- the project is determined to be consistent with the resource protection policies contained in Chapter 3 of the Coastal Act.

4.12.3 Standard Conditions and Uniform Codes

The proposed project will be subject to all applicable goals and strategies of the General Plan pertaining to the mitigation of potential biological resource impacts.

4.12.4 Potential Impacts

The following section summarizes the expected impacts of the proposed project on biological resources and interprets these impacts within the regional context of southern Orange County. This section also provides a discussion of the key proposed mitigation components of the project as included in the Resource Management Plan (RMP) and as they apply to the Marblehead Coastal project.

Implementation of the key components in the RMP are intended to minimize and mitigate to the extent feasible impacts to biological resources. Further discussion regarding impacts determined to be less than significant and impacts determined to be potentially significant is provided below.

4.12.4.1 Impacts Determined to be Less Than Significant

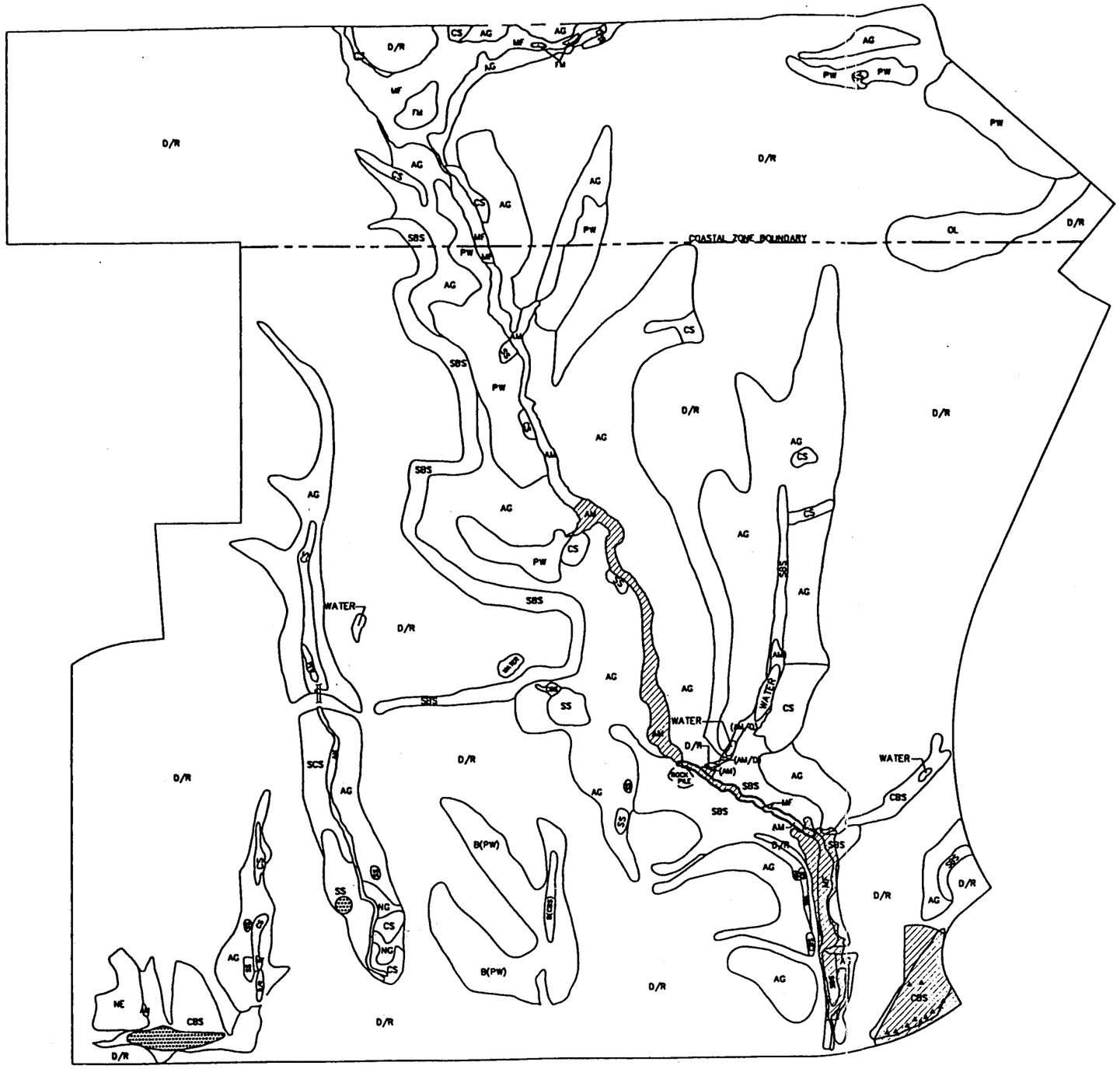
Short-Term (Construction) Impacts

The removal of vegetation and disruption of plant communities and habitats during the construction phase will constitute the primary impacts to plants and wildlife. Although such impacts will occur during the relatively short construction period, their effects are not temporary and will generally endure well into the future. Therefore, most impacts to biological resources are addressed under Long-Term (Operational) Impacts in Section 4.12.4.2. Additional discussion of construction-related effects is also provided in Section 4.12.4.2.

Long-Term (Operational) Impacts

Plant Life

Construction of the proposed project would result in the development of approximately 246.6 acres, or approximately 98 percent of the site. As shown on Exhibit 4.12-4 and summarized in Table 4.12-2, only small portions (approximately ~~16.7~~4.0 acres) of the existing habitats on the Marblehead Coastal site would remain after project construction. The remnant fragments would be isolated islands of low value habitat.



