

## EXHIBIT 9-A

### Supply and Demand for Water on the Monterey Peninsula

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With the approval of the Monterey Peninsula Water Supply Project (MPWSP) and the continued environmental work on Pure Water Monterey (PWM) expansion as a back-up option, it is an opportune time to examine available supplies and their ability to meet current and long-term demand. This memorandum will also look at the changing nature of demand on the Monterey Peninsula, the underlying assumptions in the sizing of the water supply portfolio, and indicators of the market's ability to absorb new demand.

#### Supply

Available sources of supply are shown in Table 1 below and are described in the discussion that follows. Despite the California Supreme Court's decision to not hear the two petitions for writ of review, there remains the risk of additional legal challenges and not all permits have been issued for California American Water's (Cal-Am) MPWSP desalination plant. For these reasons, supply has been shown with both desalination and with PWM expansion.

Table 1  
Monterey Peninsula Available Supply  
(Acre-Feet Annually)

| Supply Source                         | w/ Desalination | w/ PWM Expansion |
|---------------------------------------|-----------------|------------------|
| MPWSP Desalination Plant              | 6,252           | 0                |
| Pure Water Monterey                   | 3,500           | 3,500            |
| PWM Expansion                         | 0               | 2,250            |
| Carmel River                          | 3,376           | 3,376            |
| Seaside Basin                         | 774             | 774              |
| Aquifer Storage & Recovery (ASR)      | 1,300           | 1,300            |
| Sand City Desalination Plant          | 94              | 94               |
| <b>Total Available Supply</b>         | <b>15,296</b>   | <b>11,294</b>    |
| Other Available Supplies              | 406             | 406              |
| <b>Total Available Supply w/Other</b> | <b>15,702</b>   | <b>11,700</b>    |

*Desalination:* The 6.4 million gallon per day (MGD) MPWSP desalination plant is expected to deliver 6,252 acre-feet annually (AFA).<sup>1</sup> It is likely to begin deliveries in early 2022, considering

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<sup>1</sup> CPUC Decision 18-09-017, September 13, 2018, page 70; Amended Application of California-American Water Company (U210W), Attachment H, March 14, 2016

final permits in November 2019, a 21-month construction period, and 6-month commissioning and start-up window.<sup>2</sup>

*Pure Water Monterey:* Monterey One Water's (M1W) project is expected to come online in late 2019 and begin deliveries of 3,500 AFA to Cal-Am in early 2020. It is over 90% complete.

*Pure Water Monterey Expansion:* The expansion of Pure Water Monterey is expected to yield 2,250 AFA.<sup>3</sup> The Notice of Preparation indicates source waters for the expansion are secure: "No new source water diversion and storage sites are necessary to achieve the Expanded PWM/GWR Project's recycled water yield objective of an additional 2,250 AFY of replacement supplies. The Expanded PWM/GWR Project is designed to utilize existing M1W contractual rights to source waters and wastewaters." There are several different configurations of source waters that could be utilized for the expansion, but one proposed alternative is 81% contractual rights to wastewater and excess secondary effluent and 19% of Blanco Drain and Reclamation Ditch waters. This project could come online by January 2022.

*Carmel River:* Cal-Am has legal rights to 3,376 AFA from the Carmel River comprised of 2,179 AFA from License 11866, 1,137 AFA of pre-1914 appropriative rights, and 60 AFA of riparian rights. This does not include what is referred to as Table 13 rights, discussed under "Other Available Supplies" below.

*Seaside Basin:* The 2006 Seaside Groundwater Basin adjudication imposed triennial reductions in operating yield for Standard Producers such as Cal-Am until the basin's Natural Safe Yield is achieved. The last reduction will occur in 2021 and Cal-Am will have rights to 1,474 AFA. However, with the delivery of a long-term permanent water supply, the company would like to begin replacing its accumulated deficit of over-pumping by in-lieu recharge by leaving 700 AFA of its production right in the basin for 25 years. Hence, only 774 AFA is reflected as long-term supply available, although the additional 700 AF becomes available again in the future.

*Aquifer Storage & Recovery:* There are two water rights that support ASR. Permit 20808A allows maximum diversion of 2,426 AFA and Permit 20808C allows up to 2,900 AFA for a total of 5,326 AFA. However, these are maximums that may only be close to being achieved in the wettest of years. Based on long-term historical precipitation and streamflow data, ASR is designed to produce 1,920 AFA on average. The MPWSP assumes a lesser amount of 1,300 AFA to be conservative.

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<sup>2</sup> [www.watersupplyproject.org/schedule](http://www.watersupplyproject.org/schedule)

<sup>3</sup> Notice of Preparation of a Supplemental Environmental Impact Report and Public Scoping Meeting Notice, page 4, May 15, 2019

*Sand City Desalination Plant:* The Sand City plant was designed to produce a nominal 300 AFA, but has failed to achieve more than the 276 AF in 2011. Due to source water quality issues and discharge permit requirements the plant has averaged 199 AFA the past three years and appears on course for approximately 140 AF in Water Year 2019. The intakes will likely be augmented and production increased (see “*Other Available Supplies*”, below.) Here only the 94 AFA of long-term production legally committed to offset Carmel River pumping is included.

