

Draft

**INITIAL STUDY
MITIGATED NEGATIVE DECLARATION**



**BOLSA CHICA LOWER MESA
RESTORATION PROJECT**

January 2011

Prepared by:
The Bolsa Chica Land Trust

Prepared for:

State of California
**DEPARTMENT OF FISH AND GAME
SOUTH COAST REGION**

MITIGATED NEGATIVE DECLARATION

PROJECT: BOLSA CHICA LOWER MESA RESTORATION PROJECT

LEAD AGENCY: California Department of Fish and Game

AVAILABILITY OF DOCUMENTS: The Initial Study for this Mitigated Negative Declaration is available for review at:

- South Coast Region Headquarters
California Department of Fish and Game
4949 Viewridge Avenue
San Diego, CA 92123
- Huntington Beach Main Library
7111 Talbert Avenue
Huntington Beach, CA 92648
- The Bolsa Chica Land Trust Office
5200 Warner Avenue, Suite 108
Huntington Beach, CA 92649

PROJECT DESCRIPTION:

The Lower Mesa Restoration Project for the Bolsa Chica Mesa is a cooperative project between CDFG and the Bolsa Chica Land Trust. The goal of this project is the creation/rehabilitation of the 118 acre property incorporating 6 sustainable habitat areas and the completion of a perimeter trail system utilizing a portable on-site native plant nursery and volunteer efforts from the community.

A copy of the Initial Study is attached. Questions or comments regarding this Initial Study/Mitigated Negative Declaration may be addressed to:

Carla Navarro Woods
California Department of Fish and Game
600-C Shellmaker Road
Newport Beach, CA 92660
cnavarro@dfg.ca.gov

Pursuant to Section 21082.1 of the California Environmental Quality Act, the California Department of Fish and Game (CDFG) has independently reviewed and analyzed the Initial Study and Negative Declaration for the proposed project and finds that these documents reflect the independent judgment of CDFG. CDFG, as lead agency, also confirms that the project mitigation measures detailed in these documents are feasible and will be implemented as stated in the Negative Declaration.



Edmund J. Pert, Regional Manager

1-13-11

Date

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

The Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the California Department of Fish and Game (CDFG) to evaluate the potential environmental effects of the proposed Restoration Project at the Bolsa Chica Ecological Reserve, Orange County, California. This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code §21000 *et seq.*, and the State CEQA Guidelines, California Code of Regulations (CCR) §15000 *et seq.*

An Initial Study is conducted by a lead agency to determine if a project may have a significant effect on the environment [CEQA Guidelines §15063(a)]. If there is substantial evidence that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared, in accordance with CEQA Guidelines §15064(a). However, if the lead agency determines that revisions in the project plans or proposals made by or agreed to by the applicant mitigate the potentially significant effects to a less-than-significant level, a Mitigated Negative Declaration may be prepared instead of an EIR [CEQA Guidelines §15070(b)]. The lead agency prepares a written statement describing the reasons a proposed project would not have a significant effect on the environment and, therefore, why an EIR need not be prepared. This IS/MND conforms to the content requirements under CEQA Guidelines §15071.

1.2 LEAD AGENCY

The lead agency is the public agency with primary approval authority over the proposed project. In accordance with CEQA Guidelines §15051(b)(1), "the lead agency will normally be an agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." The lead agency for the proposed project is CDFG. The contact person for the lead agency to whom all inquiries and comments on this environmental document should be addressed is:

Carla Navarro Woods
California Department of Fish and Game
600-C Shellmaker Road
Newport Beach, CA 92660
(949) 640-9961
cnavarro@dfg.ca.gov

1.3 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this document is to evaluate the potential environmental effects of the proposed Lower Mesa Restoration Project at the Bolsa Chica Ecological Reserve. Mitigation measures have also been incorporated into the project to eliminate any potentially significant impacts or reduce them to a less-than-significant level.

This document is organized as follows:

- Chapter 1 - Introduction.
This chapter provides an introduction to the project and describes the purpose and organization of this document.
- Chapter 2 - Project Description.
This chapter describes the reasons for the project, scope of the project, and project objectives.
- Chapter 3 - Environmental Setting, Impacts, and Mitigation Measures.
This chapter identifies the significance of potential environmental impacts, explains the environmental setting for each environmental issue, and evaluates the potential impacts identified in the CEQA Environmental (Initial Study) Checklist. Mitigation measures are incorporated, where appropriate, to reduce potentially significant impacts to a less-than-significant level.
- Chapter 4 - Mandatory Findings of Significance
This chapter identifies and summarizes the overall significance of any potential impacts to natural and cultural resources, cumulative impacts, and impact to humans, as identified in the Initial Study.
- Chapter 5 - Mitigation Monitoring and Reporting Program
This chapter summarizes the mitigation measures incorporated into the project as a result of the Initial Study and identifies the responsible party and at what point in the project it is to be implemented.
- Chapter 6 - References.
This chapter identifies the references and sources used in the preparation of this Initial Study and Mitigated Negative Declaration. It also provides a list of those involved in the preparation of this document.

1.4 SUMMARY OF FINDINGS

Chapter 3 of this document contains the Environmental (Initial Study) Checklist that identifies the potential environmental impacts (by environmental issue) and a brief discussion of each impact resulting from implementation of the proposed project.

Based on the IS and supporting environmental analysis provided in this document, the proposed Restoration Project would result in less-than-significant impacts for the following issues: aesthetics, air quality, biological resources, cultural resources, geology and soils, hydrology and water quality, noise, recreation, transportation/traffic.

In accordance with §15064(f) of the CEQA Guidelines, a MND shall be prepared if the proposed project will not have a significant effect on the environment after the inclusion of mitigation measures in the project. Based on the available project information and the environmental analysis presented in this document, there is no substantial evidence that, after the incorporation of mitigation measures, the proposed project would have a significant effect on the environment. It is proposed that a Mitigated Negative Declaration be adopted in accordance with the CEQA Guidelines.

CHAPTER 2

PROJECT DESCRIPTION

2.1 INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the California Department of Fish and Game (CDFG) to evaluate the potential environmental effects of the proposed the Lower Mesa Restoration Project at the Bolsa Chica Ecological Reserve, located in the Orange County, California. The proposed project would restore 120 acres to native coastal habitat for the benefit of the wildlife of the Bolsa Chica Ecological Reserve.