LEGEND

	HABITAT TYPES	MAP CODE	ORANGE COUNTY GIS CODE	TOTAL ACREAGE	DIRECT IMPACTS (AFFECTED) ACREAGE
SCRUB	COASTAL BLUFF	CBS	2.1	3.70	2.80
	SOUTHERN CACTUS	SCS	2.4	0.90	0.90
	SAGEBRUSH	SS	2.3.6	1.70	1.70
	COYOTE BUSH	CS	2.3.9	3.40	3.40
	SALTBRUSH SCRUB	SBS	2.7	8.70	8.10
GRASSLAND	ANNUAL	AG	4.1	42.78	42.68
	NEEDLEGRASS	NG	4.3	0.30	0.30
MARSH	ALKALI-ALKALI/DISTURBED	AM-AM/D	6.3	2.75	1.41
	FRESHWATER	FM	6.4	0.35	0.35
	STANDING WATER	WATER	-	0.40	0.40
RIPARIAN	MULEFAT SCRUB	MF	7.3	3.35	2.79
DEVELOPED	ORNAMENTAL LANDSCAPING	OL	15.5	2.00	2.00
DISTURBED/ RUDERAL	DISTURBED OR BARREN	D/R	16.1	168.32	167.82
	BURNED	B	16.3	-	-
OTHER	PINE WOODLANDS	PW	-	11.10	11.10
	NATURALIZED EXOTICS	NE	-	0.80	0.80
	ROCK PILE	ROCK PILE	-	-	-
TOTAL				250.55	248.55

IMPACTED AREAS

PRESERVED AREAS

BLOCHMAN'S DUDLEYA PRESERVED WITHIN RESTORATION AREA

BLOCHMAN'S DUDLEYA – OUTSIDE RESTORATION AREA

Not to Scale

Source: Natural Resource Consultants, 1997

TABLE 4.12-2

IMPACTS TO VEGETATION COMMUNITIES

Habitat Type	Existing Acres	Impacted Acres	Retained Acres
Coastal Bluff Scrub	3.70	2.80	0.9
Southern Cactus Scrub	0.90	0.90	0
Sagebrush Scrub	1.70	1.70	0
Coyote Bush Scrub	3.40	3.40	0
Saltbush Scrub	8.70	8.10	0.6
Annual Grasslands	42.78	42.68	0.10
Needlegrass Grasslands	0.30	0.30	0
Alkali Marsh	2.75	1.41	1.34
Freshwater Marsh/Open Water	0.35	0.35	0
Mulefat Scrub	3.35	2.79	~~0.60~~ 0.56
Ornamental	2.00	2.00	0
Disturbed	168.32	~~167.12~~167.82	0.5
Pine Woodlands	11.1	11.1	0
Natural Exotics	0.80	0.80	0
TOTAL	**250.55**	**246.55**	**4.00**
SOURCE: Natural Resource Consultants, 1997.			

Impacts to Sensitive Species

Implementation of the project would result in impacts to ~~a portion of~~ an existing population of Blochman's dudleya on the site. The transplantation area for this species would not be affected.

