

CHAPTER 7

Sustainability

7.1 Introduction

The information contained in this chapter is not required under CEQA, and therefore is included for informational purposes only. The chapter provides background information on sustainability, and identifies (1) measures that would be provided by Project Site development and (2) mitigation measures set forth in the EIR that further the principles of sustainability described in this chapter, thereby demonstrating the proposed Project's relationship to sustainability.

Although there is no universally accepted definition of sustainable development, a well-known and oft-quoted definition comes from a 1987 report by the United Nations (UN) World Commission on Environment and Development (also known as the Brundtland Commission), entitled *Our Common Future* (United Nations, 1987), which defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” The Brundtland Commission report laid the groundwork for the 1992 Earth Summit and many related UN programs, by recognizing the importance of social equity, economic development, and broad societal participation in solving the many environmental crises facing the planet.

The American Planning Association (APA) has built on the UN definition, identifying sustainability as being able “to meet the needs of a growing human population that has rising aspirations for consumption and quality of life, while maintaining the rich diversity of the natural environment or biosphere” (APA, 2000). APA identifies the following key contributions to an unsustainable future:

- Overconsumption;
- Rapid population growth;
- Dependence on non-renewable resources;
- Accumulation of toxic and harmful substances in the biosphere;
- Disregard for complex natural systems in pursuing human development;
- Social inequities in resource distribution;
- Limited public participation in political and economic decision-making.

In essence, both the Brundtland Commission and the APA identify the primary threat to long-term well-being as the exploitation of natural resources at a rate beyond which nature can replenish them. This threat stems from a fundamental failure, at the societal level, to develop and live within the earth's capacity to absorb human-induced impacts to its natural systems.

7.2 Principles of Sustainable Community Development

The principles of sustainable development are predicated on a long-term vision and ethic of environmental stewardship that incorporates environmental, societal and economic needs. Sustainability is concerned with inter-related systems (human and societal, economic, and ecological) and actions to foster positive outcomes by enhancing connections between those systems. Sustainable development principles focus on an envisioned future more than preservation of an existing present, and can be applied effectively in the Project Sire development design phase to maximize positive outcomes.

Ideas such as “Smart Growth” and “New Urbanism” promote the use of urban design to reverse decades of conventional sprawling development patterns, and provide a focus on higher intensity communities, mixed use development, and orientation toward transit use rather than automobile travel. An integrated design process, involving multiple stakeholders who collaborate toward achieving social and environmental goals, is advocated by leading sustainable development groups including the APA, the U.S. Green Building Council (through its Leadership in Energy & Environmental Design (LEED) standards), the United States Environmental Protection Agency (U.S. EPA) (through its Smart Growth Network) the Portland Sustainability Institute (through its EcoDistricts Initiative), and many other organizations and local governments throughout the U.S. and beyond.

The City of Brisbane has drafted sustainability goals for development on Brisbane Baylands organized around the One Planet Living concept developed by Bioregional. The underlying concept is to establish a balance whereby people enjoy a high quality of life within the productive capacity of the planet, whereby humanity's ecological demands does not exceed nature's capacity to sustain life and replenish natural resources. The One Planet Living concept is organized around the following 10 principles as described below:

1. **Zero Carbon Buildings.** Making buildings more energy efficient and delivering all energy with renewable technologies.
2. **Zero Waste.** Reducing waste, reusing where possible, and ultimately sending zero waste to landfills.
3. **Sustainable Transportation.** Using low carbon modes of transport to reduce emissions and reducing the need to travel with good planning.
4. **Local and Sustainable Materials.** Using sustainable healthy products, with low embodied energy, sourced locally, made from renewable or waste resources.
5. **Local and Sustainable Food.** Choosing low impact, local, seasonal and organic diets and reducing food waste.

6. **Sustainable Water.** Using water more efficiently in buildings and in the products we buy, and addressing local flooding, wetland and stormwater pollution.
7. **Open Space and Habitat.** Protecting and restoring biodiversity and natural habitats through appropriate land use and integration into the built environment.
8. **Culture and Heritage.** Reviving local identity and wisdom; supporting and participating in the arts.
9. **Economic Vitality with Equity and Ecology.** Creating ecologically-based economies that support equity and inclusive communities.
10. **Health, Safety and Happiness.** Encouraging active, safe, meaningful lives to promote good health and well-being.¹

7.3 How Sustainability Relates to CEQA

CEQA focuses on identifying changes to the physical environment that will occur as the result of discretionary actions taken by public agencies, and avoiding or mitigating the anticipated adverse effects of those actions. In doing so, CEQA addresses a broad spectrum of environmental topics, including many, but not all, of the issues inherent in the sustainability principles introduced above. Sustainability measures are often integrated into a project or recommended in CEQA documents as mitigation measures to avoid or reduce potential short-term and long-term environmental impacts. Many of the global environmental indicators of unsustainable development, including global warming, soil degradation, resource depletion, deforestation, declining fisheries, and species extinction, are addressed directly or indirectly by CEQA; however, some sustainability principles such as economic vitality, social equity, and promoting meaningful lives and well-being are not addressed in CEQA. In a traditional (and simplified) view of “sustainability” as consisting of environmental quality, economic vitality, and social equity, CEQA addresses only environmental quality. Thus, many sustainability issues become part of a project’s *planning* process, rather than its *environmental* review.

Typically, it is the long-term mitigation measures (e.g., operational rather than construction related) that are the significant contributors to project sustainability. For example, mitigation related to biological resources may include measures to protect and enhance on-site wetlands or habitat that supports sensitive biological species, provide a buffer against storm surge damage, protect a recreational resource, or filter contaminants and protect local fresh water supplies. Such measures demonstrate sustainability’s integrated systems approach that considers the needs of both human development and natural ecosystems. Mitigation measures are often consistent with the notion of meeting present human needs without compromising the ability of future generations to meet their own needs, by preserving natural systems (natural capital) that we depend on for economic, recreational, and societal value, and using but not depleting limited resources such as water, air, land, and energy.

¹ In addition to the definition, “Sustainability Goals for the Baylands” (April 2013) describes this principle as achieving a “place where it is easy attractive and affordable for people to live happy, safe, and healthful lives within a fair share of the earth’s resources.”

While sustainability is not itself a resource area required to be analyzed under CEQA, many CEQA topic areas address sustainability principles directly (e.g., biological resources analysis is expressly concerned with the impacts of a project on the conservation and protection of habitats and natural systems). Some CEQA topic areas address sustainability principles either partially or indirectly (e.g., transportation and traffic analyses examine the Project Site development's impact on traffic, congestion, and related hazards, while others have a very weak link to sustainability (e.g. aesthetics analysis is linked to sustainability only indirectly by the visual impacts that a project might have on community vitality through the CEQA criteria related to degradation of existing visual character).

Examples of strong overlap between CEQA and sustainable development include energy conservation, conserving and protecting habitats and natural systems, conserving and protecting fresh water supplies, and protecting human and environmental health. Examples of weak overlap include supporting the local economy and enhancing community vitality and resilience. Overlap with the rest of the sustainability principles fall somewhere in between.

CEQA has notable shortcomings as a tool to further a community's sustainability. The intent of CEQA is to reduce or mitigate the adverse impacts of a project with the extent of mitigation proportional to the extent of the Project Site development's impacts, while many sustainability goals reflect community aspirations and are proactive in nature, exceeding CEQA's ability to mitigate adverse impacts. CEQA analyses generally address impacts associated with the life of a "project" that typically spans 50 to 70 years, while sustainability is concerned with a much longer time frame that continues for the foreseeable future over multiple generations. Thus, while CEQA is a valuable tool to evaluate and mitigate the adverse effects of a project, the planning review process and implementation of a community's General Plan provide a broader set of actions that can be used to promote community sustainability.

7.4 The Baylands Project's Relationship to Principles of Sustainability

The discussion of proposed Project Site development and its relationship to principles of sustainability follows in **Table 7-1**. The Table identifies the ten organizing principles of sustainability for Project Site development described above, and identifies project components which specifically address these principles. The table further identifies CEQA/EIR topic areas which are relevant to each sustainability principle and any related project mitigation measures that would enhance the sustainability of Project Site development as it pertains to any given principle.

