

SECTION 5: ALTERNATIVES TO THE PROPOSED PROJECT

5.1 - Introduction

In accordance with CEQA Guidelines Section 15126.6, this DEIR contains a comparative impact assessment of alternatives to the Proposed Project. The primary purpose of this section is to provide decision makers and the general public with a reasonable degree of feasible project alternatives that could attain most of the basic project objectives, while avoiding or reducing any of the project's significant adverse environmental effects. Important considerations for these alternatives analyses are noted below (as stated in CEQA Guidelines Section 15126.6):

- An EIR need not consider every conceivable alternative to a project;
- An EIR should identify alternatives that were considered by the Lead Agency, but rejected as infeasible during the scoping process;
- Reasons for rejecting an alternative include:
 - Failure to meet most of the basic project objectives;
 - Infeasibility; or
 - Inability to avoid significant environmental effects

5.1.1 - Project Objectives

As stated in Section 3.0, *Project Description*, the objectives of the Proposed Project are to:

- Include high-quality, high-density housing in a mixed-use setting to increase the diversity of housing opportunities in San Bernardino and provide housing options that are not currently available to local residents;
- Use high-quality architecture and landscaping that will maintain and enhance the aesthetic character of the City of San Bernardino;
- Provide a “sustainable” community that encompasses construction as well as daily living in terms of energy and water conservation, wise choice and use of building materials, reduction of air pollutants, safety, walkability and connectivity to surrounding uses, etc.;
- Provide ample amenities including a community clubhouse and extensive trail system to encourage healthy and enjoyment of open space.
- Maximize roadway safety through the provision of multiple vehicular ingress and egress opportunities to the Proposed Project internal roadways and parking facilities and improvements to the surrounding circulation system;
- Create increased new property and sales taxes annually, in perpetuity, for the City of San Bernardino, and increased annual property taxes for San Bernardino County and various other local government agencies; and

- Increase property values in the City of San Bernardino and surrounding unincorporated County areas.

5.1.2 - Proposed Project – Significant Impacts

This EIR has identified seven (7) significant unavoidable impacts of the Proposed Project:

- Construction air emissions;
- Operational air emissions;
- Cumulative air emissions;
- Inconsistency with the Air Quality Management Plan;
- Growth inducement;
- Inconsistency with SCAG regional growth management policies; and
- Cumulative contributions to freeway congestion.

5.1.3 - Alternatives Evaluated But Rejected as Infeasible

During the review of potentially significant impacts, a number of alternative land use plans were considered. The first series of alternatives considered were various site plans and tract layout maps that were consistent or largely consistent with the approved PHSP. However, all of these plans had individual owned residential lots that varied in size from 3,500 to 7,200 square feet “below” (south of) the San Andreas Fault and 10,000 square feet and over for lots above (north of) the fault. The approved specific plan does not use a variety of housing types and densities to effectively cluster units, and any of these plans allowed extensive development in the middle and upper reaches of Badger Canyon. Development in these areas was strongly discouraged by conservation organizations when the original PHSP was approved, and these organizations would likely still discourage any significant development north of the fault and/or in the middle to upper portions of Badger Canyon. For those reasons, a variety of alternatives that are similar to the approved PHSP were rejected because they would cause considerably more or greater environmental impacts compared to the Proposed Project.

5.1.4 - Alternatives Selected for Detailed Analysis

The six alternatives to the Proposed Project analyzed in this section are as follows:

- **No Project – No Development Alternative:** The project site would remain in its existing condition and the Proposed Project would not be developed.
- **No Project – General Plan Development:** Development according to approved PHSP (approximately 504 units).
- **Modified Specific Plan Alternative:** To reduce air quality and growth inducement impacts, this alternative would be phased and have more “mixed” uses (i.e., 100,000 square feet of retail commercial and other non-residential) on the site. It would also have fewer residential lots (approximately 700 units) but with higher densities than those allowed under the UHSP to be able to cluster more effectively.

- **Educational Institution/Technology Park Alternative:** The University District Specific Plan identifies general areas for technology park uses, which would support and benefit research at the University. This alternative would locate an additional institution for higher education on this site, either in conjunction with or in support of the CSUSB.
- **Alternative Sites:** Due to the various physical constraints of the site (e.g., several San Andreas Fault branches, Badger Canyon, SBVMWD pipeline, etc.), potential alternative sites to the Proposed Project were examined.

The following sections analyze these potentially feasible alternatives to the Proposed Project. This analysis compares the Proposed Project and each individual project alternative. In several cases, the description of the impact may be the same under each alternative when compared with the CEQA Thresholds of Significance (i.e., both alternatives would result in a “Less than Significant Impact”). The actual degree of impact may be slightly different under each alternative, and this relative difference is the basis for a conclusion of greater or lesser impacts.

5.2 - No Project – No Development Alternative

5.2.1 - Description of Alternative

Under the No Project Alternative, the Proposed Project would not be developed and the site would remain in its vacant condition.

5.2.2 - Impact Analysis

Aesthetics, Light, and Glare

This alternative would allow the site to remain in its undeveloped condition. Therefore, this alternative would have no impacts on aesthetics, light, and glare.

Air Quality

This alternative would result in no development on the site, so there would be no air quality impacts from construction or from occupancy of residential units. Therefore, this alternative would eliminate four (4) of the significant unavoidable air quality impacts of the Proposed Project related to air quality.

