

**MSCP COMPLIANCE**  
**SUNROAD – OTAY 250, GPA-15-008; SPA-15-001; REZ-15-007 TM 5607;**  
**ER 15-98-190-13G**

**MARCH 23, 2017**

This process results in a determination of whether or not a project is compliance with the Endangered Species Act (ESA) (Section 10, Implementing Agreement between the County of San Diego and the California Department of Fish and Game and the U.S. Fish and Wildlife Service). An applicant receives Third Party Beneficiary Status under the ESA when: 1) necessary mitigation has occurred in compliance with Section 10 of the Implementing Agreement; 2) the determined mitigation includes an immediately effective requirement to maintain the biological values of the land committed for mitigation; and 3) the mitigation has been imposed through a condition of development (such as a mitigation agreement) that is recorded and runs with the land and is enforceable against and binding upon the Third Party Beneficiary and any successor in interest to the Third Party Beneficiary. Third Party Beneficiary Status may be attained for the project as a whole, or for a discrete phase(s) of the project, so long as the mitigation for the discrete phase(s) is not functionally dependent in the context of the MSCP and Subarea Plan upon the mitigation proposed for subsequent phases.

**PROJECT DESCRIPTION:**

The Otay 250 Specific Plan Amendment project consists of an amendment to the East Otay Mesa Business Park Specific Plan, an amendment to the Otay Subregional Plan, a Rezone and a Tentative Map. The approximately 253-acre Project site is located within the previously approved East Otay Mesa Business Park Specific Plan (EOMBPSP). The project proposes a Specific Plan Amendment (SPA) to the EOMSP to establish a new Mixed-Use Village Core area, which would allow for the establishment of a mix of employment, retail, and residential uses. The proposed project would authorize a maximum of 3,158 dwelling units, 78,000 square feet of general commercial uses, and 765,000 square feet of employment uses, and approximately 51.34 acres of permanent biological open space (the project dedicated open space lot).

Approximately 201.39 acres will be impacted on the site, and another 2.69 acres will be impacted offsite to the north and east. Approximately 51.75 acres will be preserved within a 51.34-acre biological open space lot and a 0.41-acre open space easement. Development of the project site will result in significant impacts to non-native grassland and disturbed wetland habitats, and to variegated dudleya, San Diego button-celery, coast barrel cactus, fairy shrimp, turkey vulture, northern harrier, white-tailed kite, loggerhead shrike, San Diego black-tailed jackrabbit, burrowing owl, and raptors.

The project site was approved for development in 2012 to subdivide the site into 55 lots (Sunroad Centrum). Sunroad Centrum consists of 52 technology business park lots ranging in size from 1.8 acres to 5.3 acres, one lot for a sewer pump station, one storm water detention lot, and a 51.34-acre dedicated open space lot. A 0.41-acre easement

within the subdivision was identified as an open space easement established for the protection of biological resources (vernal pools).

Mitigation for impacts to biological resources was proposed and approved through the December 2000 FSEIR for Sunroad Centrum, which included a Resource Conservation Plan (RCP). An updated final RCP was prepared and approved for the Sunroad Centrum project in December 2003. The December 2003 RCP included revisions and additions to the approved FSEIR mitigation measures. A conditional concurrence for a Minor Amendment was completed in 2003. Subsequent to the conditional concurrence for a Minor Amendment, 51.34 acres of on-site biological open space was dedicated, 54.1 acres of non-native grassland habitat was purchased off-site at the Hollenbeck Canyon Wildlife Area and translocation of barrel cactus species was completed as identified in the RCP.

The mitigation measures from the 2003 RCP, the 2003 Minor Amendment, and the 2012 Conditions of Approval are carried forward to mitigate the impacts of this Project. The mitigation measures include onsite habitat preservation within established biological open space easements (vernal pools, native grassland, non-native grassland, riparian habitat); onsite preservation of vernal pools; onsite fairy shrimp preservation, habitat creation/restoration, and fairy shrimp translocation; onsite variegated dudleya preservation; onsite barrel cactus preservation and translocation; onsite wetland creation; and purchase of offsite mitigation land for non-native grassland and variegated dudleya. Applicability of the approved mitigation measures to new determinations of significant impacts based on current County guidelines is also described in this report. All Project mitigation measures are summarized in Section 8 of this report.

**Table Summarizing Project Impacts and Mitigation With Respect to Habitat Type**  
(all numbers represent acreage)

	<b>Direct Impacts</b>	<b>Proposed Open Space</b>	<b>Offsite Mitigation</b>	<b>Total Area Onsite</b>
<b>Disturbed Wetlands</b> (mitigation ratio = 2:1)	0.11	.22	0.0	0.11
<b>Non-Native Grassland</b> (mitigation ratio = 0.5:1)	195.99	46.87 <sup>1</sup>	49.28	240.24
<b>Disturbed/Developed</b> (no mitigation required)	7.91	0.0	0.0	10.23

<sup>1</sup> of which 0.11 in biological open space will be used for wetland creation

**BMO FINDINGS**

1. Approximately 60 acres of the site is a BRCA because it is underlain by clay soils which support sensitive plant species, including San Diego button celery, variegated dudleya, San Diego barrel cactus and spreading navarretia. The BRCA contributes to the wildlife corridor associated with Johnson Canyon.
2. The rest of the project site is not a BRCA with the following findings supporting this conclusion (Area shown on "Open Space Map").
  - a. The land is not shown as a Pre-Approved Mitigation Area on the wildlife agencies' Pre-Approved Mitigation Area map.

**Findings of Fact:**

The non-BRCA land is not shown as a Pre-Approved Mitigation Area on the wildlife agencies' Pre-Approved Mitigation Area map. The project is located on Otay Mesa, east of Brown Field, north of Otay Mesa Road and both east and west of Harvest Road. A portion of the site is a Major Amendment Area, a Minor Amendment Area and a Minor Amendment Area with special concerns. The Minor Amendments has been approved by the Wildlife Agencies (please see attached 2003 Conditional Concurrence and Sunroad Centrum MSCP Findings). The Major Amendment is not required because all of this area will be within a conservation easement for resource preservation.

- b. The land is not located within an area of habitat which contains biological resources that support or contribute to the long-term survival of sensitive species, and is not adjacent or contiguous to preserved habitat that is within the Pre-Approved Mitigation Area on the wildlife agencies' Pre-Approved Mitigation Area map.

**Findings of Fact:**

The non-BRCA land is not located within an area of habitat which contains biological resources that support or contribute to the long-term survival of sensitive species. It is non-native grassland that has supported agriculture for many years.

- c. The land is not part of a regional linkage/corridor. The site is not land that contains topography that serves to allow for the movement of all sizes of wildlife, including large animals on a regional scale. The site does not contain adequate vegetation cover providing visual continuity so as to encourage the use of the corridor by wildlife. The site has not been identified as the primary linkage/corridor between the northern and

southern regional populations of the California gnatcatcher in the population viability analysis for the California gnatcatcher, MSCP Resource Document Volume II, Appendix A-7 (Attachment I of the BMO.)

**Findings of Fact:**

The non-BRCA land is not part of a regional linkage or corridor because it lies within an area in which all native habitats have been converted by intensive agriculture to non-native grassland or disturbed habitats. Agriculture has been practiced on this site and in the greater East Otay Mesa area over the course of many decades.

While not a part of a regional corridor, onsite portions of Johnson Canyon and its slopes will be preserved in order to maintain a wildlife corridor between the Otay River Valley to the north and the Otay Mountains to the east. Additionally, a very small portion of the site (most of which will be preserved) in the northeastern corner is contiguous with larger blocks of habitat. However, this finger, relative to the larger undisturbed habitat of which it is a part, is small and is surrounded almost entirely by land disturbed primarily through agricultural practices. It represents a “dead end” for species that may be utilizing the habitat as a corridor. The site has not been identified as the primary linkage/corridor between the northern and southern regional populations of the California gnatcatcher in the population viability analysis for the California gnatcatcher (Attachment I of the BMO).

- d. The land is not shown on the habitat evaluation map (Attachment J to the BMO) as very high or high and does not link significant blocks of habitat (except that land which is isolated or links small, isolated patches of habitat and land that has been affected by existing development to create adverse edge effects shall not qualify as BRCA).

**Findings of Fact:**

All of the non-BRCA lands are mapped as “Agricultural”.

- e. The land does not consist of or is not within a block of habitat greater than 500 acres in area of diverse and undisturbed habitat that contributes to the conservation of sensitive species.

**Findings of Fact:**

The non-BRCA lands while greater than 500 acres have been repeatedly disturbed by agriculture. No diversity of flora or fauna is found. In fact, after six years of being left fallow, only mustard and invasive non-native grasses have returned. There has been no succession to shrublands.

- f. The land does not contain a high number of sensitive species and is not adjacent or contiguous to surrounding undisturbed habitats, and does not contain soil derived from the following geologic formations: gabbroic rock; metavolcanic rock; clay; and coastal sandstone, which are known to support sensitive species.

**Findings of Fact:**

No sensitive plant species were identified on the non-BRCA lands. No diversity of flora or fauna is found. In fact, after six years of being left fallow, only mustard and invasive non-native grasses have returned. There has been no succession to shrublands. Soils are derived from clay but are 100% altered by past agriculture.

**FINDINGS FOR CONFORMANCE WITH THE  
BIOLOGICAL MITIGATION ORDINANCE**

The Biological Mitigation Ordinance has several sets of criteria that must be met when projects are designed. They include Findings under Article V. A. Project Design Criteria, and findings in Attachments G and H. These findings are to be made, if appropriate, in addition to the overall findings listed for conformance with the Subarea Plan.

**PROJECT DESIGN CRITERIA.**

1. Project development shall be sited in areas to minimize impact to habitat;

**Findings of Fact:** The proposed development has designed open space that will protect the viability of sensitive resources. All (0.21 acre) of the vernal pool habitat (supporting two sensitive plant species and the endangered San Diego fairy shrimp), 1.96 acres of native grassland, and 46.87 acres of non-native grassland will be preserved onsite. Impacts to *Dudleya variegata* and *Ferocactus viridescens* will be minimized through transplantation of individuals from areas that are proposed for development into the preserved open space onsite (dudleya may be mitigated by off-site purchase of habitat). While there will be some loss of sensitive habitat associated with the proposed project, that loss has been limited and therefore meets the standards set forth in the Biological Mitigation Ordinance and appropriate mitigation measures have been included as part of the project. Impacts to 0.11 acre of disturbed wetlands/waters will be mitigated through onsite creation of disturbed waters and fairy shrimp habitat. It is proposed that impacts to native grassland and non-native grassland be

mitigated both on and offsite. Mitigation for impacts to 195.99 acres of non-native grassland, at a 0.5:1 mitigation ratio, will be accomplished by the on site preserve of 48.72 acres of non-native grassland and the purchase of 49.28 acres of habitat off-site.

2. Clustering to the maximum extent permitted by County regulations shall be considered where necessary as a means of achieving avoidance:

**Findings of Fact:**

Development is concentrated away from the sensitive resources. Areas not proposed for development will be placed in an open space preserve managed by a Habitat Conservation Plan.

3. Notwithstanding the requirements of the Slope Encroachment Regulations contained within the Resource Protection Ordinance, effective October 10, 1991, projects shall be allowed to utilize design which may encroach into steep slopes to avoid impacts to habitat;

**Findings of Fact:**

The site does not contain steep slope areas that can be utilized for development to better provide for the protection of sensitive resources located in flatter areas. The only sloping areas onsite are the banks of Johnson Canyon. Johnson Canyon and its slopes will be preserved in order to maintain a wildlife corridor. Preservation of Johnson Canyon and its slopes as a wildlife corridor is consistent with the East Otay Mesa Specific Plan.

4. The County shall consider reduction in road standards to the maximum extent consistent with public safety considerations;

**Findings of Fact:**

The project is not affected by roads to the degree that a reduction in standards could reduce the impacts associated with it. The project would require offsite improvements to Otay Mesa Road. These road improvements are expected to result in an impact to 0.1 acre of non-native grassland and mitigation in accordance with the BMO has been included in the mitigation totals.

5. Projects shall be required to comply with applicable design criteria in the County MSCP Subarea Plan, attached hereto as Attachment G (Preserve Design Criteria) and Attachment H.

**PRESERVE DESIGN CRITERIA (ATTACHMENT G).**

The project conforms to the Preserve Design Criteria and the linkages and corridors criteria as specified through the findings of the project design criteria.

