

**MULTIPLE SPECIES CONSERVATION PROGRAM
DRAFT FINDINGS OF CONFORMANCE
FOR HIGHLANDS RANCH
TM 5299, P02-023, ER 02-19-021
OCTOBER 11, 2007**

I. INTRODUCTION

The Highlands Ranch project will consist of developing 211 residential lots, two parks, and associated private roads and utilities, on the 176.6 acre Dictionary Hill site near the communities of Spring Valley and La Presa in San Diego County. An offsite road alignment will connect the project site to an existing road to the northwest of the site.

Implementation of the proposed mitigation measures will reduce potential project impacts to below a level of significance, and ensure that the project is compliant with the County Multiple Species Conservation Program Subarea Plan and Biological Mitigation Ordinance. The site is vacant with a number of dirt roads and trails; water tanks are present. Lands surrounding the project are all developed with single-family residences.

The project area supports six habitat types: Diegan coastal sage scrub, developed land, disturbed land, Eucalyptus woodland, non-native grassland, and southern willow scrub. Coastal sage scrub, non-native grassland, and southern willow scrub are considered sensitive habitats by the County of San Diego.

Seven sensitive plant species were found onsite: western Dichondra (*Dichondra occidentalis*), variegated Dudleya (*Dudleya variegata*), coast barrel cactus (*Ferocactus viridescens* var. *viridescens*), southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*), San Diego goldenstar (*Muilla clevelandii*), Munz's sage (*Salvia munzii*), and San Diego sunflower (*Viguiera laciniata*).

Ten sensitive animal species were observed onsite: coast horned lizard (*Phrynosoma coronatum*), coastal rosy boa (*Charina trivirgata roseofusca*), orange-throated whiptail (*Cnemidophorus hyperythrus*), Bell's sage sparrow (*Amphispiza belli belli*), California gnatcatcher (*Polioptila californica californica*), Cooper's hawk (*Accipiter cooperii*), northern harrier (*Circus cyaneus*), sharp-shinned hawk (*Accipiter striatus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). The Federally Endangered Quino checkerspot butterfly (*Euphydryas editha quino*) was documented onsite in 1983, but was not detected in 1998 and 2002 protocol surveys.

Implementation of the project, including the offsite road alignment, would impact approximately 77.70 acres of habitat, including approximately 70.85 acres of Diegan coastal sage scrub, 1.01 acres of developed land, 5.48 acres of disturbed

land, and 0.36 acres of non-native grassland. The loss of 70.85 acres of coastal sage scrub, and 0.36 acre of non-native grassland—would be considered significant. Mitigation through onsite preservation in open space of 96.33 acres of coastal sage scrub and 0.18 acre of non-native grassland, and offsite purchase of an additional 9.94 acres of coastal sage scrub would reduce project habitat impacts to below a level of significance.

Construction of the project would result in direct impacts to 12.8% of variegated *Dudleya* (Group A), 6.0% of San Diego goldenstar (Group A), 17.9% of coast barrel cactus (Group B), 16.7% of Munz's sage (Group B) population, and 85.6% of western *Dichondra* (Group D). These impacts would be considered significant, but will be mitigated through onsite preservation of remaining plants; and purchase of offsite mitigation acreage containing 3,490 variegated *Dudleya*, 2.67 acres of Munz's sage-dominated scrub, and 150 coast barrel cacti. The project will also impact San Diego sunflower, but this would be considered adverse but not significant due to the local abundance of this shrub, and probable incidental mitigation through coastal sage scrub habitat mitigation.

The loss of observed locations for 9 (three pairs, two juveniles, and one adult male) California gnatcatchers would be considered significant, but will be reduced to below a level of significance through the purchase of offsite coastal sage scrub acreage. This mitigation acreage must currently contain at least 9 California gnatcatchers. This coastal sage scrub acreage will also mitigate for significant direct impacts to coastal rosy boa, orange-throated whiptail, coast horned lizard, southern California rufous-crowned sparrow, Bell's sage sparrow, and San Diego black-tailed jackrabbit.

Indirect impacts to remaining sensitive habitat, plant and animal species will be prevented/mitigated through use of six foot chain-link fencing and signage between the development and onsite open space. Potential significant impacts to nesting California gnatcatchers and migratory birds will be mitigated through noise and biological monitoring and use of sound barriers where needed.

The site is contiguous with preserved land on the east which was dedicated as a part of The Point project. On the north, there is undeveloped land in association with Bancroft Creek. The project is not within a Pre-Approved Mitigation Area or regional linkage/corridor, but it does qualify as a Biological Resources Core Area (BRCA).

The project incorporates onsite Conservation Open Space Easements for avoidance of narrow endemic species and as mitigation for habitat and sensitive species impacts. Mitigation for project impacts also includes offsite purchase of Tier II or higher tier habitat within a mitigation bank. These mitigation measures as well as maps showing the Conservation Open Space Easement are contained in the Environmental Impact Report.