Biological Resources

This alternative would leave the site in its vacant condition, which would eliminate impacts to biological resources that would result from developing the alluvial fan area in the south and central portions of the site.

Cultural Resources

This alternative would leave the site vacant so there would be no impacts on cultural resources. The Proposed Project would have impacts on cultural resources, but these impacts were determined to be

reduced to less than significant levels through the implementation of recommended mitigation (i.e., resource surveys, recovery, and monitoring of grading).

Geology, Soils, and Seismicity

The site contains several splays of the San Andreas Fault, and potential landslides in Planning Area 15. Under this alternative, the site would remain vacant so there would be no potential impacts to future residents or structures from geotechnical constraints. Implementation of the UHSP as proposed, plus compliance with established seismic codes and implementation of the recommended mitigation would reduce potential impacts to less than significant levels.

Hazards and Hazardous Materials

The Proposed Project does produce potentially significant hazards and risks to future residents and structures, mainly related to wildland fires and hazardous materials (to a minor degree. This alternative would prevent any of those potential impacts from occurring; however, the EIR determined that compliance with applicable regulations and implementation of the recommended mitigation, including the fuel modification plan, would reduce these impacts to less than significant levels.

Hydrology and Water Quality

This alternative would eliminate potential impacts of the Proposed Project on water quality, onsite drainage, and downstream waterways. However, the EIR determined that the impacts of the Proposed Project could be reduced to less than significant levels by compliance with state and federal regulations and implementation of the recommended mitigation.

Land Use

This alternative would let the site remain in its vacant condition, which is compatible with current educational uses by CSUSB (e.g., classroom instruction relative to geology, biology, etc.).

Noise

This alternative would result in no noise impacts since the site would remain vacant and undeveloped.

Population, Housing, and SCAG Consistency

This alternative would leave the site in its vacant condition, and therefore eliminate potential significant impacts related to population and housing growth.

Public Services and Recreation

This alternative would result in no increase in the consumption of water or energy resources, or the additional production of wastewater or solid waste. Therefore, this alternative would have no impacts on public services and recreation. A key portion of the planned Foothill regional trail would not be constructed through this area.

Transportation

This alternative would allow the site to remain vacant and prevent impacts of project traffic on local roads and the I-215 Freeway and would eliminate a significant unavoidable impact.

Agriculture and Mineral Resources

The site would remain vacant so there would be no impacts related to these resources.

Utility Systems

This alternative would allow the site to remain in its vacant condition; therefore, there would be no impacts on local utility systems. However, the Proposed Project will provide three reservoirs that would help improve the City's water service capabilities to the surrounding area. Without implementation of the proposed utility system, the opportunity for future growth would be eliminated, and this alternative would cause an indirect impact.

5.2.3 - Conclusion

The No Project – No Development Alternative would eliminate the seven significant impacts of the Proposed Project relative to construction and occupancy of the proposed UHSP. However, it would result in an indirect impact to future growth of the City. Furthermore, this alternative does not achieve any of the objectives of the Proposed Project.

5.3 - No Project – General Plan Development Alternative

5.3.1 – Description of Alternative

Under this alternative, the site would be developed under the approved PHSP as outlined under the previous EIR certified in 1993, which allowed 504 residential units.

5.3.2 - Impact Analysis

Aesthetics, Light, and Glare

This alternative would produce greater impacts than those of the Proposed Project, since it would allow development higher upslope (i.e., up into Badger Canyon) which would be more visible from the San Bernardino Valley. Therefore, this alternative would have somewhat increased impacts on aesthetics, light, and glare in comparison to the Proposed Project.

Air Quality

This alternative would have increased construction impacts since grading would be required in portions of Badger Canyon, which would still be significant for PM₁₀ compared to SCAQMD thresholds, even with implementation of the recommended mitigation. Long-term air pollutant emissions from project occupancy would be reduced by approximately 48.5 percent since this alternative would have 504 units compared to the 980 units proposed under the UHSP. If the mitigation measures proposed for the UHSP were applied to this alternative, they would reduce long-term project emissions to less than significant levels, as shown below:

Source	Long-Term Emissions (pounds per day)						
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO ₂
UHSP Total*	104.0	91.0	557.0	0.0	102.0	20.0	75,764
PHSP Total**	50.4	44.1	270.1	0.0	49.5	9.7	36,746
SCAQMD Significance Threshold	55.0	55.0	550.0	150.0	150.0	55.0	None
Significant Impact?	No	No	No	No	No	No	-
VOC = volatile organic compounds NO _x = nitrous oxides CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ and PM _{2.5} = particulate matter CO ₂ = carbon dioxide * from Table 4.2-7 in UHSP EIR ** assumes 48.5% of UHSP emissions (504 vs. 980 units) Source: MBA 2007							

Therefore, this alternative would eliminate one of the significant unavoidable impacts identified in Section 4, and would have slightly increased air quality impacts during construction, with less than significant long-term air quality impacts compared to the Proposed Project.

Biological Resources

The previous EIR concluded that impacts to biological resources from developing the proposed PHSP would be significant, even with implementation of recommended mitigation measures. Areas in the middle and upper portions of Badger Creek and the surrounding uplands approved for development under the PHSP would be developed, and would significantly impact biological resources. Under this alternative, less open space would be preserved, and greater loss of native habitat would occur. This alternative would have a greater impact on biological resources than the Proposed Project.