## DESIGN CRITERIA FOR LINKAGES AND CORRIDORS (ATTACHMENT H).

- a. Habitat linkages as defined by the Biological Mitigation Ordinance, rather than just corridors, will be maintained.

**Findings of Fact:**

The proposed development area is not part of a regional linkage because it lies within an area in which habitats have constraints due to adjacency to disturbed (through agriculture) lands or developed lands. A portion of the proposed project does meet the definition of a linkage as defined in the Biological Mitigation Ordinance has been preserved. This portion of the site in the northeastern corner is contiguous with larger blocks of habitat from Otay River to the Otay Mountains.

- b. Existing movement corridors within linkages will be identified and maintained.

**Findings of Fact:**

The proposed development area is not considered part of a linkage as described in section A above.

- c. Corridors with good vegetative and/or topographic cover will be protected.

**Findings of Fact:**

Johnson Canyon and its slopes encompassed by the project site will be preserved in order to maintain a wildlife corridor between the Otay River Valley to the north and the Otay Mountains to the east. Preservation of Johnson Canyon and its slopes as a wildlife corridor is consistent with the East Otay Mesa Specific Plan. In addition, the project's conformance with the MSCP and the Biological Mitigation Ordinance further add to the regional connectivity of the open space preserved onsite. The portion of the BRCA south of proposed Lone Star Road has been disturbed by agriculture and will be functionally separated from the more valuable habitat north of the road. All land north of the road will be preserved as a conservation easement subject to an RCP.

- d. Regional linkages that accommodate travel for a wide range of wildlife species, especially those linkages that support resident populations of wildlife, will be selected.

**Findings of Fact:**

The proposed development area does not contain a linkage that meets these specifications. However, portions of Johnson Canyon and its slopes encompassed by the project site will be preserved in order to maintain a

wildlife corridor between the Otay River Valley to the north and the Otay Mountains to the east. All land north of the Lone Star Road will be preserved as a conservation easement subject to an RCP.

- e. The width of a linkage will be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography, and adjacent land uses. Where there is limited topographic relief, the corridor must be well vegetated and adequately buffered from adjacent development.

**Findings of Fact:**

The proposed development area does not contain a linkage that meets these specifications. However, portions of the BRCA adjacent to Johnson Canyon and its slopes encompassed by the project site will be preserved in order to maintain a wildlife corridor between the Otay River Valley to the north and the Otay Mountains to the east. All land north of the Lone Star Road, which is contiguous with Johnson Canyon, will be preserved as a conservation easement subject to an RCP.

- f. If a corridor is relatively long, it must be wide enough for animals to hide in during the day. Generally, wide linkages are better than narrow ones. If narrow corridors are unavoidable, they should be relatively short. If the minimum width of a corridor is 400 feet, it should be no longer than 500 feet. A width of greater than 1,000 feet is recommended for large mammals and birds. Corridors for bobcats, deer and other large animals should reach rim-to-rim along drainages, especially if the topography is steep.

**Findings of Fact:**

All land north of the Lone Star Road, which is contiguous with Johnson Canyon, will be preserved as a conservation easement subject to an RCP. This will maintain a wildlife corridor between the Otay River Valley to the north and the Otay Mountains to the east. The portion of this corridor that lays onsite is approximately 1500 feet from the bottom of Johnson Canyon. Preserved open space adequately buffers the onsite portion of the corridor from adjacent development to the southwest. Furthermore, the development is set back from the rim of the canyon and separated from the open space by Lone Star Road and a 5-foot fence.

- g. Visual continuity (i.e., long lines-of-site) will be provided within movement corridors. This makes it more likely that animals will keep moving through it. Developments along the rim of a canyon used as a corridor should be



set back from the canyon rim and screened to minimize their visual impact.

**Findings of Fact:**

Within the portion of the corridor preserved onsite, non-native grassland, non-native riparian, San Diego Mesa Claypan Vernal Pool and Native Grassland are proposed to be preserved. Wildlife traveling through Johnson Canyon will not have a visual change. The proposed development is set back from the rim of the canyon and separated from the open space by Lone Star Road and a 5-foot fence.

- h. Corridors with low levels of human disturbance, especially at night, will be selected. This includes maintaining low noise levels and limiting artificial lighting.

**Findings of Fact:**

The design of the project includes conditions and criteria to limit night-time disturbance, including building setbacks, shielded lighting, and limited access. This area already has light disturbance from the State Prison.

- i. Barriers, such as roads, will be minimized. Roads that cross corridors should have 10-foot high fencing that channels wildlife to underpasses located away from interchanges. The length-to-width ratio for wildlife underpasses is less than 2, although this restriction can be relaxed for underpasses with a height of greater than 30 feet.

**Findings of Fact:**

The open space, which includes the Johnson Canyon corridor, will not have any roads or barriers within it.

- j. Where possible at wildlife crossings, road bridges for vehicular traffic rather than tunnels for wildlife use will be employed. Box culverts will only be used when they can achieve the wildlife crossing/movement goals for a specific location. Crossings will be designed as follows: sound insulation materials will be provided; the substrate will be left in a natural condition, and vegetated with native vegetation if possible; a line-of-site to the other end will be provided; and if necessary, low-level illumination will be installed in the tunnel.

**Findings of Fact:**

The project does not have a wildlife crossing, since there is no proposed crossing of the open space.

- k. If continuous corridors do not exist, archipelago (or steppingstone) corridors may be used for short distances. For example, the gnatcatcher may use disjunct patches of sage scrub for dispersal if the distance involved is less than 1-2 miles.

**Findings of Fact:**

The project proposes a continuous corridor.

**FINDINGS IN CONFORMANCE WITH THE SUBAREA PLAN**

All projects whether considered an exception or an exemption to the Biological Mitigation Ordinance must conform to the San Diego County Subarea Plan. The concept of conformance to the plan does not mean specific and direct compliance with the mitigation ratios. Exemption and exception is intended to provide for flexibility from those standards when there are specific reasons to do so. Conformance with the Subarea Plan does involve the review of the project to see that it does not create a situation where a project is affecting the potential for preserve design.

1. The project will not conflict with the no-net-loss-of-wetlands standard in satisfying state and federal wetland goals and policies.

**Findings of Fact:**

The project will not conflict with the no-net-loss-of-wetlands standard in satisfying state and federal wetland goals and policies. The project proposes to directly impact, by grading, 0.2 acre of disturbed wetland/waters. As part of the permit process with this resource, a detailed site-specific mitigation and monitoring plan has been prepared. Impacts to disturbed water/wetlands onsite will be in-kind replacement of habitat quality. Specifically, the objective of the wetlands mitigation plan shall be to create five basins (totaling 0.1 acre) that will collect water adequately to provide habitat for the two species of fairy shrimp and to ensure no net loss of wetland habitat value. In addition, another 0.1 acre of wetland creation will be required to bring up the mitigation ratio to 2:1.

2. The project includes measures to maximize the habitat structural diversity of conserved habitat areas including conservation of unique habitats and habitat features.

**Findings of Fact:**

The proposed project will place 66 percent of the BRCA including the most diverse and unique habitats within conservation easements. The preservation of all vernal pools (which support two sensitive plant species and the endangered San Diego fairy shrimp), 0.4 acre of southern willow scrub, 3.2 acres of coastal

sage scrub, 3.1 acres of native grassland, and 44.7 acres of non-native grassland meets this criteria.

3. The project provides for conservation of spatially representative examples of extensive patches of coastal sage scrub and other habitat types that were ranked as having high and very high biological values by the MSCP habitat evaluation model.

**Findings of Fact:**

The proposed project will place 66 percent of the BRCA including the conservation of spatially representative examples of very high value habitats. The preservation of all vernal pools (which support two sensitive plant species and the endangered San Diego fairy shrimp), 1.96 acres of native grassland, and 46.87 acres of non-native grassland meets this criteria. The portion of the BRCA, ranked as “very high” that will be developed (15 acres) is disturbed by agriculture and is cut off from the larger portion of BRCA by the adopted circulation element route of Lone Star Road.

4. The project provides for the creation of significant blocks of habitat to reduce edge effects and maximize the ratio of surface area to the perimeter of conserved habitats.

**Findings of Fact:**

The proposed project will place open space easements on land that is configured to maximize the ratio of surface area to perimeter. This is accomplished by minimizing intrusions by development into the preserve area boundary and maintaining boundaries of gently sweeping curves rather than acute indentations and peninsulas of development partially surrounded by preserved land. In addition the project has been designed with an adequate setback from development to avoiding lighting and noise conflicts. A five-foot fence barrier will border the road interface with the preserve.

5. The project provides for the development of the least sensitive habitat areas.

**Findings of Fact:**

Areas proposed for preservation in open space contain the majority of sensitive species and habitats on site. Development is primarily restricted to areas currently occupied by non-native grassland habitat, a Tier III habitat, the least sensitive of all habitat types found onsite. One agricultural contains fairy shrimp. While the fairy shrimp are endangered, this artificial occupied habitat is not natural or sensitive. In the 2003 Biological Opinion for Sunroad Centrum, the Wildlife Agencies agreed to a project design which impacts the pond is appropriate with mitigation that will create habitat for fairy shrimp.

6. The project provides for the conservation of key regional populations of covered species, and representations of sensitive habitats and their geographic sub-associations in biologically functioning units.

**Findings of Fact:**

No key regional populations of covered species are present on the site. The project does provide for conservation of sensitive habitats in biologically functioning units. The majority of the sensitive habitats are being protected in place through dedication of a conservation easement. The conservation easement has been designed to minimize impacts to these sensitive habitats and to wildlife species using the Johnson Canyon corridor. All of the vernal pools (which support two sensitive plant species and the endangered San Diego fairy shrimp) and of the southern willow scrub habitat associated with Johnson Canyon will be preserved onsite. While there will be some loss of sensitive habitat associated with the proposed project, that loss has been limited and therefore meets the standards set forth in the Biological Mitigation Ordinance and appropriate mitigation measures have been included as part of the project.

The proposed development has designed open space that will protect the viability of sensitive resources. All (0.2 acre) of the vernal pool habitat (supporting two sensitive plant species and the endangered San Diego fairy shrimp), 1.96 acres of native grassland, .39 acres of non-native riparian and 46.87 acres of non-native grassland will be preserved onsite. Impacts to *Dudleya variegata* and *Ferocactus viridescens* will be minimized through transplantation of individuals (or off-site purchase of dudleya habitat) from areas that are proposed for development into the preserved open space onsite. While there will be some loss of sensitive habitat associated with the proposed project, that loss has been limited and therefore meets the standards set forth in the Biological Mitigation Ordinance and appropriate mitigation measures have been included as part of the project. Impacts to 0.11 acre of disturbed wetlands/waters will be mitigated through onsite creation of disturbed waters and fairy shrimp habitat. It is proposed that impacts to native grassland and non-native grassland be mitigated both on and offsite. Mitigation for impacts to 195.99 acres of non-native grassland, at a 0.5:1 mitigation ratio, will be accomplished by the on site preserve of 46.87 acres of non-native grassland and the purchase of 49.28 acres of habitat off-site.

7. Conserve large interconnecting blocks of habitat that contribute to the preservation of wide-ranging species such as mule deer, golden eagle, and predators as appropriate. Special emphasis will be placed on conserving adequate foraging habitat near golden eagle nest sites.

**Findings of Fact:**

Onsite a “finger” of land of “very high” habitat value projects into the northeast corner of the project site. This finger is contiguous with a block of habitat greater than 500 acres in area of diverse and undisturbed habitat that contributes to the conservation of sensitive species. But, this area has been impacted by past agriculture and will be isolated from the conservation area by Lone Star Road. The most sensitive portion of land onsite with a “very high” habitat value (i.e. that containing seven vernal pools) located onsite will be preserved. Additionally, portions of Johnson Canyon and its slopes encompassed by the project site will be preserved in order to maintain a wildlife corridor between the Otay River Valley to the north and the Otay Mountains to the east. Approximately 1500 feet from the canyon bottom is included in the conservation easement. In addition, other portions of the corridor are/will be preserved through a discretionary review process in and outside the East Otay Mesa Specific Plan area. To the south and west the project site is surrounded by either disturbed (primarily through agriculture) or developed land.

8. All projects within the San Diego County Subarea Plan shall conserve identified critical populations and narrow endemics to the levels specified in the Subarea Plan. These levels are generally no impact to the critical populations and no more than 20 percent loss of narrow endemics and specified rare and endangered plants.