*Other Available Supplies:* In 2013, Cal-Am received Permit 21330 from the State Water Board for 1,488 AFA from the Carmel River. However, the permit is seasonally limited to December 1 through May 31 each year and subject to instream flow requirements. As a result, actual production will vary by water year. Here, we have assumed 300 AFA on average. For the Sand City desalination plant the amount produced in excess of 94 AFA is available for general Cal-Am use and eventually to serve growth in Sand City. With new intakes, we have assumed average production of 200 AFA or 106 AFA of other available supply. There is also available unused capacity in the Seaside Basin which annually is reallocated to the Standard Producers such as Cal-Am as “Carryover Credit” under the adjudication decision. While not insignificant, Carryover Credit has not been included in the “Other Available Supplies”. Total “Other” is 406 AFA.

**Historical Water Demand for which MPWSP Desalination Plant is Sized**

The MPWSP was initially sized solely as a replacement supply<sup>4</sup> for current customer demand, but this has changed slightly over time as described below. Consideration was also given to peak month and peak day. Additional demand was recognized to accommodate legal lots of record, a request by the hospitality industry to anticipate a return to occupancy rates similar to that which existed prior to the World Trade Center tragedy, and to shift the buildout of Pebble Beach off the river.<sup>5</sup> Table 2 below shows the demand assumptions used in sizing the MPWSP. Each component is discussed below.

Table 2  
Water Demand Assumed in Sizing the MPWSP  
(Acre-Feet Annually)

| Demand Component                | Acre-Feet Annually |
|---------------------------------|--------------------|
| Average Current Customer Demand | 13,290             |
| Legal Lots of Record            | 1,181              |
| Tourism Bounce-Back             | 500                |
| Pebble Beach Buildout           | 325                |
| <b>Total Water Demand</b>       | <b>15,296</b>      |

<sup>4</sup> Direct Testimony of Richard C. Svindland, April 23, 2012, pages 4,5,7

<sup>5</sup> Supplemental Testimony of Richard C. Svindland, January 11, 2013, pages 4-5

*Average Current Customer Demand:* The Application of Cal-Am to the California Public Utilities Commission (CPUC) in April 2012 utilized 13,290 AFA which was the 5-year average demand for 2007-2011.<sup>6</sup> As stated earlier, this was to be replacement supply and the Application stated “At this point future demands of the Monterey System have not been included in the sizing of the plant.”<sup>7</sup> At that time, the 5-year average maximum month was 1,388 AF and the highest month was 1,532 AF.<sup>8</sup>

In a January 2013 CPUC filing, average demand was reiterated by Cal-Am to be 13,290 AFA but Cal-Am added that the plant would need to be increased larger by approximately 700 acre-feet per year for the in-lieu recharge of the Seaside Basin.<sup>5</sup> However, as can be seen in comparing Tables 1 and 2 above, supply equals demand at 15,296 AFA without changing the size of the plant from the initial Application.

In a 2016 update to the CPUC, Cal-Am recognized that average demand had declined in the intervening three years.<sup>9</sup> The 5-year average had declined to 10,966 AFA and the maximum month declined to 1,250 AF. At the time of the 2016 update, Cal-Am suggested that it should size the plant based on the backward-looking 10-year average demand and maximum month, instead of the 5-year average in the original Application, as well as several alternate assumptions about return of water to the Salinas Valley. They concluded “*we do not believe the size of the plants should be changed.*”<sup>10</sup>

In a September 2017 filing to the CPUC, Cal-Am acknowledged continuing declines in demand, but indicated that the plant sizing remained appropriate saying “*We anticipate demand to rebound over time after these new water supplies are available, the drought conditions continue to subside, the moratorium on new service connections is lifted, and strict conservation and water use restrictions are eased.*”<sup>11</sup> The company also for the first time introduced the use of future population and demand as a way to “normalize” the average demand used in sizing, a departure from the “replacement supply” basis under the initial Application in 2012.<sup>12</sup> This resulted in average “current” system demand of 12,350 AFA. This amount, combined with the same lots of record, tourism bounce-back, and Pebble Beach buildout results in demand of 14,355 AFA – a reduction from the initial Application – but the company asserted that the plant need not be resized because this would allow it to run at 86% capacity, a more reasonable operating rate compared to the 95% posed in the original Application.

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<sup>6</sup> Direct Testimony of Richard C. Svindland, April 23, 2012, page 21

<sup>7</sup> Direct Testimony of Richard C. Svindland, April 23, 2012, page 36

<sup>8</sup> Direct Testimony of Richard C. Svindland, April 23, 2012, page 22

<sup>9</sup> Supplemental Testimony of Richard C. Svindland, April 14, 2016 (Errata), pages 7-11

<sup>10</sup> Supplemental Testimony of Richard C. Svindland, April 14, 2016 (Errata), page 9

<sup>11</sup> Direct Testimony of Ian Crooks Errata Version, September 27, 2017, page 10

<sup>12</sup> Direct Testimony of Ian Crooks Errata Version, September 27, 2017, pages 11-13

The CPUC, in its September 2018 Decision, determined that Cal-Am's overall future water demand will be approximately 14,000 AFA<sup>13</sup> and therefore the 6.4 MGD desalination plant is warranted.

*Legal Lots of Record:* The 2012 Application to the CPUC also included 1,181 AFA for Legal Lots of Record.<sup>14, 5</sup> Legal lots of record are defined as lots resulting from a subdivision of property in which the final map has been recorded in cities and towns, or in which the parcel map has been recorded in Parcels and Maps or Record of Surveys. Lots of record may include vacant lots on vacant parcels, vacant lots on improved parcels, and also included remodels on existing improved, non-vacant parcels. Ultimately, not all legal lots are buildable. While the District is the source of the 1,181 AFA estimated demands for the lots of record, the number was lifted from the 2009 Coastal Water Project environmental impact report.

