1%	2%	4%	2%	3%	3%	2%	2%	1%
Households	**228,260**	**234,869**	**236,059**	**238,862**	**243,863**	**253,106**	**262,493**	**269,175**	**273,462**	**276,730**
Change		6,609	1,190	2,803	5,001	9,243	9,387	6,682	4,287	3,268
% Change		3%	1%	1%	2%	4%	4%	3%	2%	1%
Housing	**247,080**	**256,467**	**260,256**	**262,660**	**267,812**	**277,645**	**288,386**	**296,352**	**301,307**	**304,900**
Change		9,387	3,789	2,404	5,152	9,833	10,741	7,966	4,955	3,593
% Change		4%	1%	1%	2%	4%	4%	3%	2%	1%
Jobs				**377,335**	**406,280**	**410,017**	**418,132**	**425,845**	**434,147**	**442,824**
Change				25,600	28,945	3,737	8,115	7,713	8,302	8,677
% Change					8%	1%	2%	2%	2%	2%

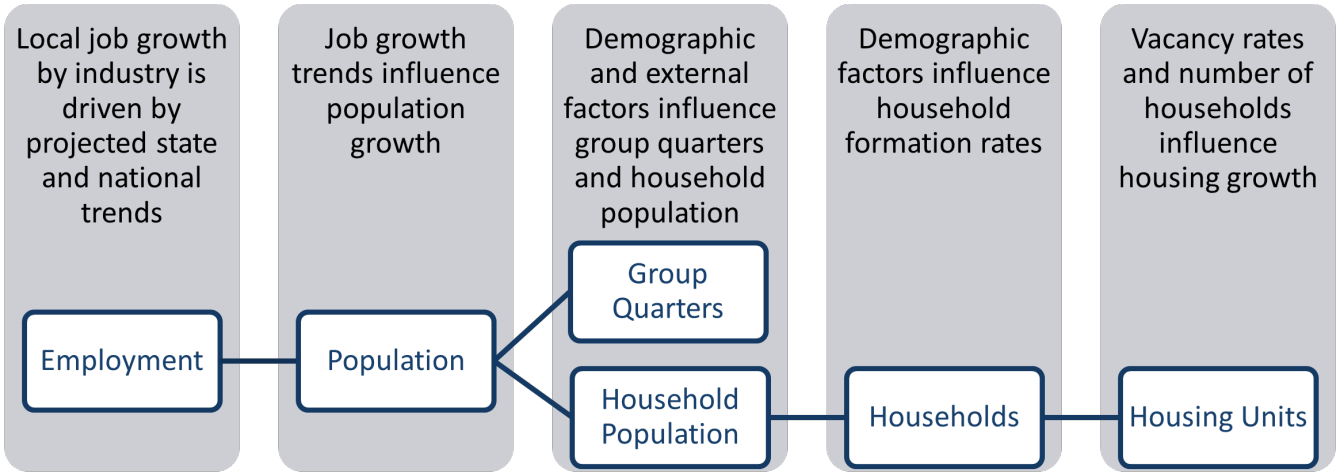
Sources: Jobs data for 2000-2015 are from California Employment Development Department and InfoUSA; population, household, and housing data for years 2000-2020 are from the U.S. Census Bureau and the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

Regional Growth Forecast Methodology

As shown in the flow chart below, the forecast uses a model that predicts employment growth using a shift-share model based on local data as well as state and national trends. Population growth is then driven by employment growth. Household and housing growth are driven by population growth, demographic factors and external factors (explained below). This approach was vetted and approved by the AMBAG Board of Directors in 2014 for use in the metropolitan transportation plan, Moving Forward 2035 Monterey Bay. While the methodology for the 2022 RGF remains the same, the models

have been updated to include current data, a revised base year of 2015 and a new horizon year of 2040.

Figure 1: Regional Growth Forecast Process



1. Employment: Employment is measured as the number of jobs by place of work.
   Employment growth by industry is driven by projected national and statewide trends for all industries in the region using a shift-share model.
2. Population: Population is the total resident population of the region.
   Job growth trends influence population growth. The forecast of total population is based on historical trends in the ratio of population to employment in the AMBAG region.
   Projections of demographic characteristics (i.e., population by age, sex, and race/ethnicity) in the 2022 RGF relied on a proportional approach based on demographic projections from the California Department of Finance (DOF).
3. Household Population and Group Quarters: Household population is the population that lives in a housing unit. Group quarters population is the population that lives in a group living arrangement such as a dorm, barracks, correctional institution, or congregate care facility.
   Demographic factors (e.g., age, sex, race/ethnicity) and external factors (e.g., major group quarters facilities like colleges and universities, correctional facilities, etc.) influence the household population and group quarters population.
4. Households/Occupied Housing Units: A household is a person, or group of people, living in a house. Because a household, by definition, occupies a housing unit, households are equivalent to and synonymous with occupied housing units.
   Household projections are driven by household formation rates. Household formation rates are calculated as the ratio of households divided by the household population. Household formation rates are the inverse of average household size.
5. Housing Units: Housing is the total number of housing units, including both occupied and vacant structures. Housing includes primary residences, second homes, accessory dwelling

units, vacation rentals, farmworker housing, and any other habitable structure—including unauthorized units. The only type of dwelling excluded from the housing inventory is group quarters (dorms, barracks, congregate care, etc.).

Housing projections are driven by the household population projection, demographic characteristics of the household population (age, sex, race/ethnicity), household formation rates, and housing vacancy rates. Vacancy rates are calculated as the share of all units (including vacation rentals, unauthorized dwellings, etc.) that are not currently occupied.

Data sources include the California Department of Finance, California Employment Development Department, the U.S. Bureau of Labor Statistics and the U.S. Census Bureau.

For more information on the definitions of housing and group quarters, see Attachment 4.

Step 1: Employment

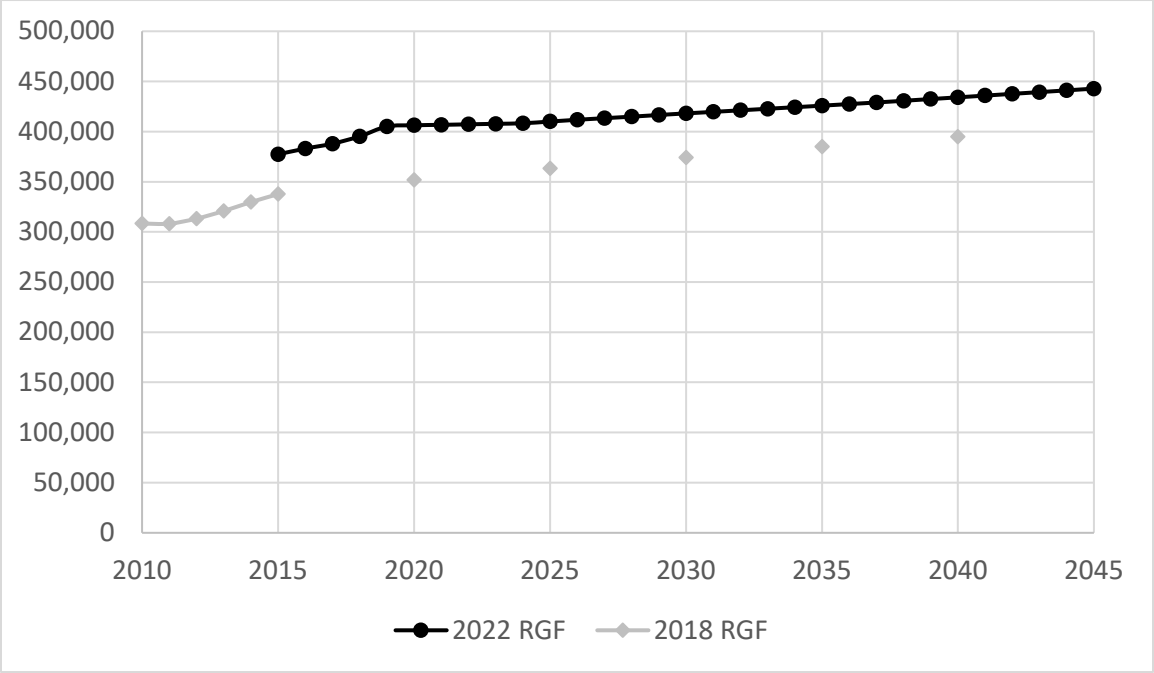
The AMBAG region is projected to add 65,500 jobs between 2015 and 2045, for a total of just over 442,800 jobs by 2045. The 2015 base year data were re-benchmarked to reflect revisions to county totals published by the California Employment Development Department, as well as an employer database from InfoUSA, and extensive ground-truthing conducted by AMBAG staff. (See Table 2 and Figure 2.) Employment grew faster in the 2015-2020 time period than had been anticipated in the 2018 RGF, but is expected to return to a slow-growth trend.

Table 2: Forecast Comparison of Employment

Forecast	2010	2015*	2020	2025	2030	2035	2040	2045
2018 RGF	308,300	337,600	351,800	363,300	374,100	384,800	395,000	N.A.
% Change		10%	4%	3%	3%	3%	3%	N.A.
2022 RGF		377,335	406,280	410,017	418,132	425,845	434,147	442,824
% Change			8%	1%	2%	2%	2%	2%

*Sources: Data for years 2010 and 2015 are from the California Employment Development Department. *In the 2022 RGF, data for 2015 were re-benchmarked using updated estimates from the California Employment Development Department, an employer database InfoUSA, and extensive ground-truthing. Forecast years were prepared by AMBAG and PRB.*

Figure 2: AMBAG Region Employment Forecast



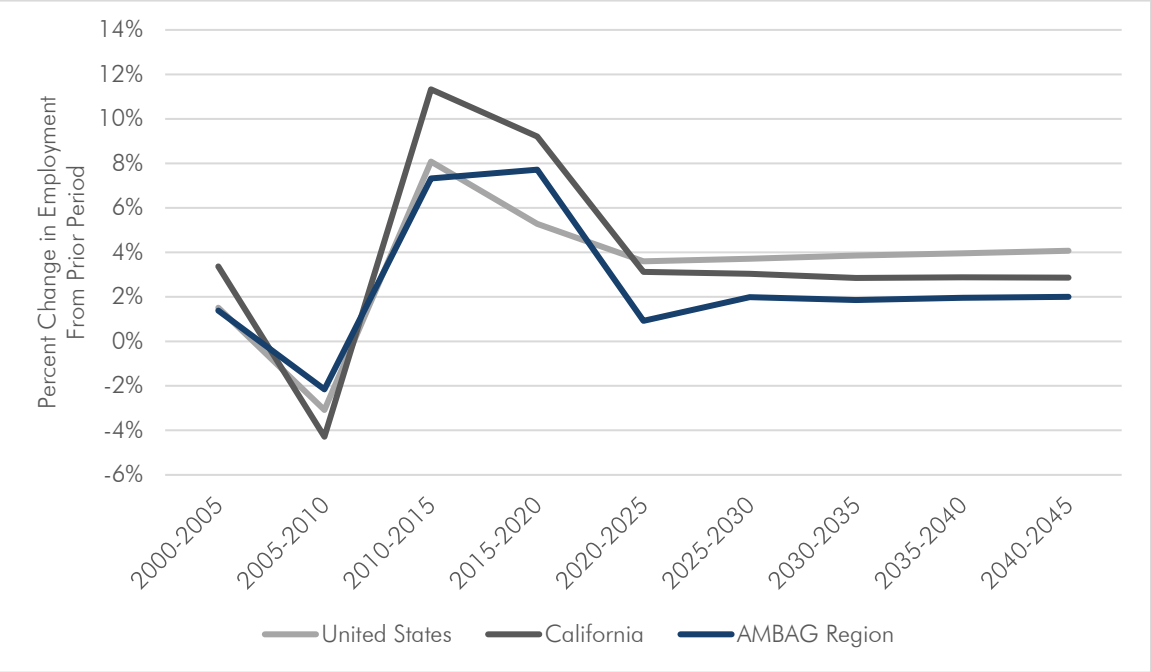
Sources: Data for years 2010-2014 are from the California Employment Development Department. In the 2022 RGF, data for 2015 were re-benchmarked using updated estimates from the California Employment Development Department, an employer database InfoUSA, and extensive ground-truthing. Forecast years were prepared by AMBAG and PRB.

Job projections to 2045 were developed for each major NAICS industry category by projecting the AMBAG region share of state job growth based on the analysis of trends in the period from 2005 to 2019. The NAICS industries were then grouped into major industry sectors for the transportation model. Industry categories are described in Attachment 2.

The AMBAG region experienced job growth slower than the state, and similar to the nation between 2000 and 2019. (See Figure 3.) The region is projected to experience job growth at a slightly slower rate than the state and nation. The primary reason for this below-average job growth is the region's below-

average concentration in fast-growing sectors such as information and professional services. The region also has a below-average exposure to growth in foreign trade.

Figure 3: Employment Change



Sources: Data for years 2000-2015 from the U.S. Bureau of Labor Statistics and California Employment Development Department. Forecast years were prepared by AMBAG and PRB with input from U.S. Bureau of Labor Statistics, Employment by Major Industry Sector: 2014-2024; California Department of Transportation, California County-Level Economic Forecast 2014-2040, September 2014; and from the California Employment Development Department, Industry Employment Projections.

Positive growth factors include above-average performance relative to state trends in tourism and agriculture. Agriculture has shown strong growth for several years, and new crops such as cannabis as well as new investments in processing facilities, portend that the industry will continue to grow. However, any job growth due to new crops may be mitigated by losses due to increased mechanization in agriculture and agricultural processing.

Method for Producing the Employment Forecast

The AMBAG region job projections were developed using three guiding principles:

1. The AMBAG region projections were based on projections of job growth in the nation and state. The national and state projections provide the **pool of job opportunities** and the AMBAG region projections reflect historical trends in the **share** of national and state job growth that will locate in the AMBAG region.

2. The AMBAG region **share** of national and state job growth is determined by the industry composition of job growth and the projected share of job growth locating in the AMBAG region. If national and state job growth is concentrated in sectors where the AMBAG region has a competitive advantage, the region's projected job growth will be higher than if national and state job growth is concentrated in sectors where the region has a below-average share of jobs and a relatively poor competitive position.
3. The analysis of competitive advantage is focused on sectors in the AMBAG region **economic base.** The region's economic base consists of those sectors that sell a high proportion of goods and services to customers outside the region. They export goods and services to customers in world and national markets and markets throughout California. Key examples of economic base sectors in the AMBAG region are agriculture a]nd tourism. The UC Santa Cruz campus and state prison are also examples of activities that do not primarily serve local residents.

U.S. and California Job Growth to 2045

The starting point for the AMBAG projections is an examination of future U.S. and California job growth for total jobs and major industry sectors. The U.S. job growth projections are based on the most recent forecast from the U.S. Bureau of Labor Statistics and an extrapolation of growth trends to 2045. California job growth projections are based on an industry-level forecast published by the California Department of Transportation, as well as data from the California Employment Development Department and PRB.

The California industry projections identify the structure of job growth as an input to AMBAG region job projections. The resulting projections of job growth are shown below.

The nation is expected to add 41 million jobs between 2015 and 2045 for an increase of 27 percent. Growth, nationwide, is expected to be fairly constant throughout the forecast period. The state of California is projected to experience job growth that is slightly faster than the nation's job growth in the early years of the forecast and to slow down to a rate more similar to the national growth rate by 2045.

The state is projected to see a 26 percent increase in total jobs between 2015 and 2045. The pattern of California industry job growth is shown below and was used in developing AMBAG region job projections. (See Table 3)

Table 3: California Jobs by Major Industry (000s)

	2010	2015	2020	2045	Avg. Annual Growth Rate 2010-2015	2015-2020	2015-2045
Agriculture	382.8	422.3	426.8	433.1	2.0%	0.2%	0.5%
Mining	24.6	26.4	22.8	23.8	1.4%	-2.9%	-2.1%
Construction	560.0	732.1	892.9	996.2	5.5%	4.1%	6.4%
Manufacturing	1,247.9	1,303.0	1,340.4	1,439.2	0.9%	0.6%	2.0%
Wholesale	629.7	691.0	699.2	789.8	1.9%	0.2%	2.7%
Retail	1,516.5	1,660.1	1,683.3	1,812.5	1.8%	0.3%	1.8%
Transp., Warehousing, Utilities	466.9	557.8	682.2	717.9	3.6%	4.1%	5.2%
Information	428.4	488.6	562.0	714.0	2.7%	2.8%	7.9%
Financial Serv.	758.8	800.8	840.1	1,096.7	1.1%	1.0%	6.5%
Prof. & Business Serv.	1,224.1	1,431.6	1,591.7	1,861.8	3.2%	2.1%	5.4%
Educ. & Health Serv.	2,993.9	3,526.1	3,988.6	4,792.4	3.3%	2.5%	6.3%
Leisure & Hospitality	1,500.8	1,828.3	2,056.8	2,348.2	4.0%	2.4%	5.1%
Other services (excl. gov't)	483.6	543.6	583.3	797.4	2.4%	1.4%	8.0%
Government	2,448.4	2,463.0	2,636.6	2,959.3	0.1%	1.4%	3.7%
Self Employed	1,192.6	1,180.9	1,275.7	1,519.6	-0.2%	1.6%	5.2%
Total Jobs	**15,859.0**	**17,655.6**	**19,282.4**	**22,301.7**	**2.2%**	**1.8%**	**4.8%**

Sources: Data for years 2005, 2010 and 2015 from the Employment Development Department. Forecast years were prepared by PRB with input from California Department of Transportation, California County-Level Economic Forecast 2018-2050, September 2019 and from the California Employment Development Department, California Industry Employment Projections.

The projections show substantial differences in the expected growth rate among industries between 2015 and 2045 and these differences tell a story about where job growth is expected and where job levels will remain flat or decline. These differences directly influenced the AMBAG region job projections described below.

It is important to note that the statewide projections listed above were completed before the start of the coronavirus pandemic. The net result is unknown at this time, and projections will be updated as new information becomes available. AMBAG will begin the next update to the Regional Growth Forecast will begin in 2023.

The AMBAG Region Economy and Job Growth

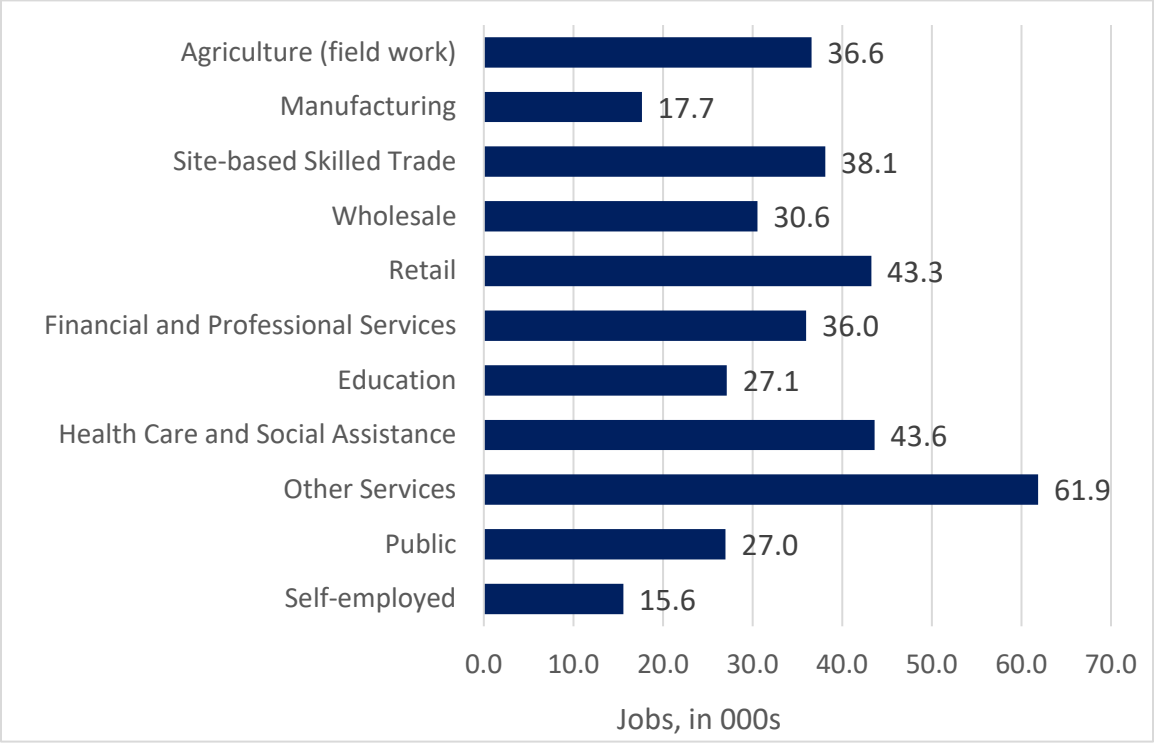
The previous section provided an overview of the current trends in the California economy. As previously noted the AMBAG region's job projections are based on an analysis of the regional economy and its relationship to the growth forecasted for California. The national and state projections provide the **pool of job opportunities** and the AMBAG region forecast reflects judgments about the **share** of national and state job growth that will locate in the AMBAG region. What follows is a description of the current structure of the regional economy as well as the resulting job projections based on the region's share of industries.

The database used for analysis and projections consists of annual industry employment data from 1990 through 2019, from the California Employment Development Department. for each of the three counties in the region and added together to produce an AMBAG region jobs database.

In addition to the historical time-series, AMBAG re-benchmarked the 2015 employment data to more accurately reflect local employment, and grouped the data to eleven categories for modeling purposes. This process is described in more detail in the "Sub-County Employment Database and Re-benchmarking" section, below. Industry definitions are included in Attachment 2.

The largest sectors are Other Services (including hotels, restaurants, and personal services), Health Care and Social Assistance, and Retail. (See Figure 4.)

Figure 4: Jobs by Industry Sector in 2015, AMBAG Region



Sources: Data from the California Employment Development Department, InfoUSA, and AMBAG.

The AMBAG regional economy has an industry structure that is quite different in some ways than the statewide structure or the industry structure in regions like Southern California or the San Francisco Bay Area. One difference is the large share of jobs in Agriculture. Nineteen percent of total jobs in the AMBAG region are in Agriculture compared to just over two percent statewide. Other sectors with above average shares in the region include Public, Other Services, and Self Employed. Conversely, the AMBAG region has a below average share of jobs in the fast-growing, high wage Financial and Professional Services sectors.

AMBAG Region Forecast Job Trends, by Industry

The AMBAG region is expected to have moderate job growth between 2015 and 2040.

Table 4: AMBAG Region Jobs by Major Industry (000s)

								Avg. Annual Growth Rate	
	2015	2020	2025	2030	2035	2040	2045	2015-2020	2015-2045
Agriculture	36,600	40,100	40,100	40,200	40,300	40,500	40,600	1.8%	0.3%
Manufacturing	17,700	19,700	19,800	19,900	20,000	20,100	20,200	2.2%	0.3%
Site-based Skilled Trade	38,100	42,900	43,700	44,900	45,600	46,600	47,700	2.4%	0.6%
Wholesale	30,600	33,300	32,800	33,200	33,500	33,800	34,100	1.7%	0.3%
Retail	43,300	42,100	42,200	42,500	43,000	43,500	44,000	-0.6%	0.0%
Financial and Professional Services	36,000	37,100	37,400	38,500	39,600	40,800	41,900	0.6%	0.4%
Education	27,100	29,900	30,100	30,700	31,400	32,200	33,100	2.0%	0.5%
Healthcare and Social Assistance	43,600	47,400	48,900	50,200	51,500	52,900	54,400	1.7%	0.6%
Other Services	61,900	68,500	69,100	71,200	73,200	75,200	77,300	2.0%	0.6%
Public	27,000	29,700	29,800	30,200	30,700	31,200	31,900	1.9%	0.4%
Self-employed	15,600	15,700	16,200	16,600	16,900	17,300	17,700	0.1%	0.3%
Total	377,300	406,300	410,000	418,100	425,800	434,100	442,800	1.5%	0.4%

Sources: Data for years 2015 from the California Employment Development Department, InfoUSA, and AMBAG. Forecast years were prepared by AMBAG and PRB.

Note: Parts may not sum to total due to independent rounding.

The industry-level trends in the AMBAG Region are as follows:

- Agricultural job growth has been strong for the past 10 years, and while the rate of growth is expected to slow, the region's agricultural industry will still grow faster than state or national projections.
- The region lost Manufacturing jobs during the recession, but recent years have seen a turnaround. Growth is expected to be slow but steady in future years.

- Site-based Skilled Trade (which includes construction) saw steep job losses during the recession and a bounce-back through 2019. Future growth is expected to be moderate.
- The Wholesale and Retail sectors both lost jobs in recession years, and retail has continued to decline. Growth is expected to remain low through the forecast.
- Financial and Professional Services is expected to grow at a moderate rate.
- Education has grown rapidly in recent years, but growth will likely slow as population growth slows.
- Healthcare and Social Assistance has seen steady growth, even in recession years. This is expected to continue as the population ages and demand for health services increases.
- Other Services (including hotels, restaurants, and personal services) lost jobs in the AMBAG region during the recession, but growth rebounded between 2010 and 2015. Growth is expected to be moderate in the future.
- The Public sector, locally, lost jobs between 2008 and 2013 as a result of the recession. Those losses began to reverse in 2014, and the sector is expected to see modest growth in the future.
- Self-employment tends to be counter-cyclical as people who lose their wage-and-salary job during a recession may turn to self-employment. Growth forecasts are based primarily on population growth.

Step 2: Population

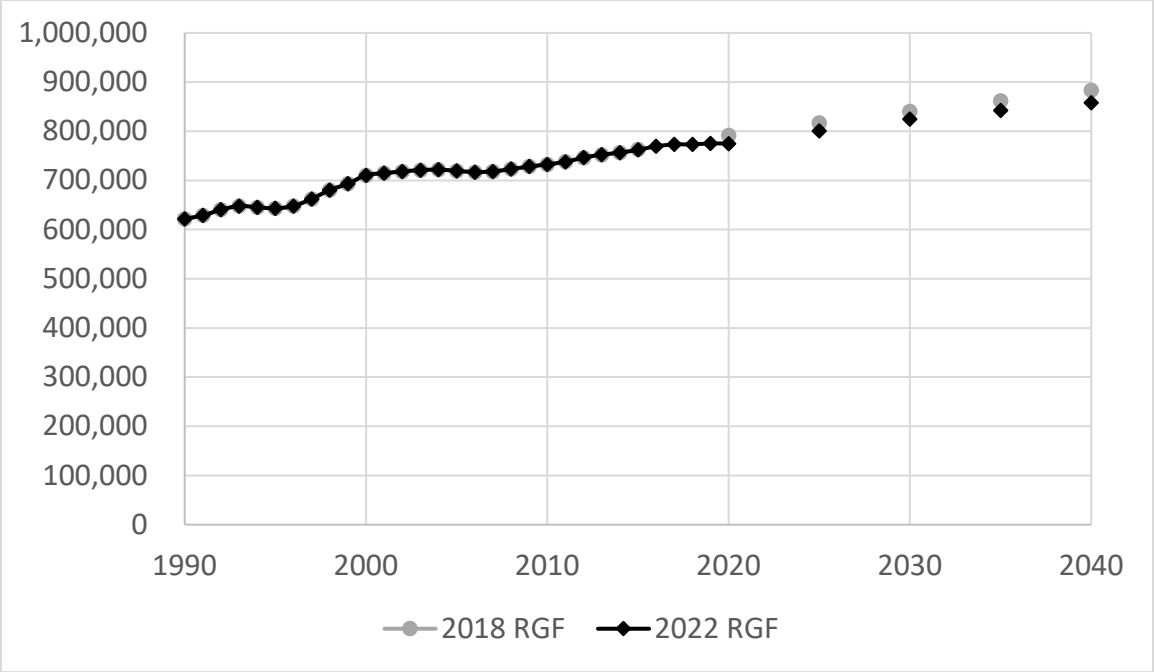
The region is projected to add approximately 107,500 people between 2015 and 2045, for an increase of 14 percent. The 2045 projected regional population of 869,776 is lower than the 883,300 residents projected for year 2040 in the 2018 RGF. (See Table 5 and Figure 6) This lower population forecast reflects slower growth than anticipated since the 2010 Census due to record low birth rates, stalled improvements in life expectancy, and lower migration rates. This slower growth in population is possible, despite faster growth in employment, due to changing unemployment and labor force participation rates.

Table 5: Comparison of Forecasts for Population

Forecast	2010	2015	2020	2025	2030	2035	2040	2045
2018 RGF	732,708	762,676	791,600	816,900	840,100	862,200	883,300	N.A.
% Change		4%	4%	3%	3%	3%	2%	N.A.
2022 RGF	732,708	762,241	774,729	800,726	824,992	842,189	857,828	869,776
% Change		4%	2%	3%	3%	2%	2%	1%

Sources: Data for years 2010-2020 are from the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

Figure 5: AMBAG Region Population Forecast



Sources: Data for years 1990-2020 are from the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

Despite the lower population forecast, it is expected that AMBAG will continue to see population and housing growth associated with job growth outside of the region. In particular, job growth in Silicon Valley, combined with high housing prices, is expected to lead to an increase in the number of commuters to Bay Area jobs that live in the AMBAG region.

Method for Producing the Population Forecast

In preparing for this forecast, PRB tested a variety of methods for the population forecast, each of which produced similar results. (Findings are summarized in Attachment 3.) As a result of this review, PRB and AMBAG staff determined that the employment-driven population growth forecast model used in the 2014 RGF was suitable for the 2018 RGF.

Benchmark Population

All population projections are benchmarked to the 2010 Census counts which include people whose primary residence on "Census Day" (April 1, 2010) is within the region, regardless of citizenship status. It is recognized that the AMBAG region is home to a sizeable seasonal population (seasonal workers, who often work in agricultural occupations, and their families). Seasonal worker populations have

historically been found to be "hard to count" (HTC) in official statistics.[1] In an encouraging development, the 2010 Census was more effective than prior decennial census efforts in reaching, and enumerating, HTC areas. Specifically, "Census 2010 coverage of households in the HTC tracts in the San Joaquin Valley and Central Coast counties… was significantly improved from previous decennials," but some undercount remained a problem.[2]

The timing of data collection has also historically been a challenge for counting seasonal workers in the AMBAG region. Migratory workers are counted based on their location on Census Day. If the agricultural work cycle is in a lull in March and April, but ramps up at other times of the year, the worker population may be lower on Census Day than it is at other times of the year. However, it has been observed through informal surveys (i.e., for the AMBAG Regional Agricultural Vanpool Feasibility Study) that the seasonal population in the AMBAG region has been moving towards a trend of year-round residence, particularly with regard to agricultural jobs.

