

APPENDIX C

Project Growth Assumptions Memorandum

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COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT

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To: Agencies and Interested Persons
Lead Agency: County of Santa Cruz
Contact: Stephanie Hansen, AICP, Principal Planner
Subject: Documentation of Preferred Scenario Growth Assumptions
Project Title: Sustainability Policy and Regulatory Update EIR

Methodology for Forecasting Residential Growth

The following methodology describes growth forecasts that are used as the basis for determining growth in the County. For residential growth, occupied housing units are forecasted in the County since only occupied housing is used when modeling travel demand. For the Environmental Impact Report (EIR), total housing units, including vacant units and occupied housing units, are considered in the analyses and housing projections. There is no difference in total job growth between the various areas of topical analysis in the EIR.

Forecasting Residential Housing Potential

The first step in determining housing growth potential was to determine which areas would be included in the analysis, or which parcels would be eligible for the analysis. The housing growth analysis was only conducted for residential parcels within the USL. Parcels outside of the USL were not included in the growth analysis. Growth was assumed to continue at the former General Plan rate and AMBAG forecast rate for areas outside of the USL. Additionally, parcels that are designated as residential but are currently in use as parks, open space, affordable housing, mobile homes, common areas, cemeteries or are considered unbuildable due to sensitive habitat or for some other reason were excluded from the analysis entirely.

The high end and the low end of the General Plan density ranges were analyzed. However, ultimately the lower end of the new proposed General Plan density range for each designation was assumed as it resulted in a reasonable amount of growth in medium and higher density designations without over-estimating growth in single-family neighborhoods. The analysis did not assume any General Plan land use designation changes or rezoning. It should be noted that since this analysis was conducted the proposed building intensity ranges were modified slightly to be rounded to whole digits. As it was conducted, using the preliminary draft proposed ranges, the analysis would not have assumed a building intensity that varies substantially from the currently proposed intensities.

The lower end of the new General Plan density ranges was multiplied by the lot acreage of each eligible parcel and was then reduced by a percentage to account for zoning constraints such as setbacks, height, lot coverage, etc. Since the analysis was done at a gross level and there are a

significant number of parcels within the USL it was determined that percent reductions were a reasonable substitute for a parcel-by-parcel analysis.

Land Use Designation	Building Intensity			Implementing Zone Districts
	Lot Size Per Unit	Preliminary Draft Units per Acre	Proposed Units per Acre	
Urban Very Low (R-UVL)	8,000 sf – 1 acre	1 – 5.5	1 - 5	R-1
Urban Low (R-UL)	5,000 – 10,000 sf	4.4 – 8.7	4 - 10	R-1, RB, RM
Urban Medium (R-UM)	3,500 – 6,000 sf	7.3 – 12.4	7 - 15	R-1, RB, RM
Urban High (R-UH)	1,500 – 4,000 sf	10.9 – 29	11 - 30	R-1, RM, RM-2R

Density was reduced to 50% or 90% of the potential. This reduction is based on several recent project examples that demonstrated that a project will yield anywhere from 50% to 87% of its General Plan designation density due to zoning regulations. For the purposes of this analysis the lower reduction of 10% was applied within a one-quarter mile of the Multimodal and Main Street corridors to yield a result of 90% of gross. The higher reduction of 50% was applied outside of the Multimodal and Main Street corridor buffers. This approach reflects an assumption that development would be concentrated closer to transit corridors (Multimodal Corridors) and activated pedestrian corridors (Main Streets). While the 10% reduction assumes a high amount of build-out potential, it captures the relaxed design standards and policy changes to allow for missing middle housing, and proposed development standards that calculate density based on gross acreage rather than net.

Accounting for Mixed-Use Development

The residential analysis also needed to account for potential new mixed-use projects. Eligible parcels included in the final growth scenario were commercial parcels designated Neighborhood Commercial (C-N), Community Commercial (C-C), and Professional Office (C-O) within the USL. Per current draft General Plan policies, it is assumed that all commercial parcels except for visitor serving, industrial, and quarries will allow mixed-use development. Mixed use is not currently allowed on Service Commercial and Light Industrial (C-S) parcels. These parcels may offer prime redevelopment opportunities where they are near a Multimodal or Main Street corridor but, this would require rezoning and new General Plan designation.

The proposed development standards allow for the Urban High Flex (R-UHF) designation and up to 75% of the development to be residential units. (See Built Environment Element Policy BE-3.2.1: Residential Uses in Commercial Designations.) In order to account for commercial development on the site, the total acreage was reduced to 75% before calculating gross residential density. The gross residential density was calculated using the R-UHF designation.

