

Notation by Joel G. Pablo, Board Clerk

Water Demand Committee Meeting on February 4, 2021: Item No. 4

General Manager Stoldt distributed additional material on 02-02-2021 at 2:22 pm via E-mail to the Board, District Counsel and Stephanie Locke.

Water Required to Meet AMBAG 2022 Regional Growth Forecast

Water Required for Population Growth¹

	Monterey	Pacific Grove	Carmel-by-the-Sea	Sand City	Seaside	Del Rey Oaks	County ²	TOTAL
Population in 2020	28,170	15,265	3,949	385	33,537	1,662	8,916	91,884
Population in 2045	29,639	15,817	3,984	1,198	38,316	2,650	9,916	101,520
Increase	1,469	552	35	813	4,779	988	1,000	9,636
GPCD ³	59.8	59.8	59.8	59.8	59.8	59.8	59.8	56.8
Acre-Feet By 2045	98 AF	37 AF	2 AF	54 AF	320 AF	66 AF	67 AF	644 AF

*: Likely overstates population growth in Cal-Am service area due to some growth attributable to the Fort Ord build-out.

Water Required for Employment Growth⁴

	Monterey	Pacific Grove	Carmel-by-the-Sea	Sand City	Seaside	Del Rey Oaks	County ⁵	TOTAL
Jobs in 2020	40,989	8,016	3,566	2,092	10,476	748	4,300	58,926
Jobs in 2045	45,509	8,445	3,915	2,259	11,543	834	4,721	67,745
Increase	11.0%	5.4%	9.8%	8.0%	10.2%	11.5%	9.8%	
Commercial Consumption In 2019 ⁶	1,371 AF	248 AF	203 AF	54 AF	282 AF	21 AF	651 AF	2,830 AF
Commercial	1,522 AF	261 AF	223 AF	58 AF	311 AF	23 AF	715 AF	3,113 AF

¹ Association of Monterey Bay Area Governments. November 11, 2020. "Final Draft 2022 Subregional Growth Forecast." Attachment 2, page 32

² Uses Cal-Am service area population reported in SWRCB June 2014 – November 2020 Urban Water Supplier Monthly Reports (Raw Dataset), minus urban areas. Estimate 1,000 added by 2045.

³ SWRCB June 2014 – November 2020 Urban Water Supplier Monthly Reports (Raw Dataset); Average gallons per capita per day for December 2017 – November 2020; www.waterboard.ca.gov

⁴ Association of Monterey Bay Area Governments. 2018. "2018 Regional Growth Forecast." Table 7, page 30

⁵ California Employment Development Department, Monthly Labor Force Data for Cities and Census Designated Places. November 15, 2019. Sum of Carmel Valley Village CDP and Del Monte Forest CDP. Escalated at same rate as Carmel-by-the-Sea.

⁶ Cal-Am. 2019. "Customers and Consumption by Political Jurisdiction"

Consumption In 2045 ⁷								
Increase	151 AF	13 AF	20 AF	4 AF	29 AF	2 AF	64 AF	283 AF

Using this methodology, total water demand increase in 25 year period is 927 AF or 37.1 AFY.

Supply v Demand Using 3rd-Party 2022 AMBAG Growth Forecast Absorption Rate: Rather than to rely on pre-CDO absorption of water demand or alternative theoretical future demand scenarios, as was done in the September report, it is instructive to instead look at a regional growth forecast by an objective third-party. Here, as shown above, we evaluated AMBAG’s 2022 Regional Growth Forecast, specifically the subregional population forecast as a proxy for residential water demand, and the subregional employment forecast, using job growth as a proxy for commercial water demand. (Certainly, other factors could be considered.)

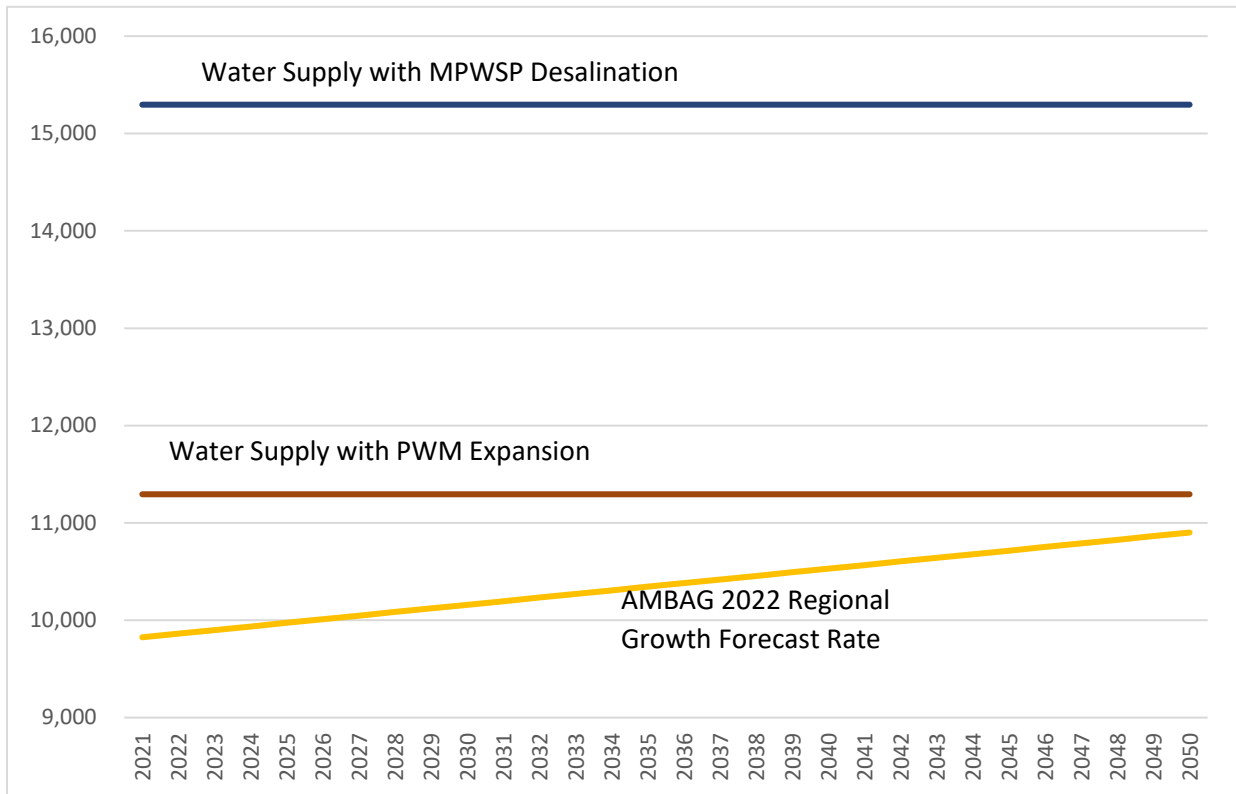
AMBAG implemented an employment-driven forecast model for the first time in the 2014 forecast and contracted with the Population Reference Bureau (PRB) to test and apply the model again for the 2018 Regional Growth Forecast (RGF). To ensure the reliability of the population projections, PRB compared 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 2018 RGF.⁸ The 2020 AMBAG Regional Growth Forecast is described in the November 18, 2020 memorandum, attached.