Cultural Resources

This DEIR identifies potential impacts to cultural resources and recommends mitigation to reduce those impacts to less than significant levels. While the previous Paradise Hills Specific Plan EIR did not acknowledge potential impacts to the former homestead property, it did allowed development into the middle and upper portions of Badger Canyon, which would have allowed human activity in proximity to the remnants of the Circle K nudist camp on the east side of the creek northeast of Planning Area 15. Under the proposed UHSP, this area would be within the permanent open space set aside as part of the CSUSB land laboratory, which would help protect these resources (i.e., prevent human activity) to a greater degree than under the PHSP. Therefore, this alternative would have increased impacts on cultural resources compared to those of the Proposed Project.

Geology, Soils, and Seismicity

This alternative would have allowed fewer residents and residences on the project site, which would have reduced potential impacts relative to geotechnical constraints. However, the PHSP plan allowed more development north of the faults and into Badger Canyon, which would tend to increase the potential risk to future residents and occupied structures from geotechnical hazards. Therefore, this

alternative has equivalent or increased impacts relative to geology, soils, and seismicity; although both the previous Paradise Hills Specific Plan EIR and the current University Hills Specific Plan DEIR conclude that these impacts can be reduced to less than significant levels.

Hazards and Hazardous Materials

This alternative would have allowed fewer residents and residences on the project site, which would have reduced potential impacts relative to existing hazards (e.g., wildland fires, flooding, etc.). However, the PHSP plan allowed more development north of the faults and into Badger Canyon, which is classified as a Fire Zone A, and would increase the potential risk to future residents and occupied structures from wildland fires, even with implementation of a fuel modification program, over those impacts associated with the Proposed Project.

Hydrology and Water Quality

This alternative would have similar water quality and drainage problems in downstream waterways as well as similar mitigation measures to the Proposed Project. However, the layout of the previous PHSP would increase potential water quality impacts compared to the proposed UHSP since the previous plan included additional residential development in the middle and upper reaches of Badger Canyon. Therefore, this alternative would have increased impacts relative to hydrology and water quality compared to the Proposed Project.

Land Use

This alternative would implement the approved Specific Plan designations of the project site, and would reduce potential land use impacts. This alternative would also eliminate the potential growth inducing impacts of the Proposed Project since the level of development under this alternative is consistent with SCAG population and housing projections (i.e., consistent with previous General Plan). Furthermore, this alternative would eliminate one of the significant unavoidable impacts identified in Section 4.8 (Land Use).

Noise

This alternative would create short-term noise impacts greater than those of the Proposed Project since a larger area of land would be disturbed, including steeper areas in middle and upper Badger Canyon, which would require more earthwork. This alternative would create reduced long-term noise impacts since it would have 504 units compared to 980 units of the UHSP (i.e., fewer residents and vehicular trips per day). Therefore, this alternative would have fewer noise impacts (i.e., lower noise levels) compared to the Proposed Project, and they would both be less than significant with proposed mitigation.

Population, Housing, and SCAG Consistency

This alternative would be consistent with the population and housing growth estimates in the City General Plan, which were the basis for the SCAG Regional Transportation Plan projections of 2004. Therefore, this alternative would produce population and housing growth similar to that projected by

SCAG and thus have less than significant growth-related impacts compared to the Proposed Project. Furthermore, this alternative would eliminate one of the significant unavoidable impacts identified in Section 4-10 (Population and Housing).

Public Services and Recreation

This alternative would result in reduced demands on public services and parks as its population would be half that estimated for the Proposed Project (i.e., approximately 1,592 residents compared to 3,283) for the Proposed Project or require roughly half the level of services needed for the UHSP. Therefore, this alternative would have reduced impacts on public services and recreation than the Proposed Project, both less than significant based on the analysis in the DEIR.

Transportation

This alternative would create approximately half the traffic expected from the Proposed Project, as outlined in Section 4.12, *Transportation and Circulation*, in the DEIR. However, even the PHSP project would not reduce the estimated Levels of Service on the I-215 Freeway to less than significant levels, as shown below based on the data from Tables 11 and 12 from the project traffic study:

Freeway/Segment Limits	Without Project				Significant Impact?	
	AM Peak Hour		PM Peak Hour		AM	PM
	V/C	LOS	V/C	LOS		
I-215 Northbound						
Baseline Road to 16 th Street	0.49	B	0.89	D	No	No
16 th Street to Massachusetts Avenue	0.46	B	0.98	E	No	Yes
Highland Avenue to Mount Vernon Avenue	0.45	B	0.98	E	No	Yes
Mount Vernon Avenue to SR-30 Freeway	0.42	B	0.86	D	No	No
SR-30 Freeway to University Parkway	0.43	B	0.88	D	No	No
	0.51	B	0.99	E	No	Yes
I-215 Southbound						
University Parkway to SR-30 Freeway	0.97	E	0.66	C	Yes	No
SR-30 Freeway to Mount Vernon Avenue	0.92	D	0.61	C	No	No
Mount Vernon Avenue to Highland Avenue	0.93	D	0.61	C	No	No
Highland Avenue to Massachusetts Avenue	0.98	E	0.65	C	Yes	No
16 th Street to Baseline Road	0.96	E	0.65	C	Yes	No
	0.97	E	0.70	C	Yes	No
Source: Tables 11 and 12, KA 2007						

This alternative would reduce traffic impacts on local streets and intersections, and these impacts would be reduced to less than significant levels with implementation of the recommended mitigation. This alternative would not reduce significant unavoidable impacts on freeway traffic and thus its impacts are equivalent to those of the Proposed Project.