4.12.4.2 Impacts Determined to be Potentially Significant

Short-Term (Construction) Impacts

As noted previously, the majority of impacts to biological resources will occur during the construction phase of the project. In addition to the direct removal of vegetation any disruption of on-site habitats, construction activities have the potential to cause indirect impacts to those areas of the site that will be undisturbed by grading activities. Such impacts include potential harm to the existing gnatcatcher pairs during brush clearing, dust settlement on preserved coastal sage scrub vegetation, and disturbance of coastal sage scrub by construction personnel and

equipment. However, mitigation measures have been developed (see Section 4.12.5) which are intended to mitigate such potential impacts during the construction period.

Long-Term (Operational) Impacts

Plant Life

As listed in Table 4.12-2, implementation of the proposed project would result in the direct removal of scrub habitats (16.9 acres), freshwater marsh (0.35 acres), alkali marsh (1.41 acres), mulefat scrub (2.8 acres), and needlegrass grasslands (0.30 acre). These direct impacts are significant under CEQA, and appropriate mitigation measures should be implemented to offset these adverse effects. In addition, isolation of 1.5 acres of sage scrub habitats, alkali marsh (1.34 acres), and mulefat scrub (0.56 acres) is a significant indirect impact of the project.

Project development would result in a direct "take" of habitat supporting the coastal California gnatcatcher pair, and would directly affect ~~4.64~~4.55 acres of wetland habitats under the jurisdiction of the U.S. Army Corps of Engineers and California Department of Fish and Game. The impacted wetland habitat would include ~~2.96~~2.95 acres of wetlands located inland of the Coastal Zone boundary and ~~1.68~~1.6 acres of wetlands located within the Coastal Zone.

Animal Life

Implementation of the proposed project would directly remove habitat currently used by two pairs of coastal California gnatcatchers. This habitat loss would directly affect an occupied use-area and would be considered a "take" of a federally threatened species as defined by the federal Endangered Species Act. Typically, when a use-area is removed by project grading, the gnatcatchers are not directly harmed by grading actions. However, on the Marblehead Coastal site there is no available habitat for the displaced birds to relocate. This pair of birds could potentially perish as a result of project implementation. This adverse impact to a federally threatened bird species is potentially significant. As noted previously, an estimated ~~10~~12.9 acres of "occupied habitat" would be affected by implementation of the project. Chapter 5.0 addresses the significance of the proposed project's impacts to plan and animal life within the context of the policies included in Chapter 3 of the Coastal Act.

4.12.5 Mitigation Measures

Resource Management Plan

The RMP has been designed in support of the Marblehead Coastal Specific Plan to provide detailed information in: Identifying the existing biologic and physical site conditions and depicting the on-site and off-site biological restoration/enhancement measures that will be implemented by the Specific Plan. On-site enhancement and restoration efforts will partially offset on-site impacts to scrub and wetland habitats and fully mitigate impacts to the existing Blochman's dudleya populations that will be impacted by pre-project bluff stabilization efforts.

On-site mitigation/management measures are designed to focus enhancement, restoration and management of sensitive biological resources in Marblehead Canyon, as well as along and adjacent to the bluff in the southeast corner of the site. The proposed restoration plans will address on-site mitigation measures for coastal sage scrub, wetlands, a Dudleya reserve, and fire management. Off-site mitigation/management measures provide for mitigation of coastal sage scrub (CSS) and wetlands impacts which are not otherwise mitigated by on-site enhancement, restoration and creation measures.

Coastal Sage Scrub (CSS) Mitigation Strategies

Mitigation for impacts to the existing sage scrub resources should be designed to be consistent with the Natural Communities Conservation Plan for the Southern Subregion of Orange County. Mitigation alternatives should include on- or off-site revegetation, payment of a per-acre fee, or preservation of off-site sage scrub resources. Based on the isolation of the site, off-site alternatives for CSS protection, enhancement and restoration within large scale habitat preserves are biologically preferred to on-site mitigation strategies. Off-site mitigation under the NCCP program for the South Subregion is biologically preferred to on-site mitigation strategies as a means of providing for mitigation measures that will be effective over the long-term in maintaining subregional biodiversity and providing for the long-term survival of sensitive species. For instance, the prospects for long-term survival of coastal California gnatcatchers on-site is extremely low, whereas, contributing to enhancement/restoration and management of gnatcatcher habitat within the future South Subregion NCCP habitat reserve system would provide a meaningful contribution to the long-term survival of the species. Accordingly, mitigation for projects include a combination of on-site and off-site measures for both sage scrub and wetland habitat impacts.