**Findings of Fact:**

The project site supports three sensitive plant species; barrel cactus (*Ferocactus viridescens*), button celery (*Eryngium aristulatum*), and variegated dudleya (*Dudleya variegata*). One additional sensitive plant was identified during past surveys and is presumed to exist onsite: *Prostrate navarretia* (*Navarretia fossalis*). Both the *Navarretia fossalis* and the *Eryngium aristulatum* occur within the J22 vernal pool complex. Preservation of the vernal pool complex (mima mound-pool topography plus watershed) in designated open space will reduce impacts to below a level of significance. A further mitigation measure providing for the conservation of covered species is salvage and relocation, *Dudleya variegata* and *Ferocactus viridescens* to the preserved open space. A minimum of 80% of the transplanted populations will be maintained under the Resource Conservation Plan (RCP). The RCP also provides for creation/enhancement of shrimp habitat.

9. No project shall be approved which will jeopardize the possible or probable assembly of a preserve system within the Subarea Plan.

**Findings of Fact:**

The project proposes a conservation easement that will preserve any potential or likely corridors and the best quality habitat onsite such that it could be included within a sound preserve system. The project open space and purchase of habitat in Hollenbeck Canyon will contribute to the preserve system in the Subarea.

10. All projects that propose to count on-site preservation toward their mitigation responsibility must include provisions to reduce edge effects.

**Findings of Fact:**

The project has included specific measures through project design and management that would reduce edge effects. The sensitive area preserved in open space borders proposed development on only one side. Access to the sensitive habitat is precluded by Lone Star Road and through the provision of fencing of the proposed open space. The use of non-native, invasive plant species will be prohibited around all residential, industrial and commercial structures, and along roads and entryways. All project lighting will be directed away from the open space. To avoid direct impacts to the one vernal pool located south of Lone Star Road, it will be preserved with its watershed and fenced, and managed in conjunction with the pools in the northern open space. Some indirect impacts are expected, but overall, the project's preservation design is good and will have edge effect reduced.

11. Every effort has been made to avoid impacts to BRCA, sensitive resources and specific sensitive species as defined in the Biological Mitigation Ordinance.

**Findings of Fact:**

The proposed development has avoided 66 percent of the BRCA and has designed open space that will protect the sensitive species on the site. All (0.2 acre) of the vernal pool habitat (supporting two sensitive plant species and the endangered San Diego fairy shrimp), 1.96 acres of native grassland, 0.39 acre of non-native riparian and 46.87 acres of non-native grassland will be preserved onsite. Impacts to *Dudleya variegata* and *Ferocactus viridescens* will be minimized through transplantation of individuals from areas that are proposed for development into the preserved open space onsite (or off-site purchase of dudleya habitat). While there will be some loss of sensitive habitat associated with the proposed project, that loss has been limited and therefore meets the standards set forth in the Biological Mitigation Ordinance and appropriate mitigation measures have been included as part of the project. The total area preserved onsite totals 51.6 acres in a consolidated open space north of Lone Star Road (adjacent to Johnson Canyon corridor/linkage) and includes a vernal pool open space south of Lone Star Road.

**CONCLUSION:**

Review of the project's impacts on biological resources and a determination of whether or not necessary mitigation have occurred, in compliance with Section 10 of the Implementing Agreement between the County of San Diego and the California Department of Fish and Game and the U.S. Fish and Wildlife Service.

This project has been found to conform to the San Diego County Multiple Species Conservation Program Subarea Plan, Biological Mitigation Ordinance and Implementing Agreement. Upon fulfillment of the requirements for permanent mitigation and management of preserved areas as outlined in Section 17.1(A) of the County's Implementing Agreement for the Multiple Species Conservation Program (MSCP) Plan, Third Party Beneficiary Status can be attained for the project. Third party beneficiary status allows the property owner to perform "incidental take" under the State and Federal Endangered Species Acts, of species covered by the MSCP plan while undertaking land development activities in conformance with an approval granted by the County in compliance with the County's Implementing Agreement.



**US Fish and Wildlife Service**  
Carlsbad Fish and Wildlife Office  
6010 Hidden Valley Road  
Carlsbad, CA 92009  
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**California Department of Fish and Game**  
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In Reply, Refer To:  
FWS-SDG-944.6

Gary L. Pryor, Director  
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Department of Planning and Land Use  
5201 Ruffin Road, Suite B  
San Diego, California 92123-1666

**RECEIVED**  
NOV 19 2003  
San Diego County  
DEPT. OF PLANNING & LAND USE

**NOV 14 2003**

Attn: Ms. Maggie Loy

Re: Wildlife Agencies' Review and Conditional Concurrence for the Sunroad Centrum Minor Amendment to the MSCP County Subarea Plan (TM5139RPL6R)

Dear Mr. Pryor:

The California Department of Fish and Game (Department), and the U.S. Fish and Wildlife Service (Service), hereafter collectively referred to as the Wildlife Agencies, have been working with the applicant and County staff on the Sunroad Centrum project since August of 1998. Our conditional concurrence on the Minor Amendment to the County of San Diego's Multiple Species Conservation Program (MSCP) for the Sunroad Centrum project is based upon the August 2003, *Sunroad Centrum Resource Conservation Plan* (RCP); the County's letter dated September 19, 2003, requesting the Wildlife Agencies' approval for a Minor Amendment to the MSCP; and the Service's biological opinion for the project (FWS-SDG-944.5), dated November 12, 2003.

The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*). The Department is a trustee agency under the California Environmental Quality Act and is responsible for ensuring appropriate conservation of fish and wildlife resources including rare, threatened, and endangered plant and animal species, pursuant to the California Endangered Species Act, and administers the Natural Community Conservation Program.

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The project is located on Otay Mesa, east of Brown Field, and adjacent to Harvest Road, in San Diego County. The proposed project falls within the South County Segment of the MSCP. The majority of the site has been designated as a Minor Amendment area. The northeast portion of the site has been designated a Major Amendment area. The project site is approximately 253 acres in size, with proposed development of 55 one-acre commercial/industrial lots. Approximately 201.8 acres of habitat are proposed to be impacted; however, the project will avoid impacts to the Major Amendment area. Approximately 51.3 acres on-site will be fenced and managed in perpetuity as open space, including the existing vernal pool complex, the proposed San Diego barrel cactus (*Ferocactus viridescens*) transplantation area, and the vernal pool basins to be created.

Proposed project impacts to the federally listed as endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*) and Riverside fairy shrimp (*Streptocephalus woottoni*) were addressed in the Service's biological opinion for the project. In addition, the federally listed as threatened spreading navarretia (*Navarretia fossalis*), and variegated dudleya (*Dudleya variegata*), an MSCP narrow endemic species, occur within the proposed open space, but will not be impacted. Impacts to San Diego barrel cactus will occur, but will be mitigated through implementation of the *Sunroad Centrum Barrel Cactus Transplantation Plan* (REC, August 2003).

The Wildlife Agencies concur with the minor amendment for the Sunroad Centrum project provided the *Conservation Measures* outlined in the Service's biological opinion are carried out, the measures described in the RCP are implemented, and the following conditions are met:

1. The RCP should be modified to require three-strand fencing to be installed around the entire perimeter of the conserved area, except where the chain-link fencing is required to protect the vernal pools. *63 Ft 10-15 ft approx*
2. The Long-term Management, Maintenance, and Monitoring Plan needs to be more specific that it covers management of the entire 51.3 acre preserve. *No project impacts here to provide MSCP management language.*
3. The PAR and resulting endowment need to be modified to include costs for fence construction and the periodic repair/replacement of both the three-strand and the chain-link fencing associated with the preserve.
4. Either the County or the Department must hold the endowment for long-term management; the site manager cannot hold the endowment. We recommend that the County hold the endowment because the Department's requirements assume a lower rate of return, which will result in a higher endowment.
5. The document must specify who will be holding title to the property or be the grantee of the conservation easement. We recommend that either the County hold title and that the Department hold a conservation easement, or that the County hold the conservation easement and the Department be named as a third party beneficiary.
6. The Long-term Management, Maintenance, and Monitoring Plan needs to be revised so that weeding requirements are not solely subject to approval by the conservation manager.

The County should have authority to direct weed management. Furthermore, the plan should direct that highly invasive exotics, particularly those listed on List A of the California Exotic Pest Plant Council, be prioritized for removal.

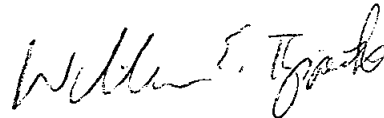
7. As we have previously recommended, site inspections to ensure fencing and signage is maintained should be performed on a monthly basis. Preserved properties in this area of the County have been under considerable pressure from off-road vehicles and other activities, and quarterly site inspections are not expected to be sufficient.
8. The above conditions should be resolved prior to the project being approved by the County Board of Supervisors.

If you have questions or comments regarding the contents of this letter, please contact Mr. David Mayer (Department) at (858) 467-4234, or Ms. Kathleen Brubaker (Service) at (760) 431-9440, extension 255.

Sincerely,



*FOR*  
Therese O'Rourke  
Assistant Field Supervisor  
Carlsbad Field Office  
U.S. Fish and Wildlife Service



William E. Tippetts  
Deputy Regional Manager  
South Coast Region  
California Department of Fish and Game



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Ecological Services  
Carlsbad Fish and Wildlife Office  
6010 Hidden Valley Road  
Carlsbad, California 92009

In Reply, Refer To:  
FWS-SDG-944.5

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NOV 12 2003

Memorandum

San Diego County  
DEPT. OF PLANNING & LAND USE

To: Jim Bartel, Field Supervisor, Carlsbad Fish and Wildlife Office, Carlsbad, California

From: *Therese O'Rourke* Therese O'Rourke, Assistant Field Supervisor, Carlsbad Fish and Wildlife Office, Carlsbad, California *[Signature]*

Re: Biological Opinion for the Sunroad Centrum Project on East Otay Mesa, San Diego County, California; FWS Log No. (1-6-03-FW-944.5)

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on our review of the proposed implementation of the Sunroad Centrum Project that is located in a Minor Amendment area, within the County of San Diego's Multiple Species Conservation Program (MSCP) on east Otay Mesa, and its effects on the endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*) and Riverside fairy shrimp (*Streptocephalus woottoni*) in accordance with section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Although critical habitat has been designated for the San Diego fairy shrimp, no critical habitat occurs within the action area, and therefore critical habitat will not be addressed.

This biological opinion is based on information provided in the August 2003, *Sunroad Centrum Resource Conservation Plan* (prepared by REC; RCP); a letter dated September 19, 2003, from the County of San Diego, Department of Land Use and Planning, requesting concurrence on the Minor Amendment; electronic mail of conservation measures to be incorporated into the project description; the project proposal; field investigations conducted by Service staff; and other information available in our files. A complete administrative record of this consultation is on file at this office.

## Consultation History

We have been working with the applicant and County staff on this project since August of 1998. We identified our concerns over the project's potential impacts to biological resources during a

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series of meetings on: November 18, 1998; February 11, 1999; May 18, 1999; and July 14, 1999. Of particular concern was the potential impacts to vernal pools and the sensitive species that inhabit them, including listed fairy shrimp species and plants. In addition to listed species, we also discussed the status of, and potential impacts to, native grasslands and species designated as narrow endemics under the MSCP. In a letter dated October 21, 1999, the Wildlife Agencies (Service and California Department of Fish and Game) provided comments regarding the Notice of Preparation for a Supplemental Environmental Impact Report (SEIR) for the Sunroad Centrum project per the California Environmental Quality Act (CEQA). That letter reiterated our concerns over the listed San Diego fairy shrimp, Riverside fairy shrimp, spreading navarretia (*Navarretia fossalis*), and additional MSCP narrow endemic species.

On June 29, 2000, we received the draft SEIR for the project and provided our comments to the County in a letter dated August 11, 2000. In that letter we identified the following issues: (1) mapping of onsite native grassland and more-specific grassland mitigation measures; (2) avoidance measures and species-specific mitigation for variegated dudleya (*Dudleya variegata*) and coast barrel cactus (*Ferocactus viridescens*) that assured consistency with the County's Biological Mitigation Ordinance (BMO); (3) refined wetland mitigation measures; (4) the need to process both Major and Minor Amendments for the project; and, (5) the need to conduct protocol surveys for the federally listed Quino checkerspot butterfly (*Euphydryas editha quino*) during the survey season immediately prior to ground-disturbing activities.

