NOV 0 8 2013

CALIFORNIA COASTAL COMMISSION



November 8, 2013

Mr. John Del Arroz Mr. Karl Schwing California Coastal Commission 200 Oceangate, Suite 1000 Long Beach, CA 90802-4302

> Re: Coastal Development Permit Application 5-13-032 ("Application") Newport Banning Ranch ("Project")

Dear Mr. Del Arroz and Mr. Schwing:

Thank you and your team for the meetings on August 29, 2013 and October 3, 2013 at your offices. We have made significant progress on the identified "Threshold Issues" working with the Commission staff. After more than nine months of working diligently to respond to requests for additional information and make modifications to our application, we believe we have the proper level of information and a framework to move forward with our application being deemed complete.

Background:

July 2012

City of Newport Beach certified the NBR Environmental Impact Report and unanimously approved the NBR Project, Tentative Map and Development Agreement.

February 1, 2013

NBR filed Coastal Development Permit application with CCC South Coast Staff.

March 1, 2013

NBR received a Notice of Incomplete Application ("NOIA"), in which CCC Staff indicated the application was incomplete citing that the project description lacked sufficient detail. Further, Staff stated its opinion that a project of this size required a Local Coastal Plan, as well as other technical issues and questions being raised. Finally, issues were raised regarding the 1973 Oil Exemption was detailed in this incomplete letter.

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May 17, 2013

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NBR responded to CCC Staff, and provided an expanded and detailed project description, responses to technical questions, provided copies of additional technical reports and, upon consultation with the oil operator, West Newport Oil Company ("WNOC"), submitted a detailed history of the 1973 Exemption.

June 14, 2013

NBR received a second NOIA, in which CCC Staff directed that the parties should first resolve what was identified as certain "Threshold Issues" in Section I of their NOIA before addressing the remaining technical project issues detailed in Section II.

July 3, 2013

NBR, with significant assistance from the oil operator, responded to CCC Staff, and provided information related to the Threshold Issues in a letter from Susan Hori, which CCC Staff acknowledged receiving on July 8, 2013 (Hori Letter – Attachment 4).

August 7, 2013

NBR received a third NOIA, in which CCC Staff stated there was still a disagreement regarding the Threshold Issues. CCC Staff further indicated an unwillingness to proceed with the CDP application until these matters were resolved. As a result of what CCC Staff felt was an impasse, a dispute exists as to what constitutes a complete application and stated that the Coastal Commission is the best forum for resolution. In short, CCC Staff declared that NBR should seek to resolve these issues by way of Dispute Resolution as provided for in the Coastal Act.

August 21. 2013

NBR, hoping that additional dialogue could result in resolving questions related to the Threshold Issues, and believing that a dispute resolution hearing was premature, sent a letter to CCC Staff requesting a meeting in the Long Beach offices (Attachment 5).

August 29, 2013

Representatives of NBR and WNOC met with CCC met the Deputy Director and South Coast Staff. The primary purpose of this meeting was to better differentiate the roles of NBR and WNOC as independent surface and mineral rights owners respectively. The meeting was dominated by exchanges between CCC Staff and WNOC. It was agreed that additional dialogue between WNOC and CCC Staff was appropriate.

October 3, 2013

NBR met again with the Deputy Director and South Coast Staff. CCC Energy Staff participated by telecom. The purpose of this meeting was to present additional information related to oil field abandonment and remediation strategies envisioned for the NBR property. A positive tone in the October 3, 2013 meeting was set when all parties agreed that the goal of cleaning up the NBR oil field was a good and necessary thing. At the meeting NBR was also informed that WNOC had scheduled a meeting with CCC Energy Staff on November 7, 2013 to discuss the 1973 Exemption and its ongoing oil operations.

Purpose of this Correspondence:

- 1. Provide further response/clarification to questions related to resolving the "Threshold Issues" that should enable Coastal Commission Staff to deem complete the Newport Banning Ranch CDP Application.
- 2. Address those remaining issues in Section II, recognizing the potential for obvious overlap from the identified Threshold Issues. As with prior correspondence to you, we first identify your comment (in this case from the June 14, 2013 letter), followed by our response.

With the responses provided in this letter, we respectfully request that you agree to move forward immediately with consideration of our application as complete.

Sincerely,

Michael A. Mohler Managing Director

I. Alternative Development Plan

As noted above, we believe that the meetings and other discussions with Coastal Commission Staff have been useful, and have provided each of us with greater clarity as to the NBR property's history as well as the nature of the CDP application and the distinction between the surface right (NBR) and subsurface right (WNOC) entities.

Before addressing the Threshold Issues, we are submitting the following additional alternative development plan information:

Revised Alternative Development Plan

CCC Alternative Project 2 (Attachment 2) — We have revised the alternative that was previously provided to you, by providing additional natural open space, eliminating impacts to wetlands/riparian areas and reducing the development footprint. These revisions attempt to respond to comments and questions received from CCC Staff, were developed as a result of ongoing collaboration with CCC Staff, the United States Fish and Wildlife Service (USFWS), City of Newport Beach and adjacent neighbors.

This CCC Alternative Project 2 further would further reduce the impacts of the Project unanimously approved by the City, and described in the City's Environmental Impact Report (EIR).

Habitat Conservation and Conceptual Mitigation Plan

To underscore the benefits of CCC Alternative Project 2, we have also revised the Habitat Restoration Plan approved by the City of Newport Beach to take into account the revisions depicted in Alternative Project 2, and enclose a draft (newly retitled) Habitat Conservation and Conceptual Mitigation Plan ("HCCMP"), which is tied to the Project and will be used to address the mitigation requirements of local, state, and federal agencies as well as create a comprehensive and complimentary mosaic of preserved, enhanced and restored native habitats. The Habitat Conservation and Conceptual Mitigation Plan addresses all impacts from the CCC Alternative Project 2 and provides mitigation in excess of project impacts associated with previously submitted plans. (See Attachment 6.)

The HCCMP presents a comprehensive program of on-site compensatory mitigation that is designed to fully mitigate all biological impacts of the proposed Project, and to enhance onsite biological communities in a way that improves the overall ecological function of the site. Vegetation communities to be mitigated include coastal sage scrub, coastal bluff scrub, non-native grasslands, native bunchgrass grasslands, riparian wetlands, and seasonal features/vernal pools. These mitigation treatment areas are embedded within a larger open space conservation area that will be permanently protected and managed as a natural open space preserve once the interim maintenance and management period for the mitigation sites concludes and final resource agency sign-off is granted.

These additional materials are discussed in greater detail in Section II.A, below.

II. Threshold Issues

1. Resolution of Exemption No. E-7-27-73-144 ("Exemption").

As previously noted, four of the five Threshold Issues pertain to the 1973 Exemption. NBR understands that you are continuing separate discussions with WNOC, the current oil operator, regarding this matter. We also stated in both the August 29, 2013 and October 3, 2013 meetings at your office that we do not believe that NBR should be prevented from moving ahead with the project application while you are engaged with reviewing matters with WNOC. It is our position that Commission staff can and should separate out the questions that it has regarding the Exemption, and that the CDP application can be evaluated by Commission Staff independent of final resolution of your issues concerning the 1973 Exemption.