Using this methodology, the total water demand increase in the 20 year study period is 927 AF or 37.1 AFA. Applying the 37.1 AFA linearly across a 30-year horizon results in the demands shown in the figure on the next page.

⁷ Assumes escalation at same rate as job growth 2020 to 2045

⁸ 2018 Regional Growth Forecast, Technical Documentation, Association of Monterey Bay Area Governments (AMBAG), June 2018, page 5

Market Absorption of Water Demand Compared to Water Supply
 Current Demand at 5-Year Average
 AMBAG 2022 Regional Growth Forecast
 (Acre-Feet)



This chart shows that, assuming a starting current demand at the 5-year average (inclusive of water year 2019), both water supply alternatives meet 30-year market absorption at the AMBAG 2022 Regional Growth Forecast rate.

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



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ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

MEMORANDUM

TO: AMBAG Board of Directors

FROM: Maura F. Twomey, Executive Director

RECOMMENDED BY: Heather Adamson, Director of Planning

SUBJECT: Final 2022 Regional Growth Forecast

MEETING DATE: November 18, 2020

RECOMMENDATION:

The Board of Directors is asked to accept the final 2022 Regional Growth Forecast for planning purposes as part of the continued development of the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy.

BACKGROUND/DISCUSSION:

Every four years, AMBAG updates its regional forecast for population, housing and employment to support the development of the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), Regional Travel Demand Model and other planning efforts.

The regional growth forecast projects the region's population, employment and housing numbers for the tri-county area of Monterey County, San Benito County and Santa Cruz County. The purpose of the regional growth forecast is to show likely changes in employment, population and housing in the region between 2015 and 2045, based on the most current information available. As growth patterns change over time, the forecast is updated on a regular basis to reflect the most current and accurate information available.

This forecast is used to inform regional and local planning projects such as the MTP/SCS, transportation projects, corridor studies, and economic activity analyses. Results from this forecast are used as inputs in the Regional Travel Demand Model to forecast travel patterns.

Planning Excellence!

In the 2022 RGF for the AMBAG region, employment is expected to grow at a rate slightly lower than the rate predicted in the 2018 RGF, and population is expected to grow more slowly.

Recent Updates

In March 2020, the Board accepted a preliminary draft RGF for planning purposes and directed staff to begin the disaggregation at the jurisdiction level. Since that time, the California Department of Finance issued revised population and housing estimates. The updated estimates, which now provide data through 2020, resulted in a reduction in regional population relative to the base-year inputs that had been used in the RGF accepted in March.

In addition, local review found a discrepancy whereby employment in Soledad at the Salinas Valley State Prison and Correctional Training Facility in Soledad was dramatically underreported in the source data. At the request of the City of Soledad staff, AMBAG staff investigated the discrepancy and found that a correction should be made—adding 2,325 jobs to the city and the region in the base year.

To accommodate this new information, AMBAG and the consultant produced a revised regional growth forecast and subregional allocation that incorporates the revised data. The revised draft forecast was presented to the AMBAG Board of Directors in August 2020.

In August and September, AMBAG and the consultant conducted a series of meetings with local jurisdictions, the Planning Director's Forum, and the AMBAG Board to review the revised forecast. Input from these meetings was used to make minor modifications to some jurisdictions to achieve this final draft forecast.

In October, AMBAG presented the final draft forecast to the Board. There were concerns regarding the forecast numbers for San Benito County and San Juan Bautista. AMBAG staff met with Board members and staff from San Benito County and San Juan Bautista in late October/early November to discuss their concerns. Based on input from these additional meetings, AMBAG updated the county's forecast with the most recent projection from the California Department of Finance. This resulted in minor revisions to Hollister and San Juan Bautista's forecast numbers, as well as substantial revisions to the forecast for unincorporated San Benito County. These revisions have been incorporated into this final draft of the 2022 Regional Growth Forecast.