The interested parties met again on August 24, 2000, and August 31, 2000, to discuss the outstanding issues, including how to address the Major and Minor Amendment areas. These meetings and subsequent discussions with County staff, resulted in a letter from us dated December 14, 2000 (FWS-SDG-944.3). In that letter, we agreed that the Major Amendment process was not necessary for this project because the applicant was no longer going to impact the Major Amendment area. However, there were still impacts proposed in the Minor Amendment area, and thus the Minor Amendment process would be necessary.

Because we had not received any official correspondence regarding the project since December 2000, on September 19, 2001, the Service contacted Ms. Elyssa Robertson of REC, the project's biological consultant, via electronic mail to request an update on the project. In a electronic mail transmission the same day, Ms. Robertson replied that the updated RCP was still being prepared and would be submitted to the County for review when completed. We received no other correspondence regarding the project until we met with County staff to discuss the Sunroad project, among other topics, on February 11, 2002.

On March 6, 2002, the County sent a letter requesting clarification regarding our December 14, 2000, letter and the Minor Amendment for the project. The Service attempted to contact County staff on March 18, 2002. We left voice mail messages with Mr. Robert Asher, Dr. Glenn Russell, and Ms. Claudia Anzures regarding this letter. Furthermore, we indicated that the Service wanted to coordinate with the County regarding timing and to be sure that all parties were aware of the process. Mr. Gjon Hazard, of the Service, was able to discuss the project with Dr. Russell in a telephone conversation on April 10, 2002. During that call, Dr. Russell indicated that the project still needed to move through several steps in the County's process and that it

would not be finalized until late summer 2002, at the earliest, and that the biological opinion was not needed imminently.

We received the May 2002 revision of the RCP on June 6, 2002, and the supplement to the RCP on August 5, 2002. In an electronic mail transmission on June 18, 2002, Mr. Hazard informed Ms. Maggie Loy, of the County, that the Wildlife Agencies would provide, in writing, our comments regarding the RCP but our review would be delayed due to workload constraints. On May 2, 2003, we met with the County, Sunroad, and REC to discuss additional information needed for the RCP. Of particular concern was the need for weed control in the vernal pools and their watersheds within the restoration site. Also, a map depicting the area where created pools were proposed was requested to be included in the RCP.

A Minor Amendment concurrence request from the County was received on September 19, 2003 for the Sunroad Property. On August 22, 2003, an updated RCP was received, but it did not contain sufficient information to initiate formal consultation on the San Diego and Riverside fairy shrimp. On October 21, 2003, we sent the County additional conservation measures to be incorporated into the project description which would condition the project to avoid and minimize impacts to fairy shrimp.

## **BIOLOGICAL OPINION**

### **DESCRIPTION OF THE PROPOSED ACTION**

The project is located on Otay Mesa, east of Brown Field, north of Otay Mesa and adjacent to Harvest Road, in San Diego County (Figure 1). The project site is generally flat near the central portion of the site, and slopes away to the south and to the north. Johnson Canyon occurs north of the project site. Elevations range onsite from 445 feet above mean sea level, near the northeast corner of the site, to 630 feet above mean sea level on the mesa near the central portion of the property. The proposed project falls within the South County Segment of the MSCP. Portions of the project site have been designated as minor and major amendment areas requiring consultation with the Wildlife Agencies (Figure 2).

The revised Tentative Map was approved on December 15, 2000, for industrial development pursuant to the East Otay Mesa Specific Plan. The project site is approximately 253 acres, with proposed development of 55 one acre commercial/industrial lots. Approximately 201.8 acres of habitat are proposed to be impacted, which includes 0.11 acre of disturbed wetland designated as freshwater marsh, and a portion of an abandoned agricultural pond known to contain San Diego fairy shrimp. Although no protocol surveys were performed, Sunroad Centrum requested that Riverside fairy shrimp be addressed in this consultation as well. In addition, the project will impact the disturbed coastal sage scrub onsite and non-native grassland habitat. Of the 253 acre project site, approximately 51.3 acres will be set aside as open space, including the existing J22 vernal pool complex (Bauder, 1986), created vernal pool basins, and the barrel cactus transplantation area.

As part of the compensation for loss of fairy shrimp, 0.11 acre of vernal pool basin will be created within the J22 complex. Prior to project impacts, soil and cysts of San Diego and Riverside fairy shrimp will be salvaged from the disturbed wetland, and translocated into the created pools. In addition to creation of fairy shrimp habitat, the 51.3 acre open space area will be restored, secured with fencing to reduce unwanted traffic, and managed in perpetuity.

### **Conservation Measures**

The proposed action contains the following measures which will be implemented to avoid and/or minimize potential adverse effects of the action on San Diego and Riverside Fairy Shrimp:

1. A final contour plan (Plan) will be submitted to the Service for approval prior to implementation of the fairy shrimp habitat creation project (J22 vernal pool complex) on Unit 6 of Tentative Map 5139RPL6R. The final Plan will include a 6-inch contour topographic map that depicts the proposed creation area. The Plan will include both the mima mounds and basins to be created and will blend in with the existing topography. Creation of berms and other structures that would disrupt the natural hydrological regime within the J22 vernal pool complex is prohibited. The margins of the basins need to be designed to avoid erosion during storm events, which may impact the water quality and shrimp viability in the created pools.
2. The Plan for the Unit 6 of Tentative Map 5139RPL6R will specify the areas of existing native upland habitat, vernal pools and their watersheds, which are to remain unaffected by restoration activities, and these areas will be protected by temporary barriers prior to implementation. The Plan will be implemented using small tracked dozers with ripping tines and slope boards, rubber-tired loaders, and a sheeps-foot for mound construction.
3. To minimize compaction of the clay soils by equipment and impacts to existing fairy shrimp on Unit 6 of Tentative Map 5139RPL6R (J22 complex), vehicular activities within the restoration site will be conducted during late summer and fall, when soil is completely dry and seeds have set. Fairy shrimp habitat creation will be conducted during dry months (July-November).
4. Soil (inoculum) will be salvaged from the impacted agricultural pond onsite. Soil will be collected during dry conditions to avoid damaging or destroying fairy shrimp cysts which are fragile when wet. A hand tool or similar instrument will be used to collect the soil, whenever possible. Soil will be collected in chunks. The trowel will be used to pry up intact pieces of soil, rather than loosening the soil by raking and shoveling, which can damage cysts. If inoculum is needed from other pools, no more than one percent (1%) of the total soil surface of any one pool will be collected. Individual soil samples will not exceed 10 X 10 centimeters. Authorization from the Service will be required if additional pools are considered as a source for inoculum.

5. The inoculum used will not contain *Brachinecta lindahli*, in order to reduce the likelihood of introducing this species into the J22 complex.
6. The names, any permit numbers, resumé, and at least three references (of people who are familiar with the relevant qualifications of the proposed biologist), of all biologists who might need to handle fairy shrimp must be submitted to the Service for approval prior to the initiation of the proposed project. Proposed activities on the Unit 6 of Tentative Map 5139RPL6R will not begin until an authorized biologist has been approved by the Service.
7. The shaping of the fairy shrimp habitat creation area within the J22 complex will be conducted under the direction of an authorized biologist with three years of vernal pool restoration experience in Southern California and who has successfully restored vernal pools. Resumes will be submitted and proposed activities will not begin until an authorized biologist has been approved by the Service.
8. The contractor and operators will be experienced in vernal pool restoration work. The fairy shrimp habitat creation team will include a licensed surveyor to assure that the Plan is implemented as designed.
9. The final Fairy Shrimp Translocation and Five-Year Mitigation Monitoring Plan (Fairy Shrimp Translocation Plan) for Tentative Map 5139RPL6R will be submitted to the Service for approval prior to implementation of the Plan.
10. The Fairy Shrimp Translocation Plan will contain measures for controlling exotic plants and restoring upland habitat in the watershed and buffer to the created basins. The Fairy Shrimp Translocation Plan will contain a figure that delineates the area of upland habitat to be restored/enhanced.
11. The final Fairy Shrimp Translocation Plan will address specific measures for controlling exotic vegetation within the fairy shrimp habitation creation area and adjacent uplands. No use of herbicides will occur within the existing vernal pools basins or created basins. Service approved herbicides used to control exotic vegetation in the upland portion of the restoration area will only be administered by a qualified biologist. Prior to any herbicide application, vernal pools basins and created basins will be delineated, flagged and avoided. A minimum five- meter buffer between adjacent upland habitat and vernal pool basins and created basins will be established. No herbicides will be applied prior to or following 24 hours of a projected rain event, and or during winds conditions greater than one (1) on a beaufort scale.
12. Control pools and upland habitat areas will be subject to approval from the Service before monitoring is set to begin. The J26 complex pools and the J23 complex upland habitat areas are pre-approved for this purpose.

13. Annual Reports will be provided to the Service by November 1 of each year. The final Fairy Shrimp Translocation Plan will include a scaled aerial photograph depicting the baseline status of the site. In addition, the final Fairy Shrimp Translocation Plan will include a map that clearly delineates the extant vernal pool basins and watersheds, proposed fairy shrimp habitat creation basins and watersheds, and the adjacent upland areas. The Annual Report will identify (graphically) and discuss the vegetation communities and any sensitive species occurring on the property, as well as exotic species, except for various non-native grasses which may be widespread on-site but not a specific threat to habitats. The Annual Report will describe all on-site measures undertaken to remove exotic species during the prior year, review the effectiveness of those actions or actions performed in prior years (as appropriate), and identify measures (methods, locations, etc.) to be performed in the coming year. Photographs (i.e., before and after implementation of control measures) will be included in the Annual Report. Representative photographs will also be used to illustrate site conditions or other issues relevant to site management. A list of the plant and animal species occurring on the property will be included as an appendix to the report. The Annual Report will also summarize the status of the endowment, funds generated, and expenses incurred in performing site management. Copies of the Annual Report will be provided to the County DPLU and the Wildlife Agencies by the end of January for the prior calendar year efforts.
14. By the end of the five year monitoring program for the project, the project proponent must demonstrate that the created fairy shrimp habitat basins in the J22 complex support successfully reproducing populations of Riverside or San Diego fairy shrimp, at similar densities ( $p < .05$ ) to that of control pools. This will be determined by measuring the density of viable cysts within the soil. Dry samples will be taken in both the control pools and created basins to determine the density and viability of the cysts. At least 0.11 acre of created basin area will support reproducing Riverside and San Diego fairy shrimp. If a protocol survey for the Riverside fairy shrimp demonstrates that this species is not present in the impact area, then the success criteria related to this species is dismissed. Results of the protocol surveys (2 wet; or 1 dry and 1 wet) will be submitted for approval in order to remove this requirement.
15. If success criteria, as described in the final Fairy Shrimp Translocation Plan, are not met, then the project schedule will repeat on the year that the criteria were not met. For example, if the second year criteria are met, but the third year criteria are not met, then the third year will be repeated, and an additional year added to the monitoring program.
16. Prior to commencement of work in the proposed areas, the project proponent will place a conservation easement in the preserve areas. The conservation easement will allow the work described in the final Fairy Shrimp Translocation Plan to be conducted within the easement area.



17. The project proponent will establish an endowment fund that ensures in perpetuity management for the created basins, and their restored watershed on Unit 6 of Tentative Map 5139RPL6R (J22 complex).
18. Although not required for success, native vernal pool plant species may be introduced into the created basins.

## STATUS OF THE SPECIES

### Riverside fairy shrimp (*Streptocephalus woottoni*)

#### *Listing Status*

The Riverside fairy shrimp was listed as endangered on August 3, 1993 (58 Federal Register: 41391), after the Service determined that the present range and continued existence of the species was being rapidly destroyed by habitat loss and degradation due to urban and agricultural development, off-road vehicle use, trampling, and other factors. A vernal pool recovery plan which includes Riverside fairy shrimp was published in September 1998 (U.S. Fish and Wildlife Service 1998). Critical habitat was designated for this species on May 30, 2001 (66 Federal Register: 29384). Critical habitat for this species was vacated for this species per U.S. District Court for the District of Columbia order dated October 30, 2002. The District Court ordered the Service to publish new final regulations with respect to this species. While critical habitat for this species has been vacated, Riverside fairy shrimp is still a fully protected species under the Endangered Species Act, as amended.