Your response appears to be focused on the project "baseline" and the related reasoning that if the 1973 Exemption was no longer in effect, or if development currently exists at the site that exceeds the scope of the 1973 Exemption – the project baseline would be different. The fact is the 1973 Exemption remains in effect today and we are unaware of any development beyond its scope.

The best way to understand the magnitude of the differences between potential project impacts and the environmental conditions that would be present now if Staff's more narrow interpretation of the 1973 Exemption were to apply would be to deem the application complete and start the earnest effort of analyzing the Project. As a part of that analysis, CCC Staff, with an offer of NBR technical assistance, could conduct an analysis of the two scenarios below:

• The CCC Alternative Project 2 – submitted herein (Attachment 2) – that utilizes an environmental baseline based upon existing conditions which reflect the site activities conducted pursuant to the 1973 Exemption, including a comprehensive oil abandonment and remediation program; and,

As compared to the City approved and originally submitted project, the HCCMP includes a detailed analysis of all temporary and permanent CCC Alternative Project 2 impacts based on existing conditions that have been documented in updated surveys conducted per direction received by staff of the CCC and USFWS, assuming abandonment/remediation activities are exempt per the 1973 Exemption as described in prior submittals. As analyzed in the HCCMP, the CCC Alternative Project 2 provides additional natural open space and minimizes impacts to wetlands/riparian and upland scrub/grassland areas. This is achieved by reducing the proposed non-natural open space park uses from approximately 40 acres to 33 acres; reducing the development footprint (residential, commercial and visitor-serving) from approximately 114 acres to 94 acres; and increasing the amount of proposed natural open space from approximately 230 acres to 257 acres, including an expanded vernal pool restoration complex.

• Narrowed Interpretation Impact Analysis - for analysis purposes - that analyzes impacts in a manner that reflects the more narrow interpretation of the 1973 Exemption that Staff has put forward.

This "Narrowed Interpretation Impact Analysis" would in effect assume that the abandonment/remediation activities for all of the property with the exception of the remainder oil areas (aka Consolidation Areas) would be included in the CDP application. However, if this "Narrowed Interpretation Impact Analysis" scenario were employed, it is critical that Commission Staff differentiate abandonment/remediation for the NBR Project which for the purposes of this analysis would be subject to CDP review from abandonment/remediation for the existing oil operations covered under the 1973 Exemption.

Notwithstanding the above, it is important to note that in any event, the oil field will need to be abandoned and remediated.

As CCC Staff proceeds with analysis of the NBR application, and once deemed complete, the opportunity exists to work through outstanding issues in a collaborative manner. Any remaining issues between CCC Staff and NBR could then be deliberated before the entire Commission at the de novo hearing on the CDP.

Please keep in mind that, no matter which scenario is determined to apply, the HCCMP will fully mitigate all biological impacts and enhance onsite biological communities in a way that significantly improves the overall ecological function of the site.

2. Exemption Termination or Expiration Date.

Based on the progress in our recent meetings on addressing Staff's questions about the 1973 Exemption, it appears that this issue is unrelated to the NBR CDP application.

3. Exemption Encompasses Oil Field Remediation.

See Item 1 discussion above.

4. Consolidation - Oil Field Evolution.

As described in our Initial Response, oil field production facilities were anticipated to evolve on the site over time to provide for the continued and indefinite production, operation and maintenance of the oil field. The oil field consolidation activities are a continuation of this historic and vested practice. With the approval and implementation of the Project and its related HCCMP, the oil operator would reduce its overall operational footprint under the 1973 Exemption from 401 acres to 16 acres, which should be perceived as a beneficial thing.

Clarification of Oil Field "Consolidation Areas"

Please note that the "Consolidation Areas" are really "remainder oil operations areas" (after clean up of the balance of the NBR property) and that "consolidation" has occurred in the past and will continue to occur for the life of the oil field. The proposed project would accelerate this process and allow the site to be open to the public in the near term with considerable public amenities as opposed to some undefined time in the future while continued oil operations occur with no incentive to clean up the property and no assurance that the site would be open to the public or improved.

Based on the progress in our recent meetings it appears that this issue too is unrelated to the NBR CDP application. The Project can be considered independent of a lengthy examination of the history of consolidation activities.

5. Best Oil Field Practices Require Continual Oil Field Maintenance.

Oil field maintenance is a fundamental component of oil field operations. As is evident from review of historical photography, the oil field vegetation maintenance practices at Banning Ranch have not only been conducted consistently since well before 1972, but they are wholly consistent with other oil field vegetation maintenance practices throughout California, including within the Coastal Zone. It is virtually impossible and unsafe to operate an oil field if vegetation is left untended. Therefore, regular routine maintenance work is required.

In cooperation with the Coastal Commission Staff, much of the long-standing property maintenance has been deferred over the past 18 months while discussions continue between the Staff, WNOC, NBR and the USFWS. During this time, site conditions have deteriorated, invasive plant types have increased their presence on the property, and potentially hazardous fire conditions have increased.

6. Land Use Planning Can Be Accomplished Through the CDP Process.

The majority of the Project site is within the jurisdiction of the County of Orange, and a smaller portion of the site is under the jurisdiction of the City of Newport Beach. Because of this highly unusual situation, neither jurisdiction has prepared or intends to prepare a LCP or LUP for the property. The Applicant is aware that the Chapter 3 policies of the Coastal Act will be applied to the application. Consistent with Chapter 3, however, the Project provides for:

- Protection and enhancement of public access to the coast and enhancement of shoreline and upland recreation areas in the Coastal Zone.
- Restored and protected wetland and ESHA habitat on the site that will provide enhanced and contiguous habitat contributions to the broader Santa Ana River ecosystem, and will ensure that the critical wildlife movement corridors supporting several special-status species within the coastal zone have sufficient areas of high-quality habitat necessary for species survival restored and protected in perpetuity.

- Restoration and conservation of habitat with improved ecological function and value.
- Designation of more than 252 acres of the project site as a Natural Open Space Preserve, including wetland restoration/water quality areas, interpretive trails, habitat restoration and preservation areas, providing educational opportunities for individuals utilizing the project's trail system.
- Protected and enhanced water quality of stormwater runoff and for both onsite and adjacent receiving waters.
- New Coastal Access by connecting the NBR site and inland areas to the Coast via public roadway extensions of 15th, 16th and 17th Streets through the Project site to West Coast Highway.
- Development of a number of new coastal trails (with the potential opportunity to designate certain segments as a portion of the California Coastal Trail) and a variety of parklands, which would maximize public access and recreation opportunities in the project area for both residents and visitors with diverse backgrounds, interests, ages, and abilities.
- Development of a number of support facilities throughout the site to support access to and use of trails and parklands, where limited support facilities are currently available, including public parking, trailhead improvements, interpretive amenities, trash receptacles, restrooms, and picnic areas.
- Greatly enhanced public access through the construction of a pedestrian and bicycle bridge that would span West Coast Highway that would provide northsouth access to the site and the Pacific Ocean without having to cross West Coast Highway at the street level, and would encourage walking and bicycling to and from the beach.