Given these two trends – better enumeration of HTC populations and a trend toward year-round residence – the seasonal population is increasingly likely to be counted in the decennial Census and in California Department of Finance demographic estimates. That said, seasonal workers who were not present on Census Day would not have been counted in the AMBAG region, and undercount remains a problem for seasonal populations, nationwide. Thus, to the extent that seasonal workers are present and counted in official statistics, they are also included in this forecast.

The AMBAG region population projections were benchmarked against prior decennial Census and employment data, and derived by anticipating that the regional population to job ratio will move in line with the statewide trend as it has in the past.

U.S., California and AMBAG Region Demographic and Economic Trends to 2045

The AMBAG region has an above-average share of residents who live in group quarters and are not tied to the regional job market. This trend has continued since 1990 although the mix of group quarters residents has changed. (See Figures 6 and 7.) Changes in group quarters population, such as growth at the region's universities, will play a role in regional growth through 2045.

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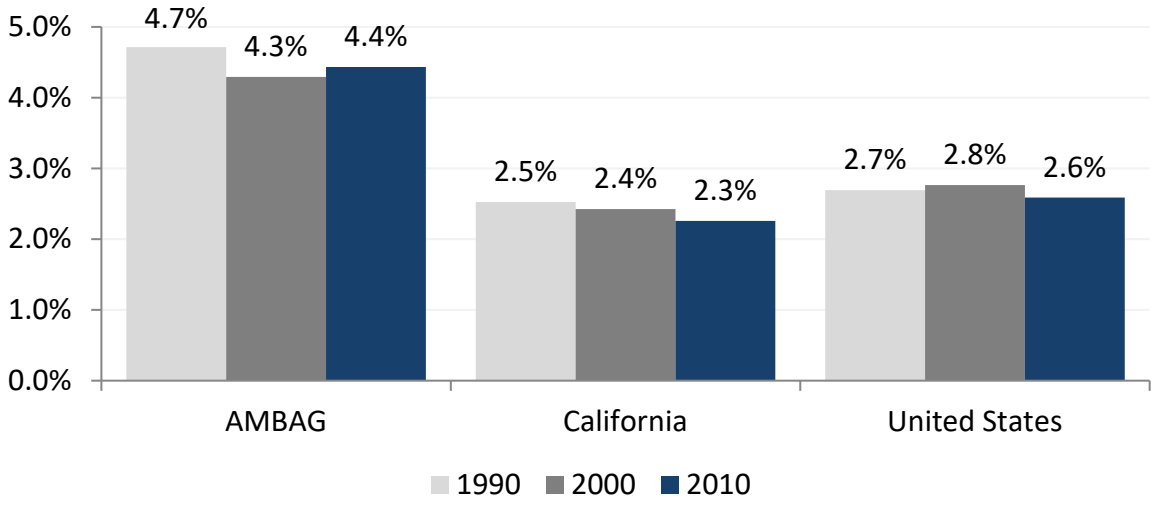
[1] U.S. General Accounting Office. "Key Efforts to Include Hard-to-Count Populations Went Generally as Planned; Improvements Could Make the Efforts More Effective for Next Census" (December 2010), accessed at http://www.gao.gov/new.items/d1145.pdf on October 4, 2016.
[2] California Rural Legal Assistance, Inc. "2010 Census Enumeration of Immigrant Communities in Rural California: Dramatic Improvements but Challenges Remain" (November 2010), accessed at http://www.crla.org/sites/all/files/content/uploads/Census/Census10-JBS-CRLA.pdf on October 4, 2016.

Figure 6: Group Quarters as a Percent of Population

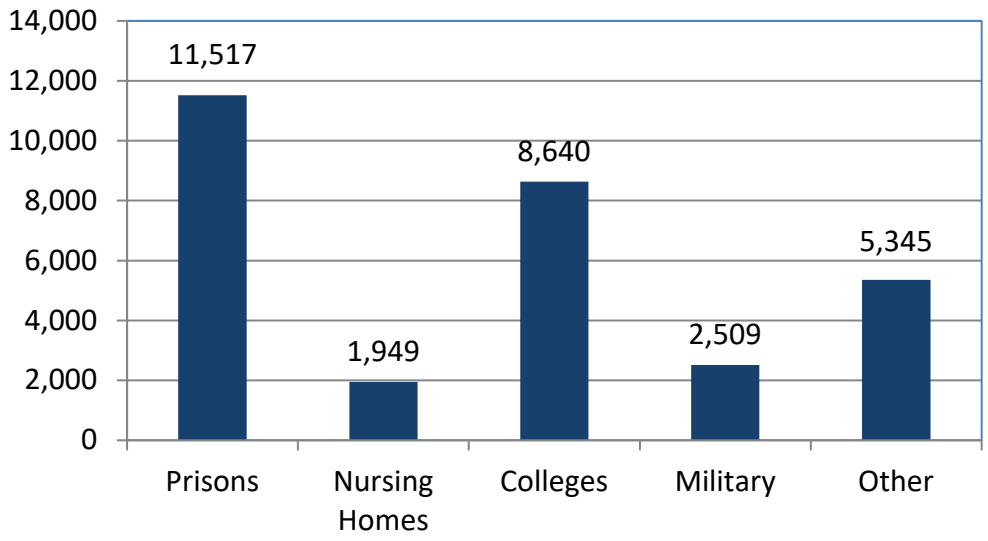


Sources: U.S. Census Bureau, California Department of Finance

In 1990 there was a substantial military group quarters presence around the Fort Ord base. Since then the military population has declined due to the closure of the base, but that group quarters population has been offset by an increase at colleges (primarily UC Santa Cruz and CSU Monterey Bay) and an increase in the state prison population. In future years it will be important to continue watching the development and growth of military institutions in the region. There is still a strong military and naval presence in Monterey County including the Presidio area as well as Fort Hunter Liggett in the southern portion of the County.[3]

[3] While Fort Hunter Liggett has a small permanent population, they are a large training facility and host a substantial amount of trainees every year. Not only will it be important to follow the FHL plans for expansion from a population perspective, but it will also be important to consider the presence of the FHL in transportation planning given the Fort's heavy reliance on Highway 101.

Figure 7: AMBAG Group Quarters Population in 2010

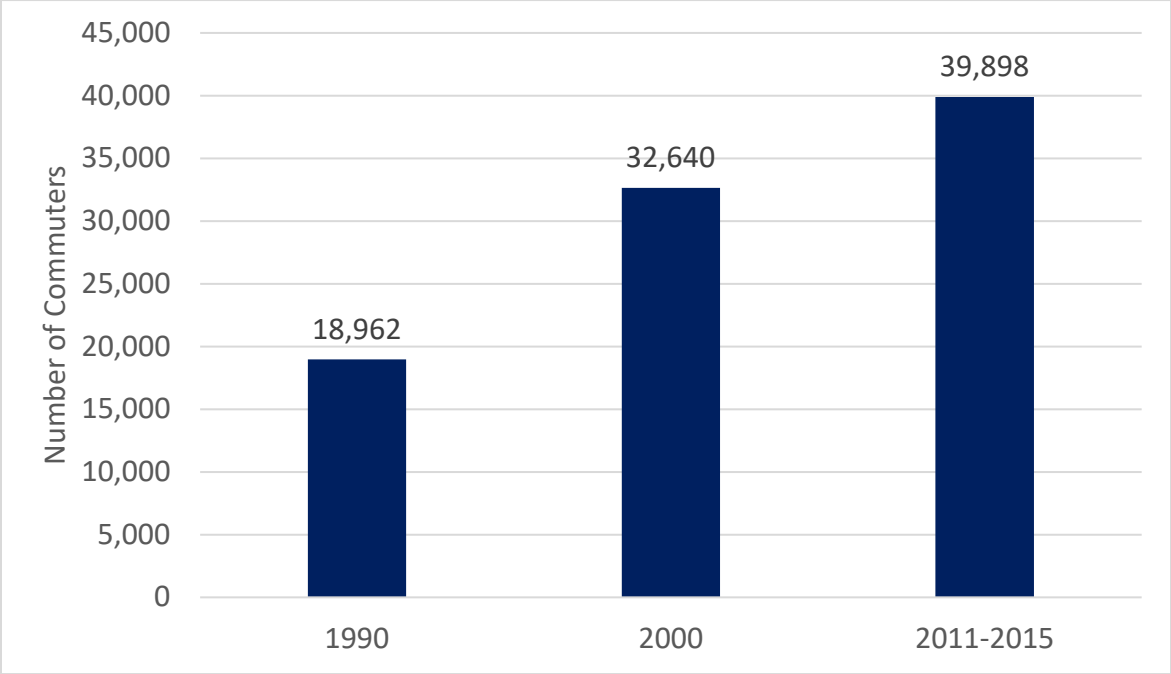


Source: U.S. Census Bureau, Census 2010

The AMBAG region, the state, and the nation all have about 2 residents per job, and that is expected to continue to 2045.

AMBAG residents commute to jobs outside the region, principally to jobs in Santa Clara County. This net out-commuting means there are residents in the region not connected to AMBAG region job growth. Net out-commuting surged between 1990 and 2000 as the “dot.com boom” pushed Silicon Valley (Santa Clara County) job levels higher, and has continued to rise as people to search for cheaper housing in portions of the AMBAG region. (See Figure 8.)

Figure 8: Net Out-Commuting from AMBAG Region



Sources: 1990 & 2000 - Census Journey to Work and 2011-2015 - American Community Survey Special Tabulations for the Census Transportation Planning Package.

AMBAG Region Forecast Population Trends

As described above (see Table 5), the region is projected to add approximately 2,700 residents per year between 2015 and 2045. This is less than the average of just under 8,900 between 1990 and 2000 and above the recession-affected growth of 2,200 between 2000 and 2010. Recent growth from 2015-2020 has averaged 2,500 per year, close to the projected long-term growth rate.

Step 3: Housing and Households

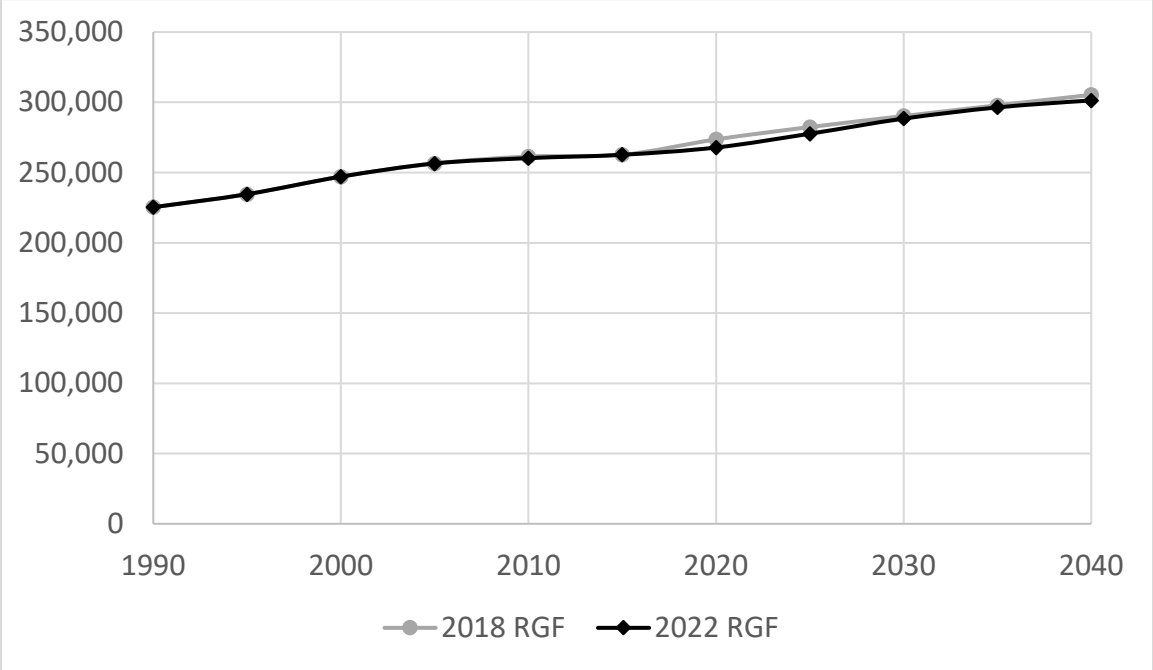
The region is projected to add approximately 42,200 housing units by 2045, for a total of approximately 304,900 for an increase of 16 percent. The 2045 projected regional housing stock of 304,900 is slightly higher than the 305,293 housing units projected for year 2040 in the 2018 RGF, reflecting slower population growth.

Table 6: Comparison of Forecasts for Housing

Forecast	2010	2015	2020	2025	2030	2035	2040	2045
2018 RGF	261,394	262,660	273,606	282,368	290,225	297,851	305,293	N.A.
% Change		0%	4%	3%	3%	3%	2%	N.A.
2022 RGF	260,256	262,660	267,812	277,645	288,386	296,352	301,307	304,900
% Change		1%	2%	4%	4%	3%	2%	1%

Sources: Data for years 2010-2020 are from the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

Figure 9: AMBAG Region Housing Forecast



Sources: Data for 1990-2020 from the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

Method for Producing the Housing Forecast

The housing forecast begins with a household forecast, and the household forecast is driven by demographic factors such as the size and structure of the population. Demographic factors (e.g., gender, age, and race/ethnicity) and external factors (e.g., major group quarters facilities like colleges and universities, correctional facilities, etc.) influence household population and household formation rates (i.e., the number of people per household). Household formation rates predict future demand for housing. That predicted demand, combined with expected vacancy rates, drives the forecast for housing growth.

AMBAG Region Forecast Housing Trends

As described above (see Table 5), the region is projected to add approximately 2,700 residents per year between 2015 and 2045. Taking average household size and vacancy rates into account, the resulting housing growth is expected to be just over 1,000 per year between 2015 and 2045. This is similar to the recent growth of 1,000 housing units per year between 2000 and 2015.

It is worth noting that several jurisdictions in the AMBAG region have historically had relatively high vacancy rates, reflecting a mix of vacation rentals and second homes, particularly in coastal

communities. In recent years, there is some evidence that more homeowners may be participating in the vacation rental market via platforms such as Airbnb and VRBO. It is unclear whether these new services will result in higher vacancy rates as more housing units become primarily vacation rentals or lower vacancy rates as short-term rental units shift demand away from units that are intended to be available for rental most (or all) of the year. AMBAG will continue to monitor this trend for future forecasts.

Section 3: Development of the Subregional Forecast

Following the preparation of the regional forecast figures, AMBAG staff began the process of disaggregating the figures to the county and city level using historical data. This section summarizes that process and the results.

Summary of the 2022 Subregional Forecast

The 2022 RGF projects that the region will add about 65,500 jobs between 2015 and 2045, for a total of just over 442,800 jobs by 2045. Of that growth, 58 percent (approximately 38,200 jobs) is expected to be in Monterey County, 7 percent (approximately 4,500 jobs) is expected to be in San Benito County and 35 percent (approximately 22,800 jobs) is expected to be in Santa Cruz County.

This forecast projects that the region's population will grow by approximately 107,500 people between 2015 and 2045, for a total population of just under 869,800 in 2045. Of that growth, 57 percent (approximately 61,100 people) is expected to be in Monterey County, 23 percent (approximately 25,200 people) is expected to be in San Benito County and 20 percent (approximately 21,200 people) is expected to be in Santa Cruz County.

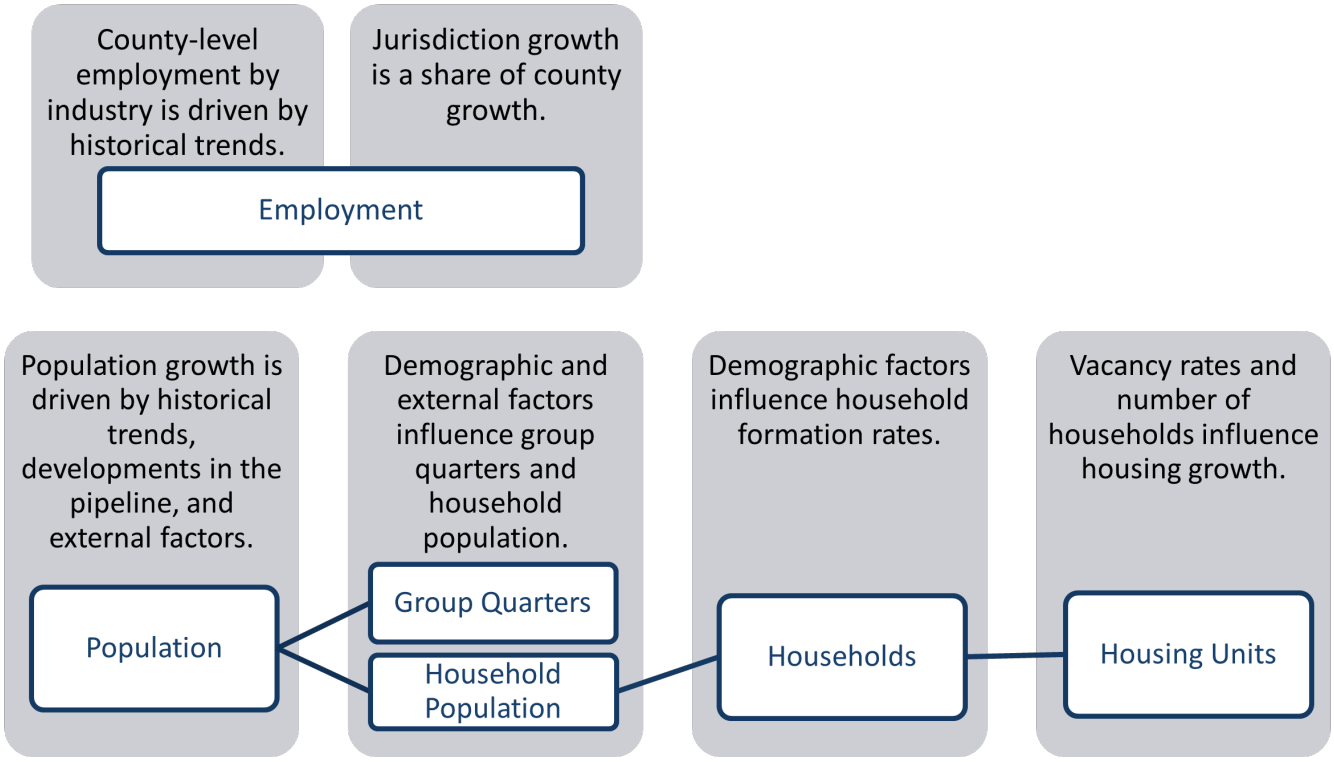
To house the region's expected population growth, this forecast shows an increase of just over 42,200 housing units by 2045, for a total of approximately 304,900 units. Of that growth, 62 percent (approximately 26,200 houses) is expected to be in Monterey County, 18 percent (approximately 7,500 houses) is expected to be in San Benito County and 20 percent (approximately 8,600 houses) is expected to be in Santa Cruz County. Housing growth rates do not exactly parallel population growth rates because of local variations in average household size and vacancy rate, and because some population (e.g., at UCSC and CSUMB) is expected to be housed in group quarters facilities.

Details of the population, housing, and job growth forecasts for each jurisdiction, as well as population and housing forecasts for the two universities, can be found in Attachment 5.

Subregional Allocation Methodology

Unlike the regional forecast, in which employment growth drives population and housing growth, the employment forecast is separate from the population and housing forecast in the subregional allocation. This separation reflects differing economic and demographic forces at the regional and local levels.

Figure 10: Subregional Allocation Process



1. Employment trends: Employment is measured as the number of jobs by place of work.
   For the county-level forecast, employment growth by industry is driven by historical trends (i.e., shift-share model). Total growth across the three counties is constrained by the region-level forecast. For each jurisdiction (cities and unincorporated balance of county), employment growth by industry is a constant share of the jurisdiction's parent county's growth in that industry.
2. Population trends: Population is the total resident population of the region.
   The jurisdiction level forecast is driven by three factors:
   a. Historical trends (i.e., shift-share model)
   b. Anticipated future developments such as housing projects under development that are likely to be occupied within the forecast horizon
   c. External factors (e.g., universities, military, correctional facilities)

Each county's population forecast is a sum of the jurisdiction-level forecasts. All levels (county, city, unincorporated area) are constrained by the region-level forecast.

3. Household Population and Group Quarters: Household population is the population that lives in a housing unit. Group quarters population is the population that lives in a group living arrangement such as a dorm, barracks, correctional institution, or congregate care facility. Demographic factors (e.g., age, race/ethnicity) and external factors (e.g., major group quarters facilities like colleges and universities, correctional facilities, etc.) influence the household population and household formation rates (i.e., the number of people per household).
4. Households/Occupied Housing Units: A household is a person, or group of people, living in a house. Because a household, by definition, occupies a housing unit, households are equivalent to and synonymous with occupied housing units.
   Household projections are driven by household formation rates. Household formation rates are calculated as the ratio of households divided by the household population. Household formation rates are the inverse of average household size.
5. Housing Units: Housing is the total number of housing units, including both occupied and vacant structures. Housing includes primary residences, second homes, accessory dwelling units, vacation rentals, farmworker housing, and any other habitable structure—including unauthorized units. The only type of dwelling excluded from the housing inventory is group quarters (dorms, barracks, congregate care, etc.).
   Housing projections are driven by the household population projection, demographic characteristics of the household population (age, sex, race/ethnicity), household formation rates, and housing vacancy rates. Vacancy rates are calculated as the share of all units (including vacation rentals, unauthorized dwellings, etc.) that are not currently occupied.

Data sources include the California Department of Finance, the California Employment Development Department, InfoUSA, and the U.S. Census Bureau.

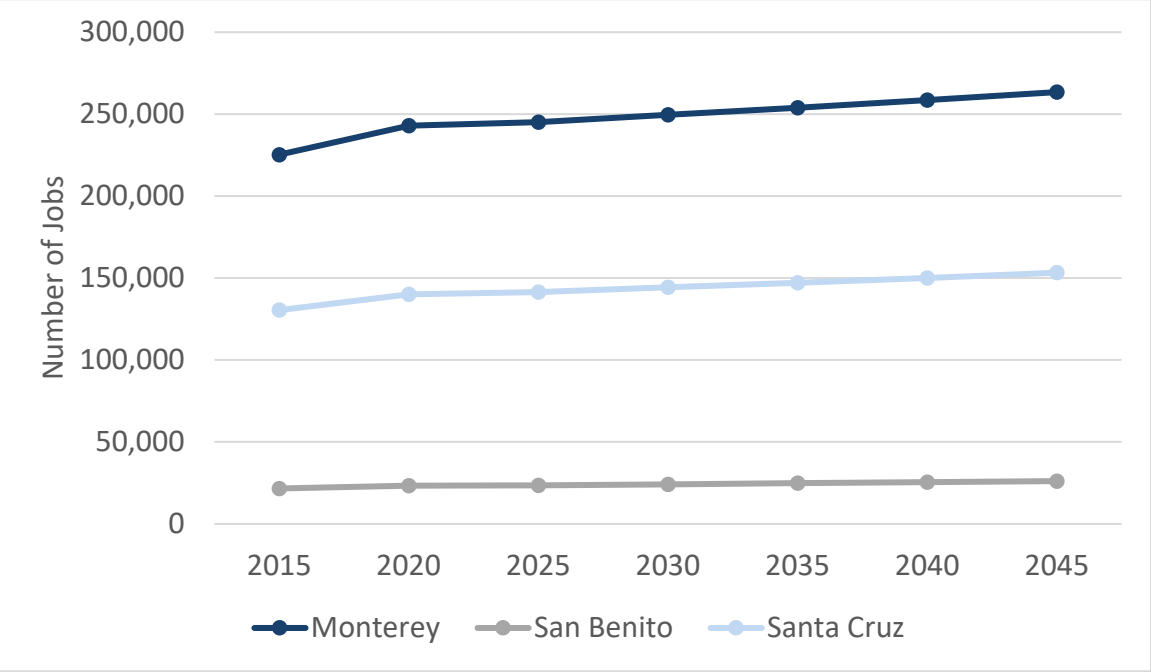
For more information on the definitions of housing and group quarters, see Attachment 4.

This process resulted in draft estimates at the jurisdictional level that were used for discussion purposes with staff at each of the cities and counties within the region. In addition to the cities and counties, staff met with the Local Agency Formation Commissions (LAFCOs) for each county, the Fort Ord Reuse Authority, the University of California, Santa Cruz (UCSC) and California State University, Monterey Bay (CSUMB) to discuss the results. Adjustments were made to the forecast based on these conversations to incorporate growth on the basis of planned developments, specific and General Plan research and economic development plans. The process of revision and meeting with local jurisdictions one-on-one was repeated several times to reach a consensus on the forecast.

Step 1: Employment

The 2022 RGF projects that the region will add about 65,500 jobs between 2015 and 2045, for a total of just over 442,800 jobs by 2045. Of that growth, 58 percent (approximately 38,200 jobs) is expected to be in Monterey County, 7 percent (approximately 4,500 jobs) is expected to be in San Benito County and 35 percent (approximately 22,800 jobs) is expected to be in Santa Cruz County.

Figure 11: Employment by County 2015-2045



Sources: California Employment Development Department, InfoUSA, AMBAG, forecast by PRB and AMBAG.

Method for Producing the County and Sub-County Employment Forecast

The subregional employment forecast incorporated a two-step process: a county-level forecast and a jurisdiction-level allocation.

In order to disaggregate the tri-county regional industry employment forecast by county, AMBAG staff selected what is known as a Classical Shift-Share model. The Classical Shift-Share formula is similar to the Implicit Shift-Share formula used to disaggregate the population forecast, except that it is comprised of three mathematical functions rather than two. In this case, they are referred to as the regional share, industry mix and competitive shift functions. The regional share function estimates what employment growth in a certain industry would look like in the local area (i.e., county) if it were to grow at the same rate as the total all-industry employment in the region as a whole. The second industry mix function then adjusts for the difference in the rate of employment growth in a certain industry, compared to all industry employment. The industry mix function is calculated using regional

employment values. The third function, known as the competitive shift, adjusts the estimate to account for faster or slower industry employment growth in the county, compared to the region.

Figure 12: Classical Shift-Share Equation

$$E_i^{t+n} = E_i^t \left[\frac{R_A^{t+n}}{R_A^t} + \left(\frac{R_i^{t+n}}{R_i^t} - \frac{R_A^{t+n}}{R_A^t} \right) + \alpha \left(\frac{E_i^t}{E_i^{t-m}} - \frac{R_i^t}{R_i^{t-m}} \right) \right]$$

E = local Value *R* = Regional Value

i = industry *A* = All industries

Sub-County Employment Database and Re-benchmarking

To produce the subregional employment component of the forecast and to support transportation modeling, AMBAG created an address-level database for all employers in the AMBAG region in 2015. The database combined industry employment data from the California Employment Development Department (EDD) with employer data from InfoUSA. The InfoUSA data are derived from dozens of sources including but not limited to postal records, white pages listings, new business registrations, utility connections, real estate data (deeds & assessments) and industry directories. The database is then verified and supplemented with regular phone surveys. InfoUSA database is used by many other regional Councils of Governments to conduct forecast work and is a reputable source of data.

Staff compared records from EDD with those from InfoUSA. Where both sources matched, one record was retained, unedited. Where records differed, staff conducted extensive research (using AMBAG's land use inventory, web-based investigation, and field research) to determine the proper industry code and employment level for the record and retained the most accurate record (typically the higher reported number). As a result of the editing and reconciliation process, the address-level inventory differs from EDD industry totals.

While there are differences across all industries, edits to agricultural records were extensive. Staff review of address-level records showed that many establishments listed as "agriculture" by EDD are, in the AMBAG region, engaged in food processing (manufacturing), storage (warehousing), or retail (farm stands). Agricultural recategorization is described in more detail in Attachment 2.

It is also important to note that the AMBAG estimate of agricultural jobs differs from estimates of the agricultural workforce (91,433 in 2016) described in "Farmworker Housing Study and Action Plan for Salinas Valley and Pajaro Valley." The reasons for this difference are both temporal and definitional. The industry estimates are annual-average estimates of jobs (a job is a paid position at a company) for 2015. The Farmworker Housing Study figures are 2016 estimates of all workers who were ever employed during the year, including those who worked part-time or part-year. If a company has high turnover or seasonal work, that company's number of workers (all year) would be higher than their average number of jobs. For example, if a company typically has 10 paid positions, but in peak season brings on another 10 for three months, the annual average number of jobs is 12.5 (10 x (9/12months) +

20 x (3/12months) = 12.5/month) but there were 20 unique workers at peak (original 10 plus additional 10).

Thus, in this case, the farmworker study estimates are higher than jobs estimates for three key reasons:

- Agricultural employment grew slightly between 2015 and 2016.
- Worker estimates take peak seasonal employment into account, while EDD industry estimates are annual averages.
- Some companies that identify as agricultural are more accurately classified as food processing (manufacturing), storage (warehousing), or retail (farm stands).

Sub-County Disaggregation Method for Employment

The address-level database, described above, was used to calculate the share of employment for each industry in each jurisdiction in 2015. This percent share was then carried forward to future years in order to calculate the number of jobs located in each jurisdiction by industry. While the County level totals use the Classical Shift-Share method as described above, the sub-county level forecast is a constant share approach. However, because the sub-county level forecasts are based on the County totals by industry the Classical Shift-Share method does influence the sub-county trends.

A preliminary draft forecast was distributed to planning staff at each jurisdiction. AMBAG staff held one-on-one meetings to gather comments and additional information from planning staff at each jurisdiction. (See Attachment 1 for a list of meeting dates, times, locations and attendees.) Staff then used economic studies, entitled development, the establishment of enterprise zones and other information from local planners to supplement the employment assumptions at the jurisdictional level. These comments and additional pieces of information were incorporated into the final forecast.