Table 2. Highlands Ranch Habitat Impacts				
Habitats	Total Acreage (Onsite and Offsite)	Impacted Acreage Onsite	Impacted Acreage Offsite	Total Impacted Acreage
Coastal Sage Scrub (Tier II)	167.17	69.90	0.94	70.85
Developed (Tier IV)	1.32	0.67	0.33	1.01
Disturbed (Tier IV)	6.97	4.99	0.49	5.48
Eucalyptus Woodland (Tier IV)	0.50	0.00	0.00	0.00
Non-native Grassland (Tier III)	1.95	0.36	0.00	0.36
Southern Willow Scrub (Tier I)	0.43	0.00	0.00	0.00
TOTAL	178.35	75.93	1.77	77.70

Project implementation, including the offsite road alignment and offsite fuel modification zone impacts, will directly impact a total of 70.85 acres of coastal sage scrub, 1.01 acres of developed habitat, and 5.48 acres of disturbed habitat, and 0.36 acre of non-native grassland.

The findings contained within this document are based on County records, staff field site visits and the Biological Technical Report for Highlands Ranch (REC Consults, Inc., September 2007). The information contained within these Findings is correct to the best of staff's knowledge at the time the findings were completed. Any subsequent environmental review completed due to changes in the proposed project or changes in circumstance will require new findings based on the environmental conditions at that time.

The project has been found to conform to the County's Multiple Species Conservation Program (MSCP) Subarea Plan, the Biological Mitigation Ordinance (BMO) and the Implementation Agreement between the County of San Diego, the CA Department of Fish and Game and the US Fish and Wildlife Service. Third Party Beneficiary Status and the associated take authorization for incidental impacts to sensitive species (pursuant to the County's Section 10 Permit under the Endangered Species Act) shall be conveyed only after the project has been approved by the County, these MSCP Findings are adopted by the hearing body and all MSCP-related conditions placed on the project have been satisfied.

II. BIOLOGICAL RESOURCE CORE AREA DETERMINATION

The impact area and the mitigation site shall be evaluated to determine if either or both sites qualify as a Biological Resource Core Area (BRCA) pursuant to the BMO, Section 86.506(a)(1).

1. Report the factual determination as to whether the proposed Impact Area qualifies as a BRCA. The Impact Area shall refer only to that area within which project-related disturbance is proposed, including any on and/or off-site impacts.
 - a. The land is shown as Pre-Approved Mitigation Area on the wildlife agencies' Pre-Approved Mitigation Area map.

The land is not designated as Pre-Approved Mitigation Area.

- b. The land is located within an area of habitat that contains biological resources that support or contribute to the long-term survival of sensitive species and is adjacent or contiguous to preserved habitat that is within the Pre-Approved Mitigation Area on the wildlife agencies' Pre-Approved Mitigation Area map.

The site has contributed to the long-term survival of several sensitive species, but with the exception of The Pointe preserve to the east and a small undeveloped area to the north, it is surrounded by development, and is not adjacent to any "preserved habitat that is within the pre-approved mitigation area on the wildlife agencies pre-approved mitigation map"; therefore the site does not meet this criterion.

- c. The land is part of a regional linkage/corridor. A regional linkage/corridor is either: (a) Land that contains topography that serves to allow for the movement of all sizes of wildlife, including large animals on a regional scale; and contains adequate vegetation cover providing visual continuity so as to encourage the use of the corridor by wildlife; or (b). Land that has 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

The site is not a regional linkage/corridor because the site's topography and location is adjacent to development and does not support a regional connection; therefore, it does not meet this criterion.

- d. The land is shown on the Habitat Evaluation Map (Attachment J to the BMO) as very high or high and links 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.

A portion of the site is shown on the Habitat Evaluation Map as very high or high quality habitat, and is adjacent to MSCP Preserve Lands to the east, but both the open space to the east and the undeveloped land to the north are surrounded by development. The project and adjacent undeveloped areas qualify as "isolated patches of land". In addition, the undeveloped land to the north is not preserved. Therefore, the site does not link significant blocks of habitat and does not meet this criterion.

- e. The land consists of or is within a block of habitat greater than 500 acres in area of diverse and undisturbed habitat that contributes to the conservation of sensitive species.**

The land is surrounded by development, and there are no blocks of habitat greater than 500 acres adjacent or contiguous with the site.

- f. The land contains a high number of sensitive species and is adjacent or contiguous to surrounding undisturbed habitats, or contains soil derived from the following geologic formations which are known to support sensitive species:**
- **Gabbroic rock;**
 - **Metavolcanic rock;**
 - **Clay;**
 - **Coastal sandstone**

The project site is adjacent to undisturbed habitat to the east and north, and it does support a high number of sensitive species; site soils are primarily of metavolcanic origin (San Miguel-Exchequer), which are known to support a number of sensitive species. Therefore, the site meets this criterion.

- 2. Report the factual determination as to whether the Mitigation Site qualifies as a BRCA.**

Because the project site meets BRCA criterion 6, it must be considered a BRCA. Mitigation will mostly take place on the project site which is a BRCA. The off site mitigation will specify the purchase of credits in a County-approved mitigation bank, within a Pre-approved Mitigation Area (PAMA) or BRCA in the MSCP or the purchase of an off-site area qualifying as a BRCA within the MSCP.

III. BIOLOGICAL MITIGATION ORDINANCE FINDINGS

The following findings in support of Project Design Criteria, including Attachments G and H (if applicable), must be completed for all projects that propose impacts to Critical Populations of Sensitive Plant Species (Attachment C), Significant Populations of Narrow Endemic Animal Species (Attachment D), Narrow Endemic Plant Species (Attachment E) or Sensitive Plants (San Diego County Rare Plant List) or proposes impacts within a Biological Resource Core Area.