*Tourism Bounce-Back:* The 500 AFA for economic recovery was originally proffered by the hospitality industry to handle a recovery of occupancy rates in the tourist industry in a post-World Trade Center tragedy setting.<sup>15, 5</sup> The industry felt that their most successful occupancy rates were in the three years prior to September 11, 2001 and felt 500 AFA would provide a buffer for a return to that level.

*Pebble Beach Buildout:* Ever since the State Water Board issued Order 95-10 and the Cease and Desist Order (CDO) it has recognized the Pebble Beach Company's investment in the Reclamation Project and the Company's right to serve its entitlements from the Carmel River. However, the State Water Board has stated a desire to have the Pebble Beach entitlements shifted away from the river and be satisfied by a new supply. At the time of the 2012 Application, the Pebble Beach company had approximately 325 AF of entitlements still available.

### **Current Water Demand Assumptions**

The original MPWSP desalination project plant sizing was done over seven years ago in 2012. With the passage of time and the opportunity to perform deeper research, it is possible to revisit the assumptions about consumer demand for water in the current context.

*Average Current Customer Demand:* Figure 1 on the next page shows water production for customer service, a proxy for customer demand, for the past twenty-year period. As can be seen, demand has been in decline. For water year 2019 to date, demand remains 110 AF below 2018 levels, so this trend has not reversed.

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<sup>13</sup> CPUC Decision 18-09-017, September 13, 2018, page 68

<sup>14</sup> Direct Testimony of Richard C. Svindland, April 23, 2012, pages 22, 37.

<sup>15</sup> Direct Testimony of Richard C. Svindland, April 23, 2012, page 37

**Figure 1**  
**Annual Water Production for Customer Service (Demand)**  
**Last 20 Years**  
**(Acre-Feet)**

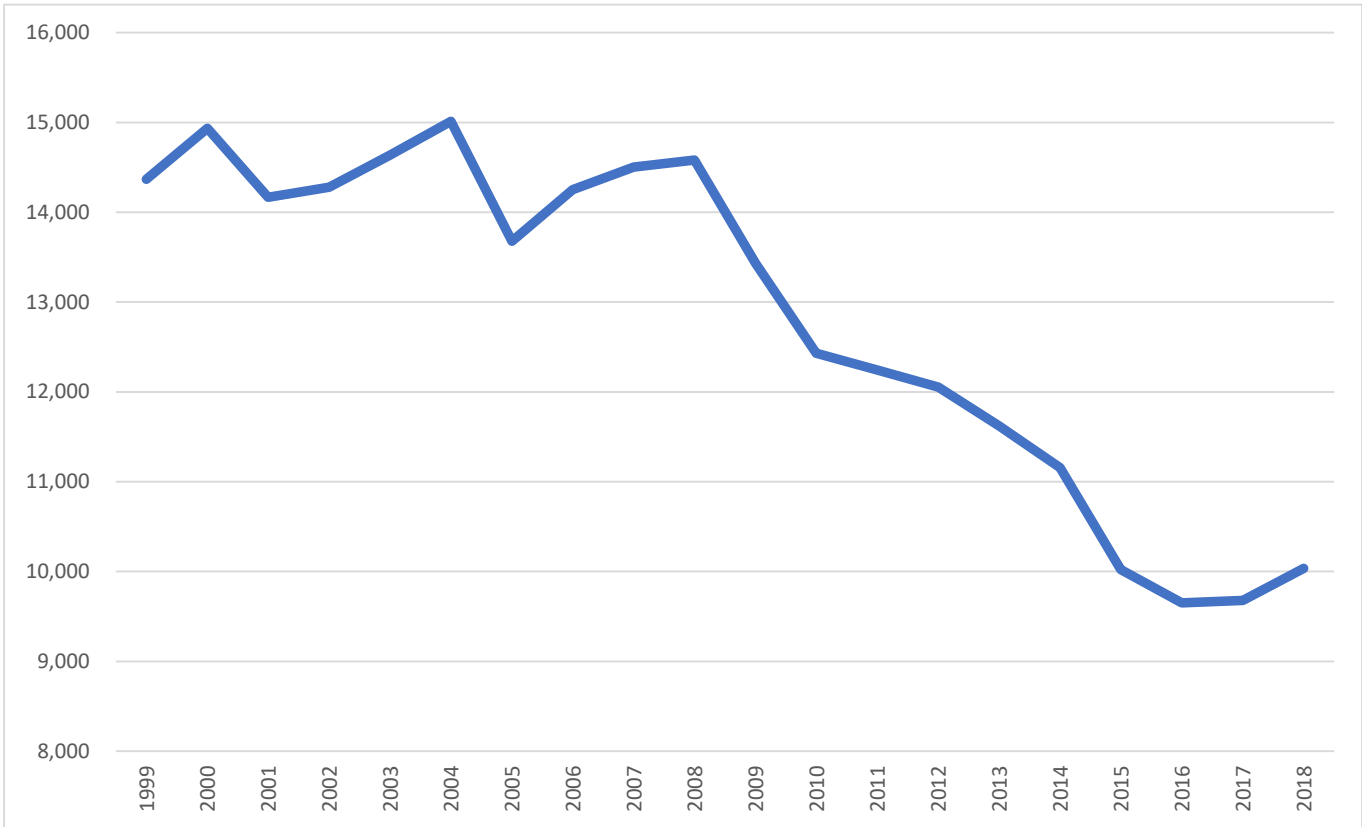


Table 3 shows how the 10-, 5-, and 3-year average demand compares to Cal-Am’s most recent 12,350 AFA assumption.

