

# CHAPTER 5

---

## Alternatives

### 5.1 Introduction

Section 15126.6(a) of the CEQA Guidelines indicates the scope of alternatives to a proposed project that must be evaluated:

“An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selection of a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.”

CEQA Guidelines Section 15126.6(e) further requires that an alternative be included that describes what would reasonably be expected to occur on the property in the foreseeable future if the Project Site development were not approved, based on current plans and consistent with available infrastructure and community services. This is considered to be the “No Project Alternative.”

Some of the factors that may be used to eliminate alternatives from detailed consideration in an EIR are:

1. Failure to meet most of the basic project objectives;
2. Infeasibility; or
3. Inability to avoid significant environmental impacts.

These criteria are not exhaustive, and other appropriate factors may be considered as well. (CEQA Guidelines Section 15126.6(c)).

The alternatives addressed in this EIR were selected based on the following general factors set forth in CEQA Guidelines Section 15126.6. The specific reasons for selection of these alternatives are discussed in greater detail below as part of the summary of alternatives (see

Section 5.2). In addition, a list of alternatives that were considered, but not evaluated in the EIR, is provided in Section 5.2, along with the reasons the alternatives were rejected.

- The extent to which the alternative would avoid or substantially lessen any of the identified significant environmental effects of Project Site development (see Table 6-1 for a listing of significant unavoidable impacts);
- The extent to which the alternative would accomplish most of the basic objectives of the Project (see Section 3.13.1, *Objectives Identified by the City of Brisbane*, for a listing of the Project objectives used to evaluate Project alternatives);
- The potential feasibility<sup>1</sup> of the alternative, taking into account site suitability, economic viability, availability of infrastructure, property control (ownership), and consistency with applicable plans and regulatory limitations;
- The extent to which the alternative contributes to a “reasonable range” of alternatives necessary to permit a reasoned choice; and
- The requirement to consider a “no project” alternative, an alternative that provides for the likely outcome should the proposed project not be approved, and to identify an environmentally superior alternative in addition to the “no project” alternative (CEQA Guidelines Section 15126.6(e)).

## 5.2 Summary of Alternatives

In accordance with the general alternatives selection criteria discussed in Section 5.1, *Criteria for Selecting Alternatives*, above, the following alternatives were selected for analysis in this EIR because either they are required under CEQA (the no project alternatives), or to reduce or avoid significant effects of Project Site development, while attaining most of the Project Site development objectives. **Table 5-1** summarizes the development planned for the Project Site development scenarios and for each of the alternatives described below. The alternatives are analyzed in detail in Section 5.3, *Analysis of Alternatives*.

### 5.2.1 No Project Alternatives

#### No Project-No Build Alternative

The No Project-No Build Alternative assumes that existing conditions would continue. None of the Project Site development components described in Chapter 3, Alternatives, would be approved, and there would be no further development within the Project Site, including infrastructure. Existing, continuing uses in the Baylands include Sierra Point Lumber and Van Arsdale-Harris Lumber, the Recology resource recovery facility, Brisbane Bayshore Industrial Park, Lazzari Fuel Company, Baylands Soils Processing, LLC, and the Brisbane Recycling rock crushing facility. Since no future development is contemplated by this alternative, it would not

---

<sup>1</sup> CEQA Guidelines Section 15364 defines feasible as “capable of being accomplished within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.”

TABLE 5-1  
COMPARISON OF PROJECT SCENARIOS AND ALTERNATIVES LAND USES

Land Uses	Proposed Project Development Scenario				No Project–No Build	Alternative			
	DSP	DSP-V	CPP	CPP-V		No Project–General Plan Buildout	Renewable Energy Generation	Reduced Intensity Non-Residential Alternative	Reduced Intensity Mixed Use
Project Area									
Upland/Lagoon (acres)	684.0	684.0	733.0	733.0	733.0	733.0	733.0	733.0	733.0
Public and Open Space									
Public Use/Open Space (acres)	196.6	196.6	330.0	330.0	196.6	196.6	330.0	330.0	196.0
Renewable Energy Generation (acres)	25.0	25.0	(a)	(a)	0	0	170.0	25.0	25.0
Wastewater Treatment (Pump Station) (acres) <sup>b</sup>	5.0	5.0	7.0	7.0	0	0	0	7.0	5.0
Residential (square feet / units)	5,150,400 / 4,434	5,150,400 / 4,434	0	0	0	0	0	0	2,781,216 / 2,400
Mixed Commercial/Office/Retail (square feet)	566,300	283,400	2,209,500	2,209,500	0	1,056,505	173,800	1,300,000	305,802
Office / Institutional (square feet)	2,651,100	2,252,100	992,700	992,700	0		0	80,000 <sup>c</sup>	1,431,594 <sup>c</sup>
Research & Development (square feet)	3,328,300	2,599,200	2,007,000	1,672,200	0		654,900	2,000,000	1,797,282
Industrial /Light Industrial/ Warehousing (square feet) <sup>c2</sup>	142,500	142,500	366,400	366,400	393,900	715,947	142,500	224,000	76,950
Entertainment / Cultural (square feet)			611,300	611,300					
Arena (square feet)	0	630,100			0		0		
Theater (square feet)	0	337,200			0		0		
Multiplex (square feet)	0	71,000			0		0		
Conference / Exhibition (square feet)	21,300	73,500	274,500	274,500	0		0		11,502
Hotel / Extended Stay (square feet / rooms)	239,800 / 369	513,300 / 719	1,392,300 / 1,990	1,046,100 / 1,500	0		0	520,000 / 650	129,492 / 200
Public / Civic / Cultural (square feet) <sup>d</sup>	28,200	28,200	188,700	188,700	0		0	180,000	15,228
Resource Recovery (square feet) <sup>e</sup>	0 <sup>f</sup>	0 <sup>f</sup>	259,000	1,011,000	259,000	259,000	1,011,000	1,011,000	259,000
Total Development (square feet)	12,127,900	12,080,900	8,301,400	8,372,400	632,900	2,018,288 <sup>g</sup>	1,982,200	5,315,000	6,808,066

<sup>a</sup> The CPP and CPP-V would incorporate alternative energy generation; location, size, and type of facilities would be determined at a later date. Acreages of other proposed land uses may decrease as a result.

<sup>b</sup> The differences in the acreages of the wastewater treatment plant are due to the roadway configurations that would occur under each proposed scenario.

<sup>c</sup> Institutional uses include educational and hospital for General Plan buildout.

<sup>c1</sup> The General Plan defines this use as "laboratory and miscellaneous related uses."

<sup>c2</sup> The Industrial/Light Industrial/Warehousing uses include the existing lumberyards (Sierra Point Lumber and Van Arsdale-Harris Lumber), which would be included in all scenarios. The existing lumberyards would be relocated to an area within the Project Site.

<sup>d</sup> Public/Civic/Cultural land uses include the Roundhouse and the Lazzari Fuel Company buildings.

<sup>e</sup> Resource Recovery use refers to the Recology, Inc site.

<sup>f</sup> The existing Recology, Inc. site is not part of the DSP or the DSP-V.

<sup>g</sup> Assumes maximum buildout as stated in the City of Brisbane 1994 General Plan.

General Notes  
The existing uses that would be removed under the Project Site development and Alternatives 3 and 4 include the Brisbane Industrial Park (231,4000 square feet) and interim uses occurring on the site (Brisbane Recycling/Rock Crushing and Baylands Soils Processing, LLC). These uses would remain with the No Project-No Build Alternative and No Project-General Plan Buildout Alternative.

SOURCE: City of Brisbane, 2012.

This page intentionally left blank

include site remediation<sup>2</sup>. The Geneva Avenue extension would not be part of Project Site development, but could be constructed by others as a regional transportation improvement identified in the Bi-County Transportation Study independently of any action taken by the City in relation to Project Site development. Since it would not be part of Project Site development under this alternative, the Geneva Avenue extension is not analyzed as part of the No Project-No Build Alternative. This alternative is intended to meet the requirements of CEQA Guidelines Section 15126.6(e) for evaluation of a no project alternative.

## No Project-General Plan Buildout Alternative

This alternative assumes that none of the proposed Concept Plans are selected, the proposed Specific Plan is not approved, and that buildout of the Project Site would occur pursuant to the existing adopted provisions of City of Brisbane 1994 General Plan. Existing uses within the Northeast Bayshore and Beatty Subareas would continue, but not be expanded, and new development would be limited to the Baylands Subarea, which is designated *Planned Development-Trade Commercial* and *Marsh/Lagoon/Bayfront*. Allowable uses under the *Planned Development-Trade Commercial* designation include retail sales, offices, bulk sales, open space, recreational facilities, statutory, public and quasi-public facilities, services and utilities, commercial services, hotels, research and development, educational institutions, and lagoon/bayfront. Incorporating various combinations of these allowable uses, the 1994 General Plan EIR describes three alternative conceptual land use scenarios for the Baylands Subarea.

As stated in Section 4.I, *Land Use*, the density/intensity of the buildout for the Baylands is described in the 1994 General Plan in terms of the maximum impact of development, particularly traffic impacts. As a result, a specific development intensity for buildout of the Baylands is not described in the General Plan, but is described in the EIR prepared for the 1994 General Plan. The General Plan EIR identifies near-term (10 years) development within the Baylands subarea to consist of a total of 650,000 square feet of new commercial development, with an increase of between one million square feet and 4.2 million square feet at ultimate buildout, depending on the mix of land uses (City of Brisbane, 1994). The General Plan EIR calculated the carrying capacity of the Baylands Subarea by defining the range of square footage of development that “could be accommodated without producing more traffic than could reasonably be mitigated to within the City’s level-of-service standard (LOS D) as being in the range of between one million square feet of a high trip generating land use, such as certain types of retail, up to 4.2 million square feet of a low trip-generating land use such as warehouse. The actual trip generation and corresponding

<sup>2</sup> Although site remediation is a prerequisite to any future development within the Project Site, site remediation could be the only Project component described in Table 3-1 to move forward as the result of certification of this EIR. As discussed below in Section 5.2.4, *Alternatives Considered, but Rejected*, a Project alternative consisting of site remediation in the absence of future development was considered, but rejected, since it was unreasonable to assume no future development would occur within the Project Site. In addition, remediation in the absence of any future development would not meet the City’s overarching objective to “create an active, vibrant place which strengthens the community of Brisbane; contributes to its sense of place; and demonstrates environmental, social, and economic considerations can be harmonized to the betterment of the natural environment, the Brisbane and regional community, and the individuals who will use the Baylands,” nor would it meet the City’s social equity or economic objectives. Thus, in the absence of approving any other Project component, it is reasonable to conclude that approval of only site remediation would ultimately lead to site development in accordance with the City’s existing General Plan (i.e., No Project – General Plan Buildout Alternative).

allowable square footage of development would lie somewhere between the hypothetical ‘high’ and ‘low’ and would reflect a mix of land use on the Project Site, as reflected in all three of the hypothetical long-term land use alternatives.”

For purposes of this EIR’s analysis, a mix of currently permitted commercial and office uses with a total trip generation equivalent to the range of development described in the General Plan EIR was developed. Thus, for purposes of analysis, the theoretical commercial/industrial buildout permitted by the General Plan is estimated to be:

- ***Baylands Subarea:***
  - 56,505 square feet of existing retail development
  - 600,000 square feet of new retail development
  - 400,000 square feet of new office development
  - 189,331 square feet of existing industrial development (Lazzari fuel building and existing lumberyards being relocated)
  - 200,000 square feet of new laboratory and industrial development
  - 1,056,505 total square feet of commercial/office development
  - 389,331 total square feet of industrial development
  - 1,445,836 total square feet of total development<sup>3</sup>*
- ***Beatty Subarea:*** Retention of the existing 259,000 square foot Recology facility
- ***Northeast Bayshore Subarea:*** Retention of existing industrial development, identified in the General Plan EIR as 326,616 square feet of industrial development

Implementation of the No Project-General Plan Buildout Alternative would require preparation of a Concept Plan and approval of one or more specific plans for the Baylands Subarea. To facilitate development pursuant to this alternative, remediation of the Project Site would be required, as would securing a firm water supply for onsite development. Thus, this alternative includes the site remediation and proposed water transfer agreement Project components described in Chapter 3, *Project Description*, of this EIR. Since Project Site development under the No Build-General Plan Amendment alternative would far less intense than proposed under any of the four Project Site development scenarios, development of an onsite recycled water plant would not occur as part of this alternative. However, because the General Plan calls for the Geneva Avenue extension, it is assumed to occur (whether as part of project development or as a regional improvement). This alternative is intended to meet the requirements of CEQA Guidelines Section 15126.6(e) for evaluation of a no project alternative and evaluate the likely outcome should the Project Site development as currently proposed not be approved.

---

<sup>3</sup> This buildout has a trip generation equivalent to the 1.0 million square feet of retail use and 4.2 million square feet of industrial use described in the General Plan EIR as the basis for determining General Plan buildout.

## 5.2.2 Alternatives Intended to Avoid Significant Effects of the Proposed Project

### Renewable Energy Generation Alternative

The Renewable Energy Generation Alternative is based on a proposal by the Committee for Renewable Energy for the Baylands (CREBL) to develop utility-scale renewable energy generation at the Baylands. CREBL's goal for this alternative was to not only offset the energy demand for development of the entire Project Site, but also to produce additional electricity for consumption by Brisbane homes, businesses, and City-owned facilities. Land uses under the Renewable Energy Generation Alternative would include 170 acres of alternative energy uses consisting of a large photovoltaic (PV) solar farm, small vertical-axis wind turbines, wind turbines placed within development, and rooftop PV solar panels; 654,900 square feet of research and development facilities on 59 acres; and 173,800 square feet of retail/entertainment uses on 26 acres. Other uses at the Project Site would include a new water treatment plant (seven acres) and relocated industrial uses (three acres). The remainder of the Project Site would be designated open space/public uses. The Recology expansion, relocation of the existing lumberyards, Geneva Avenue extension, site remediation, and approval of the proposed water supply agreement would also occur as part of this alternative. The portion of the 2,400 acre-feet of water supply contemplated for Project Site development use in the proposed water transfer agreement would be reduced to accommodate the actual water demand associated with this alternative (approximately 300 acre feet); the 400 acre-feet of water to be used for citywide purposes would remain in its entirety. The recycled water plant would not be developed under this alternative. Overall, this alternative would reduce or avoid significant traffic, air quality, greenhouse gas (GHG), noise, public services, and population/housing impacts, and develop a project that would be consistent with the development intensity contemplated by the General Plan and its EIR, while meeting most Project objectives.

### Reduced Intensity Non-Residential Alternative

The Reduced Intensity Non-Residential Alternative incorporates a mix of non-residential land uses similar to that proposed under the CPP-V scenario, but with a reduced intensity of development. Like the CPP-V scenario, this alternative includes expansion of the Recology facility, as well as an area to be dedicated to renewable resource uses. This alternative was specifically designed to reduce the significant unavoidable GHG impact of CPP and CPP-V scenarios to be less than significant. The Reduced Intensity Non-Residential Alternative would also reduce or avoid significant aesthetics and visual resources, traffic, air quality, public services, and population/housing impacts, and would fall within the development intensity range contemplated by the General Plan and its EIR, while also meeting most of the Project Site development's environmental, social equity, and economic objectives.

Site remediation would occur as part of this alternative, as would the Geneva Avenue extension. The relocation of the existing lumberyards, Geneva Avenue extension, and proposed water supply agreement are also part of this alternative, which would allow approximately five million square feet of development and 25 acres of renewable energy generation at buildout. The 2,400 acre-feet of

water supply contemplated in the proposed water transfer agreement would be reduced by approximately 28 percent (to 1,440 acre-feet) to accommodate the actual water demand associated with this alternative, while retaining the full 400 acre-feet of water to be used for citywide purposes. The recycled water plant would be developed under this alternative.

### **Reduced Intensity Mixed Use Alternative**

This alternative incorporates a mix of uses similar to the DSP scenario, but at a reduced level of residential and non-residential development from that proposed by the DSP scenario. This alternative also assumes that site remediation would be undertaken, existing lumberyards are relocated, and that the proposed water transfer agreement would be approved to support development under this alternative. The Geneva Avenue extension would be developed as part of this alternative. The 2,400 acre-feet of water supply contemplated in the proposed water transfer agreement would be reduced by approximately 46 percent (to 1,080 acre-feet) to accommodate the actual water demand associated with this alternative (680 acre-feet), while the full 400 acre-feet of water to be used for citywide purposes would be retained. The recycled water plant would be developed under this alternative. Overall, this alternative would reduce or avoid significant traffic, air quality, GHG, noise, public services, and population/housing impacts, and meet most of the Project Site development's environmental, social equity, and economic objectives.

## **5.2.3 Approval of Development in the Absence of Approving a Water Supply Agreement**

Because any new development within the Project Site will require acquisition of a supplemental water supply, approval of the proposed water supply agreement is assumed as part of each alternative other than the No Project-No Build Alternative, although some of the alternatives would need less water and therefore the full 2,400 acre feet contemplated in the proposed agreement would not be required. However, the proposed water supply agreement that is a component of the Project Site development described in Chapter 3, *Project Description*, and could be approved or not approved regardless of any action(s) taken on other Project components. For this reason, in addition to analyzing the Project Site development alternatives, this chapter of the EIR also analyzes the impacts of: (1) selecting a Project Site development scenario or Project alternative in the absence of approving the proposed water supply agreement; and (2) approving the proposed water supply agreement in the absence of selecting any a Concept Plan development scenario or Project alternative.

## **5.2.4 Alternatives Considered, but Rejected**

As part of community discussion regarding proposed Project Site development and during preparation of this EIR, a number of potential alternatives to the Project Site development as described in Chapter 3, *Project Description*, were identified. The Brisbane City Council directed that the CPP and CPP-V scenarios be addressed in the EIR as part of the Project Site development at an equal level of detail to the DSP and DSP-V scenarios proposed by UPC and included in the proposed Brisbane Baylands Specific Plan. In addition, the Renewable Energy Alternative, which



arose from public discussion of the proposed Project Site development, is evaluated in this chapter. Other alternatives were suggested and ultimately rejected from further analysis for the reasons cited below. Alternatives considered, but rejected from further analysis include:

- **Public Park.** In this alternative, the Project Site with the exception of the existing Recology facility and Bayshore Industrial Park would be acquired by a public agency to be retained for public open space and park use. This alternative was rejected since no funding exists or would likely exist for a public agency to acquire the Project Site, undertake needed site remediation, and provide the improvements and habitat restoration associated with long-term park and open space use of the Project Site. In addition, the park alternative was rejected since it would not meet stated Social Equity or Economic objectives for the Project Site development.
- **Rail Yard Rehabilitation.** In this alternative, the existing Bayshore Industrial Park, Recology facility, and temporary and interim uses located on the Brisbane landfill would continue. In addition, the bulk of the site would be utilized as a rail yard for storage and maintenance of high speed rail trains and engines. This alternative was rejected since it did not meet the City's overarching objective of an "active, vibrant place which strengthens the community of Brisbane; contributes to its sense of place; and demonstrates environmental, social, and economic considerations can be harmonized to the betterment of the natural environment, the Brisbane and regional community, and the individuals who will use the Baylands." This alternative was also determined to be premature and speculative, as the parameters for possible high speed rail operations (including facilities) on the San Francisco Bay Peninsula, have not yet been established.
- **Site Remediation in the Absence of Further Development within the Project Site.** In this alternative, site remediation within Operable Units 1 and 2, as well as landfill closure would be implemented, but no other Project components would be approved, and no further development within the Project Site would occur. The site remediation that is a component of the Project Site development described in Chapter 3, *Project Description*, while a prerequisite to future development within the Project Site, could be approved regardless of whether any other Project component described in Chapter 3, *Project Description*, is approved. Given that cleanup levels established by regulatory agencies are based on proposed future land uses, it is unrealistic to assume that site remediation would be undertaken absent a land use plan for the site. Site remediation in the absence of further development of the Project Site was rejected as a Project alternative since it would not meet Environmental Protection and Enhancement Objective D, nor would it meet the Brisbane's Social Equity or Economic objectives for Project Site development.

### 5.2.5 Project Objectives Identified by the City of Brisbane

The City's overarching objective is to create an active, vibrant place which strengthens the community of Brisbane; contributes to its sense of place; and demonstrates environmental, social, and economic considerations can be harmonized to the betterment of the natural environment, the Brisbane and surrounding regional community, and the individuals who would use the Project Site.

The Project objectives identified below have been organized around three major components of sustainability: environmental protection and enhancement, social equity, and economics.