Agriculture and Mineral Resources

Development of the project site under this alternative would disturb more land than that identified for the Proposed Project. However, this additional area is relatively steep (i.e., middle and upper Badger Canyon) and does not contain significant agricultural or mineral resources. Therefore, this alternative would have no impacts on agriculture and mineral resources similar to those of the Proposed Project.

Utility Systems

This alternative would reduce consumption of water and energy resources, and would decrease the generation of wastewater and solid waste over the long-term compared to the Proposed Project because it would have 504 units compared to 980 units, as shown below:

Utility	Usage/Unit	Total*
<u>Water</u> Consumption Rate Project Consumption	300 gal./per person or employee/day	503,830 gallons/day 0.56 acre-feet/year 705 acre-feet/year (+25% max.)
<u>Sewer</u> Generation Rate Project Production	150 gal./per person or employee/day	251,915 gallons/day (0.2 MG) 91.9 million gallons/year
<u>Electricity</u> Consumption Rate Project Consumption	6,081 kWh/unit/year	8,327 kWh/day 3.0 million kWh/year
<u>Natural Gas</u> Consumption Rate Project Consumption	6,665 c.f./unit/month	109,518 cubic feet/day 40.0 million cubic feet/year
<u>Solid Waste</u> Generation Rate Project Generation	4.1 lbs/person/day	8,328 pounds/day 1,520 tons/year
* based on 1,688 residents (504 proposed units x 3.35 persons/unit) plus 10 clubhouse employees		

As a worst-case estimate, the PHSP would consume approximately half the water and energy of the UHSP and generate half the wastewater and solid waste. However, these differences would not be as extensive because the UHSP proposes aggressive energy and water conservation strategies compared to the older PHSP project.

5.3.3 - Conclusion

The No Project – General Plan Development Alternative would have incrementally fewer impacts related to long-term occupancy of the project site since it would allow the development of approximately half the number of units compared to the Proposed Project (504 vs. 980 or 48.5%)/ However, the UHSP proposes aggressive water and energy conservation measures that would substantially reduce the differences in these impacts. This alternative would have similar or increased short-term air quality impacts from grading but reduced construction-related impacts (i.e., fewer units). Long-term air quality impacts under this alternative would be reduced to less than significant levels. This alternative may have increased impacts on biological and cultural resources, and the

City's water distribution system if development were to occur as outlined in the previously approved Paradise Hills Specific Plan. This alternative would also create increased risks to project residents and residences related to wildland fires and geotechnical constraints. Growth inducement and impacts related to consistency with SCAG growth policies would be reduced to less than significant levels under this alternative. This alternative does not meet the objectives of the project to the same degree as the Proposed Project in that the PHSP does not contain current water or energy conservation strategies.

5.4 - Modified Specific Plan Alternative

5.4.1 – Description of Alternative

To reduce air quality and growth inducement impacts, this alternative would be phased and have more “mixed” uses (i.e., 100,000 square feet of commercial and other non-residential) on the site. It would also have fewer residential lots (approximately 700 units) but with higher densities than those allowed under the UHSP to be able to cluster units more effectively. This alternative would likely require many buildings with 3-4 stories rather than 2-3 story buildings under the current UHSP. The current “clubhouse” area would become more of a community center under this alternative, with taller buildings and approximately 100,000 square feet of a mixture of commercial and professional office uses. Each residential planning area would be larger overall than under the UHSP, and each would be built on pads that could be more isolated in terms of grading. At present, the land plan requires that the entire development area (approximately 170 acres) be graded at one time to balance earthwork onsite (i.e., no substantial import of soil onto or export of soil off of the site). Balancing earthwork within a development area is an important consideration of project design, not only for cost, but to minimize the import or export of soil from the site, which could significantly increase short-term traffic, noise, and air quality impacts. The only feasible way to accomplish this balancing with smaller planning areas would be to “pair” two planning areas, one upslope and one downslope, and use the cut material from the upper area to create a pad for the lower area. This would necessarily create a more terraced look to the development.

The road system would be similar to that of the proposed UHSP but there would be more open space between the Planning Areas and the project would be built over a longer period of time to reduce short-term construction impacts.

5.4.2 - Impact Analysis

Aesthetics, Light, and Glare

This alternative would produce views, light, and glare similar to that of the Proposed Project except that nighttime lighting for non-residential uses would be incrementally greater than that for residential uses. Overall, this alternative would have equivalent impacts on aesthetics, light, and glare similar to the Proposed Project.