While the Commission may encourage local jurisdictions to complete their LCPs, where LCPs have not been certified, it is not unusual or unprecedented for projects to proceed with a coastal development permit issued by the CCC. The Brightwater development in Huntington Beach (formerly unincorporated County of Orange) and Hellman Ranch in the City of Seal Beach were both master-planned communities that were reviewed by the CCC in the context of a CDP. Design criteria and development standards were developed and submitted sufficient for the CCC to be able to review those development proposals to determine consistency with the Coastal Act Chapter 3 policies. The Master Development Plan prepared for the Project and approved by the City provides the requisite level of detail for the CCC to review this Project at a CDP level.

Conclusion Regarding the Threshold Issues

In conclusion, we have addressed in our meetings and our written communications with Commission Staff, the Threshold Issues in a manner that should resolve the threshold issues and provide a framework for deeming the application complete and allowing for Staff analysis of the CDP application to commence. The landowner and WNOC will continue to work with Staff on addressing its questions about the 1973 Exemption, but regardless of the outcome of those conversations, we have demonstrated how the CCC's examination of the 1973 Exemption can proceed independent of the CDP application and how CCC Staff's "baseline" concerns with respect to the Project can be addressed

independent from the 1973 Exemption. We have responded to each Threshold Issue and provided an application and supporting material with a level of detail regarding the proposed development to enable Commission Staff and ultimately the Commission to analyze the proposed Project in the context of a CDP and the Chapter 3 policies of the Coastal Act. For these reasons, we request that the application be deemed complete and that we work together to process the application for a future hearing before the Commission.

III. Other Issues

- Alternatives
- Alternatives Analysis: Thank you for the submittal of the alternative development plan, which included a project design that did not include an extension of North Bluff Road to 19th Street. Please note that Attachments 14 and 15 appear to be the same document. Was a difference between these documents intended? (Page 5, ¶5)

Although the 5/17/13 letter states that reduction in project intensity would reduce public access options, evaluation of all project alternatives by the Commission is required in order to ensure that the Commission is able to determine the least environmentally damaging feasible alternative. Therefore, please submit alternative project designs, including redesigned access and reduced project densities that do not rely on the proposed Bluff Road access from Coast Highway and/or north Bluff Road from 19th Street. Also, if roadway access to the site were limited to just one of the projections from 15th, 16th or 17th streets, what is the maximum amount of development that could occur on the site given circulation and other requirements? In other words, if a roadway from Coast Highway, and/or 19th street is prohibited, and/or access to the site is limited to either 15th, 16th, or 17th streets (and combinations thereof) what is the maximum amount of development that could be accommodated on the site with these constraints? (Page 5, ¶6)

Response:

Alternatives that do not include (coastal) access from West Coast Highway are neither feasible nor consistent with the City and County circulation elements, and prohibit certain coastal dependent uses that are a part of the Project proposal. The West Coast Highway connection creates coastal access from inland areas and the project, provides access for public parking for the beaches and the proposed Natural Open Space Preserve, provides access to onsite amenities including proposed public parks and interpretive areas, as well as creating better project circulation and minimizing traffic impacts to existing adjacent neighborhoods and businesses.

Attachments 14 and 15 are the same exhibit, they were printed in two sizes and accompanied other documents.

As previously provided: CDP Application 5-13-032, May 17, 2013 - page 32

"Please see the Alternative Development Plan included with this submittal (Attachment 15). The Alternative Development Plan has been designed to address comments received by staff raising concerns regarding the proposed Bluff Road, particularly as it relates to potential gnatcatcher habitat and use areas. Accordingly, the Alternative Development Plan removes [the portion of] North Bluff Road extending from 17th Street to 19th from the project design as requested, reduces the width of the remaining Bluff Road from 4 to 2 lanes and further realigns the road throughout the development to avoid permanent, direct impacts to adjacent vegetation potentially supporting gnatcatchers (the road realignment avoids the northwest and southeast polygons as identified in the Consent and Restoration Order CCC-11- R0-02). The Alternative Development Plan would provide for additional land designated as Open Space Preserve and would create additional opportunities to enhance contiguous and high quality gnatcatcher habitat on the site.

Pursuant to the Alternative Development Plan, primary [public and] emergency access will be limited to the southern end of the Project site from West Coast Highway via a down-scaled and more sensitively aligned Bluff Road, and three (3) secondary accesses will be provided from 15th Street, 16th Street, and 17th Street, all which connect to Bluff Road. This proposed ingress/egress pattern is consistent with the primary and secondary (emergency access) points that exist for the site, and would create a system of new coastal access corridors connecting adjacent neighborhoods to onsite recreational resources and to the coast. Alternative Development Plans relying on fewer access points to and through the Project site are not preferred because such alternatives would inherently limit opportunities for public use and enjoyment of the site, and because such alternatives would eliminate options for public access to the shoreline.

Following review of the Resource Constraint Plans provided in response to comment #5, and further dialogue with staff regarding the responses to comments #1 and #2 relating to existing exempt, historic and vested uses of the site and how those factor into ESHA determinations for site resources, the NBR Project Team understands that alternative development plans will be identified in coordination with staff as part of the Project review process to ensure impacts to ESHA are avoided/minimized to the maximum extent feasible."

The above response references the Alternative Development Plan (Attachment 1) which was included as Exhibit 15 in the May 17th re-submittal.

Revised Alternative Development Plan

Responding to further Staff input, as part of this package we have provided a revised Alternative Development Plan (Attachment 2 - CCC Alternative Project 2). This alternative provides for additional natural open space, eliminates impacts to wetlands/riparian areas and reduces the development footprint. Specifically, CCC Alternative Project 2:

- Maintains the reduced Bluff Road size (2 lanes v. 4 lanes) previously depicted in the Alternative Development Plan (Attachment 2) included as Exhibit 15 in the May 17th re-submittal.
- Modifies the alignment of the southerly portion of Bluff Road to provide greater distances from adjacent residential development and thereby reduces impacts (e.g., proximity, noise, visual) to adjacent neighborhoods.
- Modifies the alignment of the extension of 15th Street into the proposed project to provide greater distances from adjacent residential development.
- The result of the road alignment modifications would be a reduction in the proposed development area, the retention of Feature W and the ability to provide/restore more natural open space on the southeast edge of the property.
- Bridges the main drainage (arroyo) thereby reducing proposed project impacts.
- Modifies the alignment of Bluff Road in the vicinity of the proposed Vernal Pool Complex.
- Integrates wildlife undercrossings at three key locations to insure unimpeded wildlife connections to protected natural open space on the site.
- Significantly increases the vernal pool complex with the inclusion of all features known to have San Diego Fairy Shrimp with the exception of Feature E which consists of an historic oil sump that requires clean-up and remediation.
- Increases natural open space by removing portions of the Bluff Top Park.
- Removed the Interpretive Park and associated Interpretive Center and replaced it with natural open space.