Table 7: Subregional Employment Forecast

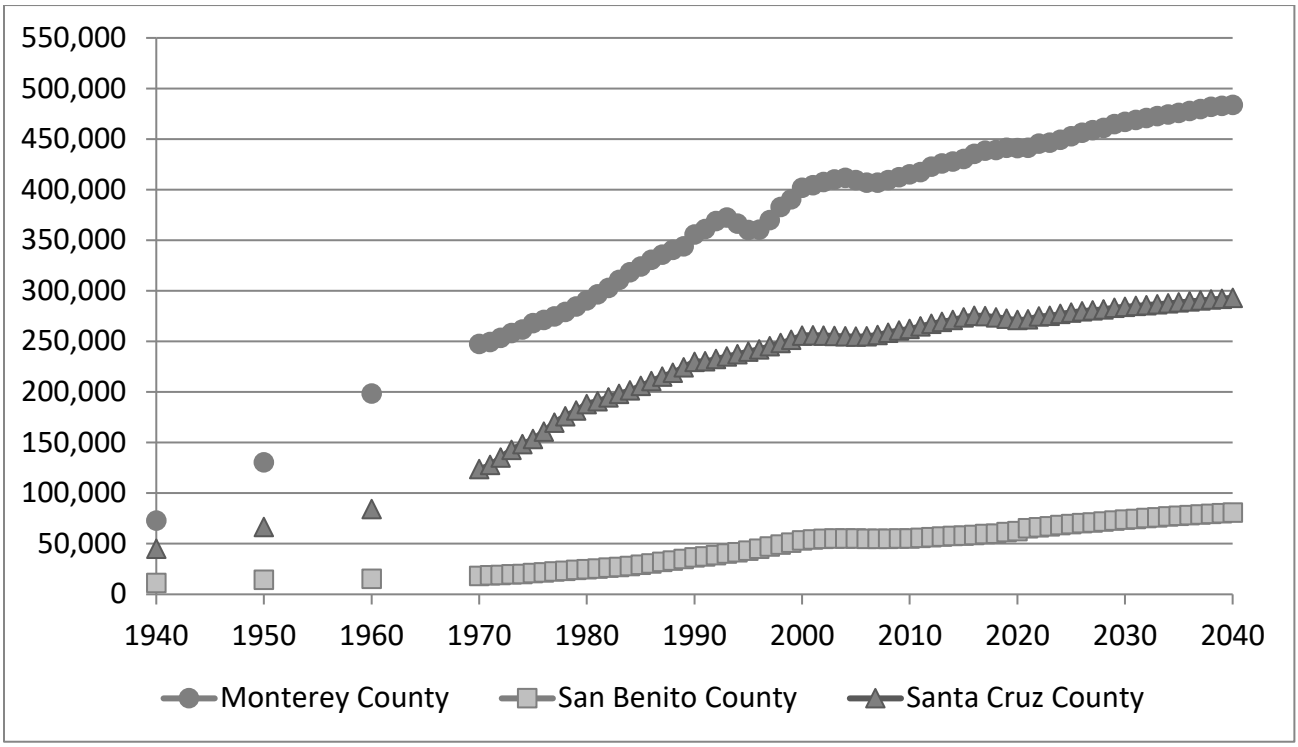
Geography	2015	2020	2025	2030	2035	2040	2045	Change 2015-2045 Numeric	Change 2015-2045 %
AMBAG Region	**377,335**	**406,280**	**410,017**	**418,132**	**425,845**	**434,147**	**442,824**	**65,489**	**17%**
Monterey County	**225,268**	**243,015**	**245,054**	**249,613**	**253,918**	**258,553**	**263,437**	**38,169**	**17%**
Carmel-By-The-Sea	3,353	3,566	3,593	3,674	3,752	3,833	3,915	562	17%
Del Rey Oaks	705	748	753	774	794	815	834	129	18%
Gonzales	5,764	6,326	6,382	6,533	6,660	6,788	6,920	1,156	20%
Greenfield	7,227	7,882	7,948	8,061	8,177	8,298	8,423	1,196	17%
King City	7,573	8,195	8,248	8,371	8,511	8,669	8,832	1,259	17%
Marina	6,107	6,548	6,621	6,765	6,899	7,055	7,217	1,110	18%
Monterey	38,133	40,989	41,527	42,506	43,452	44,465	45,509	7,376	19%
Pacific Grove	7,470	8,016	8,061	8,152	8,244	8,343	8,445	975	13%
Salinas	73,009	78,874	79,577	81,079	82,505	84,044	85,683	12,674	17%
Sand City	1,966	2,092	2,102	2,151	2,188	2,224	2,259	293	15%
Seaside	9,667	10,476	10,589	10,833	11,062	11,290	11,543	1,876	19%
Soledad	8,532	9,010	9,079	9,161	9,235	9,333	9,462	930	11%
Unincorporated	55,762	60,293	60,574	61,553	62,439	63,396	64,395	8,633	15%
San Benito County	**21,631**	**23,263**	**23,572**	**24,203**	**24,802**	**25,475**	**26,126**	**4,495**	**21%**
Hollister	14,428	15,492	15,728	16,207	16,655	17,121	17,613	3,185	22%
San Juan Bautista	515	557	569	580	588	603	612	97	19%
Unincorporated	6,688	7,214	7,275	7,416	7,559	7,751	7,901	1213	18%
Santa Cruz County	**130,436**	**140,002**	**141,391**	**144,316**	**147,125**	**150,119**	**153,261**	**22,825**	**17%**
Capitola	11,666	12,250	12,376	12,633	12,902	13,181	13,454	1,788	15%
Santa Cruz	40,840	43,865	44,317	45,594	46,863	48,203	49,636	8,796	22%
Scotts Valley	9,458	10,109	10,185	10,345	10,489	10,637	10,797	1339	14%
Watsonville	26,403	28,514	28,765	29,156	29,505	29,896	30,303	3,900	15%
Unincorporated	42,069	45,264	45,748	46,588	47,366	48,202	49,071	7,002	17%

Sources: Data for 2015 from InfoUSA and the California Employment Development Department. Forecast years were prepared by AMBAG and PRB.

Step 2: Population

This forecast projects that the region's population will grow by approximately 107,500 people between 2015 and 2045, for a total population of just under 869,800 in 2045. Of that growth, 57 percent (approximately 61,100 people) is expected to be in Monterey County, 23 percent (approximately 25,200 people) is expected to be in San Benito County and 20 percent (approximately 21,200 people) is expected to be in Santa Cruz County.

Figure 13: Population in Monterey, San Benito and Santa Cruz Counties 1940-2045



Sources: Data for years 1940-2020 are from the U.S. Census Bureau and California Department of Finance. Forecast years were prepared by AMBAG and PRB.

Table 8: Subregional Population Forecast

Geography	2015	2020	2025	2030	2035	2040	2045		%
AMBAG Region	**762,241**	**774,729**	**800,726**	**824,992**	**842,189**	**857,828**	**869,776**	**107,535**	**14%**
Monterey County	**430,310**	**441,143**	**452,761**	**467,068**	**476,028**	**483,884**	**491,443**		**4%**
Carmel-By-The-Sea	3,854	3,949	3,946	3,954	3,964	3,974	3,984	130	3%
Del Rey Oaks	1,663	1,662	1,693	1,734	1,859	2,330	2,650		9%
Gonzales	8,441	8,506	9,650	13,492	14,630	15,398	15,711	7,270	86%
Greenfield	17,172	18,284	19,342	19,734	19,961	20,202	20,433		9%
King City	13,736	14,797	15,376	16,101	16,689	16,881	17,064	3,328	24%
Marina	21,057	22,321	23,723	25,126	26,713	28,433	30,044		3%
Marina balance	20,037	21,371	22,293	22,841	23,238	23,768	24,237	4,200	21%
CSUMB (portion)	1,020	950	1,430	2,285	3,475	4,665	5,807		9%
Monterey	28,086	28,170	28,044	28,650	29,032	29,342	29,639	1,553	6%
Monterey balance	24,095	24,749	24,623	25,229	25,611	25,921	26,218		9%
DLI & Naval Postgrad	3,991	3,421	3,421	3,421	3,421	3,421	3,421	-570	-14%
Pacific Grove	15,460	15,265	15,290	15,395	15,530	15,676	15,817		2%
Salinas	158,059	162,222	166,226	170,459	173,393	175,358	177,128	19,069	12%
Sand City	361	385	430	516	756	1,012	1,198		2%
Seaside	33,815	33,537	34,497	35,107	35,634	36,582	38,316	4,501	13%
Seaside balance	25,835	26,345	27,285	27,850	28,317	29,205	30,881		0%
Fort Ord (portion)	4,163	3,083	3,083	3,083	3,083	3,083	3,083	-1080	-26%
CSUMB (portion)	3,817	4,109	4,129	4,174	4,234	4,294	4,352		4%
Soledad	24,597	25,301	26,112	26,824	27,697	28,419	29,133	4,536	18%
Soledad balance	16,298	17,190	18,001	18,713	19,586	20,308	21,022		9%
SVSP & CTF	8,299	8,111	8,111	8,111	8,111	8,111	8,111	-188	-2%
Unincorporated	104,009	106,744	108,432	109,976	110,170	110,277	110,326		6%
Unincorp balance	101,468	104,203	105,891	107,435	107,629	107,736	107,785	6,317	6%
CSUMB	2,541	2,541	2,541	2,541	2,541	2,541	2,541		0%
San Benito County	**58,138**	**62,353**	**69,324**	**73,778**	**77,638**	**80,788**	**83,366**	**25,228**	**43%**
Hollister	37,314	40,646	42,604	43,327	44,421	45,345	45,599		2%
San Juan Bautista	1,945	2,112	2,269	2,315	2,374	2,410	2,436	491	25%
Unincorporated	18,879	19,595	24,451	28,136	30,843	33,033	35,331		7%
Santa Cruz County	**273,793**	**271,233**	**278,641**	**284,146**	**288,523**	**293,156**	**294,967**	**21,174**	**8%**
Capitola	10,224	10,108	10,485	10,794	10,957	11,049	11,126		9%
Santa Cruz	64,223	64,424	68,845	72,218	75,257	78,828	79,534	15,311	24%
Santa Cruz balance	46,947	45,324	47,845	49,118	49,957	50,828	51,534		0%
UCSC	17,276	19,100	21,000	23,100	25,300	28,000	28,000	10,724	62%
Scotts Valley	11,946	11,693	11,718	11,837	11,867	11,868	12,010		1%
Watsonville	52,410	51,515	52,918	54,270	55,138	55,786	56,344	3,934	8%
Unincorporated	134,990	133,493	134,675	135,027	135,304	135,625	135,953		1%

Sources: Data for 2015-2020 are from the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

Method for Producing the County and Sub-County Population Forecast

In order to disaggregate the tri-county regional population forecast, PRB and AMBAG implemented the Implicit Shift-Share method. This particular technique was chosen because it provides a relatively simple, yet rigorous, method for estimating the future geographic distribution of the regional population based on historic estimates of local and regional population growth.

The Implicit Shift-Share formula is comprised of two distinct mathematical functions. These are sometimes known as the regional share and the local shift. The regional share function calculates what the total population growth in the local area (i.e., a city or county) would be if that area were to grow at the same rate as the region as a whole. The second function then adjusts for historic changes in the local area's share of the total regional population. Combined with an accurate estimate of the size of the base population obtained from the 2010 Decennial Census, the regional share and local shift functions provide a reasonable estimate of the future local area population, taking into account past changes in the percentage share of the regional population. Historical data are from the Department of Finance. The Department of Finance does benchmark their historical estimates to the Decennial Census for 1990, 2000 and 2010.[4]

Figure 14: Implicit Shift-Share Equation

$$E^{t+n} = E^{t}\left(\frac{R^{t+n}}{R^{t}}\right) + \alpha R^{t+n}\left(\frac{E^{t}}{R^{t}} - \frac{E^{t-m}}{R^{t-m}}\right)$$

E = Local Value *R* = Regional Value

To produce jurisdiction-level forecast, AMBAG and PRB compiled a database of historical population by jurisdiction. This database included information on population growth (or decline) as well as details for "special" populations (e.g., college students, military personnel, prisoners). (Special populations are described in more detail in the section "Adjustments for Special Populations," below.)

AMBAG and PRB compiled historical data[5] to track trends in, and relied upon institutional/facility plans to produce the population forecast for the following areas:

- Marina:
    - Fort Ord (portion)

[4] Department of Finance, E-8 Historical Population and Housing Estimates for Cities, Counties and the State, 1990-2000, August 2008; Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001-2010, September 2011 and Department of Finance, E-1 Population Estimates for Cities, Counties and the State, 2011 and 2012, August 2009.
[5] Sources include the California Department of Finance, U.S. Census Bureau and institutional records.

    - CSUMB (portion)
- Monterey
    - Defense Language Institute and Naval Postgraduate School
- Seaside
    - Fort Ord (portion)
    - CSUMB (portion)
- Soledad
    - SVSP & CTF
- Balance of County
    - CSUMB (portion)
- Santa Cruz
    - UCSC

AMBAG and PRB then applied the implicit shift-share methodology to the balance of population in each jurisdiction to produce a draft of the first forecast increment. The benchmark period for the shift-share model was 2010-2015, and the model was applied to produce the draft forecast.

Forecast years, for this initial draft, presumed that each jurisdiction maintained a constant share of the region's population. This approach, using shift-share for the first increment, and constant-share thereafter, was implemented in the 2014 RGF and 2018 RGF to ensure that jurisdictions that experienced population loss during the benchmark period would not continue to decline. This forecast assumption is reasonable given that any jurisdiction may experience a period of temporary population decline, even when the long-term trend has been stability or growth.

Further initial adjustments were made to reflect population growth associated with housing under construction or in the permit pipeline.

AMBAG staff then met with representatives from each jurisdiction to ground truth the forecast with respect to anticipated future growth and development in the pipeline. (See Attachment 1 for a full list of meetings.)

Step 3: Housing

To house the region's expected population growth, this forecast shows an increase of just over 42,200 housing units by 2045, for a total of approximately 304,900 units. Of that growth, 62 percent (approximately 26,200 houses) is expected to be in Monterey County, 18 percent (approximately 7,500 houses) is expected to be in San Benito County and 20 percent (approximately 8,600 houses) is expected to be in Santa Cruz County. Housing growth rates do not exactly parallel population growth rates because of local variations in average household size and vacancy rate, and because some population (e.g., at UCSC and CSUMB) is expected to be housed in group quarters facilities.

Table 9: Subregional Housing Forecast

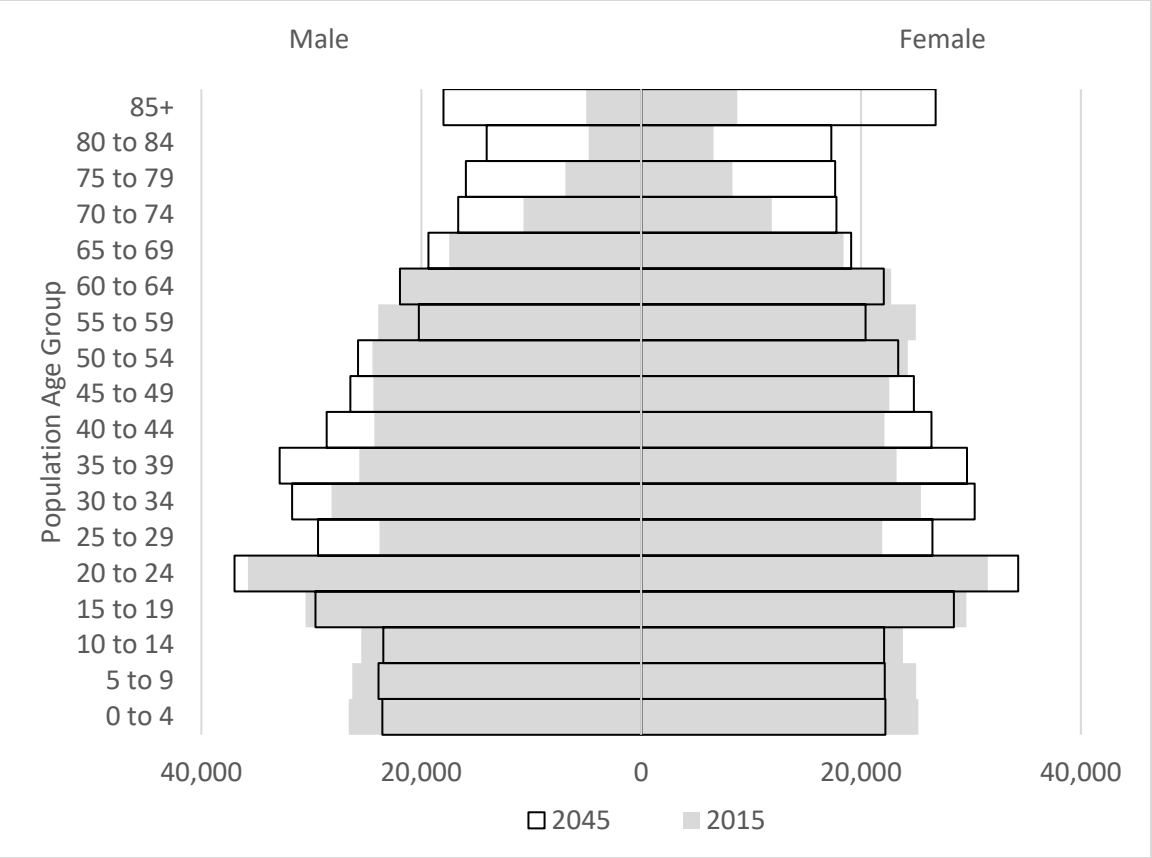
Geography	2015	2020	2025	2030	2035	2040	2045	Change 2015-2045 Numeric	Change 2015-2045 %
AMBAG Region	**262,660**	**267,812**	**277,645**	**288,386**	**296,352**	**301,307**	**304,900**	**42,240**	**16%**
Monterey County	**139,177**	**141,764**	**146,716**	**153,852**	**159,100**	**162,612**	**165,328**	**26,151**	**19%**
Carmel-By-The-Sea	3,417	3,437	3,437	3,442	3,450	3,453	3,459	42	1%
Del Rey Oaks	741	741	762	809	848	1,052	1,195	454	61%
Gonzales	1,987	1,987	2,399	3,630	4,182	4,474	4,626	2,639	133%
Greenfield	3,794	3,981	4,359	4,766	5,047	5,164	5,238	1,444	38%
King City	3,283	3,432	3,672	4,002	4,282	4,356	4,403	1,120	34%
Marina	7,334	7,784	8,277	8,837	9,265	9,521	9,693	2,359	32%
Marina balance	7,334	7,784	8,277	8,832	9,205	9,445	9,617	2,283	31%
CSUMB (portion)	0	0	0	5	60	76	76	76	--
Monterey	13,637	13,705	13,705	13,920	14,209	14,402	14,549	912	7%
Monterey balance	13,205	13,273	13,273	13,488	13,777	13,970	14,117	912	7%
DLI & Naval Postgrad	432	432	432	432	432	432	432	0	0%
Pacific Grove	8,184	8,201	8,214	8,267	8,336	8,400	8,463	279	3%
Salinas	43,001	43,411	45,552	48,673	50,968	52,229	53,150	10,149	24%
Sand City	176	189	198	228	333	446	526	350	199%
Seaside	10,913	10,920	11,437	11,925	12,248	12,604	13,192	2,279	21%
Seaside balance	8,908	8,942	9,429	9,888	10,190	10,531	11,107	2,199	25%
Fort Ord (portion)	1,119	1,119	1,119	1,119	1,119	1,119	1,119	0	0%
CSUMB (portion)	886	859	889	918	939	954	966	80	9%
Soledad	3,927	4,137	4,433	4,733	5,024	5,240	5,426	1,499	38%
Soledad balance	3,927	4,137	4,433	4,733	5,024	5,240	5,426	1,499	38%
SVSP & CTF	0	0	0	0	0	0	0	0	--
Unincorporated	38,783	39,839	40,271	40,620	40,908	41,271	41,408	2,625	7%
Unincorp balance	38,783	39,839	40,238	40,569	40,592	40,616	40,616	1,833	5%
CSUMB	0	0	33	51	316	655	792	792	--
San Benito County	**18,262**	**19,913**	**21,721**	**23,333**	**24,773**	**25,452**	**25,775**	**7,513**	**41%**
Hollister	10,757	11,917	12,501	13,177	13,701	14,054	14,122	3,365	31%
San Juan Bautista	750	819	878	918	951	965	975	225	30%
Unincorporated	6,755	7,177	8,342	9,238	10,121	10,433	10,678	3,923	58%
Santa Cruz County	**105,221**	**106,135**	**109,208**	**111,201**	**112,479**	**113,243**	**113,797**	**8,576**	**8%**
Capitola	5,537	5,554	5,786	5,970	6,009	6,017	6,017	480	9%
Santa Cruz	23,535	23,954	24,988	25,578	25,974	26,295	26,525	2,990	13%
Santa Cruz balance	23,005	23,424	24,422	24,970	25,342	25,663	25,892	2,887	13%
UCSC	530	530	566	608	632	632	633	103	19%
Scotts Valley	4,691	4,739	4,798	4,846	4,869	4,887	4,930	239	5%
Watsonville	14,131	14,226	14,829	15,629	16,108	16,347	16,519	2,388	17%
Unincorporated	57,327	57,662	58,807	59,178	59,519	59,697	59,806	2,479	4%

Sources: Data for 2015-2020 are from the California Department of Finance. Forecast years were prepared by AMBAG and PRB.

Method for Producing the County and Sub-County Housing Forecast

In order to convert county level population forecast figures into the forecast of housing units, staff created a set of demographic profiles that describe the age, sex, race, and ethnicity characteristics of the future population. The basis for the demographic profiles is a set of detailed population projections developed by the California Department of Finance in 2019.[6] The profiles were developed by calculating the share of total projected population within each county that may be attributed to each age, sex, race and ethnic category. The population age distribution for the AMBAG Region is shown in Figure 15 below. County-specific demographic patterns from the Department of Finance forecast were applied to AMBAG-projected total population for each county.

Figure 15: Population Size and Age Structure of AMBAG Region in 2015 and 2045



Source: 2015 data from the California Department of Finance, 2045 data from AMBAG and PRB.

[6] In January 2020, DOF published State and County Population Projections. These have not been re-benchmarked to the 2020 Census.

The first step toward translating the county demographic projections into forecasted housing was to subtract the group quarters population from the total population. (For an explanation of Group Quarters, see Attachment 4.) Staff calculated a set of group quarters rates by dividing the group quarters population in each age, sex, race and ethnic category as provided by the 2010 Census[7] by the total 2010 age, sex, race and ethnic population in each county. The team then updated these 2010 rates to reflect 2020 population and group quarters population estimates from the Department of Finance. In order to estimate the group quarters population in each county, staff multiplied the group quarters rates within each category by the total population in each category. This population was then removed from the total population to provide an estimate of the number of people living in households, by demographic subgroup.

Next, to generate estimates of the total number of households in each county, staff calculated a set of head of householder rates. These also are frequently referred to as “headship rates” or “household formation rates.” As with the group quarters rates, these are derived from 2010 Census data.[8] To generate the head of householder rates, staff divided the 2010 estimates of the number of individuals within each age, race and ethnic category who were reported to be the head of a household by the total number of individuals within each age, race, and ethnic population category less the group quarters population.[9] By multiplying the base-year household population estimates for each category by the head of householder rates, staff derived a new set of head of household estimates, which were controlled to published data from the California Department of Finance. Note that for each head of household there is, by definition, one household. Thus, by adding up all of the head of householders, the staff was able to generate estimates of the total number of households within each county.[10]

Finally, vacant units were added to the total number of households in order to obtain an estimate of housing units. Vacancy data was obtained from the U.S. Census Bureau for 1990, 2000 and 2010, and

[7] U.S. Census Bureau, 2010 Decennial Census, Summary File 1, Table QTP-12.
[8] U.S. Census Bureau, 2010 Decennial Census, Summary File 2, Table PCT-12.
[9] The householders data for the "Some other race alone, not Hispanic or Latino" and "Native Hawaiian and Other Pacific Islander alone, not Hispanic or Latino" categories of population in San Benito County was suppressed because there was not a population of greater than 100. For these ethnic categories the regional rate was used instead given the lack of data on this population.
[10] The Census does include "second dwelling units" or accessory units within their counts of households if the unit has its own bathroom and kitchen facilities. However, there are likely illegal "granny units" that are not counted through this process.

from the Department of Finance for intercensal years.[11] To better understand what a normal housing vacancy rate might be, staff reviewed historical data on residential vacancy for the last two decades. Once a vacancy rate was established, this was used to calculate the total number of vacant housing units (the number of occupied units being equal to the number of households). By adding together estimates of the total number of vacant and occupied housing units, staff derived estimates of the total housing stock within each county.

Forecasting Sub-County Population, Households and Housing Units

To derive a city-level forecast of population, household population, households, and housing units, staff used a simplified version of the methodology described above. The MPO is not required to develop detailed demographic characteristics for city-level estimates. As such the household and housing unit conversion was done using aggregate group quarters and household formation rates for each city, as reported in the 2010 Census and with trends through 2020 from the Department of Finance.[12] Vacancy rates were derived from a 30-year average as reported by the Department of Finance.[13] The Department of Finance does benchmark their estimates to the decennial Census.

Some of the jurisdictions within the region show a declining population over the last 10 to 20 years. Because the Implicit Shift-Share method was used for projecting 2025 population and the method reflects the change in population over time, for those jurisdictions that have experienced population decline there would be a continuation of that decline reflected for the year 2025. Instead of showing a decline, the 2025 share of the regional population calculated for these jurisdictions was held constant. This has the effect of showing an increase in population to 2025 even if recent trends were toward population decline. There is too little information to know whether short-term declines will continue, so instead of assuming continual decline, growth was held at a constant. AMBAG will continue to monitor these trends.

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[11] Department of Finance, E-8 Historical Population and Housing Estimates for Cities, Counties and the State, 1990-2000, August 2008; and Department of Finance, E-5 Population and Housing Estimates for Places, 2001-2010, with 2000 Benchmark, September 2011.
[12] U.S. Census Bureau, 2010 Decennial Census, Summary File 1, Tables QTP-12 and PCT-12.
[13] Department of Finance, E-8 Historical Population and Housing Estimates for Cities, Counties and the State, 1990-2000, August 2008; Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001-2010, September 2011 and Department of Finance, E-5 Population Estimates for Cities, Counties and the State, 2010-2016, July 2016.

Section 4: Demographic History of the AMBAG Region

The AMBAG region grew at a faster rate than California in the 1960s and 1970s and grew at approximately the same rate as the state in the 1980s (24% in AMBAG region, 26% statewide). Both the state and the AMBAG region grew at the same rate in the 1990s (14%). The AMBAG region's growth fell far below the statewide average between 2000 and 2010, increasing by only three percent while the state grew by 10 percent. From 2010 to 2020 both the state and the AMBAG region grew at similar rates (7% and 6%, respectively).

AMBAG Region: 1970 to 1990

Between 1970 and 1990 the AMBAG region population grew by more than 110,000 each decade, increasing by 29 percent from 1970 to 1980 and by 24 percent from 1980 to 1990. Growth slowed in the 1990s. The slowdown can be attributed, in part, to the closure of Fort Ord in 1994, which is described in more detail in the "Adjustments" section, below. These population losses greatly affected the growth rates of the communities of Marina and Seaside prior to 2000. Concurrent civilian job losses affected population growth in the AMBAG region more broadly. The AMBAG region population grew by 88,500 (14%) between 1990 and 2000.

AMBAG Region: 2000 to 2010

In the following decade, population growth slowed considerably. The AMBAG region population grew by only 22,100 (3%) during the decade between 2000 and 2010. This pattern of slowing population growth reflects an aging population and lower net migration into the AMBAG region. Lowered net migration could be due to several factors including but not limited to water resource constraints, the after-effects of the closure of Fort Ord, as well as increasing housing costs followed by a major recession.

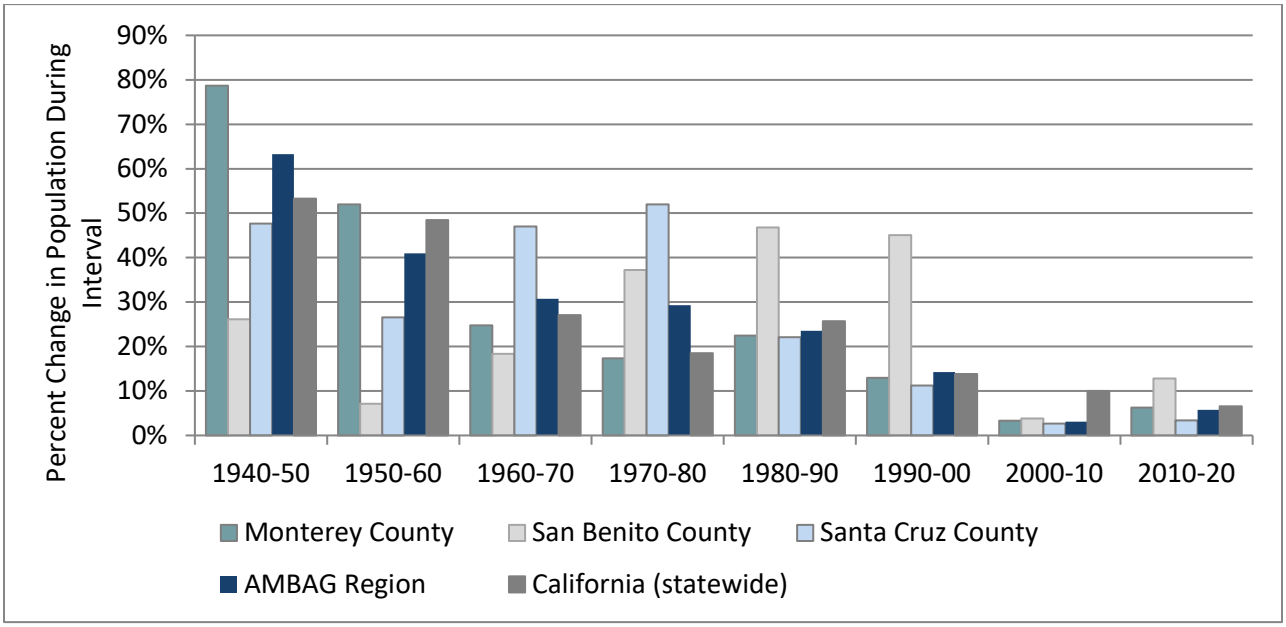
AMBAG Region: 2010 to 2020

In the five years since the decennial census, population growth began to return to historical levels. The AMBAG region population grew by just over 42,000 (6%) during the period between 2010 and 2020. This recovery in population growth reflects post-recession recovery.

Demographic History of AMBAG Counties

Population growth details for all three counties are shown below. County-specific summaries follow the charts.

Figure 16: Population Growth Rates in Monterey County, San Benito County, Santa Cruz County, AMBAG Region and California (statewide) 1940-2020



Source: California Department of Finance

Monterey County

Between 1960 and 2000, Monterey County has grown at a rate slower than the AMBAG region as a whole. From 2000-2010 and 2010-2020 Monterey County grew at the same rate in the region. (See Figure 16, above.)

As a result of the closure of Fort Ord, Monterey County experienced a population decline in the middle of the 1990s, yet population growth rebounded later in the decade. The county registered 13 percent growth (an increase of 46,100) between 1990 and 2000. (See Figures 2 and 3)

The 1990s also saw the opening of two large institutions: California State University, Monterey Bay and Salinas Valley State Prison. Both are described in more detail in the Special Populations section below.