Air Quality

This alternative may reduce short-term grading and construction impacts to less than significant levels if Planning Areas could be graded independently of each other. Reducing the number of residential units may reduce long-term emissions of air pollutants from vehicular trips to less than significant levels; however, the addition of non-residential uses to this project would substantially increase the amount of traffic and increase the amount of air pollution generated over the long term, as shown below:

Source	Long-Term Emissions (pounds per day)						
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO ₂
UHSP Total*	104.0	91.0	557.0	0.0	102.0	20.0	75,764
Modified Specific Plan Alternative	220.5	192.9	1,180.8	0.0	216.2	42.4	160,620
SCAQMD Significance Threshold	55.0	55.0	550.0	150.0	150.0	55.0	None
Significant Impact?	Yes	Yes	Yes	No	Yes	No	-
VOC = volatile organic compounds NO _x = nitrous oxides CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ and PM _{2.5} = particulate matter CO ₂ = carbon dioxide * from Table 4.2-7 in UHSP EIR ** assumes +212% from UHSP emissions (13,000 ADT vs. 6,140 ADT for UHSP) Source: MBA 2007							

Therefore, the desire to provide a mix of land uses on the site to help reduce internal trips and trip lengths will actually increase the number of trips generated by the project unless the number of units is reduced to approximately 200-300. Without a detailed land plan, it is difficult to precisely estimate air pollutant generation from this alternative, however, it is reasonable to conclude that a mixed use project as described in Section 5.3.1 would produce significant long-term air quality impacts and at increased levels compared to the Proposed Project.

Biological Resources

This alternative would disturb an amount of land similar to the Proposed Project, which would have impacts to biological resources similar to those of the Proposed Project. This alternative assumes a similar development area as the Proposed Project, with larger areas of open space between planning areas. The land proposed for the land laboratory would be preserved under this alternative, as it would in the Proposed Project. Impacts to biological resources would be equivalent to those of the Proposed Project.

Cultural Resources

This alternative would have similar impacts on cultural resources compared to those of the Proposed Project because a similar area would be proposed for development. This DEIR identifies potential

impacts to cultural resources and recommends mitigation to reduce those impacts to less than significant levels.

Geology, Soils, and Seismicity

This alternative would allow fewer residents and residences on the project site, but would increase the amount of employees and worksites in the community center area. Therefore, potential risks to “people” (i.e., residents or employees) on the site would be similar to that estimated for the Proposed Project.

Hazards and Hazardous Materials

This alternative would allow fewer residents and residences on the project site, but would have more employees and businesses, which would incrementally increase potential impacts relative to hazardous materials. However, risks related to existing hazards such as wildland fires, flooding, etc. would likely be similar to those of the Proposed Project. This alternative would have a fuel modification plan. Overall, this alternative would have similar impacts relative to hazards.

Hydrology and Water Quality

This alternative would have the potential to create water quality and drainage problems in downstream waterways. As such, this alternative would require mitigation similar to the Proposed Project. Furthermore, improvements for this alternative would have to meet the same standards as the UHSP. Therefore, this alternative would have similar impacts relative to hydrology and water quality compared to the Proposed Project (depending on mitigation).

Land Use

This alternative would have land use impacts similar to those of the Proposed Project but would add commercial and office uses in this area to provide a more balanced or mixed community character. These additional uses would not create significant land use impacts due to the separation or buffering from existing residential neighborhoods to the southeast (i.e., flood basins, CSUSB, etc.). This alternative would also largely eliminate the potential growth inducing impacts of the Proposed Project since the level of development under this alternative is consistent with SCAG population and housing projections (i.e., consistent with previous General Plan) and it would add job-producing uses in a housing-rich area.

Noise

This alternative would create short-term noise impacts similar to those of the Proposed Project since a similar amount of land would be disturbed. This alternative would probably create increased long-term noise impacts since it would increase the amount of traffic, especially during peak hours, by introducing non-residential uses onto this site. Overall, this alternative would likely have similar noise impacts compared to the Proposed Project, depending on the specific mitigation imposed on this alternative between the community center uses and surrounding residential uses.

Population, Housing, and SCAG Consistency

This alternative would largely be consistent with the population and housing growth estimates in the City General Plan, which were the basis for the SCAG Regional Transportation Plan projections of 2004. In addition, it would introduce job-producing uses in a housing-rich area, consistent with SCAG growth policies. This alternative would produce population and housing growth similar to that projected by SCAG (plus employment growth), and thus would have less than significant growth-related impacts compared to the Proposed Project.

Public Services and Recreation

The housing and population growth of this alternative would be less than under the Proposed Project (700 homes and 2010 residents versus 980 homes and 3,283 residents). However, it could generate several hundred employees, which would partially offset the reduction in housing and service demands. Therefore, this alternative may have an impact on public services and recreation by the offset of housing and service demands; however is still less than significant based on the analysis in the DEIR.

Transportation

This alternative would generate approximately half the traffic from residential uses compared to the Proposed Project (2,978 ADT versus 6,140 ADT, as outlined in Section 4.12, *Transportation and Circulation*, in the DEIR). However, the addition of commercial uses would generate more traffic during peak hours than residential uses, increasing project trips up to 7,000 trips per day over the Proposed Project's trip generation (C. Ballard, personal communication, 2008). This alternative would increase trip generation (13,000 ADT vs. 6,140 ADT) and traffic impacts on local streets during non-peak times. Level of Service deficiencies on the I-215 Freeway would be expected to increase, beyond the unacceptable levels already anticipated. (i.e., they would still exceed significance levels). This alternative would increase traffic impacts on local streets and intersections due to the addition of trips associated with commercial uses during peak periods. This alternative would result in significant unavoidable impacts associated with freeway traffic, and would have greater impacts than the Proposed Project on levels of service on City streets.

Agriculture and Mineral Resources

Development of the project site under this alternative would disturb approximately the same amount of land than that identified for the Proposed Project. This DEIR concluded that the project site does not include lands with agricultural or mineral resource potential. Therefore, this alternative would have no impacts on agriculture and mineral resources, as would the Proposed Project.