2.2 PROJECT LOCATION

The Lower Bench of the Bolsa Chica Mesa, the Bolsa Chica Ecological Reserve, Orange County, California. The project site is east of the Pacific Coast Highway and is bordered by Bolsa Bay to the west, Warner Avenue to the north, the Hearthside Homes housing development on the upper bench to the east, and restored lowlands to the south.

2.3 BACKGROUND AND NEED FOR THE PROJECT

The 120 acre Lower Bench of the Bolsa Chica Mesa was purchased and incorporated into the Ecological Reserve in 2006 - 2007. The area currently consists of 90% non-native ruderal weed plant species, primarily European grasses. It also contains Warner Pond and a grove of Eucalyptus and non-native palm trees. The soils are severely depleted due to historical agricultural uses. The Eucalyptus grove is now considered sensitive raptor habitat with the project area serving as part of the foraging area. The project area is habitat for a large number of species, all of which will benefit from a healthy, diverse, native environment that this project will create. Please see Appendix C for sensitive species list.

2.4 PROJECT OBJECTIVES

The removal of non-native plant species and installation of native plant species to restore and maintain native grassland, coastal sage scrub, limited native trees and seasonal pond habitat on a mostly disturbed 120 acre site. Innovative green technology is being incorporated into the project along with community volunteer and student involvement. Public trails will be developed as well.

2.5 PROJECT DESCRIPTION

The project encompasses 120 acres on the lower bench of the Bolsa Chica Mesa in Huntington Beach, California, within the Department of Fish and Game-owned portion of Bolsa Chica Ecological Reserve. The Restoration Team of the Bolsa Chica Land Trust, the Bolsa Chica Stewards, has put together a team of restoration specialists and

local academia to plan and implement this project. To achieve restoration of the entire site over a 10 year period, a portable nursery facility (“Nursery-in-a-Box”) will be rotated between four “Terra Farms” to support concentrated restoration efforts and to cultivate a native grass seed bank for use in developing a 65-acre native grassland. Each 1-acre Terra Farm will include a 9,000 sq. ft. fenced facility yard/compound that will require 3 inches of ground disturbance for installation of reused gravel/filter cloth, and installation of solar panels, a shade structure, access gates and a service trail; Graded contoured dirt mounds from 1 to 5 feet high with planted vegetation will surround the facility yard, with a 1,550 sq. ft. bio-swale area for water collection at one end. Ground disturbance will not exceed a depth of 24 inches. Cut and fill is retained on site, with the exception that the water harvesting fields will require the import of approximately 320 cubic yards of clean sand to the site.

An estimated 12 acres of land will be restored with native plants each year utilizing contracted and volunteer labor. Weed abatement will be achieved by disking weed growth three times each year, and through manual means.

Construction of public trails and boardwalks is also part of the project.

2.6 PROJECT IMPLEMENTATION

The restoration project will be implemented by the Bolsa Chica Land Trust through a Memorandum of Understanding with the Department of Fish and Game. The Bolsa Chica Stewards, the restoration team of the Bolsa Chica Land Trust has worked on-site in cooperation with the Department since 1996. The Stewards have compiled a team of restoration specialists and local academia to plan and implement this project.

The project is to be phased over a 10 year period. The initial tasks include grading and constructing the four Terra Farm land forms including the import of clean sand for the water harvesting field, and creation of the seasonal ponds using heavy equipment. Terra Farm features will be installed at all four Terra farms at the beginning of the project. The nursery features will only be installed on 1 Terra Farm and then moved to each of the other Terra Farms in turn as restoration of the site proceeds over the course of the 10-year project. The public trail will be developed following completion of the seasonal ponds and restoration of the northern portion of the site.

2.7 VISITATION TO BOLSA CHICA ECOLOGICAL RESERVE

Bolsa Chica Ecological Reserve is a popular coastal wetland for school groups, photographers, hikers, fishermen, nature lovers from the surrounding coastal urban area. Three non-profit organizations run tours through the Reserve for over 35,000 participants annually. In addition a large contingent of volunteers participate in organized clean-up and restoration activities. The project site is fenced and currently closed to the public. The project would provide for access by volunteers initially and once the new peripheral public trail is installed will be open to the general public.

2.8 CONSISTENCY WITH LOCAL PLANS AND POLICIES

This restoration project is consistent with local plans and policies, including the Orange County General Plan and California Code of Regulations, Title 14 and Fish and Game Code.

2.9 DISCRETIONARY APPROVALS

The California Department of Fish and Game has approval authority over the Lower Mesa Restoration Project in Bolsa Chica Ecological Reserve. The project is also located within the coastal zone and is subject to the California Coastal Act. The California Coastal Commission has approval authority over a coastal development permit for the project. The Department of Fish and Game would acquire all necessary reviews and permits prior to implementing any project components requiring regulatory review.

2.10 RELATED PROJECTS

The California Coastal Sage Scrub on adjoining land was started in 1996 and is currently ongoing. Other restoration activities may take place in other areas of the Reserve while this project is underway.

**CHAPTER 3
ENVIRONMENTAL CHECKLIST**

PROJECT INFORMATION

- | | |
|--|--|
| 1. Project Title: | Lower Mesa Restoration |
| 2. Lead Agency Name & Address: | California Department of Fish and Game |
| 3. Contact Person & Phone Number: | Carla Navarro Woods, (949) 640-9961 |
| 4. Project Location: | The Bolsa Chica Ecological Reserve, County of Orange, CA |
| 5. Project Sponsor Name & Address: | Bolsa Chica Land Trust
5200 Warner Avenue, #108
Huntington Beach, CA 92649 |
| 6. General Plan Designation: | Open Space |
| 7. Zoning: | unclassified |
| 8. Description of Project: | The native plant habitat restoration of the 120 acre Lower Bench of the Bolsa Chica Mesa |
| 9. Surrounding Land Uses & Setting: | Refer to Chapter 3 of this document (Section IX, Land Use Planning) |
| 10. Approval Required from Other Public Agencies | Refer to Chapter 2, Section 2.9 |

1. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact", as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | <input checked="" type="checkbox"/> None |

DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project **COULD NOT** have a significant effect on the environment and a **NEGATIVE DECLARATION** will be prepared.

I find that, although the original scope of the proposed project **COULD** have had a significant effect on the environment, there **WILL NOT** be a significant effect because revisions/mitigations to the project have been made by or agreed to by the applicant. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

I find that the proposed project **MAY** have a significant effect on the environment and an **ENVIRONMENTAL IMPACT REPORT** or its functional equivalent will be prepared.