While the County as a whole grew, six of the county's thirteen jurisdictions experienced population loss during the 1990s (Carmel-By-The-Sea, -4%; Del Rey Oaks, -1%, Marina, -29%, Monterey, -7%, Pacific Grove, -4%, Seaside, -15%). Conversely, the population of Salinas grew by nearly 34,000 during the decade. Soledad also grew at a rapid clip (16,000 population) largely as the result of Salinas Valley State Prison opening in 1996.

The following decade saw much slower growth, with an increase of less than 13,300 (3%) between 2000 and 2010. Five jurisdictions lost population (Carmel-By-The-Sea, -9%; Del Rey Oaks, -2%,

Monterey, -6%, Pacific Grove, -3%, unincorporated Monterey County, -1%). The city of Seaside remained virtually unchanged.

From 2010 to 2020, the cities of Greenfield, King City, Marina, and Sand City all had estimated growth of greater than 10 percent. Only the city of Soledad is estimated to have lost population.

San Benito County

While San Benito County grew at a rate much slower than the AMBAG region prior to the 1970s, the county saw rapid population growth in the 1970s, 1980s, and 1990s, a dip in the early 2000s, and a return to rapid growth 2010-2020. (See Figure 16, above.)

San Benito County registered rapid population growth, adding more than 16,500 population (45%) between 1990 and 2000. During this decade the city of Hollister nearly doubled in population (78%) while the population of San Juan Bautista declined (-1%).

San Benito's population growth slowed to four percent (2,000 population) between 2000 and 2010. The trend of the 1990s was reversed. Hollister grew by only one percent while San Juan Bautista increased by 20 percent.

From 2010 to 2020 San Benito County grew faster than the region, with Hollister and San Juan Bautista growing by 16% and 13%, respectively.

Santa Cruz County

Santa Cruz County grew at a rate faster than the AMBAG region in the 1960s and 1970s, but grew more slowly in every other decade from 1940-2020. (See Figure 16, above.)

Santa Cruz County grew by more than 25,800 (11%) between 1990 and 2000. The fastest-growing jurisdiction in Santa Cruz County between 1990 and 2000 was Watsonville (42%) followed by Scotts Valley (31%). Capitola's population fell during the decade (-1%).

The County's growth slowed considerably, adding just under 6,800 population (3%) between 2000 and 2010. The fastest-growing jurisdiction in Santa Cruz County between 2000 and 2010 was Watsonville (16%, including the annexation area, 11% without) followed by Santa Cruz (10%). Scotts Valley, which grew rapidly during the 1990s, showed only two percent population growth during the decade. Capitola's population fell during the decade (-1%).

In recent years, no jurisdiction in Santa Cruz has grown by more than 10 percent. The fastest growing city, Santa Cruz, grew by 7% between 2010 and 2020.

Adjustments for Special Populations

In small area demographic analysis, some populations grow or decline as a result of exogenous factors, rather than in response to demographic or economic conditions. For example, uniformed military populations, college populations, and prison populations may grow or decline as new facilities are added or older facilities are phased out of use. These population changes involve facilities that are outside the authority of local land use agencies and that change based on policy, rather than demographic, factors.

Changes in these facilities can result in population "shocks" that affect the rate of population change within an area, independent of larger demographic and economic trends.

As a result of their unique characteristics, these populations are referred to as "special populations" and are often treated separately in forecasting.

Special populations include people associated with military bases, tourists, prisons, and colleges and universities. The size of a special population may have no connection to the general trends affecting the area. A special population can be stable for long periods of time, balloon quickly, and deflate, or, in the case of military bases, disappear rapidly through a closure program. It is best to develop a detailed understanding of the nature of the special population and set out the projection for it separately.[14]

Over the past two decades, the AMBAG region has been home to several "special populations" including the military resident population at Fort Ord, the Defense Language Institute and Naval Postgraduate School, students at UCSC and CSUMB, and inmates at SVSP.

In the preliminary forecast, AMBAG staff began the shift-share analysis at 1996 to address the population "shocks" resulting from the closure of Fort Ord and the opening of both California State University Monterey Bay and the Salinas Valley State Prison. While this adjustment was effective at addressing some of the special population concerns, it has a key weakness: it does not allow for independent forecasting of special populations.

The following discussion provides a method for addressing that issue.

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[14] Merc, Stuart. "Projections and Demand Analysis." Planning and Urban Design Standards. published by the American Planning Association. Sept 2012. http://books.google.com/books?id=NXpncFYj73QC&pg=PA299&lpg=PA299&dq=%22special+population%22+forecasting&source=bl&ots=L2fSbUMT8R&sig=uV05NN3-rNYcpCr97xU2hTpYt6s&hl=en&sa=X&ei=eEC5UMT8O42tqAGAvIDQCQ&ved=0CG0Q6AEwCQ#v=onepage&q=%22special%20population%22%20forecasting&f=false

History of Special Populations in the AMBAG Region

Fort Ord

Established in 1917, Fort Ord was eliminated during the Base Realignment and Closure Act of 1990, closing in 1994. This resulted in the loss of more than 30,000 residents in Monterey County, primarily in the jurisdictions of Marina and Seaside, as described in the Fort Ord Reuse Plan:

> *Fort Ord has been a significant presence in Monterey County since 1917… maintained a large military population numbering approximately 14,500 military personnel and 17,000 family members of active-duty personnel… the resident population of Fort Ord totaled 31,270 in 1991.*[15]

In addition…

> *The on-post resident population was divided between the two municipalities of Marina and Seaside. Through 1990, 17,139 people (56%) were within the Seaside city limits and 13,321 people (44%) were within the Marina city limits (Harding Lawson Associates, 1991, Workplan remedial investigation/feasibility study, Fort Ord, CA).*[16]

These population losses greatly affected the communities of Marina and Seaside. However, the forecast was developed using the 2000 to 2015 time period as a historical reference. By 2000 abnormalities in growth rates caused by the closure of Fort Ord had self-corrected. The Fort Ord Reuse Authority's mandate for overseeing the area ended in June 2020. Beginning with the 2022 RGF, the area will be projected as any other potential development in the AMBAG region, based on plans and permits.

Defense Language Institute and Naval Postgraduate School

The Army Language School, later renamed the Defense Language Institute, has been a presence in Monterey County since the end of World War II. The number of people living in group quarters at the Institute and Postgraduate School has been stable, at approximately 4,000, in recent years. Because of this stability, the 2018 RGF presumes no change to the population of these two institutions in future years.

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[15] Fort Ord Reuse Plan, Volume 1: Context and Framework. June 1997.
[16] Fort Ord Reuse Plan, Volume 2: Reuse Plan Elements. June 1997.

University of California, Santa Cruz

Founded in 1965, the University of California, Santa Cruz grew to 9,800 students by the 1991-92 academic year, 10,885 students by the 1999-2000 academic year, and 16,300 full-time equivalent students in the 2009-2010 academic year.[17] In meetings with AMBAG staff, UCSC staff indicated that they expect growth of 300-500 students per year, resulting in a 2040 student forecast of 28,000 (the 2022 RGF holds this level constant from 2040-2045).

It is important to note that these projections reflect full-time equivalent students, and actual headcounts will likely be higher.

California State University, Monterey Bay

Founded in 1995, California State University Monterey, Bay grew to 2,265 students during the 1999-2000 school year and 4,000 students by 2010.[18] Although not created by the Fort Ord Reuse Plan, the University is a significant component of the Base Reuse Plan and as it continues to grow will help to stimulate the economic development of the Fort Ord Area. The most recent master plan projects full-time equivalent student enrollment of 12,000 by 2025.[19] In meetings with AMBAG staff, CSUMB staff indicated that they expect growth to 12,700 full-time equivalent students by 2045.

It is important to note that these projections reflect full-time equivalent students, and actual headcounts will likely be higher.

In addition, discussions with CSUMB staff suggested that some group quarters (student) dormitory housing in the "East Campus" unincorporated area would convert to faculty/family housing over time. This transition is reflected through the growth of group quarters population in the Marina area of the CSUMB campus, decline of group quarters in Unincorporated Monterey County—and transition of those formerly group quarters structures into family housing (i.e. increase in households and housing units).

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[17] University of California, Santa Cruz Department of Planning and Budget. http://planning.ucsc.edu/irps/thirdWeek.asp accessed December 2012. Figures based on 3-quarter average measured in the spring quarter of the academic year.
[18] California State University Monterey Bay historical timeline http://about.csumb.edu/node/4287 accessed November 2012.
[19] Recirculated Draft Environmental Impact Report for the California State University Monterey Bay 2007 Master Plan. July 2008.

Salinas Valley State Prison and Soledad Correctional Training Facility

Opened in 1996, Salinas Valley State Prison has a design capacity of 3,888.[20] According to annual reporting by the California Department of Finance, the facility had a resident population of 4,100 at the beginning of the 2000s decade and a population of 3,630 on January 1, 2010.[21] The facility has a maximum capacity of 4,400, according to the 2010 Master Plan Annual Report.[22]

Opened in 1946, Soledad Correctional Training Facility has a design capacity of 3,301. According to annual reporting by the California Department of Corrections and Rehabilitation and counts from the 2000 and 2010 decennial census, the facility had a resident population of between 6,000 and 7,200 during the decade. [23]

Because both facilities currently house group quarters populations in excess of their design capacity, no future population growth is shown at these facilities in the 2018 RGF. Population totals are held constant at their 2015 levels.

Table 10: Historical Special Population Counts

	1990	2000	2010	2015
Fort Ord Military Population	31,270*	0	0	0
Defense Language Institute and Naval Postgraduate School	n/a	n/a	4,227	4,004
University of California, Santa Cruz	9,800**	10,885	16,332	17,276
California State University, Monterey Bay	0	2,265	4,000	6,368
Salinas Valley State Prison	0	4,100	3,630	3,592
Soledad Correctional Training Facility	0	7,120	6,148	4,707

** Estimate.*

***1990 figure for University of California, Santa Cruz reflects data from the 1991-92 academic year, the earliest year reported.*

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[20] California Department of Corrections and Rehabilitation website for Salinas Valley State Prison. Figure reported for fiscal year 2009-2010. http://www.cdcr.ca.gov/Facilities_Locator/SVSP-Institution_Stats.html accessed December 9, 2012.
[21] California Department of Finance. Exclusion and Dorm Report. November 2012.
[22] Master Plan Annual Report: Calendar Year 2010. California Department of Corrections and Rehabilitation. January 2011.
[23] California Department of Corrections and Rehabilitation website for Soledad Correctional Training Facility. Figure reported for fiscal year 2007 http://www.cdcr.ca.gov/Facilities_Locator/CTF-Institution_Stats.html accessed December 9, 2012. Population counts derived from institutionalized group quarters counts from Census 2000 and Census 2010, U.S. Census Bureau.

Adjustments to the Population Projections

Developing Special and Non-Special Population Estimates

Special populations provide a challenge to the population projections because their growth and decline are often not determined by factors that impact the rates of change of the general population. This is particularly true of college students, prison inmates, and military personnel and their dependents. Residents of nursing homes, while also a special population, share many of the characteristics of the general population, and their growth and decline often mirror the demographic changes of the larger community. To deal with the special population issue, a common procedure applied in population projections is to exclude the special populations by using group quarters data and to project the adjusted population separately, i.e., the total population minus the special population. At the end of the projection module, the special population is added back to the projected adjusted population to produce the projected total population. The special population is either held constant or projected separately.[24]

Thus, projections for AMBAG jurisdictions (Marina, Santa Cruz, Seaside, Soledad and unincorporated Monterey County) should be adjusted to account for special populations independent of the non-special population trends.

To accomplish this, special populations should be subtracted from the census year population estimates used in developing the shift-share model population shares. Independent projections of the special populations (e.g., from master plan documents) should then be addressed separately in the population forecast.

Incorporating Special Populations into the Final Projections

As noted above, Fort Ord has closed, and thus major military populations can be assumed to be constant throughout the remainder of the forecast.

For the universities and the prison, master plan documents provide useful information about expected future populations. These population plans can be used to fill in horizon-year projections, which are then kept constant for any remaining years of the AMBAG forecast. Additionally, staff worked closely with UCSC to develop conservative estimates for growth after the horizon year of their long-range development plan.

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[24] Rayer, Stephan. MISER Population Projections for Massachusetts, 2000–2020. July 2003. http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&cad=rja&ved=0CEUQFjAD&url=http%3A%2F%2Fwww.umass.edu%2Fmiser%2Fpopulation%2FDocuments%2FMAProjMethodology.doc&ei=-ke5UNPKDMmdqgH0h4GgDQ&usg=AFQjCNF6tP0wQ9CqtSb8X7-EUtMm9rmMrw&sig2=8pz3atGy03rNWjtvjbdjeg

Translating Population Growth into Housing

Special population adjustments for Fort Ord require no special processing, as the military population on Fort Ord is not expected to change in future years.

However, university populations for UCSC and CSUMB pose a special case. While housing will be provided by the universities, it is likely that many students will live in group quarters (described in more detail in Attachment 4), but at least some students will reside in housing "in town" as part of the resident population of surrounding jurisdictions. For this reason, university population projections and housing projections were completed separately from the jurisdiction population projections.

Population projection adjustments for SVSP and SCTF require no special processing for housing unit projections. These populations will be classified as group quarters, and thus are not considered in housing calculations.

Adjustments for Annexations

The shift-share approach outlined above presumes that most population change is a result of demographic and economic forces that can be represented by the rate of change over time. The shift-share approach is intended for use with jurisdictions that retain consistent geographic boundaries over time. Because the shift-share method presumes constant geographic boundaries, annexations, which by definition change jurisdiction boundaries, pose a unique problem. Adjustment techniques are needed to address these cases. Between 1990 and 2010 there was one heavily populated annexation in the AMBAG region. This case, the Watsonville annexation, is described in more detail below. (In 2008 Salinas also annexed the North of Boronda Future Growth Area, which had a population of approximately 100. This annexation, which affected the overall jurisdiction population by less than 0.1%, was not modeled separately.)

History of Annexations in the AMBAG Region

In 2000 the city of Watsonville annexed a portion of unincorporated Santa Cruz County. Known as the Freedom-Carey annexation, the change was recorded in July 2000, after the 2000 decennial Census.

Historical population estimates for the City of Watsonville, unincorporated Santa Cruz County and Freedom-Carey annexation area are shown in Table 11 below.

The data for 2000 reflect reports published by the Local Agency Formation Commission with respect to the annexation area. Data for 1990 were derived using trend extrapolations based on the rate of growth in associated census tracts (1106 and 1107). Similarly, data for 2010 were derived using trend extrapolations based on the rate of growth in associated census tracts (1105.02, 1106 and 1107).

If the annexation of 2,022 residents were simply attributed to the population growth of Watsonville between 2000 and 2010, it would account for forty percent of the growth in the city's population during that period of time. Conversely, the loss of the annexed population would account for more than half of the decline in unincorporated population between 2000 and 2010.

Since the shift reflects an administrative boundary change, not a demographic one, the shift-share model was adjusted accordingly.

Table 11: Historical Population Estimates for the Watsonville Annexation Area

	1990	2000	2010
City of Watsonville	31,099	44,246	51,199
Excluding Annexation Area	31,099	44,246	49,229
Unincorporated County of Santa Cruz	130,086	135,345	129,739
Excluding Annexation Area	128,426	133,323	129,739
Annexation Area	1,660	2,022	1,970

Sources: Analysis by PRB of data from the U.S. Census Bureau.

Adjusting the Watsonville and Unincorporated Santa Cruz County Projections

In order to ensure that the population shift resulting from annexation does not skew the shift-share results for Watsonville or unincorporated Santa Cruz County, population projections for Watsonville, unincorporated Santa Cruz County, and the annexation area were estimated separately.

To complete this adjustment, the estimated annexation area population was subtracted from the unincorporated Santa Cruz County population totals in 1990 and 2000. Similarly, the projected population from the annexation area population was added to Watsonville in 2010.

Independent shift-share projections were developed for each of the three sub-areas: Watsonville excluding the annexation area, unincorporated Santa Cruz County excluding the annexation area and the annexation area.

To complete the projections, the annexation area projected population growth was added to Watsonville. Unlike the special population projections described above, there are no further adjustments needed to translate the resulting population projections into housing projections.

Attachment I

(Phase 2 Direct Testimony of David J. Stoldt)

REGIONAL HOUSING NEEDS ALLOCATION

Association of Bay Area Governments

Frequently Asked Questions about RHNA

Topics:

- Regional Housing Needs Allocation (RHNA) Overview
- Regional Housing Needs Determination (RHND) from HCD
- RHNA Methodology
- ABAG Housing Methodology Committee
- Connections between RHNA and Plan Bay Area 2050
- RHNA Subregions
- RHNA and Local Jurisdictions

Regional Housing Needs Allocation (RHNA) Overview

What is RHNA?

Local housing is enshrined in state law as a matter of "vital statewide importance" and, since 1969, the State of California has required that all local governments (cities, towns and counties, also known as local jurisdictions) adequately plan to meet the housing needs of everyone in our communities. To meet this requirement, each city or county must develop a Housing Element as part of its General Plan (the local government's long-range blueprint for growth) that shows how it will meet its community's housing needs. There are many laws that govern this process, and collectively they are known as Housing Element Law.

The Regional Housing Need Allocation (RHNA) process is the part of Housing Element Law used to determine how many new homes, and the affordability of those homes, each local government must plan for in its Housing Element. This process is repeated every eight years, and for this cycle the Bay Area is planning for the period from 2023 to 2031.

How does RHNA assist in addressing the Bay Area's housing crisis?

The Bay Area's housing affordability crisis is decades in the making. State law is designed to match housing supply with demand—particularly for affordable homes. Each new RHNA cycle presents new requirements to address dynamic housing markets, which in recent years have seen demand dramatically outstrip supply across all affordability levels.

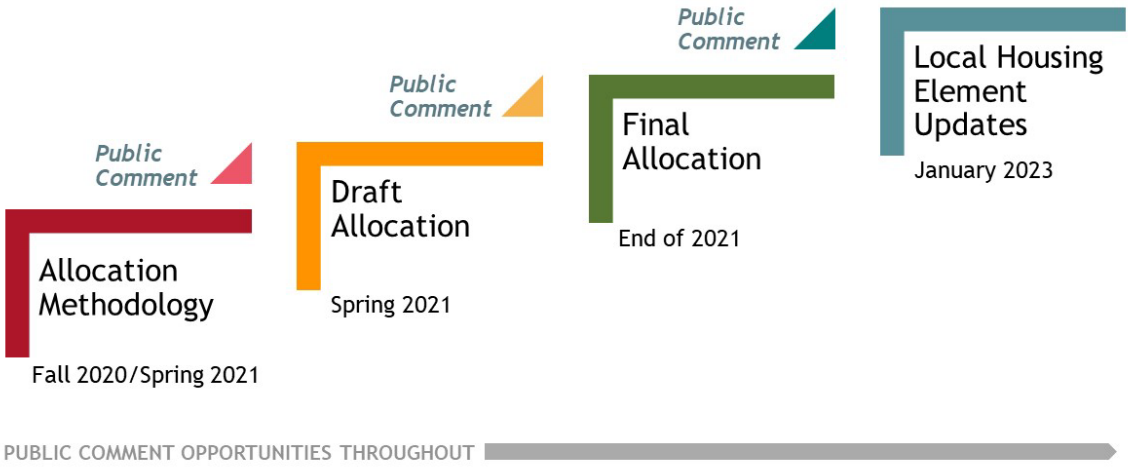
RHNA provides a local government with a minimum number of new homes across all income levels for which it must plan in its Housing Element. The Housing Element must include sites zoned for enough capacity to meet the RHNA goals as well as policies and strategies to expand housing choices and increase housing affordability.

Who is responsible for RHNA?

Responsibility for completing RHNA is shared among state, regional, and local governments:

- The **role of the State** is to identify the total number of homes for which each region in California must plan in order to meet the housing needs of people across the full spectrum of income levels, from housing for very low-income households all the way to market rate housing. This is developed by the California Department of Housing and Community Development (HCD) and is known as the Regional Housing Need Determination (RHND).
- The **role of the region** is to allocate a share of the RHND to each local government in the region. As the Council of Governments (COG) for the nine-county Bay Area, the Association of Bay Area Governments (ABAG) is responsible for developing the methodology for sharing the RHND among all cities, towns, and counties in the region. ABAG does this in conjunction with a committee of elected officials, city and county staff, and stakeholders called the Housing Methodology Committee (HMC).
- The **role of local governments** is to participate in the development of the allocation methodology and to update their Housing Elements and local zoning to show how they will accommodate their share of the RHND, following the adoption of the RHNA methodology.

What are the steps in the RHNA process?



Conceptually, RHNA starts with the Regional Housing Needs Determination provided by HCD, which is the total number of housing units the Bay Area needs, by income group. The heart of ABAG's work on RHNA is developing the methodology to allocate a portion of housing needs to each city, town, and county in the region. ABAG has convened a Housing Methodology Committee made up of local elected officials and staff and stakeholders to advise staff on the proposed methodology that ABAG will release for public comment in fall 2020. Following that milestone, ABAG will then develop a draft methodology to send to HCD for its review in early 2021.

After ABAG adopts the final methodology in spring 2021, it is used to develop a draft allocation for every local government in the Bay Area. A local government or HCD can appeal any local government's allocation. After ABAG takes action on the appeals, it will issue the final allocation by the end of 2021. Local governments must update Housing Elements by January 2023, including identifying sites that are zoned with enough capacity to meet the RHNA allocation. ABAG's role in the RHNA process ends once it has allocated a share of the Regional Housing Needs Determination (RHND) to each local government in the Bay Area; HCD reviews and approves local Housing Elements.

What's the timeline for completing RHNA?

The RHNA process is currently underway and will be complete by the end of 2021. Local governments will then have until January 2023 to update their Housing Elements. The proposed timing for the key milestones in the RHNA process is shown below:

ABAG 2023-2031 RHNA and Plan Bay Area 2050 Key Milestones	Proposed Deadline
Housing Methodology Committee kick-off	October 2019
Subregions form	February 2020
HCD Regional Housing Needs Determination	Summer 2020
Proposed RHNA methodology, draft subregion shares	Fall 2020
Final subregion shares	December 2020
Draft RHNA methodology to HCD for review	Winter 2021
Final RHNA methodology, draft allocation	Spring 2021
RHNA appeals	Summer 2021
Final RHNA allocation	End of 2021
Housing Element due date	January 2023

This is the 6th cycle for RHNA. What's different this time?

Recent legislation will result in the following key changes for this RHNA cycle:

- It is expected there will be a higher total regional housing need. HCD's identification of the region's total housing needs has changed to account for unmet existing need, rather than only projected housing need. HCD now must consider overcrowded households, cost burdened households (those paying more than 30% of their income for housing), and a target vacancy rate for a healthy housing market (with a minimum of 5%).

- RHNA and local Housing Elements must affirmatively further fair housing. According to HCD, achieving this objective includes preventing segregation and poverty concentration as well as increasing access to areas of opportunity. HCD has mapped Opportunity Areas and has developed guidance for jurisdictions about how to address affirmatively furthering fair housing in Housing Elements. As required by Housing Element Law, ABAG has surveyed local governments to understand fair housing issues, strategies, and actions across the region.
- There will be greater HCD oversight of RHNA. ABAG and subregions must now submit the draft allocation methodology to HCD for review and comment. HCD can also appeal a jurisdiction's draft allocation.
- Identifying Housing Element sites for affordable units will be more challenging. There are new limits on the extent to which jurisdictions can reuse sites included in previous Housing Elements and increased scrutiny of small, large, and non-vacant sites when these sites are proposed to accommodate units for very low- and low-income households.

How can I be more involved in the RHNA process?

Public participation is encouraged throughout the RHNA process especially at public meetings and during official public comment periods following the release of discussion documents and board decisions. Visit the ABAG website to:

- Learn about the Housing Methodology Committee
- View upcoming meetings
- Sign up for the RHNA mailing list

Is ABAG's prior RHNA available to review?

Yes, you can find more information about the 2015-2023 RHNA on the ABAG website. You can also view documents from the 2007-2014 RHNA and 1999-2006 RHNA.

Regional Housing Needs Determination (RHND) from HCD

What is the Regional Housing Needs Determination?

The California Department of Housing and Community Development (HCD) identifies the total number of homes for which each region in California must plan in order to meet the housing needs of people at all income levels. The total number of housing units from HCD is separated into four income categories that cover everything from housing for very low-income households all the way to market rate housing. ABAG is responsible for developing a methodology to allocate a portion of this housing need to every local government in the Bay Area.

The four income categories included in the RHND are:

- Very Low Income: 0-50% of Area Median Income
- Low Income: 50-80% of Area Median Income
- Moderate Income: 80-120% of Area Median Income
- Above Moderate Income: 120% or more of Area Median Income

What will the actual RHND and RHNA numbers look like this cycle?

Although we expect the RHND will be significantly higher than prior cycles, we do not have this information at this time. We will receive the RHND from HCD in summer 2020; the methodology which will determine each local government's share of housing needs is currently being developed and is slated for release in fall 2020.

As a point of reference for how much the RHND might increase, for the current (6th) cycle, the Sacramento region received a RHND approximately 1.3 times higher than the previous cycle, while the Los Angeles region received a RHND approximately 3 times higher than the previous cycle. For the 5th RHNA cycle, the Bay Area's RHND was 187,990.

How does HCD develop the RHND?

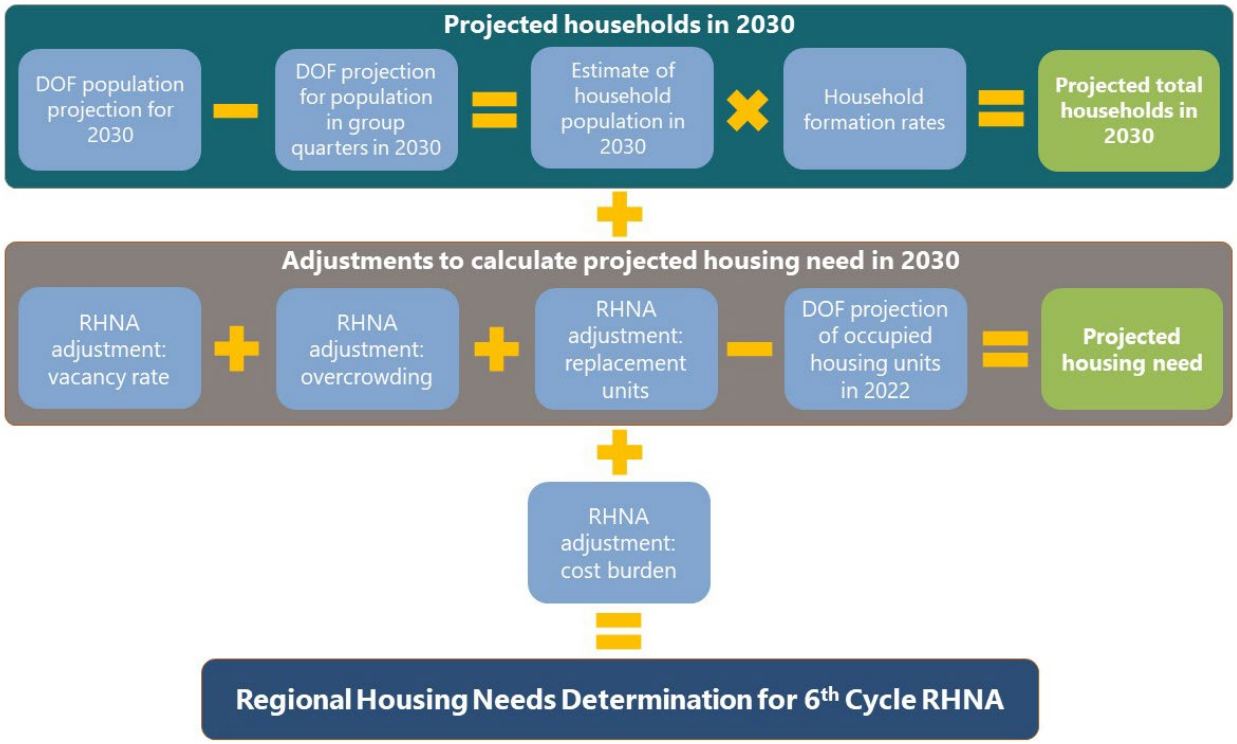
HCD is responsible for determining the number of housing units for which each region must plan, known as the Regional Housing Needs Determination (RHND). The RHND is based on a population forecast for the region from the California Department of Finance (DOF) and the application of specific adjustments to determine the total amount of housing needs for the region.

The adjustments are a result of recent legislation that sought to incorporate an estimate of existing housing need by applying factors related to:

- A target vacancy rate for a healthy housing market (defined as no less than 5 percent),
- The rate of overcrowding, which is defined as having more than one person per room in each room in a dwelling.
- The share of cost burdened households, which is defined as households paying more than 30% of household income on housing costs.

The RHNA process only considers the needs of the population in households who are housed in the regular housing market, and excludes the population living in group quarters, which are non-household dwellings, such as jails, nursing homes, dorms, and military barracks. HCD uses the age cohorts of the forecasted population to understand the rates at which people are expected to form households, which can vary for people at different stages of life. This results in the estimate of the total number of households that will need a housing unit in 2030 (which is the end date of the projection period for the Bay Area's RHNA cycle).

HCD Process for Identifying Regional Housing Needs Determination (RHND)



The total number of projected households is then adjusted using the factors related to vacancy rate, overcrowding, and an estimate of the need for replacement housing for units that were demolished or lost. This results in a forecast of the number of housing units that will be needed to house all households in the region in 2031. The number of existing occupied housing units is subtracted from the total number of housing units needed, which results in the number of additional housing units necessary to meet the housing need. The final step is an adjustment related to cost-burdened households, which results in the RHND for the region.

RHNA Methodology

What is the RHNA methodology?

At its core, RHNA is about connecting regional housing needs with the local planning process and ensuring local Housing Elements work together to address regional housing challenges. Working with the Housing Methodology Committee, ABAG develops a methodology, or formula, that shares responsibility for accommodating the Bay Area's Regional Housing Needs Determination (RHND) by quantifying the number of housing units, separated into four income categories, that will be assigned to each city, town, and county to incorporate into its Housing Element.

The four income categories included in the RHND are:

- Very Low Income: 0-50% of Area Median Income
- Low Income: 50-80% of Area Median Income

- Moderate Income: 80-120% of Area Median Income
- Above Moderate Income: 120% or more of Area Median Income

The allocation formula is made up of factors that use data for each jurisdiction in the region to determine each jurisdiction's share of the total housing need. The allocation formula assigns units based on relative relationships between jurisdictions within the region. For example, if there is a factor to allocate units based on access to jobs, then a jurisdiction with many jobs will be allocated more units and a jurisdiction with fewer jobs will be allocated fewer units.