Utility Systems

This alternative would reduce consumption of water and energy resources, and would decrease the generation of wastewater and solid waste over the long-term compared to the Proposed Project for residential uses (i.e., it would have 700 units compared to 980 units). However, these reductions would be offset to a degree by consumption from the non-residential uses, as shown below:

Utility	Usage/Unit	Total*
<u>Water</u> Consumption Rate Project Consumption	300 gal./per person or employee/day	789,000 gallons/day 2.8 acre-feet/day 3.5 acre-feet/day (=25% max.)
<u>Sewer</u> Generation Rate Project Production	150 gal./per person or employee/day	394,500 gallons/day (0.4 MG) 144 MG/year
<u>Electricity</u> Consumption Rate Project Consumption	6,081 kWh/unit/year 16.1kWh/square foot/year	16,074 kWh/day 5.87 million kWh/year
<u>Natural Gas</u> Consumption Rate Project Consumption	6,665 c.f./unit/month 2.0 c.f./square feet/month	162,184 cubic feet/day 59.2 million cubic feet/year
<u>Solid Waste</u> Generation Rate Project Generation	4.1 lbs/person/day	10,783 pounds/day 1,968 tons/year
* based on 2,345 residents (700 proposed units x 3.35 persons/unit) plus 285 employees (100,000 square feet of commercial and office space at 1 employee per 350 square feet).		

Due to the intensity of development under this alternative, it would be expected that the construction of new reservoirs would occur as it would for the Proposed Project, resulting in equivalent impacts in this area.

5.4.3 - Conclusion

The Modified Specific Plan Alternative would have incrementally fewer impacts related to long-term occupancy of the project site since it would allow the development of fewer residential units compared to the Proposed Project (700 vs. 980 or 40 percent less). However, the addition of commercial and office uses under this “mixed use” plan would generate a greater amount of traffic than the Proposed Project, especially during peak periods. The mixed uses would help reduce the number and length of vehicular trips off of the project site.

This alternative could reduce short-term (daily) air quality impacts from grading and construction to less than significant levels, however, it would extend those impacts over a longer period of time if development phasing were increased (i.e., from 5 to 10 years). Long-term air quality impacts under this alternative would increase by adding non-residential uses, and would still exceed significance thresholds.

This alternative would have equivalent impacts on biological and cultural resources, and would likely create similar risks to project residents and residences (and businesses and employees) related to wildland fires and geotechnical constraints. Growth inducement and impacts related to consistency with SCAG growth policies would be reduced to less than significant levels under this alternative. This alternative would meet some of the objectives of the project.

5.5 - Educational Institution/Technology Park Alternative

5.5.1 – Description of Alternative

The University District Specific Plan identifies the general area for technology park uses, which would be supported and will benefit from research at the University. To reduce air quality and growth inducement impacts, this alternative would eliminate residential uses and place an educational institution and related technology uses in this area to support CSUSB. These uses could be in conjunction with or in support of the Cal State San Bernardino campus. The proposed alternative would house approximately 2.75 million square feet of office space, industrial use, and educational research for information technologies. Based on discussions with the San Bernardino City Unified School District, this plan does not envision K-12 facilities at this time. The road system would be similar to that of the proposed UHSP but there might be more open space between various buildings or uses, and they may be built over a longer period of time to reduce short-term construction impacts.

5.5.1 - Impact Analysis

Aesthetics, Light, and Glare

Development of the proposed alternative would produce views, light, and glare greater than the Proposed Project because nighttime activities and lighting needs for non-residential uses would be greater than that for residential uses. Unless this alternative had a substantially smaller development footprint as the UHSP, it would most likely create increased impacts on aesthetics, light, and glare.

Air Quality

If the development footprint of this alternative were similar to that of the Proposed Project, it would likely have similar short-term grading and construction impacts (i.e., significant). Based on trip generation data from the Institute of Transportation Engineers (ITE), an educational institution and related technology uses on 170 acres would generate traffic volumes well in excess of the 6,140 ADT estimated for the UHSP project (C. Ballard, personal communication, January 2008). Therefore, long-term air quality impacts of this alternative would be greater than those estimated for the Proposed Project, as shown below:

Source	Long-Term Emissions (pounds per day)						
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO ₂
UHSP Total*	104.0	91.0	557.0	0.0	102.0	20.0	75,764
Educational Institution/Technology Park Alternative	254.8	223.0	1,364.7	0.0	249.9	49.0	185,622
SCAQMD Significance Threshold	55.0	55.0	550.0	150.0	150.0	55.0	None
Significant Impact?	Yes	Yes	Yes	No	Yes	No	-

Source	Long-Term Emissions (pounds per day)						
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO ₂
VOC = volatile organic compounds		NO _x = nitrous oxides		CO = carbon monoxide			
SO _x = sulfur oxides		PM ₁₀ and PM _{2.5} = particulate matter		CO ₂ = carbon dioxide			
* from Table 4.2-7 in UHSP EIR							
** assumes +245% from UHSP emissions (6,140 ADT vs. 15,000 ADT)							
Source: MBA 2007							

There would be some trip reduction if this alternative included some amount of retail commercial uses in support of the educational and technology uses (i.e., pass-by trips, see Section 5.3, *Modified Specific Plan Alternative*).