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

Project development has been designed to minimize impacts to sensitive species and their habitats. Development has avoided blocks of habitat in the western third of the site, the north eastern portion along Bancroft Creek and The Point preserve, the southeast portion containing Munz's sage scrub, and a central block containing the San Diego Goldenstars. Included within open space easements are 96.3 acres of coastal sage scrub, which supports 2/3 of the 28 gnatcatchers observed on site. Impacts to 9 gnatcatchers, 10 percent of San Diego Goldenstar population (based on area), 12.8 percent of the Variegated Dudleya, 17.9 percent of the Barrel Cactus, and 16.7 percent of the Munz's sage will occur, and development was sited in the areas with the least impact and where the population density was minimal. The habitat stewardship plan and the 6-foot barrier fence will minimize indirect impacts and mark the boundary of the open space lot. The impact to narrow endemics is within the 20 percent allowed under the BMO. Therefore, the site has been designed to minimize impacts.

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

The project is a clustered development which has concentrated the impact area such that it avoids impacts the sensitive resources to the maximum extent practicable. Areas not proposed for development will be placed in an open space easement and will be separate lots that will be have ongoing stewardship for the resources.

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;

The site contains steep slope areas that will be utilized for development to provide for the protection of sensitive resources. Habitat with the highest concentration of sensitive biological resources will not be developed.

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

The project impact analysis does not indicate that reducing road standards would reduce impacts to sensitive species, habitats or BRCA.

5. Projects shall be required to comply with applicable design criteria in the County

The project conforms to the Preserve Design Criteria and Criteria for Linkages and Corridors as follows:

PRESERVE DESIGN CRITERIA (ATTACHMENT G)

In order to ensure the overall goals for the conservation of critical core and linkage areas are met, the findings contained within Attachment G shall be required for all projects located within Pre-Approved Mitigation Areas or areas designated as Preserved as identified on the Subarea Plan Map.

a. Acknowledge a “no net loss” of wetlands standard that individual projects must meet to satisfy state and federal wetlands goals, policies and standards, and implement applicable County ordinances with regard to wetland mitigation.

The project does not propose impacts to State or Federal wetlands. The site contains a portion of Bancroft Creek. The creek, the associated eucalyptus woodland and southern willow scrub, and a wetland buffer of at least 50 feet will be placed into a dedicated Conservation Open Space Easement. The project does not conflict with the no-net-loss-of-wetlands standard.

b. Include measures to maximize the habitat structural diversity of conserved habitat areas, including conservation of unique habitats and habitat features.

The project site habitat structure has several aspects that would be considered unique. The south and west facing slopes are rocky and metavolcanic and has a low open structure. The southeast has thick Munz sage dominated sage scrub. The north-facing slopes are steep and have thick and tall scrub. The project proposes to place some of each habitat structure type within the open space preserve. All of Bancroft Creek which runs through the northeast of the site will be preserved with a 50 foot wetland buffer. In addition, the areas with the greatest concentration of sensitive plants will be placed within an open space easement. Overall, onsite preservation will include 96.3 acres of coastal sage

scrub, 1.6 acres of non-native grassland, and 0.5 acres of Eucalyptus woodland and 0.4 acres of southern willow scrub.

- c. Provide for the conservation of spatially representative examples of extensive patches of coastal sage scrub and other habitat types that were ranked as having high or very high biological value by MSCP habitat evaluation model.**

The Highlands Ranch Property is shown on the Habitat Evaluation Map as “very high,” “medium,” and “low” quality habitat on the habitat evaluation map. The property includes the Dictionary Hill peak and much of its remaining native vegetation. The vegetation is Diegan coastal sage scrub habitat that has formed on the metavolcanic mountain. The property also includes Bancroft Creek on the northeastern corner. The proposed project will preserve 96.3 acres of coastal sage scrub that was mapped as “very high” value. It proposes development for the scrub that is medium and low value because it has been disturbed by unauthorized access and by the existing use by the water district (tanks and water lines). The Bancroft Creek wetlands, also very high value will also be preserved.

- d. Create significant blocks of habitat to reduce edge effects and maximize the ratio of surface area to the perimeter of conserved habitats (use criteria in Chapter 6, Section 6.2.3 of the Plan).**

Development has avoided blocks of habitat in the western third of the site, the northeastern portion along Bancroft Creek with connections to The Point preserve to the east, the southeast portion containing Munz’s sage scrub, and a central block containing the San Diego Goldenstars. These blocks total 96.5 acres and they will be placed within open space easements with protective fencing and signage. A habitat stewardship plan will also be funded and implemented.

The project design has a fairly high surface area to the perimeter ratio but the design is directed towards use of the least sensitive areas and towards protection of the most sensitive resources. This site already has a high degree of indirect impacts from the existing incursion of trespassing people and domestic animals. The development will result in management of existing trespass and control of its own created edge effects. The required six foot chain-link fencing and signage between the development area and open space will serve as a mitigation measure to reduce such potential indirect impacts to below a level of significance. Trails would be designated and regulated under the County’s Community Trails Plan which is preferable to the existing condition with a high degree of illegal trespass.

Changes in hydrology resulting from lawn irrigation upslope of natural habitat could also indirectly impact native habitat. Yard runoff may promote growth of

opportunistic exotics, which could out-compete native species and increase erosion if not controlled. Rim ditches at the outer edges of the developed areas, use of riprap dissipaters to slow the stormwater, and a requirement to prohibit irrigation in the outer 50 feet of the Limited Building Zone Easement serve as a moisture buffer and the open space onsite will remain dry.