I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated impact" on the environment. However, at least one impact has been adequately analyzed in an earlier document, pursuant to applicable legal standards, and has been addressed by mitigation measures based on the earlier analysis, as described in the report's attachments. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the impacts not sufficiently addressed in previous documents.

I find that, although the proposed project could have had a significant effect on the environment, because all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration, pursuant to applicable standards, and have been avoided or mitigated, pursuant to an earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, all impacts have been avoided or mitigated to a less-than-significant level and no further action is required.



Edmund J. Pert
Regional Manager

1-13-11

Date

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers, except "No Impact", that are adequately supported by the information sources cited. A "No Impact" answer is adequately supported if the referenced information sources show that the impact does not apply to the project being evaluated (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on general or project-specific factors (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must consider the whole of the project-related effects, both direct and indirect, including off-site, cumulative, construction, and operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether that impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate when there is sufficient evidence that a substantial or potentially substantial adverse change may occur in any of the physical conditions within the area affected by the project that cannot be mitigated below a level of significance. If there are one or more "Potentially Significant Impact" entries, an Environmental Impact Report (EIR) is required.
4. A "Mitigated Negative Declaration" (Negative Declaration: Less Than Significant with Mitigation Incorporated) applies where the incorporation of mitigation measures, prior to declaration of project approval, has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact with Mitigation." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR (including a General Plan) or Negative Declaration [CCR, Guidelines for the Implementation of CEQA, § 15063(c)(3)(D)]. References to an earlier analysis should:
 - a) Identify the earlier analysis and state where it is available for review.
 - b) Indicate which effects from the environmental checklist were adequately analyzed in the earlier document, pursuant to applicable legal standards, and whether these effects were adequately addressed by mitigation measures included in that analysis.
 - c) Describe the mitigation measures in this document that were incorporated or refined from the earlier document and indicate to what extent they address site-specific conditions for this project.
6. Lead agencies are encouraged to incorporate references to information sources for potential impacts into the checklist or appendix (e.g., general plans, zoning ordinances, biological assessments). Reference to a previously prepared or outside document should include an indication of the page or pages where the statement is substantiated.
7. A source list should be appended to this document. Sources used or individuals contacted should be listed in the source list and cited in the discussion.
8. Explanation(s) of each issue should identify:
 - a) the criteria or threshold, if any, used to evaluate the significance of the impact addressed by each question **and**
 - b) the mitigation measures, if any, prescribed to reduce the impact below the level of significance.

ENVIRONMENTAL ISSUES

I. AESTHETICS.

ENVIRONMENTAL SETTING

The Lower Bench of the Bolsa Chica Mesa is a flat, open space. The predominant vegetation of the Lower Bench is non-native annual European grasses which turn the project area green from January through April, and as the annuals die the Mesa is brown from May through December. The exceptions are scattered clusters of evergreen native *Baccharis pilularis* and approximately one dozen non-native common olive (*Olea europaea*) which are dwarfed and not thriving. On the southern tip of the Mesa is the Eucalyptus grove which also contains several non-native palm trees. There currently are no structures on the site. Views of the project site are primarily from Warner Avenue and residents located on the upper bench of the Bolsa Chica mesa.

The Orange County General Plan designates Pacific Coast Highway as a Scenic Highway/Viewscape Corridor, however the project site is approximately 900 feet east of Pacific Coast Highway and is not prominently visible from this roadway, therefore no significant impact would result.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) During the project the majority of equipment will not be visible to the public. The project will enhance the scenic vista with diverse native plant material and enhanced wildlife viewing.
- b) The project will not damage any scenic resources.
- c) The project may degrade the visual character and quality of the site during the 10 year implementation period as there will be minor grading, periodic disking and an active

nursery on site. However, the grading and disking will be temporary and the project has been designed to hide the nursery from view behind dirt mounds on which plants will be installed, and with the use of camouflage.

- d) The project will not create a new source of light or glare to the site. All work on the project will be conducted during daylight hours.

II. AGRICULTURAL RESOURCES.

ENVIRONMENTAL SETTING

Portions of the project area were planted with alfalfa and lima beans. Farming activities ceased on the Lower Bench in the 1970's, prior to acquisition by the State.

WOULD THE PROJECT:	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) The site is no longer farmland and is part of the Bolsa Chica Ecological Reserve.
- b) The project will not conflict with any existing zoning for agriculture use.
- c) The project will not result in conversion of farmland to non-agricultural use.

III. AIR QUALITY.

ENVIRONMENTAL SETTING

The project site is within the South Coast Air Basin (SCAB), which includes Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. Air quality conditions in the Basin are under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing an Air Quality Management Plan (AQMP) for the Basin. The current AQMP was approved in 1997. Implementation of the AQMP is based on a series of control measures that vary by source type, such as stationary or mobile, as well as by the pollutant targeted. The AQMP is based on growth projections reflected in local general plans.

Emissions Standards. California and Federal Ambient Air Quality Standards are shown on Table III-1 below. In its CEQA Air Quality Handbook, the SCAQMD provides specific criteria for determining whether the potential air quality impacts of a project are significant. These thresholds are as follows:

Thresholds of Significance for Construction Emissions

- 75 pounds per day of ROC or 2.5 tons per quarter
- 100 pounds per day of NO_x or 2.5 tons per quarter
- 550 pounds per day of CO or 24.75 tons per quarter
- 150 pounds per day of PM₁₀ or 6.75 tons per quarter
- 150 pounds per day of sulfur oxides (SO_x) or 6.75 tons per quarter

Localized Criteria Pollutants Concentration Standards

- California State 1-hour standard of 20.0 ppm
- California State 8-hour standard of 9.0 ppm

TABLE III-1

Ambient Air Quality Standards							
Pollutant	Averaging Time	California Standards ¹		Federal Standards ²			
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷	
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	0.12 ppm (235 µg/m ³) ⁸	Same as Primary Standard	Ultraviolet Photometry	
	8 Hour	—		0.08 ppm (157 µg/m ³) ⁸			
Respirable Particulate Matter (PM ₁₀)	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation*	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m ³ *		50 µg/m ³			
Fine Particulate Matter (PM _{2.5})	24 Hour	No Separate State Standard		65 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m ³ *	Gravimetric or Beta Attenuation*	15 µg/m ³			
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m ³)	None	Non-Dispersive Infrared Photometry (NDIR)	
	1 Hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)			
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—			
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	—	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m ³)	Same as Primary Standard	Gas Phase Chemiluminescence	
	1 Hour	0.25 ppm (470 µg/m ³)		—			
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (80 µg/m ³)	—	Spectrophotometry (Pararosaniline Method)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (365 µg/m ³)			
	3 Hour	—		—			0.5 ppm (1300 µg/m ³)
	1 Hour	0.25 ppm (655 µg/m ³)		—			—
Lead ⁹	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	Same as Primary Standard	High Volume Sampler and Atomic Absorption	
	Calendar Quarter	—		1.5 µg/m ³			
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards			
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography*				
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence				
Vinyl Chloride ⁹	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography				

