NEWPORT BANNING RANCH

April 8, 2015

Mr. Karl Schwing
Ms. Amber Dobson
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. Schwing and Ms. Dobson:

This letter responds to your April 3, 2015 Notice of Incomplete Application (NOIA). Thank you for the input. Based on review of the NOIA, included in this response are the following:

- Project Description (revised per CCC Staff request)
- Geotechnical Clarifications and References
- Archeological Resource Clarifications as requested related to the Remedial Action Plan
- Biological Clarifications and Data

NBR believes this response fully and finally addresses all of CCC Staff's requests for information and additional data.

We respectfully request your confirmation of completeness of the Application, and look forward to working with you to move this Application forward to the Commission for consideration. We will be readily available to assist you with the post-filing analysis and graphics that you might need.

Sincerely,

Michael A. Mohler
Senior Project Manager

ATTACHMENTS/EXHIBITS

Project Description (revised)

Soil Disturbance Limit with Remediated Soil Placement Area

Phytotechnologies for Site Cleanup

Plate 7 from Report of Geotechnical Studies

Report of Geotechnical Studies*

Results of Dry-Season Survey for Listed Fairy Shrimp for a Single Feature at the 412.5-acre Newport Banning Ranch Property, City of Newport Beach andUnincorporated Orange County, Orange County, California

Examination of Soil Samples from an Orange County, CA Site for Fairy Shrimp Cysts

****Previously submitted, included on CD***

Oil Field Abandonment, Infrastructure Removal and Remediation Activities

1. *As we have previously discussed, amending the project description section of your coastal development permit application to include the proposed oil field abandonment and remediation activities described in the Newport Banning Ranch Oil Field Abandonment Plan would facilitate a more timely and efficient review of the proposed project by removing the need for the Commission to carry out a separate federal consistency review. Please memorialize your support for this approach by deleting the second paragraph of the February 20,2015, "Revised Project Description" and modifying the first paragraph to the following:*

   The proposed Project involves the oil field abandonment, removal, and remediation activities described in greater detail in the Newport Banning Ranch Oil Field Abandonment Plan as well as development of a Conservation, Recreation and Mixed-Use Village Reuse Plan on a 401-acre site currently and historically used for oil field development and production.

   Response:
   Please see revised Project Description included with this submittal.

2. *In response to Commission staff request number 15 regarding proposed excavation, your letter notes on page 34 that sites selected for excavation were among those that would require "cleanout and re-compaction" to facilitate the proposed development project. (a) Please provide the "development geotechnical study" that identifies these "cleanout and re-compaction" sites and describes the methodology and information used in their identification. (b) Please also describe the activities and methodologies involved in this "cleanout and re-compaction" process and indicate which other areas on the project site have been identified as needing "cleanout and re-compaction."*

   Response:
   The terms “cleanout” and “cleanout and re-compaction” are not related to oil field remediation, in this instance they are used as geotechnical terms to describe the removal of soils that are not structurally sound. Any area on the site identified as alluvium, colluvium, artificial fill or landslide deposit that coincide with the development footprint, will require “cleanout and re-compaction.” See Plate 7 of the *Report of Geotechnical Studies* (on CD) depicting the locations of these soil types/conditions. Please note that all areas subject to remedial grading are wholly contained with the proposed development footprint and will not result in impacts beyond the limits of grading already identified and analyzed.

   (a) The RAP does not necessitate cleanout and re-compaction of soils under final placement of remediated soil. The RAP requires the use of clean soils to backfill areas where impacted soils have been removed. Remediated soils are not

appropriate for use as backfill materials where impacted soils or concrete foundations have been removed, due the requirement of a 10 to 15-foot clean soil cap. Alluvium, colluvium, artificial fill and landslide deposits (assuming they are not impacted soils as a result of oil field activities) do qualify as appropriate for use a backfill material. In order to limit the amount of excavation on-site, NBR has selected areas that require "cleanout" as areas for final placement of remediated soil, which would then also be backfilled with appropriate materials. The areas that have been selected are also deep enough to allow for depths that provide for a sufficient 10 to 15-foot clean soil cap, without resulting in the creation of artificial mounding on the site. Please see the included map, *Soil Disturbance Limit with Remediate Soil Placement Area*. The *Report of Geotechnical Studies* (included on CD) analyzed current *soil conditions on the site* via a series of borings and trenches collected over the last several decades to identify and map soil characteristics on the site. Additionally, the *Report of Geotechnical Studies* conducted a review of geological and geotechnical reports previously prepared for the site and adjacent properties, as well as, the review of aerial photographs and topographic maps. A more detailed discussion of the methodology is located in the Introduction of the *Report of Geotechnical Studies*. Based on this data, and found in the Recommendations section of the report, it was concluded that corrective grading would be required in areas to receive fill or areas that would be exposed to future design and grading cuts where non-engineered fills, colluvial soils, alluvial soils and terrace deposits exist.