What are the objectives and factors that must be considered in the RHNA methodology?
The RHNA objectives provide the guiding framework for how ABAG must develop the methodology. ABAG is required to demonstrate how its methodology furthers each of the objectives. The RHNA factors include a longer list of considerations that must be incorporated into the methodology to the extent that sufficient data is available.

Summary of RHNA objectives [from Government Code §65584(d)]:

1. Increase housing supply and mix of housing types, with the goal of improving housing affordability and equity in all cities and counties within the region.
2. Promote infill development and socioeconomic equity; protect environmental and agricultural resources; encourage efficient development patterns; and achieve greenhouse gas reduction targets.
3. Improve intra-regional jobs-to-housing relationship, including the balance between low-wage jobs and affordable housing units for low-wage workers in each jurisdiction.
4. Balance disproportionate household income distributions (more high-income allocation to lower-income areas, and vice-versa)
5. Affirmatively further fair housing

Summary of RHNA factors [from Government Code §65584.04(d)]:

1. Existing and projected jobs and housing relationship, particularly low-wage jobs and affordable housing
2. Lack of capacity for sewer or water service due to decisions outside a jurisdiction's control
3. The availability of land suitable for urban development
4. Lands protected from urban development under existing federal or state programs
5. County policies to preserve prime agricultural land

6. The distribution of household growth assumed for regional transportation plans and opportunities to maximize use of public transportation and existing transportation infrastructure
7. Agreements between a county and cities in a county to direct growth toward incorporated areas of the county
8. The loss of units in assisted housing developments as a result of expiring affordability contracts.
9. The percentage of existing households paying more than 30 percent and more than 50 percent of their income in rent
10. The rate of overcrowding
11. The housing needs of farmworkers
12. The housing needs generated by the presence of a university within the jurisdiction
13. The housing needs of individuals and families experiencing homelessness
14. The loss of units during a state of emergency that have yet to be rebuilt or replaced at the time of the analysis
15. The region's greenhouse gas emissions targets provided by the State Air Resources Board

What does it mean to "affirmatively further fair housing"?

For the 2023-2031 RHNA, recent legislation added a new objective that requires the RHNA plan to "affirmatively further fair housing." According to Government Code Section 65584(e), this means:

> "Taking meaningful actions, in addition to combating discrimination, that overcome patterns of segregation and foster inclusive communities free from barriers that restrict access to opportunity based on protected characteristics. Specifically, affirmatively furthering fair housing means taking meaningful actions that, taken together, address significant disparities in housing needs and in access to opportunity, replacing segregated living patterns with truly integrated and balanced living patterns, transforming racially and ethnically concentrated areas of poverty into areas of opportunity, and fostering and maintaining compliance with civil rights and fair housing laws."

In addition to this requirement for promoting fair housing as an outcome for RHNA, statutes required ABAG to collect information about fair housing issues, strategies, and actions in its survey of local jurisdictions about data to inform the development of the RHNA allocation methodology.

Lastly, a local jurisdiction's Housing Element must also affirmatively further fair housing and include a program that establishes goals and actions to do so. HCD has developed guidance for jurisdictions about how to address affirmatively furthering fair housing in Housing Elements.

Does RHNA dictate how local governments meet their communities' housing needs or where new housing goes within a given city or town?

It is important to note the primary role of the RHNA methodology is to encourage a pattern of housing growth for the Bay Area. The final result of the RHNA process is the allocation of housing units by income category to each jurisdiction. It is in the local Housing Element that decisions about where future housing units could be located and the policies and strategies for addressing a community's specific housing needs are made. Local governments will include strategies related to issues such as addressing homelessness, meeting the needs of specific populations, affirmatively furthering fair housing, or minimizing displacement when they develop their Housing Elements. Although the RHNA methodology may include factors that conceptually assign housing to a particular geography, such as near a transit stop or in proximity to jobs, the resulting allocation from ABAG goes to the jurisdiction as a whole. It is up to local governments to use their Housing Elements to select the specific sites that will be zoned for housing.

The following table distinguishes between the narrow scope of RHNA and the broader requirements for jurisdictions' Housing Elements:

RHNA	LOCAL HOUSING ELEMENTS
Determines how many new homes each local jurisdiction must plan for in its Housing Element.	Includes goals, policies, quantified objectives, financial resources, and constraints for the preservation, improvement, and development of housing for all income levels.
Housing allocation is for an entire jurisdiction – housing is not allocated to specific sites or geographies within a jurisdiction.	Identifies sites for housing and provides an inventory of land suitable and available for residential development, including vacant sites and sites having potential for redevelopment.
A jurisdiction's housing allocation is divided across four income groups: very low-, low-, moderate-, and above moderate-income.	Analyzes special housing needs, such as those of the elderly; persons with disabilities, including a developmental disability; large families; farmworkers; families with female heads of households; and families and persons in need of emergency shelter.
Beyond allocation of housing units by income group, does not address housing needs of specific population groups nor include policy recommendations for addressing those needs.	Must demonstrate local efforts to remove governmental and nongovernmental constraints that hinder locality from meeting the need for housing for persons with disabilities, supportive housing, transitional housing, and emergency shelters.
	Analyzes existing affordable units at risk of converting to market-rate due to expiring subsidies or affordability contracts.
	Assesses existing fair housing issues and strategies for affirmatively furthering fair housing.

ABAG Housing Methodology Committee

What is the Housing Methodology Committee?
For the past several RHNA cycles, ABAG has convened an ad-hoc Housing Methodology Committee (HMC) to advise ABAG staff on the RHNA allocation methodology. The HMC for the 6th Cycle was convened in October 2019. The HMC is comprised of local elected officials and staff from every county in the Bay Area as well as stakeholder representatives selected by ABAG staff from a diverse applicant pool:

- 9 local government elected officials (one from each Bay Area county)
- 12 local government housing or planning staff (at least one from every county)
- 16 regional stakeholders representing diverse perspectives, from equity and open space to public health and public transit
- 1 partner from state government

View the HMC roster at https://abag.ca.gov/sites/default/files/hmc_roster_january_2020.pdf.

Why is the Housing Methodology Committee important?
ABAG's Housing Methodology Committee approach stands out compared to most other large Councils of Governments, going beyond the legal requirements by convening a forum where local elected officials, local government staff, stakeholder representatives, and the public can talk about the process together to inform the housing methodology.

The Housing Methodology Committee and its large stakeholder network is a key part of ABAG's approach to creating the RHNA allocation methodology. Through the HMC, ABAG staff seek to facilitate dialogue and information-sharing among local government representatives and stakeholders from across the Bay Area with crucial expertise to enable coordinated action to address the Bay Area's housing crisis. As ABAG strives to advance equity and affirmatively further fair housing, the agency seeks to ensure that a breadth of voices is included in the methodology process.

Connections between RHNA and Plan Bay Area 2050

How are RHNA and Plan Bay Area 2050 related?
Plan Bay Area 2050 is the Bay Area's next long-range regional plan for transportation, housing, the economy, and the environment, focused on resilient and equitable strategies for the next 30 years. Anticipated to be adopted in fall 2021, Plan Bay Area 2050 will establish a blueprint for future growth and infrastructure. Plan Bay Area 2050 must meet or exceed a wide range of federal and state requirements, including a per-capita greenhouse gas reduction target of 19 percent by 2035. Upon adoption by MTC and ABAG, it will serve as the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the San Francisco Bay Area.

By law, the RHNA Plan is required to be consistent with the development pattern from Plan Bay Area 2050. These two planning processes seek to address the Bay Area's housing needs over different time horizons: Plan Bay Area 2050 has a planning horizon of 2050, while the 6th cycle of RHNA addresses the need to address short-term housing needs, from 2023 to 2031. To achieve the required consistency, both the overall housing growth for the region, as well as housing growth for each jurisdiction, must be greater in the long-range plan than over the eight-year RHNA cycle.

Is Plan Bay Area 2050 used as part of the RHNA process?
In past RHNA cycles, ABAG used its long-range housing, population, and job forecast as an input into the RHNA methodology. However, this approach is not required by Housing Element Law. For the 6th cycle of RHNA, the Housing Methodology Committee (HMC) is still considering whether or not to incorporate data from the Plan Bay Area 2050 Blueprint into the RHNA methodology. Some of the options the HMC has discussed are:

1. Using the forecasted development pattern from the Blueprint as a baseline input into the RHNA methodology
2. Using a hybrid approach that uses the forecasted development pattern from the Blueprint along with additional factors to represent policy goals that are underrepresented in the Blueprint to direct RHNA allocations
3. Not using forecasted data from the Blueprint, but include factors that align with the policies and strategies in the Blueprint to direct RHNA allocations.

HMC members expressed interest and some concerns in considering use of the Plan in the methodology. While the strategies integrated into the Draft Blueprint were adopted in February 2020, the HMC is awaiting further details on the outputs of the Draft Blueprint modeling, which are anticipated in summer 2020. At that time, they will make a determination on if and how to integrate the Plan Bay Area 2050 Blueprint into the RHNA methodology. If not, they may need to adjust factors and weights to achieve consistency under Option 3 above.

RHNA Subregions

What is a subregion?
Housing Element Law allows two or more jurisdictions to form a "subregion" to conduct a parallel RHNA process to allocate the subregion's housing need among its members. The subregion process allows for greater collaboration among jurisdictions, potentially enabling RHNA allocations that are more tailored to the local context as well as greater coordination of local housing policy implementation. A subregion is responsible for conducting its own RHNA process that meets all of the statutory requirements related to process and outcomes, including developing its own RHNA methodology, allocating a share of need to each member jurisdiction,

and conducting its own appeals process. The subregion's final allocation must meet the same requirements as the regional allocation: it must further the statutory objectives, have considered the statutory factors, and be consistent with the development pattern of the SCS.

What subregions have formed for the 6th Cycle of RHNA in the Bay Area?
ABAG has received notification of formation of two subregions:

1. ***Napa County***: includes City of American Canyon, City of Napa, Town of Yountville, and the County of Napa *(does not include City of Calistoga or City of St. Helena)*
2. ***Solano County***: includes City of Benicia, City of Dixon, City of Fairfield, City of Rio Vista, City of Suisun City, City of Vacaville, City of Vallejo, and County of Solano

Can a jurisdiction withdraw from a subregion?
Consistent with ABAG's approach for previous RHNA cycles, a jurisdiction may withdraw from a subregion without causing the dissolution of the entire subregion. If a jurisdiction withdraws from the subregion, the subregion's share of housing needs will be reduced by the number of units the withdrawing jurisdiction would receive from the most current version of ABAG's methodology available at the time when the jurisdiction decides to withdraw. The withdrawing member will then become part of the region's RHNA process, and it would receive its allocation based on the methodology adopted by ABAG.

RHNA AND LOCAL JURISDICTIONS

How are local jurisdictions involved in RHNA? Do they help create the housing methodology?
Elected officials and staff from each county are on the Housing Methodology Committee (HMC) to represent the jurisdictions in that county. The HMC will make recommendations about the allocation methodology to the ABAG Regional Planning Committee (RPC), and the RPC will make recommendations to the ABAG Executive Board, which will take action at key points in the RHNA process. Local governments will have the opportunity to comment on the proposed and draft methodology, both in written comments and at public meetings. There will also be an opportunity for local governments to file appeals on the draft allocations.

How does RHNA impact local jurisdictions' general plans? What is a Housing Element?
California's Housing Element Law states that "designating and maintaining a supply of land and adequate sites suitable, feasible, and available for the development of housing sufficient to meet the locality's housing need for all income levels is essential to achieving the state's housing goals." Once a city, town or county receives its RHNA allocation, it must then update the Housing Element of its general plan and zoning to demonstrate how it will accommodate all of the units assigned for each income category. General plans serve as a local government's blueprint for how the city, town or county will grow and develop. There are seven elements that

all jurisdictions are required to include in the General Plan: land use, transportation, conservation, noise, open space, safety, and housing.

What agency is responsible for the certification of Housing Elements?
ABAG's role in the RHNA process ends once it has allocated a share of the Regional Housing Needs Determination (RHND) to each local government in the Bay Area. The California Department of Housing and Community Development (HCD) reviews and approves Housing Elements and is responsible for all other aspects of enforcing Housing Element Law.

Is there any funding and technical assistance available to assist local jurisdictions in creating their Housing Elements?
In the 2019-20 Budget Act, Governor Gavin Newsom allocated $250 million for all regions, cities, and counties to do their part by prioritizing planning activities that accelerate housing production to meet identified needs of every community. With this allocation, HCD established the Local Early Action Planning Grant Program (LEAP) with approximately $25.6 million expected to come to cities and counties in the Bay Area and the Regional Early Action Planning Grant Program (REAP) with $23.9 million expected to come to ABAG. The LEAP program augments HCD's SB2 Planning Grants which have provided approximately $24 million in funding to localities in the Bay Area. ABAG is currently designing its REAP program to provide in-depth technical assistance to localities.

Some individuals in the Bay Area view their jurisdictions as "built out." How might communities with little to no vacant land meet their respective housing allocations?
Large and small communities throughout the Bay Area have successfully identified under-utilized, infill sites for housing development. In past RHNA cycles, numerous Bay Area communities were able to meet their housing allocation exclusively through the identification of infill sites to provide for future housing needs. Encouraging the development of Accessory Dwelling Units (ADUs) is another strategy many Bay Area communities have used to add more housing choices for residents.

Will my jurisdiction be penalized if we do not plan for enough housing?
State Housing Element Law requires that jurisdictions plan for all types of housing based on the allocations they receive from the RHNA process. The state requires this planning, in the form of having a compliant housing element, and submitting housing element annual progress reports, as a threshold or points-related requirement for certain funding programs (SB 1 Sustainable Community Planning Grants, SB 2 Planning Grants and Permanent Local Housing Allocation, etc.). Late submittal of a housing element can result in a jurisdiction being required to submit a four-year update to their housing element.

HCD may refer jurisdictions to the Attorney General if they do not have a compliant housing element, fail to comply with their HCD-approved housing element, or violate housing element

law, the housing accountability act, density bonus law, no net loss law, or land use discrimination law. The consequences of those cases brought by the Attorney General are up to the courts, but can include financial penalties.

In addition, as the housing element is one of the required components of the general plan, a jurisdiction without a compliant housing element, may risk legal challenges to their general plan from interested parties outside of HCD.

Local governments must also implement their commitments from the housing element, and the statute has several consequences for the lack of implementation. For example, failure to rezone in a timely manner may impact a local government's land use authority and result in a carryover of RHNA to the next cycle. Failure to implement programs can also influence future housing element updates and requirements, such as program timing. HCD may investigate any action or lack of action in the housing element.

Will my jurisdiction be penalized if we do not build enough housing?
For jurisdictions that did not issue permits for enough housing to keep pace consistent with RHNA building goals, a developer can elect to use a ministerial process to get project approval for residential projects that meet certain conditions. This, in effect, makes it easier to build housing in places that are not on target to meet their building goals.

GLOSSARY OF ACRONYMS

ABAG - Association of Bay Area Governments
AMI – Area Median Income
DOF - California Department of Finance
HCD - California Department of Housing and Community Development
HMC - Housing Methodology Committee
MTC - Metropolitan Transportation Commission
RHNA - Regional Housing Need Allocation
RHND - Regional Housing Need Determination
RTP/SCS - Regional Transportation Plan/Sustainable Communities Strategy
TCAC - California Tax Credit Allocation Committee

Santa Monica: Regional Housing Needs Allocation

What is the RHNA?

The State of California, as part of the State Housing Law, sets a targeted number of housing units that each regional council of governments in California must plan for. This targeted housing number known as the Regional Housing Needs Allocation, or RHNA, is updated every 8 years and is further divided amongst individual cities and counties by the regional council of governments.

How will the RHNA impact Santa Monica?

The Southern California Association of Governments (SCAG) serves as the regional council of governments for Southern California and is responsible for allocating the RHNA numbers between six counties and 191 cities, including the City of Santa Monica. This year, the regional allocation for Southern California is significantly larger than it has been in past years, in recognition of the severity of the State's housing crisis. SCAG developed a methodology for splitting up the regional allocation, which is based on numerous factors such as the past, present, and future demand for housing, access to jobs, quality of transit, among other factors. To read more about the methodology, visit SCAG's website.

It is important to recognize that the RHNA is a targeted housing number - Cities and counties do not have to build this number of units, but rather they are required by the state to plan for them and demonstrate that under the current land use and development standards, there is capacity to accommodate for this number of housing units. However, if a jurisdiction fails to demonstrate that they can accommodate their RHNA, it can result in the loss of local control and important funding resources.

For the RHNA cycle planning period of October 2021 through October 2029, the Southern California region received an allocation of 1.3 million units. That means that the State is requiring cities within Southern California to demonstrate that they can plan for and have the capacity to build up to 1.3 million new housing units over the next 8 years. For this 6th Cycle of the RHNA, Santa Monica has received an allocation of 8,874 new housing units, of which about 70% must be for lower income households.

THE CITY OF LAFAYETTE'S HOUSING ELEMENT
FREQUENTLY ASKED QUESTIONS

What is the Housing Element?

The Housing Element is a chapter of Lafayette's General Plan. Every City in California must have a Housing Element, and this is the only part of the General Plan that must be regularly reviewed and approved by the State. Housing Elements are usually updated every five to eight years. Lafayette's current Housing Element covers the period from 2007 to 2014, and the updated Element will cover the period from 2014 to 2022.

What does it contain?

The Housing Element contains information on the housing needs of the community, including the needs of lower-income households and people with special needs, such as homeless persons, seniors, and people with disabilities. Some of these needs are determined by the state-mandated Regional Housing Needs Allocation (see below). In addition, the Element provides a detailed explanation of how the jurisdiction addresses the needs of the community based on existing and future housing needs. Lastly, it contains an inventory of sites within the community that could accommodate the RHNA allocation of affordable housing if they were developed.

What is the Regional Housing Needs Allocation (RHNA)?

The RHNA (pronounced REE-NAH) is an allocation of the State's projected housing needs to accommodate various income categories over the 8-year cycle of the Housing Element. The Association of Bay Area Governments (ABAG) receives a bulk allocation for the region from the State, and ABAG then assigns a portion of this regional allocation to each jurisdiction in the nine-county Bay Area, based on a complex model of job and population growth. The essential requirement of RHNA is that all jurisdictions need to demonstrate that its planning documents have enough land zoned at appropriate densities to allow the development of the housing needed to meet their allocation.

What is the City of Lafayette's RHNA allocation?

Lafayette's total RHNA allocation for the current period (2007-2014) is 361 units, and for the next period (2014-2022) is 400 units. The 2014-2022 allocation was reduced as a result of a successful protest by Lafayette of their initial figures. The following illustrates the 2014-2022 allocation, broken down along various income categories. ABAG adopted a policy that allocated a greater share of affordable housing to those communities, including Lafayette, that have a less than average share of affordable housing currently, and a smaller share of affordable housing to those communities that currently accommodate much affordable housing.

Total Projected Need	Very Low	Low	Mod	Above Mod	Average Yearly Need
400	138	78	85	99	57
	34.5%	19.5%	21.3%	24.8%	

Is the City required to make sure these units are built?

No, the RHNA allocation is not a prescription to build any units. And, the City itself does not build units; private developers do. The City is only required to show that there is enough land zoned at appropriate densities to accommodate this need, should a developer want to build these units. In addition, the City must demonstrate that its codes and requirements do not unduly constrain the building of housing (for example, it needs to show that housing can be built "as-of-right" in some zones, without requiring a land use permit).

Does the inventory of sites mean these sites can only be used for housing?

No. The City is only required to show sites that could be used for housing, but the actual use of the sites is always a decision made by the owners. However, if a site in the inventory is developed with a completely non-housing use during the eight-year cycle of the Housing Element, the City is required to replace that site with another to ensure that the inventory's capacity is maintained.

Does the City have enough land in the inventory to meet its RHNA allocation?

Yes, the City has prepared a draft inventory of sites which shows there is enough land to meet its RHNA allocation. While the inventory may change as a result of the public process, the City is required is to ensure that it will meet its RHNA allocation during the eight-year cycle of the Housing Element.

Is there a minimum zoning density that the City must allow? What determines the minimum?
The State sets standards to ensure that densities are high enough to allow affordable housing to be built. As a suburban community, the State has set this default density at 20 units per acre. Although Lafayette can, and does, have lower densities, the State requires zoning for multifamily housing to be at least 20 units per acre. When a city's population reaches 25,000 people then the minimum default density increases to 30 units per acre. Lafayette's 2010 census population was just under 24,000. Lafayette's General Plan establishes the housing density at 35 units per acre in the downtown and in multifamily zoning districts. The City may consider lowering the housing densities, which will be a topic of discussion during the community meetings.

What is a Density Bonus?
A density bonus is a provision of State law and allows a developer to ask for and receive additional housing density (beyond what is allowed by the City's current zoning) in prescribed amounts, in return for providing affordable housing or senior housing within their developments. Even if the City does not adopt its own Density Bonus ordinance, it is still required to comply with the provisions of the State's Density Bonus law, which includes:

- → Granting a sliding scale of market-rate density bonus percentages (20%-35%) based on the amount percentage of proposed affordable units;
- → Providing up to three development concessions or incentives, depending on the percentage of affordable units provided;
- → Granting a density bonus if a developer donates land for very low income housing; and
- → Requiring jurisdictions to implement Density Bonus law through local codes.

Why is the City considering a Density Bonus ordinance?
Several years ago, the City decided not to adopt a Density Bonus ordinance but rather issued guidelines for compliance with the State's Density Bonus law. However, the State is now offering to do a streamlined review of the city's Housing Element, if a Density Bonus ordinance is adopted before the City submits its draft Housing Element to the State. It is expected that the streamlined review will result in a significantly shorter review period by the State, since it will only review those parts of the Element that have changed since the last Element was certified.

What happens if the City elects to resign its membership from ABAG?
In terms of the Housing Element, nothing would change. The City would still receive a RHNA allocation and be required by State law to complete the Housing Element, and have it certified by the State, regardless of its participation in ABAG. Further, continuing to participate in ABAG means that the City can have meaningful input on the RHNA allocation process and other programs conducted by ABAG.

Does having a Priority Development Area (PDA) affect the RHNA allocation?
A City's PDA status alone does not have does not have a direct relationship to the allocation of Regional Housing Needs by ABAG. A determining factor on where growth will occur is based on where there are transit nodes; in the case of Lafayette, the RHNA allocation is partially tied to the existence of the BART station. In addition, one of the criteria for becoming a PDA is proximity to transit nodes, so the BART station was a significant reason the PDA was approved for Lafayette.

What happens if the City does not complete the Housing Element, or fails to receive certification from the State?
Successful certification of the Housing Element is directly tied to whether or not a jurisdiction is eligible to receive certain kinds of funding, including some transportation funds. Additionally, not having a certified Element puts a jurisdiction at risk of lawsuits from developers. Courts have required cities without approved Housing Elements to allow housing "as-of-right", without any discretionary review by the City until the Housing Element is certified, including in single-family zones.

What is the City doing to garner public comment and input on the Housing Element?
The City is holding three community meetings at which residents can ask questions and provide input as the Housing Element is being developed. In addition, there will be opportunities for community input before the Planning Commission and the City Council, both during the draft review of the Housing Element (prior to initial comments from the State), as well as during the final review before the Housing Element is adopted. The following is a tentative schedule for these meetings:

1. Wednesday, April 30th – Introduction to the Housing Element
2. Tuesday, May 13th – Housing Sites Inventory, Density Bonus Ordinance, and Density Adjustments
3. Wednesday, May 28th – Policies and Programs

When does the Housing Element have to be submitted to the State?
The Housing Element must be adopted by the City prior to submission of the final document in January 2015. As noted above, the City expects to adopt the Element in December 2014.

How can I find out more about this?
The City has more information on its website at www.lovelafayette.org/HE or you can contact planning staff:

Niroop K. Srivatsa at (925) 299-3206 ● Lindy Chan at (925) 299-3202 ● Greg Wolff at (925) 299-3204

Lafayette California: Overview

Since 1969, the State of California has required that all local governments adequately plan to meet the housing needs of everyone in our communities. To meet this requirement, each city or county must develop a Housing Element as part of its General Plan (the local government's long-range blueprint for growth) that shows how it will meet its community's housing needs. There are many laws that govern this process, and collectively they are known as Housing Element Law.

The Regional Housing Need Allocation (RHNA) process is the part of Housing Element Law used to determine how many new homes, and the affordability of those homes, each local government must plan for in its Housing Element. This process is repeated every eight years, and for this cycle the Bay Area is planning for the period from 2023 to 2031.

Working with the State Department of Finance, the CA Department of Housing and Community Development (HCD) assigns future housing and population growth projections in eight-year cycles to every Council of Government in the State (in our case, the Association of Bay Area Governments, or ABAG). ABAG then assigns a number of units to each member jurisdiction, like Lafayette, San Francisco, Hayward, etc., which must ensure that there is enough land zoned at appropriate densities to accommodate the assigned RHNA. The RHNA number includes a distribution of units to be provided across the four income categories discussed above.

Some key takeaways about RHNA

We are *planning* for housing, not building it.

The free market will determine if and when the required units are actually developed. Lafayette does not develop housing and no one will be forced to sell their property or build housing.

If we are planning for housing, how should we plan for it and where should it be located? The allocation has been provided by the state and regional governments, while there is an appeal process, we don't know the outcome of the appeal. To be prepared, we must develop a compliant plan for how we want to handle our allocation. The Housing Element update process is your opportunity to decide where the housing should go.

June 2, 2022

Heather Adamson, AICP
AMBAG Director of Planning
24580 Silver Cloud Court
Monterey, CA 93940

sent USPS standard, certified mail, email

RE: Draft 6th Cycle RHNA Plan and Sand City Allotment

Dear Ms. Adamson:

This correspondence is in response to the Draft 6th Cycle (2023-2031) RHNA Plan and the allotment of 260 units in this cycle of the RHNA allocation to the City of Sand City. According to the Department of Finance, the City has a 2022 estimated population of 372 persons. There are approximately 184 dwelling units within the City (8 of which are currently under construction). Requiring a RHNA allocation of 260 that is approximately 141% of the existing number of all existing residential units in the City is patently unreasonable. The allocation to Sand City fails to meet the requirement of Cal. Gov. Code section 65584(d)(1) that the RHNA plan allocates in a manner that is equitable within the region. By comparison, if applied to the City of Monterey, the allocation to Sand City would be equivalent to allocating approximately 42,600 units to the City of Monterey based on its population of approximately 30,218 residents. Instead, your allocation in the draft plan allocates 3,654 units to the City of Monterey.

In addition, the allocation to Sand City ignores additional factors that the methodology requires be observed. For example, you are required to consider "the availability of land suitable for urban development or for conversion to residential use, the availability of underutilized land, and opportunities for infill development and increased residential densities..." and "land preserved or protected from urban development under federal or state programs, or both, designed to protect open space... environmental habitats..." (AMBAG Draft 6th Cycle RHNA Plan, April 2022, page 20); Cal Gov. code section 65584(d)(2). Sand City is small in land area (approximately 347 acres), landlocked between other jurisdictions and the Monterey Bay, with development within constrained by the presence of environmentally sensitive species and habitat protected and regulated by both the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife. About half of the City is located west of the Highway 1 freeway

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1 Pendergrass Way
Sand City, CA
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Planning
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Police
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FAX
(831) 394-1038

Incorporated
May 31, 1960

corridor within an appealable Coastal Zone overlay regulated by the City's Local Coastal Plan (LCP); yet subject to appeal to the California Coastal Commission (CCC). The CCC has previously imposed strict limits on coastal development in Sand City due to the Coastal Act's prioritization of public access, coastal recreation, and the preservation of sensitive coastal habitat over that of residential land use.

In addition, a majority of the City has already been re-zoned to either High Density Residential (R-3) or Planned Mixed Use, both enabling high density and multifamily residential development, consistent with Government Code Section 65584(d)(2) for infill and equitable housing opportunities and Government Code Section 65584(d)(3) for an improved relationship between jobs and housing. There are almost no other practical opportunities for re-zoning to accommodate additional residences without impacting the City's primary revenue source, its regional shopping centers.

The City understands the State-wide need for affordable housing and job/housing balance. However, in light of the above constraints and efforts already implemented by the City, it is inconceivable how the City could meet the goals of the current RHNA allocation. The City of Sand City requests AMBAG lower Sand City's allotment to a number that is actually achievable in light of its small size and noted constraints.

Sincerely,

Vibeke Norgaard
City Manager

cc: Mary Ann Carbone, Mayor
Sand City Council Members
Adam Lindgren, City Attorney
Charles Pooler, City Planner

NEWS > HOUSING

Pacific Grove to hold housing element update workshop

Pacific Grove City Hall. (James Herrera/Monterey Herald)

By TESS KENNY | tkenny@montereyherald.com | Monterey Herald
PUBLISHED: July 22, 2022 at 2:43 p.m. | UPDATED: July 22, 2022 at 2:44 p.m.

PACIFIC GROVE — Amid lofty state goals to expand housing over the next decade

The workshop, set for Monday from 6-8 p.m. at the Pacific Grove Community Center, will provide an update on the city's housing element, a state-required blueprint for how a locality's current and projected lodging needs can be satisfied. Housing elements are adjusted every eight years, as goals are realigned with present-day demands through a periodic process called the Regional Housing Needs Assessment, or RHNA.

Districts throughout the state are currently working through the latest housing element update. Local jurisdictions as part of the Association of Monterey Bay Area Governments will need to submit their revamped plans by December 2023. Though the process doesn't obligate local governments to build or approve new housing, it does mandate that they demonstrate appropriate zoning, development regulations and policies to support homebuilding goals.

In Pacific Grove, expectations are ambitious. Per the Regional Needs Allocation for 2023 to 2031, the city has been tasked with planning for a 14% jump in housing, an addition of 1,125 units that will necessitate not only rezoning but also changes to a general plan not touched since 1994.

"When I first saw (the allocation), like everyone, I thought it was a lot of units to plan for," said Anastacia Wyatt, Pacific Grove community development director. "I think we can feasibly plan for it, and we will do our best."

Wyatt said that with the scope and scale of rezoning that will be necessary to achieve a certified housing element, community engagement and input is particularly important. Hearing what residents need, she continued, will allow the city to reconcile citizen concerns and wants with whatever zoning and general plan changes are to come. Doing so will also help the city take an equitable approach to future homebuilding.

"I think equity is really critical. … This is an opportunity to look at our community and think about what we want for the future," said Wyatt.

Pacific Grove Councilwoman Jenny McAdams reiterated Wyatt's optimism under a new housing element, even if she doesn't think the city will actually see the 14% increase in units by 2031.

