

REGARDING WATER SUPPLY AND DEMAND IN THE CALIFORNIA AMERICAN WATER COMPANY'S MONTEREY MAIN SYSTEM

Expert Report and Recommendations of

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Scope of WaterDM Investigation

- Review and respond to the recommendations in the staff report of the California Coastal Commission related to Cal-Am's proposed desalination plant.
- Investigate if Cal-Am has a feasible, reasonable, and reliable alternative to its proposed desalination project that will allow it to reduce its water withdrawals from the Carmel River.
- Respond to the analyses and opinions contained in:
 - Monterey Peninsula Water Management District (MPWMD) reports;
 - Peer review report prepared by Hazen and Sawyer

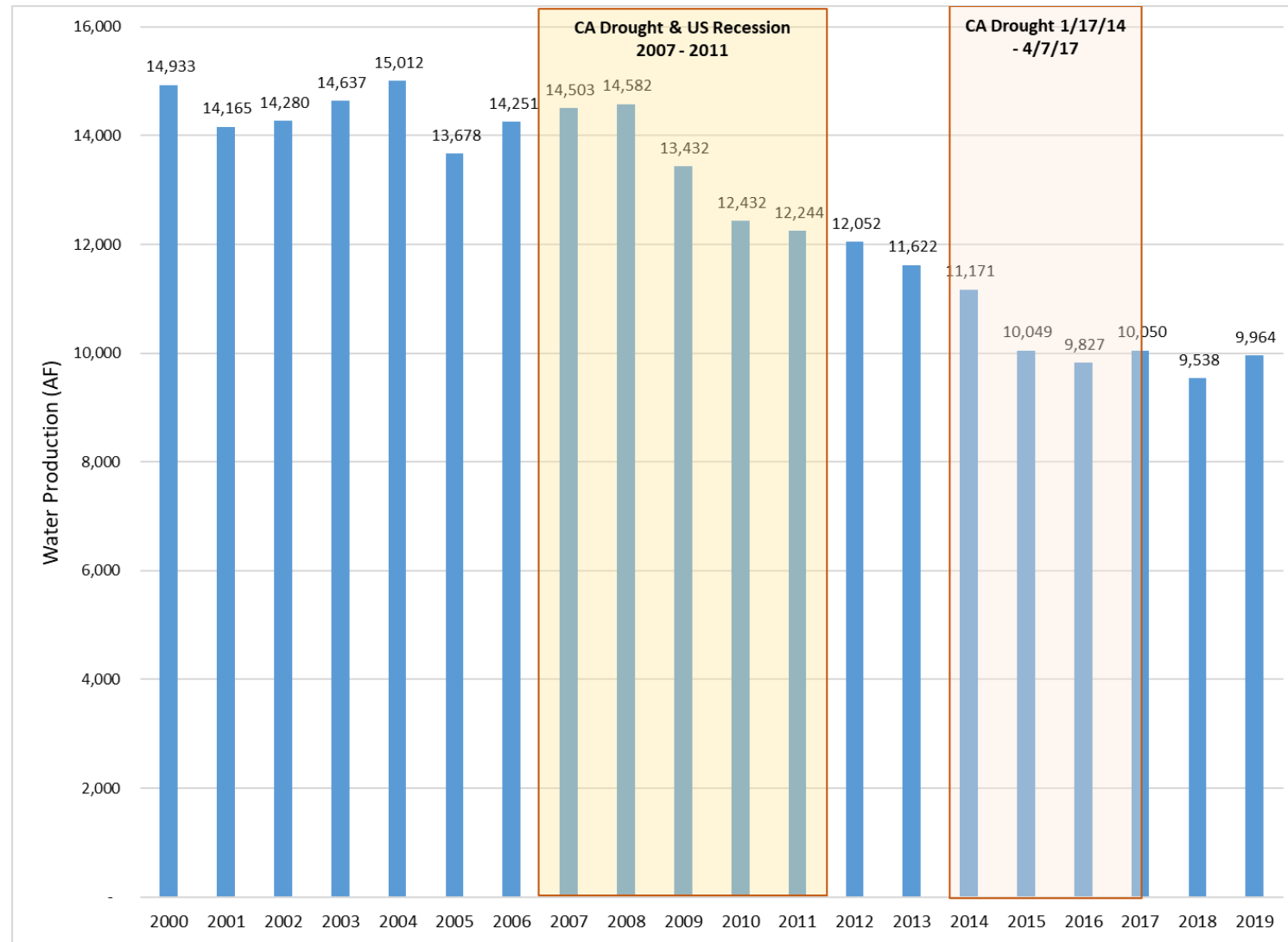


Summary of Opinions and Conclusions

- California Coastal Commission staff have correctly concluded that the Pure Water Monterey Expansion project provides an available, feasible water supply alternative for Cal-Am.
- Cal-Am's per capita use is likely to *decrease* between now and 2040 due to ongoing conservation program implementation, conservation pricing, and statewide policy directives to reduce indoor and outdoor use and improve utility water loss control measures.
- Cal-Am's existing peak capacity is sufficient to meet anticipated future maximum daily demand (MDD) and peak hour demand (PHD) and Cal-Am has yet to avail itself of low/no-cost peak demand management measures that could reduce future peaks, if necessary.
- The Hazen Report contains numerous errors, mischaracterizations, and incorrect conclusions regarding Cal-Am's likely demand in 2040 and the availability and reliability of future water supply sources.