***Environmental Protection and Enhancement Objectives***

- A. Remediate the Baylands to a level which ensures the safety of all who use the site, and eliminates ongoing ecological damage.
- B. Incorporate a “green building” approach for all future development on the Baylands, wherein buildings are sited, designed, constructed and operated to encourage resource conservation, minimize waste and pollution, maximize energy and resource efficiency, and promote healthy indoor environments.
- C. Preserve, restore and enhance wetlands and natural habitat on the site and create natural linkages across the site to promote physical and visual connectivity between the San Bruno Mountains and the Bay.
- D. Promote and encourage non-vehicular access and movement to and from the site (particularly from Central Brisbane) and within the site as well. Land use mix, good urban design, the provision of safe and pleasant pedestrian and bike paths, and convenient access and linkages to public transit are all necessary components.
- E. Strive to achieve a balance between energy demand and generation through efficiency, conservation, and the maximum use of passive and active sources of renewable energy.
- F. Minimize the net consumption of water supplies.
- G. Safely and efficiently accommodate project traffic in a manner that does not adversely impact Brisbane or adjacent communities.
- H. Incorporate innovative methods to reduce resource consumption and waste generation.
- I. Site and design new infrastructure to minimize adverse environmental impacts.
- J. Design the project sensitively to protect Brisbane’s viewshed, taking into account light spillage and pollution, building height and massing, and placement of landscape features.
- K. Maximize solid waste diversion with the goal of achieving zero waste.

***Social Equity Objectives***

- L. Incorporate significant open space and related improvements which provide opportunities for a wide range of passive and active public recreational opportunities benefiting the City and region.
- M. Provide employment opportunities for Brisbane residents and residents of nearby local communities, thereby improving the jobs/housing balance at regional and subregional levels.
- N. Contribute to critically-needed solutions to regional transit and transportation issues which will benefit both the project and existing communities.
- O. Recognize that the project is of regional significance, and provide for the well-being not only of the City of Brisbane, but also of surrounding communities.
- P. Provide on-site opportunities for public art and education to contribute to public understanding of the site, including its history, ecology and the project’s sustainability mission.

### ***Economic Objectives***

- Q. Enhance the City's tax base and future ability to improve services within all of Brisbane.
- R. Retain and accommodate the expansion of existing businesses within the Baylands that contribute to the City's fiscal health and economic vitality.
- S. Establish a project which remains economically viable on a long-term basis, including excellence in architecture which can withstand the test of time.
- T. Build in flexibility so the project can adapt to changing market conditions over time, without compromising the other stated project objectives.
- U. Provide greater choices for Brisbane residents by providing desired goods, services, entertainment, and/or other amenities not currently available within the City.

## **5.2.6 Significant Impacts Resulting from the Project**

CEQA requires the alternatives selected for comparison in an EIR to avoid or substantially lessen one or more significant effects of the Project. In order to identify alternatives that would avoid or substantially lessen any of the identified significant environmental effects of Project Site development, the significant impacts must be considered, although it is recognized that alternatives aimed at reducing the significant and unavoidable impacts of Project Site development would also avoid or reduce impacts that were found to already have been reduced to below a level of significance. The analysis in Chapter 4 (Sections 4.A through 4.P) of this EIR determined that Project Site development would result in the following significant unavoidable impacts:

### ***Significant Unavoidable Aesthetic Resources Impacts***

- **Impact 4.A-4:** The Project would create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area. (nighttime lighting for the DSP, DSP-V, CPP, CPP-V scenarios)

### ***Significant Unavoidable Air Quality Impacts***

- **Impact 4.B-2:** The Project would generate construction emissions that would result in a cumulatively considerable net increase of criteria pollutants and precursors for which the air basin is in nonattainment under an applicable federal or state ambient air quality standard. (DSP, DSP-V, CPP, CPP-V scenarios)
- **Impact 4.B-4:** The Project would generate operational emissions that would result in a considerable net increase of criteria pollutants and precursors for which the air basin is in nonattainment under an applicable federal or state ambient air quality standard. (DSP, DSP-V, CPP, CPP-V scenarios)
- **Impact 4.B-9:** The Project would conflict with or obstruct implementation of the applicable air quality plan. (DSP, DSP-V, CPP, CPP-V scenarios)

### ***Significant Unavoidable Biological Resources Impacts***

- **Impact 4.C-1:** Development of the Project Site would have a substantial adverse effect, either directly or indirectly, on species identified as a candidate, sensitive, or special-status

plant and wildlife species, including species which meet the definition of endangered, rare or threatened in CEQA Guidelines Section 15380, either through direct injury or mortality, harassment, or elimination of plant or wildlife communities. (CPP-V scenario)

### ***Significant Unavoidable Greenhouse Gas Emissions Impacts***

- **Impact 4.F-1:** The Project would generate greenhouse emissions, either directly or indirectly, that may have a significant impact on the environment. (CPP and CPP-V scenarios)
- **Impact 4.F-2:** The Project would conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. (CPP and CPP-V scenarios)

### ***Significant Unavoidable Noise Impacts***

- **Impact 4.J-4:** Project construction activities would result in substantial temporary or periodic increase in ambient noise levels in the Project Site vicinity above levels without the Project. (DSP, DSP-V scenarios)

### ***Significant Unavoidable Population and Housing Impact***

- **Impact 4.K-1:** The Project would induce substantial population growth in the area either directly or indirectly. (DSP, DSP-V, CPP, CPP-V scenarios)

### ***Significant Unavoidable Traffic and Circulation Impacts***

- **Impact 4.N-1:** The Project would result in a substantial increase in traffic under Existing plus Project conditions at intersections in the vicinity of the Project Site. (DSP, DSP-V, CPP, CPP-V scenarios)
- **Impact 4.N-2:** The Project would contribute to significant existing traffic impacts at freeway mainline segments. (DSP, DSP-V, CPP, CPP-V scenarios)
- **Impact 4.N-3:** The Project would result in a significant increase in traffic under Cumulative With Project conditions at the study intersections. (DSP, DSP-V, CPP, CPP-V scenarios)
- **Impact 4.N-4:** The Project's contribution to future cumulative traffic impacts at freeway mainline segments will be cumulatively considerable. (DSP, DSP-V, CPP, CPP-V scenarios)
- **Impact 4.N-5:** The Project would result in a substantial increase in PM peak hour traffic at study intersections and freeway mainline segments that would operate unacceptably due to weekday evening events at the arena. (DSP-V scenario)
- **Impact 4.N-7:** The Project would cause an increase in transit demand that could not be accommodated by San Francisco Muni or SamTrans transit capacity. (DSP, DSP-V, CPP, CPP-V scenarios)
- **Impact 4.N-8:** The Project would cause an increase in delays or operating costs resulting in substantial adverse effects on transit service levels (i.e., additional buses or trains could be required due to Project transit trips). (DSP, DSP-V, CPP, CPP-V scenarios)

### ***Significant Unavoidable Utilities Impacts***

- **Impact 4.O-3:** The Project would result in the construction of new water, wastewater treatment, and/or stormwater drainage facilities or expansion of existing facilities, the constructions of which could cause significant environmental effects. (DSP, DSP-V, CPP, CPP-V scenarios)

## **5.3 Analysis of Alternatives**

Pursuant to the provisions of CEQA Guidelines Section 15126.6(d), an EIR must evaluate the comparative merits of the alternatives identified in an EIR and contain sufficient information about each alternative to permit that evaluation. The significant effects of each alternative must be discussed, but in less detail than is required for the Project Site development's effects. However, the analysis must be conducted at a sufficient level of detail to provide the public, other public agencies, and City decision-makers with adequate information to allow an informed comparison of the impacts of the Project Site development with those of the alternatives. Alternatives have been evaluated with sufficient detail to permit the City to consider approving any of the Project Site development scenarios, an alternative, or a mix of Project Site development scenario(s) and alternative(s).

Implementation of the remedial actions described in Chapter 3.0, *Project Description*, and analyzed in Section 4.G, *Hazards and Hazardous Materials*, of this EIR would be required prior to any future development of the Project Site, including development of one of the alternatives identified in this chapter. Because the specific remedial technologies and levels of clean up will vary depending on the specific arrangement of uses ultimately approved within the Project Site, "remedial actions" as analyzed in this EIR includes a range of remedial technologies and levels of clean up broad enough to encompass remediation for the various uses proposed as part of Project Site development scenarios as well as the alternatives. As a result, it is assumed that the impacts and mitigation measures associated with such remedial actions described in Chapter 3.0, *Project Description*, and analyzed in Section 4.G, *Hazards and Hazardous Materials*, would apply to all of the alternatives analyzed below. Therefore, as with proposed development of the Project Site, construction-related impacts resulting from remediation of the former landfill, Operable Unit No. 1 and Operable Unit No. 2 would be significant under all of the alternatives. These significant impacts, however, would be reduced to less-than-significant levels with implementation of the mitigation measures identified in Section 4.G, *Hazards and Hazardous Materials*, of this EIR.

### **5.3.1 No Project Alternatives**

#### **No Project-No Build Alternative**

##### ***Description of the No Project-No Build Alternative***

The No Project-No Build Alternative assumes that no Project Site development scenario is selected, existing conditions would continue, and that there would be no further development on the Project Site, including infrastructure. Existing uses within the Project Site including Sierra

Point Lumber and Van Arsdale-Harris Lumber Yard, the Recology resource recovery facility, Brisbane Bayshore Industrial Park, Lazzari Fuel Company, Brisbane Soils Processing, and the Brisbane Recycling rock crushing facility would continue in their present locations. Insofar as the Geneva Avenue extension is included in the San Francisco Bay Area Regional Transportation Plan and the San Mateo-San Francisco Bi-County Transportation Study, and also is assumed in the Candlestick Point-Hunters Point Shipyard Phase II Development Plan Project EIR, the roadway extension could still occur under a no-build scenario because it would be funded and built solely by others. However, because the roadway extension and associated interchange improvements at US Highway 101 are unlikely to occur in the absence of any development within the Project Site, it is assumed that the Geneva Avenue extension would not occur under the No Project-No Build Alternative. In addition, because no future development would occur within the Project Site, this alternative does not include Project Site remediation.

### ***Impacts of the No Project-No Build Alternative***

#### **Aesthetics**

Because no new development would occur under this alternative, no visual impacts would occur within the Project Site. This alternative would not affect scenic vistas and resources, the visual character of the Project Site, or ambient light and glare. As such, impacts of the proposed Project under any of the development scenarios would be substantially greater as compared to this alternative.

#### **Air Quality and Greenhouse Gases**

Because no new development would occur on the Project Site under this alternative, there would be no impact related to air quality or GHG emissions. As such, impacts of the proposed Project under any of the development scenarios would be substantially greater as compared to this alternative.

#### **Biological Resources**

This alternative would leave existing natural vegetation in place, and would not result in the removal of any biological resources within the Project Site. In addition, no restoration or enhancement of habitat areas would be undertaken, leaving existing conditions in place. While proposed Project Site development would result in significant but mitigable impacts on biological resources under any of the development scenarios, the No Project-No Build Alternative would not result in any impacts on biological resources. However, habitat enhancements associated with Project Site development would also not occur.

#### **Cultural Resources**

Because the No Project-No Build Alternative includes no ground disturbance associated with development, impacts on previously undiscovered archaeological resources would not occur. While no impacts on historic resources would occur under this alternative, the Roundhouse building and the Lazzari Fuel Company building would not be rehabilitated or adaptively reused, resulting in their continued deterioration.

**Geology, Soils, and Seismicity**

No impacts related to geology, soils, and seismicity would occur under the No Project-No Build Alternative. Whereas each of the development scenarios included in the proposed Project would result in significant but mitigable impacts related to groundshaking, seismic-induced liquefaction and lateral spreading, erosion and soil instability, ground settling, and expansive and corrosive soils, this alternative would include no new ground disturbance or construction, and therefore would not result in any impacts. However, because this alternative would not include any of the structural improvement or removal of seismically unsound structures, seismic retrofit of seismically unsound buildings (including the historic Roundhouse and the Lazzari Fuel Building) would not occur, resulting in their continued deterioration.

**Hazards and Hazardous Materials**

Impacts associated with the release and/or transport of hazardous materials that would occur with the proposed Project would not occur under this alternative. However, because no future development of the Project Site would occur, this alternative does not include the remedial actions that would be implemented as part of Project Site development and other alternatives, and would therefore not result in the final remediation of existing contaminated areas within the Project Site. Thus, existing contamination within the Project Site would remain under this alternative.

**Hydrology and Water Quality**

Project Site development's significant impacts related to water quality degradation, alteration of drainage patterns, stormwater runoff, and flooding would not occur under the No Project-No Build Alternative. Because no development would occur, this alternative would not alter drainage patterns or create new impervious surfaces that would result in increases in peak runoff generated onsite as compared to existing undeveloped conditions.

**Land Use and Planning Policy**

The No Project-No Build Alternative would not provide for any future development within the Project Site. As such, none of the inconsistencies with existing General Plan policy that would result from implementation of proposed Project site development scenarios would occur under this alternative. However, the No Project-No Build Alternative would be inconsistent with General Plan policies calling for site remediation and rehabilitation of historic buildings within the Project Site, as well as policies aimed at providing for the Geneva Avenue extension.

**Noise**

Because the No Project-No Build Alternative would result in no new development within the Project Site, no new noise impacts would occur. While the development scenarios analyzed for proposed Project Site development would each result in significant and unavoidable noise impacts related to construction and to traffic associated with urbanization of the Project Site, no new development and no associated noise impacts would occur with this alternative.

### **Population and Housing**

Because no new development would occur within the Project Site under this alternative, no impact on population and housing conditions would occur. This would differ from the Project Site development in that, under the DSP and DSP-V scenarios, an increase in population would occur with the development of new housing and, under all four scenarios, jobs would be created by new non-residential development, which in turn could result in a population increase within the vicinity of the Project Site.

### **Public Services**

Unlike each of the development scenarios included in the proposed Project that substantially increase the need for expanded public services, the No Project-No Build Alternative would not result in any increased demand for public services.

### **Recreation Resources**

The No Project-No Build Alternative would have no impact on recreational resources as it would neither create demand for recreational facilities, nor affect any existing facilities, although the parks and trails proposed in Project Site development scenarios would not be available to the public. In comparison, although the DSP and DSP-V scenarios would result in the development of substantial open space areas, those scenarios would also create demands for recreational facilities in excess of the facilities they provide, as measured by the standards of the Quimby Act (three to five acres of park land per 1,000 population) and the City's Municipal Code provisions implementing the Quimby Act (4.5 acres of park land per 1,000 population). The CPP and CPP-V scenarios would provide a substantial amount of open space and passive recreational areas, but would not generate demand for active recreational facilities since residential uses are not proposed in the CPP and CPP-V scenarios.

### **Traffic and Circulation**

Because no new development would occur under the No Project-No Build Alternative, no impacts related to traffic and circulation would occur, although as noted in Section 4.N, *Traffic and Circulation*, of this EIR new development occurring in surrounding jurisdictions would cause traffic conditions within and surrounding the Project Site to deteriorate to unacceptable levels even in the absence of Project Site development. By comparison, Project Site development would result in significant unavoidable impacts along the US Highway 101, Bayshore Boulevard, and Geneva Avenue. As described above, the Geneva Avenue extension, while unlikely could still occur in the absence of any development within the Project Site, given that the extension is indicated in the San Francisco Bay Area Regional Transportation Plan, and Bi-County Transportation Study. It is also assumed in the Candlestick Point-Hunters Point Shipyard Phase II Development Plan Project EIR. However, because the roadway extension and associated interchange improvements at US Highway 101 are unlikely to occur in the absence of funding related to Project Site development, Project Site development would not make any contribution to the need for the Geneva Avenue extension. The only reason the extension would occur under this alternative is if the extension occurred as the result of actions taken by others resulting from roadway improvement needs created outside of the Project Site.



### **Utilities and Service Systems**

The No Project-No Build Alternative would not create any new demands for utilities and services systems, and would therefore not impact those systems. As compared to the Project Site development, which result in significant but mitigable impacts related to water and wastewater treatment, water supply, stormwater drainage, solid waste disposal, and communications infrastructure requiring new infrastructure, this alternative proposes no new development. Therefore, this alternative would not result in utilities or service system impacts.

### **Energy Resources**

While development of the Project Site would include both development that would create an increased demand for energy resources and generate renewable energy to partially offset consumption of non-renewable energy resources, the No Project-No Build Alternative would neither create demand for energy nor produce any renewable energy. Therefore, no energy impacts would occur under this alternative.

### ***Evaluation of the No Project-No Build Alternative in Relation to Project Objectives***

By eliminating proposed future development and leaving the Project Site in its existing condition, the No Project-No Build Alternative prevents achievement of the city's overarching objective, and other identified Project Objectives. While the environmental impacts that would result from Project Site development or alternatives would be avoided, existing onsite contamination would remain un-remediated, and habitat enhancements and the creation of public parks and trails associated with Project Site development scenarios and alternatives would not occur.

---

## **No Project-General Plan Buildout Alternative**

### ***Description of the No Project-General Plan Buildout Alternative***

This alternative assumes that the Project Site development scenarios described in Chapter 3, *Project Description* are not approved and that buildout of the Project Site would occur pursuant to the existing adopted provisions of Brisbane General Plan. The General Plan assumes existing uses would remain in the Northeast Bayshore and Beatty Subareas, and that new development would occur only within the Baylands Subarea. The General Plan designates the Baylands Subarea as *Planned Development-Trade Commercial* and *Marsh/Lagoon/Bayfront*. Allowable uses under these designations include retail sales, offices, residential uses, bulk sales, open space, recreational facilities, statuary, public and quasi-public facilities, services and utilities, commercial services, hotels, research and development, educational institutions, and lagoon/bayfront.

While the 1994 General Plan established basic density/intensity parameters for further development, it also required that a specific plan be adopted prior to any development occurring within the Baylands Subarea. Presuming that "the realistic capacity of the land would be revealed with analysis of the specific plans required before any development could proceed," the 1994

General Plan EIR calculated the carrying capacity of the Baylands Subarea by defining the range of square footage of development that “could be accommodated without producing more traffic than could reasonably be mitigated to within the City’s level-of-service standard (LOS D). The low end of the range of square footage, one million square feet, related to high trip generating land use, such as certain types of retail, and the high end, 4.2 million square feet, related to a low trip-generating land use such as warehouse-type commercial. The actual trip generation and corresponding allowable square footage of development would lie somewhere between the hypothetical ‘high’ and ‘low’ and would reflect a mix of land use on the Project Site, as reflected in all three of the hypothetical long-term land use alternatives.”

As described above in Section 5.2.1, for purposes of this analysis, the No Project-General Plan Buildout Alternative consists of the following:

- ***Baylands Subarea:*** 56,505 square feet of existing retail development  
600,000 square feet of new retail development  
400,000 square feet of new office development  
189,331 square feet of existing industrial development (existing Roundhouse and Lazzari fuel buildings, as well as lumberyards to be relocated)  
200,000 square feet of new laboratory and industrial development  
1,056,505 total square feet of commercial/office development  
389,331 total square feet of industrial development  
*1,445,836 total square feet of total development*
- ***Beatty Subarea:*** retention of the existing Recology facility (259,000 square feet).
- ***Northeast Bayshore Subarea:*** retention of existing industrial development, identified in the General Plan EIR as 326,616 square feet of industrial development.

Thus, the No Project-General Plan Buildout Alternative assumes a total buildout of 2.02 million square feet of development throughout the Project Site including all subareas, including 1.05 million square feet of commercial/office development and 0.97 million square feet of industrial development.

Because it is included in the provisions of the General Plan, this alternative assumes that the Geneva Avenue extension, along with other infrastructure required to serve development in the Baylands, would occur. This alternative also assumes that, in accordance with General Plan policies, existing buildings of historic significance would be retained and rehabilitated for reuse where possible, including the Roundhouse and the Lazzari Fuels Company buildings. To facilitate development pursuant to this alternative, remediation of the Project Site would be required, as would securing a firm water supply for onsite development. Thus, this alternative includes the site remediation and proposed water transfer agreement Project components described in Chapter 3, *Project Description*, of this EIR. The portion of the 2,400 acre-feet of water supply intended for Project Site development would be scaled back to meet the reduced water demands of this alternative, while the entire 400 acre feet of water intended to support buildout of the City’s

General Plan outside of the Project Site would be retained. Since Project Site development under the No Build-General Plan Amendment alternative would be far less intense than proposed under Project Site development, development of an onsite recycled water plant would not occur as part of this alternative.

In accordance with General Plan Land Use Element Policy 11, development south of the Bayshore Basin drainage channel under this alternative would maintain a low profile, permitting low or mid-rise buildings, not to exceed six stories in height, in order to preserve the existing views of San Francisco and San Francisco Bay as seen from Central Brisbane and to maximize the amount of landscape and open space or open area in this portion of the Project Site. More specifically, the General Plan specifies maximum floor area ratios (FARs) of 0 to 2.4 south of the channel and 0 to 4.8 north of the channel. A minimum of 25 percent of the Project Site would be retained as open space/open area under this alternative as required by the General Plan.

### ***Impacts of the No Project-General Plan Buildout Alternative***

#### **Aesthetics**

Development of the Project Site under the No Project-General Plan Buildout Alternative would change the site's visual character. Development under this alternative, however, would be less dense than that which would occur under any of the four Project scenarios, and would, therefore, have a lesser impact on area viewsheds. As noted above, preservation of existing views of San Francisco and San Francisco Bay would be achieved and the amount of landscape and open space would be maximized by requiring that development south of the Bayshore Basin drainage channel to maintain a low profile. More specifically, low or mid-rise buildings in this area would not exceed six stories in height, and a minimum of 25 percent of the Project Site would be retained as open space/open area.