Biological Resources

This alternative would disturb an amount of land similar to the Proposed Project, which would have impacts to biological resources similar to those of the Proposed Project. In addition, developing this site for non-residential uses may result in the elimination of the planned walnut woodland park area, which would increase impacts on biological resources. Since a similar development envelope would be proposed under this alternative, the open space area to be used as a land laboratory would be expected to remain, preserving land for native species to a level equivalent to the Proposed Project.

Cultural Resources

This DEIR identifies those potential impacts and recommends mitigation to reduce those impacts to less than significant levels. This alternative would likely have similar impacts on cultural resources compared to those of the Proposed Project because a similar amount of land would be proposed for development.

Geology, Soils, and Seismicity

This alternative would have no residents or residences on the project site, but it would introduce hundreds or thousands of employees and/or students onto the site who would be subject to increased risk from geotechnical constraints. Therefore, potential risks to “people” (i.e., residents or employees) on the site would most likely be equivalent to estimates from the Proposed Project.

Hazards and Hazardous Materials

This alternative would have no residents and residences on the project site, but would have hundreds if not thousands of employees and/or students who would incrementally increase potential impacts relative to onsite hazards and hazardous materials. Risks related to existing hazards such as wildland fires, flooding, etc. would likely be similar to those of the Proposed Project because this alternative would have a fuel modification plan. Overall, this alternative would have increased impacts relative to hazardous materials by introducing educational and technology-oriented businesses onto this site.

Hydrology and Water Quality

This alternative would have the potential to create water quality and drainage problems in downstream waterways. As such, this alternative would require mitigation similar to the Proposed Project. Furthermore, improvements to the proposed alternative would have to meet the same standards as the UHSP. Therefore, this alternative would have similar impacts relative to hydrology and water quality compared to the Proposed Project (depending on mitigation).

Land Use

This alternative would create land use impacts different from those of the Proposed Project, though not necessarily significant or adverse. This alternative would introduce educational and technology-oriented businesses onto this site, creating a very different community character than envisioned at present. These additional uses would not necessarily create significant land use impacts due to the separation or buffering from existing residential neighborhoods to the southeast (i.e., flood basins, CSUSB, etc.). This alternative would eliminate potential growth inducing impacts of the Proposed Project since it would not introduce new housing or population into this area. It would instead introduce new employment into this area considered to be “housing rich” by SCAG. This alternative would actually produce less population and housing growth compared to SCAG projections. This alternative may conflict with the existing airport just west of the site.

Noise

This alternative would create short-term noise impacts similar to those of the Proposed Project since a similar amount of land would be disturbed. This alternative would probably create decreased long-term noise impacts because activities would most typically occur during daytime and weekday hours, and the project would be largely vacant at night and on the weekends. These types of uses would increase the amount of traffic during peak hours by introducing non-residential uses onto this site. Overall, this alternative would likely have increased offsite noise impacts compared to the Proposed Project.

Population, Housing, and SCAG Consistency

This alternative would actually improve the jobs-housing balance in this portion of San Bernardino County, which is currently considered “housing rich” by SCAG. This alternative would decrease population and housing growth estimates in the previous City General Plan, which were the basis for the SCAG Regional Transportation Plan projections of 2004. In addition, it would introduce job-producing uses in a housing-rich area, consistent with SCAG growth policies, and thus would have less than significant growth-related impacts compared to the Proposed Project.

Public Services and Recreation

There would be no housing and population growth under this alternative; however, it could generate substantial impacts from hundreds if not thousands of additional employees in this area. These additional workers and students would more than offset the loss of housing and service demands from residential uses. Therefore, this alternative would have somewhat reduced impacts on public services

and recreation compared to the Proposed Project, but still less than significant based on the analysis in the DEIR.

Transportation

This alternative could generate considerably more traffic, similar to residential uses of a comparable area (C. Ballard, personal communication, January 2008). Estimates of trip generation for this alternative are based on data contained in Section 4.12, *Transportation and Circulation*, in the DEIR. The introduction of non-residential uses would likely generate the same or more traffic during peak hours than from residential uses (C. Ballard, personal communication, 2008). This alternative may reduce traffic impacts on local streets during non-peak times, but it would not reduce the estimated Levels of Service on the I-215 Freeway to less than significant levels, and may not reduce traffic impacts on local streets and intersections due to the addition of non-residential uses during peak periods. Therefore, this alternative would not reduce significant unavoidable impacts on freeway traffic to less than significant levels, so its impacts are equivalent or increased compared to those of the Proposed Project.

Agriculture and Mineral Resources

Development of the project site under this alternative would disturb approximately the same amount of land than that identified for the Proposed Project. Therefore, this alternative would not have increased impacts on agriculture and mineral resources compared to those of the Proposed Project.

Utility Systems

This alternative would decrease consumption of water and energy resources, and would decrease the generation of wastewater and solid waste over the long-term compared to the Proposed Project for residential uses. However, these losses could be partially or completely offset by consumption from the non-residential uses, as shown below:

Utility	Usage/Unit	Total*
<u>Water</u> Consumption Rate Project Consumption	300 gal./per person or employee/day	689,060 gallons/day 0.77 acre-feet/year 965 acre-feet/year (+25% max.)
<u>Sewer</u> Generation Rate Project Production	150 gal./per person or employee/day	344,530 gallons/day (0.28 MG) 125.7 million gallons/year
<u>Electricity</u> Consumption Rate Project Consumption	6,081 kWh/unit/year	11,388 kWh/day 4.16 million kWh/year
<u>Natural Gas</u> Consumption Rate Project Consumption	6,665 c.f./unit/month	149,782 cubic feet/day 54.7 million cubic feet/year
<u>Solid Waste</u> Generation Rate Project Generation	4.1 lbs/person/day	11,390 pounds/day 2,078.7 tons/year

Utility	Usage/Unit	Total*
* based on no residents plus approx. 5,500 employees (2.75M square feet of office space at 1 employee per 500 square feet).		

