

Appendix 4
Equivalency Analysis

Introduction to the Equivalency Program Analysis

This appendix contains the Equivalency Program analysis for the Bayhill Specific Plan. As described in Chapter 2, *Project Description*, 180,347 square feet of the new office development included in the EIR buildout projections (Tables 2-3 and 2-4) is not allocated to any particular parcel. This square footage may be dedicated to regional office use (and is assumed to be regional office use in this EIR analysis). However, to provide flexibility for the expansion of non-office land uses, the Specific Plan allows for the conversion of this unallocated office square footage to non- regional office uses such as hotel or retail commercial uses at the following ratios:

- 190 square feet of retail commercial use per 1,000 square feet of regional office use
- 640 square feet of hotel use per 1,000 square feet of regional office use¹

By way of example, if all of the unallocated 180,347 square feet were dedicated to retail use, 34,265 square feet of retail use could be developed. If all the unallocated square feet were dedicated to hotel use, 115,422 square feet of hotel use could be developed. This appendix provides an analysis of the equivalency exchanges and demonstrates that the potential environmental impacts of the equivalency exchanges under the Equivalency Program would be within the scope of the analysis included in the EIR.

Analysis

Methodology

Commercial office, retail, and hotel activities present different demands on resources due to different expected populations and activities. This difference in resource demand rates can result in varied impacts to numerous resource areas. This appendix analyzes how the ratios of converted square footage under the Equivalency Program would affect resource demands and potential environmental impacts, comparing conditions under each version of the Equivalency Program (conversion to retail or hotel) to the conclusions reached in the EIR, inclusive of both the Project and the Phase I Development. Resource areas analyzed herein include Air Quality and Greenhouse Gases, Energy, Public Services, Population and Housing, Noise, Transportation, and Utilities. The analyses of potential environmental impacts to the resources areas listed above that would result from Project implementation outside of the Equivalency Program can be found in Chapters 3.2, 3.3, 3.4, 3.7, 3.8, 3.9, 3.10, and 3.11 of the EIR, respectively.

All development within the Project Site, including development that could be pursued as part of the Equivalency Program, would be subject to all applicable regulatory requirements, mitigation measures, and Specific Plan policies described in the EIR. Because it would be speculative to presume construction timeframes and equipment for currently unplanned development within the Project Site under the

¹ Impacts from hotel uses are sometimes evaluated in units of rooms rather than square footage. For these analyses, this Equivalency Analysis assumes a conversion rate of 595.13 square feet per hotel room, based on the ratio of square footage to rooms in the existing Marriot hotel on the Project Site.

Equivalency Program, and because future development would be required to comply with all measures as previously described, the Equivalency Program focuses its analysis on the degree to which operational changes would result in impacts similar to those evaluated in the EIR.

Certain resources are not expected to experience any changes under the Equivalency Program. Resource areas that would be unaffected by the Equivalency Program include Aesthetics, Hydrology and Water Quality, and Land Use. The analyses of potential environmental impacts to these resources that would result from Project implementation can be found in Chapters 3.1, 3.5, and 3.6 of the EIR, respectively. Additionally, as described in Chapter 3, *Environmental Impact Analysis*, during the scoping process for this Draft EIR, the City of San Bruno determined that Project implementation would not result in significant environmental impacts on: Agriculture and Forestry Resources, Biological Resources, Cultural Resources (including Tribal Cultural Resources), Geology and Soils, Hazards and Hazardous Materials, Mineral Resources, and Wildfire. Therefore, these issues are not discussed in detail in this Draft EIR, and are also excluded from the Equivalency Program analysis.

Equivalency Program Impact Analysis

Air Quality and Greenhouse Gas

As described in greater detail under Energy below, both the hotel and retail exchanges under the Equivalency Program would result in slight changes in energy usage across a variety of sources. These slight changes in energy usage could result in subsequent minor variations in air quality and greenhouse gas emissions, as discussed below. Because the Maximum Office Scenario for the Project would result in the greatest level of impacts related to both air quality and greenhouse gases, it is the scenario used as the baseline comparison for variations that may occur with the Equivalency Program.