Habitat Conservation and Conceptual Mitigation Plan

To underscore the benefits of CCC Alternative Project 2, we have also modified the Habitat Restoration Plan approved by the City of Newport Beach to take project changes into account and include in this response a draft Habitat Conservation and Conceptual Mitigation Plan (HCCMP), (Attachment 6), which will be used to address the mitigation requirements of local, state, and federal agencies.

The HCCMP includes:

- Preservation and restoration of all seasonal features known to be occupied by SDFS, with the exception of a feature that consists of a historic oil sump requiring remediation.
- Concentrates seasonal feature/wetland mitigation opportunities in a newly restored and expanded vernal pool/native grassland complex connected to the larger Natural Open Space Preserve via a wildlife undercrossing integrated into the road design.
- Comprehensive invasive species eradication
- Reduction of the development envelope to preserve additional seasonal features with higher resource values (features A, W), integrating them with other habitat restoration opportunities including grasslands and scrub communities
- Reduction of development envelope to enhance habitat for special status species including gnatcatcher, least bell's vireo, burrowing owl, cactus wren.

- Integration of wildlife undercrossings into road design to address comments regarding wildlife movement across the site (specifically coyote).
- Biological Resources
- 1. Vernal Pools/Seasonal Pond Surveys

a. Wet Season Sampling-When fairy shrimp cysts (Brachinecta sp.) are found during a dry season survey (2012), an additional wet season survey is required. No wet season survey was completed after this dry survey for features C, D, K, L, M, N, P, R, Q, W, X, Y, Z, AA, BB, CC, DD, EE, FF, GG, HH, II, JJ, KK, LL, MM, NN, 00, PP and OO.

i. The laboratory hatching of a sampling of cysts found during a dry season survey is neither to protocol nor sufficient in determining species present (features

C,D,M,X,Y,Z,CC,DD,EE,FF,GG,HH,KK,LL,MM,OO,PP). This technique allows for a) sampling error in missing cysts or b) not obtaining an adequate sampling all cysts that are present, or c) preferential hatching of certain fairy shrimp species.

ii. Assuming that co-occurrence of the two species of known fairy shrimp on site will not occur is not permitted as sound science (feature N,P,B,T). Though co-occurrence has not been seen at this site before, it cannot be assumed to be consistent with the amount of cross contamination of the seasonal features on site that occurs due to maintenance.

iii. Assuming seasonal feature failed cyst hatchings to be of a certain species due to the surrounding seasonal feature findings is unacceptable. This is primarily due to the level of cross contamination of the seasonal features on site that occurs due to maintenance.

iv. Feature W was not addressed.

For the reasons above, a wet season protocol survey is required in order to delineate the location of wetlands and sensitive habitat. Please submit a wet season protocol survey (P. 6)

Response:

Wet season and dry season protocol surveys sufficient to comply with USFWS protocol survey guidelines have been performed on the seasonal depressions that have been identified on the Project site. The FWS (1996) survey guidelines state that a complete survey consists of sampling for either: 1. two full wet season surveys done within a 5-year period; or 2. two consecutive seasons of one full wet season survey and one dry season survey (or one dry season survey and one full wet season survey). The protocol may be revised in coordination with the FWS.

A dry season survey was conducted in 2012. The 2012 dry season survey was preceded by a total of six (6) wet season surveys completed for the site as reported in by GLA in 2000, 2008, 2009, 2010, 2011 and 2012. Thus, the requisite number and seasonal timing of fairy shrimp surveys have been conducted. Recognizing that the majority of features were only identified as potential seasonal features during the extreme rain season of

2010/2011, the dry season survey was conducted to determine with more certainty the presence/absence and species-type of fairy shrimp in all previously identified actual or potential features to compensate for any uncertainties arising from the prior wet-season survey. Please refer to page 22 of Attachment 7.2, Summary of Protocol Surveys for Federally-Listed Vernal Pool Branchiopods Conducted on Newport Banning Ranch (prepared by GLA and Dudek, January 2013) for survey results for Feature W.

The results of the dry season survey are particularly valuable for assessing habitat value of the many features which, under normal and even excessive rainfall conditions, are incapable of sufficient inundation for a duration that could allow for the completion of fairy shrimp reproduction, providing data that may not otherwise be obtainable with only wet season surveys.

A follow up wet season survey is required where a cyst was identified to genus (emphasis added) unless we assume a listed species is present. However, according to Section V.d.3., "All soil samples shall be retained and stored as directed in V(d)(1) and V(d)(2) above until the Service is able to provide direction in species-level identification of the cysts of all the aforementioned branchiopod species." Since Branchinecta species cannot be identified to species without grow-out or genetic analysis (not available at the time of protocol development), the only way to determine species was to grow out in a lab. This has been done many times by various crustacean biologists in the past to determine species through grow-out.

According to FWS survey guidelines (1996):

"For the purposes of these Guidelines, vernal pools and swales are defined as follows:

Vernal pools and swales are ephemeral wetlands that form in areas ...that have shallow depressions underlain by a substrate of hardpan, clay, or basalt near the surface that restricts the percolation of water. They may be characterized by a barrier to overland flow that causes water to collect and pond." "With average rainfall patterns, vernal pools are typically characterized by a predominantly annual plant community dominated by wetland species."

As noted in prior correspondence, a number of the features which have been previously identified as potential vernal pools do not support the substrate or vegetative parameters to rise to the level of performing focused surveys. Indeed, a number of the features do not exhibit the potential of filling for a sufficient time so as to initiate a wet-season survey. Protocol states that a pool is considered to be inundated after it holds 3cm of water after a rain event. Further, the protocol does not offer any minimum inundation period thresholds. Many accepted fairy shrimp surveys have had three or fewer survey periods.

Flooding of an area during extreme rainfall is not enough to designate an area as a feature requiring focal surveys for listed fairy shrimp. It is important to understand the

underlying substrate as well. Sandstone is porous and would not support ponding in a natural way, but would require a binder to close the gaps between grains so that water could puddle. Similarly, deposited oil slurries, like blacktop parking lots and asphalt roads may include depressions which puddle water, but these manufactured and engineered areas are not key conservation areas for listed species.