**Table 3**  
**Alternate Average Customer Demand Assumptions**  
**(Acre-Feet)**

| Period                   | Amount | Difference to Cal-Am # |
|--------------------------|--------|------------------------|
| Cal-Am Assumption        | 12,350 |                        |
| 10-Year Average - Actual | 11,232 | 1,118                  |
| 5-Year Average - Actual  | 10,109 | 2,241                  |
| 3-Year Average - Actual  | 9,788  | 2,562                  |

The trend is similar for peak month demand: 10-year maximum month through 2018 was 1,111 AF, the 5-year max was 966 AF, and the 3-year max was 950 AF, requiring approximately 15 MGD of firm capacity. By comparison, the maximum month at the time the plant was first sized was 1,532 AF. The proposed desalination plant, in conjunction with the other production facilities can meet peak month/peak day requirements. Pure Water Monterey expansion adds 4 new extraction wells, two for production and two for redundancy. Preliminary analysis shows that peak month/peak day can be met with both supply alternatives.

Hence, the case could be made that the average customer demand assumption in the sizing of the MPWSP should be 9,788 to 11,232 AFA.

*Legal Lots of Record:* The 1,181 number is derived from the October 2009 Coastal Water Project Final Environmental Impact Report and references a 2001 District analysis as the source. It was actually sourced from a Land Systems Group Phase II February 2002 interim draft report that used the number 1,181.438 AF. A calculation error was corrected and the report was subsequently updated in June 2002 and the number was revised to 1,210.964. However, the earlier number seems to have been used going forward. Both versions did not include vacant lots on improved parcels in the unincorporated County. Table 4 shows how the corrected number was calculated.

Table 4  
Legal Lots of Record Estimates (2002)  
Unincorporated County Not Included  
(Acre-Feet)

| Type of Parcel                  | Amount         |
|---------------------------------|----------------|
| Vacant Lots on Vacant Parcels   | 729.9          |
| Vacant Lots on Improved Parcels | 288.2          |
| Anticipated Remodels (10 years) | 192.8          |
| <b>Total</b>                    | <b>1,210.9</b> |

Table 5  
Assumptions Driving the Legal Lots of Record Conclusions

| Category                | Units on Vacant Parcels | Units on Improved Parcels | Estimated Number of Remodels | Water Use Factor | Total Water Usage |
|-------------------------|-------------------------|---------------------------|------------------------------|------------------|-------------------|
| Single Family Dwellings | 688                     | 152                       |                              | 0.286 AF         | 240.2             |
| Multi-Family Dwellings  | 846                     | 204                       |                              | 0.134 AF         | 140.7             |
| Commercial/Industrial   | 556                     | 288                       |                              | 0.755 AF         | 637.2             |
| Residential Remodels    |                         |                           | 3765                         | 0.029 AF         | 109.2             |
| Commercial Remodels     |                         |                           | 513                          | 0.163 AF         | 83.6              |
|                         | <b>2,091</b>            | <b>789</b>                | <b>4,278</b>                 |                  | <b>1,210.9</b>    |

Since the study, the District's conservation programs have resulted in reductions in the average water use factors. For example, with single-family water use at 0.2 AFA, multifamily use at 1.2 AFA, and commercial customer connections averaging 0.66 AFA (2016 data), these changes alone would reduce the total above by 167.1 AF. Further, some of these lots may have been built upon, others determined unbuildable. Many of the remodels have likely occurred. General plans have been rewritten and housing elements recalculated. These factors taken together could result in another 150 AF reduction in the assumption.

Compared to the 1,890 units from the 2002 Land Systems Group study shown above, going forward, AMBAG's 2014 Regional Growth Forecast showed 2,231 additional housing units expected in the 6 cities between 2020 and 2035. Assuming another 120 in the unincorporated county, and 2/3rds single-family and 1/3<sup>rd</sup> multifamily, with single-family water use at 0.2 AFA and multifamily use at 1.2 AFA, this equates to 407 AFA over a 15-year period. Most of AMBAG's projected growth occurs in Seaside and Del Rey Oaks, which if slated for the former Fort Ord would not be served by Cal-Am. Unfortunately, it is not possible to accurately distinguish the Cal-Am served housing growth from the non-Cal-Am housing growth, but the 407 AFA likely overstates the Cal-Am growth. The AMBAG assumptions appear consistent with the Land Systems Group estimates.

Hence, the case could be made that the legal lots of record demand assumption in the sizing of the MPWSP should be 864 to 1,014 AFA.