Air Quality

Table 1, below, displays the estimated maximum daily unmitigated criteria pollutant emissions that would result from Project implementation, both with and without the Equivalency Program (hotel and retail). “Project (Maximum Office Scenario) Without Equivalency Program” values in Table 1 vary slightly from the values displayed in Table 3.2-6 in Section 3.2, *Air Quality*, in the EIR because additional decimal places have been included to better display changes that would occur through the Equivalency Program. Criteria pollutant sources that reflect a positive or negative change in emissions when compared to the values analyzed in the EIR represented in bold.

Table 1. Estimated Maximum Daily Unmitigated Emissions from the Project Implementation, With and Without Equivalency Program Adoption (pounds/day)

Condition/Source	ROG	NO_x	CO	PM10	PM2.5
Project (Maximum Office Scenario) Without Equivalency Program					Project
Area Sources	95.62	0.00	0.43	0.00	0.00
Energy Sources	2.31	21.01	17.65	1.60	1.60
Mobile Sources	32.39	64.67	454.10	738.84	120.86
Stationary Sources	6.24	27.89	15.90	0.92	0.92
<i>Total 2040</i>	136.56	113.57	488.09	741.36	123.38
Project (Maximum Office Scenario) + Equivalency Program (Hotel)					Project + Equivalency Program (Hotel)
Area Sources	97.50	0.00	0.41	0.00	0.00
Energy Sources	2.33	21.19	17.80	1.61	1.61
Mobile Sources	32.39	64.67	454.10	738.84	120.86
Stationary Sources	6.24	27.89	15.90	0.92	0.92
<i>Total 2040, Maximum Office Scenario + Equivalency Program (Hotel)</i>	138.45	113.75	488.21	741.37	123.39
<i>Difference from Project Conditions Without Equivalency Program (Hotel)</i>	+1.89	+0.18	+0.12	+0.01	+0.01
Project (Maximum Office Scenario) + Equivalency Program (Retail)					Project + Equivalency Program (Retail)
Area Sources	97.50	0.00	0.41	0.00	0.00
Energy Sources	2.11	19.22	16.14	1.46	1.46
Mobile Sources	32.39	64.67	454.10	738.84	120.86
Stationary Sources	6.24	27.89	15.90	0.92	0.92
<i>Total 2040, Maximum Office Scenario + Equivalency Program (Retail)</i>	138.24	111.78	486.55	741.22	123.24
<i>Difference from Project Conditions Without Equivalency Program (Retail)</i>	+1.68	-1.79	-1.54	-0.14	-0.14

Notes: The values displayed in this table under Project conditions without the Equivalency Program vary slightly from those displayed in Table 3.2-6 in Section 3.2, *Air Quality*, in the EIR due to increased accuracy resulting from decimals displayed. Because the variations in criteria emissions are so slight, quantities have been displayed to two decimal places to reflect potential changes.

As displayed above in Table 1, the Equivalency Program (hotel) scenario would result in a combined total increase in 2.21 lbs/day of all criteria pollutant emissions when compared to worst case scenario Project conditions without program implementation. Adoption of the Equivalency Program (retail) scenario would result in a combined total decrease in 1.93 lbs/day of criteria pollutant emissions when compared to worst case scenario Project conditions without program implementation. Further, the total emissions presented in Table 3.2-6 in Section 3.2, *Air Quality*, in the EIR represent the worst-case impacts between all land use scenarios that could occur with the Equivalency Program, as noted in the table footnote. Therefore, while the hotel scenario would result in a slight increase in emissions, it would not result in exceedances of additional thresholds beyond those identified in the EIR.