Even though sufficient protocol surveys have been performed, in order to augment the already-sufficient survey results, the Project Team intends to conduct an additional wet season survey during the 2013/2014 rain season to supplement the body of data collected for the site over the last several years, including the results of the 2012 dry season survey. For purposes of review of the coastal development permit application, the Project Team will continue to highlight survey results and potential impacts and restoration opportunities for those specific features subject to the Coastal Commission's jurisdiction; features A, II, K, KK, W, BB, L, LL, MM, J, VP1, VP2, and VP3. Of these, only features BB, KK, LL and MM would be permanently impacted by the proposed development plan; all other features would be subject to temporary impacts associated with required oil field abandonment/remediation and/or proposed mitigation/restoration activities. The actual effects of these temporary impacts are expected to be minor (removal of surficial pipes or support blocks); however, the impact analysis conservatively assumes full impacts to the features with associated mitigation/restoration.

b. A preliminary Vernal Pool Approximate watershed Study was conducted to determine the watershed boundaries for the eight (8) seasonal features known to contain the federally- endangered San Diego fairy shrimp. This should also be done for the rest of the features on the site. Also, whether the overall development project will/has the potential to impact these pools still remains to be addressed. (P. 6)

Response:

Additional watershed assessments have been conducted for those features subject to the Coastal Commission jurisdiction's (i.e., all features meeting at least one of the three wetland indicators and not subject to ongoing oil field operations and maintenance and/or future abandonment and remediation activities, as identified in the Jurisdictional Determination of Seasonal Features for the Newport Banning Ranch, Dudek, May 2013). These additional features include A, BB, II, KK, MM, LL and W. Individual tributaries are generally limited to the basin of each feature as described in detail in our 5/17/13 letter, or are limited by immediately adjacent oil facilities. With respect to features BB, KK, MM, and LL since these features occur within and immediately adjacent to active oil field facilities and the appurtenant activities, it is likely that the hydrology of the area surrounding the features has been, and will be, subject to constant modification given the features' proximity to active oil access roads, oil pads and pipelines. The proposed project would result in direct impacts to these features and includes mitigation in the form of wetland resource establishment and enhancement. Accordingly, a detailed analysis of individual watersheds for these features has not been conducted. With respect to feature

A and feature W, CCC Alternative Project 2 protects both features in place and provides adequate a native vegetation buffer (see Attachment 2).

Based on discussions and feedback from USFWS and CCC, CCC Alternative Project #2 included with this submittal avoids all direct impacts to features A and W, and includes sustainable watersheds. This alternative also preserves watershed areas on the NBR property for seven (7) of the eight (8) seasonal features known to contain the federally-endangered San Diego fairy shrimp in the proposed Open Space Preserve. The remaining seasonal feature (Feature E) consists of a documented oil sump known to support San Diego fairy shrimp. The oil sump will require remediation and, therefore, cannot be protected in place. The expanded vernal pool preserve more than compensates for the loss of Feature E.

2. Vegetation mapping of encelia/disturbed habitat Encelia/Disturbed Habitat. The membership rules for what constitutes "disturbed" are unclear. Please provide a clear definition and membership rules for the various disturbed categories.

The rules for what constitutes "disturbed" and what constitutes disturbed native vegetation remain unclear.

First, while bare 'ground is identified as a factor for determining disturbed areas, a quantitative value for what amount of bare ground relegates a particular area into a "disturbed" category is not provided.

Second, the criteria for whether an area is -labeled disturbed or disturbed native shrub vegetation is 110t provided. According to Sawyer eta!. (2009), the criteria for shrub cover to be considered shrub vegetation is that the absolute cover (total cover) must be 20% or greater. We believe that this is a logical criteria for distinguishing "disturbed" from "disturbed native vegetation". In areas where the absolute cover is 20% or greater the MCV2 membership rules can be applied to determine the type of disturbed native srub cover. Once the 20% absolute cover bar is passed for native shrub vegetation, relative cover must be used for evaluating the type of disturbed native shrub vegetation because the MCV2 membership rules are based on relative cover. We believe that Dudek's practice of using absolute cover when listing the MCV2 membership rules in disturbed areas is wrong; the membership rules cannot be applied using a different metric from the one they are designed around.

Third, the only native shrub that is currently considered when evaluating disturbed areas is California brittle brush. (CBB). Singling out this plant results in many areas with native shrubs, that are important members of California sage scrub (CSS) habitat, being categorized as "disturbed" when they could be categorized as disturbed habitat that is a particular subset of CSS based on the MCV2 membership rules. The data for running this analysis has been collected; 76 vegetation transects were sampled by Dudek in disturbed areas in the second vegetation mapping pass. The transect data provides the information

necessary to determine the particular disturbed native shrub habitat using the MCV2 membership rules. (P. 6)

Response:

Main vegetation categories as mapped by Dudek include the following:

Woodland. A woodland community, as defined by A Manual of California Vegetation, Second Edition (MCV2; Sawyer et al. 2009), is when total vegetation cover is greater than about 20 percent (tree canopy may be as low as 10 percent over dense layers of shrub and herbaceous species). In areas where vegetation is less than 20 percent total cover, trees may cover somewhat less than 10 percent (as low as about 8 percent) but are evenly distributed across the stand. Therefore, MCV2 defined woodland communities have about 80 percent bare ground, but can increase to 92 percent when vegetation is less than 20 percent total cover and trees are evenly distributed across the stand.

Shrubland. A shrubland community, as defined by MCV2, is when total vegetation coverage is over 20 percent (the tree layer, if present, generally less than 10 percent cover in stand; herbaceous species may total higher cover than shrubs). Shrubs are always at least 10 percent cover. In areas where vegetation is less than 20 percent total cover, shrubs may cover less than 10 percent (as low as 2-5 percent in some desert stands), but are evenly distributed across the stand. Therefore, MCV2 defined shrubland communities have less than or equal to 80 percent bare ground. NOTE: MCV2 was written for natural vegetation/natural habitats. During personal conversation with Julie M. Evens, author of MCV2, she confirmed MCV2 assists in classifying natural undisturbed vegetation at a hierarchy level. MCV2 does not account for the invasion of non-native invasive plant species or anthropogenic disturbance maintenance/mowing. These anthropogenic disturbances alter the natural habitat by increases in non-native invasive vegetation, bare ground, and breaks in the vegetative canopy. MCV2 should be used as a guide for classifying natural vegetation and can be used with limitations to extend classification in anthropogenically disturbed areas.

<u>Herbaceous</u>. An herbaceous community, as defined by MCV2, is when total vegetation coverage is greater than about 20 percent (the layers for shrubs, subshrubs, and trees, if present, are of low cover than herbs and less than 10 percent). Therefore, MCV2 defined shrubland communities have less than or equal to 80 percent bare ground.

Dudek Vegetation Category Qualifiers are described as follows:

<u>Bare ground</u>. Dudek defined bare ground as areas void of vegetation cover including impervious road surfaces, rock, and tank bottom slurry.

<u>Disturbed</u> (non-vegetation community associated). Dudek defined disturbed (non-vegetated community associated) areas significantly disturbed by anthropogenic means. These areas contain a dominance of "ruderal" or invasive non-native plant species and retain remnants of disturbance or continued to be frequently disturbed (i.e. bare ground, maintenance, mowing, tank bottom slurry, etc.). Areas mapped as disturbed (non-

vegetation community associated) contained 10 percent or less vegetative cover. NOTE: The vegetative percent cover (absolute cover) was increased in areas with evidence of anthropogenic disturbance (maintenance, mowing, tank bottom slurry, etc.), presence of non-native invasive plant species, and lack of a dominant plant species.