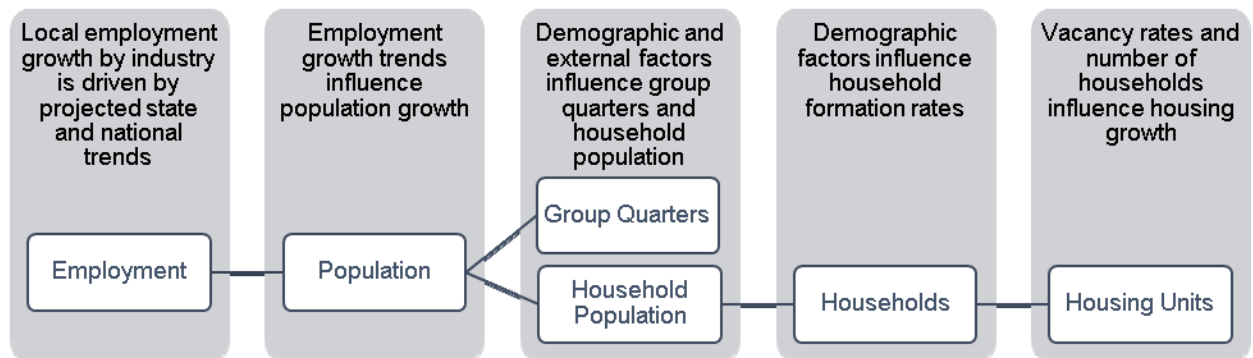
Additionally, a number of comments and questions were raised during the October 14, 2020 Board meeting regarding COVID-19's effect on the forecasting process. At this point, there is no new annual data with which to update the forecast. However, preliminary indicators suggest that trends toward lower births, lower migration, and higher mortality are likely to be more pronounced. These trends may result in even

slower growth, especially in the first five years of the forecast period. Pandemic-related job losses have also been substantial. Data from the California Employment Development Department shows that, comparing September 2020 to September 2019, all major industry sectors have lost jobs, with several sectors falling by 10 percent or more. AMBAG will continue tracking these trends and how they may affect this and future regional plans.

Methodology

As shown in the flow chart below, the forecast is based on a methodology that predicts employment growth using a 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). While the methodology for the 2022 RGF remains the same as the prior two forecasts, the models have been updated to include current data, a revised base year of 2015 and a new horizon year of 2045.

Regional 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.

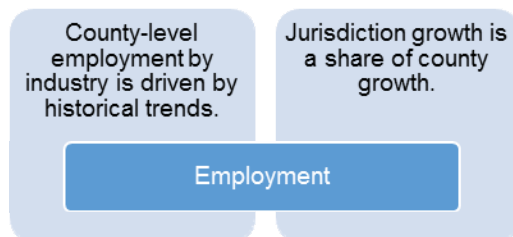
5. Housing Units: Housing is the total number of housing units, including both occupied and vacant structures. Housing includes primary residences, second homes, accessory dwelling units, vacation rentals, farmworker housing, and any other habitable structure—including unauthorized units. The only type 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.

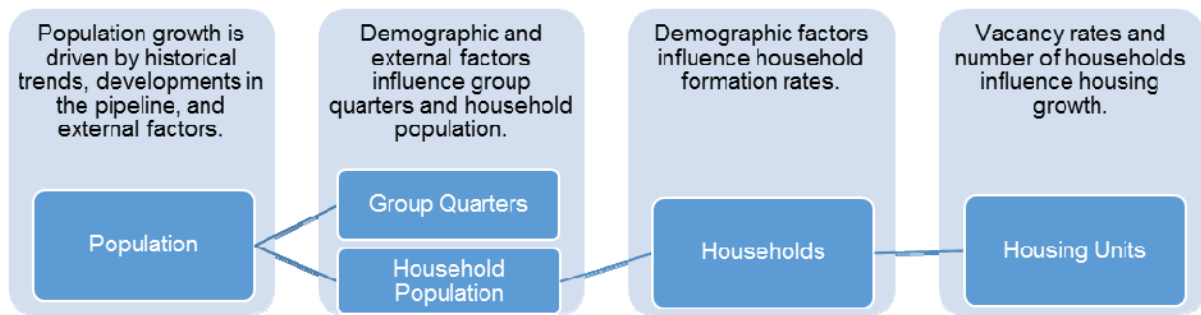
Data sources include the California Department of Finance, California Employment Development Department, Caltrans, U.S. Bureau of Labor Statistics, and U.S. Census Bureau.

Subregional Allocation Process

Following the preparation of the regional forecast figures, AMBAG staff and the consultant began the process of disaggregating the figures to each of the jurisdictions using historical data to develop a baseline disaggregated forecast.

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.





Employment: 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.

Population: The jurisdiction level forecast is driven by three factors:

1. Historical trends (i.e. shift-share model)
2. Anticipated future developments such as housing projects under development that are likely to be occupied within the forecast horizon
3. 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.

Household Population and Households: 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).

Housing Units: Vacancy rates and the number of households influence housing growth.

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

This process resulted in a draft forecast at the jurisdictional level that was used for discussion purposes with staff at each of the cities and counties within the region. In addition to the cities and counties, AMBAG staff met with staff from the University of California, Santa Cruz and California State University, Monterey Bay to discuss the results. Adjustments were made to the draft forecast based on these meetings to incorporate growth on the basis of planned developments, specific and General Plan research and economic development plans. These efforts resulted in a final draft forecast.

The revised final draft growth forecast figures, including subregional allocations, are included as Attachments 1 and 2 respectively.

To date, AMBAG staff has conducted 74 one-on-one meetings with the local jurisdictions, the Local Agency Formation Commissions and both major universities during the forecasting process. These one-on-one meetings occurred between August 2019 and November 2020. In addition, AMBAG discussed the regional growth forecast estimates, subregional allocations, and recent trends at the Planning Directors Forum in August 2019, January 2020, and August 2020. A list of the forecast one-on-one meetings is included as Attachment 3.