Though the Equivalency Program would not result in additional threshold exceedances from those identified in the EIR, it is reasonably foreseeable that despite incorporation of Specific Plan policies that would reduce criteria pollutant emissions, development under either the hotel or retail Equivalency Programs could generate emissions in excess of BAAQMD's project-level thresholds. Future development under the Equivalency Program would be required to adhere to the same mitigation measures as the Project. **Mitigation Measure TRA-1** would require all property owners, including retail and hotel uses, to prepare and implement a transportation demand management (TDM) program and submit annual monitoring studies. Additionally, **Mitigation Measure AQ-7** would offset operational criteria pollutant emissions resulting from development through the purchase of mitigation credits. Offsetting emissions below BAAQMD's threshold levels would ensure future development under the Specific Plan, including development that may occur under the Equivalency Program, would not contribute a significant level of air pollution such that regional air quality within the air basin would be degraded. Both mitigation measures are described in greater detail in Section 3.2, *Air Quality*. Similar to the Project, it is reasonable to assume that offset programs will be available in the future and thus that emissions can be reduced below threshold levels. Should offsets programs be available for future development, operational criteria pollutant emissions associated with the Equivalency Program would be less than significant with mitigation. However, because it cannot be concluded that offset programs would be available in the future at the time and in the amount needed for any given future development, for the purposes of this EIR analysis, operational air quality impacts for the Equivalency Program are also conservatively assumed to be ***significant and unavoidable***.

Greenhouse Gas

Table 2, below, displays the estimated maximum daily unmitigated greenhouse gas emissions that would result from Project implementation, both with and without the Equivalency Program. "Project (Maximum Office Scenario) Without Equivalency Program" values displayed in Table 2 vary slightly from the values displayed in Table 3.4-3 in Section 3.4, *Greenhouse Gases*, in the EIR because additional decimal places have been included to better display changes that would occur through the Equivalency Program. Greenhouse gas emissions sources that reflect a positive or negative change in emissions when compared to the values analyzed in the EIR are bolded.

Table 2. Estimated Annual Specific Plan Operational GHG Emissions (Maximum Office Scenario) With and Without Implementation of the Equivalency Program (metric tons)

Condition/Source	CO ₂	CH ₄	N ₂ O	CO ₂ e	% of Total CO ₂ e ^a
Project (Maximum Office Scenario) Without Equivalency Program					
Area Sources	0.08	<0.01	0.00	0.08	<0.01%
Energy Sources	4,696.46	0.18	0.10	4,730.71	11.93%
Mobile Sources	31,408.77	2.21	2.13	32,099.00	80.92%
Stationary Sources	17.36	0.00	0.00	17.43	0.04%
Waste Generation	799.22	47.23	0.00	1,980.03	4.99%
Water Consumption	231.26	18.95	0.45	838.81	2.11%
Total 2040 With Specific Plan^a	37,153.14	68.56	2.68	39,666.05	100%
Project (Maximum Office Scenario) + Equivalency Program (Hotel)					
Area Sources	0.07	<0.01	0.00	0.08	<0.01
Energy Sources	4,702.62	0.17	0.10	4,736.55	11.93
Mobile Sources	31,408.77	2.21	2.13	32,099.00	80.92
Stationary Sources	17.36	<0.01	0.00	17.43	0.04%
Waste Generation	742.64	43.89	0.00	1,839.87	4.64%
Water Consumption	266.71	22.15	0.53	977.00	2.46%
<i>Total, Maximum Office Scenario + Equivalency Program (Hotel)</i>	37,138.18	68.42	2.76	39,669.92	100%
<i>Difference from Project Conditions Without Equivalency Program (Hotel)</i>	-14.96	-0.14	-0.08	+3.87	N/A
Project (Maximum Office Scenario) + Equivalency Program (Retail)					
Area Sources	0.07	<0.01	0.00	0.08	<0.01%
Energy Sources	4,316.57	0.16	0.09	4,348.28	11.05%
Mobile Sources	31,408.77	2.21	2.13	32,099.00	81.57%
Stationary Sources	17.36	<0.01	0.00	17.43	0.04%
Waste Generation	764.07	45.16	0.00	1,892.94	4.81%
Water Consumption	271.03	22.50	0.53	992.54	2.52%
<i>Total, Maximum Office Scenario + Equivalency Program (Retail)</i>	36,777.88	70.03	2.76	39,350.26	100%
<i>Difference from Project Conditions Without Equivalency Program (Retail)</i>	-375.26	+1.47	+0.08	-315.79	N/A
Notes:					
^a Values may not add due to rounding					