Disturbed (vegetation community associated) is an area that has undergone an anthropogenic modification, which has altered a natural vegetation stand. Characteristics of vegetation disturbance are typically a decrease in the absolute cover of native plants; a reduction of plant diversity within a particular vegetation lay; and, an increase in bare ground and non-native invasive plants. Vegetation stands or communities that retain their structure and height (i.e. shrublands) and native plant composition, but have an open canopy within a defined mapping unit and/or invasive plant species, were considered disturbed-shrubland. Areas mapped as disturbed (vegetation associated) contain greater than 10 percent vegetative cover. NOTE: The vegetative percent cover (absolute cover) was increased in areas with evidence of anthropogenic disturbance (maintenance, mowing, tank bottom slurry, etc.), presence of non-native invasive plant species, and lack of a dominant plant species.

<u>Disturbed</u> (non-vegetation community associated). Areas mapped as disturbed (non-vegetation community associated) contained 10 percent or less vegetative cover. NOTE: The vegetative percent cover (absolute cover) was increased in areas with evidence of anthropogenic disturbance (maintenance, mowing, tank bottom slurry, etc.), presence of non-native invasive plant species, and lack of a dominant plant species.

<u>Disturbed</u> (vegetation community associated). Areas mapped as disturbed (vegetation associated) contain greater than 10 percent vegetative cover. NOTE: The vegetative percent cover (absolute cover) was increased in areas with evidence of anthropogenic disturbance (maintenance, mowing, tank bottom slurry, etc.), presence of non-native invasive plant species, and lack of a dominant plant species.

Shrubland vegetation community. Areas mapped as a shrubland vegetation community, defined by MCV2, is when total vegetation coverage (absolute coverage) is over 20 percent (the tree layer, if present, generally less than 10 percent cover in stand; herbaceous species may total higher cover than shrubs). Shrubs are always at least 10 percent cover (absolute cover). In areas where vegetation is less than 20 percent total cover, shrubs may cover less than 10 percent (as low as 2-5 percent in some desert stands), but are evenly distributed across the stand. Vegetative cover can be native species, non-native species, or a mixture. Additionally, the survey area (mapped polygon) must contain a minimum 10 percent cover (absolute cover) of shrubs. Dudek identified shrubland vegetation communities based on the MCV2 membership rules. When a survey area (mapped polygon) has greater than 10 percent (absolute cover), contained evidence of invasive non-native plant species, maintenance, mowing, etc. it is considered disturbed (vegetation community associated). During a personal conversation with Julie M. Evans, author of MCV2, she stated the manual is for natural habitats, areas without anthropogenic disturbances. Under natural conditions, a shrubland has 20 percent total vegetation cover (absolute cover) and 10 percent shrub cover (absolute cover). However, anthropogenic disturbances effect the species composition, percent bare ground, and vegetation canopy which affect the overall function of the vegetation. Additionally, continual disturbance/maintenance of vegetation prohibits vegetation from maturing and allowing for the re-establishment of a habitat. The disturbance creates a fragmented composition with interspersed non-native species and bare ground. Areas originally categorized as disturbed were revisited and point-intercept transects were established to document shrub species absolute cover and shrub height.

In response to questions related to prior vegetation mapping that arose during the May 2012 site tour conducted (with Coastal Commission Staff and Biologists, representatives from USFWS and ACOE, as well as NBR representatives and biologists), and to subsequent input from USFWS and Coastal Commission biologists related to site maintenance conducted by the oil field operator, Dudek further categorized disturbed areas on the Newport Banning Ranch that contain greater than 10 percent vegetation cover. The result of this effort was the creation of two new categories to describe disturbed areas containing native vegetation: Disturbed-Maintained (D-M-) and Disturbed-Infrequently Maintained (D-I-). The USFWS comment highlighted the potential for Disturbed areas to contain California brittle bush scrub (CBBS). Therefore, the effort focused further categorizing the Disturbed areas as D-I-, D-M-, or remaining as D.

Ultimately, if the discussion is related to the ability of California gnatcatchers to use the vegetation community, this is related to the behavior of the species. With more than 20 years of field experience with California gnatcatcher (amongst the first group to review federal permits for them), Mr. Ortega notes that he has never observed them to forage on short plants with only spindly limbs available (e.g., bunch grasses, >1-foot tall deerweed plants). The species likes to forage and move through areas with some amount of leaf cover. Any Gnatcatcher occurrences in exposed areas are brief and consist of quick and direct flights to get back to cover.

Continued... For instance, in transect D-01, found in Appendix F of Vegetation Mapping Transects-Data Sheets dated June 18, 2012, there was 28% absolute native cover. So there is at least 20% native cover, the amount required by Sawyer et a! to be considered native shrub vegetation. And within that the relative cover of deer weed is 57% and the relative cover of CBB is 28%. Under Dudek's current rules, this area was identified as disturbed because it didn't meet the 30% or greater MCV2 rules for California brittle bush scrub and because Dudek does not include any other category of disturbed native vegetation. However, using the transect data that identifies deer weed 1 as having 57% relative cover, the area would be more appropriately identified as deer weed scrub (the MVC2 membership rules for deer weed scrub is that there be 50% or greater relative cover of deer weed). Whether the area would be categorized as disturbed needs to be clarified based on a criteria for the amount of bare space in a particular area.

Another example is transect D-09 where the native absolute cover was 44%, and the deerweed relative cover was 60%, and the CBB was 15%. This disturbed bed area was categorized as disturbed when it would more appropriately have been categorized as

deerweed shrub. Again, whether the area would be categorized as disturbed deerweed scrub needs to be clarified based on a criteria for the amount of bare space in a particular area.

[Footnote at pg. 7] 1 Sawyer et al. (2009) identifies deerweed, Lotus scoparius, as a shrub, not a forb, as it is identified by Dudek. (P. 7)

Response:

These areas could be mapped as deer weed scrub (Lotus scoparius), approximately 0.74 acre and 0.25 acre. Due to the high percentage of non-native invasive species and bare ground, the area could be mapped as disturbed-deer weed scrub. However, the boundaries of these vegetation polygons are from the GLA Biological Technical Report (2009) and the actual area of deer weed scrub should be evaluated for the whole polygon. The resulting boundaries of the vegetation polygons would be of a reduced extent; possibly several smaller patches which would not meet minimum mapping unit thresholds.

3. Oil Field Consolidation. The submitted materials appear to exclude data located within the oil field consolidation area. As mentioned above, such consolidation is subject to Coastal Development Permit requirements. Additionally, the consolidation areas are located directly adjacent to habitat areas, and sensitive species mapped within oil consolidation areas likely utilize habitat directly adjacent to the oil consolidation areas. For these reasons, please submit updated figures which include biological information for the entirety of the project site. (Page 8, ¶1)

Response:

Please note that the "Consolidation Areas" are really "remainder oil operations areas" and that "consolidation" has been ongoing for several decades and will continue to occur for the life of the oil field. The response to this matter is addressed in greater detail in the response related to Threshold Issues.