#### *Species Description and Identification*

The Riverside fairy shrimp is a small freshwater crustacean in the Family *Streptocephalidae*, of the Order *Anostraca*. The species was first collected in 1979, by Dr. Clyde Erickson and formally described as a new species in 1990 (Eng *et al.* 1990). Mature males are between 13 and 25 millimeters (mm) (0.5 to 1.0 inches (in.)) long. The cercopods (structures that enhance the rudder-like function of the abdomen) are separate with plumose setae (feathery bristles) along the borders. Mature females are between about 13 and 22 mm (0.5 to 0.87 in.) in length. The brood pouch extends to the seventh, eighth, or ninth abdominal segment. The cercopods of females are the same as in males. The species most taxonomically similar to *S. woottoni* is *S. seali* (Eng *et al.* 1990). However, in *S. woottoni*, both the male and the female have the red color of the cercopods covering the ninth and 30 to 40 percent of the eighth abdominal segments (Eng *et al.* 1990). No red extends onto the abdominal segments in living *S. seali* of either sex (Eng *et al.* 1990). A full description of identifying characteristics for this species is given by Eng *et al.* 1990.

#### *Distribution*

The Riverside fairy shrimp distribution is limited (Eng *et al.* 1990, Simovich and Fugate 1992). The northern distribution limit for the Riverside fairy shrimp is Cruzan Mesa, Los Angeles County and the former Carlsberg Ranch, Ventura County (U.S. Fish and Wildlife Service 2001). In Baja California, Mexico it has been documented at two locations: Valle de las Palmas, south of Tecate, and Bajamar, north of Ensenada (Brown *et al.* 1993). With the exception of the Riverside populations, all populations are within 15 kilometers of the coast (Eriksen and Belk 1999). All known populations lie between 30 and 415 meters in elevation. In Southern San Diego County, Riverside fairy shrimp have been documented in pools on Arnie's Point, in and adjacent to Spring Canyon, on North West Otay Mesa adjacent to Dennery Canyon (Cal Terraces and Robinhood Ridge Vernal Pool Preserves), on Brown Field, and on East Otay Mesa.

### *Habitat Affinities*

Riverside fairy shrimp are restricted to deep (greater than 25 centimeters in depth) vernal pools, and vernal pool like ephemeral ponds, including stock ponds (Eng *et al.* 1990, U.S. Fish and Wildlife Service 1993). They prefer warm-water pools that have low to moderate dissolved solids (Eriksen and Belk 1999). Pools are generally open and unvegetated with turbid water conditions and low total dissolved solids, alkalinity, and chloride levels, as evidenced by approximately neutral pH values (Eng *et al.* 1990). All known habitat lies within annual grasslands, which may be interspersed through chaparral or coastal sage scrub vegetation.

### *Life History*

Riverside fairy shrimp are non-selective particle-feeding filter-feeders, or omnivores. Detritus, bacteria, algal cells, and other items between 0.3 to 100 microns may be filtered and ingested (Eriksen and Belk 1999). Females produce between 17 and 427 cysts over their lifetime (Simovich and Hathaway 1997). Presumably because of the ephemeral and unpredictable nature of the pool resource, few of the available cysts hatch at any one time (Eriksen and Belk 1999). Cysts may hatch when water temperature is at 10 degrees Celsius but develop slowly below 15 degrees Celsius (Eriksen and Belk 1999). Hathaway and Simovich (1996) found that Riverside fairy shrimp hatched in 7 to 12 days when water temperature was between 10 and 20 degrees Celsius and maturity was noted between 48 to 56 days. The eggs are either dropped to the pool bottom or remain in the brood sac until the female dies and sinks (U.S. Fish and Wildlife Service 2001). Eggs may persist in the substrate for several years. When the pools refill in the same or subsequent rainy seasons, some but not all of the eggs may hatch (U.S. Fish and Wildlife Service 2001). Fairy shrimp may be eaten by a wide variety of species, including beetles, dragonfly larvae and other arthropods, frog, salamander, and toad tadpoles, shorebirds, ducks, and even other fairy shrimp.

### *Population Trends*

Within San Diego County, Riverside fairy shrimp occur primarily in the northern and southern extremes of the County. Pools on Camp Pendleton represent the northern population and Otay Mesa the southern, with only one known location in the center of the County at Marine Corps Air Station, Miramar. (U.S. Fish and Wildlife Service 2001). Many populations of Riverside fairy shrimp have likely been extirpated or have experienced drastic declines due to the substantial

loss of habitat in Southern California. The majority of the vernal pools in Southern California were lost prior to 1990 (Keeler-Wolf *et al.* 1998). The greatest recent losses of vernal pool habitat in San Diego County have occurred in Mira Mesa, Rancho Penasquitos, and Kearny Mesa, which accounted for 73 percent of all the pools destroyed in the region from 1979 to 1986 (Keeler-Wolf *et al.* 1998). Other substantial losses have occurred in the Otay Mesa area, where over 40 percent of the vernal pools were destroyed between 1979 and 1990 (U.S. Fish and Wildlife Service 2001). Similar to San Diego County, vernal pool habitat was once extensive on the coastal plain of Los Angeles and Orange counties. Unfortunately, there has been a near total loss of vernal pool habitat in these areas (Bauder 1990). Significant losses of vernal pools supporting this species also occur in Riverside County (U.S. Fish and Wildlife Service 2001).

### *Threats*

The Riverside fairy shrimp is especially vulnerable to alteration in hydrology, therefore the protection of the pools' watershed function is critical to its survival. Riverside fairy shrimp are also threatened by urban, agricultural development, modified hydrology due to adjacent road construction, and illegal trash dumping. Unpredictable natural events such as drought or fire may extirpate the Riverside fairy shrimp due to its fragmented and restricted range. They are also vulnerable to contaminants in runoff waters and watershed quality. Low levels of genetic variability may affect the species potential for long term viability (U.S. Fish and Wildlife Service 1993). With the long distances between the few remaining pools, gene flow is greatly, if not completely, reduced.

### **San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)**

#### *Listing Status*

The San Diego fairy shrimp was federally listed as endangered on February 3, 1997 (62 Federal Register: 4925), after the Service determined that the continued survival of the species was threatened by habitat destruction from agricultural and urban development, alteration of wetland hydrology by draining, off-road vehicle activity, cattle grazing, and replacement by other fairy shrimp species that are habitat generalists. A vernal pool recovery plan which includes San Diego fairy shrimp was published in September 1998 (U.S. Fish and Wildlife Service 1998). Critical Habitat was designated for this species on October 23, 2000 (65 Federal Register: 63438). On June 11, 2002, the U.S. District Court, Central District of California, ordered us to reconsider the economic impacts of the designation and publish a new final designation.

#### *Species Description and Identification*

The San Diego fairy shrimp is a small aquatic crustacean (Order: *Anostraca*) restricted to vernal pools. The San Diego fairy shrimp was originally described by Fugate (1993) from samples collected on Del Mar Mesa, San Diego County. Mature individuals lack a carapace (hard outer covering of the head and thorax) and have a delicate elongated body, large stalked compound eyes, and 11 pairs of swimming legs (U.S. Fish and Wildlife Service 2000). Adult male San Diego fairy shrimp range in size from 9 to 16 millimeters (mm) (0.35 to 0.63 in); adult females

are 8 to 14 mm (0.31 to 0.55 in) long. The second pair of antennae in males are greatly enlarged and specialized for clasping the females during copulation, while the second pair of antennae in the females are cylindrical and elongate. Refer to Fugate (1993) for a detailed description of the identifying characteristics of the San Diego fairy shrimp.

### *Distribution*

The San Diego fairy shrimp occurs in vernal pools from Camp Pendleton Marine Base, inland to Ramona and south through Del Mar Mesa, Proctor Valley, and Otay Mesa, San Diego County, California. The species has recently been documented in Orange County in the Fairview Park vernal pools and at Saddleback Meadows (U.S. Fish and Wildlife Service 1997). In Baja California, it has been recorded at two localities (Valle de Palmas, south of Tecate, and Baja Mar, north of Ensenada). (U.S. Fish and Wildlife Service 1995). On Otay Mesa, San Diego fairy shrimp occur in most of the pool complexes.

### *Habitat Affinities*

These fairy shrimp tend to inhabit shallow, small vernal pools with water temperatures of 10-26 degrees Celsius. They are ecologically dependent on seasonal fluctuations in their habitat, such as absence or presence of water during specific times of the year, duration of inundation, and other environmental factors that likely include specific salinity, conductivity, dissolved solids, and pH levels. Gonzalez *et al.* (1996) found water chemistry as an important factor in determining the distribution of the San Diego fairy shrimp.

### *Life History*

San Diego fairy shrimp are non-selective particle feeding filter-feeders, or omnivores. Detritus, bacteria, algal cells, and other items between 0.3 to 100 microns may be filtered and ingested (Eriksen and Belk 1999). Adult fairy shrimp are usually observed from January to March; however, in years with early or late rainfall, the hatching period may be extended (U.S. Fish and Wildlife Service 2000). This species hatches in 3 to 8 days and matures in about 7 to 17 days depending on water temperature (Hathaway and Simovich 1996). San Diego fairy shrimp may only persist for about 4 to 6 weeks after hatching (Hathaway and Simovich 1996). The eggs are either dropped to the pool bottom or remain in the brood sac until the female dies and sinks (U.S. Fish and Wildlife Service 2000). Eggs may persist in the substrate for several years. When the pools refill in the same or subsequent rainy seasons, some but not all of the eggs may hatch (U.S. Fish and Wildlife Service 2000). Fairy shrimp may be eaten by a wide variety of species, including beetles, dragonfly larvae and other arthropods, frog, salamander, and toad tadpoles, shorebirds, ducks, and even other fairy shrimp.

### *Population Trend*

Many populations of San Diego fairy shrimp have likely been extirpated or have experienced drastic declines due to the substantial loss of habitat in southern California. The majority of the vernal pools within the range of the San Diego fairy shrimp were lost prior to 1990 (Bauder 1986). The greatest recent losses of vernal pool habitat in San Diego County have occurred in

Mira Mesa, Rancho Penasquitos, and Kearny Mesa, which accounted for 73 percent of all the pools destroyed in the region from 1979 to 1986 (U.S. Fish and Wildlife Service 2000). Other substantial losses have occurred in the Otay Mesa area, where over 40 percent of the vernal pools were destroyed between 1979 and 1990 (U.S. Fish and Wildlife Service 2000). Similar to San Diego County, vernal pool habitat was once extensive on the coastal plain of Los Angeles and Orange counties. Unfortunately, there has been a near total loss of vernal pool habitat in these areas (Keeler-Wolf *et al.* 1998).

### *Threats*

The San Diego fairy shrimp is especially vulnerable to alteration in hydrology, therefore the protection of the pools' watershed function is critical to its survival. San Diego fairy shrimp are also threatened by urban, agricultural development, modified hydrology due to adjacent road construction, and illegal trash dumping. Unpredictable natural events such as drought or fire may extirpate the San Diego fairy shrimp due to its fragmented and restricted range. They are also vulnerable to contaminants in runoff waters and watershed quality. Low levels of genetic variability may affect the species potential for long term viability (U.S. Fish and Wildlife Service 1997).

## **ENVIRONMENTAL BASELINE**

Regulations implementing the Act (50 CFR §402.02) define the environmental baseline as the past and present impacts of all Federal, State, or private actions and other human activities in the action area. Also included in the environmental baseline are the anticipated impacts of all proposed Federal projects in the action area that have undergone section 7 consultation, and the impacts of State and private actions which are contemporaneous with the consultation in progress.

The entire action area is within the Multiple Species Conservation Program (MSCP). The MSCP is a comprehensive, long-term habitat conservation plan which addresses the needs of multiple species, including San Diego and Riverside fairy shrimp, and the preservation of natural vegetation communities in San Diego County. The MSCP identifies a reserve system, the Multiple Habitat Planning Area (MHPA), that will be established over time. The MHPA identifies core biological resource areas and corridors targeted for conservation. Within the MSCP, vernal pools are to be conserved both inside and outside the MHPA. Portions of east Otay Mesa, including the vernal pools on the Sunroad Centrum project site, are located within the MHPA. On east Otay Mesa, the area supporting vernal pool habitat is identified as an Amendment area to the MSCP (Figure 2). Amendment areas in the County include key core habitat areas which are vital to the continued existence of many of the covered species.

The vernal pools on the Sunroad Centrum project site are referred to as the J22 complex (Bauder 1986). Existing pools located within the open space (J22) have been surveyed, with confirmed presence of San Diego fairy shrimp. Riverside fairy shrimp surveys have not been conducted; however, appropriate habitat is located within the stock pond on site. Surveys will be preformed prior to project impacts.