As displayed in Table 2 above, the Equivalency Program (hotel) would result in lower CO₂, CH₄, and N₂O emissions than would occur under Project conditions evaluated in the EIR. The Equivalency Program (hotel) would result in an increase of 3.87 annual tons of CO₂e, predominantly related to indirect GHG emissions that would result from the production of electricity used to convey, treat, and distribute water and wastewater. Comparatively, the Equivalency Program (retail) would result in lower CO₂ and CO₂e emissions than would occur under Project conditions, but an increase in 1.47 annual metric tons of CH₄ and an increase of 0.08 annual metric tons of N₂O. These elevated GHG emissions would also primarily correspond to the production of electricity used to convey, treat, and distribute water and wastewater. The total emissions presented in Table 3.4-3 in Section 3.4, *Greenhouse Gases*, in the EIR represent the worst-case impacts between all land use scenarios that could occur with the Equivalency Program, as noted in the table footnote. Therefore, while the Equivalency Program would result in a slight increase in some emissions, it would not result in exceedances of additional thresholds beyond those identified in the EIR.

Adherence to Specific Plan policies would reduce water use, thus reducing the amount of electricity necessary to convey, treat, and distribute water and wastewater, correspondingly reducing associated greenhouse gas emissions. Additionally, as part of the Project and as described in greater detail in Section 3.4, *Greenhouse Gases*, Impact GHG-1, developers operating under the Equivalency Program would be required to adhere to **Mitigation Measure TRA-1** to address on-road emissions and **Mitigation Measure GHG-2**, which includes requirements for LEED certification or equivalent, electric space and water heating, solar roofs, and waste diversion programs to address other operational GHG emissions. Similar to the Project, should all requirements not be implemented, **Mitigation Measure GHG-3**, would require the purchase of GHG mitigation credits (for requirements not implemented), thus reducing impacts to less than significant levels. Therefore, either scenario under the Equivalency Program would be *less than significant with mitigation*.

Energy

As displayed in Table 3.3-4 in Section 3.3, *Energy*, the Project Site currently consumes approximately 304,360 million British thermal Units (BTUs) per year (MMBTU/year) of energy through electricity, natural gas, and mobile (gasoline and diesel) sources. Energy use within the Project Site by 2040 with implementation of the Maximum Office Scenario (the “worst case scenario” with respect to energy use) would result in a 73 percent increase in onsite energy use. As described in the footnote to Table 3.3-4, the impact analysis of energy use by 2040 under the Maximum Office Scenario considered the most energy-intensive use, including energy demands that would result from the Equivalency Program. Though not required to reduce potential impacts to less than significant levels, implementation **Mitigation Measure GHG-2** and **Mitigation Measure TRA-1** would both reduce gasoline and diesel usage to below the levels conservatively estimated in Table 3.3-4, therefore resulting in a 13 percent reduction in gasoline and diesel uses below anticipated levels. Development under the Equivalency Program would also be subject to applicable mitigation measures and Specific Plan policies that would promote energy efficiency.

Furthermore, though the impact analysis in Section 3.3, *Energy*, evaluates the “worst case scenario” inclusive of the Equivalency Program, all future Project development, including development that could occur under the Equivalency Program, would be subject to state and local regulatory requirements intended to improve energy efficiency (CALGreen, Executive Order B-16-12, SB 350, SB 100, Peninsula Clean Energy 2018 Integrated Resource Plan, San Mateo County Energy Strategy 2012, and specific components of the City of San Bruno General Plan).