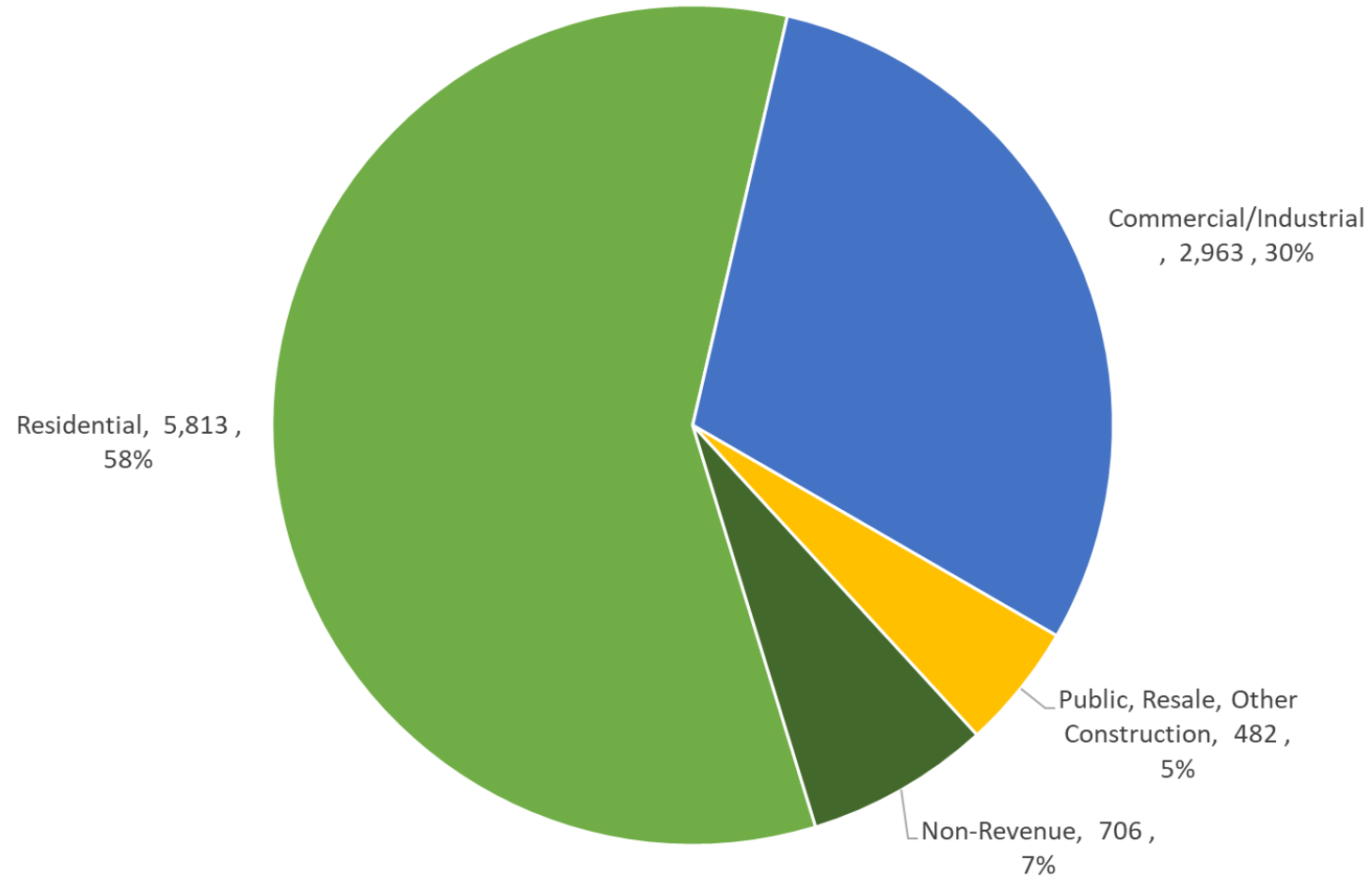


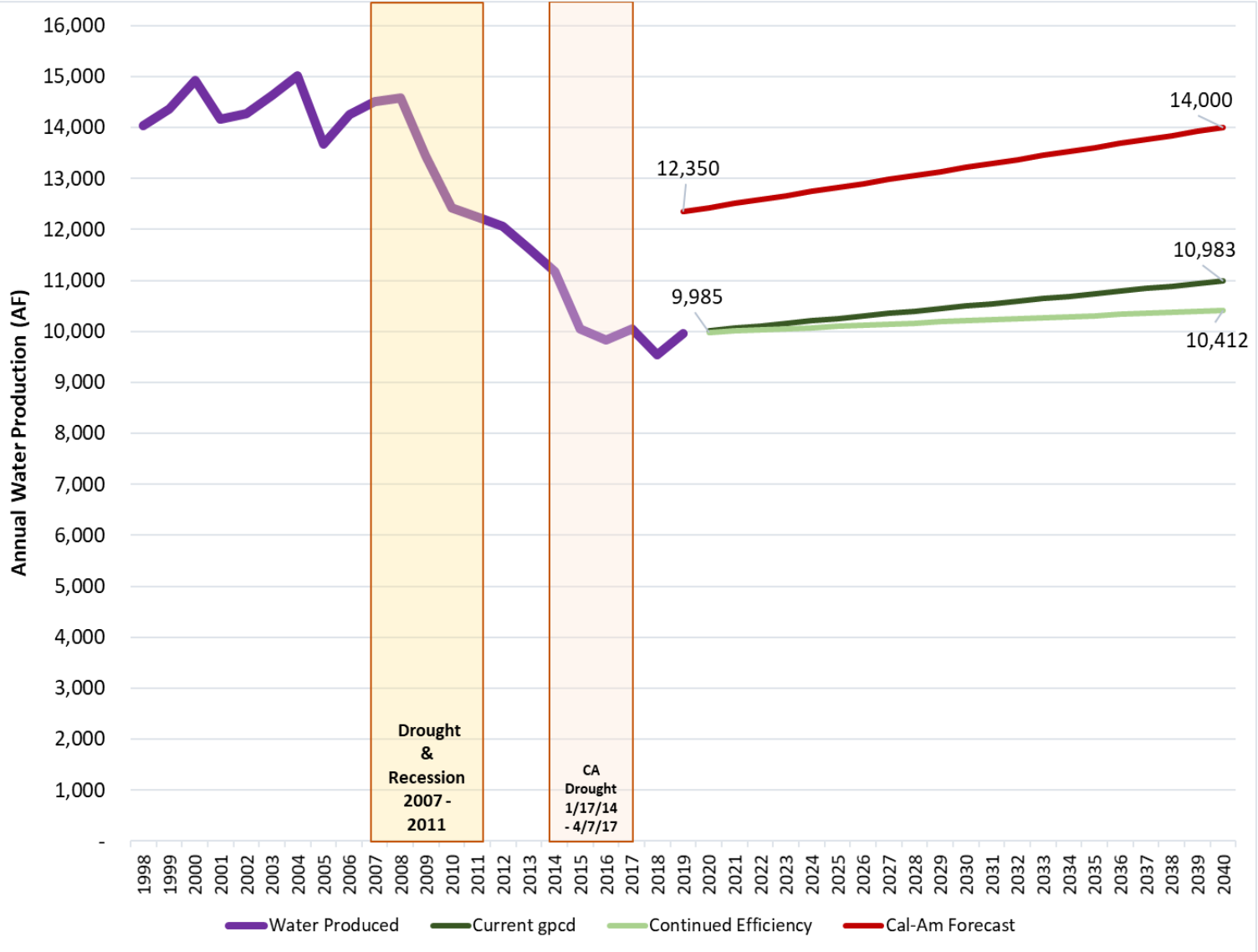
Cal-Am Monterey Main water production, 2000 - 2019