The gnatcatchers living onsite are already adapted to a substantial level of edge effect, because the site and the few small adjacent undeveloped areas are surrounded by development. Project edge effects were reduced by 20% through project redesign. In addition, available research indicates that California gnatcatchers may not be sensitive to generalized edge effects. Because gnatcatchers remaining onsite would be vulnerable to increased predation by domestic cats from the new residential development, the project is required to use six foot chain-link fencing between the new development (homes and roads) and onsite open space.

e. Provide incentives for development in the least sensitive habitat areas.

The applicant and the County have worked together to develop a project that minimizes impacts to sensitive resources and concentrates development in the area mostly mapped as “medium” habitat value. Therefore, the most sensitive habitat area on site will be preserved and the least sensitive habitats will be developed.

f. Minimize impacts to narrow endemic species and avoid impacts to core populations of narrow endemic species.

Of the narrow endemic species listed in Attachments D and E of the Biological Mitigation Ordinance (BMO), one species is present on site: variegated *Dudleya* (*Dudleya variegata*). It primarily occurs in the southwestern section of the site which has been avoided by project design. The proposed project would directly impact approximately 12.8% (2,425 plants) of the total onsite variegated *Dudleya* population and mitigation would be preservation of the remaining 87.7 percent and offsite purchase of 3,490 individuals. This would accomplish avoidance of the 80 percent required by the BMO and a 2:1 mitigation of the 12.8 percent impacted (7.7 percent mitigated onsite). The estimate of the individuals required for the full 2:1 ratio mitigation is 3,490 plants.

g. Preserve the biological integrity of linkages between BRCA's.

Wildlife corridors or linkages between significant wildlife areas are important because of their role in preserving species diversity and viability. Without some connection or corridor to other areas, wildlife areas can become islands surrounded by development. Small fragmented areas of habitat ultimately support lower numbers of species than similarly situated larger blocks of habitat.

Although the site occurs in an area that has already been substantially altered by residential development, it does support a relatively high number of sensitive species and several wide ranging species. The MSCP Preserved Lands associated with The Pointe development to the east will be contiguous with Highlands Ranch open space, but east of The Pointe there are barriers to wildlife movement including major roads, residences, and mining. Based on review of aerial photographs, the project site and small undeveloped adjacent areas are almost completely encircled by development. The nearest large area of natural habitat is located to the south and southeast of the project site, where the Sweetwater River and National Wildlife Refuge provide substantial protected habitat, but the connection between the site and these areas has already been eliminated through urban development in Spring Valley. However, based on evidence of site use by large mammals such as deer, coyote, and bobcat, the site may serve as a local wildlife corridor from The Pointe across the project to Spring Valley on the northwest. These larger animals are able to move to and from the project site along Bancroft Creek and existing trails.

California gnatcatchers typically disperse through natural habitat; they also disperse greater distances over developed land. Bailey and Mock (1998) documented several examples of long-distance dispersal through "highly human-modified landscapes." According to the "Population Viability Analysis for the California Gnatcatcher within the MSCP Study Area" (Ogden 1993), found in Attachment I of the BMO, Dictionary Hill serves as an important adjunct group to the Lower Sweetwater/San Miguel Mountains core reserve despite being surrounded by development. The study goes on to state that Dictionary Hill is possibly underestimated in its conservation value.

Based on review of the Sweetwater Authority Sweetwater Reservoir/Vegetation and Species Map (Ogden 1995) and other local maps, a distance of approximately 4,600 (0.9 mile) feet separates the southeast corner of the site from the nearest open CSS on the east side of the Sweetwater Reservoir, to the east of the site. Isolated areas of CSS also occur on the northern shore of the reservoir, approximately 5,700 feet (1.1 miles) from the southern edge of the site. The large open space with extensive CSS is between 6,500 feet (1.2 miles) and 10,500 feet (2.0 miles) away, on the south side of the reservoir. The method of dispersal through highly human-modified landscapes is not clear, but Bailey and Mock indicate that gnatcatchers move through small areas of natural vegetation, along waterways, and along landscape shrubs, as well as over obstacles such as highways and commercial areas. Whether such longer distance dispersal is random or guided by vision or some other sense is not known, but, it appears that Dictionary Hill does serve as both an important adjunct to the core gnatcatcher reserve and as an archipelago for California gnatcatchers and other birds.

h. Achieve the conservation goals for covered species and habitats (Table 3-5 of the MSCP Plan).

Project development has been designed to minimize impacts to sensitive species and their habitats. With respect to variegated dudleya, Table 3-5 requires area specific management directives for species specific monitoring and specific measures to protect against detrimental edge effects. With respect to San Diego barrel cactus, measures to protect against edge effects, unauthorized collection, and too frequent burning are required. San Diego goldenstars requires measures to protect edge effects, as does orange-throated whiptail. San Diego horned lizard requires both protection against edge effects and measures to discourage Argentine ants. California rufous-crowned sparrow requires maintenance of open scrub, and California gnatcatcher requires measures to reduce edge effects, to minimize disturbance during the nesting period, and to reduce unplanned fire, and to maximize habitat quality. Cooper's hawk requires avoidance of nest sites during construction and minimization of impacts to riparian systems. The project incorporates measures to satisfy all the requirements of Table 3-5 including the 6-foot fencing, implementation of the stewardship and monitoring plan, implementation of a fire protection plan, construction limitations during breeding season, dedication of a limited building zone easement that prohibits irrigation, and dedication of conservation easements over the project's sensitive resources.