Mitigation measures for impacts to sage scrub habitats should focus on compensation for removal of the patches of sage scrub and expected "take" of "occupied habitat" for the coastal California gnatcatcher (approximately ~~10~~12.9 acres). Although a regional coastal sage scrub conservation plan has not been completed for this area, the mitigation plan should be consistent with the anticipated regional conservation plan as described below.

Mitigation measures for past and expected impacts to Blochman's dudleya would be offset by continued implementation of the transplantation plan for this species (RECON 1996). Transplantation and salvage of approximately ~~10,000~~3,600 plants was initiated in 1996 and the goal of the program is to create a population of 10,000 plants. The plants within the relocation area will be maintained and monitored for at least three years.

At this time processing of development projects potentially removing coastal sage scrub follows a two-step review process. Initially, a biological resources assessment should be prepared and submitted to the City of San Clemente and County of Orange EMA for review. The EMA will review the consistency of the proposed action with their regional conservation plan and, if it is acceptable, the County and project applicant will together approach the USFWS for approval. The approval will include preparation and submittal of a Statement of Findings to the USFWS evaluating the consistency of the plan with the NCCP for this region.

The interim take permit Statement of Findings evaluates the proposed project and associated mitigation measures according to the criteria for interim take established by the NCCP Processing Guidelines (CDFG 1993). To approve an interim "take" the following findings must be made:

- The habitat loss does not cumulatively exceed the five percent guideline;
- The habitat loss will not preclude connectivity between areas of high habitat value;
- The habitat loss will not preclude or prevent the preparation of a subregional NCCP;
- The habitat loss has been minimized and mitigated to the maximum extent practicable;
- The habitat loss will not appreciably reduce the likelihood of the survival of and recovery of listed species in the wild; and
- The habitat loss is incidental to otherwise lawful activities.

These criteria allow biologists, planners, and land owners to evaluate the consequences of a project to coastal sage scrub resources and Target Species (coastal California gnatcatcher, cactus wren, and orange-throated whiptail) on a regional basis and implement land use policies accordingly. This analysis combined with information on anticipated impacts to site-specific resources forms the basis for approval of an "interim take" decision by the City of San Clemente, CDFG, and USFWS. The mitigation program for the Marblehead Coastal project should be formulated to satisfy the above-described criteria and fulfill the project goals.

On-site mitigation alternatives, such as revegetation on graded slopes, are feasible and may be designed to adequately replace, to some extent, the affected habitats "in kind". However, the intent of the NCCP is to establish a preserve system that supports the diversity of species and habitats of this region. Providing all mitigation on-site is not consistent with this goal and would not contribute to regional biological values.

On-Site Measures

On-site measures provided for under the RMP include restoration and enhancement of coastal sage scrub and related scrub habitats within the Marblehead Canyon and Dudleya transplant areas, as well as the preservation, restoration and enhancement of existing wetlands within Marblehead Canyon and the proposed park. On-site measures include:

Coastal Sage Restoration/Revegetation: The biological assessment performed on the site indicated that a total of 16.9 acres of sage scrub habitat will be directly impacted by the Marblehead Coastal development, including salvage of coastal sage scrub plant species and planting at the Dudleya Reserve, Marblehead Canyon, and perhaps elsewhere on-site. The RMP outlines on-site restoration of 10 acres of sage scrub habitat, to be located on the lower slopes of Marblehead Canyon and in a Dudleya reserve area located on the site's southeast corner. The balance of mitigation for sage scrub and impacts to the two

pairs of gnatcatchers will take place off-site through participation in the Natural Community Conservation Plan (NCCP) program within the context of a subregional strategy.

Needlegrass Transplantation: The 0.30 acres of impacted needlegrass grasslands will be transplanted within Marblehead Canyon and/or within the buffer area surrounding the Blochman's dudleya reserve located on-site;

Dudleya Reserve and Restoration: An on-site reserve area has been created for the sensitive Dudleya blochmaniae to provide mitigation for the pre-project grading operations required to stabilize the unstable slopes and proposed project impacts. Collection, storage, and transplanting of dudleya has taken place for transplant to the reserve in the southeastern portion of the site. Dudleya will be relocated to this area, as well as other appropriate plants of the coastal bluff scrub community, in accordance with Coastal Development Permit 5-97-136.