* On June 20, 2002, the Air Resources Board approved staff's recommendation to revise the PM₁₀ annual average standard to 20 µg/m³ and to establish an annual average standard for PM_{2.5} of 12 µg/m³. These standards will take effect upon final approval by the Office of Administrative Law, which is expected in February 2003. Information regarding these revisions can be found at <http://www.arb.ca.gov/research/aaqs/std-rs/std-rs.htm>.

See also footnotes on next page ...

California Air Resources Board (1/9/03)

TABLE III-1 Continued

1. California standards of ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter-PM10, PM2.5, and viability reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when 90 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a 'consistent relationship to the reference method' and must be approved by the EPA.
8. New Federal 8-hour ozone and fine particulate matter standards were promulgated by U.S. EPA on July 18, 1997. Contact U.S. EPA for further clarification and current federal policies.
9. The ARB has identified lead and vinyl chloride as toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

WOULD THE PROJECT*:	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
a) Conflict with or obstruct implementation of the applicable air quality plan or regulation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations (e.g., children, the elderly, individuals with compromised respiratory or immune systems)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

* Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make these determinations.

DISCUSSION

a) Since the AQMP is based on growth projections reflected in local general plans, only new or amended general plans, or projects that exceed the level of development contemplated in the general plan have the potential to conflict with the AQMP. The proposed project would have no effect on growth or development, therefore no conflict with the AQMP would occur.

b) The project would result in short-term emissions during construction and periodic disking to prepare the grassland area (e.g., dust, construction equipment exhaust). No change in long-term emissions levels would be expected.

Tables 6-2 and 6-3 of the AQMD CEQA Handbook provide guidance for determining whether a project could exceed these thresholds of significance during construction or operations. For construction emissions, the threshold for grading is 177 acres. The proposed project would result in less than 120 acres of disturbed area, therefore the project is below the threshold of significance for grading activities. In addition, all disking will be done with an irrigation source so that all exposed soils will be watered down to eliminate potential dust.

c) See discussion in Section III.a, above. In addition, the tractor and all construction-related equipment engines will be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with all State and federal requirements.

d) Sensitive receptors include reserve visitors and residential neighborhoods. Although the project site would generate construction and tractor emissions in close proximity to a recreational area, these emissions would be less than significant due to the temporary nature of the construction and disking operations, as discussed in Section III.a, above. No mitigation is necessary other than compliance with standard AQMD dust suppression and construction equipment requirements.

e) Diesel-powered equipment could cause odors and emissions that may be offensive to sensitive persons. The closest sensitive uses to the project area are recreational trails in the Ecological Reserve adjacent to the restoration site. This would be a temporary impact, however, and would be minimized by existing AQMD regulations requiring proper maintenance of vehicle engines and exhaust systems, and therefore is not considered significant.

IV. BIOLOGICAL RESOURCES.

ENVIRONMENTAL SETTING

Non-native grassland and ruderal weed species dominate the lower mesa. There is approximately 110 acres of this habitat. In addition, a few specimens of endangered tarplant (*Centromadia parryii ssp. australis*), and numerous specimens of the more common fascicled tarplant (*Deinandra fasciculata*) can be found adjacent to the trails on the southwest (inside and outside of the security fence) and northeast sides of the mesa. On the southeast side of the mesa, just outside of the fence, is a stand (4.4 acres) of remnant coastal sage scrub (css). This stand has an overstory of eucalyptus trees and is dominated by *Encelia californica*, *Isomeris*, *Opuntia* and *Atriplex*. The approximately 9 acres of the southwestern edge of the Mesa has been restored with functioning coastal sage scrub habitat resulting from a 13 year project by the Bolsa Chica Land Trust.

Over the entire Bolsa Chica Ecological Reserve more than 200 bird species can be found throughout the year. The following are sensitive raptors which use the project area for foraging: White tailed kite (*Elanus leucurus*) - California Fully Protected; Loggerhead Shrike (*Lanius ludovicianus*) - California Species of Special Concern; California Gnatcatcher (*Poliophtila californica californica*) - Federal Threatened; Burrowing Owl (*Athene cunicularia*) - California Species of Special Concern; Cooper's Hawk (*Accipiter cooperii*) - California Watch List; Merlin (*Falco columbarius*) - California Watch List; Northern Harrier (*Circus cyaneus*) - California Species of Special Concern; Osprey (*Pandion haliaetus*) - California Watch List, among others. In addition, wintering and migrating birds have been known to use the project site as well as the adjacent wetlands.

Lizards are abundant; several species can be found in the sparse grassland inhabiting the gopher holes. They include side-blotched lizard (*Uta stansburiana*), western fence lizard (*Sceloporus occidentalis*), and southern alligator lizard (*Elgaria multicarinatus*). Silvery legless lizards (*Aniella pulchra*) have been found near the bluffs on the south side of the lower mesa. They are considered a "sensitive" species, but are frequent finds, indicating they may be abundant on the lower mesa. There are numerous snake species on the lower mesa. The most

common snake is the southern Pacific rattlesnake (*Crotalus viridis helleri*). Also found in abundance are the gopher snake (*Pituophis melanoleucus*) and to a lesser degree the common king snake (*Lampropeltis getulus*).

The largest mammal ground predator is the coyote (*Canis latrans*), which has been seen often around the *Baccharis* patches and the eucalyptus ESHA. There are no sensitive mammals on the Mesa.