While impacts on views of the Bay and shoreline would be less than significant under Project Site development, some portions of the Project Site could be subject to more intense development. Since the General Plan specifies maximum FARs of 0-2.4 south of the channel and 0-4.8 north of the channel, the intensity of development in some portions of the Project Site could exceed that proposed in the Project Site development. Because the No Project-General Plan Buildout Alternative would involve substantially less development square footage than Project Site development, as the development of high intensity projects within the Project Site approaching maximum allowable FARs would be offset by the provisions of more expansive open space areas and view corridors between buildings.

Development under this alternative would result in new sources of light and glare that would be visible from other areas of Brisbane, from US Highway 101, and from adjacent scenic vistas. The amount of development under this alternative would be less than Project Site development. While the sources of light and glare would be similar, the number of sources would be fewer and less intense than would result under Project Site development, and the resulting degree of light and glare impacts would be less. Because of the greatly reduced level of development under this alternative, it is reasonable to conclude that implementation of mitigation measures similar to

those set forth for Project Site development would mitigate light and glare to less-than-significant levels since sources of light and glare under this alternative would be similar, but the amount of sources would be less.

### **Air Quality and Greenhouse Gases**

Impacts related to air quality and GHG emissions under the No Project-General Plan Buildout Alternative would be substantially reduced compared to those that would occur under Project Site development. These impacts would be less than significant, reducing the significant unavoidable air quality impacts for Project Site development, and reducing the significant unavoidable GHG impacts of the CPP and CPP-V scenarios. Because the total amount of new development under the No Project-General Plan Buildout Alternative (1,445,836 square feet) would be far less than the CPP and CPP-V scenarios (7.7 and 8.1 million square feet, respectively) and the DSP and DSP-V scenarios (12.1 and 12.0 million square feet, respectively), and new development would not encompass the entire site (e.g., the Bayshore Industrial Park and existing Recology facility would remain), air emissions from construction and operations under this alternative would be considerably less. The significant unavoidable impacts of Project Site development as described above would be eliminated under this alternative.

### **Biological Resources**

Development under the No Project-General Plan Buildout Alternative would result in the loss of biological resources on-site. Much of the Project Site is heavily disturbed due to prior uses such as the former landfill and railyard. However, existing biological resources such as those in the vicinity of Brisbane Lagoon and Icehouse Hill would be directly or indirectly affected by construction or operation of future development. Depending on the ultimate land use plan developed under the No Project-General Plan Buildout Alternative, development would result in significant impacts on sensitive plant and wildlife species, sensitive natural communities, wetlands and other waters, wildlife movement, and trees protected by the City of Brisbane Tree Ordinance. While the potential exists for the ultimate development footprint of the No Project-General Plan Buildout Alternative to be similar to those of Project Site development and result in similar biological resources impacts, the lower intensity character of this alternative also provides greater opportunities for open space preservation and habitat restoration. As is the case for each of Project Site development, with implementation of the mitigation measures as listed in Section 4.C, *Biological Resources*, of this EIR impacts would be reduced to less-than-significant levels.

### **Cultural Resources**

Development of the Baylands under the No Project-General Plan Buildout Alternative would result in impacts on known historic resources and previously undiscovered archaeological resources. Such impacts would occur as the result of damage to historic structures or to archaeological resources resulting from construction activities. Impacts on designated historic resources would be unlikely, however, as development under this alternative would adhere to General Plan policies calling for rehabilitation of historic structures. Further, with implementation of the mitigation measures recommended for development of the Project Site set forth in Section 4.D, *Cultural Resources*, of this EIR impacts on cultural resources would be reduced to less-than-significant level. As with development of the Project Site, no impacts on

paleontological resources would occur, as no recorded paleontological resources are located on the Project Site or in the immediate vicinity. Thus, cultural resources impacts would be similar to those of Project Site development.

### **Geology, Soils, and Seismicity**

Impacts related to geology, soils, and seismicity would be similar to those identified for Project Site Development. Such impacts include risks to humans and damage to property related to seismic groundshaking, liquefaction and lateral spreading, slope and soil instability, erosion, and corrosive and expansive soils. Because the square footage under this alternative would be substantially less than of Project Site development, substantially fewer employees and visitors, and no onsite residents would be subject to geologic or seismic hazards. While the potential exists for the ultimate development footprint of the No Project-General Plan Buildout Alternative to be similar to that of Project Site development and result in similar geology, soils, and seismicity impacts, the lower intensity character of this alternative also provides greater opportunities for increased open space preservation and lesser geology, soils, and seismicity impacts.

Implementation of the mitigation measures recommended in Section 4.E, *Geology, Soils and Seismicity*, of this EIR would reduce these impacts for this alternative to less-than-significant levels, as is the case for Project Site development.

### **Hazards and Hazardous Materials**

As would be necessary for any future development, a series of remedial actions must be undertaken within certain portions of the Project Site, including the former landfill and railyard areas. As required by the General Plan, remedial actions would be finalized with preparation of Remedial Action Plans by the agencies with jurisdiction over these areas, the Department of Toxic Substances Control and the Regional Water Quality Control Board, and remediation of existing contamination would occur prior to future development within the Project Site. Because the remedial actions to be undertaken under the No Project-General Plan Buildout alternative would be similar to those for the CPP and CPP-V scenarios which propose a similar range of non-residential uses, implementation of remedial activities would have similar less than significant impacts and requirements. The uses permitted under the No Project-General Plan Buildout Alternative could also require the use or transport of fuels, oils, or other chemicals during construction and future operations, resulting in similar types of less than significant impacts as those for the CPP and CPP-V scenarios, which have a similar range of permitted uses. While the types of operational impacts would be similar, the extent of impacts under the No Project-General Plan Buildout Alternative would be substantially less than under the CPP and CPP-V scenarios, due to the substantially reduced development intensity. These impacts would be reduced to less-than-significant levels with implementation of the mitigation measures identified in Section 4.G, *Hazards and Hazardous Materials*, as is the case for Project Site development.

### **Hydrology and Water Quality**

Because the intensity of development under the No Project-General Plan Buildout Alternative would be substantially less than Project Site development, depending on the final land use plan for this alternative, it would result in a smaller area of impervious surfaces compared to development of the Project Site. This would result in somewhat reduced impacts related to

flooding and stormwater runoff. Because this alternative would not include any residential development, it would result in no impacts related to the placement of housing within a 100-year floodplain. The potentially smaller impervious surface area under this alternative would also provide greater opportunities to reduce less than significant impacts related to water quality, flooding (including the potential effects of sea level rise), and stormwater runoff in comparison to Project Site development. While overall hydrology and water quality impacts would be reduced, mitigation would still be necessary. Implementation of the mitigation measures recommended in Section 4.H, *Hydrology and Water Quality*, of this EIR would reduce impacts to less-than-significant levels similar to Project Site development.

### **Land Use and Planning Policy**

The No Project-General Plan Buildout Alternative would be, by definition, consistent with all existing provisions of the General Plan, and would therefore have fewer impacts related to land use and planning policy than Project Site development. This alternative would also not result in impacts related to the division of existing communities or conflicts with habitat conservation plans. One inconsistency with the General Plan would remain, as it would under Project Site development: traffic impacts would exceed the General Plan standard of LOS D. This significant unavoidable impact remains since even in the absence of any new development within the Project Site, future cumulative traffic conditions will deteriorate along Bayshore Boulevard and at freeway interchanges within the Project Site.

### **Noise**

Development under the No Project-General Plan Buildout Alternative would generate noise during construction and operation. Noise generated during remediation activities would be similar to Project Site development since it would be subject to similar remediation requirements. Although this alternative would result in substantially less development square footage compared to Project Site development, construction noise would be generated by the same types of equipment and activities, resulting in similar noise levels from project construction. However, because the amount of development permitted by the No Project-General Plan Buildout Alternative is substantially less than for Project Site development, the length of time construction activities would occur under this alternative would be expected to be substantially less than for Project Site development. However, the reduction of construction and operational noise impacts under this alternative to less-than-significant levels would be ensured with implementation of the mitigation measures recommended in Section 4.J, *Noise and Vibration*, of this EIR.

### **Population and Housing**

No resident population growth would occur on the Project Site under the No Project-General Plan Buildout Alternative, as the City's adopted General Plan does not permit residential development within the Baylands. Assuming allowable land uses under the General Plan would generate an average of 1.8 employees per 1,000 square feet of development under the current General Plan designations, this alternative would result in approximately 2,600 new jobs within the Project Site. As discussed in Section 4.K, *Population and Housing*, of this EIR, this is considerably less than the number of jobs that would be generated under the CPP or DSP scenarios (approximately 15,000 and 17,000 new jobs, respectively), and consistent with Projections 2009 growth forecast of citywide

employment growth from 2010 to 2035 (9,880 jobs). As further discussed in Section 4.K, *Population and Housing*, employment growth under the No Project-General Plan Buildout Alternative is greater than the citywide employment growth projections of the draft Plan Bay Area, exceeding the growth forecast of preferred and alternative scenarios (employment increase of 300-1,580 jobs). While the No Project-General Plan Buildout Alternative would thus be consistent with Projections 2009, it would be considered consistent with Plan Bay Area projections only if employment growth in excess of projections was drawn from surrounding communities.

As with development of the Project Site, this alternative also would generate temporary construction-related jobs, albeit far fewer than for the Project Site development. It is expected that construction workers generally would travel from other parts of the Bay Area to work, and that temporary housing on the Project Site would not be needed.

### **Public Services**

Impacts under the No Project-General Plan Buildout Alternative would generally be less than under the Project Site development, as the result of less intense development. As with the CPP and CPP-V, this alternative would not include residential development and therefore would not result in a direct demand for school facilities. The demand for other types of public services, including police and fire protection, would increase under this alternative, as it would under Project Site development, although to a far lesser degree. The only exception is that under the No Project-General Plan Buildout alternative, impacts related to fire protection service levels provided by the NCFA would be similar to Project Site development, although the lesser development intensity permitted under this alternative would not likely contribute to the need for locating a ladder company in proximity to the Project Site. Overall, impacts on public services would be reduced assuming implementation of mitigation measures being required for Project Site development.

### **Recreation Resources**

Buildout under the No Project-General Plan Buildout Alternative would include improvements to recreational resources in the form of passive open space and trails that would result in some construction-related impacts. Additionally, new development under this alternative would result in increased use of existing recreational resources, as new employees would be likely to use existing recreational amenities in and around the Project Site. The impact on recreational resources under this alternative would be substantially reduced as compared to the less than significant impacts under CPP and CPP-V scenarios due to the substantially fewer number of employees generated within the Project Site. As compared to the DSP and DSP-V, impacts would be reduced considerably further than the significant but mitigable impacts of those scenarios since no residential population would be introduced to the Project Site.

### **Traffic and Circulation**

The No Project-General Plan Buildout Alternative would require extension and upgrade of roadways and public transit in order to provide circulation to and from the Project Site. This would include the Geneva Avenue extension, which is included in the San Mateo County Regional Transportation Plan, Bi-County Transportation Study, and the Brisbane General Plan.

Because the total amount of new development under the No Project-General Plan Buildout Alternative (1,445,836 square feet) would be far less than the CPP and CPP-V scenarios (7.7 and 8.1 million square feet, respectively) and the DSP and DSP-V scenarios (12.1 and 12.0 million square feet, respectively), traffic impacts under this alternative would be considerably less than under the any of those scenarios, reducing all impacts to a less than significant level, with the exception of contributing to cumulatively considerable traffic increases at area intersections. Even with the substantial reduction in development proposed under the No Project-General Plan Buildout Alternative, a number of intersections would not be able to operate at LOS D or better, as called for by General Plan policy. As previously noted, cumulative background traffic alone will cause intersections along Bayshore Boulevard and at freeway interchanges within the Project Site to operate below LOS D.

### **Utilities and Service Systems**

The No Project-General Plan Buildout Alternative would result in a substantially reduced square footage of development and generation of jobs as compared to Project Site development. Therefore, the increase in demand for water, wastewater treatment, solid waste collection and disposal, and communications infrastructure would be substantially less. As compared to the DSP and DSP-V, in particular, the less than significant impacts on utilities and service systems would be substantially reduced, given the level and type of development proposed under those scenarios. Because the No Project-General Plan Buildout Alternative does not include residential development, its impacts would be similar to, but substantially reduced from the less than significant impacts resulting from the CPP and CPP-V which both propose more than five times the square footage of development as the No Project-General Plan Buildout Alternative. Impacts on utilities and service systems would remain less than significant with implementation of the mitigation measures included in Section 4.O, *Utilities, Service Systems, and Water Supply*, of this EIR with one exception. Because new development within the Project Site would require securing a new, reliable water supply, this alternative assumes that the proposed water supply transfer agreement that is a component of the Project Site development would be approved under this alternative; however, substantially less water would be imported for Project Site development, while the water supply being imported for General Plan buildout outside of the Project Site (400 acre-feet) would remain the same as for Project Site development.

### **Energy Resources**

The No Project-General Plan Buildout Alternative would increase the demand for energy supplies on the Project Site and result in impacts related to the installation of new energy infrastructure. Such impacts would be similar in nature to those that would occur under Project Site development; however, because the intensity of development under the No Project-General Plan Buildout Alternative would be substantially less, energy demands and related impacts would also be reduced. However, development under this alternative would not necessarily include generation of renewable energy through the development of wind and solar technologies on the Project Site, since such renewable energy generation is not required by the General Plan. Because the development of such technologies under Project Site development is intended to offset energy use within the Project Site, impacts related to energy demand associated with this alternative would not be reduced in proportion to reductions in development square footage.



## ***Evaluation of the No Project-General Plan Buildout Alternative in Relation to Project Objectives***

<b>Overarching Objective</b>	
Create an active, vibrant place which strengthens the community of Brisbane; contributes to its sense of place; and demonstrates environmental, social, and economic considerations can be harmonized to the betterment of the natural environment, the Brisbane and regional community, and the individuals who will use the Baylands.	Meeting this objective would largely be accomplished as part of the design of future development within the Project Site. By providing for the mix and intensity of land uses currently called for in the General Plan, the No Project-General Plan Buildout Alternative would contribute to and not prevent meeting this objective.
<b>Environmental Protection and Enhancement Objectives</b>	
A. Remediate the Baylands to a level which ensures the safety of all who use the site, and eliminates ongoing ecological damage.	Because site remediation is part of the No Project-General Plan Buildout Alternative and remediation will be required to provide for public safety in relation to the specific mix and location of land uses ultimately approved by the City, this objective would be met.
B. Incorporate a “green building” approach for all future development on the Baylands, wherein buildings are sited, designed, constructed and operated to encourage resource conservation, minimize waste and pollution, maximize energy and resource efficiency, and promote healthy indoor environments	Meeting this objective would largely be accomplished as part of the design of future development. The No Project-General Plan Buildout Alternative would not constrain the ability of future development to meet this objective.
C. Preserve, restore and enhance wetlands and natural habitat on the site and create natural linkages across the site to promote physical and visual connectivity between the San Bruno Mountains and the Bay.	Because these activities are reflected in the General Plan policies that would be implemented by this alternative, the No Project-General Plan Buildout Alternative would meet this objective.
D. Promote and encourage non-vehicular access and movement to and from the site (particularly from Central Brisbane) and within the site as well. Land use mix, good urban design, the provision of safe and pleasant pedestrian and bike paths, and convenient access and linkages to public transit are all necessary components.	Because this objective is reflected in the General Plan policies that would be implemented by this alternative, the No Project-General Plan Buildout Alternative would meet this objective.
E. Strive to achieve a balance between energy demand and generation through efficiency, conservation, and the maximum use of passive and active sources of renewable energy.	Because this objective is reflected in the General Plan policies that would be implemented by this alternative, the No Project-General Plan Buildout Alternative would meet this objective.
F. Minimize the net consumption of water supplies.	Because this objective is reflected in the General Plan policies that would be implemented by this alternative, the No Project-General Plan Buildout Alternative would meet this objective.
G. Safely and efficiently accommodate project traffic in a manner that does not adversely impact Brisbane or adjacent communities.	Because this objective is reflected in the General Plan policies that would be implemented by this alternative, the No Project-General Plan Buildout Alternative would meet this objective.
H. Incorporate innovative methods to reduce resource consumption and waste generation.	Meeting this objective would largely be accomplished as part of the design and operations of future development within the Project Site. By providing for the mix and intensity of land uses currently called for in the General Plan, the No Project-General Plan Buildout Alternative would contribute to and not prevent meeting this objective.

**Environmental Protection and Enhancement Objectives (continued)**

I. Site and design new infrastructure to minimize adverse environmental impacts.	Meeting this objective would largely be accomplished as part of the design of future development. The No Project-General Plan Buildout Alternative would not constrain the ability to meet this objective.
J. Design the project sensitively to protect Brisbane's viewshed, taking into account light spillage and pollution, building height and massing, and placement of landscape features.	Meeting this objective would largely be accomplished as part of the design of future development. The No Project-General Plan Buildout Alternative would not constrain the ability to meet this objective.
K. Achieve a level of solid waste diversion equivalent to the zero waste goals established for San Francisco.	Meeting this objective depends on the implementation of citywide zero waste programs. The No Project-General Plan Buildout Alternative would not constrain the ability to meet this objective.

**Social Equity Objectives**

L. Incorporate significant open space and related improvements which provide opportunities for a wide range of passive and active public recreational opportunities benefiting the City and region.	Meeting this objective would largely be accomplished as part of the design of future development within the Project Site. By providing for the mix and intensity of land uses currently called for in the General Plan, the No Project-General Plan Buildout Alternative would contribute to and not constrain the ability to meet this objective.
M. Provide employment opportunities for Brisbane residents and residents of nearby local communities, thereby improving the jobs/housing balance at regional and subregional levels.	The No Project-General Plan Buildout Alternative provides employment opportunities within the project Site to meet this objective.
N. Contribute to critically-needed solutions to regional transit and transportation issues which will benefit both the project and existing communities.	By substantially reducing employment within the Project Site at buildout as compare to Project Site development, the No Project-General Plan Buildout Alternative would likely fall short of creating the critical mass needed to support robust expansion of transit services needed to meet this objective.
O. Recognize that the project is of regional significance, and provide for the well-being not only of the City of Brisbane, but also of surrounding communities.	Because this objective is reflected in the General Plan policies that would be implemented by this alternative, the No Project-General Plan Buildout Alternative would meet this objective.
P. Provide on-site opportunities for public art and education to contribute to public understanding of the site, including its history, ecology and the project's sustainability mission.	Meeting this objective would largely be accomplished as part of the design of future development within the Project Site. The No Project-General Plan Buildout Alternative would not constrain the ability to meet this objective.

**Economic Objectives**

Q. Enhance the City's tax base and future ability to improve services within all of Brisbane.	Development of the mix of commercial and office uses set forth in the General Plan would contribute to meeting this objective.
R. Retain and accommodate the expansion of existing businesses within the Baylands that contribute to the City's fiscal health and economic vitality.	The No Project-General Plan Buildout Alternative retains existing businesses operating within the Project Site, and provides for future development with the mix of commercial and office uses called for in the General Plan. The No Project-General Plan Buildout Alternative is therefore consistent with achieving this objective.

<b>Economic Objectives (continued)</b>	
S. Establish a project which remains economically viable on a long-term basis, including excellence in architecture which can withstand the test of time.	The mix of commercial and office uses described in the General Plan for the Project Site is consistent with and would contribute to meeting this objective. Achieving this objective would also depend on the design of future development. Because this alternative is designed to implement the existing General Plan, which includes policies related to excellence in design, it will result in achieving this objective.
T. Build in flexibility so the project can adapt to changing market conditions over time, without compromising the other stated project objectives.	The mix of commercial and office uses described in the General Plan for the Project Site that would be implemented in the No Project-General Plan Buildout Alternative was designed to meet this objective.
U. Provide greater choices for Brisbane residents by providing desired goods, services, entertainment, and/or other amenities not currently available within the City.	The mix of commercial and office uses described in the General Plan that would be implemented in the No Project-General Plan Buildout Alternative is consistent with meeting this objective.

## 5.3.2 Alternatives Intended to Reduce Significant Impacts Resulting from the Proposed Project

### Renewable Energy Generation Alternative

#### *Description of the Renewable Energy Generation Alternative*

The Renewable Energy Generation Alternative is based on a proposal by the Committee for Renewable Energy for the Baylands (CREBL) to develop utility-scale renewable energy generation facilities at the Baylands. CREBL's goal for this alternative was to not only offset the energy demand that would be generated by development of the Baylands, but also to produce additional electricity for consumption by Brisbane homes, businesses, and City-owned facilities. The preliminary plan for this alternative defines the approximate acreages and locations for solar PV and wind energy facilities.

To assist in the development of the Renewable Energy Generation Alternative, the City contracted with Energy Solutions to perform an analysis regarding the technical feasibility and energy generation potential of PV and wind energy generation within the Project Site (Energy Solutions, 2010). This analysis led to a refinement of the preliminary plan as originally conceived in order to optimize energy generation potential. The Renewable Energy Generation Alternative is based on the concept proposed by CREBL as refined following the Energy Solutions study. Subsequently, the U.S. Environmental Protection Agency (U.S. EPA), in accordance with the Re-Powering America's Land initiative, selected the Brisbane Baylands site for a feasibility study of renewable energy production (U.S. EPA, 2013). The National Renewable Energy Laboratory (NREL) provided technical assistance for this project. The purpose of U.S. EPA report was to assess the site for a possible PV system installation and estimate the cost, performance, and site impacts of different PV options. The modeled scenarios in the U.S. EPA study did not include available

renewable energy incentive programs, and concluded that the economics of “all systems were favorable without these incentives, and their inclusion will only make the economics even better.”