Wetlands Restoration/Creation: The wetland delineation for the site indicates 6.45 acres of jurisdictional wetlands and 0.37 acre waters of the U.S. on-site, the largest of which is the alkali marsh/freshwater marsh complex located in Marblehead Canyon. Portions of the existing wetlands located within Marblehead Canyon and the public park will be preserved and expanded as a part of the proposed Marblehead Specific Plan. Retention of the central portion of the canyon in a natural state presents the opportunity to preserve and enhance the existing alkali marsh area and provide a flood control function which slows flows coming from the development and areas upstream prior to outletting to downstream facilities at El Camino Real. Approximately 4.4 acres of existing, restored, and enhanced wetlands will be provided in the Marblehead Canyon under the proposed RMP. A total of 2.5 acres of on-site wetlands are created and 1.9 acres of wetlands are retained and enhanced.

Fuel Modification Concept (Fire Management) and Habitat Creation: As with all developments where residential uses are located adjacent to open space areas, fire hazard is an issue in the Marblehead Coastal community. The City of San Clemente has adopted the County of Orange's Fuel Modification guidelines, which will be modified with consultation with the Fire Authority for use in this project. As part of the revegetation of the project, native plants will be included in the fuel modification concept.

Off-Site Measures

Off-site measures proposed under the RMP takes the form of participation by the City and landowner in the South Subregion NCCP/Habitat Conservation Plan (HCP) now being prepared by the County of Orange in cooperation with the California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS). Off-site measures are described below:

Coastal Sage, Gnatcatcher, and Wetland Habitat Measures: Habitat currently occupied by coastal California gnatcatcher will be removed. Mitigation for impacts to habitats occupied by the coastal California gnatcatcher and wetlands will be provided via a combination of on-site and off-site mitigation, consisting of creation of coastal sage scrub habitat and wetland within Marblehead Canyon, and participation in the South Subregion NCCP. With regard to off-site mitigation, as a participating landowner, the property owner will contribute to an endowment which will fund implementation of a subregional conservation strategy designed to provide protection of large contiguous areas of habitat in a designated preserve of subregional significance. This off-site mitigation approach is consistent with the NCCP Conservation Guidelines and is appropriate due to the size and fragmented nature of the on-site gnatcatcher habitat, the lack of connection to other large habitat areas, and the presence of urban development surrounding the site.

In addition to the preservation/restoration of 4.4 acres of on-site wetlands, additional off-site mitigation will be provided by funding for creation/restoration of 6 acres of wetlands habitat within the proposed NCCP subregional habitat reserve. As in the case of gnatcatcher habitat mitigation, this will provide for new wetland habitat as part of a large, pro-actively managed habitat reserve system.

Summary of Mitigation Measures

Impact 4.12-1: *The removal of vegetation and disruption of plant communities and habitats during the construction phase will constitute the primary impacts to plants and wildlife. Construction of the proposed project would result in the development of approximately 98 percent of the site. Only small portions (approximately ~~16.7~~4.0 acres) of the existing habitats on the Marblehead Coastal site would remain after project construction. The remnant fragments would be isolated islands of low value habitat.*

MM 4.12-1a: ~~The wetland delineation shall be submitted to the U.S. Army Corps of Engineers for adequacy review for the Marblehead Coastal site. Based on the preliminary wetland delineation conducted by project consultants, 4.55 acres of marsh and riparian habitats would be directly removed by the proposed project. Impacts to wetland habitats shall be mitigated at a ratio acceptable to the U.S. Army Corps of Engineers.~~ Prior to issuance of any grading permit unless previously provided, the owner or designee shall demonstrate to the satisfaction of the City Planner or designee that a Section 404 Permit and California Department of Fish and Game (CDFG) Streambed Alteration Agreement have been obtained prior to impacting wetlands and other waters of the U.S. Impacts to applicable wetland habitats shall be mitigated in a manner acceptable to the United States Army Corps of Engineers and CDFG.

MM 4.12-1b: The applicant shall provide for the following on-site mitigation measures for impacts to biological resources:

- Preservation of 1.90 acres of existing wetlands located within Marblehead Canyon and the designated public park, and restoration and enhancement of an additional 2.5 acres of wetland habitat within Marblehead Canyon and the public park;

- Preservation of 1.5 acres of sage scrub habitat and restoration and enhancement of 10 acres of sage scrub habitat within Marblehead Canyon and adjacent to the preserved/restored wetlands, including coastal sage scrub plant salvage;

- Transplantation of 0.30 acres of needlegrass grasslands within Marblehead Canyon and/or within the buffer area surrounding the Blochman's dudleya reserve located on-site;

- Completion of ~~translocation~~recovery of Blochman's dudleya plants from existing populations located adjacent to the bluffs to the on-site dudleya reserve and reasonable progress in implementation of the measures required under the dudleya reserve translocation and management plan approved by the Coastal Commission under CDP 5-97-136 in 1997;

- Provision for a 100-foot buffer ~~around~~adjacent to preserved/restored wetlands in canyon bottoms; and

- Funding under the Resource Management Plan adequate to provide for long-term monitoring and management of preserved and restored biological resources.