(b) The process of cleanout and recompaction involves the removal of structurally unsound soils until competent soils are reached as verified by a licensed geotechnical engineer. These areas are then backfilled with compacted fill that achieves a minimum of over 2% moisture content for compaction and densified to at least 90% relative compaction. Removals will done by scrapers and/or excavators. For areas on the site that require cleanout and recompaction, please see the included map, *Cleanout and Re-Compaction Map*.

3. *Please clarify the response to Commission staff request number 15 to describe the feasibility of alternative onsite concrete and asphalt-like-material reuse options such as placement as recycled road base and/or construction fill.*

Response:
Onsite concrete and asphalt-like-material reuse options and feasibility:

- **Recycled as road base** – where practical concrete debris will be used as recycled road base. There is an estimated 30,000 CY of concrete onsite. It should be noted that concrete debris volumes represent less than 14% of the total estimated soil to be managed in the remediation process. Asphalt-like-materials may not be used as recycled road base.

- **Construction fill** – feasible, with conditions, asphalt-like-materials must be placed and covered by a minimum 15-foot clean soil cap. The only areas onsite that can accommodate a minimum 15-foot clean soil cap without the need for additional deep excavation are the currently identified soil placement areas of the Remedial Action Plan. Concrete larger than 12-inches in diameter must be placed and covered by a minimum 15-foot clean soil cap, if it is less than 12-inches in diameter it is suitable fill material where practicable.

Please note, less than 15% of the estimated soil to be managed onsite via the remediation process is eligible for uses other than deep construction fills, as such, the amount of fill would not significantly change the size and location of the required placement areas. Without a Project the abandonment and remediation work is not anticipated in the foreseeable future.

4. *In response to Commission staff request number 20 for any studies, reports, or documentation supporting the proposed bioremediation program, you provided a pamphlet titled Citizen's Guide to Bioremediation. This pamphlet notes that bioremediation is often accomplished in situ without the need for soil excavation or removal. Please provide the information used by Newport Banning Ranch to evaluate the feasibility of this less invasive in situ soil treatment alternative and describe the reason this alternative was rejected in favor of the proposed ex situ treatment option involving soil excavation.*

Response:
As discussed in the Abandonment Plan in Section 3.6.3, several in-situ methods were reviewed but did not pass initial technical feasibility criteria. In addition, as this would be the final abandonment of a long term industrial activity in these areas, NBRLLC is seeking the most thorough and complete removal of all oil field infrastructure and historical impacts to allow reuse for public access, recreation and restoration activities.

The in-situ soil treatment methods were evaluated and rejected for use at Newport Banning Ranch for several reasons including:

- In-situ methods have the lowest certainty that the full extent of contamination is found and treated, thus contaminant removal and treatment is generally the preferred method for the closure of industrial sites.
- In-situ methods are typically used for deeper and more bio-available types of contaminants (lighter end hydrocarbons for example) when direct removal is impractical due to depth limits, cost considerations or a combination of both.
- The contaminants at the NBR property are mostly primarily located on or near the surface and generally within the top 8 to 10 feet of soil. This is considered easily accessible for surface removal remediation purposes.

- The contaminants on the NBR property are generally made up of mid and heavy range hydrocarbon components (weathered crude oil) that are generally not able to be treated by in-situ methods. The more concentrated in place contaminant levels of these heavier end hydrocarbons furthers this problem by being less bio available than they would otherwise be after excavation which breaks up and homogenizes the soil concentrations allowing higher oxygen levels throughout the soil matrix.
- Some in-situ methods, such as those using heat, vapor, air sparging or steam are not effective at shallow depths due to surface interferences or may not be safe at shallow depths due to channeling and surface eruptions.