The California Coastal Commission has designated two Environmentally Sensitive Habitat Areas (ESHAs) on the mesa; the Warner Pond, a small wetland that was cut off from Huntington Beach Harbor by the construction of Warner Avenue on the north end of the project site and the Eucalyptus and palm tree grove that supports nesting raptors and herons on the south end of the site.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a sensitive, candidate, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands, as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) Southern Tarplant (*Centromadia parryi subsp. australis*) List 1B.1 by the California Native Plant Society - Inventory of Rare and Endangered Plants of California (CNPS 2003, CNPS 2006) is found on the Lower Bench of the Bolsa Chica Mesa. Disturbance from this project may affect the seed bank of this species, however with mitigation methods discussed below this project will enhance and expand the Tarplant habitat overall.
- b) The goal of this project is to enhance native habitat on the site and has been designed to avoid adverse effects on any native habitat currently present.
- c) Wetlands on the project site include the Warner Pond and ruderal mulefat scrub developing at the base of the upper mesa due to landscape irrigation runoff from the housing development on top of the mesa. Grading for the project will avoid these areas. Non-native vegetation will be removed from Warner Pond and replaced with native vegetation propagated from on-site stock. Native seasonal ponds will also be created at the site as part of the restoration effort. Access to the project site will be from Warner Avenue or the reserves existing trails, avoiding the surrounding wetlands. This project will have no adverse effect to any wetland.
- d) The project is designed to be as least impactful on existing wildlife as possible. The project is phased and activities controlled so that the use of the site by existing wildlife is not expected to be impeded. The project design invites wildlife to utilize the work areas and plant nursery site while restoration project is in progress, as well as when it is completed. All work on site will be during daylight hours, thus allowing undisturbed use by wildlife at night.
- e) This project will not conflict with any local policies or ordinances. The Terra Farms where most of the activities are concentrated would be located more than 100' from the edge of both ESHA's in accordance with Coastal Commission requirements, and so would not conflict with the California Coastal Act.
- f) The site is not located within an NCCP area. This project does not conflict with any conservation plan.

MITIGATION MEASURE BIO-1

- Southern Tarplant is found on the Bolsa Chica Mesa, specifically in recently disturbed areas. The disturbance resulting from this project may affect the seed bank of this species, however the restored native grassland component of this project is the preferred habitat at Bolsa Chica for the Southern Tarplant. This project incorporates two acres which will be designated specifically for Southern Tarplant propagation and seed harvesting. The harvested seed will be then incorporated into the restored 65 acre native grassland. The expected result is an enhanced habitat for the Tarplant and increased numbers of the plant species on site.

V. CULTURAL RESOURCES.

ENVIRONMENTAL SETTING

The Bolsa Chica Mesa is considered to be of historical significance to Native American communities and is known for its historic use by Native Americans. One archaeological site, CA-ORA-78/H, has been recorded within the project area (McKenna 1986; Ross and McCurdy 1970; Syda, et al. 1994; Van Bueren and Sorensen 1988; Weber 1991). This site contains the remnants of the Bolsa Chica Gun Club, as well as a prehistoric component. Two archaeological sites have been recorded adjacent to the southeastern portion of the project area: CA-ORA-289 and CA-ORA-84. Three sites have been recorded within the adjacent upper bench to the northeast: CA-ORA-85, CA-ORA-83/86/144, also known as the "Cogged Stone Site, and CA-ORA-288.

In compliance with the California Environmental Quality Act (CEQA) and Public Resources Code 5024, local Native American representatives were consulted and a systematic archaeological survey was conducted to determine whether archaeological sites are present and to provide recommendations for management planning (Dr. Patricia Martz, LSA Associates May 2010). Six shell scatters and one previously recorded site were identified and mapped.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Cause a substantial adverse change in the significance of a historical resource, as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource, pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

- a) This project will plant native trees in the vicinity of the historic Bolsa Chica Gun Club site, but will not cause an adverse change in the significance of the historical resources of the Bolsa Chica Mesa.
- b) There are recorded archaeological sites on the east and south periphery of the project site. This project avoids these recorded sites. The project site had been used for agriculture for several decades in the 20th Century, with a historical disking depth of twenty four inches. To reduce the risk of unearthing archaeological evidence this project has been specifically designed to not disturb the soil beyond a depth of twenty four inches. However, any ground disturbance may unearth previously buried evidence of Native American habitation. Implementation of Mitigation Measure Cult-1 will reduce any potential impact to less than significant.

- c) There are known Native American burial sites within 100 yards of the proposed project. This restoration plan has been shared with members of the local Native American community and has their support. Implementation of Mitigation Measure Cult-2 will reduce any potential impact to less than significant.

MITIGATION MEASURE CULT-1

A Native American monitor and Archaeologist will be present for all ground-disturbing activities during the construction phase (e.g. terra farm creation grading activities). In the event that previously undocumented cultural resources (including but not limited to dark soil containing shellfish, bone, flaked stone, groundstone, or deposits of historic trash) are encountered during proposed project construction by anyone, the Bolsa Chica Land Trust or Reserve Manager will temporarily halt work at that specific location and direct contractors to other proposed project-related tasks. The Project Archaeologist will record and evaluate the find and coordinate to implement avoidance, preservation, or recovery measures as appropriate prior to any work resuming at that specific location.

MITIGATION MEASURE CULT-2

A Native American monitor and Archaeologist will be present for all ground-disturbing activities during the construction phase (e.g. terra farm creation grading activities). In the event that human remains are discovered, work will cease immediately in the area of the find and the project manager/site supervisor will notify the State Reserve Manager. Any human remains and/or funerary objects will be left in place or returned to the point of discovery and covered with soil. The County Coroner will be notified, in accordance with §7050.5 of the California Health and Safety Code, as well as the Native American Heritage Commission (or Tribal Representative). If a Native American monitor is on-site at the time of the discovery, the monitor will be responsible for notifying the appropriate Native American authorities.

The local County Coroner will make the determination of whether the human bone is of Native American origin. If the Coroner determines the remains represent Native American interment, the Native American Heritage Commission and/or tribe will be consulted to identify the most likely descendants and appropriate disposition of the remains. Work will not resume in the area of the find until proper disposition is complete (PRC §5097.98). No human remains or funerary objects will be cleaned, photographed, analyzed, or removed from the site prior to determination.

VI. GEOLOGY AND SOILS.

ENVIRONMENTAL SETTING

The site is not located in an Alquist-Priolo zone, although the Newport-Inglewood Fault Zone is runs through the site. The mesa is divided into an upper and lower bench by the potentially active “North Branch” of the fault that traverses northwest to southeast, generally following the bluffs. Seismic activity during the Pleistocene Epoch caused the mesa’s uplift of approximately 60-feet above sea level to its present elevation. The lower bench is approximately 30-feet above sea level.