Therefore, because the analysis of Project-related energy impacts included under Impact EN-1 fully covers all impacts that would occur under the Equivalency Program, and impacts would be less than significant under that analysis, impacts would remain ***less than significant*** under the Equivalency Program.

Noise

Though operational noise conditions under the Equivalency Program would be largely similar to those that would occur under the “worst case” Maximum Office Scenario, as described in Section 3.7, *Noise*, the Equivalency Program could result in slight increases in traffic-generated noise resulting from land use changes when compared to the Maximum Office Scenario.

The Equivalency Program (retail) has the potential to result in a maximum increase in PM peak hour traffic volumes of approximately 13 percent on surrounding roadway segments, according to the EIR traffic consultant. The biggest percent increase (13 percent) would occur along El Camino Real. A 13 percent increase in PM peak hour traffic volumes along this roadway segment would result in a noise level increase of approximately 0.5 dB when compared to the Maximum Office Scenario (given the higher trip generation rate of retail uses). Other roadway segments may also experience slight traffic noise increases under the Equivalency Program (retail), but the increases would be smaller than the 0.5 dB level estimated for El Camino Real.

Table 3.7-12 in Section 3.7, *Noise*, of the EIR describes modeled traffic noise impacts on existing land uses adjacent to roadway segments. For the Project analysis, a significant increase was determined to occur if Project-related traffic resulted in an increase of more than 5 dBA, regardless of the existing ambient noise level or, if in places where the existing or resulting noise environment is “conditionally acceptable,” “normally unacceptable,” or “clearly unacceptable” (based on the City of San Bruno Land Use Compatibility Guidelines), any noise increase greater than 3 dBA were to occur.

For all roadway segments where a Project-related traffic noise increase was determined to occur, the increase was at least 2.0 dB below the allowable increase. Implementation of the Maximum Office Scenario with the Equivalency Program (retail) would result in similar operational traffic noise levels as the Project. Although an increase of up to 0.5 dB for analyzed segments may occur on some segments, this would not trigger any analyzed segment to result in a traffic noise increase in excess of the allowable level. Therefore, traffic noise increases resulting from the Project would not exceed the allowable increase levels with implementation of the Equivalency Program, and impacts relating to traffic noise under the Equivalency Program would be ***less than significant***.

Public Services

An increase in population is generally associated with increased demands for public services, such as police and fire services, schools, parks, and other municipal services such as libraries. As described below and in Section 3.8, *Population and Housing*, the Maximum Office Scenario would result in a total of 2,459,847 sf of office space, which would generate a total of 9,840 employees. The 9,840 employees would overall generate 6,564 total households via indirect population generation both within San Bruno (2,510 residents in 869 households) and outside of San Bruno (15,947 residents in 5,695 households). The Maximum Housing Scenario would generate 7,772 employees and 5,185 total households, consisting of 1,656 onsite residents within 573 onsite households, 1,983 residents within 686 households in the City of San Bruno, and 15,579 residents within 4,499 households outside of San Bruno.

As described in greater detail in the Population and Housing discussion below, exchanging 180,347 square feet of office use for either 34,265 sf of retail use or 115,422 sf of hotel use under the Equivalency Program

would reduce the total quantity of onsite employees from 9,840 to 9,255 employees under a retail exchange or from 9,840 to 9,227 employees under a hotel exchange. Comparatively, the Equivalency Program in exchange for 180,347 square feet of Maximum Housing Scenario office space would reduce this total amount of onsite employees from 7,772 to approximately 7,188 employees under a retail exchange or 7,160 employees under a hotel exchange.