Source: Cal-Am quarterly reports to the California State Water Resources Control Board. 2000 – 2016 From Monterey Peninsula Water Management District. 2019. Supply and Demand for Water on the Monterey Peninsula prepared by David Stoldt, General Manager. Figure 1.

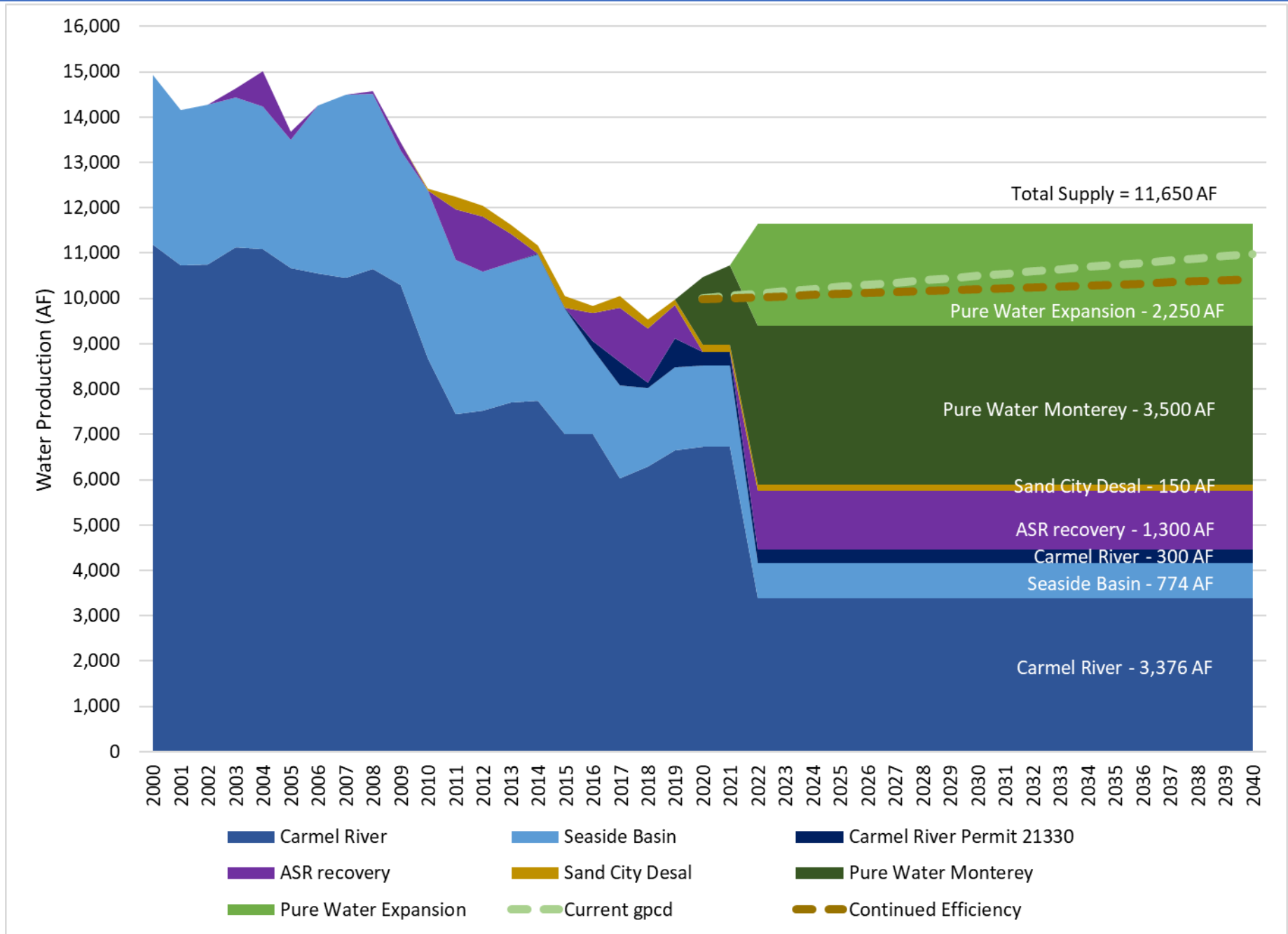
2019 Cal-Am Monterey Main System Demand by Sector