The Bolsa Chica mesa subsurface soils consist of alluvial, marine, and locally Aeolian (wind bourn soils) deposits of highly interbedded layers and lenses of silt, sand, and clay. Eight agronomic soils analyses were conducted on the mesa for agricultural suitability. Samples were taken and analyzed at 12-inches and 3-foot depths. An additional sample was taken from an existing reference/control site of coastal sage scrub located southeast of the mesa. Site soils are compacted and uniform and will restrict plant growth due to insufficient soil moisture. The top 12-inches of soil are slightly acidic (6.12 pH avg.), the deeper soil is highly alkaline (8.45 pH avg.) and the salinity increases with depth. The organic content is moderate near the surface and decreases with depth. The soil fertility near the surface is high but diminishes below a depth of one foot. Sodium is low in the first foot but increases with depth. The soils in the top 12-inches are friable (cause by abundant gopher activity) but decreases rapidly below 12-inches. Grass roots are found in the top 12 inches; however, few roots are found below a depth of 12 inches.

WOULD THE PROJECT:	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area, or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable, as a result of the	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems, where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

DISCUSSION

- a) The project site is in an open area and the only structures will be the shade canopies for the project's nursery and composting units, and two shipping containers used for storage. In the event of an earthquake, the canopies could collapse causing minor injury to anyone standing near them, but uncluttered open space is immediately adjacent to which one could easily escape. Although bordering a known earthquake fault this project will not significantly increase risk exposure from any earth movement.
- b) One of the components of this project is the restoration of the soil on the entire 120 acre site. Prior to the start of construction, Contractor will prepare a Water Pollution Control Plan (WPCP) Department of Fish and Game approval that identifies the Best Management Practices to be used in all construction areas to reduce or eliminate the discharge of soil, surface water runoff, and pollutants during all excavation or grading. BMP's must be in place at all times including covering (tarping) any stockpiled materials or soils and by constructing silt fences, straw bale barriers, fiber rolls, or other structures around stockpiles and disturbed areas. Erosion or loss of topsoil will not result from this project.
- c) There is no risk of soil instability or landslide during the construction of this project or resulting there from.
- d) This project is not located on expansive soil.
- e) The project will involve the use of the two port-a-potties, but will not involve the use of septic tanks.
- f) This project will not directly or indirectly destroy or affect any paleontological resource or site, or any unique geologic feature.

VII. GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL SETTING

The California State Legislature has proposed and the Governor has approved laws and policies to reduce the amount of Greenhouse Gas (GHG) generated each year. Global Warming Solutions Act (AB 32), passed in 2006, requires statewide GHG emissions in California be reduced to 1990 levels by the year 2020 and requires the California Air Resources Board (CARB) to adopt rules and regulations to achieve this goal. CARB has developed the Climate Change Scoping Plan (Scoping Plan) California's roadmap to reach the GHG reduction goals required in AB 32. The Scoping Plan has several strategies and recommended measures to reduce GHG emissions.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environmental?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

a) Equipment used in construction including delivery trucks, crew trucks, backhoes, grades, could contribute to a temporary increase in CO₂ and N₂O levels, both components of GHG. Integration of Mitigation Measure Air-1 into the project and the temporary nature of the construction work would be a less than significant impact on the generation of GHG emissions.

b) The restoration project is specifically designed to demonstrate greenhouse gas reduction methods by incorporating green methods and materials and utilizing alternative energy sources including solar and wind energy. This project would therefore result in no impact to greenhouse gas emissions.

VIII. HAZARDS AND HAZARDOUS MATERIALS.

ENVIRONMENTAL SETTING

There are no known hazards or hazardous materials on or within the project site. Several soil samples and an archeological survey were done of the site in recent years and no hazards or hazardous materials were observed.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials, substances, or waste into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites, compiled pursuant to Government Code §65962.5, and, as a result, create a significant hazard to the public or environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport? If so, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be located in the vicinity of a private airstrip? If so, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death from wildland fires, including areas where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) No routine use, transport or disposal of hazardous materials is proposed in connection with the operation of the project.
- b) During construction, gasoline- and diesel-powered equipment would be used. In the event of an accident, gasoline or diesel fuel could be spilled. Standard public works construction provisions (the “Green Book”) would require that the contractor follow proper site maintenance and spill cleanup procedures to minimize health hazards.
- c) The only hazardous emissions generated by this project will be the exhaust of the grading equipment during construction and from one small to medium sized diesel tractor used on site. A battery array of 6 -8 Sun Extender batteries with a variety of 2, 16, 12 volt batteries (Concord Battery Corp.) will be housed in the storage containers, which will be locked when not in use and aerated pursuant to manufacturers instruction. These sealed lead acid batteries will be used in conjunction with the solar array and wind turbine used to power the pumps and equipment the project will utilize. There is no school located, or proposed, within a one-quarter mile of this project. At the completion of this project all batteries will be removed from the project site and disposed of properly.
- d) The Bolsa Chica Mesa is not listed as a hazardous materials site.
- e) The Bolsa Chica Mesa is more than ten miles from the nearest public airport and is not included within any airport land use plan.
- f) The Bolsa Chica Mesa is not located in the vicinity of any private airstrip.
- g) This project, and the resulting restored habitat area, will not impair or physically interfere with any emergency response or evacuation plan for the surrounding community.
- h) The Bolsa Chica Mesa is currently 90% covered by non-native grasses, which is considered a flashy fuel, quick to ignite. Spark arrestors or turbo chargers (which eliminate sparks in exhaust) and fire extinguishers will be required for all heavy equipment. At the end of each workday, heavy equipment and the tractor will be parked over mineral soil, asphalt, or concrete to reduce the chance of fire.

IX. HYDROLOGY AND WATER QUALITY.

ENVIRONMENTAL SETTING

Approximately 80% of the lower mesa drains to Warner Avenue, of which 50% drains to Warner Pond and the remainder towards Outer Bolsa Bay. The remaining 20% drains northeast toward the Little Pocket wetland. With the exception of Warner Pond, all other water found on the project site is seasonal rain water.