In either of the two scenarios described above, the reduction in employees would result in a subsequent reduction in household generation. Therefore, the Equivalency Program would reduce demands for public services through corresponding population reduction. Furthermore, future development under the Equivalency Program, if adopted, would be required to comply with all state and local regulatory requirements, and Specific Plan policies with respect to public services. Though the Equivalency Program would reduce impacts on public services when compared to Project conditions, as part of future development, developers operating under the program would be required to pay a one-time Development Impact Fee (DIF) in compliance with the City's DIF Ordinance to improve and expand public capital facilities and infrastructure throughout the City to serve new residential and commercial growth. A portion of the DIF would be used for public safety, including police and fire capital facilities, infrastructure, and equipment, park facilities, and libraries.

In addition to slightly reduced demands on police and fire services, the reduced population associated with the Equivalency Program would subsequently result in reduced demands on public school services due to the lower population than that expected from Project conditions. Similarly, as required under the Project, development under the Equivalency Program would be subject to developer fees which would fully mitigate the impact of new development on school districts.

Therefore, because the Equivalency Program would result in slightly lower population generation than is anticipated under Project conditions, , impacts to public services under the Equivalency Program would remain ***less than significant***.

Population and Housing

As described in Section 3.8, *Population and Housing*, the Project (Maximum Office Scenario) would be the "worst case scenario" for population and housing impacts. The Equivalency Program analysis is therefore carried forward under the Maximum Office Scenario.

Exchanging 180,347 square feet of office use for either 34,265 sf of retail use or 115,422 sf of hotel use would require the addition of employees to the Project Site to serve such land uses. Applying the conservative rate of 250 sf/employee for office development to the 34,265 sf of retail space, the retail space under the Equivalency Program (retail) would generate approximately 137 employees. Based on the reduction in employees in the converted office space and the addition of this quantity of retail employees, the Equivalency Program (retail), would generate a total of 9,255 onsite employees, 585 fewer employees than would be generated under the Maximum Office Scenario evaluated in the EIR. The reduced employment would correspondingly result in reduced population and housing impacts compared to the EIR analysis.

The 79,152 sf, 133-room hotel onsite currently has an estimated staff of approximately 75 employees, a rate of approximately 1,056 sf per hotel employee, or 1.77 employees per room.² Therefore, it is estimated that exchanging 180,347 square feet of office use for 115,422 sf of hotel space under the Equivalency Program would generate approximately 109 employees. Based on the reduction in employees in the

² Economic & Planning Systems, August 2019.

converted office space and the addition of this quantity of hotel employees, the Equivalency Program (hotel), would generate a total of 9,227 onsite employees, 613 fewer employees than would be generated under the Maximum Office Scenario evaluated in the EIR. The reduced employment would correspondingly result in reduced population and housing impacts compared to the EIR analysis.

Because implementation of the Equivalency Program (retail) would generate 585 fewer employees than would be generated under the Maximum Office Scenario, and the Equivalency Program (hotel) would generate 613 fewer employees than would be generated under the Maximum Office Scenario, both Equivalency Program scenarios would generate lower indirect housing demand than is anticipated under the Project as evaluated in the EIR, and impacts would remain ***less than significant***.

Transportation

Section 3.10, Transportation analyzes potential Project-related impacts on traffic and transportation. As shown in Table 3.10-6, in Section 3.10, “home-base other trips” are typically shorter than “home-base work/commute trips.” Therefore, it can be reasonably assumed that converting office to hotel or retail uses under the Equivalency Program would result in less vehicle miles traveled (VMT), since users are typically making local trips and are not traveling long distances. It is anticipated that numerous hotel patrons would be traveling to the Project Site from San Francisco International Airport, located approximately 2.5 miles away; though these patrons may not reside locally, their trips between the airport and the hotel would be reflective of other local trips between nearby residents and the Project Site. In the event that hotel patrons make longer road trips to the hotel, these are typically one-off events and upon reaching the hotel destination, patrons typically make shorter local trips.