4. Gnatcatcher Surveys.

- a. Thank you for the submittal of the updated gnatcatcher survey map. However, the submitted map appears to include less known pairs and territories than what has been identified in previous survey consolidation efforts (e.g. see Exhibit 7, Figure 18 for CDP No. 5-11-302). Have any data been excluded from the map? Please explain.
- b. Please provide the latest gnatcatcher survey in full, including the accompanying report. (P. 8)

Response:

Please see the Focused California Gnatcatcher Survey, Newport Banning Ranch Project, Orange County, California, prepared by Dudek, May 31, 2013 (Attachment 7-33). No data has been omitted from the submitted Gnatcatcher Survey Map; please refer to the Review and Comparison of California Gnatcatcher Surveys Results for the Newport

Banning Ranch Property, Orange County, California, October 24, 2013 (Attachment 7-35) and included in this submittal, which provides an analysis of previous surveys efforts and results with those of Dudek's 2013 Focused California Gnatcatcher Survey.

5. Burrowing Owls. Thank you for the additional information regarding the burrowing owl. Your response clearly states that wintering habitat is very important to the survivability of migratory bird species. Though burrowing owls, in general, exhibit variable migratory behavior, the submitted burrowing owl surveys and reports conclude that this species uses this site only as wintering habitat. None of the breeding season surveys (March/April2008, May 2009, March 2010, and 2012) have ever detected any signs of burrowing owls, while all wintering season surveys (January 2008, January 2009, and January 2010) have found birds on site. Although there has not been burrowing owls identified during the breeding season, the submitted information indicates that the burrowing owl habitat within this site is important and necessary for the migratory patterns of the burrowing owl. Therefore, please submit a new current protocol wintering season survey to aid in the understanding of the site's current use by the burrowing owl. (P. 8)

Response:

Comment noted. While our prior response does clearly indicate that wintering habitat is necessary for the survival of migratory bird species, please note that we draw a distinction in that response with wintering habitat for burrowing owl given: 1) the variable migratory behavior of the species, in which some individuals migrate away from their breeding habitat in winter while others remain in the same area year-round, 2) there have been a number of years since 2001 where burrowing owls were not present onsite, and 2) burrowing owls have demonstrated behavioral plasticity in their migratory patterns, in which they choose to migrate some years but not others. Birds have not been observed during the various breeding season surveys conducted in 2008, 2009, 2010 and 2012. In addition, there is no evidence that burrowing owl occur year-round on site as a significant number of other surveys have been conducted during the breeding season and burrowing owl has never been observed anecdotally during the surveys. Further, all burrowing owls, from the Mississippi River to Pacific Ocean, from Canada to Mexico are considered to be part of the same population - migrating not only between seasons and years, but even within the same season. For these reasons, our response indicates that distinct wintering habitat may be less important for the burrowing owl than for species that are strictly migratory. CCC Alternative Project #2 is included in this submittal which expands the proposed Open Space Preserve in upland areas of the site which have the highest documented use for burrowing owl wintering habitat, thereby providing additional wintering habitat on the site. In addition, focused pre-construction surveys in accordance with the 2012 CDFG Staff Guidelines would be required as part of the project, with buffering and relocation requirements implemented during construction for any positive findings.

6. Field lights-The submitted materials state that lighting is proposed until 10 pm. Would the proposed lighting result in impacts to migratory birds, or is the subject site

located within the Pacific Flyway? If the site constitutes a migrational stop site, a lighting plan to minimize impacts to migratory birds may be required. (Page 6, \P 5)

Response:

As previously provided: CDP Application 5-13-032, May 17, 2013 – page 52

"Also, lights within the Community Park athletic fields would include light control visors so that light would not spill and glare, and would be directed downward onto the playing fields. Standards for these lights would be Musco Lighting TM , "Light Structure Green" standards, or another standard of similar design that reduces light spillage. In addition, the CP Land Use District is located away from the bluffs and sensitive habitats."

The project site is located within the Pacific Flyway. Consequently, both mitigation measures and Project Design Features were analyzed in the City's Environmental Impact Report and adopted by the City to address and minimize the potential for night lighting to impact habitat areas. The City has imposed requirements to prepare and verify a lighting plan that minimizes impacts to habitat areas, and any migratory birds that may utilize those areas.

The lighting referenced in the question pertains to the ball field lighting proposed for the North Community Park where improved ball fields are proposed to be located. In addition to the light control visors described in the previous response, the Planned Community Development Plan requires that a "dark sky" lighting concept be implemented within areas of the Project that adjoin habitat areas. Light fixtures within these areas will be designed for "dark sky" applications and adjusted to direct/reflect light downward and away from adjacent habitat areas. In addition, the following mitigation measure was adopted to ensure implementation of the "dark sky" lighting concepts:

MM 4.2-2 The lighting plan for the Community Park shall incorporate electrical plans and structural plans that detail the provision of lighting systems for sports field and hard courts; exteriors of buildings; parking lots, walkways, and/or landscape areas. All lighting within the development shall be directed and shielded so that light is directed away from the Open Space Preserve, including habitat areas. Floodlamp shielding and/or sodium bulbs shall be used in developed areas to reduce the amount of stray lighting into native restoration and preservation areas. Furthermore, no skyward-casting lighting shall be used. The lowest intensity lighting shall be used that is appropriate to the intended use of the lighting. Light standards used for lighting playing fields shall be either Musco Lighting™, "Light Structure Green" standards, or another standard of similar design that reduces light spillage. Final lighting orientation and design shall be in accordance with the "dark sky" lighting standards as defined by the Illuminating Engineering Society of North American (IESNA) and shall reduce the impacts of new light sources to the extent feasible, as determined by the Community Development Director. Prior to final inspection, the City shall cause to be performed a photometric field inspection of the approved lighting system for the Community Park. The inspection shall verify the proper construction and installation of materials within the approved plan; shall determine the

actual light patterns and values through light meter testing and observation; and shall determine the extent of any errant lighting. Deviations and/or violations shall be corrected prior to the final clearance for the Community Park.

7. Mitigation Banking. Please state whether a mitigation bank is proposed as part of this application for the 78.5 acres set aside for future mitigation. If so, additional information, including documentation of the location of the mitigation bank and the accepting body will be required prior to completion of the file. (Page 8, ¶7)

Response:

The project is reserving the right to establish a mitigation bank. At such time as negotiations with an accepting body are completed and banking opportunities confirmed, an application for a CDP, if one is determined necessary, will be submitted. Regardless, as a precursor to implementing the mitigation bank, NBR will preserve this area as permanent open space and all oil field infrastructure and impacts will be abandoned and remediated. Documentation for the future establishment of a mitigation bank is not required to deem the application complete.