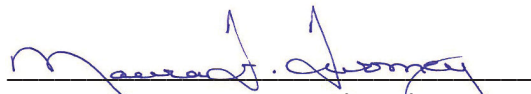
Next Steps

Following acceptance of the Final Draft 2022 Regional Growth Forecast for planning purposes, AMBAG will work with the local jurisdictions to update the traffic analysis zones (TAZs) in the Regional Travel Demand Model. The technical documentation of the 2022 Regional Growth Forecast will also be prepared. This will allow the continued development of the 2045 Metropolitan Transportation Plan/Sustainable Communities Strategy to remain on schedule.

ATTACHMENTS:

1. Final Draft 2022 Regional Growth Forecast Summary
2. Final Draft 2022 Subregional Growth Forecast Summary
3. 2022 Regional Growth Forecast One-On-One Meetings

APPROVED BY:


Maura F. Twomey, Executive Director

Attachment 1: Final Draft 2022 Regional Growth Forecast Summary

Historical and Forecast Jobs, Population, and Housing, 2000-2045

	Historical					Final Draft 2022 Regional Growth Forecast				
	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
Jobs (total, all industries)	354,535	359,435	351,735	377,335	406,280	410,017	418,132	425,845	434,147	442,824
Agriculture (field work)	28,586	30,557	32,644	36,587	40,066	40,091	40,211	40,339	40,468	40,597
Manufacturing	22,831	19,085	16,348	17,656	19,728	19,802	19,916	20,016	20,120	20,224
Site-based Skilled Trade	39,650	41,048	33,921	38,116	42,895	43,741	44,852	45,637	46,635	47,682
Wholesale	25,383	26,834	27,852	30,553	33,283	32,768	33,169	33,477	33,784	34,096
Retail	44,257	43,481	40,613	43,261	42,080	42,205	42,530	43,018	43,509	44,009
Financial & Prof. Serv.	42,237	38,970	35,496	35,988	37,135	37,434	38,498	39,619	40,760	41,911
Education	23,873	25,243	26,601	27,125	29,875	30,070	30,737	31,403	32,194	33,084
Health Care & Social Assist.	32,619	36,119	39,919	43,619	47,358	48,886	50,189	51,529	52,918	54,373
Other Services	55,024	55,657	54,683	61,875	68,516	69,056	71,222	73,227	75,249	77,289
Public	25,798	26,630	27,199	26,980	29,651	29,799	30,238	30,662	31,229	31,900
Self-employed	14,277	15,811	16,459	15,575	15,693	16,165	16,570	16,918	17,281	17,659
Population	710,598	719,561	732,708	762,241	774,729	800,726	824,992	842,189	857,828	869,776
Household Population	680,087	687,644	700,207	728,352	740,321	763,380	784,511	799,310	811,954	822,824
Group Quarters	30,511	31,917	32,501	33,889	34,408	37,346	40,481	42,879	45,874	46,952
Households	228,260	234,869	236,059	238,862	243,863	253,106	262,493	269,175	273,462	276,730
Avg Household Size	3.0	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Housing	247,080	256,467	260,256	262,660	267,812	277,645	288,386	296,352	301,307	304,900
Vacancy Rate	7.6%	8.4%	9.3%	9.1%	8.9%	8.8%	9.0%	9.2%	9.2%	9.2%

Sources:

Jobs: Data for 2000-2019 from California Employment Development Department, InfoUSA, and AMBAG. Forecast data 2020-2045 are from AMBAG and PRB.

Population, Households, Housing: Data for 2000 and 2010 reflect decennial Census counts as of April 1 of each year. Data for 2005, 2015, and 2020 are from the California Department of Finance E-5 and E-8 population and housing estimates and reflect values as of January 1 of each year. Forecast data are from AMBAG and PRB and reflect values as of January 1 of each year.

Historical and Forecast Jobs, Population, and Housing, with Change Over Time, 2000-2045

	Historical					Final Draft 2022 Regional Growth Forecast				
	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045
Jobs (total, all industries)	354,535	359,435	351,735	377,335	406,280	410,017	418,132	425,845	434,147	442,824
Change from Prior Period		4,900	-7,700	25,600	28,945	3,737	8,115	7,713	8,302	8,677
% Change from Prior Period		1%	-2%	7%	8%	1%	2%	2%	2%	2%
Population	710,598	719,561	732,708	762,241	774,729	800,726	824,992	842,189	857,828	869,776
Change from Prior Period		8,963	13,147	29,533	12,488	25,997	24,266	17,197	15,639	11,948
% Change from Prior Period		1%	2%	4%	2%	3%	3%	2%	2%	1%
Housing	247,080	256,467	260,256	262,660	267,812	277,645	288,386	296,352	301,307	304,900
Change from Prior Period		9,387	3,789	2,404	5,152	9,833	10,741	7,966	4,955	3,593
% Change from Prior Period		4%	1%	1%	2%	4%	4%	3%	2%	1%

Sources:

Jobs: Data for 2000-2019 from California Employment Development Department, InfoUSA, and AMBAG. Forecast data 2020-2045 are from AMBAG and PRB.

Population, Households, Housing: Data for 2000 and 2010 reflect decennial Census counts as of April 1 of each year. Data for 2005, 2015, and 2020 are from the California Department of Finance E-5 and E-8 population and housing estimates and reflect values as of January 1 of each year. Forecast data are from AMBAG and PRB and reflect values as of January 1 of each year