*Tourism Bounce-Back:* As stated earlier, the 500 AFA for economic recovery was originally suggested by the hospitality industry to account for a recovery of occupancy rates in the tourist industry in a post-World Trade Center tragedy setting.<sup>5, 15</sup> Representatives of the Coalition of Peninsula Businesses indicated in testimony that the hospitality industry was hurt by the recent recession and that occupancy rates needs to increase by 12 to 15 percent to re-attain the levels of decades ago.<sup>16</sup> It is true that the Salinas-Monterey market was one of five California markets, out of 22, to experience double digit declines after the events of 2001, from 71.8% in 2000 to 63.0% in 2001.<sup>17</sup> It is also true that the decline persisted and was still down when the MPWSP desalination plant was sized, with occupancy rates of 62.8% in 2011-12 and 64.1% in 2012-13.<sup>18</sup> However, occupancy rates have since recovered with no notable increase in water demand. Hotel occupancy locally is back at approximately 72% and is estimated by Smith Travel Research to be higher for better quality properties on the Monterey Peninsula.<sup>19, 20</sup> The commercial sector water demand is shown below in Table 6 for the year prior to the World

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<sup>16</sup> Testimony of John Narigi (to CPUC), September 29, 2017, page 5

<sup>17</sup> HVS San Francisco, August 19, 2003

<sup>18</sup> Monterey County Convention and Visitors Bureau Annual Report 2012-13, page ii

<sup>19</sup> Fiscal Analysis of the Proposed Hotel Bella Project, Applied Development Economics, April 6, 2016

<sup>20</sup> Cannery Row Company, January 9, 2019



Trade Center tragedy, the year of the MPWSP plant sizing, and the most recent year. As can be seen, commercial demand, which is heavily influenced by the hospitality industry remains in decline, despite the already absorbed “bounce-back” in occupancy rates.

Table 6  
Commercial Sector Water Demand  
Selected Years  
(Acre-Feet)

| Year | Demand |
|------|--------|
| 2001 | 3,387  |
| 2012 | 2,770  |
| 2018 | 2,442  |

There is a secular change in commercial demand that is due to permanent demand reductions resulting from targeted rebate programs, conservation standards for the visitor-serving sector since 2002, mandatory conservation standards for other commercial businesses instituted in 2013, and commercial inspection/enforcement by the District. A “bounce-back” of 500 AFY would represent an increase in water use demand of 20% in the entire commercial sector, not just the hospitality industry. The District does not view this as likely in the near-term, nor due to a return to higher occupancy rates.

Hence, the case could be made that the tourism bounce-back demand assumption in the sizing of the MPWSP should be 100 to 250 AFA.

*Pebble Beach Buildout:* As cited earlier, at the time of the 2012 Application, the Pebble Beach company had approximately 325 AF of entitlements still available and that number was added to the MPWSP sizing needs. However, the final environmental impact report certified in 2012 envisioned 145 AFA for the buildout projects and 154 AFA in other entitlement demand.<sup>21</sup>

The other entitlement demand goes away when a new water supply comes online because homeowners will have no reason to pay \$250,000 per AF for an entitlement when connecting directly to Cal-Am is possible when the moratorium on new service connections is lifted. In the ten years since the CDO was imposed, Pebble Beach entitlement water demand has averaged 4.9 AF added each year. It is reasonable to assume only another 15 AFA during the next three years before a permanent water supply is online.

The project buildout is 145 AFA not 325 AFA used in project sizing. Further, the buildout number includes estimated water use that may never materialize in decades, if ever. Table 7 shows the elements that comprise the Pebble Beach buildout.

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<sup>21</sup> Pebble Beach Final Environmental Impact report (FEIR), April 2012, Appendix H “Water Supply and Demand Information for Analysis”

Table 7  
Components of Pebble Beach Buildout  
(Acre-Feet)

| Project            | Demand        |
|--------------------|---------------|
| Lodge              | 13.11         |
| Inn at Spanish Bay | 12.85         |
| Spyglass Hotel     | 30.59         |
| Area M Residential | 10.00         |
| Other Residential  | 77.00         |
| Driving Range      | 0.33          |
| Roundabout         | 0.70          |
| <b>Total</b>       | <b>144.58</b> |

Two elements of the project warrant greater discussion: “Other Residential” includes 66 single family residences at 1.0 AF each and 24 residences at 0.50 AF each (and a decrement of 1 AF in the total calculation for other reasons.) District research in 2006 determined the average large lot Pebble Beach home utilized 0.42 AFA. Building conservation standards have increased since then. Many of the proposed homes are not utilized year-round. The estimate could be overstated by one-third or more. Spyglass Hotel is not currently being pursued and there are no plans to do so in the near-term. The project could be a decade or two away, if ever.

Hence, the case could be made that the Pebble Beach buildout demand assumption in the sizing of the MPWSP should be 103 to 160 AFA.