South of the J22 complex, we recently completed a consultation with the Immigration and Naturalization Service (INS) that addressed one linear vernal pool that was impacted due to construction of the road associated with the secondary border fence, as well as three other pools along a section of the International Border Fence known as Area II. Compensation for loss of these pools was implemented through the creation of additional vernal pools, and enhancement and restoration of the existing vernal pool watershed in the J15 complex, also referred to as Arnie's Point. In addition, we also consulted with the Federal Highway Administration for State Route (SR) 125 (biological opinion number 1-6-99-F-14), located just west of the Sunroad Centrum project, which will impact the J29-30 complex. As part of the SR 125 project, a 12-acre vernal pool complex will be restored along the southern rim of Johnson Canyon adjacent to an existing vernal pool complex.

Besides the International Border Fence (located at Arnie's Point) and SR 125 (located at Johnson Canyon) restoration sites, other vernal pool restoration sites on Otay Mesa include pools managed by The Environmental Trust (located northwest of Arnie's Point adjacent to Wruck Canyon) and pools managed by Pardee (located north and south of Otay Mesa Road). Both species of fairy shrimp occur in these pools. Several vernal pool complexes occur to the east of Arnie's Point (near La Media Road) and immediately north of the Mexican border. One of these complexes was preserved and enhanced as part of the Empire Center Development Project while the others remain undeveloped on private property.

Other vernal pool complexes occur on Brown Field Airport and immediately to the northeast on INS and U.S. Navy property. These vernal pool complexes are being conserved by the City of San Diego, INS, and as specified in the Navy's Integrated Natural Resources Management Plan. Further to the northeast of Brown Field Airport are a series of vernal pool complexes on the mesas above Johnson Canyon which will be managed for the long-term preservation of vernal pool species by the City and County of San Diego through the MSCP and through the Otay Ranch Resource Management Plan.

Threats to Vernal pool habitat and fairy shrimp on Otay Mesa, including the J22 complex, includes degradation from off-highway vehicles, illegal dumping, invasion of exotic species, and border patrol activities. Currently, the existing vernal pools and their watersheds at J22 are lacking native plant diversity, and are dominated by exotic vegetation.

## **EFFECTS OF THE ACTION**

Effects of the action refer to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated and interdependent with that action, that will be added to the environmental baseline. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. Indirect effects are those that are caused by the proposed action and are later in time, but are still reasonably certain to occur.

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The development of approximately 56 commercial/industrial lots will result in the loss of an agricultural pond that is occupied by San Diego fairy shrimp. Surveys for Riverside fairy shrimp will be conducted prior to project impacts. The 0.11 acre pond supporting San Diego fairy shrimp populations, and possibly Riverside fairy shrimp, will be filled during construction of the project. It is anticipated that all of the shrimp in this pond may be killed. However, the project proponent, Sunroad, proposes to salvage shrimp cysts/soils from the agricultural pond, to the maximum extent practicable, prior to the destruction of the pond. Salvaged shrimp will be reintroduced into the created vernal pools within the open space at the J22 complex. The process of salvaging shrimp cysts will result in the loss of some individuals due to crushing by the equipment used to collect the material. In addition, the viability of the cysts may decrease during transport, and extended storage. Also of concern is the proposed reintroduction of fairy shrimp to the newly created pools, which could have a negative effect on the extant population of shrimp at the J22 complex. Therefore, to maintain the genetic integrity of the shrimp populations that currently exist in the vernal pools at J22, soil and cysts will only be introduced into new pools. Ideally, only salvaged material from on site will be used. However, soils/cysts from additional ponds, such as the fairy shrimp soil/cyst material currently being stored for the adjacent Area II of the International Border fence project may be used, if necessary.

The J22 complex has not been managed or monitored and therefore continues to be degraded from vehicle and foot traffic. Therefore, restoration/enhancement and fencing of the approximately 52 acres of adjacent open space surrounding the J22 complex will result in long term benefits for fairy shrimp. This open space will be conserved in perpetuity and appropriately managed for vernal pool resources. Creation of 0.11 acre of vernal pool basin area, will maintain an equal amount of habitat for reproducing populations of San Diego and Riverside fairy shrimp to that being lost. Additionally, native grassland restoration (part of the Sunroad Resource Conservation Plan) in the upland areas will decrease erosion and excessive siltation into created pools. As part of the restoration plan, control of exotic vegetation in the upland areas will be reduced and managed to 10 percent cover or less. Weed control will facilitate native floral diversity which in turn may improve hydrological conditions and water quality of the vernal pools. In addition, the remaining vernal pools within the J22 complex will be fenced and it is anticipated that this will minimize impacts from off road vehicle use in the area.

Once the proposed action is completed, it is anticipated that the remaining vernal pools at the J22 complex will benefit from the removal exotic vegetation, and the revegetation of the upland areas with native flora. Restoration will also enhance the basin area of vernal pools within the J22 complex. Enhancement and management of the vegetation in upland areas adjacent to the vernal pool watershed should improve native diversity, water quality, structure and overall integrity of vernal pools within this area.

### **Cumulative effects**

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this Biological Opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Because San Diego and Riverside fairy shrimp are endemic to vernal pool habitat in southern California, we anticipate that a wide range of activities will be determined to affect these species. Such activities include, but are not limited to urban, water, flood control, highway, and utility projects; chemical contaminants; as well as conversion or degradation of vernal pools resulting from agriculture and grazing use. Many of these activities will be reviewed under section 7 of the Act as a result of a Federal nexus.

However, within San Diego County, vernal pool habitat continues to be degraded from the lack of effective habitat management and protection. Vernal pools, including those in protected preserves, continue to be degraded by off-road vehicles, illegal dumping, grazing, illegal alien traffic, destruction of the watershed, and the diversion of water to and away from the vernal pool. Additionally, habitat fragmentation can significantly deteriorate the viability of the remaining pool habitat, including areas specifically set aside to protect this habitat.

### **CONCLUSION**

After reviewing the current status of the fairy shrimp, the environmental baseline for the action area, the effects of the drainage structure installation and fence/road construction, and the cumulative effects, it is the Service's biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of San Diego fairy shrimp or Riverside fairy shrimp. We present this conclusion for the following reasons:

#### **San Diego and Riverside Fairy Shrimp**

- The loss of 0.11 acre of vernal pool is not expected to significantly decrease the long-term viability of the San Diego and Riverside fairy shrimp.
- The anticipated loss will be offset by restoration and creation of at least 0.11 acre (at the J22 complex) of functioning vernal pool basins that support reproducing populations of fairy shrimp, that will be managed in perpetuity in order to achieve no-net-loss of habitat.



- Remaining vernal pools and their watersheds at the J22 complex will benefit from restoration/enhancement, control of exotic vegetation in the surrounding habitat, and protection from further habitat degradation resulting from illegal foot traffic and off road vehicle use.

### **INCIDENTAL TAKE STATEMENT**

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

### **AMOUNT OR EXTENT OF TAKE**

It is not possible to precisely predict the number of San Diego and Riverside fairy shrimp that may be taken as a result of the proposed action, however, the Service anticipates that all of the fairy shrimp within the impacted pool (0.11 acre) may be incidentally taken as a result of the implementation of the proposed project. In addition, an unquantifiable number of San Diego and Riverside fairy shrimp cysts may be taken during the salvage/restoration of the vernal pools. Take is expected to occur from direct mortality and harm. However, if salvage of fairy shrimp from the existing vernal pool is successful, some individuals may survive.

### **EFFECT OF THE TAKE**

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species.

### **REINITIATION NOTICE**

This concludes formal consultation on the Sunroad Properties. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical

habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation. If you have any questions or concerns about this biological opinion, please contact Susan Wynn of my staff at (760) 431-9440.

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# County of San Diego

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### MSCP COMPLIANCE SUNROAD CENTRUM, TM 5139 RPL6; ER 98-19-013 DECEMBER 15, 2000

This process results in a determination of whether or not a project is compliance with the Endangered Species Act (ESA) (Section 10, Implementing Agreement between the County of San Diego and the California Department of Fish and Game and the U.S. Fish and Wildlife Service). An applicant receives Third Party Beneficiary Status under the ESA when: 1) necessary mitigation has occurred in compliance with Section 10 of the Implementing Agreement; 2) the determined mitigation includes an immediately effective requirement to maintain the biological values of the land committed for mitigation; and 3) the mitigation has been imposed through a condition of development (such as a mitigation agreement) that is recorded and runs with the land and is enforceable against and binding upon the Third Party Beneficiary and any successor in interest to the Third Party Beneficiary. Third Party Beneficiary Status may be attained for the project as a whole, or for a discrete phase(s) of the project, so long as the mitigation for the discrete phase(s) is not functionally dependent in the context of the MSCP and Subarea Plan upon the mitigation proposed for subsequent phases.

**PROJECT DESCRIPTION:** The Sunroad Centrum project consists of an approximate 250-acre tentative map within the already approved East Otay Mesa Specific Plan. The project is a tentative map for 96 commercial/industrial lots with an open space easement. The project site supports seven habitat types: vernal pools, coastal sage scrub, freshwater marsh (disturbed wetland), agricultural pond, southern willow scrub, non-native grassland and disturbed habitat. Eight sensitive species: San Diego button celery, variegated dudleya, San Diego barrel cactus, spreading navarretia, San Diego Fairy shrimp and three raptor species are documented to occur onsite.

Approximately 190 acres of habitat are proposed to be impacted including approximately 15 acres of BRCA (including impacts from construction of Lone Star Road. Approximately 45 acres (66 percent) of the BRCA are proposed to be included in a conservation easement governed by a Resource Conservation Plan (RCP). All of the vernal pools onsite supporting three USFWS threatened and endangered species, are proposed to be preserved onsite.

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Significant impacts are expected to occur to wetlands and waters of the U.S. including the artificial pond designated as freshwater marsh, and a portion of an abandoned agricultural pond located near the central portion of the site. In addition, the project would significantly impact the area of disturbed coastal sage scrub onsite and non-native grassland habitat (in accordance with the Biological Mitigation Ordinance). Significant impacts to sensitive species include impacts to San Diego fairy shrimp, barrel cactus, variegated dudleya, and northern harrier. The spreading navarretia occurs within the open space easement and is not expected to be impacted.

It is proposed that the project impacts be mitigated both on and off site. Mitigation for these impacts proposed are consistent with the approved East Otay Mesa SPA plan and include a combination of some or all of the following: onsite preservation of vernal pools, native and non-native grassland, and coastal sage scrub habitat, offsite purchase of additional lands needed to offset impacts in accordance with the BMO, and sensitive plant salvage and translocation program and a wetland (fairy shrimp habitat) creation program.

**Table Summarizing Project Impacts and Mitigation With Respect to Habitat Type**  
(all numbers represent acreage)

	<b>Direct Impacts</b>	<b>Proposed Open Space</b>	<b>Offsite Mitigation</b>	<b>Total Area Onsite</b>
<b>Vernal Pools</b> (no net loss)	0.0	0.2	0	0.2
<b>Southern Willow Scrub</b> (no net loss)	0.2	0.4*	0	0.6
<b>Disturbed Waters</b> (no net loss)	0.1	0.2**	0	0.2
<b>Coastal Sage Scrub</b> (mitigation ratio = 1:1)	2.1	3.2	0	5.4
<b>Native Grassland</b> (mitigation ratio = 2:1)	4.2	3.1	5.4	7.3
<b>Non-Native Grassland</b> (mitigation ratio = 0.5:1)	186.5	44.7	48.6	231.2
<b>Disturbed/Developed</b> (no mitigation required)	5.9	0.0	N/A	5.9

\* A total of 0.4 acre of southern willow scrub habitat will be preserved onsite and an additional 0.4-acre of southern willow scrub habitat will be created onsite (or offsite).

\*\* A total of 0.2 acre of disturbed waters will be created onsite (or offsite).

**BMO FINDINGS**

1. Approximately 60 acres of the site is a BRCA because it is underlain by clay soils which support sensitive plant species, including San Diego button celery, variegated dudleya, San Diego barrel cactus and spreading navarretia. The BRCA contributes to the wildlife corridor associated with Johnson Canyon.
2. The rest of the project site is not a BRCA with the following findings supporting this conclusion (Area shown on "Open Space Map").
  - a. The land is not shown as a Pre-Approved Mitigation Area on the wildlife agencies' Pre-Approved Mitigation Area map.

**Findings of Fact:**

The non-BRCA land is not shown as a Pre-Approved Mitigation Area on the wildlife agencies' Pre-Approved Mitigation Area map. The project is located on Otay Mesa, east of Brown Field, north of Otay Mesa Road and both east and west of Harvest Road. A portion of the site is a Major Amendment Area, a Minor Amendment Area and a Minor Amendment Area with special concerns. The Minor Amendments has been approved by the Wildlife Agencies. The Major Amendment is not required because all of this area will be within a conservation easement for resource preservation.