Attachment 2: Final Draft 2022 Subregional Growth Forecast

AMBAG Region and Jurisdictions

	POPULATION								Change 2015-2045	
	2010	2015	2020	2025	2030	2035	2040	2045	Numeric	%
AMBAG Region	732,708	762,241	774,729	800,726	824,992	842,189	857,828	869,776	107,535	14%
Monterey County	415,057	430,310	441,143	452,761	467,068	476,028	483,884	491,443	61,133	14%
Carmel-By-The-Sea	3,722	3,854	3,949	3,946	3,954	3,964	3,974	3,984	130	3%
Del Rey Oaks	1,624	1,663	1,662	1,693	1,734	1,859	2,330	2,650	987	59%
Gonzales	8,187	8,441	8,506	9,650	13,492	14,630	15,398	15,711	7,270	86%
Greenfield	16,330	17,172	18,284	19,342	19,734	19,961	20,202	20,433	3,261	19%
King City	12,874	13,736	14,797	15,376	16,101	16,689	16,881	17,064	3,328	24%
Marina	19,718	21,057	22,321	23,723	25,126	26,713	28,433	30,044	8,987	43%
Marina balance	19,084	20,037	21,371	22,293	22,841	23,238	23,768	24,237	4,200	21%
CSUMB	634	1,020	950	1,430	2,285	3,475	4,665	5,807	4,787	469%
Monterey	27,810	28,086	28,170	28,044	28,650	29,032	29,342	29,639	1,553	6%
Monterey balance	23,583	24,095	24,749	24,623	25,229	25,611	25,921	26,218	2,123	9%
DLI & Naval Postgrad	4,227	3,991	3,421	3,421	3,421	3,421	3,421	3,421	-570	-14%
Pacific Grove	15,041	15,460	15,265	15,290	15,395	15,530	15,676	15,817	357	2%
Salinas	150,441	158,059	162,222	166,226	170,459	173,393	175,358	177,128	19,069	12%
Sand City	334	361	385	430	516	756	1,012	1,198	837	232%
Seaside	33,025	33,815	33,537	34,497	35,107	35,634	36,582	38,316	4,501	13%
Seaside balance	26,836	25,835	26,345	27,285	27,850	28,317	29,205	30,881	5,046	20%
Fort Ord	4,473	4,163	3,083	3,083	3,083	3,083	3,083	3,083	-1,080	-26%
CSUMB	1,716	3,817	4,109	4,129	4,174	4,234	4,294	4,352	535	14%
Soledad	25,738	24,597	25,301	26,112	26,824	27,697	28,419	29,133	4,536	18%
Soledad balance	15,690	16,298	17,190	18,001	18,713	19,586	20,308	21,022	4,724	29%
SVSP & CTF	10,048	8,299	8,111	8,111	8,111	8,111	8,111	8,111	-188	-2%
Balance Of County	100,213	104,009	106,744	108,432	109,976	110,170	110,277	110,326	6,317	6%
San Benito County	55,269	58,138	62,353	69,324	73,778	77,638	80,788	83,366	25,228	43%
Hollister	34,928	37,314	40,646	42,604	43,327	44,421	45,345	45,599	8,285	22%
San Juan Bautista	1,862	1,945	2,112	2,269	2,315	2,374	2,410	2,436	491	25%
Balance Of County	18,479	18,879	19,595	24,451	28,136	30,843	33,033	35,331	16,452	87%
Santa Cruz County	262,382	273,793	271,233	278,641	284,146	288,523	293,156	294,967	21,174	8%
Capitola	9,918	10,224	10,108	10,485	10,794	10,957	11,049	11,126	902	9%
Santa Cruz	59,946	64,223	64,424	68,845	72,218	75,257	78,828	79,534	15,311	24%
Santa Cruz balance	43,614	46,947	45,324	47,845	49,118	49,957	50,828	51,534	4,587	10%
UCSC	16,332	17,276	19,100	21,000	23,100	25,300	28,000	28,000	10,724	62%
Scotts Valley	11,580	11,946	11,693	11,718	11,837	11,867	11,868	12,010	64	1%
Watsonville	51,199	52,410	51,515	52,918	54,270	55,138	55,786	56,344	3,934	8%
Balance Of County	129,739	134,990	133,493	134,675	135,027	135,304	135,625	135,953	963	1%

Attachment 2: Final Draft 2022 Subregional Growth Forecast

AMBAG Region and Jurisdictions

	HOUSING								Change 2015-2045	
	2010	2015	2020	2025	2030	2035	2040	2045	Numeric	%
AMBAG Region	260,256	262,660	267,812	277,645	288,386	296,352	301,307	304,900	42,240	16%
Monterey County	137,910	139,177	141,764	146,716	153,852	159,100	162,612	165,328	26,151	19%
Carmel-By-The-Sea	3,417	3,417	3,437	3,437	3,442	3,450	3,453	3,459	42	1%
Del Rey Oaks	741	741	741	762	809	848	1,052	1,195	454	61%
Gonzales	1,989	1,987	1,987	2,399	3,630	4,182	4,474	4,626	2,639	133%
Greenfield	3,752	3,794	3,981	4,359	4,766	5,047	5,164	5,238	1,444	38%
King City	3,218	3,283	3,432	3,672	4,002	4,282	4,356	4,403	1,120	34%
Marina	7,200	7,334	7,784	8,277	8,837	9,265	9,521	9,693	2,359	32%
Marina NSP	7,200	7,334	7,784	8,277	8,832	9,205	9,445	9,617	2,283	31%
CSUMB (portion)	0	0	0	0	5	60	76	76	76	--
Monterey	13,584	13,637	13,705	13,705	13,920	14,209	14,402	14,549	912	7%
Monterey NSP	13,152	13,205	13,273	13,273	13,488	13,777	13,970	14,117	912	7%
Defence Lang. Inst. & Nav	432	432	432	432	432	432	432	432	0	0%
Pacific Grove	8,169	8,184	8,201	8,214	8,267	8,336	8,400	8,463	279	3%
Salinas	42,651	43,001	43,411	45,552	48,673	50,968	52,229	53,150	10,149	24%
Sand City	145	176	189	198	228	333	446	526	350	199%
Seaside	10,872	10,913	10,920	11,437	11,925	12,248	12,604	13,192	2,279	21%
Seaside NSP	9507	8908	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	1,119	0	0%
CSUMB (portion)	246	886	859	889	918	939	954	966	80	9%
Soledad	3,876	3,927	4,137	4,433	4,733	5,024	5,240	5,426	1,499	38%
Soledad NSP	3,876	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	0	--
Balance Of County	38,296	38,783	39,839	40,271	40,620	40,908	41,271	41,408	2,625	7%
San Benito County	17,870	18,262	19,913	21,721	23,333	24,773	25,452	25,775	7,513	41%
Hollister	10,401	10,757	11,917	12,501	13,177	13,701	14,054	14,122	3,365	31%
San Juan Bautista	745	750	819	878	918	951	965	975	225	30%
Balance Of County	6,724	6,755	7,177	8,342	9,238	10,121	10,433	10,678	3,923	58%
Santa Cruz County	104,476	105,221	106,135	109,208	111,201	112,479	113,243	113,797	8,576	8%
Capitola	5,534	5,537	5,554	5,786	5,970	6,009	6,017	6,017	480	9%
Balance Of County	23,316	23,535	23,954	24,988	25,578	25,974	26,295	26,525	2,990	13%
Santa Cruz NSP	23,316	23,005	23,424	24,422	24,970	25,342	25,663	25,892	2,887	13%
UCSC (portion)	0	530	530	566	608	632	632	633	103	19%
Scotts Valley	4,610	4,691	4,739	4,798	4,846	4,869	4,887	4,930	239	5%
Watsonville	14,089	14,131	14,226	14,829	15,629	16,108	16,347	16,519	2,388	17%
Balance Of County	56,927	57,327	57,662	58,807	59,178	59,519	59,697	59,806	2,479	4%