This alternative would result in the construction of reservoirs, similar to the proposed project, to create the domestic water system necessary to serve urban development.

5.5.2 Conclusion

The Educational Institution/Technology Park Alternative would produce very different impacts compared to those from the residential uses of the Proposed Project. It would likely generate more peak hour traffic, but non-peak hour traffic may be substantially less than that of the Proposed Project. The addition of educational and institutional uses under this plan would likely not reduce short-term (daily) air quality impacts from grading and construction to less than significant levels due to the need to grade the entire area for efficient site planning. Long-term air quality impacts under this alternative would probably be higher than those produced by residential uses, and would still exceed significance thresholds.

This alternative would have equivalent impacts on biological and cultural resources, and would likely create similar risks to project employees and students rather than to project residents and residences in terms of wildland fires and geotechnical constraints. Growth inducement and impacts related to consistency with SCAG growth policies would be reduced to less than significant levels under this alternative. Although the alternative project may meet certain objectives to the same degree as the Proposed Project, it does not meet all the specific project objectives already outlined in the approved PHSP.

5.6 - Alternative Sites

CEQA requires the evaluation of alternative sites if moving the Proposed Project to another site would eliminate or avoid one or more significant impacts of the Proposed Project. The impacts to both short-term and long-term air quality would occur regardless of location. The significant impact to freeway traffic might be reduced by a different location, but the I-215 Freeway experiences similar levels of congestion from its intersection with the I-15 four miles to the north down to its intersection with the I-10 Freeway six miles to the south. Therefore, it is not likely that an alternative location would eliminate this significant traffic impact of the Proposed Project. Unless the UHSP project can be built with mixed uses or adjacent to a transit center (no sites of this size available near the San Bernardino center), the Proposed Project cannot be made consistent with the growth projections or policies of SCAG, therefore, an alternative location would not eliminate this significant impact of the Proposed Project. Based on discussions with City staff and a survey of the surrounding area, there are no other vacant sites of this size in the northern portion of San Bernardino. This analysis demonstrates that impacts of development as proposed under the UHSP on an alternative site would

be equivalent to those of the UHSP developed on this location. Therefore, an alternative site is not a feasible or viable option for this project.

5.7 - Environmentally Superior Alternative

The environmental effects of each alternative in relation to the Proposed Project are summarized in Table 5-1. CEQA Guidelines Section 15126(e)(2) requires an EIR to identify an “environmentally superior alternative.” If the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives. Each of the proposed alternatives would have equivalent or greater environmental impacts relative to the Proposed Project, therefore, there is no environmentally superior alternative to the Proposed Project.

Table 5-1: Summary of Impacts for Alternatives Compared to Proposed Project with Mitigation

Environment al Issue	Proposed Project (UHSP)	No Project –No Development Alternative	No Project – General Plan Alternative (PHSP)	Modified Specific Plan Alternative	Educational Institution/ Tech. Park Alternative
Aesthetics, Light, and Glare	Less than significant	No impact	Somewhat increased	Equivalent but more non-residential uses	Increased but less than significant
Air Quality	Significant	No impact	Significant	Less than significant	Significant
Construction Operation	Significant	No impact	Less than significant	Significant despite mixed use	Significant
Biological Resources	Less than Significant	No impact	Significant	Less than significant	Less than significant
Cultural Resources	Less than Significant	No impact	Increased and potentially significant	Less than significant	Less than significant
Geology, Soils, and Seismicity	Less than Significant	No impact	Increased but less than significant	Less than significant	Less than significant
Hazards and Hazardous Materials	Less than Significant	No impact	Reduced but less than significant	Less than significant	Significant Increased hazmat use
Hydrology and Water Quality	Less than Significant	No impact	Increased but less than significant	Less than significant	Less than significant
Land Use	Less than Significant	No impact	Less than significant	Increased but less than significant	Significant

Table 5 1: Summary of Impacts for Alternatives Compared to Proposed Project with Mitigation (Cont.)

Environment al Issue	Proposed Project (UHSP)	No Project –No Development Alternative	No Project – General Plan Alternative (PHSP)	Modified Specific Plan Alternative	Educational Institution/ Tech. Park Alternative
Noise	Less than Significant	No impact	Reduced and less than significant	Mixed but less than significant	Increased but less than significant
Population , Housing, and SCAG Consistency	Significant Growth Inducing & SCAG policies	No impact	Less than significant	Less than significant	Less than significant
Public Services and Recreation	Less than Significant	No impact	Reduced but less than significant	Reduced but less than significant	Mixed but less than significant?
Transportation and Circulation	Significant Fwy congestion	No impact	Significant Fwy congestion	Significant Local traffic & Fwy congestion	Significant Local traffic & Fwy congestion
Agriculture and Mineral Resources	Less than Significant	No impact	Less than significant	Less than significant	Less than significant
Utility Systems	Less than Significant	No impact	Reduced	Reduced	Reduced
Meets Project Objectives?	Yes	No	Not to same degree	Not to same degree	No