Land uses under the Renewable Energy Generation Alternative would include 170 acres of alternative energy uses consisting of a large PV solar farm, small vertical-axis wind turbines, wind turbines placed within development, and rooftop PV solar panels; 654,900 square feet of research and development facilities on 59 acres; and 173,800 square feet of retail/entertainment uses on 26 acres. Other uses at the site would include a new water treatment plant (seven acres) and relocated industrial uses (three acres). The remainder of the Project Site would be designated open space/public uses. The Recology expansion, relocation of the existing lumberyards, site remediation, and water supply agreement would occur as part of this alternative.

Because it is included in the San Francisco Bay Area Regional Transportation Plan and the San Mateo-San Francisco Bi-County Transportation Study, and also is assumed in the Candlestick Point-Hunters Point Shipyard Phase II Development Plan Project EIR, the Geneva Avenue extension would occur under this alternative as described in the Project Site development. Roadways south of the Geneva Avenue extension would mainly be used for maintenance vehicles for the alternative energy installations. The Recology expansion, relocation of the existing lumberyards, site remediation, and approval of the proposed water supply agreement would also occur as part of this alternative. The portion of the 2,400 acre-feet of water supply contemplated for Project Site development use in the proposed water transfer agreement would be reduced to accommodate the actual water demand associated with this alternative (approximately 300 acre feet); the 400 acre-feet of water to be used for citywide purposes would remain in its entirety. The recycled water plant would not be developed under this alternative. Overall, this alternative would reduce or avoid significant traffic, air quality, GHG, noise, public services, and population/housing impacts, and develop a project that would be consistent with the development intensity contemplated by the General Plan and its EIR, while meeting most Project objectives.

### **Proposed Energy Facilities**

Solar PV technologies installed as part of this alternative would include either a fixed-axis system or single-axis tracking system, or a combination of the two. Fixed-axis systems are stationary, whereas single-axis tracking systems rotate around one axis and follow the sun from east to west as the day progresses. In general, fixed-axis systems would maximize electricity generation per square foot of land (kilowatt hours per square foot, or kWh/SF), whereas tracking systems would maximize electricity generation per dollar invested (kWh/\$ invested). PV panels have a typical height of approximately six feet (maximum height of eight feet), and are arranged in rows with center-to-center spacing ranging from 12 to 22 feet.

While no specific wind energy program is set forth in the CREBL proposal, or in the Energy Solutions or NREL reports, a number of wind energy options are outlined. Based on the options set forth in the CREBL proposal and the Energy Solutions and NREL reports, wind energy technologies that could be used at the Project Site include:

- **Vertical-axis turbines.** These turbines are generally quieter and present a smaller risk to birds and bats than horizontal-axis turbines.

- **Building mounted turbines.** Currently, it is rare to see turbines mounted on buildings in the western US, although rooftop turbines are a viable alternative to PV in windy areas.
- **Low wind-speed turbines.** Many wind turbines require average wind speeds of at least 11 miles per hour to generate electricity. Low wind-speed turbines can produce electricity with wind speeds as low as two miles per hour.
- **High turbulence optimization.** Turbines optimized for high turbulence wind are well-suited for urban settings where buildings and trees disrupt the wind flow, creating turbulence.

Based on the CREBL proposal and the Energy Solutions and NREL reports, including a review of the technologies described above, wind energy generation under the Renewable Energy Generation Alternative was assumed to involve installation of 8 to 10 small-scale turbines generating a total of 100 kW or less.

### Land Use Designations

**Figure 5-1** illustrates the proposed site plan for the Renewable Energy Generation Alternative. The land use and overlay designations used in this alternative were derived from those proposed for the CPP and CPP-V Concept Plan scenarios. The land use designations delineate the type and range of land uses, minimum and maximum FARs, and maximum allowable heights. These development standards are listed in **Table 5-2**. The overlay designation delineates additional uses that may be located within underlying land use designations, as well as specific limitations to site coverage and maximum allowable heights.

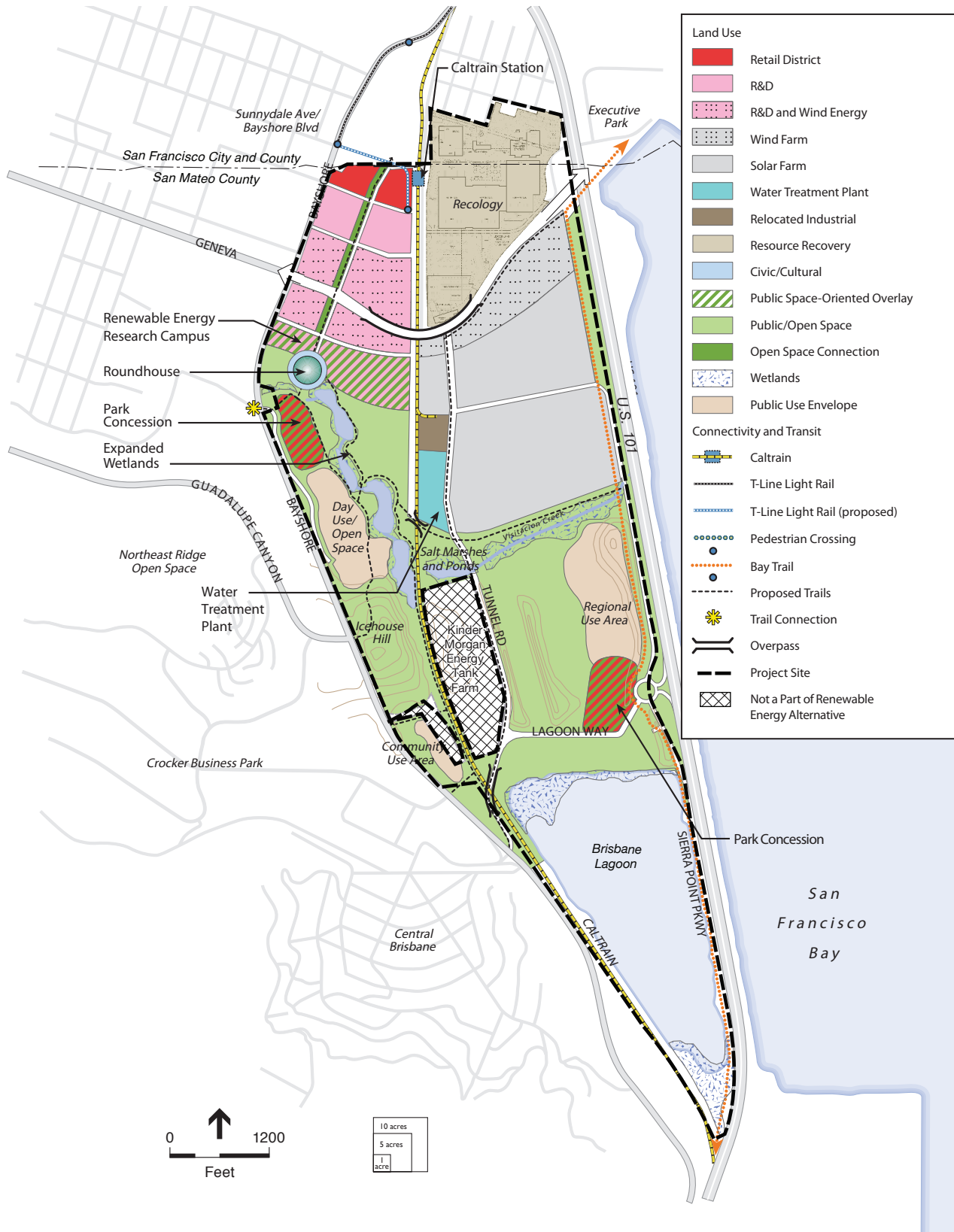
**TABLE 5-2**  
**RENEWABLE ENERGY GENERATION ALTERNATIVE DEVELOPMENT STANDARDS**

Proposed Land Use	Minimum FAR <sup>a</sup>	Maximum FAR <sup>a</sup>	Maximum Building Height (feet)
Retail District	0.30	2.50	55
Research and Development (R&D)	0.35	1.75	80
Wind Farm	-	-	-
R&D and Wind Energy	0.35	1.75	80
Solar Farm	-	-	-
Relocated Industrial	-	1.00	35
Civic/Cultural	-	0.75	55
Public Use Envelope			
Group Area	-	0.10	25
Community Use Area	-	0.50	55
Regional Use Area	-	0.10	25

<sup>a</sup> The floor area ratio (FAR) is the ratio of the total floor area of buildings on a site to the site area. As a formula:  

$$FAR = (\text{Total covered area on all floors of all buildings}) / (\text{Site area})$$
 Thus, a four-story building covering half of a site would have an FAR of 2.0.

SOURCE: Dyett and Bhatia, 2011.



SOURCE: Dyett & Bhatia

Brisbane Baylands . 206069

**Figure 5-1**  
Renewable Energy Alternative

Land use designations included in the Renewable Energy Generation Alternative include:

- **Retail District.** This designation encourages, supports, and enhances the multi-modal transit hub area as an active employment center. Active uses include retail shops, eating and drinking establishments, entertainment venues such as theaters, and cultural institutions such as museums or performance spaces. This district has a minimum FAR of 0.30 and maximum FAR of 2.50. Maximum building height in the area is 55 feet.
- **Research & Development (R&D).** This designation allows for research and development facilities, as well as supporting office spaces. Warehousing and distribution facilities are permitted as ancillary uses only. This land use district has a minimum FAR of 0.35 and maximum FAR of 1.75. Maximum building height is 80 feet.
- **Wind Power Area.** This designation defines the area designated for wind turbines. Development of 8 to 10 vertical axis turbines along Geneva Avenue is assumed.
- **R&D and Wind Energy.** This designation allows for research and development facilities related to wind projects, including smaller-scale wind generation and wind research, development, and demonstration projects. It is assumed that researchers would use this area to experiment with turbine efficacy and design, which would play an important role in helping to advance the market for small wind. The FARs and building height allowed in this area are the same as those in the R&D district: a minimum FAR of 0.35, a maximum FAR of 1.75, and a maximum building height of 80 feet.
- **Solar Farm.** This designation defines the area designated for solar PV facilities. These facilities would be either a fixed-axis (stationary) or a single-axis (rotating) system, or a combination of the two.
- **Civic/Cultural.** This designation is intended for civic and cultural activities within the 4-acre Roundhouse site. The uses are to be open to the public and may include reuse or preservation of historic buildings, as well as venues for public gathering, learning, or performance such as community centers, educational/learning centers, or theaters. This district has a maximum FAR of 0.75 and maximum building height of 55 feet.
- **Relocated Industrial.** This designation defines the future site of Van Arsdale-Harris Lumber and Sierra Point Lumber. This district has a maximum FAR of 1.0 and maximum building height of 35 feet.
- **Public Use Envelope.** This designation represents locations where active and recreational public uses are appropriate. Uses could include commercial recreational facilities, schools, interpretative centers, park and play areas, and gathering spaces. Three sub-districts are identified within this envelope:
  - **Group Area.** This sub-area allows open space and revenue-generating picnic and event facilities oriented to the Brisbane residential and employment community. The maximum FAR in this area is 0.10, with maximum building height of 25 feet.
  - **Charter High School/Community Use Area.** This sub-area allows open space; community-oriented recreation facilities, including gym and soccer fields; adult education in art and sustainable related jobs; and a potential charter high school. The maximum FAR in this area is 0.50, with maximum building height of 55 feet.
  - **Regional Use Area.** This sub-area allows open space and revenue-generating regional facilities such as bicycle training areas or a golf training facility. The maximum FAR in this area is 0.10, with maximum building height of 25 feet.

- **Public/Open Space.** This designation accommodates natural habitat, wetlands, recreation fields, and open space areas for the general community. Natural habitat and wetlands would have continuous connections through this district.
- **Recology.** As part of the proposed Recology expansion included in this alternative, a number of renewable energy production technologies would be employed, including biogas production for fleet vehicular and building heating use, installation of PVs for building electrical use, solar water heating, and cogeneration system sized for larger heat demands.

The Renewable Energy Generation Alternative also includes the following overlay designation:

- **Public Space-Oriented Overlay.** Development within this overlay designation would be integrated with open space, with connections to adjacent natural and public open space areas. This overlay requires 50 percent of the site area to be public open space. Open space would be connected to provide continuity of natural areas throughout the overlay district. Maximum building height within this overlay is 55 feet, with the exception of the Lagoon Park Concession area, where maximum height is 25 feet.

### ***Impacts of the Renewable Energy Generation Alternative***

#### **Aesthetics**

The Renewable Energy Generation Alternative proposes a combination of renewable energy generation uses and areas developed with retail, industrial, research and development, and civic uses. Parks, plazas, and open space areas are also proposed. New structures developed as part of this alternative would result in visual impacts on the Project Site in relation to scenic vistas and light and glare. However, these impacts would be substantially reduced from the less than significant scenic vistas impacts that would occur under Project Site development, as development under this alternative would amount to approximately 1.3 million square feet of building area, compared to approximately 7.7 million square feet under the CPP or CPP-V and approximately 12 million square feet under the DSP or DSP-V. Maximum building heights would be 80 feet for research and development uses. These uses would be concentrated in the northwest portion of the Project Site and would not obstruct views of scenic resources, including blue water views of San Francisco Bay.

Other new vertical elements that would affect the visual character of the Project Site include proposed wind turbines as well as potential transmission lines that would connect renewable energy systems to the electric grid operated by PG&E. The solar panels would result in a substantial reduction of new vertical elements, as they have a maximum height of eight feet and would not intrude into existing blue water views of San Francisco Bay. Additional sources of nighttime lighting for security purposes also are anticipated under this alternative; however, the substantial reduction in nighttime lighting required for this alternative as compared to Project Site development scenarios would avoid the significant and unavoidable nighttime lighting impacts of those scenarios.

The potential for daytime glare due to solar reflection off this alternative's PV system is inherently low, due to the materials of construction. By design, the PV cells capture nearly all sunlight, allowing about half the reflectance of glass used in standard residential or commercial



construction. Accordingly, the solar panels do not have a potential for reflecting the sun's rays upon any ground-plane position. The solar panels absorb more than 90 percent of incident sunlight and the southern tilt and east-west rotation (if single-axis tracking systems are employed) serve to direct residual reflection skyward. The 10 percent of sunlight that is not absorbed (i.e., residual reflection) is fugitive glare and would result in some level of impact. However, impacts related to glare associated with solar panels would be substantially reduced from the less than significant impacts of Project Site development under this alternative, due to the large surface area of proposed PV panels, since PV panels would produce far less glare than conventional glass used in building construction. Under the CPP and CPP-V scenarios, solar energy generation would be limited to rooftop panels and small areas of stand-alone solar PV. Under the DSP and DSP-V scenarios, 25 acres would be devoted to renewable energy generation uses, as compared to 125 acres under the Renewable Energy Generation Alternative.

Visual impacts related to the installation and operation of wind turbines also could occur under this alternative. However, as described above, small-scale turbines suitable for urban settings would be used, along with 8 to 10 small vertical axis wind turbines along Geneva Avenue. Given the amount of acreage devoted to renewable energy uses, this alternative would result in far less loss of views of San Francisco Bay than would Project Site development or other alternatives, with the exception of the No Project-No Build Alternative; however, depending on the amount of overhead electrical lines needed to connect renewable energy generation facilities to PG&E's existing power grid, changes in the visual character of the Project Site could be perceived as being equivalent in significance (less than significant) to those of Project Site development, although the impacts of the Renewable Energy Generation Alternative would be substantially different (e.g., blockage of Bay views vs. views of overhead electrical transmission facilities). However, given the scale of these technologies that would be used, and the ease with which they can be incorporated into the urban environment, visual impacts associated with their installation and operation would be less than significant.

### **Air Quality and Greenhouse Gas Emissions**

Due to the level and type of development proposed, the Renewable Energy Generation Alternative would result in substantially reduced air quality impacts, reducing the significant effects of Project Site development to a less than significant level, with the exception of NO<sub>x</sub> emissions during construction and PM<sub>10</sub> operational emissions that would be reduced but remain significant. Because the total amount of development under the Renewable Energy Generation Alternative (1.3 million square feet) would be far less than the CPP and CPP-V scenarios (7.7 and 8.1 million square feet, respectively) and the DSP and DSP-V scenarios (12.1 and 12.0 million square feet, respectively), air emissions from construction and operations under this alternative would be considerably less than under the any of those scenarios.

Air emissions associated with remediation activities would be similar as for Project Site development although specific remediation technologies and clean-up levels may vary, since site remediation will be required for any use within OU-1, OU-2, and the former landfill. Because human contact with ground surfaces would be limited within wind and solar generation facilities,

different remediation technologies and levels of cleanup could be employed in those areas compared to the areas of more intense urban development proposed in the Project Site development.

Construction related pollutant emissions for the Renewable Energy Generation Alternative are depicted below in **Table 5-3** and follow a similar modeling methodology as described for Project Site development.

**TABLE 5-3**  
**RENEWABLE ENERGY GENERATION ALTERNATIVE**  
**ANNUAL AVERAGE DAILY CONSTRUCTION-RELATED POLLUTANT EMISSIONS (pounds/day)<sup>a</sup>**

Year	ROG	NOx	Exhaust PM10 <sup>b</sup>	Exhaust PM2.5 <sup>b</sup>
<b>Unmitigated Emissions</b>				
2014	6.1	<b>62.3</b>	2.2	2.0
2015	19.3	<b>167.1</b>	6.4	5.8
2016	17.9	<b>151.9</b>	5.8	5.3
2017	<b>121.2</b>	<b>147.5</b>	6.1	5.5
2018	<b>105.6</b>	27.3	0.9	0.8
2019	<b>104.7</b>	22.6	0.5	0.5
<i>Construction Threshold</i>	54	54	82	54
Significant Impact?	<b>Yes</b>	<b>Yes</b>	No	No
<b>Mitigated Emissions</b>				
2014	6.1	53.9	1.3	1.2
2015	19.3	<b>162.5</b>	5.8	5.2
2016	17.9	<b>147.7</b>	5.3	4.8
2017	49.1	<b>139.9</b>	5.0	4.5
2018	33.2	23.9	0.3	0.3
2019	32.4	21.0	0.3	0.2
<i>Construction Threshold</i>	54	54	82	54
Significant Impact?	No	<b>Yes</b>	No	No

<sup>a</sup> Emissions include results modeled with URBEMIS2007. Emissions assume concurrent off-site transport of soil.

<sup>b</sup> Construction-related significance thresholds for PM<sub>10</sub> and PM<sub>2.5</sub> apply to exhaust emissions only and not to fugitive dust.

As can be seen from the data in Table 5-3, unmitigated construction-related emissions (Impact 4.B-2) would exceed the thresholds for ROG and NOx for this alternative. The main contributors of NOx during construction are off-road diesel equipment used in demolition and excavation. Implementation of mitigation measures described for the Project Site development would reduce emissions for this alternative. However, emissions of NOx would remain significant and unavoidable with mitigation.

In regard to operations (Impact 4.B-4), the Renewable Energy Generation Alternative would result in fewer number of weekday trips than Project Site development. Operational emissions of this Alternative are presented below in **Table 5-4** and follow the same modeling methodology as described for analysis of the Project Site development.

**TABLE 5-4  
RENEWABLE ENERGY GENERATION ALTERNATIVE  
DAILY OPERATIONAL EMISSIONS**

Emissions Source	Alternative Emissions - Year 2040 (pounds/day) <sup>a</sup>			
	ROG	NOx	PM <sub>10</sub>	PM <sub>2.5</sub>
Unmitigated Emissions				
Area Source	32.0	7.5	<1	<1
Vehicular Source	19.4	17.2	110	85.6
Total	51.3	24.7	<b>110</b>	20.9
<i>Operations Thresholds</i>	54	54	82	54
Significant (Yes or No)?	No	No	<b>Yes</b>	No

<sup>a</sup> Emissions were generated using the URBEMIS2007 model with a default vehicle mix. Daily estimates are for summertime or wintertime conditions, which ever are greater.

SOURCE: ESA, 2012.

As indicated in Table 5-4, operational emissions of ROG, NOx, and PM<sub>2.5</sub> for the Renewable Energy Generation Alternative would no longer result in significant emissions as under the other Alternatives and the Project Site development. However, emissions of PM<sub>10</sub> would exceed threshold by 28 pounds per day, primarily as a result of motor vehicles. Therefore, Impact 4.B-4 would remain significant and unavoidable for the Renewable Energy Alternative.

Because the Renewable Energy Generation Alternative would have a similar development footprint as Project Site development, air pollutant and GHG emissions from site grading operations would be similar to impacts of Project Site development.

While air emissions under this alternative would be reduced overall as compared to the Project Site development, implementation of this alternative would result in significant air emissions. This impact would be reduced to a less-than-significant level, however, with implementation of mitigation measures proposed in Section 4.B, *Air Quality*, of this EIR.