Note: Housing forecast for universities reflects housing demand unmet by dorms, not necessarily housing units on campus.

Attachment 2: Final Draft 2022 Subregional Growth Forecast AMBAG Region and Jurisdictions

	EMPLOYMENT								Change 2015-2045	
	2010	2015	2020	2025	2030	2035	2040	2045	Numeric	%
AMBAG Region Total	351,735	377,335	406,280	410,017	418,132	425,845	434,147	442,824	65,489	17%
Monterey County	209,152	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 Monterey		55,762	60,293	60,574	61,553	62,439	63,396	64,395	8,633	15%
San Benito County	20,260	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 San Benito		6,688	7,214	7,275	7,416	7,559	7,751	7,901	1,213	18%
Santa Cruz County	122,323	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	1,339	14%
Watsonville		26,403	28,514	28,765	29,156	29,505	29,896	30,303	3,900	15%
Unincorporated Santa Cruz		42,069	45,264	45,748	46,588	47,366	48,202	49,071	7,002	17%

Important Note:

Independent rounding results in some cases in which parts do not sum to the total.

Data Sources:

Population and Housing: 2010 and 2015 from the California Department of Finance; 2020-2045 Draft 2022 Regional Growth Forecast from AMBAG and the Population Reference Bureau

Employment: 2010 and 2015 from AMBAG based on data from California Employment Development Department and InfoUSA; 2020-2045 Final Draft 2022 Regional Growth Forecast from AMBAG and the Population Reference Bureau

Attachment 3: 2022 Regional Growth Forecast One-on-One Meetings

Agency	Meeting Date	Meeting Time	Location	AMBAG Attendees*	Other Attendees*
City of Gonzales	9/3/2019	1:30 PM	147 Fourth Street, Gonzales, CA	Maura Twomey, Heather Adamson and Paul Hierling	Matthew Sundt
City of Hollister	9/10/2019	1:30 PM	375 Fifth Street, Hollister, CA	Maura Twomey, Heather Adamson and Paul Hierling	Abraham Prado and Jamila Saqqa
City of Marina	8/21/2019	11:00 AM	209 Cypress Avenue, Marina, CA	Maura Twomey, Heather Adamson and Paul Hierling	Fred Aegerter, Christy Hopper and Matt Mogensen
City of Salinas	8/28/2019	1:30 PM	65 West Alisal Street, 2nd Floor, Salinas, CA	Maura Twomey, Heather Adamson and Paul Hierling	Megan Hunter and Adam Garrett
City of Santa Cruz	8/23/2019	1:00 PM	809 Center Street, Room 107, Santa Cruz, CA	Maura Twomey, Heather Adamson and Paul Hierling	Lee Butler
City of Seaside	9/10/2019	11:00 AM	656 Broadway Avenue, Seaside, CA 93955	Heather Adamson and Paul Hierling	Rick Medina
County of Monterey	8/7/2019	4:00 PM	1441 Schilling Pl, 2nd Floor, Salinas, CA	Maura Twomey, Heather Adamson and Paul Hierling	Brandon Swanson and John Dugan
County of Monterey	8/12/2019	3:15 PM	168 West Alisal, 3rd Floor, Salinas, CA	Paul Hierling	Darby Marshall and Anastacia Wyatt
County of San Benito	9/4/2019	1:00 PM	2301 Technology Parkway, Hollister, CA	Maura Twomey, Heather Adamson and Paul Hierling	Harry Mavrogenes, Taven Kinison Brown and Jamila Saqqa
County of Santa Cruz	8/23/2019	3:00 PM	701 Ocean Street, Room 400, Santa Cruz, CA	Maura Twomey, Heather Adamson and Paul Hierling	Kathy Molloy and Stephanie Hansen

*All attendees were at the meeting in person unless otherwise noted.