"Do I think Pacific Grove will really build all (1,125 units)? No, but we're putting a policy in place that is supportive of additional housing," said Adams. "Our staff's job is to show that the city in good faith is implementing policing, zoning or incentives to

For more information about Pacific Grove's Housing Element Update Workshop on Monday, go to https://www.cityofpacificgrove.org/our_city/departments/community_development/housing/index.php.

Tags: **Newsletter**

Tess Kenny

Tess Kenny covers education and events across Monterey County. She recently graduated from UC Santa Barbara with a bachelor's in communication and political science.

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Follow Tess Kenny @TessKenny12

Join the Conversation

We invite you to use our commenting platform to engage in insightful conversations about issues in our community. We reserve the right at all times to remove any information or materials that are unlawful, threatening, abusive, libelous, defamatory, obscene, vulgar,

government request. We might permanently block any user who abuses these conditions.

Attachment J

(Phase 2 Direct Testimony of David J. Stoldt)

The Legal Lots of Record analysis began with a study by Land Systems Group (LSG): Final Report, Volume 1, "Legal Lot Study of Vacant Parcels and 10-Year Projections of Anticipated Remodels", February 20, 1998.

LSG found there to be 1,783 vacant buildable lots on vacant parcels within the Cal-Am service area. Recently, the MPWMD GIS consultant Lynx Technologies, Capitola, California sampled the original database. Of 188 lots that were vacant in 1997, 116 had subsequently been built-upon, or a ratio of 62%. That statistical sampling calls into question the viability of the estimated water for Legal Lots of Record.

Sampling results are shown below.

City	Total Count	Vacant Lots (1997) Built (2022)	Percentage Change
Carmel	38	27	71%
Del Rey Oaks	4	0	0%
Monterey	40	23	58%
Pacific Grove	26	21	81%
Sand City	46	19	41%
Seaside	34	26	76%
Total / Avg	188	116	62%

Attachment K

(Phase 2 Direct Testimony of David J. Stoldt)

Final Environmental Impact Report
Volume III: Comments, Responses to Comments, and Revisions to the Draft EIR

Pebble Beach Company Project

State Clearinghouse No: 2011041028

Monterey County Planning Department

April 2012

Draft Environmental Impact Report
Volume I

Pebble Beach Company Project

State Clearinghouse No: 2011041028

Monterey County Planning Department

November 2011

Section 3.12

Water Supply and Demand

Table 3.12-7. Direct Water Demand of Proposed Project

Development Area	Projected Demand	
The Lodge at Pebble Beach	13.11	
The Inn at Spanish Bay	12.85	
Area M Spyglass Hill		
Option 1 New Resort Hotel	30.59	
Option 2 New Residential Lots	10.00	
Residential Lot Subdivisions	77.00	
Equestrian Center Reconstruction	0.00	
Driving Range Relocation	0.33	
SR 1/SR 68/17-Mile Drive Intersection Reconstruction	0.70	
	Total with Option 1	**Total With Option 2**
Project Total - Average Year	134.57	113.99
Project Total - Wet Year	127.84	108.29
Project Total - Dry Year	141.30	119.69
Project Total - Very Dry Year	148.03	125.39

Source:
Appendix H
Note:
Units are acre-feet per year (AFY).

Appendix H

Water Supply and Demand Information for Analysis

- **Appendix H.1:** Recycled Water Project Production (Water Years 1995–2010) and Rainfall Data.
- **Appendix H.2:** Potable Water Demand Estimates.
- **Appendix H.3:** Carmel River, Seaside Basin Withdrawals, and Cumulative Monterey Peninsula Water Supply and Demand Estimates.

H.2
Potable Water Demand Estimates

Direct Potable Water Demand Estimates

Potable water demand estimates are based in part on the water demand estimated by the applicant's consultant (WWD 2011), but has been modified in several ways and supplemented. First, the factor for the additional units at the Inn and Lodge was revised to be 0.21 AFY/unit (instead of 0.10 AFY/unit) because these units are assumed to meet the luxury hotel definition used by MPWMD. Second, the applicant's estimate used an average of 0.50 AFY/residence for residential lots less than 0.5 acre but this analysis used 0.80 AFY/resident for these lots based on the DMF Average from the 1997 EIR. Third, the factors for the pool and the spa salon were both changed to a MPWMD factor. Also, an estimate has been provided for increased irrigation demand along Highway 1/68, because this area, which was not included in the applicant's estimate. The area of increased irrigation outside the existing right of way has not been identified by the applicant, it has been presumed to be 2 acres.

Table H.2-2A summarizes potable water use of the Proposed Project.

Table H.2-2B presents the estimate of project potable water use.

Table H.2-2C summarizes potential use of the applicant's entitlement by other residential users including information about the remaining entitlement outside of the project for other residential use.

References

County of Monterey. 1997. Pebble Beach Lot Program Final Environmental Impact Report. Prepared by EIP Associates. San Francisco, CA.

Monterey Peninsula Water Management District (MPWMD). 2011. Monthly Entitlement Report for September 2011. October 17.

_____. 2006b. Existing Water Needs of Cal-Am Customers within MPWMD Boundaries and Non-Cal-Am Producers within the Seaside Groundwater Basin Adjusted for Weather Conditions during Water Years 1996 through 2006. October.

_____. No Date. Non-Residential Water Release Form and Water Permit Application.

Pebble Beach Company (PBC). 2011. Certification under Order WR 2009-0060, as amended by Order WR 2010-0001. October 18.

WWD 2011. Water Analysis ~ PLN100138 ~ Spyglass Hotel Alternative and Residential Lots Alternative. June 24.

Table H.2-1A With Project Increases in Water Use	
	Acre-Feet
Low Use (Wet Year)	
Project Direct Potable Use	128
Average Use (Average Rainfall Year)	
Project Direct Potable Use	135
High Use (Dry Year)	
Project Direct Potable Use	142
Very High Use (Critically Dry Year)	
Project Direct Potable Use	145
Source: Table H.2-2B	

Table H.2-1B Project Demand Plus Other Entitlement Demand (in Acre-Feet)	
Low Use (Wet Year)	
Project Direct Demand	128
Other Entitlement Demand	138
Total Demand	266
Average Use (Average Rainfall Year)	
Project Direct Demand	135
Other Entitlement Demand	145
Total Demand	280
High Use (Dry Year)	
Project Direct Demand	142
Other Entitlement Demand	153
Total Demand	294
Very High Use (Critically Dry Year)	
Project Direct Demand	145
Other Entitlement Demand	156
Total Demand	301
Source: Tables H.2-2B and H.2-2C	

Table H.2-2A
Summary of Potable Water Use of Proposed Project and Other Entitlement Demand
(In Acre-Feet/Year)

Proposed Development	Use	
Lodge at Pebble Beach		13.11
Inn at Spanish Bay		12.85
Spyglass Hotel		30.59
Area M Residential		10.00
Other Residential		77.00
Equestrian Center		0.00
Driving Range		0.33
Highway 1/68 Landscaping		0.70
Water Year Type	**Total with Spyglass Hotel**	**Total With Area M Residential**
Wet Year	**127.84**	**108.29**
Average Year	***134.57***	**113.99**
Dry Year	**141.57**	**119.91**
Critically Dry Year	**145.07**	**122.88**

Summary of Other Entitlement Demand Water Use (in Acre-Feet/Year)

Water Year Type	Demand
Wet Year	**138**
Average Year	**145**
Dry Year	**153**
Critically Dry Year	**156**

Source: Tables H.2-2B and H.2-2C.

Table H.2-2B
Potable Water Use of Proposed Project, Average Year

	Units	Number of Units	Use factor (AFY/unit)	Demand (AFY)	MPWMD Factor (AFY/unit)	Type	WWD Factor (AFY/unit)	Notes
Lodge at Pebble Beach								
Colton Building	rooms	20	0.21	4.20	0.21	Lux hote	0.1	Changed to MPWMD factor
Fairway One								
Fairway One - Rooms	rooms	35	0.21	7.35	0.21	Lux hote	0.1	Changed to MPWMD factor
(E) Beirne Water Consumption				-1.00				Same
Meeting Space	SF	2230	0.00053	1.18	0.00053	Meeting hal	0.00053	Same
Office Space	SF	200	0.00007	0.01	0.00007	Office	0.00007	Same
Surface Parking Improvements				0.25				
Subtotal for Fairway One	*AFY*			*7.80*				
The Lodge at Pebble Beach								
Conference Facility	SF	2100	0.00053	1.11	0.00053	Meeting hal	0.00053	Same
Parking Improvements				0.00				No change
Subtotal for Lodge	*AFY*			*1.11*				
Subtotal for Lodge at Pebble Beach	**AFY**			**13.11**				
Inn at Spanish Bay Inn								
Cottages	rooms	40	0.21	8.40	0.21	Lux hote	0.1	Changed to MPWMD factor
Hospitality Building								
Meeting Space	SF	2018	0.00053	1.07	0.00053	Meeting hal	0.00053	Same
Office Space	rooms	487	0.00007	0.03	0.00007	Office	0.00007	Same
Ballroom Addition	SF	1409	0.00053	0.75	0.00053	Meeting hal	0.00053	Same
Conference Room Addition	SF	3960	0.00053	2.10	0.00053	Meeting hal	0.00053	Same
Parking lot landscaping				0.50			0.5	
Subtotal	AFY			**12.85**				
Spyglass Hotel & Spa								
Luxury hotel rooms	rooms	100	0.21	21.00	0.21	Lux hote	0.1	Changed to MPWMD factor
Conference/Meeting Space	SF	5120	0.00053	2.71	0.00053	Meeting hal	0.00053	Same
Pool (52 X 20')	100SF	10.4	0.02	0.21	0.02	Pool	0.2	Changed to MPWMD factor
Office space	SF	1736	0.00007	0.12	0.00007	Office	0.00007	Same
Restaurant/bar/lounge space (6,677 SF)	Seat	100	0.02	2.00	0.02	Seat	0.02	Same
Landscaping estimate				1.00			1.00	
Subtotal Hotel	*AFY*			*27.04*				
Spa Retail	SF	456	0.00007	0.03	0.00007	Retail	0.00007	Same
Spa Office Space	SF	1362	0.00007	0.10	0.00007	Office	0.00007	Same
Spa Salon	Station	8	0.05	0.40	0.05	Station	0.0567	Changed to MPWMD factor
Spa Treatment Rooms	SF	12840	0.00007	2.90	0.00007	Clinic	0.00007	Included wet areas at 2.0 af
Spa Fitness Area	SF	1675	0.00007	0.12	0.00007	Gym	0.00007	Same
Subtotal Hotel	*AFY*			*3.54*				
Subtotal Hotel & Spa	***AFY***			***30.59***				
Area M Residential								
Area M Residentia	Lots	10	1.00	10.00	1.00	> 1.0 acre (EIR 1997)	1.00	Same
Subtotal	AFY			**10.00**				
Residential Areas								
Lots >= 1.0 acres	lots	66	1.00	66.00	1.00	> 1.0 acre (EIR 1997)	1.00	Same
Lots >= 0.5 acres	lots	24	0.50	12.00	0.80	DMF Average	0.50	Used DMF Average instead of WWD factor of 0.50.
(E) Collins residence	lots			-1.00			1.00	
Subtotal	AFY	90		**77.00**				
Equestrian Center								
Equestrian Center	AFY			0.00			0	No change
Subtotal	AFY			**0.00**				
Driving Range								
Public Restroom	Restroom	1	0.139	0.14	0.094	Public toilet + urina	0.139	Used WWD factor as conservative
New use of office space	SF	2655	0.00007	0.19	0.00007	Office		Used MPWMD factor
Subtotal	AFY			**0.33**				
Highway 1/68 Landscaping								
Landscape drip irrigation	Acres	2	0.35	0.70	0.35	Caltrans		Not included in WWD
Subtotal	AFY			**0.70**				
TOTAL - Avg. - With Spyglass Hote	AFY			**134.57**				
Wet Year				127.84				95% of Avg.
Dry Year				141.57				105.2% of Avg.
Critically Dry Year				145.07				107.8% of Avg.

TOTAL - Avg. With Area M Residentia	AFY			**113.99**				
Wet Year				108.29				95% of Avg.
Dry Year				119.91				105.2% of Avg.
Critically Dry Year				122.88				107.8% of Avg.

Sources: WWD 2011, as modified by ICF as noted in table including MPWMD non-residential factors (2011). Dry and Critically Dry years modified by Dry and Critically Dry modified by factors from MPWMD 2006. DMF Average from 1997 EIR for PBC Lot Program.

Table H.2-2C
Other Entitlement Demand

	Number of Units	Use factor (AFY/unit)	Demand (AFY)	Factor (AFY/unit)	Notes
Existing Vacant Lots					
Future SFD Development	96	0.8	76.8	0.8	DMF Average
Area X and Y					
Future SFD Development	9	0.8	7.2	0.8	DMF Average
Total			84.0		Assumed that such properties would either purchase PBC entitlement or would have to be served by future expansions of the regional water supply project.
PBC Entitlement Allocations					
Total entitlement			365		
Amount in use as of 2011			40		(10.483 - PBC, 29.954 - others)
Remaining entitlement			325		
Entitlement used for project			145		Based on critically dry year estimate (Table G.2-2B)
Remaining entitlement outside of project for other residential use			**145**		MPWMD Ordinance 109 allows up to 175 AF to be sold to DMF benefite properties. As of September 2011, PBC had sold 117 AF, leaving 58 AF more that could be sold. Of the 175 AF, only 30 AF is being used as of 2011 leaving 145 AF that could
Unused entitlement			34		Remaining entitlement not currently being used minus amount to be used for project minus amount of unused DMF benefited properties.

Sources
1) DMF residential development calculations - ICF.
2) DMF Average from 1997 EIR for PBC Lot Program.
2) Entitlement information: PBC 2011. Entitlement Reporting (10/18/11) and MPWMD, 2011, Monthly Entitlement Report, October 17,

Attachment L

(Phase 2 Direct Testimony of David J. Stoldt)

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CAL IFORNIA

In the Matter of Application of California-American Water Company (U210W) for Approval of the Monterey Peninsula Water Supply Project and Authorization to Recover All Present and Future Costs in Rates	)	A.12-04-019 (Filed April 23, 2012)

TESTIMONY OF JOHN NARIGI

BOB MCKENZIE, CONSULTANT
COALITION OF PENINSULA BUSINESSES
PO BOX 223542
CARMEL, CA 93922
P 831-596-4206
F 602-535-0921

SEPTEMBER 29, 2017

Q7. Why do you think the tourism industry needs 500 afa for its economic recovery?

A7. I am a hospitality industry professional so I know first-hand how badly our business has been hurt by the recent recession, from which we have not fully recovered, and by the various restrictions on water use imposed as a result of the Cease and Desist Order (CDO), especially CDO Condition 2 which seeks to disallow use of unused water credits for uses other than the original but now discontinued uses, and California's recent multi-year drought.

The tourism industry intends to increase hotel occupancy by approximately 12 to 15 percent over the next two decades to re-attain the occupancy levels of decade ago; that requires water. Many properties, perhaps most, intend to remodel and respond to changing customer preferences and that requires water. Increased occupancy means more customers for

food service, more customers for retail goods, more customers for personal services and so on. All of that requires water. The tourism industry has spent millions of dollars on water conservation over the last decade and has led the effort for over-all water use conservation by our community. The Peninsula area, as a result of our collective tremendous effort, has reduced water use by 40% and up to 50% in the case of some of the major hotels.

Dave Stoldt

From: John Narigi <jnarigi@montereyplazahotel.com>
Sent: Monday, September 3, 2012 1:59 PM
To: Dave Stoldt
Cc: John Narigi
Subject: occupancy levels

Follow Up Flag: Follow up
Flag Status: Flagged

Dave,
Per your earlier request regarding occ levels 1998-2001 the following are the findings.
Based on 4 full service properties in Monterey and 1 full service in downtown Carmel for a total of 5 properties the weighted average occ was 74.83% for the requested years.
Key months, June thru October consistently achieved occupancies from 78% to a high of over 90% during these "best years" for the peninsula. Strongest months consistently were August thru September. These business levels are what we are all striving to achieve again in the future.
For the year 2011 year end occ was below 68%.
If you need additional info let me know.
jvn

MONTEREY PLAZA HOTEL & SPA

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Monterey Peninsula

- *August 19, 2003*
- *By HVS San Francisco*

In 2001, the Monterey market area felt the effects and aftershocks of many of the same events that caused occupancies to plummet in the greater San Francisco Bay Area. The Salinas-Monterey market was one of five California markets, out of 22, to experience occupancy declines in the double digits, and one of only four markets to experience a decline in average room rate. **According to Smith Travel Research overall occupancy in the Salinas-Monterey area declined from 71.8% for year-end 2000 to 63.0% for year-end 2001, representing a decline of 12.3%.** Average rate moved in tandem with occupancy and dropped 2.2% from $116.49 in 2000 to $113.92 in 2001. The end result was a 13.4% decline in room revenue, the sharpest decline of any of the 22 California lodging markets studied. Year-to-date data, through the first five months of 2002, show modest declines in occupancy (2.6%), average rate (2.6%), and room revenue (4.7%). In terms of occupancy, the outlook is favorable for the year as occupancies will likely finish above last year in the third and fourth quarters of 2002 resulting in a year-end occupancy above that earned in 2001. Average rate growth is less likely however, as average rate through May 2002 was $2.78 below the average at the same time last year. The Monterey Peninsula lodging market includes properties located in Carmel, Marina, Big Sur, Pacific Grove, Salinas, Seaside, and the city of Monterey. The peninsula includes a range of lodging products, from the motels in the inland markets of Seaside, Del Rey Oaks, and Monterey, to the upscale resorts associated with Pebble Beach, Carmel, and Big Sur. As of January 2002 the area supported 151 hotels with 8,618 hotel rooms; of these, 59 hotels with 4,380 hotel rooms are located in Monterey. Due to high barriers to entry into the market, including limited space in areas zoned for lodging development, supply growth has been limited during the past decade. The city of Monterey has a moratorium on development that makes the probability of future development, beyond what is already approved, unlikely. According to officials at the Monterey County Convention and Visitors Bureau, approximately 1,000 new hotel rooms have been approved in five different projects throughout the county over the next

few years. Among the projected new supply is a 230-room upscale hotel that is approved for a vacant parcel of land on Cannery Row. This property will be the last new lodging development in the city of Monterey unless the city's charter is amended. The extremely high barriers to entry into the lodging market throughout Monterey County will always keep the number of lodging facilities limited. As a result, the Monterey Peninsula will be able to maintain the small seaside community atmosphere that is so attractive to visitors today. Monterey County is located at the approximate midpoint of California's Pacific coast, placing it within easy driving distance from most of Northern California and the Central Valley. According the officials at the Monterey County Convention & Visitors Bureau, roughly 62% of visitation to the Monterey Peninsula was generated from the San Francisco Bay Area (in 2000). The tourism industry in Monterey benefited greatly during the latter half of the 1990s from its location proximate to the bastions of high technology. Monterey's market mix was evenly split between the leisure and meeting and group segments. Individuals in the San Francisco Bay area used Monterey as a personal escape while firms located in the area used Monterey for company retreats. Monterey has also long been a favorite with government associations as it has historically been more affordable than larger convention cities such as San Francisco. While the San Francisco Bay Area will continue to be a primary feeder market to the Monterey Peninsula, in times of limited demand, the area is striving to market itself to other demand sources. Due to the large percentage of business from the greater Bay Area, particularly from Silicon Valley and San Jose, Monterey felt the effects of the weakening economy earlier than other parts of the state. By April 2001, the decline in occupancy percentage was in the double digits, compared to the same month in 2000. Percentage occupancy decline, compared to the same month in the prior year, would remain in the double digits through the summer. At summer's end, the events of September 11th and the ensuing proclivity to stay at home further wounded the lodging market. The Monterey Peninsula lodging market was the beneficiary of significant increased demand during the latter half of the 1990s, particularly from the burgeoning technology industry located within a two-hour drive. Hoteliers used this increased demand to foster above-inflationary average rate growth for five consecutive years. The icing on the cake was the hosting of the US Open Golf Championship in 2000, which provided opportunity for a roundly 12% rate increase from the previous year. A challenge now facing hoteliers in the area will be to maintain the high average rates that they have been able to charge in recent years. If the average rate trend from the early 1990s is any indication, rate growth may be extremely tough to come by over the next few years. Despite the current melancholy, overall, the Monterey lodging market is in an enviable position. Though the slump in demand has been felt deeply in the area, the limited supply will allow a faster recovery and lack of new supply will lead to above-inflationary rate growth in the long term.

Annual Report 2012-13

MONTEREY
COUNTY CONVENTION AND VISITORS BUREAU

Making Tourism Work
Harder for Monterey

Executive Summary

FY 2012-2013 was an important period of transition for Monterey County Convention and Visitors Bureau (MCCVB). The Board of Directors took a deep look inward at the organization and how to make it work harder for the local tourism industry and its stakeholders.

Last year, the MCCVB 2012-2013 Business Plan was published and it included new strategic priorities that set the foundation for a long term vision and plan to aggressively drive tourism growth in Monterey County. The plan specifically laid out goals for the 2012-2013 year that would guide MCCVB efforts and gauge our success in working towards that vision. This Annual Report summarizes the work as related to those published goals.

The key to success in destination marketing is through partnerships and collaboration with industry stakeholders and partners beyond our destination as well as within it. By sharing ideas, programs and resources, total investment in market development can be leveraged and excellence can be achieved.

Travel spending in Monterey County in 2012 was $2,274 million. This represents a 5.9 % increase from 2011, following a 6.4 % increase for the preceding year. Employment (21,910 jobs) also increased for the second consecutive year following the recession.

Dean Runyan Associates, 2013

The MCCVB has important sales and marketing as well as community development partnerships. We work with Visit California, Central Coast Tourism Council, California Welcome Centers, San Francisco Travel, Alaska Airlines, Monterey Regional Airport, Monterey County Hospitality Association, Historic Monterey, California State University Monterey Bay, local area Chambers of Commerce, Salinas Historical Board, Monterey County Vintners and Growers Association, Pebble Beach Company, as well as various other interest groups and individual businesses. We are also active members of regional, national and international professional associations in our sales and marketing arenas; these include AMPS, ASAE, CalSAE, GMIC, IAGTO, MPI, NTA, PCMA, SGMP, SITE, SVBTA, USTA and DMAI.

Our funding jurisdictions are key partners in developing the resources and direction for effective, competitive destination marketing programming. We are committed to growing an organization of excellence and executing innovative, effective sales and marketing programs that build business for the destination.

Destination Performance Overview

Monterey County's average occupancy this year was 64.1%, continuing an increasing trend over the previous year. Competitor destinations in California, such as Napa County or Palm Springs, have higher year-to-date occupancy rates, but Monterey County's percent of change over 2012 YTD is higher than the average growth rate of the competitive set.

	Occupancy	% Change	ADR	% Change	RevPAR	% Change
2011-2012	62.8%	7.3%	$161.52	5.1%	$101.46	12.8%
2012-2013	**64.1%**	**2.1%**	**$166.90**	**3.3%**	**$107.05**	**5.5%**

MCCVB Key Performance Measures

Sales	2012-2013	GOAL	% of GOAL
Total Leads	613	785	78%
Total Lead Room Nights	223,282	240,450	93%
Conversion Rate	24%	29%	84%
Total Definite Room Nights	54,179	69,730	78%
Destination Services	65%	60%	109%
Marketing & Communications	**2012-2013**	**GOAL**	**% of GOAL**
Website Visitation	1,010,556	1,258,652	80%
Earned Media	$44,807,477	$30,000,000	149%
Facebook *(fans)*	38,587	23,500	164%
Twitter *(followers)*	8,712	5,971	146%
Website/CMS System	**2012-2013**	**GOAL**	**% of GOAL**
Website Impressions	3,878,846	4,300,000	90%
Time on Site *(in minutes)*	3:12	3:30	92%
Visitor Database	21,315	23,500	91%
Membership	**2012-2013**	**GOAL**	**% of GOAL**
Retention Rate	85%	80%	106%
New Members	85	85	100%
Visitor Services	**2012-2013**	**GOAL**	**% of GOAL**
Visitor Referrals/Inquiries	122,049	115,570	106%
Visitor Services Influence Index	41%	New	N/A

April 6, 2016

Fiscal Analysis of the Proposed Hotel Bella Project

Prepared for:

City of Pacific Grove, CA

Prepared by:

Applied Development Economics, Inc.
255 Ygnacio Valley Road, #200, Walnut Creek, CA 94596 ■ 925.934.8712
99 Pacific Street, #200 J, Monterey, CA 93940 ■ 831.324.4896
www.adeusa.com

agreement from the Schwarzenegger Administration. This share of property tax increases as the City assessed value increases annually, and currently represents an additional 30 percent over the base property tax the City receives.

Under Proposition 13, the assessed value of the proposed project should be set at market value at the time the project is completed. The Project Sponsor, DHP, has indicated that the total development cost of the project will be $215 million.[3] This is an average of $732 per sq.ft. of building space in the project , or $533 per sq.ft. including the underground parking structure. These figures are within industry averages for LEED Platinum construction and the upscale market segment targeted by the project.

Market value would be expected to exceed the development cost, but for purposes of providing a conservative estimate of potential property tax revenues, ADE has used the $215 million figure as the estimated assessed value. On this basis, the project would produce $339,700 in base property tax per year for the City plus $103,400 in property tax in lieu of vehicle license fees. The property currently produces an estimated $20,400 in combined annual property taxes for the City, so the net gain in property tax from the Hotel Bella project would be $422,700.

TRANSIENT OCCUPANCY TAX (TOT)

The City levies a tax of ten percent on room revenues for all lodging in Pacific Grove. The City currently has 1,065 commercial hotel rooms, not including time share properties or residential vocational rentals. The commercial hotel rooms have an average room rate of $129.84 and an occupancy rate of 70 percent.[4] While the overall occupancy rate is well above industry standards of 65 percent, several existing properties in Pacific Grove are very old and are underperforming. Better properties in Pacific Grove enjoy an occupancy rate ranging from 78-82 percent, which help to offset the lower performance of the older properties and maintain the overall occupancy at 70 percent.

The Hotel Bella project is intended to serve the upper end of the lodging market, not only for Monterey County but the entire State. Very few properties of similar quality existing in the Monterey Peninsula, but a selection of comparable facilities would include:

- The Lodge at Pebble Beach
- The Inn at Spanish Bay
- Casa Palmero at Pebble Beach
- The Intercontinental
- Ventana in Big Sur

Smith Travel Research, a well-recognized hotel data service, indicates that for this group of hotels, the average daily room rate as of December 2015 was $582.40 with 75.2 percent occupancy. The average revenue per available room (REVPAR) was $438.18. Other than the Intercontinental, which was built

[3] Michael Crall, Managing Partner and Chief Development Officer, Domaine Hospitality Partners, LLC., personal communication, March 17, 2016.
[4] Moe Ammar, President, Pacific Grove Chamber of Commerce and Tourist Centers, personal communication, March 17, 2016. These figures are based on regular lodging surveys conducted by the Chamber of Commerce.