Land Use Designation	Building Intensity		Implementing Zone Districts³
	Lot size Per Unit	Units per Acre	
Urban High Flex (R-UHF)	725 sf – 2,000 sf	22 – 45	RF

An analysis of a sample set of recent mixed-use projects demonstrated that unless there is an environmental site constraint, as indicated by an Urban Open Space (O-U) designation, build out is 80-100% of the land use designation density. Based on these example projects and policy direction, it was assumed that 90% of the build-out potential would be achieved within the ¼ mile buffer of Multimodal and Main Street corridors. Outside of the corridor buffers, a 50% build-out potential was assumed. These are the same assumptions made for the residential analysis above.

Finalizing the 2040 Project Growth for Housing

The resulting parcel layer from the above analysis was symbolized using natural breaks to show the resulting density characteristics of the growth scenario. The layer was then overlaid on aerials along with several other data layers. Staff then reviewed the data layer to qualitatively assess parcels and remove growth on sites that would not be developable but were not captured using the GIS data, such as parcels that may have riparian habitat. Additionally, parcels with results of less than two units were zeroed out to take a conservative approach to growth opportunities. The resulting growth was summarized to the Traffic Analysis Zone (TAZ) level, which is a larger unit of geography than the parcel level and is therefore more realistic as it is generalized. (TAZs are based on Census geography definitions but are refined based on transportation corridors for use in travel demand models.) The growth was then added to the 2019 TAZ data to result in 2040 Project TAZ-level housing growth. Due to the analysis methodology which had a focus on infill development along major transportation corridors in the USL, the majority of the housing growth ended up being focused in mid-County primarily within the Live Oak area. See Table 3 below for a summary of residential growth by Planning Area.

Planning Area	Base Year	Housing Units 2040 No Project	Housing Units 2040 Project
Aptos Hills	2,338	2,415	2415
Aptos	8,261	8,706	8,936
Bonny Doon	1,422	1,472	1,472
Carbonera	4,174	4,346	4,346
Eureka Canyon	1,361	1,400	1,400
Live Oak	11,536	12,360	13,538
La Selva	744	775	775
North Coast	397	410	410
Pajaro Valley	3,431	3,684	3,684
San Andreas	620	680	680
Skyline	1,182	1,218	1,218
San Lorenzo Valley	9,684	10,027	10,027
Summit	2,318	2,447	2,447
Soquel	3,854	4,276	4,457
Salsipuedes	419	434	434
Total	51,741	54,650	56,241

Methodology for Forecasting Job Growth

The No Project scenario uses the 2040 AMBAG forecast as the basis for job growth with adjustments that had been made to account for adopted land use plans, local zoning ordinances, and approved development projects. The Project scenario accommodates AMBAG's 2045 forecast. At the time that the job growth was forecasted for the Project scenario, the County had received the draft 2045 AMBAG forecast. The overall rate of growth was similar to the 2040 forecast. However, the industries were classified slightly different in the 2045 forecast than the industry classifications used in the countywide travel demand model. The crosswalk in Table 3 below shows how the AMBAG employment sectors were grouped to correspond to the categories used in the countywide travel demand model. The new recategorized growth from the AMBAG forecast was held as control total for each of the categories in the next step of the forecasting process. Given the longer time frame, the 2045 forecast shows a higher total number of jobs for the unincorporated County of Santa Cruz than the 2040 forecast. The policy changes in the Sustainability Update are aimed at facilitating more small business, including through the development of a new zoning tool, Workplace Flex (C-3) Zone District, and it is anticipated that with continued investment in economic development, the County will see more job growth, particularly within the medical sector. Therefore, the newer 2045 job forecast was used as a control total for job growth for the Project scenario.

Model Employment Category	AMBAG Employment Sectors
Agriculture	Agriculture
Construction	Site-Based Skilled Trade
Industrial	Manufacturing, Wholesale
Retail	Retail
Service	Financial & Professional Services, Other Services, Self-employed
Public	Education, Health Care & Social Assistance, Public

The job growth from the 2045 forecast was distributed to each TAZ based on each TAZ's existing share of jobs in that particular industry. In other words, the initial analysis assumed that each TAZ would continue to hold the same share of job growth in each industry but that the overall industry job growth would match the new AMBAG forecast. In some industries, such as retail and agriculture, this actually assumes a decline in jobs. The growth was then hand adjusted for each industry using the following policies as a basis:

1. Agricultural growth was distributed across rural areas, with very little adjustment made to agricultural jobs. Some minor adjustments were made for rounding errors.
2. The resulting service and retail jobs appropriately reflected current growth trends and policy assumptions in the Sustainability Update in that they were mostly focused within the USL around major transportation corridors. However, the locations of these jobs were further refined to reflect mixed-use growth along main street corridors, multimodal corridors, and around future potential transit stations along the Santa Cruz Branch Line, as well as commercial growth in the medical uses around Soquel Drive, and job growth related to the new Workplace Flex (C-3) Zone District, which was assumed to locate around multimodal corridors and in focused areas such as the 41st Avenue/Soquel Drive and 17th Avenue/Santa Cruz Branch Line areas.
3. Construction jobs were lowered in the rural areas and dispersed within the USL to account for increased residential construction within in the urban areas.
4. Industrial job growth was lowered in Live Oak and along Soquel Avenue and instead moved to locations along the rural connector or highway street types in South County where more development potential has been realized for industrial job growth. Parcels within Mid-County tend to be too small, have too many environmental constraints, or be more costly from a goods movement perspective. This growth was distributed in TAZs with the Urban and Built-up land classification per the State's Farmland Mapping and Monitoring Program.

TABLE 5: BASE YEAR JOBS					
Planning Area	Industrial Jobs	Retail Jobs	Service Jobs	Public Jobs	Total Jobs
Aptos Hills	26	116	294	217	838
Aptos	31	702	4,377	2,536	7,936
Bonny Doon	8	97	340	112	735
Carbonera	18	97	766	312	1,379
Eureka Canyon	8	91	327	188	1,727
Live Oak	167	1,635	5,947	3,178	11,552
La Selva	1	37	90	31	184
North Coast	223	58	372	54	973
Pajaro Valley	6	87	341	242	1,568
San Andreas	411	59	630	79	2,012
Skyline	-	7	14	3	33
San Lorenzo Valley	157	784	2,192	1,396	5,020
Summit	8	59	106	41	353
Soquel	187	1,352	2,208	1,010	5,311
Salsipuedes	11	27	99	25	1,362
Total	1,262	5,208	18,103	9,424	40,983

TABLE 6: 2040 NO PROJECT JOBS					
Planning Area	Industrial Jobs	Retail Jobs	Service Jobs	Public Jobs	Total Jobs
Aptos Hills	25	90	309	259	1,046
Aptos	34	674	4,643	3,461	9,170
Bonny Doon	11	107	366	463	1,102
Carbonera	25	140	1,025	385	1,762
Eureka Canyon	73	83	346	204	1,788
Live Oak	234	1,517	5,168	6,430	13,989
La Selva	1	37	93	32	240
North Coast	220	71	411	82	1,029
Pajaro Valley	27	98	430	312	1,665
San Andreas	409	53	675	92	2,181
Skyline	3	7	14	3	33
San Lorenzo Valley	149	726	2,345	1,822	5,557
Summit	8	69	87	41	419
Soquel	177	1,333	2,432	1,323	5,838
Salsipuedes	61	47	142	38	1,378
Total	1,457	5,052	18,486	14,947	47,197

TABLE 7: 2040 PROJECT JOBS					
Planning Area	Industrial Jobs	Retail Jobs	Service Jobs	Public Jobs	Total Jobs
Aptos Hills	62	116	344	254	991
Aptos	46	705	5,144	3,057	9,332
Bonny Doon	14	97	400	139	843
Carbonera	33	97	933	369	1,652
Eureka Canyon	56	91	386	198	1,882
Live Oak	273	1,665	6,864	4,255	13,922
La Selva	2	37	105	35	214
North Coast	343	58	440	66	1,185
Pajaro Valley	82	87	431	288	1,890
San Andreas	633	59	703	93	2,391
Skyline	2	7	16	3	37
San Lorenzo Valley	240	789	2,575	1,664	5,850
Summit	14	59	120	46	402
Soquel	209	1,368	2,560	1,141	5,926
Salsipuedes	44	27	121	31	1,502
Total	2,053	5,262	21,142	11,639	48,019

In order to assess the environmental impacts of job growth, the number of jobs was converted to square footage of buildings. Data on the mean square feet per worker from the United States Energy Information Administration¹ was applied to the number of jobs in each TAZ to estimate the total building square footage in each scenario. See Tables 8 -10 below.