The EIR traffic consultant developed conversion rates for the exchange of 180,347 square feet of office use for either 34,112 sf of retail use or 345 hotel rooms under the Equivalency Program. The conversion factors, shown in Table 4, are based on PM peak hour trips which generate the highest peak hour trips. The exchange of 180,347 square feet of office use for either 34,112 sf of retail use or 345 hotel rooms under the Equivalency Program would align with the conversion rates shown in Table 4 indicating that PM peak hour trip generation under the Equivalency Program exchanges would be within the peak hour trip generation rates assumed in the EIR analysis. While PM peak hour trips do not directly correlate to average daily trips, it is reasonable to assume that with lower VMT and equal or reduced PM peak hour trips the land use exchanges under the Equivalency Program would not generate greater transportation impacts than what was evaluated in the EIR.

Table 3. PM Peak Hour Conversion Ratios^a

Land Use (Converting From)	Units	ITE Rate	Land Use (Converting To) ^b			
			Hotel	Housing	Retail	Office
Hotel	Rooms	0.6	1.00	1.36	0.10	0.52
Retail	KSF	6.08	10.13	13.82	1.00	5.29
Office	KSF	1.15	1.92	2.61	0.19	1.00

Notes:

^a The conversion ratios correlate to PM peak hours, and do not directly correlate to other impact evaluation factors such as VMT, internalization, etc. However, PM peak hour trip generation is generally the most impactful effect of this type of project, and it can be reasonably assumed that increases/decreases in PM peak hour generation would result in corollary changes in other evaluation factors.

^b Ratios equate units of one land use with units of another. For example, 100 KSF of office space is equivalent to 192 hotel rooms, 261 KSF of housing, and 19 KSF of retail space. The conversions result in more hotel rooms for the same number of PM peak hour trips because the trip generation rate for hotel rooms is lower than the rates for office and retail space.

Utilities and Service Systems

Section 3.11, *Utilities and Service Systems*, analyzes potential Project-related impacts associated with water facilities and entitlements; wastewater facilities; stormwater drainage facilities; solid waste generation and disposal; and natural gas, electricity, and telecommunications services and systems. For water demand and wastewater generation, the Maximum Housing Scenario would result in the greatest degree of impact and is thus analyzed as the “worst case scenario”, and for solid waste generation, the Maximum Office Scenario would result in the greatest degree of impact, and respectively, is carried forward in the EIR for analysis as the “worst case scenario.” The Equivalency Program analysis for utilities and service systems is herein carried forward in accordance with whichever scenario would result in the greatest degree of impact for each specific utility system. As described in greater detail in the Energy section above, the Project would result in increased energy demands, including electricity and natural gas demands, when compared to non-Project conditions. However, the Project inclusive of the Equivalency Program was analyzed in Section 3.3, *Energy* of the EIR, and found impacts were found to be less than significant during operation. Therefore, the Equivalency Program would not result in new impacts on electricity or natural gas utility services beyond those evaluated in the EIR.

Utility demands generally increase with increased population. As described in greater detail above in the Public Services and Population and Housing sections, exchanging 180,347 square feet of office use for either 34,265 sf of retail use or 115,422 sf of hotel use would reduce this total amount of onsite employees utilizing utility services from 9,840 to 9,255 employees under a retail exchange or from 9,840 to 9,227 employees under a hotel exchange.

Table 5, below, displays the maximum anticipated utility usage for each utility type under whichever scenario (of the Maximum Office Scenario or the Maximum Housing Scenario) would result in “worst case scenario” circumstances to demonstrate potential variations in utility demands that could occur with the Equivalency Program. Because the unit demand factors for water use are equivalent to the unit demand factors for wastewater generation, they are analyzed together. Table 5 does not evaluate potential impacts to stormwater drainage facilities, as it is presumed that the Equivalency Program footprint will be equal to that of the Project without incorporation of the Equivalency Program, and thus no difference would result.