Attachment M

(Phase 2 Direct Testimony of David J. Stoldt)

CALIFORNIA AMERICAN WATER

MONTEREY DISTRICT

CUSTOMERS & CONSUMPTION BY POLITICAL JURISDICTION

1000 Gallons

Oct 2018 to Sep 2019

CITY CODE	JURISDICTION	RESIDENTIAL		MULTI-RES		COMM/ IND		GOLF COURSE		PUB AUTHORITY		OTHER		NON REVENUE		TOTAL	TOTAL	TOTAL
		CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	(1000 GAL)	(AF)
	CITY																	
1	Monterey	7,918	266,136.80	566	215,865.04	1,533	310,347.83	0	0.00	289	120,095.24	21	3,816.22	0	0.00	10,327	916,261.13	2,811.90
2	Pacific Grove	5,846	198,431.41	388	64,946.75	511	65,085.19	1	3,329.57	72	15,794.74	13	372.85	0	0.00	6,830	347,960.51	1,067.85
3	Carmel	2,818	110,552.71	153	9,960.04	370	62,518.26	0	0.00	49	3,580.14	3	1,189.41	0	0.00	3,393	187,800.55	576.34
4	Seaside	5,562	212,609.56	286	62,734.48	588	76,044.00	0	0.00	69	15,898.78	8	42.18	1	48.17	6,514	367,377.17	1,127.44
5	Del Rey Oaks	726	23,999.15	4	269.32	64	6,652.31	0	0.00	7	64.93	1	0.00	0	0.00	803	30,985.71	95.09
7	Sand City	102	3,234.69	7	2,664.56	236	17,300.02	0	0.00	3	179.28	4	802.32	0	0.00	352	24,180.87	74.21
CITY TOTAL		22,973	814,964.31	1,403	356,440.20	3,303	537,947.61	1	3,329.57	489	155,613.10	50	6,222.97	1	48.17	28,219	1,874,565.92	5,752.83
	COUNTY																	
6	Mtry Co. CV	1,359	70,401.40	100	16,327.40	127	22,573.78	0	0.00	5	11,552.07	4	51.42	3	456.20	1,598	121,362.27	372.45
8	In Crml San. Dist	2,652	124,302.30	80	21,895.50	186	31,849.18	0	0.00	16	11,113.04	5	1,015.53	0	0.00	2,940	190,175.55	583.63
9	Out Crml San. Dist	1,885	97,970.75	100	21,042.81	195	58,612.69	0	0.00	22	6,199.25	5	9.35	0	0.00	2,207	183,834.85	564.17
A	Mtry Co. Monterey	277	14,512.62	10	1,291.49	4	320.59	1	31,716.76	6	7,183.74	0	0.00	0	0.00	297	55,025.20	168.87
C	MPCC DMF	2,032	94,314.56	10	694.62	55	22,353.16	1	48.17	4	266.70	0	0.00	1	1.12	2,104	117,678.32	361.14
D	Mtry Co. PB	736	79,206.68	14	2,469.01	55	28,886.94	1	11.60	2	159.66	4	5,908.85	0	0.00	812	116,642.74	357.96
G	Rancho Fiesta	23	1,769.88	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	23	1,769.88	5.43
H	Rancho Del Monte	416	25,637.73	15	1,313.46	3	240.54	0	0.00	0	0.00	0	0.00	0	0.00	434	27,191.73	83.45
J	PB - LCP	19	2,248.75	0	0.00	1	26.40	0	0.00	0	0.00	0	0.00	0	0.00	20	2,275.15	6.98
COUNTY TOTAL		9,399	510,364.68	330	65,034.28	625	164,863.28	3	31,776.53	55	36,474.46	19	6,985.15	4	457.32	10,434	815,955.69	2,504.08
	OTHER																	
F	Well Irrigation CV	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	5.38	1	13.30	3	18.68	0.06
OTHER TOTAL		0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	5.38	1	13.30	3	18.68	0.06
CV-SS-SCD TOTAL		**32,371**	**1,325,328.99**	**1,734**	**421,474.48**	**3,928**	**702,810.89**	**4**	**35,106.10**	**543**	**192,087.56**	**71**	**13,213.51**	**6**	**518.78**	**38,656**	**2,690,540.30**	8,256.96
E	Ryan Ranch	1	8.37	0	0.00	192	15,936.33	0	0.00	5	209.34	2	0.00	0	0.00	200	16,154.05	49.57
I	Hidden Hills	447	28,993.78	0	0.00	9	128.55	0	0.00	0	0.00	1	70.98	0	0.00	456	29,193.31	89.59
L	Bishop	340	25,595.07	0	0.00	60	10,503.09	0	0.00	0	0.00	13	51.75	0	0.00	413	36,149.91	110.94
RR-HH-Bishop Total		**788**	**54,597.23**	**0**	**0.00**	**260**	**26,567.97**	**0**	**0.00**	**5**	**209.34**	**16**	**122.73**	**0**	**0.00**	**1,069**	**81,497.27**	250.11
The number of Connections includes Fire Services														**All Jurisdictions =**		**39,725**	**2,772,037.57**	8,507.07

CALIFORNIA AMERICAN WATER

MONTEREY DISTRICT

CUSTOMERS & CONSUMPTION BY POLITICAL JURISDICTION

1000 Gallons

Oct 2017 to Sep 2018

CITY CODE	JURISDICTION	RESIDENTIAL			MULTI-RES			COMM/ IND /GOLF			GOLF COURSE		PUB AUTHORITY			OTHER			NON REVENUE			TOTAL	TOTAL	TOTAL
		CONNECTIONS	USE	AF	CONNECTIONS	USE	AF	CONNECTIONS	USE	AF	CONNECTIONS	USE	CONNECTIONS	USE	AF	CONNECTIONS	USE	AF	CONNECTIONS	USE	AF	CONNECTIONS	(1000 GAL)	(AF)
	CITY																							
1	Monterey	7,901	277,778.90	852.47	560	215,758.25	662.14	1,570	325,177.38	997.93	0	0.00	258	121,289.57	372.22	31	3,429.49	10.52	0	0.00	0.00	10,320	943,433.59	2,895.29
2	Pacific Grove	5,852	205,144.30	629.56	386	67,629.32	207.55	551	78,588.60	241.18			72	16,956.91	52.04	16	656.05	2.01	0	0.00	0.00	6,877	368,975.19	1,132.34
3	Carmel	2,815	117,195.57	359.66	152	10,401.30	31.92	402	62,228.22	190.97	0	0.00	49	3,771.35	11.57	2	484.10	1.49	0	0.00	0.00	3,420	194,080.53	595.61
4	Seaside	5,542	237,863.49	729.98	285	65,745.97	201.77	585	85,517.27	262.44	0	0.00	63	16,958.29	52.04	8	66.13	0.20	1	47.20	0.14	6,484	406,198.34	1,246.58
5	Del Rey Oaks	726	27,755.78	85.18	4	254.44	0.78	74	6,347.26	19.48	0	0.00	6	68.94	0.21	1	0.00	0.00	0	0.00	0.00	812	34,426.41	105.65
7	Sand City	102	3,698.36	11.35	7	2,912.30	8.94	246	19,463.83	59.73	0	0.00	3	158.33	0.49	6	635.94	1.95	0	0.00	0.00	363	26,868.77	82.46
CITY TOTAL		22,938	869,436.40	**2,668.20**	1,394	362,701.58	**111.31**	3,427	577,322.55	**1,771.74**	0	0.00	451	159,203.39	**488.58**	63	5,271.70	**16.18**	1	47.20	**0.14**	28,275	1,973,982.82	6,057.93
	COUNTY																							
6	Mtry Co. CV	1,354	76,135.75	233.65	101	14,904.60	45.74	135	22,925.85	70.36	0	0.00	5	14,717.95	45.17	6	1,499.38	4.60	3	390.82	1.20	1,604	130,574.35	400.72
8	In Crml San. Dist	2,681	137,482.72	421.92	81	23,140.59	71.02	202	32,958.04	101.14	0	0.00	16	14,584.71	44.76	3	902.95	2.77	0	0.00	0.00	2,983	209,069.01	641.61
9	Out Crml San. Dist	1,882	106,410.06	326.56	99	22,153.20	67.99	213	58,289.92	178.89	0	0.00	22	16,055.58	49.27	6	42.11	0.13	0	0.00	0.00	2,222	202,950.87	622.83
A	Mtry Co. Monterey	253	13,161.75	40.39	10	1,096.99	3.37	4	27,654.90	84.87	1	0.00	5	7,446.85	22.85	0	0.00	0.00	0	0.00	0.00	272	49,360.49	151.48
C	MPCC DMF	2,010	100,222.20	307.57	10	773.73	2.37	61	23,882.21	73.29	1	0.00	4	258.35	0.79	0	0.00	0.00	1	0.00	0.00	2,087	125,136.49	384.03
D	Mtry Co. PB	733	90,136.76	276.62	15	2,841.27	8.72	63	28,024.60	86.00	1	0.00	2	204.49	0.63	5	1,897.75	5.82	0	0.00	0.00	819	123,104.87	377.79
G	Rancho Fiesta	23	2,012.07	6.17	0	0.00	0.00	0	0.00	0.00	0	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	23	2,012.07	6.17
H	Rancho Del Monte	415	26,988.79	82.83	15	1,470.65	4.51	4	330.52	1.01	0	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	434	28,789.96	88.35
J	PB - LCP	19	2,734.00	8.39	0	0.00	0.00	1	109.19	0.34	0	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	20	2,843.19	8.73
COUNTY TOTAL		9,370	555,284.10	**1,704.10**	331	66,381.03	**203.72**	682	194,175.22	**595.90**	3	0.00	54	53,267.93	**163.47**	20	4,342.19	13.33	4	390.82	**1.20**	10,463	873,841.29	2,681.72
	OTHER																							
F	Well Irrigation CV	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0	0.00	0.00	2	0.90	0.00	1	10.55	0.03	3	11.44	0.04
OTHER TOTAL		0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0	0.00	0.00	2	0.90	0.00	1	10.55	0.03	3	11.44	0.04
CV-SS-SCD TOTAL		**32,308**	**1,424,720.50**	**0.00**	**1,725**	**429,082.61**	**1,316.81**	**4,109**	**771,497.77**	**2,367.64**	**3**	**0.00**	**505**	**212,471.32**	**652.05**	**85**	**9,614.79**	**0.01**	**6**	**448.57**	1.38	**38,740**	**2,847,835.55**	**8,739.69**
E	Ryan Ranch	1	3.21	0.01	0	0.00	0.00	204	14,100.67	43.27	0	0.00	5	290.43	0.89	3	0.00	0.00	0	0.00	0.00	212	14,394.31	44.17
I	Hidden Hills	444	31,442.85	96.49	0	0.00	0.00	10	624.10	1.92	0	0.00	0	0.00	0.00	1	75.16	0.23	0	0.00	0.00	454	32,142.12	98.64
L	Bishop	318	25,750.64	79.03	0	0.00	0.00	55	9,459.29	29.03	0	0.00	0	0.00	0.00	12	30.89	0.09	0	0.00	0.00	385	35,240.82	108.15
RR-HH-Bishop Total		**762**	**57,196.70**	**175.53**	**0**	**0.00**	**0.00**	**269**	**24,184.06**	**74.22**	**0**	**0.00**	**5**	**290.43**	**0.89**	**16**	**106.05**	**0.33**	**0**	**0.00**	0.00	**1,051**	**81,777.25**	250.97
																			All Jurisdictions =			**39,791**	**2,929,612.80**	8,990.65

CALIFORNIA AMERICAN WATER

MONTEREY DISTRICT

CUSTOMERS & CONSUMPTION BY POLITICAL JURISDICTION

1000 Gallons

Oct 2016 to Sep 2017

CITY CODE	JURISDICTION	RESIDENTIAL		MULTI-RES		COMM/ IND		GOLF COURSE		PUB AUTHORITY		OTHER		NON REVENUE		TOTAL	TOTAL	TOTAL
		CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	USE	CONNECTIONS	(1000 GAL)	(AF)
	CITY																	
1	Monterey	7,942	277,579.23	565	225,080.62	1,519	319,939.68	0	0.00	290	112,545.80	22	1,763.62	0	0.00	10,338	936,908.95	2,875.27
2	Pacific Grove	5,833	198,475.25	386	66,975.09	508	69,155.12	1	24,219.76	72	17,896.24	12	637.29	0	0.00	6,813	377,358.75	1,158.07
3	Carmel	2,810	106,452.87	152	10,343.02	374	60,795.57	0	0.00	49	3,459.68	2	200.25	0	0.00	3,386	181,251.39	556.24
4	Seaside	5,542	244,682.86	289	72,288.53	580	85,322.28	0	0.00	68	16,459.85	8	100.82	1	4.85	6,488	418,859.19	1,285.43
5	Del Rey Oaks	727	28,243.27	4	317.00	64	6,174.92	0	0.00	7	62.30	1	0.00	0	0.00	803	34,797.49	106.79
7	Sand City	98	3,453.49	7	2,391.33	243	18,807.64	0	0.00	3	126.49	4	607.28	0	0.00	355	25,386.23	77.91
CITY TOTAL		22,951	858,886.96	1,403	377,395.58	3,288	560,195.21	1	24,219.76	490	150,550.36	49	3,309.27	1	4.85	28,183	1,974,561.99	6,059.71
	COUNTY																	
6	Mtry Co. CV	1,355	74,461.10	100	15,492.06	125	18,059.67	0	0.00	5	12,434.11	5	493.60	3	377.57	1,593	121,318.10	372.31
8	In Crml San. Dist	2,681	135,774.49	82	22,783.26	182	31,085.23	0	0.00	16	10,552.69	2	1,180.34	0	0.00	2,963	201,376.00	618.00
9	Out Crml San. Dist	1,883	100,926.42	98	23,996.27	199	54,996.19	0	0.00	22	10,185.27	5	39.79	0	0.00	2,207	190,143.94	583.53
A	Mtry Co. Monterey	275	13,672.91	11	1,284.42	4	303.83	1	30,644.07	5	6,588.50	0	0.00	0	0.00	296	52,493.72	161.10
C	MPCC DMF	2,004	92,776.59	10	605.68	57	24,700.04	1	52.88	4	254.10	0	0.00	1	0.00	2,077	118,389.28	363.32
D	Mtry Co. PB	722	74,266.70	15	2,706.19	57	25,318.30	1	6.96	2	194.01	4	826.24	0	0.00	801	103,318.39	317.07
G	Rancho Fiesta	23	1,422.88	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	23	1,422.88	4.37
H	Rancho Del Monte	417	27,270.26	14	1,299.21	4	238.96	0	0.00	0	0.00	0	0.00	0	0.00	435	28,808.43	88.41
J	PB - LCP	20	2,763.32	0	0.00	1	63.06	0	0.00	0	0.00	0	0.00	0	0.00	21	2,826.38	8.67
COUNTY TOTAL		9,380	523,334.67	329	68,167.09	629	154,765.26	3	30,703.90	55	40,208.68	16	2,539.96	4	377.57	10,416	820,097.12	2,516.79
	OTHER																	
F	Well Irrigation CV	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	3.22	1	89.68	3	92.90	0.29
OTHER TOTAL		0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	3.22	1	89.68	3	92.90	0.29
CV-SS-SCD TOTAL		**32,332**	**1,382,221.64**	**1,732**	**445,562.67**	**3,918**	**714,960.47**	**4**	**54,923.66**	**544**	**190,759.04**	**67**	**5,852.44**	**6**	**472.11**	**38,602**	**2,794,752.00**	8,576.78
E	Ryan Ranch	0	0.00	0	0.00	179	16,265.54	0	0.00	5	283.93	2	0.00	0	0.00	185	16,549.47	50.79
I	Hidden Hills	442	31,168.23	0	0.00	8	53.85	0	0.00	0	0.00	1	71.66	0	0.00	451	31,293.73	96.04
L	Bishop	321	29,116.99	0	0.00	54	10,048.52	1	0.00	0	0.00	11	61.71	0	0.00	387	39,227.21	120.38
RR-HH-Bishop Total		**763**	**60,285.21**	**0**	**0.00**	**241**	**26,367.91**	**1**	**0.00**	**5**	**283.93**	**14**	**133.37**	**0**	**0.00**	**1,023**	**87,070.42**	267.21
														All Jurisdictions =		**39,625**	**2,881,822.42**	8,843.99

Consumption by Political Jurisdiction
1000 Gallons
Water Years 2017, 2018, 2019 Combined

	Monterey	Pacific Grove	Carmel-by-the-Sea	Seaside	Del Rey Oaks	Sand City	County	TOTAL
Total	2,843,701.50	1,094,294.45	563,132.47	1,192,434.70	100,209.61	76,435.87	2,713,264.22	8,583,472.82
Percent of Total								
Residential	1,478,210.42	801,602.12	364,905.51	895,924.89	80,838.96	18,354.73	1,960,633.41	5,600,470.04
Percent of Total	17.2%	9.3%	4.3%	10.4%	0.9%	0.2%	22.8%	
Non-Residential	1,365,491.08	292,692.33	198,226.96	296,509.81	19,370.65	58,081.14	752,630.81	2,983,002.78
Percent of Total	15.9%	3.4%	2.3%	3.5%	0.2%	0.7%	8.8%	

Notes:

1) Source: Cal-Am Customers & Consumption by Political Jurisdiction annual reports
2) Residential includes "Residential" and "Multi-Res" categories
3) Non-Residential is Total minus Residential
4) Monterey includes Ryan Ranch
5) County includes Hidden Hills and Bishop

Allocation of Production
Based on 5-Year Average (2017-2021)
Water Years 2017, 2018, 2019 Combined

	Monterey	Pacific Grove	Carmel-by-the-Sea	Seaside	Del Rey Oaks	Sand City	County	TOTAL
Residential	1,674.80	908.21	413.43	1,015.08	91.59	20.80	2,221.38	6,345.28
Non-Residential	1,547.09	331.62	224.59	335.94	21.95	65.81	852.72	3,379.72

Notes: Based on 5-year average production of: 9,725 AF

Water Required to Meet
AMBAG Regional Growth Forecast

Water Required for Population Growth

	Monterey	Pacific Grove	Carmel-by-the-Sea	Seaside	Del Rey Oaks	Sand City	County	TOTAL
Population in 2020	28,170	15,265	3,949	33,537	1,662	385	8,916	91,884
Population in 2045	29,639	15,817	3,984	38,316	2,650	1,198	9,916	101,520
Increase	5.2%	3.6%	0.9%	14.2%	59.4%	211.2%	11.2%	10.5%
Acre-Feet in 2020	1,675	908	413	1,015	92	21	2,221	6,345
Acre-Feet by 2045	1,762	941	417	1,160	146	65	2,471	6,961
AF Served by Others	9	-	-	72	11	-	75	167
Net AF in 2045	1,753	941	417	1,087	135	65	2,396	6,795

Water Required for Employment Growth

	Monterey	Pacific Grove	Carmel-by-the-Sea	Seaside	Del Rey Oaks	Sand City	County	TOTAL
Jobs in 2020	40,989	8,016	3,566	10,476	748	2,092	4,300	70,187
Jobs in 2045	45,509	8,445	3,915	11,543	834	2,259	4,721	77,226
Increase	11.0%	5.4%	9.8%	10.2%	11.5%	8.0%	9.8%	10.0%
Non-Residential AF in 2020	1,547	332	225	336	22	66	853	3,380
Non-Residential AF in 2045	1,718	349	247	370	24	71	936	3,716
Increase	171	18	22	34	3	5	83	336

Attachment N

(Phase 2 Direct Testimony of David J. Stoldt)

Aquifer Storage and Recovery (ASR)
Resistance to Drought

This memorandum has been prepared by David J. Stoldt, General Manager of the Monterey Peninsula Water Management District (MPWMD) based on a November 1, 2019 Technical Memorandum from Pascual Benito and Derrik Williams of Montgomery and Associates to Edwin Lin of Todd Groundwater, which appears as Appendix D to the Pure Water Monterey Supplemental Environmental Impact Report titled "Groundwater Modeling Analysis Technical Memorandum", a 56-page document which may be found beginning at page 249 of the PDF here:

https://purewatermonterey.org/wp/wp-content/uploads/Appendices-to-M1W-Draft-Supplemental-EIR-11-7-2019.pdf

The primary intent of the analysis is to use the calibrated groundwater flow model of the Seaside Basin (HydroMetrics WRI, 2009) to estimate impacts from the proposed project modifications in support of the impacts analysis for the Supplemental Environmental Impact Report (SEIR). However, there are aspects of the report which, in the opinion of MPWMD, indicate Aquifer Storage and Recovery's resilience to drought based on historical climate data and the model calibrated for use in the Seaside Basin. Those portions of the memorandum are excerpted by MPWMD and cited here by **page number**.

From page 10: Predicted Hydrology Assumptions

The Seaside Basin predictive model simulates a 33-year period (Hydrometrics WRI, 2009). The hydrology (rainfall and recharge) used to calibrate the groundwater model was applied to the predictive model. To extend the hydrology through the predictive period, the 1987 through 2008 hydrology data were used to simulate model year (MY) 1 through MY22, and the 1987 through 1997 hydrology data were then repeated for MY23 through MY33 (Figure 3). This is the approach that has been adopted for all predictive models of the Seaside Basin since 2009. By using this hydrology, even during the period from MY1 to present when actual hydrology is known, model runs can be compared to evaluate relative groundwater levels. The simulated hydrology includes both drought and non-drought periods, including a prolonged multi-year drought period.

From pages 10 & 11: Predicted Carmel River Flow and Injection Assumptions

Monterey Peninsula Water Management District (MPWMD) estimated the amount of Carmel River water available for ASR injection for the predictive simulation based on historical streamflow records (MPWMD, 2019). Because the future simulated hydrology is based on the historical hydrology between 1987 and 2008, the future streamflows are expected to be the same as the historical streamflows. MPWMD staff compared historical daily streamflows between water year (WY) 1987 and WY 2008 with minimum streamflow requirements for each day. This allowed MPWMD to identify how many days in each month ASR water could be extracted from the Carmel River. Using a daily diversion rate of 20 acre-feet per day (AF/day), MPWMD calculated how many acre-feet of water from the Carmel River could be injected into the ASR system each month. The Carmel River water available for injection was divided

between the ASR 1&2 Well Site and the ASR 3&4 Well Site according to the historic division of injection. *(MPWMD note: table reference deleted)*

From page 13: Cal-Am Water Demand

The scenarios presented here are based on an annual demand that starts off at 10,400 acre-feet (AF) in October of MY8 (simulated year 2020) and increases linearly to 11,325 AF7 through the end of MY33 (simulated year 2045). The monthly distribution of Cal-Am's annual deliveries, provided by MPWMD, was used to estimate future monthly demand, and are based on monthly averages of deliveries from 2007 to 2017. *(MPWMD note: table reference deleted)*

Cal-Am's monthly groundwater pumping from the Seaside Basin is calculated by subtracting Cal-Am's Carmel River extractions for customer service, including Table 13 water rights, and Sand City Desalination Plant supplies of 94 AF/year from the monthly demands shown in Table 3. MPWMD provided the monthly Table 13 diversion rates, which are based on projected hydrology and climate. Carmel Valley extractions for customer service and Sand City Desalination Plant flowrates are constant from year to year. *(MPWMD note: table reference deleted)*

Cal-Am's monthly groundwater pumping from the Seaside Basin is calculated by subtracting Cal-Am's Table 13 diversion, Carmel Valley extractions for customer service, and Sand City Desal Plant supplies from the monthly demands. MPWMD supplied monthly Table 13 diversion rates, which are based on projected climate. Carmel Valley extractions for customer service and Sand City Desal Plant flowrates are constant from year to year.

From pages 16 & 17: Water available for Cal-Am pumping

Cal-Am's future pumping from the Seaside Basin will be drawn from three pools of water, listed in the order in which they are applied to meet monthly demand:

- Native groundwater
- PWM project water recovery
- Carmel River ASR recovery

(MPWMD note: figure reference deleted) Cal-Am's pumping is allocated to these three pools during the simulation. Pre-project values are consistent with previous model input (MY4 through 7). *(MPWMD note: table reference deleted)* From future water year 2022 onward, the allotment from the three water pools is sufficient to supply the requisite pumping. This pool includes pumping for the SNG development from MY4 through 7, consistent with previous project models. *(MPWMD note: table reference deleted)*

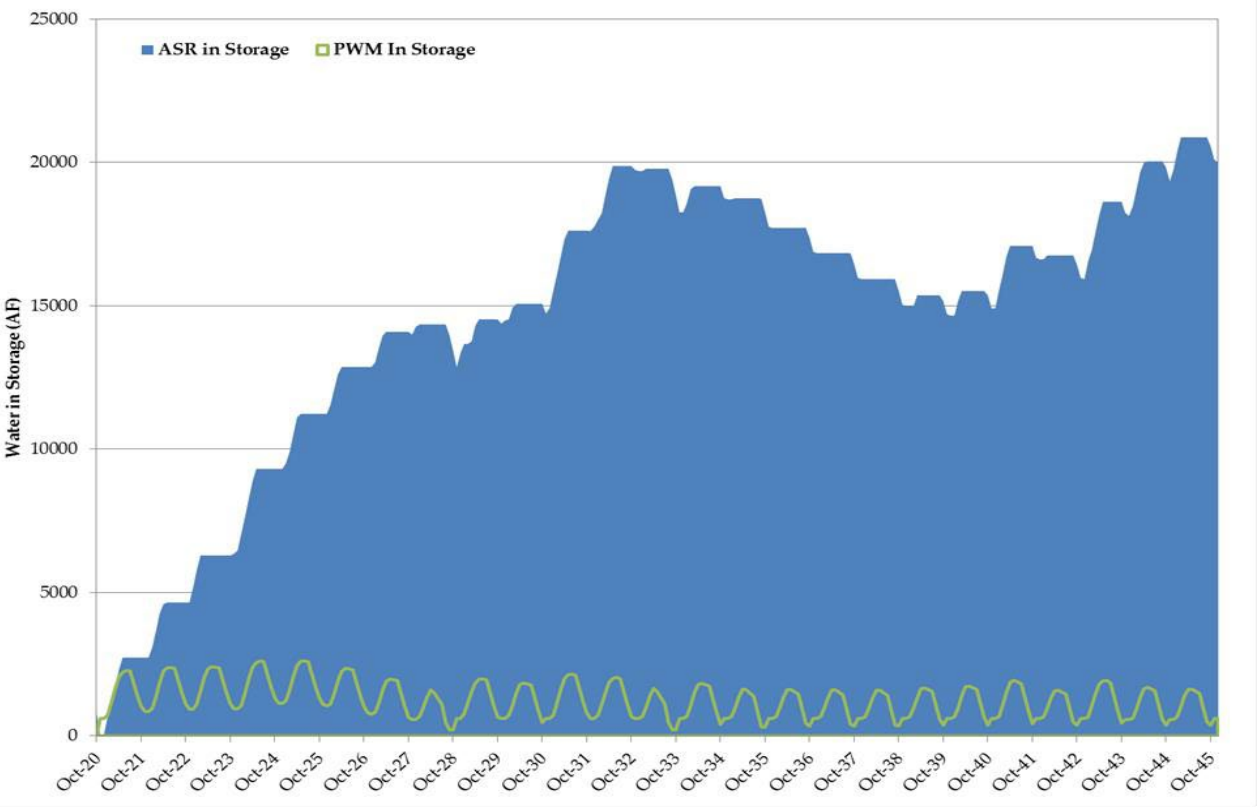
Cal-Am forgoes 700 AF of water from the native groundwater pool every year as a replenishment repayment once the CDO is met, which we assume occurs at the start of the project. Replenishment repayment is water Cal-Am must pay back to the Watermaster because Cal-Am has historically pumped more than their operating safe yield. We therefore assume that Cal-Am pumps only 774 AF/year of its assumed natural safe yield of 1,474 AF/year beginning in October 2020 (MY8). The 700 AF of natural safe yield not pumped over the 25-year period counts as in-lieu recharge, and is Cal-Am's replenishment repayment. Following demand projections from Cal-Am, we assume that native water is pumped at a constant daily rate in agreement with the annual water right. *(MPWD note: table reference deleted)*

This water is projected to become available in WY2020 (MY8) and supply between 4,750 and 5,950 AF/year, in accordance with the climate-based projected injection schedule developed by M1W and Todd Groundwater (*PWM Expansion - Model Scenarios and Inj. Well Delivery Schedule 2019-08-01.xlsx).*

We assume zero PWM water in storage at the start of the project. PWM water in storage during the Project is shown by the green line on Figure 7.

Cal-Am's extraction of ASR water from the Carmel River is subject to climate conditions. Before Cal-Am has met the CDO (MY1 through 7), the maximum allowed diversion rate of Carmel River water is 20 AF/day, and no ASR water can be stored from year to year. This is consistent with previous PWM models. Once Cal-Am meets the CDO (MY8), the maximum allowed diversion rate increases to 29 AF/day, and ASR water in storage is carried over from year to year. We assume that Cal-Am injects all of the water they are permitted to pump from the Carmel River on a monthly basis, and that ASR extraction is capped by ASR well capacity. The theoretical amount of ASR water in storage during the Project is shown by the blue area on Figure 7. The actual amount of ASR water stored during the project may be less than what is shown by the blue area on Figure 7 because some water may flow out to the ocean or to adjoining basins.

Figure 7.



MPWMD Conclusion: This shows that the built-up reservoir of ASR in storage is sufficient to meet a 5-year drought, and likely longer, as shown beginning in 2034. *(Not stated as a conclusion by the authors of the Technical Memorandum)*

Attachment O

(Phase 2 Direct Testimony of David J. Stoldt)

Manual of Water Supply Practices

M50

Water Resources Planning

Third Edition

American Water Works Association

Key Aspects of Reliability Assessment

While an in-depth discussion of the assessment methodology for each type of alternative (e.g., surface water, groundwater) is beyond the scope of this manual, the evaluator may want to consider the following key aspects during the assessment of reliability for the various sources of supply:

- *Rivers.* During extreme droughts, the yield available from river flows may be less than established minimum instream flow targets. Streamflow gauge data extending over a long period is frequently needed to model competing uses (i.e., waste load assimilation, irrigation withdrawals, recreation, etc.) for the river. If the river system is supplied by snowmelt, climate change could affect the yield. Hydrologic modeling will likely be necessary to establish capabilities and uncertainties of existing supply and address competing uses.
- *Reservoirs.* Droughts are predicted to become more severe in the future because of the effects of climate change. Systems that can store more water may be more resilient to droughts. Reservoirs can decline over time because of source degradation, reservoir siltation, changes in permit requirements, and other factors. Hydrologic modeling is frequently used to generate a water budget in the reliability assessments for water supplies, which include reservoirs, particularly those systems having multiple reservoirs or reservoir-river systems. Sophisticated hydrologic models can be constructed to evaluate the sensitivity of the yield to numerous factors, including river flow diversions, climate change, drought triggers, sedimentation, environmental releases, and so forth. Infrastructure reliability can be enhanced when reservoirs are located in upland areas and flow can be provided by gravity.
- *Stormwater.* Capturing stormwater is very similar to river withdrawals with the exception that there is typically no base flow for continuous capture. In most cases, diversion and storage are necessary to maximize the capture (yield) from seasonal storms that can vary widely in duration and intensity.
- *Groundwater.* Historic hydrogeologic studies should be reviewed to define the performance history of existing wells in the vicinity of the proposed new well. Any regulatory restrictions on withdrawals (i.e., groundwater protection areas) should be identified. Consider conducting pumping tests to collect performance data on aquifer and well.
- *Aquifer storage and recovery (ASR).* ASR wells can improve water basin management by storing water underground from periods of excess supply (flood season or wet hydrologic periods), and later allowing a portion of the stored water to be extracted during periods of demand or short supply (such as irrigation season or dry hydrologic periods). There is no evaporation in the aquifer, as would be the case in a surface reservoir, and in some ASR wells, the recovery is very high.
- *Infiltration galleries.* The yield from infiltration galleries beneath a water body is normally much higher compared to the yield from galleries adjacent to the water body. However, constructing infiltration galleries is usually more difficult under a water body.
- *Reclaimed water.* A critical issue associated with using reclaimed water is balancing supply and demand over time. Seasonal flow variations in municipal wastewater generated in a given service area can be substantial depending on the fluctuations in population (e.g., resort communities), weather conditions (wet areas like Florida), and size of the population (smaller communities typically experience greater fluctuations). If imbalances will occur, storage may need to be constructed

Attachment P

(Phase 2 Direct Testimony of David J. Stoldt)

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER WR 2016-0016

In the Matter Of Application of

California American Water Company

To Amend State Water Board Order 2009-0060

SOURCE: Carmel River

COUNTY: Monterey County

ORDER AMENDING IN PART REQUIREMENTS OF STATE WATER BOARD ORDER WR 2009-0060

BY THE BOARD:

1.0 OVERVIEW

For decades, California-American Water Company (Cal-Am) has been unlawfully diverting water from the Carmel River to provide municipal water to a large area of the Monterey Peninsula. State Water Resources Control Board (State Water Board) Order WR 2009-0060 (hereafter, WR 2009-0060) is a cease and desist order that, among other requirements, established a compliance timeline for cessation of Cal-Am's unlawful diversions from the Carmel River by December 31, 2016. This timeline was based on evidence gathered at hearing that indicated that a regional desalination plant would be built, enabling the area's municipal water needs to be met by new water supplies. It is now clear that no desalination plant will be in operation by the end of this year. In light of this recognition, Cal-Am has proposed modifying the compliance schedule to accommodate the anticipated pace for approval and implementation of several proposed projects (1) a different desalination plant, the Monterey Peninsula Water Supply Project; (2) a water recycling project, entitled Pure Water Monterey; and (3) the expansion of the facilities for an existing groundwater storage project entitled Aquifer Storage and Recovery (ASR). These projects are undergoing review by permitting agencies.