¹ U.S. Energy Information Administration. Commercial Buildings Energy Consumption Survey (CBECS). Table PBA1. Summary table: total and means of floorspace, number of workers, and hours of operation by building activity subcategories, 2012. <https://www.eia.gov/consumption/comdata/2012/bc/cfm/pba1.phpmercial/> (Accessed October 21, 2020)

Planning Area	Industrial	Retail	Service	Public	Total
Aptos Hills	47,918	144,188	313,698	141,267	647,071
Aptos	57,133	872,586	4,670,259	1,650,936	7,250,914
Bonny Doon	14,744	120,571	362,780	72,912	571,007
Carbonera	33,174	120,571	817,322	203,112	1,174,179
Eureka Canyon	14,744	113,113	348,909	122,388	599,154
Live Oak	307,781	2,032,305	6,345,449	2,068,878	10,754,413
La Selva	1,843	45,991	96,030	20,181	164,045
North Coast	410,989	72,094	396,924	35,154	915,161
Pajaro Valley	11,058	108,141	363,847	157,542	640,588
San Andreas	757,473	73,337	672,210	51,429	1,554,449
Skyline	-	8,701	14,938	1,953	25,592
San Lorenzo Valley	289,351	974,512	2,338,864	908,796	4,511,523
Summit	14,744	73,337	113,102	26,691	227,874
Soquel	344,641	1,680,536	2,355,936	657,510	5,038,623
Salsipuedes	20,273	33,561	105,633	16,275	175,742
Total	2,325,866	6,473,544	19,315,901	6,135,024	34,250,335

Planning Area	Industrial	Retail	Service	Public	Total
Aptos Hills	46,075	111,870	329,703	168,609	656,257
Aptos	62,662	837,782	4,954,081	2,253,111	8,107,636
Bonny Doon	20,273	133,001	390,522	301,413	845,209
Carbonera	46,075	174,020	1,093,675	250,635	1,564,405
Eureka Canyon	134,539	103,169	369,182	132,804	739,694
Live Oak	431,262	1,885,631	5,514,256	4,185,930	12,017,079
La Selva	1,843	45,991	99,231	20,832	167,897
North Coast	405,460	88,253	438,537	53,382	985,632
Pajaro Valley	49,761	121,814	458,810	203,112	833,497
San Andreas	753,787	65,879	720,225	59,892	1,599,783
Skyline	5,529	8,701	14,938	1,953	31,121
San Lorenzo Valley	274,607	902,418	2,502,115	1,186,122	4,865,262
Summit	14,744	85,767	92,829	26,691	220,031
Soquel	326,211	1,656,919	2,594,944	861,273	5,439,347
Salsipuedes	112,423	58,421	151,514	24,738	347,096
Total	2,685,251	6,279,636	19,724,562	9,730,497	38,419,946

TABLE 10: 2040 PROJECT SQUARE FOOTAGE OF BUILDINGS					
Planning Area	Industrial	Retail	Service	Public	Total
Aptos Hills	114,266	144,188	367,048	165,354	790,856
Aptos	84,778	876,315	5,488,648	1,990,107	8,439,848
Bonny Doon	25,802	120,571	426,800	90,489	663,662
Carbonera	60,819	120,571	995,511	240,219	1,417,120
Eureka Canyon	103,208	113,113	411,862	128,898	757,081
Live Oak	503,139	2,069,595	7,323,888	2,770,005	12,666,627
La Selva	3,686	45,991	112,035	22,785	184,497
North Coast	632,149	72,094	469,480	42,966	1,216,689
Pajaro Valley	151,126	108,141	459,877	187,488	906,632
San Andreas	1,166,619	73,337	750,101	60,543	2,050,600
Skyline	3,686	8,701	17,072	1,953	31,412
San Lorenzo Valley	442,320	980,727	2,747,525	1,083,264	5,253,836
Summit	25,802	73,337	128,040	29,946	257,125
Soquel	385,187	1,700,424	2,731,520	742,791	5,559,922
Salsipuedes	81,092	33,561	129,107	20,181	263,941
Total	3,783,679	6,540,666	22,558,514	7,576,989	40,459,848

Summary

The Project scenario for residential and job growth reflects a number of policy changes as described in the Built Environment Element, but also accounts for a slightly conservative approach by taking percent reductions where appropriate. Even though the housing growth analysis was done at a parcel level the approach does not necessitate specific parcels being developed to a specific density, as there were a number of reductions taken from the growth assumptions to account for the fact that not all parcels will realize or develop to their allowable density. The results were then generalized further to the TAZ level to reflect the area-wide nature of this plan. The job growth assumptions are aligned with current regional job growth assumptions for the County and account for changes in the makeup of industry growth.

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