Warner Avenue Pond is designated an Environmental Sensitive Habitat Area by the California Coastal Commission consisting of open salt water and limited pickle weed habitat. The USFWS (1982) described the pond as a remnant of the Anaheim Bay estuarine system that existed prior to development of the Huntington Harbor.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place structures that would impede or redirect flood flows within a 100-year flood hazard area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
i) Expose people or structures to a significant risk of loss, injury, or death from flooding, including flooding resulting from the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Result in inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) This project will not affect water quality or waste discharge.
- b) This project is designed to capture and detain rainfall in the vicinity of the Terra Farms in bio-swales for percolation into the soil so will not affect groundwater supplies nor interfere substantially with groundwater recharge.
- c) There is no stream or river on the project site. For each of four Terra Farms no more than 800 cubic yards of cut and fill will be required and designed to conform to the existing drainage pattern as much as possible. The slopes of the created mounds will be gentle and planted with vegetation. The goal is to retain runoff on site. The project will not significantly alter the overall existing drainage of the site nor significantly increase the on- or off- site erosion or siltation.
- d) A component of this project is to create seasonal ponded areas as a benefit for diverse native habitat and as a means to slow erosion of a section of Mesa bluff edge. However, the project will not substantially increase the rate or amount of surface runoff.
- e) A component of this project is the collection and utilization of water on-site. No additional run off of any kind will be resulting from this project. It is expected that less run off, and resulting decrease in erosion, will occur from this project.
- f) Water quality will not be adversely affected by this project.
- g) No housing will be created through this project.
- h) The Flood Insurance Rate Map (FIRM) for Orange County, California indicates that the project site is located in Zone X, with most of the project site in an area determined to be outside the 0.2% annual chance of flood. The northern portion of the site is within the 0.2% annual chance of flood to depths averaging one foot or less (Map No. 06059C0233J, dated 12/3/2009). Although the proposed project would partially lie within the 100-year flood zone, it would not significantly impede or redirect flood waters. The nursery structure and composting units will be situated so as to not impede or redirect flood flows.
- i) This project will not expose people or structures to any form of flooding resulting from the project. No levees or dams will be impacted by this project.

- j) This project will not increase the threat of seiche, tsunami, or mudflow to any community.

X. LAND USE AND PLANNING.

ENVIRONMENTAL SETTING

The entire project site is owned by the California Department of Fish and Game and is within the Bolsa Chica Ecological Reserve. This project conforms with CDFG rules and regulations for Ecological Reserves. The Bolsa Chica Ecological Reserve is Unincorporated land within the County of Orange. The Orange County General Plan Land Use Element and Zoning Code designate the Bolsa Chica Ecological Reserve as Open Space.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with the applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) This project will not divide an established community.
- b) The Orange County General Plan Land Use Element and Zoning Code designate the Bolsa Chica Ecological Reserve as Open Space. This project does not conflict with any land use policy.
- c) The project site is not within an NCCP or HCP area. This project does not conflict with any habitat conservation plan.

XI. MINERAL RESOURCES.

ENVIRONMENTAL SETTING

No known mineral resources exist within the project area.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Result in the loss of availability of a known mineral resource that is or would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) There is no known mineral resource on the project site.
- b) There is no known mineral resource on the project site.

XII. NOISE.

ENVIRONMENTAL SETTING

The project site is open space, dominated by non-native vegetation. There is no source of noise emanating from the project site currently. However, Warner Avenue on the north side of the project area generates considerable amount of traffic noise.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Generate or expose people to noise levels in excess of standards established in a local general plan or noise ordinance, or in other applicable local, state, or federal standards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generate or expose people to excessive groundborne vibrations or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Create a substantial permanent increase in ambient noise levels in the vicinity of the project (above levels without the project)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- d) Create a substantial temporary or periodic increase in ambient noise levels in the vicinity of the project, in excess of noise levels existing without the project?
- e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport? If so, would the project expose people residing or working in the project area to excessive noise levels?
- f) Be in the vicinity of a private airstrip? If so, would the project expose people residing or working in the project area to excessive noise levels?

DISCUSSION

- a) A short-term noise increase during construction would be expected to occur from the use and transport of equipment in constructing the Terra Farms and Nursery, and during the three disking events per year. The closest noise-sensitive land use is the Hearthsides Homes residential development, approximately 100 feet up slope east of the site. In addition, construction noise could disturb wildlife in the ecological reserve. Implementation of Mitigation Measure N-1 below will reduce construction and disking noise to a level that is less than significant.
- b) As noted in the previous section, a short-term increase in groundborne vibration and noise would be expected to occur during construction and disking operations. However, limitations on allowable hours of construction would reduce this impact to a level that is less than significant.
- c) No substantial permanent increase in ambient noise levels will result from this project. The project site is bordered by heavily used public roads and residential communities which consistently generate much greater noise levels.
- d) See XII.a.
- e) The project site is located on an existing Ecological Reserve. There is no airport use plan for the area and the two public airports which service the surrounding communities are both more than 10 miles from the project site. This project will not expose people to or create excessive noise levels.
- f) The project site is not in the vicinity of a private airstrip.

MITIGATION MEASURE NOISE 1

- *In order to minimize construction noise impacts on adjacent properties, all construction equipment shall be equipped with proper mufflers maintained in good working order, and construction shall be limited to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. through 5:00 p.m. on Saturday. These requirements shall be incorporated into the approved Plans and Specifications and compliance shall be monitored and enforced by BCLT's construction manager.*

XIII. POPULATION AND HOUSING

ENVIRONMENTAL SETTING

The project site is within the boundaries of the Bolsa Chica Ecological Reserve and no structures currently exist on the property.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) This project would not induce substantial population growth in any manner, the project site is part of the Bolsa Chica Ecological Reserve.
- b) This project will not displace any housing.
- c) This project will not displace any person.

XIV. PUBLIC SERVICES.

ENVIRONMENTAL SETTING

The project is located within a State Ecological Reserve and contains minor public facilities such as trails, parking, interpretive features, and chemical toilets. Public Services such as police and fire protection are provided for by either the City of Huntington Beach or County of Orange. In addition, as a State property Department of Fish and Game provides law enforcement.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Result in significant environmental impacts from construction associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) This project will not result in the need to modify existing or create new governmental facilities or cause any stress on existing public services.

XV. RECREATION.

ENVIRONMENTAL SETTING

The Bolsa chica Ecological Reserve provides wildlife dependent recreational activities such as nature study. The existing trails on the southeast and southwest sides of Mesa are frequently used by the public and are adjacent to the wetlands providing numerous wildlife observation opportunities. To further public awareness and education there is one interpretive node and three informational kiosks that service the portion of the lower mesa to which the public has access.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DISCUSSION

- a) A pedestrian trail will be developed on the Mesa edge parallel to Warner Avenue over soil that is currently covered with non-native vegetation thereby creating a trail loop around the restoration area. This should result in distributing trail use, thus reducing impacts to the existing trails. The project and public trails developed as a component of this project will not increase the use of existing neighborhoods or other parks or recreational facilities.
- b) A component of this project is the creation of additional public trails for pedestrian recreational activities (wildlife viewing). This may lead to increased disturbance to wildlife or habitat in the vicinity of the trail, even though the trail is being located on the periphery of the restoration site. Incorporation of Mitigation Measure R-1 below will reduce potential impacts to less than significant.