Operation of the proposed wind and solar energy development under this alternative also would result in decreased vehicle emissions as compared to the Project Site development. Maintenance of both PV panels and wind turbines would result in GHG emissions from increased water demand for washing of panels and sulfur hexafluoride emissions from standard leakage of electrical substations. However, such impacts would be offset by the operational benefit associated with the proposed energy produced. GHG emissions associated with construction and operation of the Renewable Energy Generation Alternative would be less than those associated with the uses proposed under the four Project scenarios. Construction of this alternative would result in GHG emissions associated with construction equipment. However, construction impacts would be temporary and would not represent an on-going contribution to the regional GHG inventory and would therefore, when analyzed over the life of the Project Site development using the same methodologies as were used to analyze Project Site development, be considered to have

a less-than-significant impact, similar to the Project Site development as discussed in Section 4.F, *Greenhouse Gas Emissions*, of this EIR.

Construction and operational emissions associated with this alternative were modeled following the same methodology as described for Project Site development. GHG emissions associated with operation of the Renewable Energy Alternative would result in a net *decrease* in GHG emissions of approximately 13,570 metric tons of CO<sub>2</sub>e. **Table 5-5** presents a gross estimate of the alternative's unmitigated operational CO<sub>2</sub>e emissions resulting from the increases in motor vehicle trips resulting from each scenario, grid electricity usage, solid waste, as well as from other sources (including area sources, natural gas combustion, and water/wastewater conveyance) which would be more than offset by GHG savings from renewable energy generation.

**TABLE 5-5**  
**ESTIMATED EMISSIONS OF GHG EMISSIONS**  
**FROM THE RENEWABLE ENERGY GENERATION ALTERNATIVE OPERATIONS**

Source	Emissions (metric tons CO <sub>2</sub> e per year)
<b>Unmitigated Emissions</b>	
Motor Vehicle Trips	7,002
Recology Truck and Vehicle Trips	748
Electricity Demand	956
Natural Gas	202
Solid Waste	731
Other Sources (i.e., area sources, water/wastewater)	32
Existing land uses to be removed (Industrial Park)	-2,762
Renewable Energy Generation (PV+ wind turbines)	-13,570
Total Unmitigated Operational GHG Emissions	-6,661
Operational GHG Emissions per Service Population (2,684 jobs)	-2.5
<i>BAAQMD Efficiency Threshold</i>	<u>4.6</u>
<i>Significant (Yes or No)?</i>	No

<sup>a</sup> GHG emissions from vehicles and area sources (including natural gas combustion) associated with the alternative scenarios were calculated using the URBEMIS2007 model with the Bay Area Greenhouse Gas Model (BGM) and trip generation data from the traffic analysis. Additional data and assumptions are included in Appendix D.

<sup>b</sup> Mitigation Measure GHG-1 described for the Project Site development was incorporated into CalEEMod using default model reductions. Additional assumptions are included in Appendix G.

SOURCE: ESA, 2012.

Data in Table 5-5 indicates that GHG emissions that would result from this alternative would not exceed the 4.6 metric tons of CO<sub>2</sub>e annually per service population threshold and would be less than significant. Therefore, unlike Project Site development and alternatives, which have either significant unavoidable impacts (CPP and CPP-V scenarios) or less than significant effects (all other scenarios and alternatives), the Renewable Energy Generation Alternative would have a beneficial GHG impact.

## Biological Resources

Overall, the reduced intensity of development under the Renewable Energy Generation Alternative would result in reduced impacts on biological resources, as compared to the Project Site development components described in Chapter 3, *Project Description*. Construction of the retail, research and development, and resource recovery uses proposed under this alternative would result in similar, though reduced, impacts compared to those identified for the Project Site development. Significant impacts on sensitive plant and wildlife species and communities associated construction of these uses would be reduced to less-than-significant levels with implementation of the mitigation measures recommended in Section 4.C, *Biological Resources*, of this EIR.

Installation of solar panels with either a fixed-axis system or single-axis tracking system, or any combination of these technologies would result in direct impacts on wildlife or wildlife habitat. Impacts on wildlife habitat connectivity also could occur, as the Project Site is situated between two wildlife habitats: a lagoon to the south and the shoreline of San Francisco Bay to the east.

Wind energy facilities have been demonstrated to cause a variety of avian impacts including direct mortality through turbine collision. The lagoons south of the wind site and the shoreline coast to the east of the wind site are attractive habitats for birds and other animals. As discussed in Section 4.C, *Biological Resources*, contemporary strategy for reducing potential impacts of wind energy facilities on avian species is to include micrositing of individual turbines in areas or orientations that are less risky for raptors and other avian species. Nonetheless, even with low speed, low profile turbines, avian deaths are still expected to occur at the Project Site.

To reduce the potential for avian deaths, prior to siting wind turbines within the Project Site, a site-specific micrositing analysis would be undertaken as part of this alternative to design the proposed turbine layout that incorporates modeling of raptor species' flight patterns, and hovering or kiting patterns for kestrels and harrier species. The analysis would provide microsited locations for turbines to reduce avian collision. Such analysis would include adaptive management programs to be implemented during and after construction using information gathered in the pre-construction assessment to guide possible Project modifications, mitigation, or the need for and design of post-construction monitoring to test design modifications and operational activities to determine their effectiveness in avoiding or minimizing significant adverse impacts (USFWS, 2010).

Impacts would also occur to bats from wind energy facilities including disturbance of local populations and subsequent displacement or avoidance of the site and disruption to migratory or movement patterns (CEC, 2007). Existing information about bat migration and habitat use is limited in California (CBWG, 2006). However, attempts are being made to model and predict effects on bats (CBWG, 2006; CEC, 2007). To address impacts on bats, implementation of the following measures based upon the California Bat Working Group's *Guidelines for Assessing and Minimizing Impacts to Bats at Wind Energy Development Sites in California* (CBWG, 2006) would occur to mitigate the Renewable Energy Generation Alternative's effects on bats by addressing the data gaps that prevent adequate assessment of the Project Site development's effects on bats, such as what bat species are using the site and how they are using the Project area. These recommendations include

minimizing operations-related impacts on common and special-status bats by contributing to the body of knowledge on bat/turbine interactions by performing pre-construction surveys to best site proposed turbines within the Project Site, and then conducting post-construction surveys, and post-construction monitoring within the Project area to ensure safe operation.

It is also recommended that wind facilities be designed according to the California Energy Commission's "California Guidelines for Reducing Impacts to Birds and Bats for Wind Energy Development" (CEC, 2007). With appropriate design considerations included as part of this alternative and implementation of the mitigation measures recommended in Section 4.C, *Biological Resources*, of this EIR, significant impacts associated with installation and operation of proposed solar and wind technologies would be reduced to less-than-significant levels as would be the case for Project Site development. Because the overall development footprint (encompassing both non-residential and renewable energy generation uses) would be similar to Project Site development, the biological resources impacts of this alternative would be similar. Although impacts of the Renewable Energy Generation alternative would be less than significant, they would be greater than for Project Site development due to the addition of impacts related to wind turbines.

### **Cultural Resources**

As with the Project Site development, significant cultural resources, including the existing Roundhouse, would be rehabilitated and reused under the Renewable Energy Generation Alternative. Impacts on historic resources during construction of development and/or during installation of solar and wind technologies would be similar to those of Project Site development since cultural resources impacts would result from demolition of existing structures and construction activities, rather than from the types of uses being proposed. Similar to the Project Site development components described in Chapter 3, *Project Description*, ground disturbance associated with the development of proposed structures and with installation of renewable energy technologies under this alternative could impact previously undiscovered archaeological resources. However, as is the case with Project development scenarios, such impacts would be reduced to less-than-significant levels with implementation of the mitigation measures described in Section 4.D, *Cultural Resources*, of this EIR. As with the Project Site development, no impacts on paleontological resources would result from implementation of this alternative.

### **Geology, Soils, and Seismicity**

Impacts related to geology, soils and seismicity would be reduced as compared to the proposed Project, due to the substantially reduced intensity of development under the Renewable Energy Generation Alternative. New structures would be subject to impacts related to soil stability and seismic groundshaking. The area proposed for wind and solar use is situated on top of a former municipal waste landfill that received solid waste from San Francisco between 1933 and 1967. As discussed in Section 4.G, *Hazards and Hazardous Materials*, of this EIR although most of the ground settlement resulting from decomposition of biodegradable material has already occurred, the landfill may continue to settle over time. As with Project Site development, any future development on the former landfill would require detailed design and construction plans that would ensure the integrity of the landfill cap. As is the case for structures proposed in the Project Site development, construction of pads or foundations (in the case of the Renewable Energy Alternative, for either

solar PV or wind turbines), for instance, may require the construction of piers into underlying bedrock. Impacts of the Renewable Energy Generation Alternative in relation to potential settlement of the former landfill would be substantially less than the significant but mitigable impacts compared to those for Project Site development since structures on the former landfill would not be designed for human occupancy under the Renewable Energy Alternative.

Overall, while significant impacts associated with risks to humans and damage to property related to seismic groundshaking, liquefaction and lateral spreading, slope and soil instability, erosion, and corrosive and expansive soils would result from development and operation of this alternative, such impacts would be reduced to less-than-significant levels with implementation of the mitigation measures recommended in Section 4.E, *Geology, Soils and Seismicity*, as is also the case for Project Site development.

### **Hazards and Hazardous Materials**

As with the Project Site development and other alternative with the exception of the No Project-No Build Alternative, use of areas requiring remediation would require cleanup prior to development in accordance with requirements set forth by the General Plan and the appropriate regulatory agency. Therefore, use of the former landfill site, or portions thereof, for renewable energy generation or any other permanent use would require full closure of the site pursuant to California Code of Regulations Title 27, subject to regulatory oversight by the Regional Water Quality Control Board and San Mateo County Environmental Health Services Agency, Environmental Health Services Division, the designated Lead Enforcement Agency (LEA). Methane from the landfill is collected through wells and piping. San Mateo County and the Regional Water Quality Control Board regulate the site. As described for the Project Site development, groundwater (leachate) and stormwater quality current are monitored on the Project Site. Within OU-1 and OU-2, the specific remedial actions to be taken would be finalized based on the specific approved uses within the Project Site with preparation of Remedial Action Plans by the agencies with jurisdiction over these areas: the Department of Toxic Substances Control and the Regional Water Quality Control Board. Implementation of remedial activities could result in impacts related to the release, transport, or disposal of hazardous materials. Remediation-related impacts of this alternative would be similar to the significant but mitigable impacts of the Project Site development and alternatives, since similar remediation would be required. Significant impacts associated with the remedial actions required as part of the Renewable Energy Generation Alternative would be reduced to less-than-significant levels with implementation of the mitigation measures identified in Section 4.G, *Hazards and Hazardous Materials*, as is the case for Project.

### **Hydrology and Water Quality**

Due to the type and intensity of development proposed, the Renewable Energy Generation Alternative would have far less impervious surface area and substantially decreased hydrology and water quality impacts as compared to Project Site development. Similar to the Project Site development, this alternative would result in significant impacts related to water quality, flooding (including the effects of sea level rise), and stormwater runoff, although to a lesser extent. Because this alternative does not propose any residential development, it would not place housing within a 100-year floodplain and would reduce the significant but mitigable impacts of Project Site

development in relation to potential flooding of non-residential structures intended for human occupancy. Construction and operation of proposed renewable energy technologies would not result in significant hydrology and water quality impacts due to the minimal impervious surface area. While the overall significant but mitigable hydrology and water quality impacts would be reduced as compared to the Project Site development, mitigation would still be required. Implementation of the mitigation measures proposed in Section 4.H, *Hydrology and Water Quality*, of this EIR would reduce impacts to less-than-significant levels as is the case for Project Site development.

### **Land Use and Planning Policy**

As described above and shown in Figure 5.1, the Renewable Energy Generation Alternative includes a mix of land uses including solar and wind energy generation, research and development, retail and entertainment, industrial, and open space uses. This alternative would include 170 acres of alternative energy uses including a combination of small vertical-axis wind turbines, wind turbines placed within development, and PV solar panels; 654,900 square feet of research and development facilities on 59 acres; and 173,800 square feet of retail/entertainment uses on 26 acres. Others uses at the site would include a new water treatment plant (seven acres) and relocated industrial uses (three acres). This alternative would be consistent with the provisions of the Brisbane General Plan since it proposes a level of development consistent with the General Plan and would adhere to all other applicable plans and policies. Overall, land use impacts associated with this alternative would be less than significant, avoiding the significant unavoidable impacts of Project Site development, with the exception of General Plan Transportation and Circulation Element policy calling for maintaining Level of Service D on area roadways. As discussed in Section 4.N, *Traffic and Circulation*, of this EIR, future background traffic increases from development in surrounding communities will cause area levels of service along roadways such as Bayshore Boulevard and at freeway ramps on US Highway 101 to deteriorate to unacceptable levels, even with no development occurring within the Project Site.

### **Noise**

Given the level and type of development proposed, noise associated with construction of the Renewable Energy Generation Alternative would be less than that associated with the Project Site development due to significant reduction of traffic. As detailed in 4.J, *Noise*, a variety of significant but mitigable and less than significant impacts would result from Project Site development. Significant noise impacts would result from the use of construction equipment during construction and site remediation under this alternative, similar to Project Site development. However, such impacts would be temporary and reduced to less-than-significant levels with implementation of the mitigation measures proposed in Section 4.J, *Noise and Vibration*, as is the case for Project Site development.

Compared to the uses proposed by the Project Site development, the solar and wind energy development proposed under this alternative would result in less vehicle traffic and therefore less vehicle noise. Wind turbines do have the potential to generate noticeable noise increases, depending on both the size and the type of the turbines and the distance to sensitive land uses. From a distance of 100 feet, a small 10-kilowatt (kW) turbine typically would have the noise levels as experienced inside of a typical home (American Wind Energy Association and Canadian



Wind Energy Association, 2009; American Wind Energy Association, no date). Vibration noise associated with wind turbines has dramatically decreased in recent years due to technological advances such as more aerodynamic turbine blades and slower rotor speeds. Operational noise impacts would be assessed as specific development projects are proposed based on City noise ordinance standards and the operational specifications of the size and type of turbines proposed. Solar panels are virtually silent when in operation, including any noise associated with axis tracker (if used), which would be below existing ambient noise levels at sensitive receptors.

### **Population and Housing**

No residential population growth would occur on the Project Site under the Renewable Energy Generation Alternative, as no residential development would occur.

Assuming proposed land uses under the Renewable Energy Generation Alternative would generate an average of 1.8 employees per 1,000 square feet of development, this alternative would result in approximately 2,400 new jobs within the Project Site. Temporary construction-related jobs, as well jobs related to the maintenance of solar and wind facilities, also would be generated with this alternative. It is expected that construction and maintenance workers generally would travel from other parts of Brisbane or the greater Bay Area to work, and that temporary housing on the Project Site would not be needed.

The Renewable Energy Generation Alternative would generate substantially fewer employment opportunities than projected citywide by ABAG's Projections 2009 for Brisbane, but more than projected in the preferred and alternative scenarios being considered in the draft Plan Bay Area. Overall, the Renewable Energy Generation Alternative would have a substantially reduced impact on population and housing conditions as compared to the Project Site development, avoiding the significant unavoidable impacts.

### **Public Services**

Due to its substantially reduced development intensity, the Renewable Energy Generation Alternative would generate less demand for public services as compared to the Project Site development. No new or expanded schools or libraries would be required, as no residential development would occur, and the number of new employees would not result in significant impacts on existing schools. New uses within the Project Site would generate increased demand for police and fire services, although to a far lesser degree than for Project Site development. As discussed in Section 4.L, *Public Services*, of this EIR, new development within the Project Site would require establishment of a second police beat, and would be required to meet applicable performance standards of the North County Fire Agency. Given the type and reduced intensity of development under the Renewable Energy Alternative, public services impacts would be reduced compared to the less than significant impacts of Project Site development.

### **Recreation Resources**

The Renewable Energy Generation Alternative includes the same amount of public use/open space as is proposed under the CPP and CPP-V scenarios. As with the Project Site development, improvements to existing resources and development of new recreational amenities could result

in construction-related impacts. New development under this alternative also could result in increased use of existing recreational resources, as new employees could use existing recreational amenities in and around the Project Site. However the increase in demand for existing recreational resources would be reduced substantially as compared to the significant but mitigable impacts of the DSP, DSP-V, CPP, and CPP-V scenarios due to the decreased intensity of development. As compared to the DSP and DSP-V scenarios, significant but mitigable impacts would be considerably reduced, as no new residential population would be introduced to the Project Site under this alternative. Impacts on recreational resources would remain be less than significant, and no mitigation would be required.

To determine the potential worst case effects of wind turbine generators proposed located along Geneva Avenue, along with solar collector arrays between US Highway 101 and the Caltrain tracks and other development west of the Caltrain tracks on windsurfing, wind tunnel tests were performed to study the wind conditions at the windsurfing launch site in the CPSRA and in the sailing area in San Francisco Bay. As a worst case, six 100 kW wind turbine generators along Geneva Avenue were evaluated. Of the renewable energy components proposed under the Renewable Energy Alternative, only the originally proposed six 100 kW wind turbine generators (up to approximately 100 feet high) would have any measurable effect on the windsurfing area. This effect was found to consist only of a single trace of disturbed wind (a wind speed reduction between five and 10 percent and wind turbulence increase of less than five percent); this trace was less than 200 feet in width (less than the width of one wind test grid square) and reached less than 500 feet downwind from the base of the wind turbine. As such, this would have an effect on only one to two of the grid points, with an insubstantial effect on the windsurfing area. The smaller 8 to 10 kW vertical axis turbines proposed would not be expected to have any adverse impact on windsurfing, and would have a reduced impacts compared to the less than significant impacts of the Project Site development.

### **Traffic and Circulation**

Impacts on existing roadways and transit systems would be substantially reduced under the Renewable Energy Generation Alternative, as compared to the significant unavoidable impacts of Project Site development. Like Project Site development, this alternative would require the extension and upgrade of roadways and public transit in order to provide circulation to, from, and within the Project Site. This would include the Geneva Avenue extension, which is included in the Brisbane General Plan, Bi-County Transportation Study, and the San Mateo County Regional Transportation Plan. Overall, impacts related to vehicle trip generation and roadway levels of service would be substantially reduced from what would occur under the Project Site development, due to the reduced density of development within the Project Site. However, while impacts would be substantially reduced, significant unavoidable traffic impacts along Bayshore Boulevard and at US Highway 101 interchanges would not be avoided since growth in background traffic is sufficient to cause unacceptable levels of service, even without development within the Project Site. The potential for significant impacts to result from construction activities under this alternative would be reduced to less than significant with implementation of the measures proposed in Section 4.N, *Traffic and Circulation*, of this EIR, as would be the case for Project Site development.

### Utilities and Service Systems

The Renewable Energy Generation Alternative would result in a substantially reduced density of development as compared to Project Site development. Therefore, the increase in demand for water, wastewater treatment, solid waste collection and disposal, and communications infrastructure would be substantially less than the significant but mitigable impacts that would occur under the Project. Impacts would be less than significant with implementation of the mitigation measures included in Section 4.O, *Utilities, Service Systems, and Water Supply*, as is the case for Project Site development.

Included in this alternative is approval of the proposed water supply agreement, which currently provides for up to 2,400 acre-feet of supply annually, including up to 2,000 acre feet for the Project Site and 400 acre feet of water for citywide use. Because water demand under this alternative (approximately 375 acre-feet annually) would be far less than for the Project Site development, it is anticipated that the 2,000 acre-feet of water assumed for the Project Site development would be reduced to 375 acre-feet for a total water supply agreement providing for 775 acre-feet of water annually. However, should the approved water supply agreement provide more supply for the Project Site than would actually be needed, a significant growth inducing effect would result.

### Energy Resources

Development under the Renewable Energy Generation Alternative would result in additional demand for energy resources on the Project Site. However, this demand would be offset by energy generated by the proposed solar (and potentially wind) technologies.

The estimated annual electricity generation from solar PV and wind systems as proposed in the Renewable Energy Generation Alternative layout is presented below in **Table 5-6**. Because the specific type of solar technology that would be used on the Project Site has yet to be determined, electricity generation is calculated separately for a fixed-axis PV system and a tracking-PV system. Electricity generation from turbines at the research and development site was not included in the analysis, because it was assumed that these turbines would not be running on a continuous basis. In addition to stand-alone renewable technologies, conjunctive use of renewable energy generation with development, such as PV systems on the roofs of new buildings, also could occur. Because micro-siting studies for the proposed wind turbines within the Project Site under this alternative have not been undertaken, energy generation for wind turbines has not been estimated in Table 5-6.

Overall, impacts on existing energy resources under the Renewable Energy Generation Alternative would be beneficial, since this alternative would be expected to generate more energy than needed to serve onsite uses. Such surplus energy could be used to meet demand within the City of Brisbane as a whole.

In addition to the energy produced by solar and wind facilities under this alternative, Recology facility is expected to generate approximately 27.6 million Kwh energy over and above onsite demand for export as the result of biogas production for fleet vehicular and building heating use, installation of PV for building electrical use, solar water heating, and a cogeneration system sized for larger heat demands.