WaterDM Forecasts of Future Average Annual Production

Cal-Am historic water production (2000 – 2019) and future water supply and demand (2020 – 2040)



Water Source	AF/Year	Notes	Regulator	Data Source
Carmel River – Cease and Desist Order	3,376 AF.	2,179 AF from License 11866; 1,137 AF of pre-1914 appropriative rights; and 60 AF of riparian rights.	SWRCB Order 2016-0016	Cal-Am reports to the SWRCB
Carmel River – Permit 21330	300 AF	Only available Dec. – May.	SWRCB	Cal-Am reports to the SWRCB
Seaside Basin Native Groundwater	774 AF	Reflects Cal-Am’s 25-year obligation to leave 700 AF of the 1,474 AF it is entitled.	Seaside Basin Watermaster	Watermaster’s annual reports.
ASR Recovered Water	1,300 AF	Based on long-term historical precipitation and streamflow, ASR system may be capable of recovering an average of 1,920 AF per year.	SWRCB Water Rights Permits 20808A & C	Cal-Am reports to the SWRCB
Sand City Desalination Plant	150 AF	300 AF capacity. Has averaged 209 AF over life of plant.	SWRCB Order 2016-0016 & Division of Drinking Water	Cal-Am reports to the SWRCB
Pure Water Monterey	3,500 AF	Withdrawals prior to 2022 will reduce Effective Diversion Limit from the Carmel River.	Division of Drinking Water & Seaside Basin Watermaster	TBD
Pure Water Monterey Expansion	2,250 AF		Division of Drinking Water & Seaside Basin Watermaster	TBD
TOTAL	11,650 AF			

Critique of Hazen Report

- Confuses and conflates peak demand and annual demand planning requirements and offers numerous misleading statements about California codes and standards and AWWA water planning guidance.
- Makes incorrect statements about water conservation programs and planning and without offering data or analysis and even suggests that per capita water use will increase substantially despite Cal-Am's demand management efforts and prevailing state policy and regulations.
- Asserts that "current" demand in the Cal-Am Main System must be assumed to be 12,350 acre-feet per year. This is far higher than actual current demand and contradicts Cal-Am's own most recent General Rate Case filing which forecasts 2022 demand to be 9,789 acre-feet per year.
- Mischaracterizes the likely future reliability of water supplies available to Cal-Am and the beneficial impacts of the ASR system over time.
- Ignores the future reliability (and cost) of desalination.

Conclusions

The WaterDM analysis supports the conclusions in the Staff Report projecting 2040 demands in the Cal-Am service area to be much lower than the CPUC's certificating decision. California Coastal Commission staff have correctly concluded that the Pure Water Monterey Expansion project provides an available, feasible water supply alternative for Cal-Am.