8. Wildlife movement. The proposed development appears to create significant obstacles to wildlife movement, especially between the southern and northern portions of the site. Project alternatives and mitigation measures to address this issue need to be identified. (Page 8, ¶8)

Response:

This comment is unclear as to the type of wildlife movement that would be obstructed between the southern and northern portions of the site as a result of the proposed project and what additional detail is needed to complete analysis of this issue. However, we have revised our prior response to include additional detail regarding potential impacts and benefits to wildlife movement associated with the proposed project, and to describe additional project design elements included in the CCC Alternative Project #2 plan to further facilitate wildlife movement throughout the site.

Typically, when evaluating the movement potential of a site, and the potential obstructions, the probable users would be defined. In this particular case, the suite of species are confined to small mammals (e.g., mice, squirrels, rabbits), medium sized mammals (raccoons, skunks), coyotes, birds, reptiles, and amphibians. Mule deer, mountain lions, and bobcats are not known to occur in the area or use the site for movement. The Project EIR notes that the project site is within an area constrained by urban development and that the site itself is surrounded by residential and commercial development on the south, east, and northeast, as well as west of the Santa Ana River. This development restricts movement of most terrestrial species between the site and the Newport Bay Ecological Reserve (2.5 miles to the southeast) and the Bolsa Chica Ecological Reserve (5.5 miles northwest of the site), two major blocks of wildlife habitat in the region. However, as the EIR has identified, the site is an important part of a complex of habitat linkages and open space that allow wildlife to move along the Santa Ana River from Fairview Park south to the Pacific Ocean.

The Project site is adjacent to a USACE salt marsh restoration site, the mouth of the Santa Ana River, and the Talbert Marsh restoration site (located northwest of the Santa Ana River mouth). Talbert Regional Park is located immediately adjacent to the northern boundary of the Project site, and Fairview Park is located north of Talbert Park. The Project's proposed Natural Open Space Preserve and these open space areas provide an important regional resource area for wildlife. In particular, a variety of birds, including Threatened and Endangered species, use this area to breed while others use it during migration as a stopover site to rest and refuel. These areas provide the primary open space in the vicinity of the Project site, and the Santa Ana River provides a riverine connection between these areas from the coast inland to Fairview Park. The Santa Ana River becomes channelized (with concrete sides and bottom) 0.8 mile upstream of Fairview Park; however, it still functions as a regionally important wildlife movement corridor for mobile species to reach open space areas upstream that would otherwise be inaccessible. Overall, the proposed Natural Open Space Preserve within the Project site was designed for/and is expected to be used by wildlife moving along the Santa Ana River (especially between the coast and Fairview Park) and, most importantly, as a migration stopover site by bird species migrating along the coastline.

Currently, required security fencing around the oil field perimeter presents a significant barrier to wildlife movement. Fencing along the northern and western edges of the site divide habitats in the lowlands of the site from those at Talbert Regional Park and in the tidal areas along the eastern edge of the Santa Ana River. Fences along the eastern and southern edges of the site presumably have little impact on wildlife movement, as they only separate on-site habitats from developed areas adjacent to the site.

While the project site preserves habitat for the federally listed California gnatcatcher (CAGN), further restriction of wildlife movement in parts of the site could alter the function of CAGN habitat. For example, as coyotes may control populations of native species that prey on CAGN nests, such as snakes and the raccoon (Grishaver et al. 1998[1]) and non-native predators such as domestic cats and Virginia opossums, restricting the movement of coyotes could have detrimental effects on the nesting success of CAGN.

CCC Alternative Project #2 would result in development of approximately 80-acres on the mesa (uplands), generally along the eastern property boundary and south of the northernmost arroyo. CCC Alternative Project #2 would restrict some wildlife movement within the development area with installation of fencing and walls proposed in the immediate vicinity of the North and South Family Villages, the Urban Colony, and the Resort Colony. However, wildlife movement corridors would be improved throughout the balance of the 240 acres of the site, including along the bluff, within the site's drainages and the proposed Natural Open Space Preserve areas in the lowlands, the entire northern portion of the site and within the vernal pool and along the southeast property

^[1] Grishaver, M.A., P.J. Mock, and K.L. Preston. 1998. "Breeding Behavior of the California Gnatcatcher in Southwestern San Diego County, California." Western Birds 29: 299–322.

boundary restoration areas, through removal of existing oil field facilities, confining oil operations to the remainder oil operations areas, and implementation of a comprehensive restoration program for these areas which will increase the suitability of habitat for the coyotes typical prey species (rabbits and squirrels). Restored and preserved natural habitats would be continuous from one end of the site to the other. Removal and remediation of oil field infrastructure and project proposed enhancement of habitat in the lowlands will diversify vegetation communities, and thus diversify suitability for species. Movement between these areas by bird species such as the CAGN would not be restricted, and likely enhanced. CAGN would be able to disperse to other natural habitats to the north of the site by utilizing restored and expanded natural habitats on the site.

The Project would result in significant improvements to wildlife movement between the site and other locations along the Santa Ana River and Talbert Regional Park. Permeable fencing, or the potential to remove all or a portion of the existing security fencing, between the site and Talbert Regional Park would benefit the larger species present in the area, especially the coyote, which can move over a large area and between habitats in search of prey (3 to 39 sq mi in different studies; Zeiner et al. 1990[2]). This is the single most important factor in enhancing the preservation of coyotes within the general area by increasing the area that is available for coyotes to move throughout the vicinity. This could, in turn, benefit the CAGN. Although some potential CAGN nest predators that wander somewhat widely, such as the raccoon, may benefit as well, the CAGN may potentially benefit overall from the presence of covotes, as noted above. Raccoon's typically utilize wetland and riparian habitats and associated margins when high quality upland habitat is present in an effort to avoid the predators which are typically present. As the quality of the habitat is increased, the potential for native and non-native mesopredators is decreased. Generally, by permitting movement between the site and areas further north along the Santa Ana River, permeable fencing along the northern border of the site would encourage a more naturally functioning system in which barriers to wildlife movement are minimized.

Although no fencing or walls were proposed along North Bluff Road from 17th to 19th Street, the road would create a potential barrier to wildlife, introducing an urban road in an area otherwise proposed to be restored and preserved as natural habitats, and could also pose a danger to wildlife attempting to cross this barrier. The typical use patterns of coyotes and other species have been shown to occur when traffic volumes would be expected to be reduced (Clevenger 2013, ICOET Conference Session 101, No. 2), thus reducing potential conflict. The degree for which transportation corridors constrain movement varies with the frequency of travel, number of available crossings, and the extent of directional fencing to guide wildlife toward crossings. As a low-traffic road, North Bluff Road represents less of a barrier to movement relative to nearby roads. Wildlife would be expected to prefer at-grade crossings along this road. Dodd (2013, ICOET Conference Session 101, No. 4) noted that terrestrial wildlife stop attempting at-

^[2] Zeiner, D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, eds. 1990. California's Wildlife. Volume III: Mammals. California Statewide Habitat Relationship System. Sacramento, Calif.: California Department of Fish and Game