DESIGN CRITERIA FOR LINKAGES AND CORRIDORS (ATTACHMENT H)

In order to ensure design criteria for linkages and corridors are met, the findings contained within Attachment H shall be required for all projects located within a regional linkage or local corridor.

a. Habitat linkages as defined by the BMO, rather than just corridors, will be maintained.

The site is not located within a regional linkage as defined by the BMO.

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

The site is not located within a regional linkage as defined by the BMO.

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

The local corridor that exists along Bancroft Creek is eucalyptus and willow scrub with good cover. The width of the corridor is approximately 350 feet at its narrowest and 700 feet wide as it joins The Point preserve to the east. Species

movement onto the site could exit the site to the north along Bancroft Creek but this area is primarily 4 to 20 acre lots that could be developed in the future.

The project definitely provides for California gnatcatcher movement to and from the PAMA at Sweetwater Reservoir by providing a stepping stone for dispersing avian species. The proposed open space will preserve the topographically diverse habitat elements including north, south, and west facing slopes, creek bed with riparian trees, rock formations, and open and closed scrub habitat. Therefore, the project will meet this finding.

- 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.**

The site is not located within a regional linkage as defined by the BMO.

- 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.**

The site is not located within a regional linkage as defined by the BMO.

- 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.**

The nearest large area of natural habitat is located to the south and southeast of the project site, where the Sweetwater River and National Wildlife Refuge provide substantial protected habitat, but connection between the site and these areas has already been severely restricted by development. However, based on evidence of site use by large mammals such as deer, coyote, and bobcat, the site may serve as a local wildlife corridor from The Pointe across the project to Spring Valley on the northwest. These larger animals may move across the site along Bancroft Creek in the northwestern portion of the project. The local large mammal corridor that exists along Bancroft Creek is approximately 350 feet at its narrowest. This constriction extends over just 300 feet and is adjacent to a 200 foot wide manufactured slope that would be seeded with native species. Therefore, the edge effects from the project would be 200 feet away and 110 feet higher than the unmodified corridor. The constriction on the north is also substantially higher (40 feet above the corridor). The corridor abruptly expands

to 700 feet wide or more to the east and west of the constriction. The corridor east of the project expands to 1500 feet and is hardline preserve. Further east there are two road crossings before it gets to a major MSCP Preserve. The corridor to the north of the site along Bancroft Creek is primarily 4 to 20 acre lots that could be developed in the future.

- 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.**

Whether long distance dispersal in birds is random or guided by vision or some other sense is not known, but, it appears that Dictionary Hill does serve as both an important adjunct to the core gnatcatcher reserve and as a corridor for California gnatcatchers and other birds. The proposed open space is highly visible because it is higher than any other preserved land in the vicinity. Even though there is existing development on three sides, the open space is prominent in all directions. Therefore, the project's proposed mitigation will satisfy this finding.

A portion of the proposed open space also follows Bancroft Creek and this portion of the open space occurs at a lower elevation than the proposed development and will not impact any lines-of-sight within the open space and surrounding lands. Therefore, the project's proposed mitigation will satisfy this finding.

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

The corridor along Bancroft Creek is expected to have low levels of human disturbance at night. Residential uses would maintain low noise levels and the back yards that are in proximity to the corridor would generally have limited artificial lighting, because they are separated from the preserve by at least 100 feet of commonly maintained manufactured slopes and fuel modification areas. For Dictionary Hill as it contributes to an avian movement route, human disturbance at dawn and dusk would be impactful as most avian species move during this time period. The majority of this time period also corresponds with the least amount of activity in a residential neighborhood. Therefore, the residential uses, which are all separated from the open space by 10 to 110 foot manufactured slopes and 6-foot fencing are not expected to cause undue disturbance or access for unauthorized encroachment into the conservation easements.

- i. **Barriers, such as roads, will be minimized. Roads that cross corridors should have ten 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.**

No barriers are proposed to cross Bancroft Creek. The project roads follow a ridge line and therefore the avian movement route will not be affected.

- 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.**

No wildlife crossings are proposed with the project.

- k. **If continuous corridors do not exist, archipelago (or stepping-stone) 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.**

California gnatcatchers typically disperse through natural habitat; they also disperse greater distances over developed land. Bailey and Mock (1998) documented several examples of long-distance dispersal through "highly human-modified landscapes." According to the "Population Viability Analysis for the California Gnatcatcher within the MSCP Study Area" (Ogden 1993), found in Attachment I of the BMO, Dictionary Hill serves as an important adjunct group to the Lower Sweetwater/San Miguel Mountains core reserve despite being surrounded by development. The study goes on to state that Dictionary Hill is possibly underestimated in its conservation value.