**Summary of Demand v. Supply**

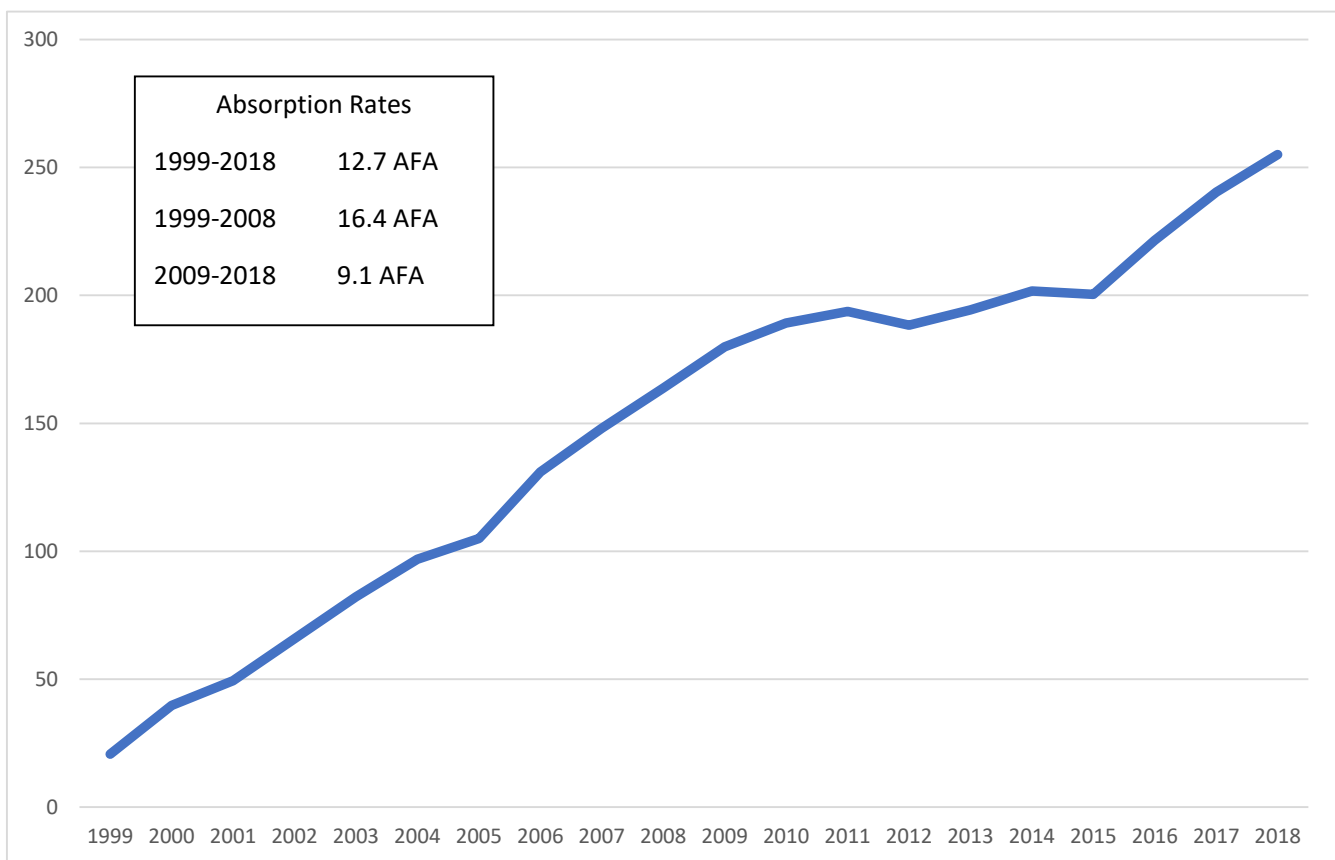
Table 8 shows the range of demand estimates that have been established in the foregoing analysis. These long-term demand estimates can be compared to existing current demand to determine how much water supply is needed.

Table 8  
Range of Potential Demand Scenarios in MPWSP Sizing  
(Acre-Feet)

| Demand Component                | Current Project | Revised High  | Revised Low   |
|---------------------------------|-----------------|---------------|---------------|
| Average Current Customer Demand | 13,290          | 11,232        | 9,788         |
| Legal Lots of Record            | 1,181           | 1,014         | 864           |
| Tourism Bounce-Back             | 500             | 250           | 100           |
| Pebble Beach Buildout           | 325             | 160           | 103           |
| <b>Total Water Demand</b>       | <b>15,296</b>   | <b>12,656</b> | <b>10,855</b> |

However, the ability of the Monterey Peninsula to generate or “absorb” the housing and commercial growth will help determine when such water supply is needed. Figure 2 shows the past 20 years of market absorption of water demand based on water permits issued. The average growth or absorption in water use was 12.7 AF per year. The first decade preceded the CDO and was a period of relative economic stability, available property, no moratorium on new service connections, and lower water rates resulting in 16.4 AF per year of absorption. The second decade was after the CDO and moratorium on service connections and understandably had a lower absorption rate of 9.1 AF per year.

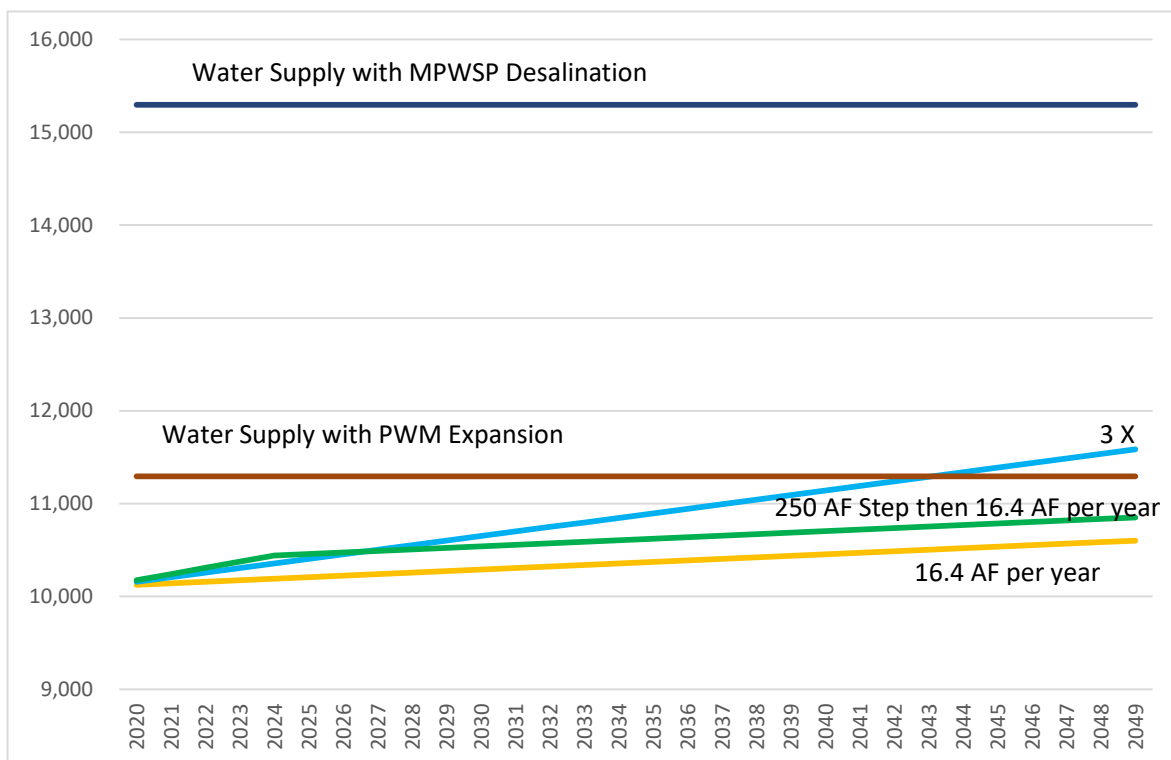
Figure 2  
Market Absorption of Water Demand  
Last 20 Years  
(Acre-Feet)