Table 4. Anticipated Utility Demands for the Project With Incorporation of the Each Equivalency Program Option^a

Proposed Land Use	Unit Demand Factor^b	Full Quantity at Proposed Buildout (including Existing to remain)	Future Demand (existing + buildout)^b
Project (Maximum Housing Scenario), Without Equivalency Program – Water Use and Wastewater Generation			
Office	0.13 gpd/sf	3,500,743 gsf	455,096.59
Retail	0.19 gpd/sf	121,846 gsf	23,150.74
Hotel	120 gal/room	133 rooms	15,960.0
Residential	120 gal/du	573 du	68,760.0
Total			562,967.33 GPD
Maximum Housing Scenario + Equivalency Program (Retail) – Water Use and Wastewater Generation			
Office	0.13 gpd/sf	3,320,396 gsf	431,651.48
Retail	0.19 gpd/sf	156,111 gsf	29,661.09
Hotel	120 gal/room	133 rooms	15,960.0
Residential	120 gal/du	573 du	68,760.0
Total			546,032.57 GPD
Maximum Housing Scenario + Equivalency Program (Hotel) – Water Use and Wastewater Generation			
Office	0.13 gpd/sf	3,320,396 gsf	431,651.48
Retail	0.19 gpd/sf	121,846 gsf	23,150.74
Hotel	120 gal/room	248 rooms	29,760.0
Residential	120 gal/du	573 du	68,760.0
Total			555,322.22 GPD
Project (Maximum Office Scenario), Without Equivalency Program – Solid Waste Generation			
Office	10.7 lb/employee/day	9,840 employees	105,288 lbs/day
Retail	2.5 lbs/100 sf/day	121,846 gsf	3,046.15 lbs/day
Hotel	2.9 lbs/room/day	133 rooms	385.7 lbs/day
Residential	4.4 lb/capita/day	0 residents	0 lbs/day
Total			108,659.85 lbs/day
Maximum Office Scenario + Equivalency Program (Retail) – Solid Waste Generation			
Office	10.7 lb/employee/day	9,255 employees	99,028.5 lbs/day
Retail	2.5 lbs/100 sf/day	156,111 gsf	3,902.775 lbs/day
Hotel	2.9 lbs/room/day	133 rooms	385.7 lbs/day
Residential	4.4 lb/capita/day	0 residents	0 lbs/day
Total			103,316.975 lbs/day

Proposed Land Use	Unit Demand Factor^b	Full Quantity at Proposed Buildout (including Existing to remain)	Future Demand (existing + buildout)^b
Maximum Office Scenario + Equivalency Program (Hotel) – Solid Waste Generation			
Office	10.7 lb/employee/day	9,227 employees	98,728.9 lbs/day
Retail	2.5 lbs/100 sf/day	121,846 gsf	3,046.15 lbs/day
Hotel	2.9 lbs/room/day	248 rooms	719.2 lbs/day
Residential	4.4 lb/capita/day	0 residents	0 lbs/day
Total			102,494.25 lbs/day

Source: West Yost Associates 2019, Woodard & Curran 2019, CalRecycle 2019.

Notes:

^a Landscaping is not considered a significant source of water usage under this analysis, because landscaping plans would include water-saving strategies such as bioretention planters, turf, and drought-tolerant vegetation. Unit Demand Factors account for irrigation demand (West Yost Associates 2016).

^b Future demand rates are presented in GPD for water use and wastewater generation and lbs/day for solid waste generation to provide a more detailed comparison of how utility demands under the Equivalency Program may vary from demands that would occur under Project conditions without the program.

Key:

GPD = gallons per day

lbs = pounds

gsf = gross square feet

du = dwelling unit

As displayed in Table 4, both the retail and hotel exchanges under the Equivalency Program would result in lower utility demand rates on water, wastewater generation, and solid waste disposal than the respective “worst case scenario” circumstances under the Project. As described in greater detail in Section 3.11, *Utilities and Services Systems*, Impacts UT-1 through UT-4, the existing utility systems that serve the Project Site would be able to continue providing such services under full Project buildout with the incorporation of identified mitigation measures and Specific Plan policies. Because the Equivalency Program would reduce utility demands to below the levels evaluated in the EIR, impacts on utility and service systems would remain ***less than significant with mitigation*** under the Equivalency Program.