**TABLE 7-1
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA AND EIR ANALYSES**

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Zero Carbon Buildings	<p>State required compliance with Title 24 energy standards.</p> <p>Brisbane Municipal Code requirement for buildings to meet LEED Silver rating.</p> <p>Renewable energy production via rooftop solar PV and solar PV fields, as well as small-scale wind turbines.</p> <p>Carbon sequestration via plantings in meadows, wetlands, and other open space areas.</p>	Air Quality	<p>Mitigation Measure 4.B-4: The following measures identified in the 2012 BAAQMD <i>CEQA Guidelines</i> shall be implemented for site-specific development projects within the Project Site and shall be included, as applicable, into commercial leases, as well as Covenants, Codes, and Restrictions (CC&Rs) within the Project Site:</p> <ul style="list-style-type: none"> • Provide free transit passes (e.g., Clipper Card for use on Caltrain, San Francisco Municipal Railway [Muni], and SAMTrans) to employees (for employers of 100 or more employees); • Provide and maintain secure bike parking for commercial and industrial uses (at least one space per 20 vehicle spaces) as a condition of occupancy permit/tenancy contract; • Provide and maintain showers and changing facilities for employees as a condition of final building permit; • Provide information on transportation alternatives to employees as a condition of occupancy permit/tenancy contract; • Establish a dedicated employee transportation coordinator for each site-specific development as a condition of occupancy permit/tenancy contract; • Provide and maintain preferential carpool and vanpool parking for non-residential uses; • Increase building energy efficiency by 20 percent beyond Title 24 (reduces NOx related to natural gas combustion); • Require use of electrically powered landscape equipment through CC&Rs; • Require only natural gas hearths in residential units as a condition of final building permit; • Use low VOC architectural coatings in maintaining buildings through CC&Rs; • Require smart meters and programmable thermostats; • Meet Green Building Code standards in all new construction (reduces NOx related to natural gas combustion); and • Install solar water heaters for all uses as feasible. 	DSP, DSP-V, CPP, CPP-V
		Greenhouse Gas Emissions	<p>Mitigation Measure 4.F-1:All new development within the Project Site shall be required to develop and implement a Greenhouse Gases Emissions Reduction Plan (GHG Plan) containing strategies to increase energy efficiency and reduce GHG emissions to the greatest extent feasible with a minimum performance standard of five percent (as reflected in Table 4.F-3). The GHG Plan shall be submitted to the City for approval as part of the initial application process for building permits so that the measures will be verified as present in building specifications. The GHG Plan, as implemented, shall include strategies that exceed those already identified in the project description or required by law. The GHG Plan shall include strategies designed to reduce emissions generated by motor vehicles, as well as strategies to reduce stationary source emissions from energy consumption. Strategies shall include, but not be limited to, the following types of GHG reduction measures:</p> <ul style="list-style-type: none"> • Motor Vehicle Emissions <ul style="list-style-type: none"> – Provide free transit passes to employees and onsite residences; – Provide secure bike parking (at least one space per 20 vehicle spaces); – Provide showers and changing facilities for employees; – Provide information on transportation alternatives to employees; – Establish a dedicated employee transportation coordinator; and – Include preferential carpool and vanpool parking. • Stationary Source Emissions <ul style="list-style-type: none"> – Provide stand-alone or rooftop solar, wind, or other renewable energy generation facilities (e.g., co-generation) to accommodate at least 3,600 MT per year of GHG offset within the Project Site; 	CPP, CPP-V

TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Zero Carbon Buildings (cont.)			<ul style="list-style-type: none"> - Upgrade buildings within the Project Site to achieve a LEED Gold rating, rather than the LEED Silver rating now required by the Brisbane Municipal Code; - Increase solid waste diversion from landfills by 10 percent beyond state and local diversion requirements; - Employ "cool roof" technology for buildings; and - Use electrically powered landscape equipment. 	
		Energy	Mitigation Measure 4.P-2a: All new buildings within the Project Site subject to the provisions of Brisbane Municipal Code Section 15.80 shall be required to achieve a LEED Gold rating, rather than the LEED Silver rating now required by the Municipal Code. In addition, all appliances installed within the Project Site as part of original building construction shall be ENERGY STAR rated or equivalent.	DSP, DSP-V, CPP, CPP-V
			Mitigation Measure 4.P-2b: All street and parking lot lighting within the Project Site shall be energy efficient light emitting diode (LED) based lighting.	DSP, DSP-V, CPP, CPP-V
			Mitigation Measure 4.P-2c: Should the CPP scenario be selected, Project Site development shall provide for an equivalent amount of onsite renewable energy generation as the DSP scenario (42,000 to 45,000 megawatt hours). Should the CPP-V scenario be selected, Project Site development shall provide for an equivalent amount of onsite renewable energy generation as the DSP scenario (42,000 to 45,000 megawatt hours) in addition to the renewable energy generation proposed as part of the Recology expansion.	DSP, DSP-V, CPP, CPP-V
Zero Waste	<p>Per Municipal Code requirements, a minimum of 50 percent of construction and demolition debris will be either recycled or reused to reduce landfill disposal.</p> <p>Deconstruction of onsite buildings and recycling of such may result in reuse of minerals (copper, etc.).</p> <p>Use of recycled concrete on the site would reduce need for quarried materials and truck hauling, thus reducing emissions.</p> <p>New development will be required to participate in ongoing solid waste diversion programs that are currently achieving 73 to 75 percent diversion of solid waste from landfills.</p> <p>Proposed expansion of the existing Recology facility under the CPP-V scenario would facilitate San Francisco's ability to increase its solid waste diversion and achieve a zero waste program. It would also provide an opportunity to achieve a similar rate of waste diversion within the Project Site. (CPP-V scenario only)</p>	Utilities, Service Systems, and Water Supply	Compliance with applicable City requirements was determined to result in less than significant impacts in relation to applicable CEQA thresholds, and therefore no mitigation measures were proposed.	
Sustainable Transportation	<p>Connectivity to transit system to reduce private auto dependency via bicycle and pedestrian facilities.</p> <p>Extension of Geneva Avenue to include bus rapid transit (BRT) facilities.</p> <p>Higher densities near core of development.</p> <p>Proposed mix of residential and non-residential land uses to reduce need for automobile travel and reduce vehicle miles travelled (DSP and DSP-V scenarios only).</p> <p>Residential uses close to work centers and transit hubs (DSP and DSP-V scenarios only).</p>	Air Quality; Greenhouse Gas Emissions	See Mitigation Measure 4.B-4 and Mitigation Measure 4.F-1 above.	DSP, DSP-V, CPP, CPP-V

**TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP**

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Sustainable Transportation (cont.)		Traffic and Circulation	<p>Mitigation Measure 4.N-1f: Prior to issuance of the building occupancy permit for an arena within the Project Site, the arena operator shall develop a Transportation Management Plan (TMP) for coordination with the San Francisco Municipal Transportation Agency (SFMTA), the San Francisco Police Department, and the City of Brisbane, developing incentives to increase transit ridership to the arena, and deploying traffic control officers at the unsignalized intersection of Blanken Avenue and Tunnel Avenue to approximate traffic control with traffic signals of LOS C.</p> <p>The final arena TMP shall be approved by the City of Brisbane and developed in cooperation with SFMTA. Preparation of the TMP shall be fully funded by the arena operator and shall be completed in time for implementation on opening night of the arena.</p> <p>Mitigation Measure 4.N-5: Prior to issuance of building occupancy permits for the arena, the operator shall develop and submit to the City a Transportation Management Plan for deploying traffic control officers in the Project Site vicinity to increase efficiency of pre- and post-event traffic, and for developing incentives to increase transit ridership to the arena, such as parking pricing policies, customer information strategies, and/or ticket/other related discounts with proof of payment for transit. Implementation of this plan shall be designed to speed vehicle entrance to and exit from the arena site, as well as maintain orderly traffic operations and prevent turning movements that would intrude onto minor routes to and from the arena. Traffic control officers shall be provided on event dates to, at a minimum, facilitate traffic flow at the intersection of Valley Drive & Bayshore Boulevard, which would otherwise operate at LOS E conditions without manual traffic control by officers at the intersection with a sold-out arena event. Preparation and implementation of the plan shall be fully funded by the arena operator and shall be completed to the satisfaction of the City prior to opening day of the arena.</p>	DSP-V
			<p>Mitigation Measure 4.N-7: Prior to issuance of the first building occupancy permit for new development other than improvement or relocation of an existing use within the Project Site, the developer(s) of Project Site land uses shall work with the San Francisco Municipal Transportation Agency (SFMTA) to provide a fair-share contribution to capital costs for providing additional transit service to accommodate Project Site development-related ridership demand on San Francisco Muni transit corridors. In addition, provision shall be made for implementation of shuttle service between the Project Site and the Balboa Park BART Station in the Geneva Avenue corridor.</p>	DSP, DSP-V, CPP, CPP-V
			<p>Mitigation Measure 4.N-9: Prior to issuance of the first building occupancy permit for any new development other than improvement or relocation of an existing use within the Project Site, a shuttle bus service plan shall be developed and approved by the City that provides convenient transit service between Project Site land uses located more than one-third mile from the Bayshore Caltrain Station or Sunnydale Muni Station to those stations. Shuttle service shall be implemented as described in the plan prior to occupancy of any qualifying Project Site land use other than improvement or relocation of an existing use within the Project Site.</p> <p>This requirement shall also be included in any specific plan approved for development within the Project Site.</p>	DSP, DSP-V, CPP, CPP-V
			<p>Mitigation Measure 4.N-10: Prior to issuance of the first building occupancy permit for new development other than improvement or relocation of an existing use within the Project Site, at a minimum, the following measures shall be implemented to improve pedestrian accessibility:</p> <ul style="list-style-type: none"> • The Bay Trail in the northern portion of the Project Site shall be realigned to provide a more direct route to the east side of US 101, following Geneva Avenue through the US 101 interchange. • Sidewalks or equivalent pedestrian paths shall be provided to safely permit pedestrian access to all uses within the Project Site intended for human occupancy and use, including provision of through pedestrian routes to minimize pedestrian travel distances between uses. • Specific provisions shall be made for safe pedestrian movement within and through parking areas to access buildings. • Sidewalks shall be provided along the Project Site frontage on Bayshore Boulevard between Sunnydale Avenue and Tunnel Avenue. 	DSP, DSP-V, CPP, CPP-V

TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Sustainable Transportation (cont.)			<p>Mitigation Measure 4.N-11: Prior to issuance of the first building occupancy permit for new development other than improvement or relocation of an existing use within the Project Site, roadways and trails shall provide for safe accessibility for bicycles to buildings and recreational areas throughout the Project Site, including connections to offsite bicycle routes and trails. In addition, Project Site land uses shall provide bicycle parking in appropriate areas (i.e., where they will get the most use, where security is maximized, and where pedestrian circulation is minimally affected by their presence).</p> <p>The minimum standards contained in this mitigation measure, along with the equivalent bicycle access as that shown in Table 4.N-7, shall be included in any specific plan approved for development within the Project Site. In addition, details of Project Site development-provided bicycle parking spaces (number and location) shall be determined at the time when site-specific development projects are proposed pursuant to the adopted Specific Plan, and shall adhere to the following guidelines which shall also be included in any specific plan adopted for development within the Project Site:</p> <ul style="list-style-type: none"> • Bicycle parking shall be placed within 50 feet of building and facility entrances, where it can be well-lit, clearly visible, and out of the primary travel path of pedestrians. Retail shopping centers and supermarkets shall include one Class I rack (covered bicycle locker for long-term parking) per 30 employees, and one Class II rack (able to secure both the frame and at least one wheel of a bicycle for short-term parking) per 6,000 square feet of retail space. • Parks and recreational fields normally shall include one Class I rack per 30 employees and one Class II rack per 9 users (during peak daylight times of peak season). • Transit centers normally shall include individual parking spaces equal to 2 percent of daily boardings (75 percent Class I and 25 percent Class II). 	DSP, DSP-V, CPP, CPP-V
			<p>Mitigation Measure 4.N-13: Prior to issuance of the first building occupancy permit for new development other than improvement or relocation of an existing use within the Project Site, the developer(s) and/or tenants of Project Site land uses shall prepare, submit to the City/County Association of Governments of San Mateo County (C/CAG) for approval, and establish a Transportation Demand Management (TDM) program to mitigate the C/CAG project impact of generating more than 100 net new vehicle trips during the peak traffic hours. Implementation of TDM programs shall be made a condition of approval for all new development within the Project Site that generates 100 or more net new trips during the AM or PM peak hour.</p>	
Local and Sustainable Materials	<p>Per Municipal Code requirements, a minimum of 50 percent of construction and demolition debris will be either recycled or reused to reduce landfill disposal.</p> <p>Deconstruction of onsite buildings and recycling of such provides an opportunity for reuse of materials, (e.g., reuse of copper wiring, crushing of concrete to use for road base, etc.).</p>	Utilities, Service Systems, and Water Supply	Compliance with applicable City requirements was determined to result in less than significant impacts in relation to applicable CEQA thresholds, and therefore no mitigation measures were proposed.	DSP, DSP-V, CPP, CPP-V
Local and Sustainable Food	<p>Opportunity for urban gardens to be integrated within Project Site open space.</p> <p>No prime soils identified onsite per State's Farmland Mapping and Monitoring Program; therefore, no loss of agricultural land.</p>	Local and sustainable food is not a required topic under CEQA except in terms of conversion of agricultural land to non-agricultural use, impacts to agricultural lands, or in cases where agricultural practices that could create environmental impacts are part of the proposed project, none of which are relevant to Project Site development.	None proposed.	

**TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP**

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Sustainable Water	<p>Implementation of the following water savings measures:</p> <ul style="list-style-type: none"> • Water budgets that ensure the appropriate level of development in relation to limits on water supplies in the future, • Public outreach information to promote watershed stewardship and prevent contaminants from entering stormwater, conserve water supplies, and fund environmental education initiatives, • Landscape requirements for new systems including irrigation water management, preventing runoff from faulty irrigation systems, and enforcement of non-watering days, • Water audits for commercial and users and hotels-motels that offer expert evaluation of indoor and outdoor water use to improve water efficiency of plumbing fixtures and landscape irrigation, • Multi-family unit sub-metering to more accurately bill individual households for water use and provide residents with incentives to use water more efficiently, • Multi-family efficient clothes washer rebate, • Water Alliances for Voluntary Efficiency (WAVE) Program (U.S. EPA) for Hotels that provides hotels with tools to increase water use efficiency and decrease water costs, • Dedicated landscape meters for outdoor irrigation use, • Native plant landscaping incorporating plants with low to no water demands, • Subsurface irrigation for turf to decrease water loss, • Hardscape design to decrease irrigation demand, • High efficiency toilets in new commercial, industrial, and institutional buildings, • Automatic faucets with on/off valves that prevent wasted water, • Waterless urinals, and • Onsite recycled water plant to produce recycled water supply for onsite irrigation use. <p>Proposed stormwater system focuses on natural methods, to filter runoff, including bioswales and an open drainage system combined with wetlands and riparian habitat to improve quality of stormwater runoff before it flows into the Bay.</p>	<p>Biological Resources Hydrology Utilities, Service Systems, and Water Supply</p>	<p>Mitigation Measure 4.C-1g: Construction and operation of proposed recreational and open space areas along Visitation Creek or adjacent to the northern lagoon edge shall include implementation of erosion control and water pollution control measures consistent with Storm Water Pollution Prevention Program (SWPPP) requirements, and implementation of an on-going maintenance plan to ensure no reduction in water and environmental quality as a result of recreational uses adjacent to the Creek and lagoon.</p> <p>Project applicants shall provide the City with proof that appropriate stormwater permits have been obtained pursuant to the City of Brisbane's NPDES stormwater discharge permit, the San Francisco Regional MS4 Permit. This shall include construction site inspection and control programs at all construction sites, with follow-up and enforcement consistent with each Permittee's respective Enforcement Response Plan, to prevent construction site discharges of pollutants and impacts on beneficial uses of receiving waters. The goal of Provision C.3 of the MS4 Permit is for the Permittee, such as the City of Brisbane, to use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address both soluble and insoluble stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. This goal is to be accomplished primarily through the implementation of low impact development techniques.</p> <p>Project applicants shall comply with local municipal requirements and the local storm water program as mandated under the Municipal Stormwater Permit, including, at minimum, the following measures:</p> <ul style="list-style-type: none"> • Plan the development to fit the topography, soils, drainage pattern and natural vegetation of the Project Site • Delineate clearing limits, easements, setbacks, sensitive or critical areas, trees, drainage courses, and buffer zones to prevent excessive or unnecessary disturbances and exposure. • Phase grading operations to reduce disturbed areas and time of exposure. • Avoid excavation and grading during wet weather. • Limit on-site construction routes and stabilize construction entrance(s) and exit(s). • Any increase in impervious surface area shall include establishment of vegetated swales, permeable pavement materials, preserve vegetation, re-plant with native vegetation and appropriate measures should be evaluated and implemented where appropriate. • Whenever practicable, native vegetation buffer areas shall be provided as part of a project to control pollutants from entering the Bay, and vegetation shall be substituted for rock riprap, concrete, or other hard surface shoreline and bank erosion control methods where appropriate and practicable. • Construct diversion dikes and drainage swales to channel runoff around the site and away from bodies of water. • Use berms and drainage ditches to divert runoff around exposed areas. • Place diversion ditches across the top of cut slopes. • No use of fertilizers or pesticides. <p>Applicants shall prepare a maintenance program for approval by the City that includes maintenance of water quality pollution-control features such as swales, sediment traps or other passive applications of pollution-prevention measures required as part of NPDES permitting. The maintenance program shall address the management of open space adjacent to the Brisbane lagoon and Visitation Creek and, at minimum, shall include the following requirements, to be performed to the satisfaction of the City.</p> <ul style="list-style-type: none"> • Identify the entity responsible for ongoing maintenance of the lagoon perimeter and recreational facilities within the perimeter area (e.g., property owners' association, landscape maintenance district), along with provisions permitting the City to enforce maintenance requirements and recoup costs for such enforcement. • Provide trash receptacles at appropriate locations and regular litter removal. • Maintain all improvements within the lagoon perimeter in a safe and working condition. • Identify a funding mechanism to ensure site maintenance and implementation of environmental quality monitoring at the creek and lagoon as part of the open space interpretive center. Monitoring parameters may include but would not be limited to water quality monitoring, vegetation monitoring, and passive observation and recording of fish species present. 	

TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Sustainable Water (cont.)	<p>Discharge from the onsite recycled water facility would comply with water quality standards.</p> <p>Any discharge from the onsite water recycling plant would meet applicable water quality standards to protect human health and natural resources.</p> <p>Habitat enhancement along the perimeter of the lagoon to act as a natural filter.</p>		<p>Mitigation Measure 4.C-2a: The applicant shall avoid or minimize adverse effects on sensitive natural communities and restored wetland mitigation areas created to comply with remediation permit requirements or any restored habitat that may have been created as part of site clean-up actions. After Project Site remediation has concluded, measures shall be implemented to avoid impacts to sensitive natural communities or restored habitat areas, including the installation of silt fencing, straw wattles, or other appropriate erosion and sediment control methods or devices to prevent runoff and construction debris from entering these areas. Such measures shall also be employed where pre-construction grading and post-remediation development may require work adjacent to sensitive natural communities, either prior to or after restoration of those areas occurs. Where construction activities occur in the vicinity of sensitive natural communities onsite, the following shall be implemented to ensure no loss of restored mitigation sites:</p> <ul style="list-style-type: none"> Fencing shall be erected adjacent to the areas where construction is occurring to avoid unintended impacts to sensitive natural area that occur just outside the construction area. Construction workers will be educated about local resources and instructed to avoid sensitive habitats during construction including limiting any human intrusion into natural areas. If work in the vicinity of natural communities cannot be avoided, work within these areas shall be conducted during the dry season, typically between May 1 and October 15, and shall occur under permit authority of CDFW, Corps and RWQCB pursuant to the CWA Section 404 requirements for avoidance, mitigation and monitoring. Mitigation Measures 4.2-2b and 4.C-2c shall also apply if work cannot be avoided in or directly adjacent to sensitive natural areas or restored habitats created as part of site cleanup actions. <p>Mitigation Measure 4.C-2b: The measures described below shall be employed to avoid degradation of natural communities or sensitive natural communities by maintaining water quality and controlling erosion and sedimentation during construction as required by compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Activities and as established by Mitigation Measures 4.H-1a and 4.H-1b (see Section 4.H, <i>Hydrology and Water Quality</i>, of this EIR) to address impacts on water quality. In addition, measures shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> Installing silt fencing between aquatic sensitive natural communities and Project-related activities; Locating fueling stations away from potentially jurisdictional areas and features; and Otherwise isolating construction work areas from any identified jurisdictional features. 	
Open Space and Habitat	<p>Multi-functional open space system, including preservation/enhancement of:</p> <ul style="list-style-type: none"> Icehouse Hill; Freshwater wetlands west of Tunnel Road; Tidal saltwater marsh wetlands associated with the lagoon; Riparian habitat and tidal saltwater marsh wetlands associated with the Visitacion Creek channel; <p>Habitat enhancement along the perimeter of lagoon.</p> <p>Daylighting of Visitacion Creek.</p> <p>Re-vegetation of parkland areas with native species.</p>	Biological Resources	<p>Mitigation Measure 4.C-1a: Prior to construction, or any other Project Site development-related ground disturbance activities on Icehouse Hill, the applicant shall conduct pre-construction presence/absence surveys for special-status plants.</p> <p>Initial surveys at Icehouse Hill shall be carried out in conjunction with surveys for endangered butterfly host plants as described in Mitigation Measure 4.C-1c. Surveys would be implemented to determine if a special-status plant species has colonized the site in the interim between the determination of baseline conditions for this EIR, and project initiation, as well as to provide site-specific direction for final trail routing and design to avoid sensitive plant species (see Mitigation Measures 4.C-1b and 4.C-1c).</p> <p>Surveys shall be conducted in accordance with CNPS and CDFW rare plant survey guidelines and shall be conducted during the flowering period when each species is most readily identifiable.</p> <p>In order to capture variability of special-status plant species distribution, three special-status plant surveys shall be conducted at two-week intervals during the appropriate flowering period (April to June), before commencement of any development activities on Icehouse Hill.</p> <p>Any special-status plant populations shall be mapped in the field (see Mitigation Measure 4.C-1b). If the presence of any special-status plant species is confirmed, a copy of the survey results shall be forwarded to CDFW, and Mitigation Measure 4.C-1b shall be implemented.</p> <p>In the event that special-status plants are not identified within development areas, including areas used for construction, the additional mitigation identified in Mitigation Measure 4.C-1b is not required.</p>	DSP, DSP-V, CPP, CPP-V

**TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP**

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Open Space and Habitat (cont.)			<p>Mitigation Measure 4.C-1b: Documented plant occurrences on Icehouse Hill shall be avoided by establishing a buffer zone of no less than 25 feet prior to Project trail construction, or other ground-disturbing activities having the potential to disturb or result in mortality of special-status plant populations. This buffer zone shall be demarcated using flagging, orange fencing, or any other visual barrier between plant populations and the active disturbance footprint. Buffer distances may be increased if hydrology features would be altered as a result of trail construction.</p> <p>If the City determines that disturbance or mortality is unavoidable, special-status plants shall be restored onsite in either the annual grassland or coastal scrub habitat located on Ice House Hill. Restoration would be at a 1:1 ratio consistent with typical CDFW requirements in areas that are to remain as post-development open space, as is Icehouse Hill. The 1:1 replacement ratio shall be met at the end of five years, and may therefore require initial plantings at a greater than 1:1 ratio, as determined by a qualified botanist. If feasible, special-status plants and/or seeds shall be salvaged from on-site plants and used for any replacement plantings.</p> <p>To reduce impacts from off-trail use, and increased horse use, trail head signage shall be required to educate the public regarding sensitive resources and restoration that would be affected by off-trail use. Mitigation areas shall be fenced or marked for three years. Trail use rules shall be developed prior to construction, and in addition to limiting use to identified trails, may include other requirements to limit the possibility that sensitive species would be impacted.</p> <p>To avoid indirect impacts to special status plant species that could occur if slope drainage or surface hydrology is modified as a result of trail construction Mitigation Measure 4.C1-g shall also be applied.</p> <p>Prior to issuance of project approvals, and in coordination with state and federal permitting requirements, a five-year restoration mitigation and monitoring program shall be developed and implemented for any planting areas established to mitigate impacts to special-status species plants. Restoration success criteria shall include:</p> <ol style="list-style-type: none"> 1) Establishment of mitigation site(s) at or near the location of impacts where plant restoration will occur. 2) A qualified botanist shall identify an appropriate plant palette and restoration methodology compatible with the specific impacted special status species. Mitigation sites could include existing annual grassland or coastal scrub habitat areas on Icehouse Hill, depending on site conditions and locations of special status plants found. 3) No loss in total number of individual plants in a special status plant population found on Project Site shall be verified at the end of the five-year monitoring period established in coordination with state and federal agencies with jurisdiction over these resources. 	DSP, DSP-V, CPP, CPP-V
			<p>Mitigation Measure 4.C-1c: Prior to any trail-related construction, vegetation management, development, or any other ground disturbing activities taking place on Icehouse Hill, pre-construction surveys for butterfly larval host plants (<i>Viola pedunculata</i>, <i>Lupinus albifrons</i>, <i>L. formosus</i>, and <i>L. versicolor</i>) shall be conducted by a qualified invertebrate biologist with demonstrated experience working with the species to ensure avoidance of such host plants. Required surveys may be conducted in conjunction with the rare plant surveys required under Mitigation Measure 4.C-1a. The timing for these preconstruction surveys is further specified, below.</p> <p>All populations of butterfly host plants located on Icehouse Hill shall be mapped and trails shall be designed to avoid them, whether or not they are being used by butterflies at the time of the initial surveys. All populations of butterfly host plants located on Icehouse Hill shall be inspected by a qualified invertebrate biologist, at an appropriate time of year, to determine whether or not they are being used by endangered butterflies for reproduction. If it is determined that they are being used for reproductive purposes by endangered butterflies, the specific project applicant shall contact USFWS to identify the appropriate consultation process prior to proceeding further with any activities on Icehouse Hill. Consultation may indicate that an Incidental Take Permit is required pursuant to the FESA.</p> <p>If populations of callippe silverspot or Mission blue butterflies are determined to be reproducing on Icehouse Hill, the property owner shall prepare and implement a Butterfly Protection Plan in coordination with the USFWS and the habitat managers for the SBMHCP prior to any ground-disturbing activities on or adjacent to Icehouse Hill. The plan shall include, but not be limited to, the following elements:</p> <ul style="list-style-type: none"> • Pre-construction surveys shall be conducted during the period of identification for larval host plants and butterfly larvae in the flowering and/or breeding season immediately prior to trail construction or any other work scheduled to occur on Icehouse Hill. • Trail construction on Icehouse Hill shall avoid populations of larval host plants. 	DSP, DSP-V, CPP, CPP-V

**TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP**

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Open Space and Habitat (cont.)			<ul style="list-style-type: none"> All trails, or alternately, sensitive habitats, shall be fenced to minimize the establishment of "informal" trails through habitats supporting special-status plants. Dogs shall be allowed on Icehouse Hill trails on leash only. Interpretative signage shall be posted at trailheads explaining the presence of endangered butterflies and/or their habitat and the importance of preserving Icehouse Hill as habitat for endangered species. Grassland habitat on Icehouse Hill shall be restored and enhanced to maintain and expand healthy populations of butterfly host plants. This shall include regular and ongoing management of non-native invasive species, such as French broom and fennel, as well as revegetation with native grassland species and establishment of new populations of butterfly host plants for callippe silverspot and Mission blue butterfly species, particularly lupine host species and Veolia species. These efforts shall be planned in coordination with similar SBMHCP efforts and according to the butterfly habitat restoration and vegetation management guidelines that have been established for the SBMHCP (San Mateo County, 2007). The criteria for successful implementation of habitat restoration shall be no loss of butterfly habitat and at least 50 percent cover (includes at least two of the lupine species used by butterflies) in restored areas after five years. 	
			<p>Mitigation Measure 4.C-1d: The following steps shall be taken to avoid direct losses of nests, eggs, and nestlings and indirect impacts to special status avian species.</p> <p>Vegetation removal including removal of trees and shrubs as part of site development shall be confined to the non-breeding season, except as provided for below. Grading or ground disturbance activities associated with site development including site remediation activities shall occur after pre-construction protocol burrowing owl surveys are conducted as described below and in the 2012 CDFW Staff Report on Burrowing Owls.</p> <ul style="list-style-type: none"> If removal of trees and shrubs or disturbance to trees and shrubs (i.e., tree removal, tree trimming) is proposed to occur between January 1 and September 15, a qualified avian biologist shall survey any trees proposed to be removed or trimmed during the nesting season (i.e., January 1 through September 15) to determine if active nests are present. Surveys shall occur not more than 14 days prior to tree removal or trimming. If active nests are found, tree removal and/or tree trimming shall be conducted only after the young have left the nest and the nest is no longer in use. Confirmation that the nest is no longer in use shall be provided by a qualified biologist familiar with the species. <p>If the qualified avian biologist identifies active nests, a no disturbance buffer of 150 feet shall be established and monitored by a qualified avian biologist, with authority to stop work in the event construction activities encroach within the disturbance buffer thus ensuring that impacts to nesting birds would not occur.</p> <p>Survey and monitoring reports shall be submitted to City staff for review: preconstruction survey reports shall be submitted prior to initiating construction activities; monitoring reports shall be submitted weekly until activities associated with nest habitat removal or disturbance activities are completed.</p> <ul style="list-style-type: none"> Prior to initiating grading or ground disturbance activities associated with remediation activities required prior to site development, the following shall occur: <ul style="list-style-type: none"> Not less than 45 days prior to site grading, a qualified biologist shall survey the site to determine the presence of active burrowing owl nests. If active nests are found passive relocation of the individuals would be accomplished according to the CDFW standards in effect at the time of the survey including the 2012 CDFW Staff Report on Burrowing Owls. Results of the burrowing owl survey will be forwarded to CDFW. Should the results of the survey include positive finding for occupied burrows, the location and condition of the burrows shall be reported to the CDFW and an on-site mitigation plan shall be prepared for review and approval by the CDFW. Onsite mitigation shall include construction of artificial burrows at a ratio of not less than 1:1 with the burrows located away from areas permitted for use by dogs and hikers. Following construction of the artificial burrows, the existing owls shall be passively removed from their burrows using one-way trap doors. The artificial burrows shall be monitored for a period of five years to confirm occupation by the species. Monitoring reports shall be forwarded to the CDFW to document compliance with this mitigation measure. 	DSP, DSP-V, CPP, CPP-V

**TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP**

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Open Space and Habitat (cont.)			<p>Mitigation Measure 4.C-1e: Prior to construction of any wind turbines within the Project Site, the applicant for such wind turbines shall prepare a site-specific micrositing report in designing the proposed turbine layout that incorporates modeling of raptor species' flight patterns, hovering or kiting patterns, bat roosting habitat areas and foraging areas. The report shall provide micrositing recommendations to reduce avian collision and impacts to bat species that shall be implemented in the final design and placement of wind turbines. Utilization data; digital elevation modeling; slope attributes; techniques to identify saddles, notches, and benches; and associations between bird utilization and topography may be included, for example. The report shall include adaptive management during and after Project Site construction using information gathered in the pre-construction assessment to guide possible Project modifications, mitigation, or the need for and design of post-construction studies; post-construction studies can test design modifications and operational activities to determine their effectiveness in avoiding or minimizing significant adverse impacts (USFWS, 2010b). The design of wind turbines shall minimize the use of above ground electrical cabling; be designed with solid surfaces that are not conducive to perching; not run when visibility is poor, such as at night and during periods of heavy fog; and be designed with low rotor speeds (20 rpm maximum).</p>	DSP, DSP-V, CPP, CPP-V
			<p>Mitigation Measure 4.C-1f: Prior to construction or operation of wind turbines within the Project Site, the applicant shall implement the following mitigation measure, which is based upon the California Bat Working Group <i>Guidelines for Assessing and Minimizing Impacts to Bats at Wind Energy Development Sites in California</i> (CBWG, 2006). These measures will help to mitigate the Project's effects on bats by addressing the data gaps that prevent adequate assessment of the Project's effects on bats, such as what bat species are using the site and how they are using the Project area.</p> <ul style="list-style-type: none"> The applicant shall contribute to the body of knowledge on bat/turbine interactions by performing pre-construction and post-construction surveys, and post-construction monitoring within the Project area at each discrete location of a wind turbine or solar facility. 	DSP, DSP-V, CPP, CPP-V
			<p>Mitigation Measure 4.C-1g: Erosion control and water pollution control measures, along with litter control adjacent to the lagoon. See above in <i>Sustainable Water</i> for full text.</p>	DSP, DSP-V, CPP, CPP-V
			<p>Mitigation Measure 4.C-2a: The applicant shall avoid or minimize adverse effects on sensitive natural communities and restored wetland mitigation areas created to comply with remediation permit requirements or any restored habitat that may have been created as part of site clean-up actions. After Project Site remediation has concluded, measures shall be implemented to avoid impacts to sensitive natural communities or restored habitat areas, including the installation of silt fencing, straw wattles, or other appropriate erosion and sediment control methods or devices to prevent runoff and construction debris from entering these areas. Such measures shall also be employed where pre-construction grading and post-remediation development may require work adjacent to sensitive natural communities, either prior to or after restoration of those areas occurs. Where construction activities occur in the vicinity of sensitive natural communities onsite, the following shall be implemented to ensure no loss of restored mitigation sites:</p> <ul style="list-style-type: none"> Fencing shall be erected adjacent to the areas where construction is occurring to avoid unintended impacts to sensitive natural area that occur just outside the construction area. Construction workers will be educated about local resources and instructed to avoid sensitive habitats during construction including limiting any human intrusion into natural areas. <p>If work in the vicinity of natural communities cannot be avoided, work within these areas shall be conducted during the dry season, typically between May 1 and October 15, and shall occur under permit authority of CDFW, Corps and RWQCB pursuant to the CWA Section 404 requirements for avoidance, mitigation and monitoring. Mitigation Measures 4.2-2b and 4.C-2c shall also apply if work cannot be avoided in or directly adjacent to sensitive natural areas or restored habitats created as part of site cleanup actions.</p>	DSP, DSP-V, CPP, CPP-V
		<p>Mitigation Measure 4.C-2b: The measures described below shall be employed to avoid degradation of natural communities or sensitive natural communities by maintaining water quality and controlling erosion and sedimentation during construction as required by compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Activities and as established by Mitigation Measures 4.H-1a and 4.H-1b (see Section 4.H, <i>Hydrology and Water Quality</i>, of this EIR) to address impacts on water quality. In addition, measures shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> Installing silt fencing between aquatic sensitive natural communities and Project-related activities; Locating fueling stations away from potentially jurisdictional areas and features; and Otherwise isolating construction work areas from any identified jurisdictional features. 	DSP, DSP-V, CPP, CPP-V	

**TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP**

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Open Space and Habitat (cont.)			<p>Mitigation Measure 4.C-2c: Where disturbance to sensitive natural communities cannot be avoided, compensation shall be provided for temporary impacts and permanent loss to ensure that there is no overall loss of sensitive natural communities as a result of Project Site development. Onsite, in kind replacement of sensitive natural communities including coastal scrub, willow scrub, tidal marsh, freshwater emergent wetlands, and lined manmade drainages that have developed bed and bank characteristics shall be a condition of development. Compensation shall be detailed on an impact-specific basis and shall include development of an onsite wetland mitigation and monitoring plan, which shall be developed prior to Project Site development or in coordination with permit applications and/or conditions. Alternately, offsite mitigation may be pursued through an approved mitigation bank, although this option may result in a higher ratio for compensation. At a minimum, such plans shall include:</p> <ul style="list-style-type: none"> • Baseline information, including a summary of findings for the most recent wetland delineation conducted at the Project Site; • Anticipated habitat enhancements to be achieved through compensatory actions, including mitigation site location (onsite enhancement or offsite habitat creation) and hydrology; • Performance and success criteria for wetland creation or enhancement including, but not limited to, the following: <ul style="list-style-type: none"> - At least 70 percent survival of installed plants for each of the first three years following planting. - Performance criteria for vegetation percent cover in Years 1-4 as follows: at least 10 percent cover of installed plants in Year 1; at least 20 percent cover in Year 2; at least 30 percent cover in Year 3; at least 40 percent cover in Year 4. - Performance criteria for hydrology in Years 1-5 as follows: 14 or more consecutive days of flooding, ponding, or a water table 12 inches or less below the soil surface during the growing season at a minimum frequency of three of the five monitoring years; OR establishment of a prevalence of wetland obligate plant species. - Invasive plant species that threaten the success of created or enhanced wetlands should not contribute <u>relative</u> cover greater than 35 percent in Year 1, 20 percent in Years 2 and 3, 15 percent in Year 4, and 10 percent in Year 5. - If necessary, supplemental water shall be provided by a water truck for the first two years following installation. Any supplemental water must be removed or turned off for a minimum of two consecutive years prior to the end of the monitoring period, and the wetland must meet all other criteria during this period. At the end of the five-year monitoring period, the wetland must be self-sufficient and capable of persistence without supplemental water. - At least 75 percent cover by hydrophytic vegetation at the end of the five-year monitoring period. In addition, wetland hydrology and hydric soils must be present and defined as follows: <ul style="list-style-type: none"> ▪ <i>Hydrophytic vegetation</i> – A plant community occurring in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. ▪ <i>Wetland hydrology</i> – Identified by indicators such as sediment deposits, water stains on vegetation, and oxidized rhizospheres along living roots in the upper 12 inches of the soil, or satisfaction of the hydrology performance criteria listed above. ▪ <i>Hydric soils</i> – Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions, which are often characterized by features such as redox concentrations, which form by the reduction, translocation, and/or oxidation of iron and manganese oxides. Hydric soils may lack hydric indicators for a number of reasons. In such cases, the same standard used to determine wetland hydrology when indicators are lacking can be used. - Five years after any wetland creation, a wetland delineation shall be performed to determine whether created wetlands are developing according to the success criteria outlined in the project permits. If they are not, remedial measures such as re-planting and or re-design and construction of the created wetland shall be taken to ensure that the Project's mitigation obligations are met. • Monitoring and reporting requirements. If permanent and temporary impacts on jurisdictional waters cannot be compensated onsite through the restoration or enhancement of wetland features incorporated within proposed open space areas, the specific project applicant shall provide additional compensatory mitigation for these habitat losses. Potential options include the creation of additional wetland acreage onsite or the purchase of offsite mitigation. Offsite compensatory mitigation would be required to fulfill the performance standards described above. 	DSP, DSP-V, CPP, CPP-V

**TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP**

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Open Space and Habitat (cont.)			<p>Mitigation Measure 4.C-4a: Development in the Baylands shall be subject to a requirement for a Project wide Open Space Plan to be prepared by a landscape architect in coordination with a qualified habitat restoration biologist and included as a component of the Specific Plan. The Plan shall incorporate designs to provide for wildlife movement corridors and to enhance habitat for native wildlife species. Specific requirements shall include the following:</p> <ul style="list-style-type: none"> • Landscaped areas shall contain a mosaic of native habitat types that support fauna of the surrounding area, including coastal scrub, grassland, and willow scrub habitats. Tree plantings shall be limited to native species whenever possible, as these species could create more nesting and roosting habitat for native birds and bats. • Landscape plans shall incorporate both east-west and north-south open space areas, to promote both linkages between upland habitats and San Francisco Bay and linkages between upland habitats along the Bay shoreline. • Removed trees shall be replaced at a minimum ratio of 1:1 (native trees shall be substituted for non-native trees whenever possible). The minimum ratio of 1:1 shall be met five years after planting; initial plantings may require greater than 1:1 ratio to achieve this standard. • Nest boxes for bats and cavity-nesting bird species shall be installed in passive recreational areas. 	DSP, DSP-V, CPP, CPP-V
			<p>Mitigation Measure 4.C-4b: Development in the Baylands shall be subject to a requirement for a Marsh Wildlife and Habitat Protection Plan for the Project to be prepared as part of the specific plan process prior to approval of any development projects. The Habitat Protection Plan shall be prepared by a qualified biologist and subject to approval by the Brisbane Community Development Department. The Plan shall include (but not be limited to), the following components:</p> <ul style="list-style-type: none"> • To minimize the effect of night lighting on wetland habitats adjacent to Project Site development, the following shall apply in the vicinity of wetlands located north of the lagoon, development north and south of the Visitacion Creek channel, and any development adjacent to freshwater wetlands in the western portion of the Project Site: <ul style="list-style-type: none"> - Street lighting shall be provided only at intersections. - Low-intensity street lamps and low elevation lighting poles shall be provided. - Internal silvering of the globe or external opaque reflectors shall be provided to direct light away from preserved wetland or open water habitats. - In addition, private sources of illumination around homes (for DSP and DSP-V only) shall also be directed and/or shaded to minimize glare into these habitats. • Residential and commercial leases within the Project Site shall prohibit building occupants from creating outdoor feeding stations for feral cats to prevent feral cat colonies from establishing and to prevent the attraction of other predatory wildlife such as red fox, raccoon, or opossums. Such restrictions shall be monitored by a property owners association which shall have the right to impose fines for violation of this requirement. • If a buffer cannot be accommodated between development and habitat areas, cyclone fencing with vinyl slats (or an equivalent screening barrier) at a minimum height of three feet for screening shall be installed outside of wetland habitat and between any preserved wetland or open water habitat and all residential or commercial development. Appropriate native vegetation shall be planted both inside and outside of the fence to provide further screening. This fencing would provide a barrier to exclude cats, dogs, and other household pets, which are not effectively deterred by buffers. • An education program for residents shall be developed including posted interpretive signs and informational materials regarding the sensitivity of preserved habitats, the dangers of unleashed domestic animals in this area. Such restrictions shall be monitored by a property owners association which shall have the right to impose fines for violation of the pet policy. Such information shall be provided in the vicinity of onsite marshes where public access is provided. 	DSP, DSP-V, CPP, CPP-V
			<p>Mitigation Measure 4.C-4c: All development on the Baylands that includes a residential component shall include a pet policy that requires residents to adhere to the measures of this policy to prevent impacts on wildlife from domestic animals. The policy shall become a part of the Covenants, Conditions, and Restrictions (CC&Rs) attached to each property deed for for-sale residential properties and enforced through the homeowners association or other entity specified in the CC&Rs, and made part of leases for residential rental properties and commercial leases within the Project Site. The pet</p>	DSP, DSP-V

**TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP**

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Open Space and Habitat (cont.)			policy shall limit the number of animals per residence and require adult cats, dogs, and rabbits to be spayed or neutered. Cats and dogs shall be required to be kept inside the residences and allowed outside residences only if on a leash and under the tenant's control and supervision, except within areas specifically designed as dog parks. To provide effective predator control, feral animal trapping may be necessary.	
			<p>Mitigation Measure 4.C-4d: During design of any building greater than 100 feet tall, the applicant and architect shall consult with a qualified biologist experienced building/lighting design issues (as approved by the City of Brisbane Planning Department) to identify lighting related measures to minimize the effects of the building's lighting on birds. Such measures, which may include the following and/or other measures, shall be incorporated into the building's design and operation.</p> <ul style="list-style-type: none"> • Use strobe or flashing lights in place of continuously burning lights for obstruction lighting. Use flashing white lights rather than continuous light, red light, or rotating beams. • Install shields onto light sources not necessary for air traffic to direct light towards the ground. • Extinguish all exterior lighting (i.e., rooftop floods, perimeter spots) not required for public safety. • When interior or exterior lights must be left on at night, the operator of the buildings shall examine and adopt alternatives to bright, all-night, floor-wide lighting, which may include: <ul style="list-style-type: none"> - Installing motion-sensitive lighting. - Using desk lamps and task lighting. - Reprogramming timers. - Use of lower-intensity lighting. • Windows or window treatments that reduce transmission of light out of the building will be implemented to the extent feasible. • Educational materials will be provided to building occupants encouraging them to minimize light transmission from windows, especially during peak spring and fall migratory periods, by turning off unnecessary lighting and/or closing drapes and blinds at night. • A report of the lighting alternatives considered and adopted shall be provided to the City of Brisbane Planning Department for review and approval prior to construction. The City of Brisbane Planning Department shall ensure that lighting-related measures to reduce the risk of bird collisions have been incorporated into the design of such buildings to the extent practicable. 	DSP, DSP-V, CPP, CPP-V
			<p>Mitigation Measure 4.C-4e: During design of any building greater than 100 feet tall, the applicant and architect shall consult with a qualified biologist experienced with urban building bird strikes design issues (as approved by the City of Brisbane Planning Department) to identify measures related to the external appearance of the building to minimize the risk of bird strikes. Such measures, which may include the following and/or other measures, shall be incorporated into the building's design:</p> <ul style="list-style-type: none"> • Use non-reflective tinted glass. • Use window films to make windows visible to birds from the outside. • Use external surfaces/designs that break up reflective surfaces. • Place bird attractants, such as bird feeders and baths, at least three feet and preferably 30 feet or more from windows in order to reduce collision mortality. • A report of the design measures considered and adopted shall be provided to the City of Brisbane Planning Department for review and approval prior to construction. The City of Brisbane Planning Department shall ensure that building design related measures to reduce the risk of bird collisions have been incorporated to the extent practicable. 	DSP, DSP-V, CPP, CPP-V

**TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP**

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Open Space and Habitat (cont.)			<p>Mitigation Measure 4.C-4f: Prior to tree removal, trimming of trees or shrubs or soil disturbance for site grading, a survey of suitable nesting habitat shall be conducted by a avian biologist familiar with Bay Area species and habitats to map the location of vegetation that could support avian species. If ground-disturbing activities or vegetation removal are proposed during the breeding bird season (January 1 through September 15), to avoid direct losses of nests, eggs, and nestlings and indirect impacts on avian breeding success, a qualified avian biologist shall survey active sites for nesting raptors and passerine birds not more than 14 days prior to the ground-disturbing activity or vegetation removal. Surveys shall include all trees in line-of-sight and within 500 feet of construction for raptors, and all vegetation (including bare ground within 250 feet) for all other species. If active nests are found, tree removal or tree trimming and construction activities, including soil disturbance, construction noise, increased human presence, would be halted and the nest would be monitored by a qualified biologist who shall verify when the nestlings have fledged and left the nest.</p>	DSP, DSP-V, CPP, CPP-V
			<p>Mitigation Measure 4.C-4g: Applicants for site specific development projects pursuant to an approved specific plan within the Project Site shall take the following measures to avoid direct mortality of roosting special-status bats and disturbance of maternity roosts or winter hibernacula:</p> <ul style="list-style-type: none"> • A bat biologist familiar with Bay Area species shall conduct surveys of all potential bat habitat, including areas suitable for maternity roosts and/or winter hibernacula within a site proposed for development prior to initiation of construction activities, including initial grading. Surveys shall be conducted within one year prior to construction to capture current bat habitats at the site, as presence of bats could vary yearly and survey results several years before impacts occur could be inaccurate. Potentially suitable habitat shall be located visually. Bat emergence counts shall be made at dusk as the bats depart from any suitable habitat. In addition, an acoustic detector shall be used to determine any areas of bat activity. At least four nighttime emergence counts shall be undertaken on nights that are warm enough for bats to be active. The bat biologist shall determine the type of each active roost (i.e., maternity, winter hibernacula, day or night). • Removal or trimming of trees or demolition of buildings showing evidence of bat activity shall occur during the period least likely to affect the bats as determined by a qualified bat biologist (generally between February 15 and October 15 for winter hibernacula and between August 15 and April 15 for maternity roosts). If active day or night (non-maternity) roosts are found, the bat biologist shall take action to allow individual bats to depart prior to tree removal or building demolition. • During construction, a no-disturbance buffer shall be created around active bat roosts being used for maternity or hibernation purposes at a distance to be determined in consultation with CDFW. Bat roosts initiated during construction are presumed to be unaffected, and no buffer is necessary 	DSP, DSP-V, CPP, CPP-V
Culture and Heritage	Adaptive reuse of historic Roundhouse and Lazzarri Fuel buildings	Cultural Resources	<p>Mitigation Measure 4.D-1a: Within 90 days of Specific Plan adoption or prior to the issuance of the first grading or building permit within the Project Site (whichever occurs first), the property owner shall prepare and implement a stabilization plan subject to review and approval by the Brisbane Planning Department to protect and stabilize the Roundhouse from further deterioration and future vandalism. Such a plan may include, but is not limited to, additional protective fencing, signage, installation of temporary roof coverings to protect the interior from rainwater intrusion, and covering of all window and door openings with plywood. In preparation of the stabilization plan, the property owner shall use the National Park Service's <i>Preservation Brief #31, Mothballing Historic Buildings</i>.</p> <p>Within 90 days of the issuance of any planning or development approval (e.g., site remediation, grading, site development plan, building permit) encompassing the area of the historic Roundhouse, the property owner shall also submit a rehabilitation plan for the historic Roundhouse to the City for review and approval by the Brisbane Planning Commission. Implementation of the rehabilitation plan shall be completed prior to the first occupancy permit for the area subject to the planning or development permit approved encompassing the area of the historic Roundhouse.</p> <p>The rehabilitation plan shall be consistent with the performance standards contained in the following documents:</p> <ul style="list-style-type: none"> • The Secretary of the Interior's Standards for Rehabilitation. Such standards call for the retention of significant, character-defining features of the building while finding a new use for the structure that is compatible with its historic character; • The National Park Service's <i>Preservation Brief #17, Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Architectural Character</i>; and 	DSP, DSP-V, CPP, CPP-V

**TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP**

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Culture and Heritage (cont.)			<ul style="list-style-type: none"> The National Park Service's <i>Preservation Brief #18, Rehabilitating Interiors in Historic Buildings - Identifying and Preserving Character-Defining Elements</i>. <p>To ensure compliance with the Secretary of the Interior's Standards for Rehabilitation, rehabilitation plans shall also be reviewed by a qualified consulting architectural historian who meets the Secretary of the Interior's Standards for Architectural History prior to action by the Planning Commission. The rehabilitation plans shall meet a minimum of 7 out of 10 of the standards.</p> <p>The Secretary of the Interior's Standard #6, specifically, requires that replacement of missing features will be substantiated by documentary and physical evidence. As nearly 50 percent of the building is missing due to fires and vandalism, such evidence is key to its successful rehabilitation. Original plans and early photographs of the Roundhouse are available at the Library and Collections Department of the California State Railroad Museum in Sacramento. These original plans and early photographs shall be used when preparing the rehabilitation plan for this building to ensure that rehabilitation efforts will adequately preserve the historic architectural and structural integrity of the building.</p> <p>Mitigation Measure 4.D-1b: All Project Site development within 50 feet of the Roundhouse or the Machinery & Equipment building be designed to ensure their architectural compatibility with the historic Roundhouse, and to ensure that new buildings do not overwhelm or unnecessarily contrast with these historic buildings. To this end, all development projects shall incorporate a minimum 50-foot structural setback and appropriate heights, volumes, and materials for any proposed new buildings in the immediate vicinity to ensure compatibility with the Roundhouse and the Machinery & Equipment building. Appropriate heights of new construction adjacent to the Roundhouse would be the same as (about 25 feet), or slightly greater than (i.e., up to 15 feet greater than), the existing height of the building. Appropriate heights of new construction adjacent to the Machinery & Equipment building would be the same as (about 40 feet) or slightly greater than (up to 10 feet greater than), the existing height of the building. Appropriate materials for new construction in the immediate vicinity of either building would be brick cladding and/or cementitious materials painted a similar dark red color, as well as Spanish tile roof cladding. Appropriate volumes for new development that would face the Roundhouse should mirror the curve of the existing structure. Appropriate volumes for new development in the vicinity of the Machinery & Equipment building would be rectilinear in massing.</p> <p>All development projects within 50 feet of the Roundhouse or the Machinery & Equipment building shall be subject to City design permit review and approval prior to development</p>	
Economic Vitality with Equity and Ecology		<p>Economic issues are not typically addressed under CEQA. Fiscal impacts and economic issues are relevant under CEQA only where fiscal impacts lead to physical changes in the environment. These can include both positive economic benefits of a project leading to growth inducement, or adverse economic impacts leading to physical deterioration of existing development and urban decay.</p> <p>The EIR Land Use section, however, addresses consistency of proposed Project Site development with applicable General Plan policies, some of which deal with issues relevant to this sustainability principle.</p>	<p>Project consistency with applicable General Plan policies would be required prior to project approval as part of the planning review process. No mitigation measures are proposed.</p>	

**TABLE 7-1 (Continued)
PRINCIPLES OF SUSTAINABILITY AS RELATED TO CEQA TOPICS FOR BOTH DSP AND CPP**

Sustainability Principle	Project Component	CEQA Topics and Related Mitigation Measures Recommended in Addition to Project Components		
		Relevant CEQA Topics	Related Mitigation Measures	Scenario Applicability
Health, Safety and Happiness	<p>Remediation of contaminated soils to occur; capping of contaminated soils proposed vs. off-haul of soils to reduce transportation fuel requirements and need for offsite waste disposal.</p> <p>Remediation to be subject to the oversight and approval of the California Department of Toxic Substances Control (Operating Unit No. 1) and the Master grading plans to address risk of differential settlement and earthquake damage, provide for preservation of historic buildings, account for capping of contaminated areas, and minimize haul trips and associated emissions.</p> <p>Reuse of "brownfields" site close to urban development.</p> <p>Remediation of contaminated soils/water.</p> <p>Preparation of Risk Management Plan (RMP) to address final remedial actions and engineering controls.</p> <p>Provision of recreational park lands in compliance with Municipal Code requirements.</p>	Hazards and Hazardous Materials	<p>Mitigation Measure 4.G-2a (Confirm Achievement of Remediation Goals): Prior to approval of a specific plan for any parcel within the Project Site, the project applicant shall provide confirmation to the City that the Department of Toxic Substances Control (DTSC), Regional Water Quality Control Board (RWQCB), and/or the San Mateo County Environmental Health Division as the Local Enforcement Agency, as applicable, have reviewed and are prepared to approve a Remedial Action Plan or final closure and post-closure maintenance plans upon certification of appropriate environmental documentation for that action.</p> <p>Prior to issuance of a building or grading permit (other than for grading needed for remediation activities) for any parcel within the Project Site, the applicant shall provide the City with evidence that the Department of Toxic Substances Control (DTSC), Regional Water Quality Control Board (RWQCB), and/or the San Mateo County Environmental Health Division as the Local Enforcement Agency in relation to the landfill have approved applicable Remedial Action Plan(s) or final closure and post-closure maintenance plans.</p> <p>Prior to commencement of building construction or site grading for any parcel within the Project Site, the project applicant shall obtain regulatory approval from the Department of Toxic Substances Control (DTSC), Regional Water Quality Control Board (RWQCB), and/or the San Mateo County Environmental Health Division as the Local Enforcement Agency in relation to the landfill for the proposed land use, in the form of a Remediation Action Completion Report or equivalent closure letter stating that remediation goals have been achieved for proposed land uses.</p> <p>Mitigation Measure 4.G-2b (Soil and Groundwater Management Plan): Prior to issuance of a building or grading permit for any parcel within the Project Site a Soil and Groundwater Management Plan (SGMP) shall be prepared by a qualified environmental consulting firm, reviewed and approved by DTSC and the RWQCB and implemented by the project applicant.</p> <p>The Soil and Groundwater Management Plan shall also include a requirement for development and implementation of site-specific safety plans to be prepared prior to commencement of construction consistent with Occupational Safety and Health Administration (OSHA) Safety and Health Standards 29 CFR 1910.120 as well as management of groundwater produced through temporary dewatering activities.</p> <p>Such site-specific safety plans shall include necessary training, operating and emergency response procedures, and reporting requirements to regulate all activities that bring workers in contact with potentially contaminated soil or groundwater, landfill gas, or leachate to ensure worker safety and avoid impacts to the environment. Further, the Soil and Groundwater Management Plan shall include protocols for any areas of the site that require excavation and relocation of refuse material (e.g., building foundations and utility infrastructure) in accordance with the Title 27 of the California Code of Regulations to ensure that the integrity of the low-hydraulic-conductivity layer (LHCL) requirements are maintained.</p> <p>Mitigation Measure 4.G-2c (Master Deconstruction and Demolition Plan): Prior to issuance of a demolition permit for any parcel within the Project Site, a Master Deconstruction and Demolition Plan shall be submitted by the project applicant to the City Building Official. The plan shall be reviewed and approved by the Building Official prior to issuance of the requested demolition permit. This plan shall include documentation of hazardous materials determinations (surveys) and demolition or deconstruction recommendations in accordance with local and state requirements. If the surveys conducted by licensed professionals prior to issuance of a demolition permit per the requirements above hazardous building materials², demolition or deconstruction shall proceed in accordance with applicable BAAQMD, OSHA, and CalOSHA requirements, which may include air permits or agency notifications, worker awareness training, exposure monitoring, medical examinations and a written respiratory protection program.</p>	DSP, DSP-V, CPP, CPP-V

¹ Priority Development Areas (PDAs) are locally-identified, infill development opportunity areas within existing communities. They are generally areas of at least 100 acres where there is local commitment to developing more housing along with amenities and services to meet the day-to-day needs of residents in a pedestrian-friendly environment served by transit. To be eligible to become a PDA, an area had to be within an existing community, near existing or planned fixed transit or served by comparable bus service, and planned for more housing.

² Typical hazardous building materials include lead-based paint; asbestos-containing materials, such as insulation, paint, or fiberboards; PCBs in lighting ballasts or wiring; and mercury in thermostat switches. BAAQMD oversees the public health and environmental aspects of removal and disposal of asbestos-containing materials and other hazardous building materials. CalOSHA oversees worker protection and contractor licensing with respect to hazardous building materials.

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7.5 References

American Planning Association, *Policy Guide on Planning for Sustainability*,
www.planning.org/policy/guides/adopted/sustainability.htm, 2000.

City of Brisbane Open Space and Ecology Committee, *Sustainability for the Baylands, Draft for Discussion*, April 2013.

United Nations (UN) World Commission on Environment and Development, *Our Common Future*, www.un-documents.net/wced-ocf.htm, 1987.