Agency	Meeting Date	Time	Location	AMBAG Attendees*	Jurisdiction Attendees*
City of Capitola	2/3/2020	9:30 AM	420 Capitola Ave., Capitola, CA	Heather Adamson	Katie Herlihy
City of Carmel-By-The-Sea	2/5/2020	9:30 AM	AMBAG Office	Maura Twomey, Gina Schmidt, Miranda Taylor	Marnie Waffle
City of Del Rey Oaks	2/13/2020	11:00 AM	650 Canyon Del Rey Blvd, Del Rey Oaks, CA	Heather Adamson and Miranda Taylor	Dino Pick and Denise Duffy
City of Gonzales	2/7/2020	2:00 PM	City of Gonzales, 147 Fourth Street, Gonzales, CA	Heather Adamson	Matthew Sundt
City of Greenfield	3/3/2020	9:00 AM	Greenfield City Hall, 599 El Camino Real, Greenfield, CA	Heather Adamson, Maura Twomey and Miranda Taylor	Paul Mugan
City of Hollister	3/10/2020	2:00 PM	City of Hollister, Development Services, 375 Fifth Street, Hollister, CA 95023	Heather Adamson	Abraham Prado, Jamila Saqqa, Eva Kelly and Ambur Cameron
City of King City	3/10/2020	11:00 AM	City of King City Hall, 212 South Vanderhurst Avenue, King City, CA 93930	Heather Adamson, Maura Twomey and Miranda Taylor	Doreen Liberto-Blanck and Maricruz Aguilar-Navarro
City of Marina	2/26/2020	2:30 PM	City of Marina, Community Depevelopment Dept, 209 Cypress Avenue, Marina, CA	Heather Adamson, Maura Twomey and Miranda Taylor	Christy Hopper and Lisa Berkley
City of Monterey	2/4/2020	1:00 PM	City of Monterey, 580 Pacific Street, Monterey, CA 93940	Heather Adamson, Maura Twomey, Miranda Taylor	Kim Cole
City of Pacific Grove	2/5/2020	11:30 AM	City of Pacific Grove, 300 Forest Avenue, 2nd Floor, Pacific Grove, CA 93950	Maura Twomey, Gina Schmidt, Miranda Taylor	Anastazia Aziz and Alyson Hunter
City of Salinas	3/2/2020	10:00 AM	City of Salinas, 65 West Alisal Street, 2nd Floor, Salinas, CA	Heather Adamson and Miranda Taylor	Megan Hunter and Tara Hullingers
City of San Juan Bautista	2/24/2020	9:00 AM	San Juan Bautista City Hall, 311 2nd Street, San Juan Bautista, CA	Heather Adamson	Don Reynolds and Mary Gilbert (SBtCOG)
City of Sand City	2/11/2020	3:00 PM	Sand City, City Hall, 1 Pendergrass Way, Sand City, CA	Heather Adamson, Maura Twomey, Miranda Taylor	Chuck Pooler and Aaron Blair
City of Santa Cruz	3/9/2020	11:00 AM	City of Santa Cruz, 809 Center Street, Room 107, Santa Cruz, CA	Heather Adamson	Lee Butler, Katherine Donovan and Eric Marlatt
City of Scotts Valley	2/3/2020	11:30 AM	1 Civic Center Drive, Scotts Valley, CA	Heather Adamson	Taylor Bateman
City of Seaside	3/3/2020	2:00 PM	656 Broadway Avenue, Seaside, CA 93955	Heather Adamson, Maura Twomey, Paul Hierling and Miranda Taylor	Kurt Overmeyer, Gloria Stearns and Sharon Mikesell
City of Soledad	2/24/2020	1:30 PM	City of Soledad, City Hall, 248 Main Street, Soledad, CA	Heather Adamson and Miranda Taylor	Brent Slama
City of Watsonville	2/21/2020	10:00 AM	Community Development Dept., 250 Main Street, Watsonville, CA 95076	Heather Adamson	Suzi Merriam and Justin Meek
	2/21/2020	10:00 AM	Community Development Dept., 250 Main Street, Watsonville, CA 95076	Heather Adamson	Suzi Merriam and Justin Meek
County of Monterey	3/17/2020	2:30 PM	GoTo Meeting	Heather Adamson and Paul Hierling	Brandon Swanson
County of San Benito	3/4/2020	3:00 PM	San Benito County - RMA, 2301 Technology Parkway, Hollister, CA	Heather Adamson and Maura Twomey	Harry Mavrogenes and Taven Kinison Brown
County of Santa Cruz	3/9/2020	3:00 PM	County of Santa Cruz, 701 Ocean Street, Room 400, Santa Cruz, CA	Heather Adamson	Kathy Molloy, Paia Levine, Barbara Mason, Stephanie Hansen and Anais Schenk
CSU Monterey Bay	2/5/2020	3:00 PM	2061 Intergarrison Road, Suite 84-A, Seaside, CA	Maura Twomey, Gina Schmidt, Miranda Taylor	Anya Spear and Matt McCluney
Monterey County LAFCO	2/11/2020	1:00 PM	LAFCO Monterey Co., 132 W. Gabilan Street, Suite 102, Salinas, CA 93901	Heather Adamson, Maura Twomey, Miranda Taylor	Kate McKenna
Santa Cruz County LAFCO	2/21/2020	1:00 PM	LAFCO, 701 Ocean Street, Room 318-D, Santa Cruz, CA 95060	Heather Adamson	Joe Serrano
UC Santa Cruz	2/25/2020	10:30 AM	UC Santa Cruz, 1156 High St, Barn G, Santa Cruz, CA 95064	Heather Adamson	Jolie Kerns and Oxo Slayer