MM 4.12-1c: Prior to commencement of development activities that would impact on-site wetland habitats, the applicant shall commence implementation of the following off-site measures to mitigate impacts to wetlands and sage scrub resources:

- To mitigate project impacts to the existing 2.95 acres of wetlands located outside the Coastal Zone, either (1) commence restoration of ~~6 acres of~~ habitat as determined by the ACOE 404 Permit to be suitable for restoration and long-term management, or (2) provide funding to the non-profit board responsible for managing the South Subregion NCCP habitat reserve system adequate to restore/enhance ~~6 acres~~wetlands within the habitat reserve system (if the non-profit board has not been established as of the time construction begins, the funds can be deposited with the County of Orange ~~or CDFG~~ for future use within the NCCP reserve system).

- In conjunction with on-site sage scrub preservation and restoration to mitigate project impacts to existing sage scrub resources, pay a mitigation

fee to cover impacts to the ~~10~~12.9 acres of sage scrub and other habitat "occupied" by the coastal California gnatcatcher to the South Subregion NCCP non-profit board ~~to provide~~for purposes of providing for restoration/enhancement of gnatcatcher habitat within the habitat reserve system (if the non-profit board has not been established as of the time construction begins, the funds ~~can~~will be deposited with the County of Orange or CDFG for future use within the NCCP reserve system).

Off-site measures involving payment of fees or restoration and enhancement of wetland and scrub habitat should be directed to areas located adjacent to larger areas of existing habitat that would provide greater opportunities for successful long-term management of the restored wetland and scrub habitats consistent with the NCCP Planning and Conservation Guidelines ~~established by~~for the Southern California CSS NCCP.

Impact 4.12-2: *All occupied coastal sage scrub habitat will be impacted by the proposed project, both directly and indirectly during the construction phase of site development. The project would result in the direct removal of habitat currently used by two pairs of coastal California gnatcatchers. This habitat loss would directly affect an occupied use-area and would be considered a "take" of a federally threatened species.*

~~**MM 4.12-2a:** The landowner shall provide for the capture and relocation of gnatcatchers to off-site areas acceptable to the USFWS.~~

MM 4.12-~~2b~~2a: Prior to issuance of rough grading permits, the owner or designee shall demonstrate to the satisfaction of the City Planner or designee that a~~A~~ monitoring biologist, acceptable to USFWS/CDFG, has been retained and shall be on-site during any clearing of ~~CSS~~coastal sage scrub. The monitoring biologist will ~~flush~~oversee netting and relocation of Identified Species (avian or other mobile Identified Species) from occupied habitat areas immediately prior to brush-clearing and earth-moving activities. ~~If birds cannot be flushed, they will be captured in mist nets, if feasible, and relocated to areas of the site to be protected or to the NCCP/HCP reserve system. It shall be the responsibility of the monitoring biologist to assure that Identified bird species will not be directly impacted by brush clearing and earth-moving equipment in a manner that also allows for construction activities on a timely basis.~~

MM 4.12-~~2c~~2b: Prior to the issuance of any building permits, and ~~F~~following the completion of initial grading/earth movement activities, the owner or designee shall demonstrate to the satisfaction of the City Planner or designee that all areas of CSS habitat to be avoided by construction equipment and personnel ~~shall be~~are marked with temporary fencing

other appropriate markers clearly visible to construction personnel. No construction access, parking, or storage of equipment or materials, or other such construction activities, shall be permitted within such marked areas.

MM 4.12-~~2~~d2c: ~~CSS~~Coastal sage scrub areas identified ~~in the NCCP/HCP~~ for protection and located within the likely dust drift radius of construction areas shall be periodically sprayed with water to reduce accumulated dust on the leaves, as recommended by the monitoring biologist.

4.12.6 Unavoidable Significant Adverse Impacts

Implementation of the mitigation measures cited above will ensure that the impacts to biological resources, particularly the loss of habitat which supports sensitive species and the displacement of the coastal California gnatcatcher, are reduced to a less than significant level. No significant adverse impacts will remain if these measures are implemented.