**TABLE 5-6**  
**RENEWABLE ENERGY GENERATION ALTERNATIVE**  
**ELECTRICITY GENERATION FROM SOLAR PV AND WIND SYSTEMS AT PROJECT SITE**

	Solar Photovoltaic (PV) Systems	
	Fixed Axis PV System	Single-Axis Tracking PV System
Area	104 acres	104 acres
Capacity <sup>a</sup>	31.7 MW	15.7 MW
Annual Electricity Generation	45,660 MWh	29,780 MWh
Generation / Capacity	1,440kWh/kW	1,890 kWh/kW
Annual GHG Emissions Savings <sup>b</sup>	12,960 MTCO <sub>2</sub> e	8,450 MTCO <sub>2</sub> e
Number of Single-Family Homes Powered <sup>c</sup>	1,570 homes	1,030 homes
Equivalent Number of Passenger Vehicles Removed from Road <sup>d</sup>	2,480 passenger vehicles	1,616 passenger vehicles

MW = megawatts; MWh = megawatt hours; kW = kilowatts; kWh = kilowatt hours; MTCO<sub>2</sub>e = metric tons of carbon dioxide equivalents

<sup>a</sup> The capacities from the PV system are not additive; the site would either have (1) a fixed-axis tracking PV system, or (2) a single-axis tracking PV system. Both the PV and wind systems can be installed, so PV and wind capacities are additive.

<sup>b</sup> Assumes 0.288 metric ton of carbon dioxide equivalents (MTCO<sub>2</sub>e) per MWh of generated power. Source: California Climate Action Registry, *PG&E's 2008 Annual Entity Emissions: Electric Power Generation/Electric Utility Sector (Actual 2007 emissions)*.

<sup>c</sup> Assumes the average single-family home in the United States consumes 12,733 kWh per year. Source: EIA, 2005 Residential Energy Consumption Survey, 2008, Table US-3, Total Consumption by Fuels Used, 2005, Physical Units.

<sup>d</sup> Assumes average passenger car emits 5.23 MTCO<sub>2</sub>e per year. Source U.S. Environmental Protection Agency, *Greenhouse Gas Equivalencies Calculator*, updated March 2010.

SOURCE: Energy Solutions, Preliminary Renewable Energy Feasibility Study: City of Brisbane Analysis of the Baylands Renewable Energy Alternative, October 2010.

## ***Evaluation of the Renewable Energy Alternative in Relation to Project Objectives***

Overarching Objective	
Create an active, vibrant place which strengthens the community of Brisbane; contributes to its sense of place; and demonstrates environmental, social, and economic considerations can be harmonized to the betterment of the natural environment, the Brisbane and regional community, and the individuals who will use the Baylands.	The Renewable Energy Alternative has the ability to create an 85-acre, 0.8 million square foot cluster of urban development to serve as an active vibrant place, partially meeting this objective. By also providing for such a cluster of development, while also generating more renewable energy than would be used within the Project Site, the Renewable Energy Alternative would meet the environmental sustainability components of the City's overarching project objective.
Environmental Protection and Enhancement Objectives	
A. Remediate the Baylands to a level which ensures the safety of all who use the site, and eliminates ongoing ecological damage.	Because the Renewable Energy Alternative provides for site remediation and remediation would be required to provide for public safety in relation to the specific mix and location of land uses ultimately approved by the City, it would meet this Project objective.

**Environmental Protection and Enhancement Objectives (continued)**

B. Incorporate a “green building” approach for all future development on the Baylands, wherein buildings are sited, designed, constructed and operated to encourage resource conservation, minimize waste and pollution, maximize energy and resource efficiency, and promote healthy indoor environments	Meeting this objective would largely be accomplished as part of the design of future development. The Renewable Energy Alternative would not constrain the ability of future development to meet this objective.
C. Preserve, restore and enhance wetlands and natural habitat on the site and create natural linkages across the site to promote physical and visual connectivity between the San Bruno Mountains and the Bay.	Because this objective is reflected in General Plan policies that would be required of this alternative, the Renewable Energy Alternative would meet this objective.
D. Promote and encourage non-vehicular access and movement to and from the site (particularly from Central Brisbane) and within the site as well. Land use mix, good urban design, the provision of safe and pleasant pedestrian and bike paths, and convenient access and linkages to public transit are all necessary components.	Because this objective is reflected in General Plan policies that would be required of this alternative, the Renewable Energy Alternative would meet this objective.
E. Strive to achieve a balance between energy demand and generation through efficiency, conservation, and the maximum use of passive and active sources of renewable energy.	The Renewable Energy Alternative is designed specifically with this objective in mind, providing a net surplus of renewable energy.
F. Minimize the net consumption of water supplies.	By reducing the amount of urban development onsite, and maximizing renewable energy use, the Renewable Energy Alternative would minimize the net consumption of domestic water supplies.
G. Safely and efficiently accommodate project traffic in a manner that does not adversely impact Brisbane or adjacent communities.	Because this objective is reflected in General Plan policies that would be required of this alternative, the Renewable Energy Alternative would meet this objective.
H. Incorporate innovative methods to reduce resource consumption and waste generation.	By reducing the amount of urban development below the maximum allowable by the General Plan, and providing for expansion of the Recology solid waste facility, the Renewable Energy Alternative would meet this objective.
I. Site and design new infrastructure to minimize adverse environmental impacts.	Meeting this objective would largely be accomplished as part of the design of future development. The Renewable Energy Alternative would not constrain the ability to meet this objective.
J. Design the project sensitively to protect Brisbane’s viewshed, taking into account light spillage and pollution, building height and massing, and placement of landscape features.	The limited amount of urban development proposed in the Renewable Energy Alternative would provide greater opportunities for maintaining blue water views and meeting this objective than would more intensive development of the Project Site. As described in the evaluation of the Renewable Energy Alternative, mitigation measures are available and would be applied to reduce visual impacts, including light and glare to less than significant levels.
K. Achieve a level of solid waste diversion equivalent to the zero waste goals established for San Francisco.	Meeting this objective depends on the implementation of citywide zero waste programs. Urban development pursuant to this alternative would be required to comply with applicable zero waste programs. In addition, the Renewable Energy Alternative provides for expansion of the existing Recology facility. Thus, the Renewable Energy Alternative would not constrain achievement of this objective.

<b>Social Equity Objectives</b>	
L. Incorporate significant open space and related improvements which provide opportunities for a wide range of passive and active public recreational opportunities benefiting the City and region.	Meeting this objective would largely be accomplished as part of the design of future development within the Project Site. By limiting the amount of urban development within the Project Site and providing for open space preservation, the Renewable Energy Alternative would contribute to and not constrain the ability to meet this objective.
M. Provide employment opportunities for Brisbane residents and residents of nearby local communities, thereby improving the jobs/housing balance at regional and subregional levels.	With the exception of the No Project-No Build Alternative, the Renewable Energy Alternative would generate the fewest employment opportunities of the Project and alternatives discussed in this EIR. However, employment generation by the Renewable Energy Alternative would be in line with the range of employment projections set forth in Plan Bay Area. As a result, the Renewable Energy Alternative would not constrain achievement of this objective.
N. Contribute to critically-needed solutions to regional transit and transportation issues which will benefit both the project and existing communities.	Because the Renewable Energy Alternative proposed substantially less development than Project Site development, it would fall short of meeting this objective.
O. Recognize that the project is of regional significance, and provide for the well-being not only of the City of Brisbane, but also of surrounding communities.	By producing a net surplus of renewable energy that could be used to support other development in surrounding communities, the Renewable Energy Alternative would assist in achieving this objective.
P. Provide on-site opportunities for public art and education to contribute to public understanding of the site, including its history, ecology and the project's sustainability mission.	Meeting this objective would largely be accomplished as part of the design of future development within the Project Site. The Renewable Energy Alternative would not constrain the ability to meet this objective.
<b>Economic Objectives</b>	
Q. Enhance the City's tax base and future ability to improve services within all of Brisbane.	Development of the mix of commercial and office uses set forth in the Renewable Energy Alternative would contribute to meeting this objective.
R. Retain and accommodate the expansion of existing businesses within the Baylands that contribute to the City's fiscal health and economic vitality.	The Renewable Energy Alternative would retain existing businesses within the Project Site and allow for their expansion. As such, the Renewable Energy Alternative would achieve this objective.
S. Establish a project which remains economically viable on a long-term basis, including excellence in architecture which can withstand the test of time.	Studies suggest that renewable energy production could be viable within the Project Site. In addition, the mix of commercial and office uses to be developed in addition to renewable energy production is consistent with and would contribute to meeting this objective. Achieving this objective would also depend on the design of future development. Because development of this alternative will be required to be consistent with the General Plan, which includes policies related to excellence in design, it will result in achieving this objective.
T. Build in flexibility so the project can adapt to changing market conditions over time, without compromising the other stated project objectives.	The mix of commercial and office uses described in the Renewable Energy Alternative is similar to that of the No Project – General Plan Buildout Alternative, and would therefore meet this objective.
U. Provide greater choices for Brisbane residents by providing desired goods, services, entertainment, and/or other amenities not currently available within the City.	The mix of commercial and office uses described in the Renewable Energy Alternative is similar to that of the No Project - General Plan Buildout Alternative, and is therefore consistent with meeting this objective.

## Reduced Intensity Non-Residential Alternative

### ***Description of the Reduced Intensity Non-Residential Alternative***

The Reduced Intensity Non-Residential Alternative was specifically designed to eliminate the significant unavoidable GHG emissions impacts of the CPP and CPP-V scenarios by reducing development intensity within the Baylands and providing for 25 acres of land dedicated to renewable energy production. The Reduced Intensity Non-Residential Alternative would include the land use categories proposed under the CPP-V, but at reduced square footages. The Reduced Intensity Non-Residential Alternative provides for the expansion of the existing Recology facility within the northeast portion of the Project Site. As with the Project Site development, relocation of existing lumberyards, adaptive reuse of the Roundhouse and Lazzari Fuel Company buildings, and replacement of the existing 231,400-square-foot Brisbane Bayshore Industrial Park would occur. In addition, because any future development of the Project Site requires remediation and a firm water supply, this alternative assumes site remediation and approval of the proposed water supply agreement, as described in Chapter 3, *Project Description*, of this EIR. The 2,400 acre-feet of water supply contemplated in the proposed water transfer agreement would be reduced by approximately 28 percent (to 1,440 acre-feet) to accommodate the actual water demand associated with this alternative, while retaining the full 400 acre-feet of water to be used for citywide purposes (total of 1,840 acre feet).

As previously discussed, total proposed new development under the Reduced Intensity Non-Residential Alternative would include:

- General Retail: 500,000 square feet
- General Office: 800,000 square feet
- R&D: 2,000,000 square feet
- Industrial/Warehouse: 224,000 square feet
- Public/Civic (community center/community theater): 180,000 square feet
- Recology Expansion (total): 1,011,000 square feet
- Hotel: 520,000 square feet (650 rooms)
- Institutional (office): 80,000 square feet
- Renewable Energy Generation: 25 acres

Including existing lumberyard uses to be relocated, total square footage of development at buildout of the Reduced Intensity Non-Residential Alternative would be 5,245,300 square feet of building area.

Under this alternative, the buildout density would be greater than under buildout of the existing General Plan, but reduced from that of the Project in order to reduce or avoid impacts while meeting basic Project objectives. As noted above, this alternative was specifically designed to reduce the significant unavoidable GHG impact of CPP and CPP-V scenarios to below a level of significance. The Reduced Intensity Non-Residential Alternative reduces or avoids significant aesthetics and visual resources, traffic, air quality, public services, and population/housing impacts, and meets most of the Project's environmental, social equity, and economic objectives. An evaluation of this alternative in relation to project objectives is presented below.

The relocation of the existing lumberyards to a site within the Baylands and the expansion of the existing Recology facility would occur under this alternative. As would occur under each of the Project development scenarios, existing uses including the Brisbane Bayshore Industrial Park, Brisbane Soils Processing, and the Brisbane Recycling rock crushing facility would be removed over time and replaced with new development under this alternative.

The Reduced Intensity Non-Residential Alternative also assumes that the Geneva Avenue extension, along with implementation of the infrastructure improvements required to serve development within the Project Site, would occur. Implementation of required remedial actions as described in Chapter 3, *Project Description*, would also occur under this alternative. This alternative would include development of small-scale wind and solar energy generation technologies.

### ***Impacts of the Reduced Intensity Non-Residential Alternative***

#### **Aesthetics**

Impacts under the Reduced Intensity Non-Residential Alternative would be reduced as compared to the Project Site development, since development would be less intense. This alternative provides for a substantial reduction in development square footage, and would reduce building heights so as to reduce the less than significant scenic vistas of Project Site development. The Reduced Intensity Non-Residential Alternative would adhere to General Plan Land Use Element Policy 11, which requires that development south of the Bayshore Basin drainage channel maintain a low profile in order to preserve the existing views of San Francisco and San Francisco Bay as seen from Central Brisbane, and to maximize the amount of landscape and open space or open area in this portion of the Baylands. This would minimize impacts on scenic vistas.

The Reduced Intensity Non-Residential Alternative would preserve scenic resources within the Project Site, since new development would be designed consistent with General Plan policies requiring that development in the Baylands be complementary to existing topographic features, including Brisbane Lagoon, San Bruno Mountain, and San Francisco Bay. Other identified scenic resources such as the Roundhouse also would be preserved under this alternative.

While development under this alternative would result in new sources of light and glare that would be visible from other areas of Brisbane, from US Highway 101, and from adjacent scenic vistas, because development intensity would be less than under the Project, the impacts related to light and glare would be reduced. While the sources of light and glare would be similar to Project Site development, the number of sources would be fewer and less intense, and the resulting degree of light and glare impacts would be less. However, substantial nighttime lighting would still be required, and although impacts would be reduced, nighttime lighting impacts would remain significant and unavoidable under the Reduced Intensity Non-Residential Alternative.

#### **Air Quality and Greenhouse Gases**

The Reduced Intensity Non-Residential Alternative was specifically designed to eliminate the significant GHG emissions impact that would result from the CPP-V scenario, as shown in **Table 5-7**.



**TABLE 5-7**  
**ESTIMATED EMISSIONS OF GHG EMISSIONS**  
**FROM THE REDUCED DENSITY ALTERNATIVE OPERATIONS**

Source	Emissions (metric tons CO <sub>2</sub> e per year)
<b>Unmitigated Emissions</b>	
Motor Vehicle Trips	28,721
Recology Truck and Vehicle Trips	748
Electricity	5,786
Natural Gas	3,171
Solid Waste	12,721
Other Sources (i.e., area sources, water/wastewater)	255
Existing land uses to be removed (Industrial Park)	-2,762
Renewable Energy Generation ( PV)	-3,116
Total Unmitigated Operational GHG Emissions	45,524
Operational GHG Emissions per Service Population (10,306 jobs)	4.4
<i>BAAQMD Efficiency Threshold</i>	4.6
<i>Significant (Yes or No)?</i>	No

<sup>a</sup> GHG emissions from vehicles and area sources (including natural gas combustion) associated with the alternative scenarios were calculated using the URBEMIS2007 model with the Bay Area Greenhouse Gas Model (BGM) and trip generation data from the traffic analysis. Additional data and assumptions are included in Appendix G.

<sup>b</sup> Mitigation Measure GHG-1 described for the Project was incorporated into CalEEMod using default model reductions. Additional assumptions are included in Appendix G.

SOURCE: ESA, 2012.

Construction and operational emissions associated with this alternative were modeled following the same methodology as described for the Project components described in Chapter 3, *Project Description*. GHG emissions associated with the construction phase of the Reduced Intensity Non-Residential Alternative would result in a maximum annual generation of approximately 9,008 metric tons of CO<sub>2</sub>e. Table 5-7 presents a gross estimate of the scenario's unmitigated operational CO<sub>2</sub>e emissions resulting from the increases in motor vehicle trips, grid electricity usage, solid waste, as well as from other sources (including area sources, natural gas combustion, and water/wastewater conveyance).

Table 5.7 indicates that GHG emissions that would result from this alternative would not exceed the 4.6 metric tons of CO<sub>2</sub>e annually per service population threshold and would be less than significant. Therefore, unlike the CPP and CPP-V Project scenarios, the Reduced Intensity on-Residential Alternative would have a less-than-significant emission impact, although the GHG impact of the Reduced Intensity Non-Residential Alternative would be greater than the less than significant impacts of the DSP and DSP-V scenarios.

Air quality emissions generally would be reduced under the Reduced Intensity Non-Residential Alternative as compared to the CPP and CPP-V scenarios, since the overall amount of development would be less (approximately five million square feet) than under the CPP and

CPP-V scenarios (approximately eight million square feet). However, to eliminate significant air quality impacts, would require a substantial further reduction in development within the Project site to about 2.5 million square feet.

### **Biological Resources**

Development under the Reduced Intensity Non-Residential Alternative could result in impacts on biological resources. Much of the Project Site is heavily disturbed due to prior uses such as the former landfill and railyard. However, existing biological resources such as those in the vicinity of Brisbane Lagoon and Icehouse Hill are present and could be directly or indirectly affected by construction or operation of future development. Because the Reduced Intensity Non-Residential Alternative would have the same development footprint as the CPP and CPP-V scenarios, it would result in similar significant but mitigable impacts on sensitive plant and wildlife species, sensitive natural communities, wetlands and other waters, wildlife movement, and trees protected by the Brisbane Tree Ordinance. As with the Project, implementation of the mitigation measures recommended in Section 4.C, *Biological Resources*, of this EIR, would reduce impacts of the Reduced Intensity Non-Residential Alternative to less-than-significant levels.

### **Cultural Resources**

Development of the Baylands under the Reduced Intensity Non-Residential Alternative could result in impacts on known historic resources and previously undiscovered archaeological resources. Such impacts would occur with damage to historic structures or to archaeological resources resulting from construction activities. Impacts on designated historic resources would be unlikely, however, as development under this alternative would adhere to General Plan policies calling for rehabilitation of historic structures; and, as under the Project, this alternative includes rehabilitation and reuse of existing historic resources. With implementation of the mitigation measures recommended for the Project in Section 4.D, *Cultural Resources*, of this EIR, impacts on cultural resources associated with this alternative would be reduced to less-than-significant levels, resulting in similar less-than-significant impacts. No impacts on paleontological resources would occur, as no recorded paleontological resources are located on the Project Site or in the immediate vicinity.

### **Geology, Soils, and Seismicity**

Impacts related to geology, soils and seismicity would be similar to the significant but mitigable impacts identified for Project Site development. Such impacts would include potential risks to humans and damage to property related to seismic groundshaking, liquefaction and lateral spreading, slope and soil instability, erosion, and corrosive and expansive soils. Because the square footage of development under the Reduced Intensity Non-Residential Alternative is reduced compared to the CPP, CPP-V, DSP, and DSP-V scenarios, geology, soils, and seismicity impacts would be reduced by placing fewer people within the Project Site on a daily basis. However, mitigation measures would still be necessary to minimize these impacts. Implementation of the mitigation measures recommended in Section 4.E, *Geology, Soils and Seismicity*, of this EIR would reduce these potential impacts to less-than-significant levels.

### **Hazards and Hazardous Materials**

As with Project Site development and alternatives, a series of remedial actions would need to be undertaken prior to future development within certain portions of the Project Site, including the former landfill and railyard areas. The specific remedial actions to be taken would be finalized based on the specific approved uses within the Project Site with preparation of Remedial Action Plans by the agencies with jurisdiction over these areas: the Department of Toxic Substances Control and the Regional Water Quality Control Board. Implementation of remedial activities could result in impacts related to the release, transport, or disposal of hazardous materials. Remediation-related impacts of this alternative would be similar to the significant but mitigable impacts of the Project and alternatives, since similar remediation would be required. Significant impacts under the Reduced Intensity Non-Residential Alternative could also occur with the use or transport of fuels, oils, or other chemicals during construction, or as a result of hazardous emissions or handling of hazardous or acutely hazardous materials, substances or waste within 0.25 mile of an existing or proposed schools. These impacts would be reduced to less-than-significant levels with implementation of the mitigation measures identified in Section 4.G, *Hazards and Hazardous Materials*, of this EIR.

### **Hydrology and Water Quality**

The Reduced Intensity Non-Residential Alternative would result in significant but mitigable impacts related to water quality, flooding (including the potential effects of sea level rise), and stormwater runoff. Because the density of development of this alternative would be less than under any of the Project scenarios, this alternative would result in less new coverage of the Project Site by impervious surfaces than the Project, and therefore would somewhat reduce significant but mitigable impacts of Project Site development related to flooding and stormwater runoff. Because this alternative does not propose any residential development, it would result in no impacts related to the placement of housing within a 100-year floodplain. While overall hydrology and water quality impacts would be reduced as compared to the Project, mitigation would still be necessary. Implementation of the mitigation measures recommended in Section 4.H, *Hydrology and Water Quality*, of this EIR would reduce impacts to less-than-significant levels.