Based on review of the Sweetwater Authority Sweetwater Reservoir/Vegetation and Species Map (Ogden 1995) and other local maps, a distance of approximately 4,600 (0.9 mile) feet separates the southeast corner of the site from the nearest open CSS on the east side of the Sweetwater Reservoir, to the east of the site. Isolated areas of CSS also occur on the northern shore of the reservoir, approximately 5,700 feet (1.1 miles) from the southern edge of the site. The large open space with extensive CSS is between 6,500 feet (1.2 miles) and 10,500 feet (2.0 miles) away, on the south side of the reservoir. The method of dispersal through highly human-modified landscapes is not clear, but Bailey and Mock indicate that gnatcatchers move through small areas of natural vegetation, along waterways, and along landscape shrubs, as well as over obstacles such as highways and commercial areas. Whether such longer distance dispersal is

random or guided by vision or some other sense is not known, but, it appears that Dictionary Hill does serve as both an important adjunct to the core gnatcatcher reserve and as an archipelago for California gnatcatchers and other birds.

IV. SUBAREA PLAN FINDINGS

Conformance with the objectives of the County Subarea Plan is demonstrated by the following findings:

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

The project does not propose impacts to State or Federal wetlands. The site contains a portion of Bancroft Creek. The creek, the associated eucalyptus woodland and southern willow scrub, and a wetland buffer of at least 50 feet will be placed into a dedicated Conservation Open Space Easement. The project does not conflict with the no-net-loss-of-wetlands standard.

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

The project site habitat structure has several aspects that contribute to habitat structural diversity. The south and west facing slopes are rocky and metavolcanic and has a low open structure. The southeast has thick Munz sage dominated sage scrub. The north-facing slopes are steep and have thick and tall scrub. The project proposes to place some of each habitat component within the open space preserve. All of Bancroft Creek which runs through the northeast of the site will be preserved with an adequate wetland buffer. In addition, the areas with the greatest concentration of sensitive plants will be placed within an open space easement. Overall, onsite preservation will include 96.3 acres of coastal sage scrub, 1.6 acres of non-native grassland, and 0.5 acres of Eucalyptus woodland and 0.4 acres of southern willow scrub.

- 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.**

The Highlands Ranch Property is shown on the Habitat Evaluation Map as “very high,” “medium,” and “low” quality habitat on the habitat evaluation map. The property includes most of the undeveloped portion of Dictionary Hill which is primarily coastal sage scrub habitat that has formed on the metavolcanic mountain. The property also includes Bancroft Creek on the northeastern corner. The proposed project will preserve 96.3 acres of coastal sage scrub that was

mapped as “very high” value. It proposes development for the scrub that is medium and low value because it has been disturbed by unauthorized access and by the existing use by the water district (tanks and water lines). The Bancroft Creek wetlands, also very high value will also be preserved.

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.

Development has avoided blocks of habitat in the western third of the site, the northeastern portion along Bancroft Creek with connections to The Point preserve to the east, the southeast portion containing Munz’s sage scrub, and a central block containing the San Diego Goldenstars. These blocks total 96.5 acres and they will be placed within open space easements with protective fencing and signage. A habitat stewardship plan will also be funded and implemented.

The project design has a fairly high surface area to the perimeter ratio but the design is directed towards use of the least sensitive areas and towards protection of the most sensitive resources. This site already has a high degree of indirect impacts from the existing incursion of trespassing people and domestic animals. The development will result in management of existing trespass and control of its own created edge effects. The required six foot chain-link fencing and signage between the development area and open space will serve as a mitigation measure to reduce such potential indirect impacts to below a level of significance. Trails would be designated and regulated which is preferable to the existing condition with a high degree of illegal trespass.

Changes in hydrology resulting from lawn irrigation upslope of natural habitat could also indirectly impact native habitat. Yard runoff may promote growth of opportunistic exotics, which could out-compete native species and increase erosion if not controlled. Rim ditches at the outer edges of the developed areas, use of riprap dissipaters to slow the stormwater, and a requirement to prohibit irrigation in the outer 50 feet of the Limited Building Zone Easement serve as a moisture buffer and the open space onsite will remain dry.

The gnatcatchers living onsite are already adapted to a substantial level of edge effect, because the site and the few small adjacent undeveloped areas are surrounded by development. Project edge effects were reduced by 20% through project redesign. In addition, available research indicates that California gnatcatchers may not be sensitive to generalized edge effects. Because gnatcatchers remaining onsite would be vulnerable to increased predation by domestic cats from the new residential development, the project is required to use six foot chain-link fencing between the new development (homes and roads) and onsite open space.

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

The applicant and the County have worked together to develop a project that minimizes impacts to sensitive resources and concentrates development in the area mostly mapped as “medium” habitat value. Therefore, the most sensitive habitat area on site will be preserved and the least sensitive habitats will be developed.

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.

Project development has been designed to provide biological functioning units for conservation of covered species and sensitive habitats. The proposed open space includes blocks of habitat in the western third of the site, the north eastern portion along Bancroft Creek and The Point preserve, the southeast portion containing Munz’s sage scrub, and a central block containing the San Diego Goldenstars. Included within proposed open space are 96.3 acres of coastal sage scrub. This preserves 58 percent of the total coastal sage scrub found onsite including 21 of the 28 gnatcatcher locations, 94 percent of San Diego Goldenstar population (based on area), 87.2 percent of the Variegated Dudleya, 82.1 percent of the Barrel Cactus, and 83.3 percent of the Munz’s sage. Areas with the least existing disturbance and where the density of sensitive resources was greatest were targeted for preservation. The habitat stewardship plan and the 6-foot barrier fence will minimize indirect impacts and mark the boundary of the open space lot. The impact to narrow endemics is within the 20 percent allowed under the BMO. Therefore, the site has been designed to conserve covered species and sensitive habitats.