By adopting assumptions about current demand and market absorption rates, it can be determined the sufficiency of certain supply alternatives over time. In Figure 3, the current demand assumption of 10,109 AF (most recent 5-year average) is shown with three market absorption rates: (a) 16.4 AF per year (pre-CDO decade rate), (b) three times that rate, and (c)

250 AF over the first five years on top of the pre-CDO rate. These are also compared to the two supply alternatives in Table 1.

Figure 3  
 Market Absorption of Water Demand Compared to Water Supply  
 Current Demand at 5-Year Average  
 (Acre-Feet)

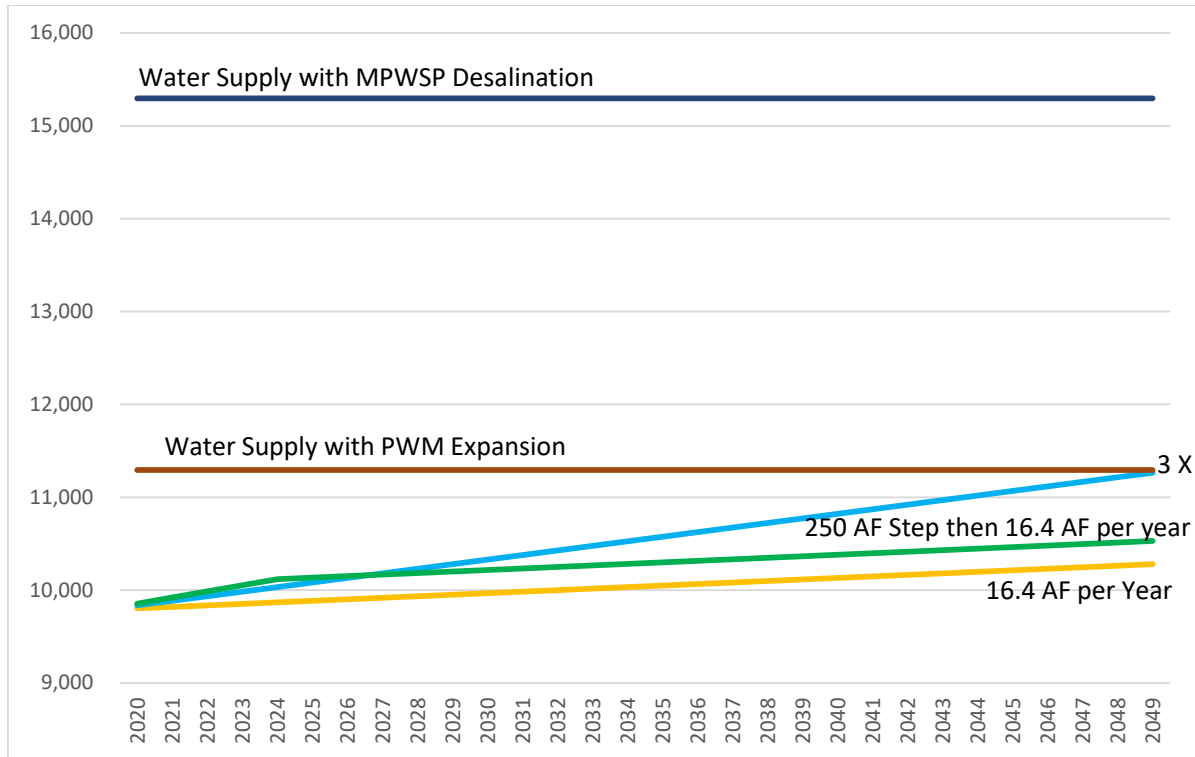


This chart shows that, assuming a starting current demand at the 5-year average, both water supply alternatives meet 30-year market absorption at the historical rate and 250 AF in the first 5 years on top of the historical rate, and Pure Water Monterey expansion is sufficient until 2043 at 3-times the historical absorption rate.

Figure 4 below shows a current starting demand at the 3-year average and shows both supply alternatives meet all three absorption rates.

In both cases, one can assume higher market absorption or one or two large scale developments in the first 5 years, but the general conclusions are not significantly changed.