- b. The land is not located within an area of habitat which contains biological resources that support or contribute to the long-term survival of sensitive species, and is not adjacent or contiguous to preserved habitat that is within the Pre-Approved Mitigation Area on the wildlife agencies' Pre-Approved Mitigation Area map.

**Findings of Fact:**

The non-BRCA land is not located within an area of habitat which contains biological resources that support or contribute to the long-term survival of sensitive species. It is non-native grassland that has supported agriculture for many years.

- c. The land is not part of a regional linkage/corridor. The site is not land that contains topography that serves to allow for the movement of all sizes of wildlife, including large animals on a regional scale. The site does not contain adequate vegetation cover providing visual continuity so as to encourage the use of the corridor by wildlife. The site has not been identified as the primary linkage/corridor between the northern and southern regional populations of the California gnatcatcher in the

population viability analysis for the California gnatcatcher, MSCP Resource Document Volume II, Appendix A-7 (Attachment I of the BMO.)

**Findings of Fact:**

The non-BRCA land is not part of a regional linkage or corridor because it lies within an area in which all native habitats have been converted by intensive agriculture to non-native grassland or disturbed habitats. Agriculture has been practiced on this site and in the greater East Otay Mesa area over the course of many decades.

While not a part of a regional corridor, onsite portions of Johnson Canyon and its slopes will be preserved in order to maintain a wildlife corridor between the Otay River Valley to the north and the Otay Mountains to the east. Additionally, a very small portion of the site (most of which will be preserved) in the northeastern corner is contiguous with larger blocks of habitat. However, this finger, relative to the larger undisturbed habitat of which it is a part, is small and is surrounded almost entirely by land disturbed primarily through agricultural practices. It represents a "dead end" for species that may be utilizing the habitat as a corridor. The site has not been identified as the primary linkage/corridor between the northern and southern regional populations of the California gnatcatcher in the population viability analysis for the California gnatcatcher (Attachment I of the BMO).

- d. The land is not shown on the habitat evaluation map (Attachment J to the BMO) as very high or high and does not link significant blocks of habitat (except that land which is isolated or links small, isolated patches of habitat and land that has been affected by existing development to create adverse edge effects shall not qualify as BRCA).

**Findings of Fact:**

All of the non-BRCA lands are mapped as "Agricultural".

- e. The land does not consist of or is not within a block of habitat greater than 500 acres in area of diverse and undisturbed habitat that contributes to the conservation of sensitive species.

**Findings of Fact:**

The non-BRCA lands while greater than 500 acres have been repeatedly disturbed by agriculture. No diversity of flora or fauna is found. In fact, after six years of being left fallow, only mustard and invasive non-native grasses have returned. There has been no succession to shrublands.

- f. The land does not contain a high number of sensitive species and is not adjacent or contiguous to surrounding undisturbed habitats, and does not contain soil derived from the following geologic formations: gabbroic rock; metavolcanic rock; clay; and coastal sandstone, which are known to support sensitive species.

**Findings of Fact:**

No sensitive plant species were identified on the non-BRCA lands. No diversity of flora or fauna is found. In fact, after six years of being left fallow, only mustard and invasive non-native grasses have returned. There has been no succession to shrublands. Soils are derived from clay but are 100% altered by past agriculture.

**FINDINGS FOR CONFORMANCE WITH THE  
BIOLOGICAL MITIGATION ORDINANCE**

The Biological Mitigation Ordinance has several sets of criteria that must be met when projects are designed. They include Findings under Article V. A. Project Design Criteria, and findings in Attachments G and H. These findings are to be made, if appropriate, in addition to the overall findings listed for conformance with the Subarea Plan.

**PROJECT DESIGN CRITERIA.**

1. Project development shall be sited in areas to minimize impact to habitat;

**Findings of Fact:** The proposed development has designed open space that will protect the viability of sensitive resources. All (0.2 acre) of the vernal pool habitat (supporting two sensitive plant species and the endangered San Diego fairy shrimp), 0.4 acre of southern willow scrub, 3.2 acres of coastal sage scrub (which supports two sensitive plant species), 3.1 acres of native grassland, and 44.7 acres of non-native grassland will be preserved onsite. Impacts to *Dudleya variegata* and *Ferocactus viridescens* will be minimized through transplantation of individuals from areas that are proposed for development into the preserved open space onsite (dudleya may be mitigated by off-site purchase of habitat). While there will be some loss of sensitive habitat associated with the proposed project, that loss has been limited and therefore meets the standards set forth in the Biological Mitigation Ordinance and appropriate mitigation measures have been included as part of the project. Impacts to 0.1 acre of disturbed wetlands/waters will be mitigated through onsite creation of disturbed waters and fairy shrimp habitat. It is proposed that impacts to native grassland and non-native grassland be mitigated both on and offsite. A total of 2.1 acres of coastal



sage scrub would be impacted. Mitigation for coastal sage scrub is required at a ratio of 1.5:1 and will be accomplished by preserving 3.2 acres on site. Mitigation for impacts to 4.2 acres of native grassland, at a 2:1 mitigation ratio, will be accomplished by preserve of 3.1 acres of native grassland and the purchase of 5.4 acres of habitat off-site. Mitigation for impacts to 186.5 acres of non-native grassland, at a 0.5:1 mitigation ratio, will be accomplished by the on site preserve of 44.7 acres of non-native grassland and the purchase of 48.6 acres of habitat off-site. By special agreement with the wildlife agencies, the total off-site purchase requirement of 54 acres will be purchased in Hollenbeck Canyon (Daley Ranch). Should this transaction fail to proceed, off-site purchase would occur according to the BMO.

2. Clustering to the maximum extent permitted by County regulations shall be considered where necessary as a means of achieving avoidance:

**Findings of Fact:**

The proposed development for the Sunroad Centrum Project of 96 commercial industrial lots is not considered a clustered development. Development, however, is concentrated away from the sensitive resources. Areas not proposed for development will be placed in an open space preserve managed by a Habitat Conservation Plan.

3. Notwithstanding the requirements of the Slope Encroachment Regulations contained within the Resource Protection Ordinance, effective October 10, 1991, projects shall be allowed to utilize design which may encroach into steep slopes to avoid impacts to habitat;

**Findings of Fact:**

The site does not contain steep slope areas that can be utilized for development to better provide for the protection of sensitive resources located in flatter areas. The only sloping areas onsite are the banks of Johnson Canyon. Johnson Canyon and its slopes will be preserved in order to maintain a wildlife corridor. Preservation of Johnson Canyon and its slopes as a wildlife corridor is consistent with the East Otay Mesa Specific Plan.

4. The County shall consider reduction in road standards to the maximum extent consistent with public safety considerations;

**Findings of Fact:**

The project is not affected by roads to the degree that a reduction in standards could reduce the impacts associated with it. The project would require offsite improvements to Otay Mesa Road. These road improvements are expected to result in an impact to 0.1 acre of non-native grassland and mitigation in

accordance with the BMO has been included in the mitigation totals.

5. Projects shall be required to comply with applicable design criteria in the County MSCP Subarea Plan, attached hereto as Attachment G (Preserve Design Criteria) and Attachment H.

**PRESERVE DESIGN CRITERIA (ATTACHMENT G).**

The project conforms to the Preserve Design Criteria and the linkages and corridors criteria as specified through the findings of the project design criteria above.

**DESIGN CRITERIA FOR LINKAGES AND CORRIDORS (ATTACHMENT H).**

- a. Habitat linkages as defined by the Biological Mitigation Ordinance, rather than just corridors, will be maintained.

**Findings of Fact:**

The proposed development area is not part of a regional linkage because it lies within an area in which habitats have constraints due to adjacency to disturbed (through agriculture) lands or developed lands. A portion of the proposed project does meet the definition of a linkage as defined in the Biological Mitigation Ordinance has been preserved. This portion of the site in the northeastern corner is contiguous with larger blocks of habitat from Otay River to the Otay Mountains.

- b. Existing movement corridors within linkages will be identified and maintained.

**Findings of Fact:**

The proposed development area is not considered part of a linkage as described in A above.

- c. Corridors with good vegetative and/or topographic cover will be protected.

**Findings of Fact:**

Johnson Canyon and its slopes encompassed by the project site will be preserved in order to maintain a wildlife corridor between the Otay River Valley to the north and the Otay Mountains to the east. Preservation of Johnson Canyon and its slopes as a wildlife corridor is consistent with the East Otay Mesa Specific Plan. In addition, the project's conformance with the MSCP and the Biological Mitigation Ordinance further add to the regional connectivity of the open space preserved onsite. The portion of the BRCA south of proposed Lone Star Road has been disturbed by

agriculture and will be functionally separated from the more valuable habitat north of the road. All land north of the road will be preserved as a conservation easement subject to an RCP.

- d. Regional linkages that accommodate travel for a wide range of wildlife species, especially those linkages that support resident populations of wildlife, will be selected.

**Findings of Fact:**

The proposed development area does not contain a linkage that meets these specifications. However, portions of Johnson Canyon and its slopes encompassed by the project site will be preserved in order to maintain a wildlife corridor between the Otay River Valley to the north and the Otay Mountains to the east. All land north of the Lone Star Road will be preserved as a conservation easement subject to an RCP.

- e. The width of a linkage will be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography, and adjacent land uses. Where there is limited topographic relief, the corridor must be well vegetated and adequately buffered from adjacent development.

**Findings of Fact:**

The proposed development area does not contain a linkage that meets these specifications. However, portions of the BRCA adjacent to Johnson Canyon and its slopes encompassed by the project site will be preserved in order to maintain a wildlife corridor between the Otay River Valley to the north and the Otay Mountains to the east. All land north of the Lone Star Road, which is contiguous with Johnson Canyon, will be preserved as a conservation easement subject to an RCP.

- f. If a corridor is relatively long, it must be wide enough for animals to hide in during the day. Generally, wide linkages are better than narrow ones. If narrow corridors are unavoidable, they should be relatively short. If the minimum width of a corridor is 400 feet, it should be no longer than 500 feet. A width of greater than 1,000 feet is recommended for large mammals and birds. Corridors for bobcats, deer and other large animals should reach rim-to-rim along drainages, especially if the topography is steep.

**Findings of Fact:**

All land north of the Lone Star Road, which is contiguous with Johnson

Canyon, will be preserved as a conservation easement subject to an RCP. This will maintain a wildlife corridor between the Otay River Valley to the north and the Otay Mountains to the east. The portion of this corridor that lays onsite is approximately 1500 feet from the bottom of Johnson Canyon. Preserved open space adequately buffers the onsite portion of the corridor from adjacent development to the southwest. Furthermore,

the development is set back from the rim of the canyon and separated from the open space by Lone Star Road and a 5-foot fence.

- g. Visual continuity (i.e., long lines-of-site) will be provided within movement corridors. This makes it more likely that animals will keep moving through it. Developments along the rim of a canyon used as a corridor should be set back from the canyon rim and screened to minimize their visual impact.

**Findings of Fact:**

Within the portion of the corridor preserved onsite, coastal sage scrub, native grassland, non-native grassland and southern willow scrub are proposed to be preserved. Wildlife traveling through Johnson Canyon will not have a visual change. The proposed development is set back from the rim of the canyon and separated from the open space by Lone Star Road and a 5-foot fence.

- h. Corridors with low levels of human disturbance, especially at night, will be selected. This includes maintaining low noise levels and limiting artificial lighting.

**Findings of Fact:**

The design of the project includes conditions and criteria to limit night-time disturbance, including building setbacks, shielded lighting, and limited access. This area already has light disturbance from the State Prison.

- i. Barriers, such as roads, will be minimized. Roads that cross corridors should have 10-foot high fencing that channels wildlife to underpasses located away from interchanges. The length-to-width ratio for wildlife underpasses is less than 2, although this restriction can be relaxed for underpasses with a height of greater than 30 feet.

**Findings of Fact:**

The open space, which includes the Johnson Canyon corridor, will not have any roads or barriers within it.

- j. Where possible at wildlife crossings, road bridges for vehicular traffic rather than tunnels for wildlife use will be employed. Box culverts will only be used when they can achieve the wildlife crossing/movement goals for a specific location. Crossings will be designed as follows: sound insulation materials will be provided; the substrate will be left in a natural condition, and vegetated with native vegetation if possible; a line-of-site to the other end will be provided; and if necessary, low-level illumination will be installed in the tunnel.