MITIGATION MEASURE RECREATION 1
<ul style="list-style-type: none"> ▪ The trail segment be constructed will be a raised boardwalk or delineated with a fence if the Department of Fish and Game deems it necessary to protect the seasonal wetlands being created or to contain public on the trail to avoid impacts to wildlife or their habitat.

XVI. TRANSPORTATION/TRAFFIC.

ENVIRONMENTAL SETTING

Access to the project area is via Pacific Coast Highway and Warner Avenue and parking is provided by two small parking lots located on the Reserve. The Reserve sees over 35,000 visitors each year who arrive by car, bus or on foot from neighboring communities.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Cause a substantial increase in traffic, in relation to existing traffic and the capacity of the street system (i.e., a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, individually or cumulatively, the level of service standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Cause a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Contain a design feature (e.g., sharp curves or a dangerous intersection) or incompatible uses (e.g., farm equipment) that would substantially increase hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) The Bolsa Chica Ecological Reserve, and this project site contained within, is bordered by heavily traveled streets and highway. This project will not increase traffic in any substantial way either during construction or during operation.
- b) This project will not contribute to any congestion of roads or highways.
- c) This project will not cause any change in air traffic or contribute to air safety risks.
- d) A tractor will be utilized in this restoration project, but not in areas open to the general public. Only approved, trained and licensed individuals will be permitted to operate the tractor.

- e) Emergency access will not be impeded by this project.
- f) The Bolsa Chica Ecological Reserve has very limited parking. The Department of Fish and Game maintain a calendar of restoration activities and tours so as to best manage parking areas. The Bolsa Chica Land Trust does secure additional parking off site for volunteers when available, and will continue to assist CA DFG in managing activities on site so as to have parking for project volunteers and staff.
- g) This project will in no way conflict with methods of alternative transportation.

XVII. UTILITIES AND SERVICE SYSTEMS.

ENVIRONMENTAL SETTING

Currently, there are no utilities or services systems on the project area.

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Exceed wastewater treatment restrictions or standards of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Would the construction of these facilities cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Would the construction of these facilities cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination, by the wastewater treatment provider that serves or may serve the project, that it has adequate capacity to service the project's anticipated demand, in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- g) Comply with federal, state, and local statutes and regulations as they relate to solid waste?

DISCUSSION

- a) No wastewater would be generated by the proposed project.
- b) No wastewater would be generated by the proposed project.
- c) This project will not require the construction of new storm water drainage facilities.
- d) A component of the project is to install a water meter to existing city water lines on Warner Avenue and install above ground irrigation lines, in addition to water harvesting equipment, to service the site with water. Sufficient water supplies are available to the project site.
- e) This project will not create any wastewater that will need treatment, so no wastewater treatment provider is necessary.
- f) Landfill services will not be required for this project as it will have limited solid waste disposal need.
- g) This project does comply with federal, state, and local statutes and regulations in regards to solid waste as none will be created via this project.

CHAPTER 4

MANDATORY FINDINGS OF SIGNIFICANCE

	<u>POTENTIALLY SIGNIFICANT IMPACT</u>	<u>LESS THAN SIGNIFICANT WITH MITIGATION</u>	<u>LESS THAN SIGNIFICANT IMPACT</u>	<u>NO IMPACT</u>
WOULD THE PROJECT:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have the potential to eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means the incremental effects of a project are considerable when viewed in connection with the effects of past projects, other current projects, and probably future projects?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have environmental effects that will cause substantial adverse effects on humans, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

DISCUSSION

- a) This restoration project is to be undertaken to greatly improve the habitat for all native species of wildlife at Bolsa Chica. The Lower Bench of the Bolsa Chica Mesa even in its current highly degraded state does provide for many native species of wildlife. This project has been designed to be low impact, zero emissions, zero waste, and takes a unique approach to weed abatement so as to not disturb the wildlife currently on site. A multi-phased approach restricts restoration efforts to specifically targeted areas rather than affecting the entire Mesa all at the same time. Specific focus has been given to encouraging wildlife to co-exist with this restoration project from inception to completion. The projects greatest concern in this regard is for the continuation of Southern Tarplant on the Mesa. Incorporation of Mitigation Measure BIO-1 will reduce this impact to less than significant.
- b) This project does not have the potential to eliminate historical or archaeological significance from the site. Implementation of Mitigation Measures CULT-1 and CULT-2 minimize the potential for any significant impacts to cultural resources.
- c) This project will have no cumulatively considerable impacts.

d) This project will not cause environmental effects that will result in adverse effects on humans.

CHAPTER 5
MITIGATION MONITORING AND REPORTING PROGRAM

The following mitigation measures will be implemented by the responsible party indicated as part of the Lower Mesa Restoration Project.

<i>Mitigation Measure</i>	<i>Responsible Party</i>	<i>Completion Date</i>	<i>Initials</i>
<u>BIO-1</u> Southern Tarplant	<i>Project Manager and Nursery Manager</i>		
<u>CULT-1</u> Archaeological Monitoring	<i>Archeologist, Native American Monitor, Project Manager</i>		
<u>CULT-1</u> Archaeological Monitoring	<i>Archeologist, Native American Monitor, Project Manager</i>		
<u>NOISE-1</u> Construction Noise	<i>Project Manager, Contractors</i>		
<u>REC-1</u> Public trail	<i>Project Manager and Project Landscape Architect, CDFG Reserve Manager</i>		

CHAPTER 6 REPORT PREPARATION AND REFERENCES

LIST OF PREPARERS

Kim Kolpin, Director of Bolsa Chica Stewards, Bolsa Chica Land Trust
Karen Miner, Senior Environmental Scientist, California Department of Fish and Game
Guy Stovers, Landscape Architect, Stivers and Associates

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Cooperative Extensions, San Diego; Joseph M. Ditomaso, Cooperative Extension Weed Specialist, University of California, Davis; and Matthew L. Brooks, Research Botanist, Western Ecological Research Center, U.S. Geological Service, Fresno, CA.

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APPENDIX A
MAPS

APPENDIX B
PROJECT DESIGN GRAPHICS

APPENDIX C
SENSITIVE SPECIES LIST