Since the adoption of WR 2009-0060 in 2009, Cal-Am's diversions from the Carmel River have consistently been well below the annual diversion levels set by WR 2009-0060, but still remain thousands of acre-feet per annum above the amount available under Cal-Am's lawful water rights.(See Table 1, p. 2.) The reductions in Carmel River diversions have resulted from a number of factors, including conservation and efficiency measures and implementation of local supply projects, combined with a moratorium on increased water use within Cal-Am's service area. To address the impacts of its diversions, Cal-Am has also applied significant resources to fishery conservation and habitat improvement programs.

xii. **Malpaso Water Company**: Water provided by the Malpaso Water Company LLC to Cal-Am under water right License 13868A shall not be counted towards calculation of compliance with the Effective Diversion Limit for the water year in which the water is provided to Cal-Am to the extent that Cal-Am is merely transporting the water on behalf of Malpaso Water Company to serve Malpaso Water Company's contracts with water users. To the extent such water is used by Cal-Am to serve its customers, this water will be counted towards calculation of compliance with the EDL, and shall serve to increase the portion of such diversion that are made under lawful rights. Any use of the Malpaso Water Company's diversions shall be consistent with the terms of License 13868A and Division Decision 2015-0001.

prepared by the National Marine Fisheries Science ("NMFS") Southwest Fisheries Science Center ("SWFSC"). If NMFS West Coast Region finds a significant change in the status of the SCCC Steelhead DPS since the previous report (or, in the case of the first report, since the effective date of this Order), NMFS West Coast Region may provide recommendations for additional adaptive management measures to be taken with respect to the SCCC Steelhead DPS in the Carmel River. If SWFSC cannot complete the Status of the Steelhead Fishery Report for any or all years during the extension period, Cal-Am will designate another individual or entity, in consultation with the other Applicants and other stakeholders, with requisite expertise to complete the report. If NMFS objects to the choice, Cal-Am shall designate a different individual or entity. If the NMFS West Coast Region cannot review the Status of the Steelhead Fishery report in any or all years, Applicants and other stakeholders may develop an alternative system for making adaptive management recommendations. Cal-Am will deliver the report in a cost effective and efficient manner, and will work with Applicants, stakeholders, and the preparer of the Status of the Steelhead Fishery Report to share resources, and to avoid duplication of effort to lower the cost of the report to the extent practicable. The Status of the Steelhead Fishery Report and any adaptive management recommendations shall be submitted to the State Water Board by Cal-Am each year with the corresponding joint annual report.

5. Additional Conservation Measures: Cal-Am has stated that it will implement an additional $2.5 million of projects to improve fish passage and habitat during the four years following adoption of this Order, as follows: improvements to the existing upstream fish passage ladder and trap at Los Padres Dam ($0.2 million); installation of a fish screen at the lower outlet pipe on Los Padres Dam ($0.8 million); a pit tagging program ($1.0 million); and a through-reservoir survival study for Los Padres Reservoir ($0.5 million). If the above projects are not implemented according to plans developed in coordination with the California Department of Fish and Wildlife and the National Oceanic and Atmospheric Administration, the State Water Board may revisit this Order to determine whether to make further adjustments to protect public trust resources in the Carmel River.

6. Carmel River Volitional Fish Passage: Cal-Am has substantially completed downstream fish passage facilities at Los Padres Dam. If Cal-Am fails to remove the Old Carmel River Dam and the Sleepy Hollow Ford before September 30, 2017, the State Water Board may reopen this order to determine whether to make further adjustments to improve fish passage in the Carmel River or otherwise restore public trust resources.

7. On June 1 of each year, Cal-Am shall submit an operating plan to the Deputy Director for Water Rights specifying the quantity of water it will supply from the ASR Project for its customers after May 31 of each year. This plan shall provide for use of the water between June 1 and September 30 of the water year the water was pumped from the Carmel River, unless otherwise authorized by the fishery agencies. Cal-Am shall reduce its illegal diversions from the Carmel River at the same rate ASR water is recovered from the groundwater basin. ASR diversions remain subject to State Water Board Order WR 2009-0060, ordering paragraph 3.c. This section supersedes ordering paragraph 4 of WRO 2009-0060.

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

DIVISION OF WATER RIGHTS

RIGHT TO DIVERT AND USE WATER

APPLICATION 30497B01 PERMIT 20905B LICENSE 13868A

Right Holder: Malpaso Water Company, LLC
P.O. Box 450
Carmel, CA 93921

The State Water Resources Control Board (State Water Board) authorizes the diversion and use of water by the right holder in accordance with the limitations and conditions herein SUBJECT TO PRIOR RIGHTS. The priority of this right dates from **December 4, 1995**. This right is issued in accordance with the State Water Board delegation of authority to the Deputy Director for Water Rights (Resolution 2012-0029) and the Deputy Director for Water Rights redelegation of authority dated July 6, 2012. This right and License 13868B jointly supersede any previously issued right on **Application 30497B**. The right holder has made proof, to the satisfaction of the State Water Board, of the quantities of water put to beneficial use during the authorized development schedule.

Right holder is hereby granted a right to divert and use water as follows:

1. Source of water: **Carmel River (Subterranean Stream)**

tributary to: **Pacific Ocean**

within the County of **Monterey**.

2. Location of points of diversion

By California Coordinate System of 1983 in Zone 4	40-acre subdivision of public land survey or projection thereof	Section (Projected)*	Township	Range	Base and Meridian
Eastwood/Odello Well 1 **(1) North 2,091,022 feet and East 5,709,377 feet**	**SE ¼ of SW ¼**	**18***	**16S**	**1E**	**MD**
Eastwood/Odello Well 2 **(2) North 2,090,640 feet and East 5,706,710 feet**	**SE ¼ of SE ¼**	**13***		**1W**	
Eastwood/Rancho Canada Well **(3) North 2,091,997 feet and East 5,715,154 feet**	**NE ¼ of SW ¼**	**17***		**1E**	
Cal-Am Rancho Canada Well 2 **(4) North 2,091,940 feet and East 5,715,090 feet**					
Cal-Am Cypress Well 2 **(5) North 2,087,670 feet and East 5,724,620 feet**	**SW ¼ of NW ¼**	**22***			
Cal-Am Pearce Well **(6) North 2,087,360 feet and East 5,726,140 feet**	**SE ¼ of NW ¼**				

3. Purpose of use	4. Place of use					
	40-acre subdivision of public land survey or projection thereof	Section (Projected)*	Township	Range	Base and Meridian	Acres
Irrigation	**Eastwood Lands**					
	SW ¼ of SE ¼	**13***	**16S**	**1W**	**MD**	**12.7**
	SE ¼ of SE ¼					**15.8**
	NW ¼ of NE ¼	**24***				**3.8**
	NE ¼ of NE ¼					**18.1**
	SW ¼ of SW ¼	**18***				**17.4**
	SE ¼ of SW ¼					**11.8**
	NW ¼ of NW ¼	**19***				**18.4**
	NE ¼ of NW ¼					**1.0**
					Total	**99.0**
Municipal	**16,595 acres of the Carmel River watershed area within the California American Water Company Service Area boundary, as shown on map dated June 19, 2013.**					
	526 acres of the City of Carmel-by-the-Sea within the California American Water Company Service Area boundary, as shown on map dated June 19, 2013.					

The place of use is shown on maps dated June 20, 2012 and June 19, 2013 on file with the State Water Board.

5. The water appropriated under this right shall be limited to the quantity which can be beneficially used and shall not exceed **0.16 cubic foot per second** to be diverted from January 1 to December 31 of each year. The maximum amount diverted under this right shall not exceed **85.6 acre-feet per year**.

(0000005A)

6. Diversion of water for municipal use under this right is subject to the requirement that the right holder make the following amounts of water available to the California-American Water Company (Cal-Am) for use in the Cal-Am water distribution system for the purpose of reducing Cal-Am's unauthorized diversions identified in State Water Board Orders 95-10 and 2009-0060:

   a. All water diverted for municipal use between the date of this right and December 31, 2015;

   b. 50 acre-feet between January 1, 2016 and December 31, 2016, with a maximum for other municipal uses of 35.6 acre-feet in this time period; and,

   c. 25 acre-feet between January 1, 2017 and December 31, 2017, with a maximum for other municipal uses of 60.6 acre-feet in this time period.

   Right holder shall provide evidence of compliance with this term, including written certification from Cal-Am, in the annual reports for years 2015, 2016, and 2017, or upon request by the Division of Water Rights.

(0360900)

7. If the claimed existing prior right for the original place of use for Permit 20905 (the Eastwood/Odello property) is quantified at some later date as a result of an adjudication or other legally binding proceeding, the total quantity of water diverted (including any collection to storage), the rate of diversion, and the amount beneficially used under this right shall be reduced by the respective amounts recognized under the quantified existing prior right during the season specified in this water right. No water shall be diverted to the original place of use for Permit 20905 (the Eastwood/Odello property) during the season

authorized by this right, whenever the amounts diverted can be covered by the quantified existing prior right.

The holder of this right shall forfeit the right if he/she transfers all or any part of the claimed existing right for the place of use covered by this right, inclusive of the original place of use for Permit 20905 (the Eastwood/Odello property), to another place of use without the prior approval of the State Water Board.

The holder of this right shall divert water under the claimed existing right only in accordance with the law.
(0000021A)

8. To the extent that the right holder, or successors in interest, claims existing rights to use the water covered by this right, the right holder shall not be entitled to water in excess of the amount authorized in this right.

Any priority obtained for this right by virtue of condition 10 of State Water Board Decision 1632 shall be void if either of the following occur:

a. The combined amount of water diverted for (1) any right pursuant to Application 30497, and (2) any existing right exercised for the place of use authorized for Permit 20905 (Application 30497) dated March 5, 1997, exceeds the face value of the combination of all current rights issued pursuant to Application 30497. However, the priority shall not be voided for the diversion of de minimis amounts which can reasonably be attributed to operational uncertainties; or,

b. The right holder uses water diverted under this right on lands outside of the Carmel River watershed and fails to submit records of such diversion and use to the State Water Board with the annual report.

Any priority obtained for this license by virtue of Condition 10 of Decision 1632 shall be void for the amount of water under this license which is used on lands outside the Carmel River watershed.

Insofar as the right holder complies with this condition, the amount of water which is diverted under this right and used on lands within the Carmel River watershed portion of this right is senior to any right issued pursuant to Application 27614.

(0000112)

9. Except as otherwise specified in this license, the equivalent of the authorized continuous flow allowance for any 30-day period may be diverted in a shorter time, provided there is no interference with other water rights and instream beneficial uses, and provided further that all terms and conditions protecting instream beneficial uses are observed.

The maximum instantaneous rate of diversion from all points of diversion (PODs) shall not exceed 0.37 cubic foot per second.

(0000027)

10. The maximum instantaneous rate of diversion at PODs 4, 5, and 6 shall not exceed 0.16 cubic foot per second, averaged over a 24 hour period of time, from June 1 to November 30 of each year.
(0360900)

11. Water diverted at PODs 1 and 2 may be used only for irrigation purposes.
(0360900)

12. Upon 48 hours advance notice by the CDFW, the right holder shall minimize or cease, if required, agricultural pumping for a single period not to exceed 48 hours in any 30-day period to assist CDFW to mitigate adverse flow conditions to benefit the public trust fish and wildlife resources of the Carmel River.

(0350900)

13. If the CDFW determines that irrigation of the riparian corridor is necessary and irrigation is not performed by the District, Cal-Am or the County of Monterey, the right holder shall be responsible for this irrigation and maintenance. The CDFW shall inform the right holder of the section of the riparian corridor located on the right holder's property which requires irrigation.

(0400500)

14. Right holder shall use POD 3 for all diversions under this right for municipal purposes, except right holder may use PODs 4, 5, or 6 to divert water under this right for municipal purposes when POD 3 is not available for diversion: (a) during the first year after issuance of this right before the well at POD 3 is completed, (b) due to routine maintenance, or (c) due to an emergency outage.

Right holder shall give the CDFW notice at least thirty days in advance of any planned use of PODs 4, 5, or 6 for routine maintenance of POD 3, and such routine maintenance will be completed as expeditiously as possible.

Right holder shall give the CDFW forty-eight hours' notice of any emergency outage of POD 3 that requires diversion of water at PODs 4, 5, or 6.

(0360300)

15. No water shall be diverted under this right at PODs 4, 5, or 6 from December 1 of each year through May 31 of the succeeding year unless the flow at the Carmel River at Highway 1 Bridge gage (California Data Exchange Center Station ID 'CMR') is at or above the minimum mean daily flows specified in the table below. Right holder shall maintain records to document compliance with this term, including (1) dates when water was diverted under this right at PODs 4, 5, or 6 and (2) mean daily flows recorded at the Carmel River at Highway 1 Bridge (California Data Exchange Center Station ID 'CMR') for any dates when water was diverted under this right at PODs 4, 5, or 6. Right holder shall provide the records as an enclosure to the annual report or whenever requested by the Division of Water Rights. Right holder shall also provide the enclosure to the annual report to the CDFW and the National Marine Fisheries Service (NMFS).

December 1 – April 15	April 16 – May 31
Prior to Carmel River lagoon opening to the ocean[1]: May divert with minimum bypass of 40 cubic feet per second at the Carmel River at Highway 1 Bridge gage Following Carmel River lagoon opening to the ocean: May divert with minimum bypass flow of 120 cubic feet per second at the Carmel River at Highway 1 Bridge gage.	May divert with minimum bypass of 80 cubic feet per second at the Carmel River at Highway 1 Bridge gage.
[1]On December 1, if water in the lagoon is flowing to the ocean, the lagoon shall be deemed to be open to the ocean. If on December 1 water in the lagoon is not flowing to the ocean, the lagoon shall be deemed to be open to the ocean when the lagoon level drops rapidly from a stable elevation to a lower elevation as evidenced by the water surface elevation gage located at the Carmel Area Wastewater District effluent pipeline across the south arm of the lagoon. This elevation gage is operated by Monterey Peninsula Water Management District.	

In the event that said monitoring device is no longer available for streamflow measurements, right holder shall within 15 days submit a plan, satisfactory to the Deputy Director for Water Rights, to install an equivalent monitoring device as near as practicable to the location of the current monitoring device.

(0140400)

16. Right holder shall curtail or cease diversions authorized by this right at PODs 4, 5, and 6 when notified by the State Water Board that diversions under this right are causing the cumulative maximum average daily diversion rate downstream of River Mile 17.6 to exceed 80 cubic feet per second (cfs), as stipulated in Table 9 of the report *Instream Flow Needs for Steelhead in the Carmel River* prepared by the National Marine Fisheries Service and dated June 3, 2002. The State Water Board may issue such notification on its own motion, or upon being advised by CDFW, NMFS or the Monterey Peninsula Water Management District (District) that the 80 cfs diversion limit has been, or is likely to be, met during a specific time period. Any evaluation of whether diversions must be curtailed or ceased under this right because the 80 cfs diversion limit has been met shall consider the priority of Application 30497B01, as compared to the priorities of other diverters' rights. If diversions under this right are curtailed or ceased under this term, then diversions under this right may resume, up to the face value of the right, once such diversions no longer result in exceedance of the 80 cfs limit.

(0400500)

17. Should any buried archeological materials be uncovered during project activities, such activities shall cease within 100 feet of the find. Prehistoric archeological indicators include: obsidian and chert flakes and chipped stone tools; bedrock outcrops and boulders with mortar cups; ground stone implements (grinding slabs, mortars and pestles) and locally darkened midden soils containing some of the previously listed items plus fragments of bone and fire affected stones. Historic period site indicators generally include: fragments of glass, ceramic and metal objects; milled and split lumber; and structure and feature remains such as building foundations, privy pits, wells and dumps; and old trails. The Deputy Director for Water Rights shall be notified of the discovery and a professional archeologist shall be retained by the right holder to evaluate the find and recommend appropriate mitigation measures. Proposed mitigation measures shall be submitted to the Deputy Director for Water Rights for approval. Project-related activities shall not resume within 100 feet of the find until all approved mitigation measures have been completed to the satisfaction of the Deputy Director for Water Rights.

(0000215)

18. At least 30 days prior to commencing construction activities, right holder shall submit to the Deputy Director of Water Rights a construction plan indicating the best management practices planned to minimize erosion and to minimize the chance that hazardous materials will enter the environment as a result of construction. Within 60 days of completion of construction, the right holder shall submit to the Deputy Director for Water Rights a report on implementation of the plan, including a detailed description of any discharges into the environment.

(0000208)

19. Right holder shall remain subject to all lawful ordinances of the District.

(0450999)

20. Right holder shall be subject to the rationing requirements of the District, in frequency and percentage no greater than required of consumers in the Cal-Am water distribution system in times of water supply shortage caused by drought or other cause.

(0410800)

21. Within 180 days of the date of this right, in order to understand the potential for the Carmel River Floodplain Restoration and Environmental Enhancement (CRFREE) Project to consumptively use the subterranean streamflow of the Carmel River, the right holder shall submit to the Deputy Director of Water Rights the plan to restore native vegetation within the place of use for irrigation under this right, consistent with the CRFREE Project jointly proposed by the Big Sur Land Trust and the County of Monterey. Native vegetation established within the place of use for irrigation under this right shall consist only of vegetation considered typical of the area and compatible with the operation of a floodplain.

    The State Water Board reserves jurisdiction in the public interest to modify the terms and conditions of this license upon a finding that the plan or its subsequent implementation is inconsistent with these requirements.

    (0000000M)

22. No water shall be directly diverted under this right unless right holder is monitoring and reporting said diversion of water. This monitoring shall be conducted using devices and methods satisfactory to the Deputy Director for Water Rights. The devices shall be capable of monitoring the rate and quantity of water diverted and shall be properly maintained. At a minimum, the monitoring devices and methods shall include the following:

    a. Separate records of the amounts of water that are diverted under this right and used both within and outside the Carmel River watershed; and

    b. Separate records for each point of diversion.

    Right holder shall provide the Division of Water Rights with evidence that the devices have been installed with the first annual report submitted after device installation. Right holder shall provide the Division of Water Rights with evidence that substantiates that the devices are functioning properly every five years after device installation as an enclosure to the current annual report or whenever requested by the Division of Water Rights.

    Right holder shall maintain a record of all diversions under this right that includes the date, time, rate of diversion, and the amount of water diverted. The records shall be submitted with the annual report or whenever requested by the Division of Water Rights.

    (000000R)

23. For any change petition filed for this right, in case the State Water Board requires notice of the petition, the right holder shall (1) cause notice of the petition to be given to the protestants to Application 30497 and (2) request that the State Water Board not take final action upon the petition within 180 days of the date of the notice.

    (9999999)

THIS RIGHT IS ALSO SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

A. Right holder is on notice that: (1) failure to timely commence or complete construction work or beneficial use of water with due diligence, (2) cessation or partial cessation of beneficial use of water, or (3) failure to observe any of the terms or conditions of this right, may be cause for the State Water Board to consider revocation (including partial revocation) of this right. (Cal. Code Regs., tit. 23, § 850.)

(0000016)

B. Right holder is on notice that when the State Water Board determines that any person is violating, or threatening to violate, any term or condition of a right, the State Water Board may issue an order to that person to cease and desist from that violation. (Wat. Code, § 1831.)

(0000017)

C. Right holder is not authorized to make any modifications to the location of diversion facilities, place of use or purposes of use, or make other changes to the project that do not conform with the terms and conditions of this right, prior to submitting a change petition and obtaining approval of the State Water Board.

(0000018)

D. Right holder shall maintain records of the amount of water diverted and used under this right to enable the State Water Board to determine the amount of water that has been applied to beneficial use.

(0000015)

E. Right holder shall promptly submit any reports, data, or other information that may reasonably be required by the State Water Board, including but not limited to documentation of water diversion and use under this right and documentation of compliance with the terms and conditions of this right.

(0000010)

F. No water shall be diverted under this right unless right holder is operating in accordance with a compliance plan, satisfactory to the Deputy Director for Water Rights. Said compliance plan shall specify how right holder will comply with the terms and conditions of this right. Right holder shall comply with all reporting requirements in accordance with the schedule contained in the compliance plan.

(0000070)

G. Right holder shall grant, or secure authorization through right holder's right of access to property owned by another party, the staff of the State Water Board, and any other authorized representatives of the State Water Board the following:

1. Entry upon property where water is being diverted, stored or used under a right issued by the State Water Board or where monitoring, samples and/or records must be collected under the conditions of this right;

2. Access to copy any records at reasonable times that are kept under the terms and conditions of a right or other order issued by State Water Board;

3. Access to inspect at reasonable times any project covered by a right issued by the State Water Board, equipment (including monitoring and control equipment), practices, or operations regulated by or required under this right; and,

4. Access to photograph, sample, measure, and monitor at reasonable times for the purpose of ensuring compliance with a right or other order issued by State Water Board, or as otherwise authorized by the Water Code.

(0000011)

H. This right shall not be construed as conferring right of access to any lands or facilities not owned by right holder.

(0000022)

I. All rights are issued subject to available flows. Inasmuch as the source contains treated wastewater, imported water from another stream system, or return flow from other projects, there is no guarantee that such supply will continue.

(0000025)

J. This right does not authorize diversion of water dedicated by other right holders under a senior right for purposes of preserving or enhancing wetlands, habitat, fish and wildlife resources, or recreation in, or on, the water. (Wat. Code, § 1707.) The Division of Water Rights maintains information about these dedications. It is right holders' responsibility to be aware of any dedications that may preclude diversion under this right.

(0000212)

K. No water shall be diverted or used under this right, and no construction related to such diversion shall commence, unless right holder has obtained and is in compliance with all necessary permits or other approvals required by other agencies. If an amended right is issued, no new facilities shall be utilized, nor shall the amount of water diverted or used increase beyond the maximum amount diverted or used during the previously authorized development schedule, unless right holder has obtained and is in compliance with all necessary requirements, including but not limited to the permits and approvals listed in this term.

Within 90 days of the issuance of this right or any subsequent amendment, right holder shall prepare and submit to the Division of Water Rights a list of, or provide information that shows proof of attempts to solicit information regarding the need for, permits or approvals that may be required for the project. At a minimum, right holder shall provide a list or other information pertaining to whether any of the following permits or approvals are required: (1) lake or streambed alteration agreement with the Department of Fish and Wildlife (Fish & G. Code, § 1600 et seq.); (2) Department of Water Resources, Division of Safety of Dams approval (Wat. Code, § 6002); (3) Regional Water Quality Control Board Waste Discharge Requirements (Wat. Code, § 13260 et seq.); (4) U.S. Army Corps of Engineers Clean Water Act section 404 permit (33 U.S.C. § 1344); and (5) local grading permits.

Right holder shall, within 30 days of issuance of any permits, approvals or waivers, transmit copies to the Division of Water Rights.

(0000203)

L. Urban water suppliers must comply with the Urban Water Management Planning Act (Wat. Code, § 10610 et seq.). An "urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually.

Agricultural water users and suppliers must comply with the Agricultural Water Management Planning Act (Act) (Water Code, § 10800 et seq.). Agricultural water users applying for a permit from the State Water Board are required to develop and implement water conservation plans in accordance with the Act. An "agricultural water supplier" means a supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. An agricultural water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells water for ultimate resale to customers.

(0000029D)

M. Pursuant to Water Code sections 100 and 275 and the common law public trust doctrine, all rights and privileges under this right, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

The continuing authority of the State Water Board may be exercised by imposing specific requirements over and above those contained in this right with a view to eliminating waste of water and to meeting the reasonable water requirements of right holder without unreasonable draft on the source. Right holder may be required to implement a water conservation plan, features of which may include but not necessarily be limited to (1) reusing or reclaiming the water allocated; (2) using water reclaimed by another entity instead of all or part of the water allocated; (3) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (4) suppressing evaporation losses from water surfaces; (5) controlling phreatophytic growth; and (6) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity limitations of this right and to determine accurately water use as against reasonable water requirements for the authorized project. No action will be taken pursuant to this paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation.

The continuing authority of the State Water Board also may be exercised by imposing further limitations on the diversion and use of water by right holder in order to protect public trust uses. No action will be taken pursuant to this paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such action is consistent with California Constitution, article X, section 2; is consistent with the public interest; and is necessary to preserve or restore the uses protected by the public trust.

(0000012)

N. The quantity of water diverted under this right is subject to modification by the State Water Board if, after notice to right holder and an opportunity for hearing, the State Water Board finds that such modification is necessary to meet water quality objectives in water quality control plans which have been or hereafter may be established or modified pursuant to Division 7 of the Water Code. No action will be taken pursuant to this paragraph unless the State Water Board finds that (1) adequate waste discharge requirements have been prescribed and are in effect with respect to all waste discharges which have any substantial effect upon water quality in the area involved, and (2) the water quality objectives cannot be achieved solely through the control of waste discharges.

(0000013)

O. This right does not authorize any act which results in the taking of a candidate, threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, § 2050 et seq.) or the federal Endangered Species Act (16 U.S.C. § 1531 et seq.). If a "take" will result from any act authorized under this right, right holder shall obtain any required authorization for an incidental take prior to construction or operation of the project. Right holder shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this right.

(0000014)

This right is issued and right holder takes it subject to the following provisions of the Water Code:

Section 1627. A license shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code) but no longer.

Section 1629. Every licensee, if he accepts a license, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefore shall at any time be assigned to or claimed for any license granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code), in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any licensee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any licensee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

Section 1630. At any time after the expiration of twenty years after the granting of a license, the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State shall have the right to purchase the works and property occupied and used under the license and the works built or constructed for the enjoyment of the rights granted under the license.

Section 1631. In the event that the State, or any city, city and county, municipal water district, irrigation district, lighting district, or political subdivision of the State so desiring to purchase and the owner of the works and property cannot agree upon the purchase price, the price shall be determined in such manner as is now or may hereafter be provided by law for determining the value of property taken in eminent domain proceedings.

STATE WATER RESOURCES CONTROL BOARD

ORIGINAL SIGNED BY:

Barbara Evoy, Deputy Director
Division of Water Rights

Dated: JUL 03 2015

Attachment Q

(Phase 2 Direct Testimony of David J. Stoldt)

Evaluation of Water Supply Available versus Water Demand
Cal-Am Main Service Area

	Supply Available								Demand		Supply vs Demand	
Year	Pure Water (Base)	Pure Water Expansion	Carmel River	Seaside Basin	ASR	Sand City Desal	Malpaso	Total Available Supply	Base Case Water Demand	Base Case Demand Plus Forecast Error = 25%	Supply over Base Case Demand	Supply over Base Case Demand + 25% Error
2025	3,500	2,250	3,376	774	1,300	210	58	11,468	9,882	9,882	1,586	1,586
2026	3,500	2,250	3,376	774	1,300	210	58	11,468	9,913	9,921	1,555	1,547
2027	3,500	2,250	3,376	774	1,300	210	58	11,468	9,945	9,961	1,523	1,507
2028	3,500	2,250	3,376	774	1,300	210	58	11,468	9,976	10,000	1,492	1,468
2029	3,500	2,250	3,376	774	1,300	210	58	11,468	10,008	10,039	1,460	1,429
2030	3,500	2,250	3,376	774	1,300	210	58	11,468	10,039	10,079	1,429	1,390
2031	3,500	2,250	3,376	774	1,300	210	58	11,468	10,071	10,118	1,397	1,350
2032	3,500	2,250	3,376	774	1,300	210	58	11,468	10,102	10,157	1,366	1,311
2033	3,500	2,250	3,376	774	1,300	210	58	11,468	10,134	10,196	1,334	1,272
2034	3,500	2,250	3,376	774	1,300	210	58	11,468	10,165	10,236	1,303	1,232
2035	3,500	2,250	3,376	774	1,300	210	58	11,468	10,196	10,275	1,272	1,193
2036	3,500	2,250	3,376	774	1,300	210	58	11,468	10,228	10,314	1,240	1,154
2037	3,500	2,250	3,376	774	1,300	210	58	11,468	10,259	10,354	1,209	1,114
2038	3,500	2,250	3,376	774	1,300	210	58	11,468	10,291	10,393	1,177	1,075
2039	3,500	2,250	3,376	774	1,300	210	58	11,468	10,322	10,432	1,146	1,036
2040	3,500	2,250	3,376	774	1,300	210	58	11,468	10,354	10,472	1,114	997
2041	3,500	2,250	3,376	774	1,300	210	58	11,468	10,385	10,511	1,083	957
2042	3,500	2,250	3,376	774	1,300	210	58	11,468	10,416	10,550	1,052	918
2043	3,500	2,250	3,376	774	1,300	210	58	11,468	10,448	10,589	1,020	879
2044	3,500	2,250	3,376	774	1,300	210	58	11,468	10,479	10,629	989	839
2045	3,500	2,250	3,376	774	1,300	210	58	11,468	10,511	10,668	957	800
2046	3,500	2,250	3,376	774	1,300	210	58	11,468	10,542	10,707	926	761
2047	3,500	2,250	3,376	774	1,300	210	58	11,468	10,574	10,747	894	721
2048	3,500	2,250	3,376	774	1,300	210	58	11,468	10,605	10,786	863	682
2049	3,500	2,250	3,376	774	1,300	210	58	11,468	10,637	10,825	831	643
2050	3,500	2,250	3,376	774	1,300	210	58	11,468	10,668	10,865	800	604
2051	3,500	2,250	3,376	1,474	1,300	210	58	12,168	10,699	10,904	1,469	1,264
2052	3,500	2,250	3,376	1,474	1,300	210	58	12,168	10,731	10,943	1,437	1,225
2053	3,500	2,250	3,376	1,474	1,300	210	58	12,168	10,762	10,982	1,406	1,186
2054	3,500	2,250	3,376	1,474	1,300	210	58	12,168	10,794	11,022	1,374	1,146
2055	3,500	2,250	3,376	1,474	1,300	210	58	12,168	10,825	11,061	1,343	1,107
											38,046	34,392

Notes:

Projected annual water demand growth in AFY is estimated at:	31.44
Projected annual water demand growth in AFY plus 25% error:	39.30

Attachment R

(Phase 2 Direct Testimony of David J. Stoldt)

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

VIA EMAIL

May 25, 2022

Mr. Paul Bruno, Chair
Seaside Groundwater Basin Watermaster
PO Box 51502
Pacific Grove, CA 93950

RE: June 1 Watermaster Board Meeting – Old Business Item VII.A.i.
Initial Findings from Replenishment Water Modeling Work and Recommendation to Perform Additional Replenishment Water Analyses

Dear Mr. Bruno:

The Monterey Peninsula Water Management District strongly disagrees with the assumptions underlying Subtask 2.2 of the proposed Montgomery & Associates modeling work related to an additional replenishment water analysis. Specifically, assumption number 6: It makes absolutely no sense to reduce the yield of the expanded Pure Water Monterey project to 4,600 acre-feet per year. To do so would constitute an Event of Default under Section 20 of the Amended and Restated Water Purchase Agreement. Therefore, the only logical assumption would be to assume delivery of the full Company Allotment of 5,750 acre-feet each and every year.

Additionally, the proposed assumptions overly rely on the Cal-Am Urban Water Management Plan demand forecast which includes a variety of assumptions already proven to be false.

More effort should be undertaken to develop assumptions for this effort that are reliable and supportable, so that the model results are meaningful.

Sincerely,

David J. Stoldt
General Manager
Monterey Peninsula Water Management District