Figure 4  
 Market Absorption of Water Demand Compared to Water Supply  
 Current Demand at 3-Year Average  
 (Acre-Feet)



**Additional Factors Affecting Future Demand**

*Cost:* The future water supply will significantly impact rates. It is expected that the combined cost of new water supply and regular annual rate increases will almost double a residential ratepayer’s water bill by 2023. Rules of price elasticity suggest the cost of water might dampen demand. The cost of each major component of supply is shown below:

|                    |                                     |
|--------------------|-------------------------------------|
| Desalination Plant | \$6,094 per acre-foot <sup>22</sup> |
| Carmel River:      | \$271 per acre-foot <sup>23</sup>   |
| Seaside Basin:     | \$130 per acre-foot <sup>24</sup>   |

<sup>22</sup> Attachment C-3 California American Water Company Advice Letter 1220 “Total Yr 1 Cost to Customer” \$38.1 million, divided by 6,252 acre-feet per year

<sup>23</sup> MPWSP Model- V 2.1 submitted to CPUC; February 2018 and October 2017 versions, 6.4 MGD scenario, “Avoided Costs” worksheet

<sup>24</sup> MPWSP Model- V 2.1 submitted to CPUC; February 2018 and October 2017 versions, 6.4 MGD scenario, “Avoided Costs” worksheet

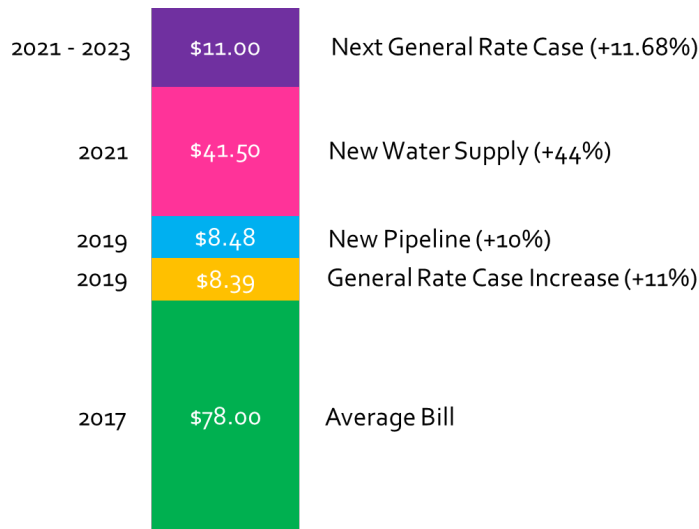
|                      |                                     |
|----------------------|-------------------------------------|
| Pure Water Monterey: | \$1,976 per acre-foot <sup>25</sup> |
| PWM with Expansion:  | \$2,077 per acre-foot <sup>25</sup> |

Further, if the desalination plant capacity is not fully utilized, the cost per acre-foot rises due to the fixed costs, as shown below.

|                                |              |              |              |
|--------------------------------|--------------|--------------|--------------|
| Production by Desal Plant – AF | <u>6,252</u> | <u>5,000</u> | <u>4,300</u> |
| Variable Cost (\$ Million)     | 7.8          | 6.2          | 5.4          |
| Fixed Cost (\$ Million)        | <u>30.3</u>  | <u>30.3</u>  | <u>30.3</u>  |
| Total Annual Cost to Customer  | 38.1         | 36.5         | 35.7         |
| Cost per Acre-Foot             | \$6,094      | \$7,308      | \$8,294      |

The rate impact can be seen in Figure 5, below, which is calculated based on full utilization of the desalination plant.

Figure 5  
Ratepayer Impacts of New Water Supply<sup>26</sup>



**Legislation:** On May 31, 2018, Governor Brown signed two bills which build on the ongoing efforts to “make water conservation a California way of life.” SB 606 (Hertzberg) and AB 1668 (Friedman) reflect the work of many water suppliers, environmental organizations, and members of the Legislature. The mandates will fall on urban water suppliers – not customers.

<sup>25</sup> Presentation by Monterey One Water at June 27, 2019 Monterey Peninsula Regional Water Authority meeting

<sup>26</sup> “Your Rates Are Changing” California American Water mailer, April 2019 and “Notice of General Rate Case Application filed” July 2019

Specifically, the bills call for creation of new urban efficiency standards for indoor use, outdoor use, and water lost to leaks, as well as any appropriate variances for unique local conditions. Each urban retail water agency will annually, beginning November 2023, calculate its own *objective*, based on the water needed in its service area for efficient indoor residential water use, outdoor residential water use, commercial, industrial and institutional (CII) irrigation with dedicated meters, and reasonable amounts of system water loss, along with consideration of other unique local uses (i.e., variances) and “bonus incentive,” or credit, for potable water reuse, using the standards adopted by the State Water Board.

The indoor water use standard will be 55 gallons per person per day (gallons per capita daily, or GPCD) until January 2025; the standard will become stronger over time, decreasing to 50 GPCD in January 2030. For the water use objective, the indoor use is aggregated across population in an urban water supplier’s service area, not each household. Presently, the average June 2014-May 2019 gallons per capita per day for the Cal-Am Monterey system is 57 gpcd. Hence, existing users are unlikely to increase their water consumption with the availability of new water supply.

### **Principal Conclusions**

- Either supply option can meet the long-term needs of the Monterey Peninsula
- Either supply option is sufficient to lift the CDO
- The long-term needs of the Monterey Peninsula may be less than previously thought
- Several factors will contribute to pressure on decreasing per capita water use