7. Conserves 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.

The site is not within any known golden eagle foraging areas or nest site territories. Based on evidence of site use by large mammals such as deer, coyote, and bobcat, the site may serve as a local wildlife corridor from The Pointe preserve across the project to Spring Valley to the northwest. Larger animals may move across the site along the northwestern drainage and through uplands on existing trails. However, because of the urban development in the vicinity which surrounds the project except along Bancroft Creek, it is unlikely that the project site is of significant long term value to large mammals.

Wildlife corridors or linkages between significant wildlife areas are important because of their role in preserving species diversity and viability. Without some connection or corridor to other areas, wildlife areas can become islands surrounded by development. Small fragmented areas of habitat ultimately support lower numbers of species than similarly situated larger blocks of habitat.

Although the site occurs in an area that has already been substantially altered by residential development, it does support a relatively high number of sensitive species and several wide ranging species. The MSCP Preserved Lands associated with The Pointe development to the east will be contiguous with Highlands Ranch open space, but east of The Pointe there are barriers to wildlife movement including major roads, residences, and mining. Based on review of aerial photographs, the project site and small undeveloped adjacent areas are almost completely encircled by development. The nearest large area of natural habitat is located to the south and southeast of the project site, where the Sweetwater River and National Wildlife Refuge provide substantial protected habitat, but connection between the site and these areas have already been eliminated through urban development in Spring Valley. However, based on evidence of site use by large mammals such as deer, coyote, and bobcat, the site may serve as a local wildlife corridor from The Pointe across the project to Spring Valley on the northwest. These larger animals are able to move to and from the project site along Bancroft Creek and through uplands on existing trails.

- 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.**

There are no critical plant populations identified on the project site. However, the following species are subject to 80 percent avoidance: variegated *Dudleya* (*Dudleya variegata*), coast barrel cactus (*Ferocactus viridescens* var. *viridescens*), San Diego goldenstar (*Muilla clevelandii*), and Munz's sage (*Salvia munzii*)

Variegated Dudleya is a narrow endemic species that occurs in the southwestern section of the site. The proposed project would directly impact approximately 12.8% (2,425 plants) of the total onsite variegated *Dudleya* population, and mitigate at a 2:1 ratio which includes offsite mitigation land that has 3,490 variegated *dudleya* plants.

San Diego goldenstar is a County Group A species that occurs in the northern central section of the site. The proposed project would directly impact approximately 6.0% (849 plants) of the site's San Diego goldenstar population. Mitigation at a 2:1 ratio is accomplished onsite over and above the 80 percent required avoidance.

Coast barrel cactus is a County Group B species that is located in a number of larger clusters in the southwestern section of the site, as well as in smaller groups and singly throughout the south-facing and west-facing slopes and on the hilltops. The proposed project would directly impact 17.9% (170 plants) of the site's barrel cacti population. Mitigation at a 1:1 ratio is accomplished both onsite over and above the 80 percent required avoidance, and offsite with offsite mitigation land that has 150 barrel cactus plants.

Munz's sage is a County Group B species that is the dominant species found in coastal sage scrub in the southeast portion of the site, and in smaller numbers within the typical coastal sage scrub. Because of the large numbers and extensive coverage of this species, impacts were calculated in terms of acres of impact to Munz's sage scrub. Munz's sage scrub occupies approximately 19.96 acres onsite. The proposed project would impact approximately 3.33 acres, or 16.7%. Mitigation at a 1:1 ratio is accomplished both onsite over and above the 80 percent required avoidance, and offsite with offsite mitigation land that has 2.7 acres of Munz's sage.

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

The project site is not within PAMA or a regional linkage. While there is a local wildlife corridor, the project design has adequately maintained it. The project design provides for conservation of the most sensitive species and the highest value habitat. The project design maintains an avian stepping stone because of the topography and habitat diversity, which will contribute to avian dispersal within MSCP. Therefore, the proposed project will not jeopardize preserve assembly. Furthermore, the project has incorporated appropriate mitigation including:

- 96.33 acres of coastal sage scrub on the project site shall be dedicated as a conservation easement to the County and to the California Department of Fish and Game.
- A Limited Building Zone Easement shall be dedicated to the County and shall prohibit habitable structures and installation or use of irrigation systems in the 50 feet adjacent to the dedicated open space.
- Offsite purchase of at least 9.94 acres of coastal sage scrub habitat in a pre-approved offsite mitigation bank or BRCA. The offsite coastal sage scrub mitigation land must also be of high quality and support coastal rosy boa, orange-throated whiptail, southern California rufous-crowned sparrow, and San Diego black-tailed jackrabbit. The mitigation site must also support 9 California gnatcatcher individuals.
- Mitigation land including 3,490 variegated Dudleya, or other acreage deemed acceptable by the Director of Planning and Land Use
- Mitigation land containing 150 coast barrel cacti, or other acreage deemed