**Findings of Fact:**

The project does not have a wildlife crossing, since there is no proposed crossing of the open space.

- k. If continuous corridors do not exist, archipelago (or steppingstone) corridors may be used for short distances. For example, the gnatcatcher may use disjunct patches of sage scrub for dispersal if the distance involved is less than 1-2 miles.

**Findings of Fact:**

The project proposes a continuous corridor.

**FINDINGS IN CONFORMANCE WITH THE SUBAREA PLAN**

All projects whether considered an exception or an exemption to the Biological Mitigation Ordinance must conform with the San Diego County Subarea Plan. The concept of conformance to the plan does not mean specific and direct compliance with the mitigation ratios. Exemption and exception is intended to provide for flexibility from those standards when there are specific reasons to do so. Conformance with the Subarea Plan does involve the review of the project to see that it does not create a situation where a project is affecting the potential for preserve design.

1. The project will not conflict with the no-net-loss-of-wetlands standard in satisfying state and federal wetland goals and policies.

**Findings of Fact:**

The project will not conflict with the no-net-loss-of-wetlands standard in satisfying state and federal wetland goals and policies. The project proposes to directly impact, by grading, 0.2 acre of disturbed wetland/waters. These impacts will require a permit from the ACOE under Section 404 of the Clean Water Act, and a 401 water quality certification from the RWQCB. As part of the permit process with these resource and regulatory agencies, a detailed site-specific mitigation

and monitoring plan has been prepared. Impacts to disturbed water/wetlands onsite will be in-kind replacement of habitat quality. Specifically, the objective of the wetlands mitigation plan shall be to create five basins (totaling 0.1 acre) that will collect water adequately to provide habitat for the two species of fairy shrimp and to ensure no net loss of wetland habitat value. In addition, another 0.1 acre of wetland creation will be required to bring up the mitigation ratio to 2:1.

2. The project includes measures to maximize the habitat structural diversity of conserved habitat areas including conservation of unique habitats and habitat features.

**Findings of Fact:**

The proposed project will place 66 percent of the BRCA including the most diverse and unique habitats within conservation easements. The preservation of all vernal pools (which support two sensitive plant species and the endangered San Diego fairy shrimp), 0.4 acre of southern willow scrub, 3.2 acres of coastal sage scrub, 3.1 acres of native grassland, and 44.7 acres of non-native grassland meets this criteria.

3. The project provides for conservation of spatially representative examples of extensive patches of coastal sage scrub and other habitat types that were ranked as having high and very high biological values by the MSCP habitat evaluation model.

**Findings of Fact:**

The proposed project will place 66 percent of the BRCA including the conservation of spatially representative examples of very high value habitats. The preservation of all vernal pools (which support two sensitive plant species and the endangered San Diego fairy shrimp), all (0.4 acre) of southern willow scrub associated with the on site portion of Johnson Canyon, 3.2 acres of coastal sage scrub, 3.1 acres of native grassland, and 44.7 acres of non-native grassland meets this criteria. The portion of the BRCA, ranked as "very high" that will be developed (15 acres) is disturbed by agriculture and is cut off from the larger portion of BRCA by the adopted circulation element route of Lone Star Road.

4. The project provides for the creation of significant blocks of habitat to reduce edge effects and maximize the ratio of surface area to the perimeter of conserved habitats.

**Findings of Fact:**

The proposed project will place open space easements on land that is configured to maximize the ratio of surface area to perimeter. This is accomplished by

minimizing intrusions by development into the preserve area boundary and maintaining boundaries of gently sweeping curves rather than acute indentations and peninsulas of development partially surrounded by preserved land. In addition the project has been designed with an adequate setback from development to avoiding lighting and noise conflicts. A five-foot fence barrier will border the road interface with the preserve.

5. The project provides for the development of the least sensitive habitat areas.

**Findings of Fact:**

Areas proposed for preservation in open space contain the majority of sensitive species and habitats on site. Development is primarily restricted to areas currently occupied by non-native grassland habitat, a Tier III habitat, the least sensitive of all habitat types found onsite. One agricultural pond (waters of the US) contains fairy shrimp. While the fairy shrimp are endangered, this artificial occupied habitat is not natural or sensitive. The Army Corps and the Wildlife Agencies have agreed to a project design which impacts the pond is appropriate with mitigation that will create habitat for fairy shrimp.

6. The project provides for the conservation of key regional populations of covered species, and representations of sensitive habitats and their geographic sub-associations in biologically functioning units.

**Findings of Fact:**

No key regional populations of covered species are present on the site. The project does provide for conservation of sensitive habitats in biologically functioning units. The majority of the sensitive habitats are being protected in place through dedication of a conservation easement. The conservation easement has been designed to minimize impacts to these sensitive habitats and to wildlife species using the Johnson Canyon corridor. All of the vernal pools (which support two sensitive plant species and the endangered San Diego fairy shrimp) and of the southern willow scrub habitat associated with Johnson Canyon will be preserved onsite. While there will be some loss of sensitive habitat associated with the proposed project, that loss has been limited and therefore meets the standards set forth in the Biological Mitigation Ordinance and appropriate mitigation measures have been included as part of the project.

The proposed development has designed open space that will protect the viability of sensitive resources. All (0.2 acre) of the vernal pool habitat (supporting two sensitive plant species and the endangered San Diego fairy shrimp), 0.4 acre of southern willow scrub, 3.2 acres of coastal sage scrub (which supports two sensitive plant species), 3.1 acres of native grassland, and 44.7 acres of non-native grassland will be preserved onsite. Impacts to *Dudleya variegata* and

*Ferocactus viridescens* will be minimized through transplantation of individuals (or off-site purchase of dudleya habitat) from areas that are proposed for development into the preserved open space onsite. While there will be some loss of sensitive habitat associated with the proposed project, that loss has been limited and therefore meets the standards set forth in the Biological Mitigation Ordinance and appropriate mitigation measures have been included as part of the project. Impacts to 0.1 acre of disturbed wetlands/waters will be mitigated through onsite creation of disturbed waters and fairy shrimp habitat. It is proposed that impacts to native grassland and non-native grassland be mitigated both on and offsite. A total of 2.1 acres of coastal sage scrub would be impacted. Mitigation for coastal sage scrub is required at a ratio of 1.5:1 and will be accomplished by preserving 3.2 acres on site. Mitigation for impacts to 4.2 acres of native grassland, at a 2:1 mitigation ratio, will be accomplished by preserve of 3.1 acres of native grassland and the purchase of 5.4 acres of habitat off-site. Mitigation for impacts to 186.5 acres of non-native grassland, at a 0.5:1 mitigation ratio, will be accomplished by the on site preserve of 44.7 acres of non-native grassland and the purchase of 48.6 acres of habitat off-site. By special agreement with the wildlife agencies, the total off-site purchase requirement of 54 acres will be purchased in Hollenbeck Canyon (Daley Ranch). Should this transaction fail to proceed, off-site purchase would occur according to the BMO.

7. Conserve large interconnecting blocks of habitat that contribute to the preservation of wide-ranging species such as mule deer, golden eagle, and predators as appropriate. Special emphasis will be placed on conserving adequate foraging habitat near golden eagle nest sites.

**Findings of Fact:**

Onsite a "finger" of land of "very high" habitat value projects into the northeast corner of the project site. This finger is contiguous with a block of habitat greater than 500 acres in area of diverse and undisturbed habitat that contributes to the conservation of sensitive species. But, this area has been impacted by past agriculture and will be isolated from the conservation area by Lone Star Road. The most sensitive portion of land onsite with a "very high" habitat value (i.e. that containing seven vernal pools and the associated mima-mound topography) located onsite will be preserved. Additionally, portions of Johnson Canyon and its slopes encompassed by the project site will be preserved in order to maintain a wildlife corridor between the Otay River Valley to the north and the Otay Mountains to the east. Approximately 1500 feet from the canyon bottom is included in the conservation easement. In addition, other portions of the corridor are/will be preserved through a discretionary review process in and outside the East Otay Mesa Specific Plan area. To the south and west the project site is surrounded by either disturbed (primarily through agriculture) or developed land.



8. All projects within the San Diego County Subarea Plan shall conserve identified critical populations and narrow endemics to the levels specified in the Subarea Plan. These levels are generally no impact to the critical populations and no more than 20 percent loss of narrow endemics and specified rare and endangered plants.

**Findings of Fact:**

The project site supports three sensitive plant species; barrel cactus (*Ferocactus viridescens*), button celery (*Eryngium aristulatum*), and variegated dudleya (*Dudleya variegata*). One additional sensitive plant was identified during past surveys and is presumed to still exist onsite: *Prostrate navarretia* (*Navarretia fossalis*). Both the *Navarretia fossalis* and the *Eryngium aristulatum* occur within the J22 vernal pool complex. Preservation of the vernal pool complex (mima mound-pool topography plus watershed) in designated open space will reduce impacts to below a level of significance. Preservation of 80% of the *Dudleya variegata* and 50% of the *Ferocactus viridescens* populations will occur within the designated open space. A further mitigation measure providing for the conservation of covered species is salvage and relocation, *Dudleya variegata* and *Ferocactus viridescens* to the preserved open space. A minimum of 80% of the transplanted populations will be maintained under the Resource Conservation Plan (RCP). The RCP also provides for creation/enhancement of shrimp habitat.

9. No project shall be approved which will jeopardize the possible or probable assembly of a preserve system within the Subarea Plan.

**Findings of Fact:**

The project proposes a conservation easement that will preserve any potential or likely corridors and the best quality habitat onsite such that it could be included within a sound preserve system. The project open space and purchase of habitat in Hollenbeck Canyon will contribute to the preserve system in the Subarea.

10. All projects that propose to count on-site preservation toward their mitigation responsibility must include provisions to reduce edge effects.

**Findings of Fact:**

The project has included specific measures through project design and management that would reduce edge effects. The sensitive area preserved in open space borders proposed development on only one side. Access to the sensitive habitat is precluded by Lone Star Road and through the provision of

fencing of the proposed open space. The use of non-native, invasive plant species will be prohibited around all industrial and commercial structures, and along roads and entryways. All project lighting will be directed away from the open space. To avoid direct impacts to the one vernal pool located south of Lone Star Road, it will be preserved with its watershed and fenced, and managed in conjunction with the pools in the northern open space. Some indirect impacts are expected, but overall, the project's preservation design is good and will have edge effect reduced.

11. Every effort has been made to avoid impacts to BRCA, sensitive resources and specific sensitive species as defined in the Biological Mitigation Ordinance.

**Findings of Fact:**

The proposed development has avoided 66 percent of the BRCA and has designed open space that will protect the sensitive species on the site. All (0.2 acre) of the vernal pool habitat (supporting two sensitive plant species and the endangered San Diego fairy shrimp), 0.4 acre of southern willow scrub, 3.2 acres of coastal sage scrub (which supports two sensitive plant species), 3.1 acres of native grassland, and 44.7 acres of non-native grassland will be preserved onsite. Impacts to *Dudleya variegata* and *Ferocactus viridescens* will be minimized through transplantation of individuals from areas that are proposed for development into the preserved open space onsite (or off-site purchase of dudleya habitat). While there will be some loss of sensitive habitat associated with the proposed project, that loss has been limited and therefore meets the standards set forth in the Biological Mitigation Ordinance and appropriate mitigation measures have been included as part of the project. The total area preserved onsite totals 51.6 acres in a consolidated open space north of Lone Star Road (adjacent to Johnson Canyon corridor/linkage) and includes a vernal pool open space south of Lone Star Road.

**CONSLUSION:**

Review of the project's impacts on biological resources and a determination of whether or not necessary mitigation have occurred, in compliance with Section 10 of the Implementing Agreement between the County of San Diego and the California Department of Fish and Game and the U.S. Fish and Wildlife Service.

This project has been found to conform to the San Diego County Multiple Species Conservation Program Subarea Plan, Biological Mitigation Ordinance and Implementing Agreement. Upon fulfillment of the requirements for permanent mitigation and management of preserved areas as outlined in Section 17.1(A) of the County's Implementing Agreement for the Multiple Species Conservation Program (MSCP) Plan, Third Party Beneficiary Status can be attained for the project. Third party beneficiary

status allows the property owner to perform "incidental take" under the State and Federal Endangered Species Acts, of species covered by the MSCP plan while undertaking land development activities in conformance with an approval granted by the County in compliance with the County's Implementing Agreement.