*All attendees were at the meeting in person unless otherwise noted

Agency	Meeting Date	Meeting Time	Location	AMBAG Attendees	Jurisdiction Attendees
City of Capitola	5/19/2020	1:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Katie Herlihy
City of Carmel-By-The-Sea	5/26/2020	1:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Marnie Waffle
City of Del Rey Oaks	6/17/2020	4:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Dino Pick and Denise Duffy
City of Gonzales	5/26/2020	3:00 PM	GoTo Meeting	Heather Adamson, Paul Hierling, and Miranda Taylor	Matthew Sundt
City of Greenfield	6/11/2020	11:00 AM	GoTo Meeting	Maura Twomey, Heather Adamson, and Miranda Taylor	Paul Mugan
City of Hollister	5/29/2020	10:00 AM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Abraham Prado, Jamila Saqqa, Eva Kelly and Ambur Cameron from Hollister; Mary Gilbert from SBTCOG. Additionally, various consultants for the Hollister General Plan attended this meeting.
City of King City	6/2/2020	1:00 PM	GoTo Meeting	Heather Adamson and Miranda Taylor	Doreen Liberto-Blanck and Maricruz Aguilar-Navarro
City of Marina	5/28/2020	10:00 AM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Christy Hopper and Fred Aegerter
City of Monterey	5/29/2020	1:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Kimberly Cole
City of Pacific Grove	5/19/2020	3:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Anastazia Aziz, Alyson Hunter and Terri Schaeffer
City of Salinas	6/8/2020	2:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Megan Hunter, Tara Hullinger, and Jonathan Moore
City of San Juan Bautista	6/1/2020	1:30 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Don Reynolds and Mary Gilbert from SBTCOG
City of Sand City	6/17/2020	9:00 AM	GoTo Meeting	Heather Adamson, Paul Hierling, and Miranda Taylor	Chuck Pooler and Aaron Blair
City of Santa Cruz	5/18/2020	9:00 AM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Lee Butler, Katherine Donovan, Bonnie Lipscomb, Eric Marlatt and Matt Vanhua
City of Scotts Valley	6/3/2020	1:00 PM	GoTo Meeting	Maura Twomey, HPaul Hierling, and Miranda Taylor	Taylor Bateman
City of Seaside	6/11/2020	4:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Kurt Overmeyer and Gloria Stearns

Agency	Meeting Date	Meeting Time	Location	AMBAG Attendees	Jurisdiction Attendees
City of Soledad	6/16/2020	1:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Brent Slama
City of Watsonville	6/2/2020	3:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Suzi Merriam and Justin Meek
County of Monterey	6/3/2020	9:00 AM	GoTo Meeting	Maura Twomey, Paul Hierling, and Miranda Taylor	Brandon Swanson, John Dugan and Anastacia Wyatt
County of Monterey	6/29/2020	1:00 PM	GoTo Meeting	Maura Twomey, Paul Hierling, Miranda Taylor and Beth Jarosz (consultant)	Brandon Swanson, John Dugan, Craig Spencer and Anastacia Wyatt
County of San Benito	6/1/2020	9:00 AM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Harry Mavrogenes, Taven Kinison Brown and Mary Gilbert from SBtCOG
County of Santa Cruz	5/18/2020	3:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling, and Miranda Taylor	Paia Levine, Barbara Mason, Anais Schenk, Kathy Molloy, Stephanie Hansen
CSU Monterey Bay	6/16/2020	3:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling,	Anya Spear, Matt McCluney, and Kathleen Ventimiglia
CSU Monterey Bay	7/10/2020	1:00 PM	GoTo Meeting	Heather Adamson and Beth Jarosz (consultant)	Matt McCluney and Kathleen Ventimiglia
UC Santa Cruz	6/15/2020	3:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson, Paul Hierling,	Oxo Slayer

Agency	Meeting Date	Meeting Time	Location	AMBAG Attendees	Jurisdiction Attendees
City of Del Rey Oaks	8/25/2020	1:00 PM	GoTo Meeting	Heather Adamson	Dino Pick and Denise Duffy (consultant)
City of Greenfield	9/4/2020	2:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Rob Mullane (consultant) and Paul Mugan
City of Hollister	8/20/2020	11:00 AM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Abraham Prado, Jamila Saqqa, Bryan Swanson, Eva Kelly, Ambur Cameron, Areli Perez and Marian Mendez from Hollister; Mary Gilbert from SBtCOG
City of Hollister	9/4/2020	3:30 PM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Carol Lenoir
City of King City	8/24/2020	11:00 AM	GoTo Meeting	Maura Twomey and Heather Adamson	Doreen Liberto-Blanck and Maricruz Aguilar-Navarro
City of Marina	8/7/2020	3:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Christy Hopper, Fred Aegerter, Layne Long and Lisa Berkeley
City of Monterey			GoTo Meeting		
City of Pacific Grove	8/7/2020	1:30 PM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Anastazia Aziz and Terri Schaeffer
City of Salinas	9/8/2020	2:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Megan Hunter and Jonathan Moore
County of Monterey	8/13/2020	3:30 PM	GoTo Meeting	Heather Adamson and Beth Jarosz (consultant)	Brandon Swanson and John Dugan
County of San Benito	8/10/2020	1:00 PM	GoTo Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Harry Mavrogenes, Taven Kinison Brown, Jamila Saqqa, Gary Black (Hexagon), Ollie Zhou (Hexagon), Stan Ketchum (contract planner) and Mary Gilbert from SBtCOG

Agency	Meeting Date	Meeting Time	Location	AMBAG Attendees	Jurisdiction Attendees
City of San Juan Bautista	10/30/2020	9:00 AM	Go To Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	John Freeman, Don Reynolds, and Mary Gilbert from SBtCOG
County of San Benito	10/29/2020	3:00 PM	Go To Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Anthony Botelho, Mark Medina, Taven Kinison Brown, Benny Young, Stan Stan Ketchums, and Mary Gilbert from SBtCOG
County of San Benito	11/2/2020	2:00 PM	Go To Meeting	Maura Twomey, Heather Adamson and Beth Jarosz (consultant)	Benny Young, Taven Kinison Brown, and Mary Gilbert from SBtCOG