- acceptable by the Director of Department of Planning and Land Use
- Mitigation land containing 2.67 acres of coastal sage scrub dominated by Munz's sage, or other acreage deemed acceptable by the Director of Planning and Land Use.
 - Prior to initiating construction activity onsite, the California gnatcatchers onsite will be mapped by a permitted biologist. A minimum of three focused surveys, on separate days, to determine the presence of gnatcatchers in the project impact footprint. Surveys will begin a maximum of seven days prior to clearing, and one survey will be conducted the day immediately prior to the clearing. This survey will aid in monitoring the clearing, grading and construction in compliance with provisions of the MSCP and BMO.
 - Project construction will be monitored by a County listed biologist. The biological monitor will be onsite to ensure compliance with all conservation measures and to avoid inadvertent impacts on sensitive species from construction activities. Monitoring will be conducted daily during clearing of vegetation, and weekly during other phases of construction. Periodic reports on the monitoring shall be provided to the County Department of Planning and Land Use on a weekly schedule. If deficiencies are noted, they shall be discussed immediately with the Project Superintendent and corrective measures undertaken. If the open space is impacted in any way, construction will be immediately halted and the County Inspector will be notified in writing within 24 hours.
 - No grading or clearing will be allowed within 300 feet of coastal sage scrub during California gnatcatcher breeding season (March 1 to August 31). This measure can be waived if pre-grading surveys showed that no gnatcatchers are present. To make this determination, the monitoring biologist will perform a minimum of three focused surveys, on separate days, to determine the presence of gnatcatchers, nest building activities, egg incubation activities, or brood rearing activities in or within 500 feet of the project impact limits of any vegetation clearing/grubbing. Surveys will begin a maximum of seven days prior to clearing and one survey will be conducted the day immediately prior to the clearing. If a nest is found in or within 500 feet of the project impact limits of any vegetation clearing/grubbing, work will be postponed within 500 feet of the nest until a avoidance/minimization plan including nest monitoring has been implemented.
 - The biological monitor will meet with the construction foreman to determine appropriate noise avoidance measures. This may include avoidance or the use of sound barriers.
 - If gnatcatchers are identified and require monitoring during the breeding season, weekly monitoring reports will be submitted to the County.
 - If noise levels exceed 60 decibels Leq hourly the monitor will first notify the contractor. If the noise is not abated, the monitor will be required to contact the County Department of Planning and Land

Use.

Avoidance/minimization and nest monitoring will continue until fledglings have dispersed or until the nest has been determined to be a failure.

- Outside the breeding season, if any gnatcatchers are within the impact footprint, the biological monitor will direct construction personnel to begin clearing in an area away from the gnatcatchers. In addition, a means of flushing, such as an air cannon, will be used to encourage birds to leave the impact footprint.
- No grading or clearing will be allowed within 500 feet of an occupied raptor nest between February 1 and July 15. This measure can be waived if pre-grading surveys showed that no active raptor nests are present.
- Prior to commencement of grading, the construction area shall be conspicuously marked and a temporary silt fence shall be installed immediately adjacent to the preserve area.
- Prior to commencement of grading, the biological monitor shall discuss the sensitivity of these areas and the need to prevent any direct construction impacts with the construction superintendent.
- After grading is complete, the boundary between the development and onsite open space shall be fenced with six foot chain-link fencing, and signs specifying the purpose of the fencing and the open space shall be installed on the fence.
- Landscaping and revegetation of manufactured slopes adjacent to the open space shall use only native species consistent with the adjacent natural vegetation.
- Streetlights used in the development shall be low-intensity and shielded to minimize adverse light impacts to the open space.
- Long-term preservation of onsite open space will be guided by an approved Habitat Management Plan funded in perpetuity by the developer or through a Landscape Maintenance District.

With the above mitigation, the approval of the project will not jeopardize the assembly of the preserve system within the Subarea Plan.

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

The project has included provisions to reduce edge effects as follows:

- A Limited Building Zone Easement shall be dedicated to the County and shall prohibit habitable structures and installation or use of irrigation systems in the 50 feet adjacent to the dedicated open space.
- Project construction will be monitored by a County listed biologist. The biological monitor will be onsite to ensure compliance with all conservation measures and to avoid inadvertent impacts on sensitive species from construction activities.
- After grading is complete, the boundary between the development and

onsite open space shall be fenced with six foot chain-link fencing, and signs specifying the purpose of the fencing and the open space shall be installed on the fence.

- Landscaping and revegetation of manufactured slopes adjacent to the open space shall use only native species consistent with the adjacent natural vegetation.
- Streetlights used in the development shall be low-intensity and shielded to minimize adverse light impacts to the open space.
- Long-term preservation of onsite open space will be guided by an approved Habitat Management Plan funded in perpetuity by the developer or through a Landscape Maintenance District.

11. Every effort has been made to avoid impacts to BRCAs, to sensitive resources, and to specific sensitive species as defined in the BMO.

Project development has been designed to minimize impacts to sensitive species and their habitats. Development has avoided blocks of habitat in the western third of the site, the north eastern portion along Bancroft Creek and The Point preserve, the southeast portion containing Munz's sage scrub, and a central block containing the San Diego Goldenstars. Included within open space easements are 96.3 acres of coastal sage scrub, which supports 2/3 of the 28 gnatcatchers observed on site. Impacts to 9 gnatcatchers, 10 percent of San Diego Goldenstar population (based on area), 12.8 percent of the Variegated Dudleya, 17.9 percent of the Barrel Cactus, and 16.7 percent of the Munz's sage will occur, and development was sited in the areas with the least impact and where the population density was minimal. The habitat management plan and the 6-foot barrier fence will minimize indirect impacts and mark the boundary of the open space lot. The impact to narrow endemics is within the 20 percent allowed under the BMO. Therefore, the site has been designed to minimize impacts.

**Maggie Loy, Department of Planning and Land Use
October 11, 2007**