### **Land Use and Planning Policy**

The Reduced Intensity Non-Residential Alternative does not include residential development and is therefore consistent with the General Plan's prohibition on residential development within the Baylands. The overall land use intensity of this alternative is, however, greater than that currently contemplated by the General Plan as detailed in the General Plan EIR. Further reducing development intensity by approximately 50 percent to eliminate significant air quality impacts, would also bring this alternative into conformance with the maximum buildout anticipated by the General Plan. The Reduced Intensity Non-Residential Alternative would result in no impacts related to the division of existing communities or conflicts with habitat conservation plans. Overall, land use impacts associated with this alternative would be less than significant, avoiding the significant unavoidable impacts of Project Site development, with the exception of an inconsistency with General Plan Transportation and Circulation Element policy calling for maintaining Level of Service D on area roadways. As discussed in Section 4.N, *Traffic and Circulation*, future background traffic increases from development in surrounding communities

will cause area levels of service along roadways such as Bayshore Boulevard and at freeway ramps on US Highway 101 to deteriorate to unacceptable levels, even with no development occurring within the Project Site.

### **Noise**

The Reduced Intensity Non-Residential Alternative would generate substantial noise from both project construction and operation. Although this alternative would result in less development than Project Site development, it would still result in similar significant impacts related to construction noise and to an overall increase in ambient noise over existing conditions. However, noise impacts under this alternative could be reduced to less-than-significant levels with implementation of the mitigation measures recommended in Section 4.J, *Noise and Vibration*, of this EIR.

### **Population and Housing**

Because it does not propose residential development, no residential population growth would occur on the Project Site under the Reduced Intensity Non-Residential Alternative. Assuming allowable land uses under the General Plan would generate an average of 1.8 employees per 1,000 square feet of development, the Reduced Intensity Non-Residential Alternative would result in approximately 10,800 new jobs within the Project Site. This estimate is less than the number of jobs that would be generated under the CPP, CPP-V, DSP, or DSP-V scenario (approximately 15,000 and 17,000 new jobs, respectively), but substantially more than projected for the City in ABAG's Projections 2009 or in the SCS scenarios for the draft Plan Bay Area.

Development of the Project Site under this alternative also would generate temporary construction-related jobs. It is expected that construction workers generally would travel from other parts of the Bay Area to work, and that temporary housing on the Project Site would not be needed.

### **Public Services**

Impacts under the Reduced Intensity Non-Residential Alternative would generally be less than under Project Site development. Like the CPP and CPP-V scenarios, this alternative does not include residential uses and therefore would not directly result in an increased demand for schools. The demand for other types of public services, including police and fire protection, would increase under this alternative, as it would under the Project, but to a lesser degree. As compared to the Project Site development, however, the less than significant impacts of Project Site development related to the provision of these services would be reduced under this alternative and would be less than significant.

### **Recreation Resources**

The Reduced Intensity Non-Residential Alternative includes the same amount of public use/open space as is proposed under the CPP and CPP-V. As with Project Site development, improvements to existing resources and development of new recreational amenities could result in construction-related impacts. While the Reduced Intensity Non-Residential Alternative does not include residential uses, new development under this alternative also could result in increased use of

existing recreational resources, as new employees could use existing recreational amenities in and around the Project Site. However the overall demand for resources would be reduced as compared to the DSP, DSP-V, CPP, and CPP-V scenarios due to the decreased intensity of development. As compared to the DSP and DSP-V scenarios, impacts would be considerably reduced, as no new residential population would be introduced to the Project Site. Impacts on recreational resources would be less than significant, and no mitigation would be required.

### **Traffic and Circulation**

The Reduced Intensity Non-Residential Alternative would require the extension and upgrade of roadways and public transit in order to provide circulation to, from, and within the Project Site. This would include the Geneva Avenue extension, which is included in the Brisbane General Plan, Bi-County Transportation Study, and San Mateo County Regional Transportation Plan. Overall, impacts related to vehicle trip generation and level of service would be reduced from what would occur under Project Site development, due to the reduce density of development. However, significant unavoidable impacts would still result from implementation of this alternative.

### **Utilities and Service Systems**

The Reduced Intensity Non-Residential Alternative would result in a reduced intensity of development as compared to the Project scenarios. Therefore, the increase in demand for water, wastewater treatment, solid waste collection and disposal, and communications infrastructure would be less than under Project Site development. As compared to the DSP and DSP-V scenarios, in particular, less than significant impacts on utilities and service systems would be substantially reduced, given the larger amount of development proposed under those scenarios. Because the Reduced Intensity Non-Residential Alternative does not include residential development, its impacts would be similar to, but less than those resulting from the CPP and CPP-V scenarios since the Reduced Intensity Non-Residential Alternative proposes approximately 1.7 million square feet less of building area. Significant impacts to utilities and service systems could occur under this alternative. However, such impacts would be less than significant with implementation of the mitigation measures recommended in Section 4.O, *Utilities, Service Systems, and Water Supply*, of this EIR.

Included in this alternative is approval of the water supply agreement, which provides for up to 2,400 acre-feet of supply annually, including up to 2,000 acre feet for the Baylands and 400 acre-feet of water for citywide use. Because water demand under this alternative would be far less than for any of the Project scenarios, requiring approximately 72 percent of the supply in the proposed water supply agreement, because development of an onsite recycled water plant and availability of recycled water for onsite irrigation purposes is included as part of this alternative. Thus, approval of the proposed water supply agreement under the Reduced Intensity Non-Residential Alternative would include approximately 1,440 acre feet of water, reflecting actual water supply requirements, along with an additional 400 acre-feet of water supply for buildout of the General Plan outside of the Project Site (total of 1,840 acre-feet). Approval of the proposed water supply agreement with more than 1,840 acre feet of water supply, up 2,400 acre feet would provide more supply than would actually be needed and would have a growth-inducing effect.

## Energy Resources

Buildout of the Project Site under the Reduced Intensity Non-Residential Alternative would increase the demand for energy supplies and result in impacts related to the installation of new energy infrastructure. Such impacts would be similar to what would occur under the Project, although, the increase in demand for energy resources and the intensity of impacts related to the development of energy infrastructure required to serve the Project Site would be reduced due to decreased development intensity. This alternative would include the generation of renewable energy through 25 acres of renewable energy generation within the Project Site. Renewable energy generation development of such technologies would partially offset energy use on the Project Site, thereby reducing impacts related to increases in energy demand. While the potential for renewable energy generation under this alternative would be similar to that under Project Site development, impacts under this alternative would be reduced as compared to the Project, due to the overall level and type of development proposed.

## ***Evaluation of the Reduced Intensity Non-Residential Alternative in Relation to Project Objectives***

<b>Overarching Objective</b>	
Create an active, vibrant place which strengthens the community of Brisbane; contributes to its sense of place; and demonstrates environmental, social, and economic considerations can be harmonized to the betterment of the natural environment, the Brisbane and regional community, and the individuals who will use the Baylands.	Meeting this objective would largely be accomplished as part of the design of future development within the Project Site. By providing for a similar mix of commercial and office uses as the CPP-V scenario, the Reduced Intensity Non-Residential Alternative would contribute to and not prevent meeting this objective.
<b>Environmental Protection and Enhancement Objectives</b>	
A. Remediate the Baylands to a level which ensures the safety of all who use the site, and eliminates ongoing ecological damage.	Because site remediation is part of the Reduced Intensity Non-Residential Alternative and remediation would be required to provide for public safety in relation to the specific mix and location of land uses ultimately approved by the City, this objective would be met.
B. Incorporate a “green building” approach for all future development on the Baylands, wherein buildings are sited, designed, constructed and operated to encourage resource conservation, minimize waste and pollution, maximize energy and resource efficiency, and promote healthy indoor environments	Meeting this objective would largely be accomplished as part of the design of future development. The Reduced Intensity Non-Residential Alternative would not constrain the ability of future development to meet this objective.
C. Preserve, restore and enhance wetlands and natural habitat on the site and create natural linkages across the site to promote physical and visual connectivity between the San Bruno Mountains and the Bay.	Because these activities are reflected in the General Plan policies and would therefore be required to be implemented by this alternative, the Reduced Intensity Non-Residential Alternative would meet this objective.
D. Promote and encourage non-vehicular access and movement to and from the site (particularly from Central Brisbane) and within the site as well. Land use mix, good urban design, the provision of safe and pleasant pedestrian and bike paths, and convenient access and linkages to public transit are all necessary components.	Because this objective is reflected in the General Plan policies and would therefore be required to be implemented by this alternative, the Reduced Intensity Non-Residential Alternative would meet this objective.

**Environmental Protection and Enhancement Objectives (continued)**

E. Strive to achieve a balance between energy demand and generation through efficiency, conservation, and the maximum use of passive and active sources of renewable energy.	The Reduced Intensity Non-Residential Alternative provides for renewable energy generation at a similar rate as for proposed Project scenarios, along with reduced energy demands resulting from reduced development intensity. As a result, the Reduced Intensity Non-Residential Alternative would meet this objective.
F. Minimize the net consumption of water supplies.	Because this objective is reflected in the General Plan policies and would therefore be required to be implemented by this alternative, the Reduced Intensity Non-Residential Alternative would meet this objective.
G. Safely and efficiently accommodate project traffic in a manner that does not adversely impact Brisbane or adjacent communities.	Because this objective is reflected in the General Plan policies and would therefore be required to be implemented by this alternative, the Reduced Intensity Non-Residential Alternative would meet this objective.
H. Incorporate innovative methods to reduce resource consumption and waste generation.	Meeting this objective would largely be accomplished as part of the design and operations of future development within the Project Site. By providing for a similar mix and intensity of land uses as set forth in the CPP-V scenario (including expansion of the Recology facility), the Reduced Intensity Non-Residential Alternative would contribute to and not prevent meeting this objective.
I. Site and design new infrastructure to minimize adverse environmental impacts.	Because this objective is reflected in the General Plan policies and would therefore be required to be implemented by this alternative, the Reduced Intensity Non-Residential Alternative would meet this objective.
J. Design the project sensitively to protect Brisbane's viewshed, taking into account light spillage and pollution, building height and massing, and placement of landscape features.	Because this objective is reflected in the General Plan policies and would therefore be required to be implemented by this alternative, the Reduced Intensity Non-Residential Alternative would meet this objective.
K. Achieve a level of solid waste diversion equivalent to the zero waste goals established for San Francisco.	Meeting this objective depends on the implementation of citywide zero waste programs. Urban development pursuant to this alternative would be required to comply with applicable zero waste programs. In addition, the Reduced Intensity Non-Residential Alternative provides for expansion of the existing Recology facility. Thus, the Reduced Intensity Non-Residential Alternative would not constrain achievement of this objective.

**Social Equity Objectives**

L. Incorporate significant open space and related improvements which provide opportunities for a wide range of passive and active public recreational opportunities benefiting the City and region.	The Reduced Intensity Non-Residential Alternative would provide similar open space and related improvements as would the CPP-V scenario, including a range of passive and active public recreational opportunities consistent with the employment-generating, non-residential character of future development under this alternative. As a result, the Reduced Intensity Non-Residential Alternative would achieve this objective.
M. Provide employment opportunities for Brisbane residents and residents of nearby local communities, thereby improving the jobs/housing balance at regional and subregional levels.	The Reduced Intensity Non-Residential Alternative would generate 10,800 jobs, less than would be generated under the CPP, CPP-V, DSP, or DSP-V scenario (approximately 15,000 and 17,000 new jobs), but substantially more than projected for the City in ABAG's Projections 2009 or in the SCS scenarios for draft Plan Bay Area. The Reduced Intensity Non-Residential Alternative would achieve the

<b>Social Equity Objectives (continued)</b>	
	portion of this objective related to creating employment opportunities; however, unless the portion of Project Site employment in excess of regional growth projections was drawn from surrounding communities or elsewhere in the Bay Area, the addition of onsite employment in excess of regional projections could impact rather than improve the jobs/housing balance at regional and subregional levels.
N. Contribute to critically-needed solutions to regional transit and transportation issues which will benefit both the project and existing communities.	By providing for substantial office commercial and office development within the Project Site in proximity to existing and proposed future transit, the Reduced Intensity Non-Residential Alternative is consistent with meeting this objective.
O. Recognize that the project is of regional significance, and provide for the well-being not only of the City of Brisbane, but also of surrounding communities.	Because this objective is reflected in the General Plan policies that would be required to be implemented by this alternative, the Reduced Intensity Non-Residential Alternative would meet this objective.
P. Provide on-site opportunities for public art and education to contribute to public understanding of the site, including its history, ecology and the project's sustainability mission.	Meeting this objective would largely be accomplished as part of the design of future development within the Project Site. The Reduced Intensity Non-Residential Alternative would not constrain the ability to meet this objective.
<b>Economic Objectives</b>	
Q. Enhance the City's tax base and future ability to improve services within all of Brisbane.	Development of the mix of commercial and office uses set forth in the Reduced Intensity Non-Residential Alternative would contribute to meeting this objective.
R. Retain and accommodate the expansion of existing businesses within the Baylands that contribute to the City's fiscal health and economic vitality.	The Reduced Intensity Non-Residential Alternative retains existing businesses operating within the Project site, and provides for future development with the mix of commercial and office uses. The Reduced Intensity Non-Residential Alternative is therefore consistent with achieving this objective.
S. Establish a project which remains economically viable on a long-term basis, including excellence in architecture which can withstand the test of time.	The mix of commercial and office uses described in the CPP-V scenario for the Project Site and proposed at a lesser intensity in this alternative is consistent with and would contribute to meeting this objective. Achieving this objective would also depend on the design of future development. Because this alternative is designed to implement the existing General Plan, which includes policies related to excellence in design, the Reduced Intensity Non-Residential Alternative would achieve this objective.
T. Build in flexibility so the project can adapt to changing market conditions over time, without compromising the other stated project objectives.	The mix of commercial and office uses described in the Reduced Intensity Non-Residential Alternative for the Project Site with sufficient flexibility to react to changing market conditions over time in a manner consistent with meeting other project objectives.
U. Provide greater choices for Brisbane residents by providing desired goods, services, entertainment, and/or other amenities not currently available within the City.	The mix of commercial and office uses that would be implemented in the Reduced Intensity Non-Residential Alternative creates the opportunity to provide desired goods, services, entertainment, and/or other amenities not currently available within the City, and is therefore consistent with meeting this objective.



## Reduced Intensity Mixed Use Alternative

### ***Description of the Reduced Intensity Mixed Use Alternative***

The Reduced Intensity Mixed Use Alternative is intended to substantially reduce the significant unavoidable traffic impacts of the DSP and DSP-V scenarios, and also reduce significant unavoidable air quality and noise impacts resulting from project-generated traffic. By reducing the overall development intensity of the DSP scenario (including reductions in both residential and non-residential development intensity), the Reduced Intensity Mixed Use Alternative would also reduce the aesthetics impacts of the project.

The Reduced Intensity Mixed Use Alternative proposes the same mix of residential and non-residential uses as does the DSP project development scenario. As with Project Site development, relocation of existing lumberyards, adaptive reuse of the Roundhouse and Lazzari Fuel Company buildings, and replacement of the existing 231,400-square-foot Brisbane Bayshore Industrial Park would occur.

The Reduced Intensity Mixed Use Alternative provides for development of 2,400 dwelling units and 3,750,780 square feet of new non-residential development. This represents approximately 54 percent of the proposed buildout of the DSP scenario. The Reduced Intensity Mixed Use Alternative assumes that the existing Recology facility remains, but is not expanded.

Under this alternative, the buildout density would be greater than under buildout of the existing General Plan, but reduced from that of Project Site development in order to reduce or avoid impacts while meeting basic Project objectives. This alternative would substantially reduce the DSP scenario's significant air quality, population and housing, and transportation impacts.

As would occur under each of the Project development scenarios, existing uses including the Brisbane Bayshore Industrial Park, Brisbane Soils Processing, and the Brisbane Recycling rock crushing facility would be removed over time and replaced with new development under this alternative.

The Reduced Intensity Mixed Use Alternative also assumes that the Geneva Avenue extension, along with implementation of the infrastructure improvements required to serve development on the Project Site, would occur. Implementation of required remedial actions also would occur under this alternative. This alternative would include development of the 25-acre solar farm and deployment of small-scale wind and rooftop solar energy generation technologies throughout the site that would generate a similar amount of renewable energy to the DSP scenario.

### ***Impacts of the Reduced Intensity Mixed Use Alternative***

#### **Aesthetics**

Impacts under the Reduced Intensity Mixed Use Alternative would be reduced as compared to the less than significant impacts of proposed Project scenarios, since development would be less intense. The Reduced Intensity Mixed Use Alternative would adhere to General Plan Policy 11,

which requires that development south of the Bayshore Basin drainage channel maintain a low profile in order to preserve the existing views of San Francisco and San Francisco Bay as seen from Central Brisbane, and to maximize the amount of landscape and open space or open area in this portion of the Baylands. This would minimize impacts on scenic vistas.

The Reduced Intensity Mixed Use Alternative would preserve scenic resources within the Project Site, since new development would be designed consistent with General Plan policies requiring that development in the Baylands be complementary to existing topographic features, including Brisbane Lagoon, San Bruno Mountain, and San Francisco Bay. Other identified scenic resources such as the Roundhouse also would be preserved under this alternative.

While development under this alternative would result in new sources of light and glare that would be visible from other areas of Brisbane, from US Highway 101, and from adjacent scenic vistas, because development intensity would be less than under the Project, the impacts related to light and glare would be reduced. While the sources of light and glare would be similar to Project Site development, the number of sources would be fewer and less intense under this alternative, and the resulting degree of light and glare impacts would be less than under the Project. However, substantial nighttime lighting would still be required. Although impacts would be reduced, nighttime lighting impacts would remain significant and unavoidable under the Reduced Intensity Mixed Use Alternative.

#### **Air Quality and Greenhouse Gases**

The Reduced Intensity Mixed Use Alternative would result in an approximately 46 percent reduction in development intensity with a similar reduction in traffic generation, air pollutant emissions, and total GHG emissions. Even with a 46 percent reduction in air pollutant emissions, mobile and stationary source air pollutant emissions will remain significant after the implementation of feasible mitigation measures. Construction source air pollutant emissions would be similar to those of the DSP scenario since the development footprint of the Reduced Intensity Mixed Use Alternative would be similar to that the DSP scenario, and remediation and grading activities would also be similar. The Reduced Intensity Mixed Use Alternative would have somewhat reduced air quality impacts related to actual building construction.

#### **Biological Resources**

Development under the Reduced Intensity Mixed Use Alternative would result in impacts on biological resources. Much of the Project Site is heavily disturbed due to prior uses such as the former landfill and railyard. However, existing biological resources such as those in the vicinity of Brisbane Lagoon and Icehouse Hill would be directly or indirectly affected by construction or operation of future development. Because the Reduced Intensity Mixed Use Alternative would have the same development footprint as the DSP and DSP-V scenarios, it would result in similar significant but mitigable impacts on sensitive plant and wildlife species, sensitive natural communities, wetlands and other waters, wildlife movement, and trees protected by the Brisbane Tree Ordinance. As with the Project, implementation of the mitigation measures recommended in Section 4.C, *Biological Resources*, would reduce impacts of the Reduced Intensity Mixed Use Alternative to less-than-significant levels.

### **Cultural Resources**

Development of the Baylands under the Reduced Intensity Mixed Use Alternative would result in impacts on known historic resources and previously undiscovered archaeological resources. Such impacts would occur with damage to historic structures or to archaeological resources resulting from construction activities. Impacts on designated historic resources would be unlikely as development under this alternative would adhere to General Plan policies calling for rehabilitation of historic structures; and, as under the Project, this alternative includes rehabilitation and reuse of existing historic resources. With implementation of the mitigation measures recommended for the Project in Section 4.D, *Cultural Resources*, of this EIR, impacts on cultural resources associated with this alternative would be reduced to less-than-significant levels, similar to the DSP development scenario. No impacts on paleontological resources would occur, as no recorded paleontological resources are located on the Project Site or in the immediate vicinity.

### **Geology, Soils, and Seismicity**

Impacts related to geology, soils and seismicity would be similar to the significant but mitigable impacts identified for the Project Site development scenarios. Such impacts would include potential risks to humans and damage to property related to seismic groundshaking, liquefaction and lateral spreading, slope and soil instability, erosion, and corrosive and expansive soils. Because the square footage of development under the Reduced Intensity Mixed Use Alternative is reduced compared to the CPP, CPP-V, DSP, and DSP-V scenarios, geology, soils, and seismicity impacts would be reduced by placing fewer people within the Project Site on a daily basis. However, mitigation measures would still be necessary to minimize these impacts. Implementation of the mitigation measures recommended in Section 4.E, *Geology, Soils and Seismicity*, of this EIR would reduce these impacts to less-than-significant levels.

### **Hazards and Hazardous Materials**

As with all Project scenarios and alternatives, a series of remedial actions would need to be undertaken prior to future development within certain portions of the Project Site, including the former landfill and railyard areas. The specific remedial actions to be taken would be finalized based on the specific approved uses within the Project Site with preparation of Remedial Action Plans by the agencies with jurisdiction over these areas: the Department of Toxic Substances Control and the Regional Water Quality Control Board. Implementation of remedial activities would result in impacts related to the release, transport, or disposal of hazardous materials. Remediation-related impacts of this alternative would be similar to the significant but mitigable impacts of Project Site development and alternatives, since similar remediation would be required. Significant impacts under the Reduced Intensity Mixed Use Alternative could also occur with the use or transport of fuels, oils, or other chemicals during construction, or as a result of hazardous emissions or handling of hazardous or acutely hazardous materials, substances or waste within 0.25 mile of an existing or proposed schools. These impacts would be reduced to less-than-significant levels with implementation of the mitigation measures identified in Section 4.G, *Hazards and Hazardous Materials*, of this EIR.

### **Hydrology and Water Quality**

The Reduced Intensity Mixed Use Alternative would result in significant but mitigable impacts related to water quality, flooding (including the potential effects of sea level rise), and stormwater runoff. Because the density of development of this alternative would be less than under the Project, this alternative would result in less new coverage of the Project Site by impervious surfaces, and would therefore somewhat reduce the significant but mitigable impacts of the Project related to flooding and stormwater runoff. Although this alternative proposes residential development, such development is not proposed within a 100-year floodplain, and no impacts related to the placement of housing within a 100-year floodplain would result. While overall hydrology and water quality impacts would be reduced as compared to the Project, mitigation would still be necessary. Implementation of the mitigation measures recommended in Section 4.H, *Hydrology and Water Quality*, of this EIR would reduce impacts to less-than-significant levels.

### **Land Use and Planning Policy**

The Reduced Intensity Mixed Use Alternative includes residential development and is therefore inconsistent with the General Plan's prohibition on residential development within the Baylands. The overall land use intensity of this alternative is also greater than that currently contemplated by the General Plan as detailed in the General Plan EIR. Further reducing the non-residential development intensity of this alternative to reduce significant air quality impacts to a less than significant level would not avoid significant land use impacts since the Reduced Intensity Mixed Use Alternative proposes residential development which is inconsistent with the General Plan. Another inconsistency with the General Plan would remain, as it would under the Project Site development: traffic impacts would exceed the General Plan standard of Level of Service D. This significant unavoidable impact remains since even in the absence of any new development within the Project Site, future cumulative traffic conditions would deteriorate along Bayshore Boulevard and at freeway interchanges within the Project Site. The Reduced Intensity Mixed Use Alternative would result in no impacts related to the division of existing communities or conflicts with habitat conservation plans.

### **Noise**

The Reduced Intensity Mixed Use Alternative would generate substantial noise from both project construction and operation. Although this alternative would result in less development than Project Site development, it would result in similar significant impacts related to construction noise and to an overall increase in ambient noise over existing conditions. However, noise impacts under this alternative would be reduced to less-than-significant levels with implementation of the mitigation measures recommended in Section 4.J, *Noise and Vibration*, of this EIR.

### **Population and Housing**

The Reduced Intensity Mixed Use Alternative provides for the development of 2,400 residential dwelling units, which would result in approximately 5,350 residents within the Baylands as compared to 9,888 residents within the Baylands under the DSP and DSP-V scenarios. While the Reduced Intensity Mixed Use Alternative would result in substantially fewer residents within the Project site, the proposed residential development under this alternative exceeds population

growth projections for the City contained in ABAG's Projections 2009, as well as in the Sustainable Communities Strategy contained in Plan Bay Area.

Assuming the proposed land uses would generate an average of 1.8 employees per 1,000 square feet of development, the Reduced Intensity Non-Residential Alternative would result in approximately 9,475 new jobs within the Project Site. This estimate is less than the number of jobs that would be generated under the CPP or DSP (approximately 15,000 and 17,000 new jobs, respectively), but substantially greater than the employment growth projections for the City contained in ABAG's Projections 2009, as well as in the preferred and alternative scenarios prepared for the SCS contained in draft Plan Bay Area.

Development of the Project Site under this alternative also would generate temporary construction-related jobs. It is expected that construction workers generally would travel from other parts of the Bay Area to work, and that temporary housing on the Project Site would not be needed.

### **Public Services**

The number of dwelling units and square footage of non-residential development under the Reduced Intensity Mixed Use Alternative would be approximately 46 percent less than under the DSP scenario with a corresponding reduction in demands for public services within the Project Site. This alternative would substantially reduce the number of residential uses within the Project Site compared to the DSP scenario, and therefore would result in substantially reduced demand for schools (approximately 192 students). The demand for other types of public services, including police and fire protection, would increase under this alternative, but would be substantially reduced as compared to Project Site development. As compared to the Project, significant but mitigable impacts would be further reduced and would remain less than significant after the implementation of the mitigation measures set forth in Section, 4.L, *Public Services*, of this EIR.

### **Recreation Resources**

The Reduced Intensity Mixed Use Alternative includes the same amount of public use/open space as is proposed under the DSP and DSP-V. As with Project Site development, improvements to existing resources and development of new recreational amenities could result in construction-related impacts. New development under this alternative also would result in increased use of existing recreational resources, as new residents and employees could use existing recreational amenities in and around the Project Site. However the overall demand for resources would be reduced as compared to the DSP scenario due to the decreased intensity of development and would be less than significant.

### **Traffic and Circulation**

The Reduced Intensity Mixed Use Alternative would require the extension and upgrade of roadways and public transit in order to provide circulation to, from, and within the Project Site. This would include the Geneva Avenue extension, which is included in the Brisbane General Plan, Bi-County Transportation Study, and the San Mateo County Regional Transportation Plan.

Overall, impacts related to vehicle trip generation and level of service would be substantially reduced by approximately 46 percent from the significant unavoidable traffic impacts that would occur under Project Site development scenarios, due to the reduced density of development. However, significant unavoidable impacts would remain from implementation of this alternative.

### **Utilities and Service Systems**

The Reduced Intensity Mixed Use Alternative would result in a reduced intensity of development as compared to the Project scenarios. Therefore, the increase in demand for water, wastewater treatment, solid waste collection and disposal, and communications infrastructure would be less than under Project scenarios. As compared to the DSP and DSP-V scenarios, significant but mitigable impacts on utilities and service systems would be substantially reduced by approximately 46 percent, given the larger amount of development proposed under those scenarios. Significant impacts to utilities and service systems could occur under this alternative and would be reduced to less than significant with implementation of the mitigation measures recommended in Section 4.O, *Utilities, Service Systems, and Water Supply*, of this EIR.

Included in this alternative is approval of the proposed water supply agreement, which provides for up to 2,400 acre-feet of supply annually, including up to 2,000 acre feet for the Project Site and 400 acre-feet of water for citywide use. Because water demand under this alternative would be far less than for the Project, it is anticipated that approval of the water supply agreement under the Reduced Intensity Mixed Use Alternative would reflect a substantially reduced water supply from the maximum of 2,000 acre feet for the Project Site, reflecting actual water supply requirements. With a 46 percent reduction in domestic water demand and development of an onsite recycled water plant providing recycled water for irrigation purposes, the Reduced Intensity Mixed Use Alternative would require approximately 1,080 acre-feet of imported water supply. A total of 400 acre-feet for General Plan buildout would still be imported, for a total of 1,480 acre-feet of imported water supply. Approval of the proposed water supply agreement for more than 1,480 acre feet of supply (1,080 for Project Site development and 400 acre feet for General Plan buildout outside of the Project Site) up to the full 2,400 acre feet would have a growth-inducing effect.

### **Energy Resources**

Buildout of the Project Site under the Reduced Intensity Mixed Use Alternative would increase the demand for energy supplies and result in impacts related to the installation of new energy infrastructure. Such impacts would be similar to what would occur under the Project. As compared to the Project, the increase in demand for energy resources and the intensity of impacts related to the development of energy infrastructure required to serve the Project Site would be reduced due to decreased development intensity. This alternative would include the generation of renewable energy through 25 acres of renewable energy generation within the Project Site. Renewable energy generation development of such technologies would partially offset energy use on the Project Site, thereby reducing impacts related to increases in energy demand. While the potential for renewable energy generation under this alternative would be similar to that under Project Site development, impacts under this alternative would be reduced.

## ***Evaluation of the Reduced Intensity Mixed Use Alternative in Relation to Project Objectives***

<b>Overarching Objective</b>	
Create an active, vibrant place which strengthens the community of Brisbane; contributes to its sense of place; and demonstrates environmental, social, and economic considerations can be harmonized to the betterment of the natural environment, the Brisbane and regional community, and the individuals who will use the Baylands.	Meeting this objective would largely be accomplished as part of the design of future development within the Project Site. By providing for a similar mix of commercial and office uses as the DSP scenario, the Reduced Intensity Mixed Use Alternative would contribute to and not prevent meeting this objective.
<b>Environmental Protection and Enhancement Objectives</b>	
A. Remediate the Baylands to a level which ensures the safety of all who use the site, and eliminates ongoing ecological damage.	Because site remediation is part of the Reduced Intensity Mixed Use Alternative and remediation would be required to provide for public safety in relation to the specific mix and location of land uses ultimately approved by the City, this objective would be achieved.
B. Incorporate a “green building” approach for all future development on the Baylands, wherein buildings are sited, designed, constructed and operated to encourage resource conservation, minimize waste and pollution, maximize energy and resource efficiency, and promote healthy indoor environments	Meeting this objective would largely be accomplished as part of the design of future development. The Reduced Intensity Mixed Use Alternative would not constrain the ability of future development to meet this objective.
C. Preserve, restore and enhance wetlands and natural habitat on the site and create natural linkages across the site to promote physical and visual connectivity between the San Bruno Mountains and the Bay.	Because these activities are reflected in the General Plan policies and would therefore be required to be implemented by this alternative, the Reduced Intensity Mixed Use Alternative would meet this objective.
D. Promote and encourage non-vehicular access and movement to and from the site (particularly from Central Brisbane) and within the site as well. Land use mix, good urban design, the provision of safe and pleasant pedestrian and bike paths, and convenient access and linkages to public transit are all necessary components.	Because this objective is reflected in the General Plan policies and would therefore be required to be implemented by this alternative, the Reduced Intensity Mixed Use Alternative would meet this objective.
E. Strive to achieve a balance between energy demand and generation through efficiency, conservation, and the maximum use of passive and active sources of renewable energy.	The Reduced Intensity Mixed Use Alternative provides for renewable energy generation at a similar rate as for proposed Project scenarios, along with reduced energy demands resulting from reduced development intensity. As a result, the Reduced Intensity Mixed Use Alternative would meet this objective.
F. Minimize the net consumption of water supplies.	Because this objective is reflected in General Plan policies and would therefore be required to be implemented by this alternative, the Reduced Intensity Mixed Use Alternative would meet this objective.
G. Safely and efficiently accommodate project traffic in a manner that does not adversely impact Brisbane or adjacent communities.	Because this objective is reflected in the General Plan policies and would therefore be required to be implemented by this alternative, the Reduced Intensity Mixed Use Alternative would meet this objective.
H. Incorporate innovative methods to reduce resource consumption and waste generation.	Meeting this objective would largely be accomplished as part of the design and operations of future development within the Project Site. By providing for a similar mix and intensity of land uses as set forth in the DSPV scenario, the Reduced Intensity Mixed Use Alternative would contribute to and not prevent meeting this objective.

**Environmental Protection and Enhancement Objectives (continued)**

I. Site and design new infrastructure to minimize adverse environmental impacts.	Because this objective is reflected in the General Plan policies and would therefore be required to be implemented by this alternative, the Reduced Intensity Mixed Use Alternative would meet this objective.
J. Design the project sensitively to protect Brisbane's viewshed, taking into account light spillage and pollution, building height and massing, and placement of landscape features.	Because this objective is reflected in the General Plan policies and would therefore be required to be implemented by this alternative, the Reduced Intensity Mixed Use Alternative would meet this objective.
K. Achieve a level of solid waste diversion equivalent to the zero waste goals established for San Francisco.	Meeting this objective depends on the implementation of citywide zero waste programs. Urban development pursuant to this alternative would be required to comply with applicable zero waste programs. Thus, the Reduced Intensity Mixed Use Alternative would not constrain achievement of this objective.

**Social Equity Objectives**

L. Incorporate significant open space and related improvements which provide opportunities for a wide range of passive and active public recreational opportunities benefiting the City and region.	The Reduced Intensity Mixed Use Alternative would provide similar open space and related improvements as would the DSP scenario, including a range of passive and active public recreational opportunities consistent with the employment-generating, non-residential character of future development under this alternative. As a result, the Reduced Intensity Mixed Use Alternative would achieve this objective.
M. Provide employment opportunities for Brisbane residents and residents of nearby local communities, thereby improving the jobs/housing balance at regional and subregional levels.	The Reduced Intensity Mixed Use Alternative would generate 9,475 jobs, less than would be generated under the CPP, CPP-V, DSP, or DSP-V scenario (approximately 15,000 and 17,000 new jobs), but substantially more than projected for the City in ABAG's Projections 2009 or in the SCS for Plan Bay Area. Housing proposed in this alternative would also exceed regional projections. The Reduced Intensity Mixed Use Alternative would achieve the portion of this objective related to creating employment opportunities. As noted in Section 4.K, <i>Population and Housing</i> , of this EIR, unless the portion of Project Site employment and housing in excess of regional growth projections was drawn from surrounding communities or elsewhere in the Bay Area, the addition of onsite employment and housing in excess of regional projections would result in a growth inducing impact. Depending on the extent that employment and housing would each draw growth now planned outside of Brisbane, this alternative could impact rather than improve the jobs/housing balance at regional and subregional levels.
N. Contribute to critically-needed solutions to regional transit and transportation issues which will benefit both the project and existing communities.	By providing for substantial office commercial and housing development within the Project Site in proximity to existing and proposed future transit, the Reduced Intensity Mixed Use Alternative is consistent with meeting this objective.
O. Recognize that the project is of regional significance, and provide for the well-being not only of the City of Brisbane, but also of surrounding communities.	Because this objective is reflected in the General Plan policies that would be required to be implemented by this alternative, the Reduced Intensity Mixed Use Alternative would meet this objective.



<b>Social Equity Objectives (continued)</b>	
P. Provide on-site opportunities for public art and education to contribute to public understanding of the site, including its history, ecology and the project's sustainability mission.	Meeting this objective would largely be accomplished as part of the design of future development within the Project Site. The Reduced Intensity Mixed Use Alternative would not constrain the ability to meet this objective.
<b>Economic Objectives</b>	
Q. Enhance the City's tax base and future ability to improve services within all of Brisbane.	Development of the mix of commercial and office uses set forth in the Reduced Intensity Mixed Use Alternative would contribute to meeting this objective.
R. Retain and accommodate the expansion of existing businesses within the Baylands that contribute to the City's fiscal health and economic vitality.	The Reduced Intensity Mixed Use Alternative retains existing businesses (with the exception of the Recology expansion) operating within the Project site, and provides for future development with the mix of commercial and office uses. The Reduced Intensity Mixed Use Alternative is therefore only partially consistent with achieving this objective.
S. Establish a project which remains economically viable on a long-term basis, including excellence in architecture which can withstand the test of time.	The mix of commercial, office and housing uses described in the DSP scenario for the Project Site and proposed at a lesser intensity in this alternative is consistent with and would contribute to meeting this objective. Achieving this objective would also depend on the design of future development. Because this alternative is designed to implement the existing General Plan, which includes policies related to excellence in design, the Reduced Intensity Mixed Use Alternative would achieve this objective.
T. Build in flexibility so the project can adapt to changing market conditions over time, without compromising the other stated project objectives.	The mix of commercial, office and housing uses described in the Reduced Intensity Mixed Use Alternative for the Project Site with sufficient flexibility to react to changing market conditions over time in a manner consistent with meeting other project objectives.
U. Provide greater choices for Brisbane residents by providing desired goods, services, entertainment, and/or other amenities not currently available within the City.	The mix of commercial, office and housing uses that would be implemented in the Reduced Intensity Mixed Use Alternative creates the opportunity to provide desired goods, services, entertainment, and/or other amenities not currently available within the City, and is therefore consistent with meeting this objective.

### 5.3.3 Approval of Development in the Absence of Approving a Water Supply Agreement

As noted above, approval of the water supply agreement is assumed as part of each alternative other than the No Project Alternative-No Build Alternative, although it is assumed that the water supply agreement would provide only for the amount of water actually needed to support development of the Project site, while the full 400 acre-feet of citywide water supply now included in the proposed agreement would remain. However, the water supply agreement that is part of the proposed Project as described in Chapter 3, *Project Description*, could be approved or not approved regardless of any action(s) taken on other Project components. For this reason, in addition to analyzing the Project alternatives, this Section also analyzes the impacts of

(1) approving a Concept Plan development scenario or Project alternative in the absence of approving the water supply agreement, and (2) approving the water supply agreement in the absence of any approval of a Concept Plan development scenario or Project alternative.

### **Selection of a Concept Plan Development Scenario without Approval of the Water Supply Agreement**

This alternative assumes that one of the Concept Plan development scenarios or Project alternatives is selected, but that no water supply agreement is approved. In this case, a significant and unavoidable utilities and water supply impact would result since the City would have approved development of the site in the absence of a reliable water supply. All other impacts of the approved Project Site development or Project alternative would remain the same. Approving development of the Project Site in the absence of a water supply able to actually support site development would not meet any Project Objectives, since development of the Project Site would not be able to occur without a firm water supply.

### **Approval of the Water Supply Agreement without Selection of a Concept Plan Development Scenario**

This alternative assumes that none of the Concept Plan development scenarios or Project alternatives is selected, but that the proposed water supply agreement is nevertheless approved. In this case, if the agreement were to be approved only for the 400 acre-feet of citywide water supply, the result would be the same as for the No Project-General Plan Buildout Alternative, except that the significant and unavoidable utilities and water supply impact would be eliminated since a reliable water supply would be available to support future buildout of the General Plan. Should the water supply agreement be approved for the entire 2,400 acre-feet or any amount larger than the 400 acre-feet of citywide need in the absence of any approval for development of the Project Site, the result would be a significant growth inducing impact since a major constraint to future development would be eliminated which would serve as a strong inducement to future development to occur wherever that water supply would be delivered to. Approving the water supply agreement in the absence of an approval for development of the Project Site would not meet any Project Objectives since achievement of the objectives is dependent on appropriate development and environmental enhancements of the Project Site.

---

## **5.4 Environmentally Superior Alternative**

CEQA requires that an EIR identify an environmentally superior alternative. If the No Project Alternative is identified as the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives (CEQA Guidelines Section 15126.6(e)(2).) In the case of the Baylands, the No Project-No Build Alternative would not be environmentally superior since it allows existing site contamination to remain without remediation. The No Project-General Plan Buildout would be environmentally superior since it provides for future development of the site as envisioned in the General Plan, reduces or avoids

many of the significant effects of Project Site development, provides for remediation of Project Site contamination, provides a firm water supply to support Project Site development as well as 400 acre-feet of firm supply to facilitate citywide buildout of the General Plan, and meets most of the basic Project objectives, as described in Section 5.3.2, *No Project-General Plan Buildout Alternative*.

Of the other alternatives evaluated in this EIR, the Renewable Energy Generation Alternative would be the environmentally superior alternative since it is consistent with the Brisbane General Plan, involves minimal impacts compared to other alternatives, avoids the significant air quality, GHG (CPP and CPP-V scenarios only), population and housing, and public services effects of Project development scenarios and meets key project objectives as described in Section 5.3.3, *Renewable Energy Alternative*.

---

## 5.5 References

- American Wind Energy Association, “Small Wind Fact Sheet: How Much Noise Does a Small Wind System Make?,” [www.awea.org/smallwind/toolbox2/factsheet\\_how\\_much\\_noise.html](http://www.awea.org/smallwind/toolbox2/factsheet_how_much_noise.html), no date.
- American Wind Energy Association and Canadian Wind Energy Association, Wind Turbine Sound and Health Effects: An Expert Panel Review, [www.awea.org/newsroom/releases/AWEA\\_CanWEA\\_SoundWhitePaper\\_12-11-09.pdf](http://www.awea.org/newsroom/releases/AWEA_CanWEA_SoundWhitePaper_12-11-09.pdf), December 2009.
- California Bat Working Group (CBWG), *Guidelines for Assessing and Minimizing Impacts to Bats at Wind Energy Development Sites in California*, September 2006.
- California Climate Action Registry, *PG&E's 2008 Annual Entity Emissions: Electric Power Generation/Electric Utility Sector (Actual 2007 emissions)*.
- California Energy Commission (CEC), *California Guidelines for Reducing Impacts to Birds and Bats From Wind Energy Development - Final Commission Report*, [www.energy.ca.gov/windguidelines/index.html](http://www.energy.ca.gov/windguidelines/index.html), October 2007.
- City of Brisbane, *General Plan*, adopted June 21, 1994.
- Directional Energy, *Vertical Axis Wind Turbines System Information 2011/2012*.
- EIA, 2005 Residential Energy Consumption Survey, 2008, Table US-3, Total Consumption by Fuels Used, 2005, Physical Units.
- Energy Solutions, Preliminary Renewable Energy Feasibility Study: City of Brisbane Analysis of the Baylands Renewable Energy Alternative, October 2010.
- United States Environmental Protection Agency, *Greenhouse Gas Equivalencies Calculator*, updated March 2010.

United States Environmental Protection Agency, National Renewable Energy Laboratory, *Feasibility Study of Economics and Performance of solar Photovoltaics at the Brisbane Baylands Brownfield Site in Brisbane, California*, 2013. Available online at <http://www.nrel.gov/docs/fy13osti/57357.pdf>.

United States Fish and Wildlife Service (USFWS), *Wind Turbine Guidelines Advisory Committee Recommendations*, March 4, 2010.