Two other similar abandonment and remediation projects managed by the NBR owners, successfully utilized onsite soil bioremediation as part of the remedial program. The Yorba Linda Oil Field abandonment and remediation project, which became the Vista del Verde residential and golf course development project, and the Bolsa Chica Wetlands Restoration Project within the Huntington Beach Oil Field.

The Yorba Linda project was also a full oil field abandonment and remediation project that utilized both clean capped deep placement and onsite bioremediation. The RWQCB used this successful project as the reference to recommend cleanup levels for the NBR property in 2001.

The Bolsa Chica Wetlands Restoration Project was a smaller area oil field remediation program within a continuing oil field operation. That project predominantly utilized onsite bioremediation.

Similar to Yorba Linda and Bolsa Chica, the character of the impacted soils and the presence of naturally occurring bacterias on the NBR site will ensure a successful bioremediation.

Phytoremediation was rejected because the impacted soils on the NBR property are from aged mid to heavy crude oil components that are not conducive to phytotechnologies. *Phytotechnologies for Site Cleanup (attached)*, found on the EPA's website (clu-in.org), notes:

> "*Aged petroleum products are not usually bioavailable and not successfully treated via phytotechnologies.*"

Planning Issues Related to the Development Plan

5. *Water Quality*
   At this time, the conceptual water quality BMPs proposed and the information provided are sufficient for staff to analyze the proposal. As discussed with the

Fuscoe water quality engineer consultant on March 26 and April 2, detailed diagrams and photographs of the larger BMPs and the treatment basins, as well as flows, will be submitted in the coming months as analysis for the CDP moves forward.

Response:
Complete.

6. *Archeology*
The March 12, 2015 executed settlement agreement between NBR and the CCC was for impacts to archeological resources caused by unpermitted development related to the past and on-going oil well operations and preventing the disturbance of known cultural sites as a result of the restoration and removal activities required by the settlement agreement. However, there are certain aspects of the archeological work that are relevant to the current CDP process and aside of the enforcement process. The statement in your most recent cover letter that the executed settlement agreement resolves the outstanding issues related to archeology for the completeness of the CDP application is incorrect.

Focusing on the filing requirement for now, please clarify the following: in the March 5, 2015 letter you state that Section 4, Site Assessment and Investigation, 4.2 Ground-Truthing of the RAP includes measures to ensure avoidance of any cultural resources to the maximum extent feasible. We have reviewed the attached February 18, 2015 Remedial Action Plan, by Geosyntec Consultants, specifically pages 15-16, and found no discussion of measures to ensure avoidance of any cultural resources. There is some discussion of biological monitoring of vegetation but no mention of cultural resources or measures for their identification and/or avoidance. Please clarify the location of this information, and provide the information if not elsewhere provided.

Response:
NBR understands that the March 12, 2015 executed settlement agreement addresses all potential impacts to archeological resources associated with past activities, as well as removal activities required by the settlement agreement (which, to a large extent, overlap with the proposed abandonment activities of the CDP). In addition to addressing future A&R work, the settlement agreement requires that the cultural resource sites addressed in the agreement be incorporated into the identified Restoration Areas that are to be restored to their natural condition and preserved in perpetuity as open space.

As it relates to additional future activities of the proposed abandonment and remediation work, our March 5, 2015 letter reference to Section 4, Site Assessment and Investigation, 4.2 Ground-Truthing of the RAP was intended to further highlight NBR's commitment to ensure avoidance, to the maximum extent feasible, of all sensitive resources on the property during abandonment activities. In this regard, the referenced ground-truthing measures identified in the RAP to avoid/minimize

impacts to biological resources equally serve to avoid /minimize potential impacts to cultural resources, and these measures will be implemented in addition to the numerous mitigation measures detailed in the Project EIR and related cultural resource assessments as outlined in our prior responses.

Staff's comment indicates there is no mention of cultural resources or measures for their identification and/or avoidance in the RAP, and requests that we clarify the location of this information, and provide the information if not elsewhere provided. As noted above, the reference to the ground-truthing measures of the RAP was intended to call Staff's attention to measures contained within the RAP that would serve to avoid/minimize potential impacts to cultural resources (discussed further below); it was not intended that the referenced RAP measures be considered separately from the substantial information provided previously on measures already implemented and proposed to ensure identification and/or avoidance of cultural resources as detailed in prior submittals. Collectively, the body of information addressing cultural resources and submitted to Staff provides all information necessary for Staff to review the proposed abandonment and remediation activities for consistency with Section 30244 of the Coastal Act. Please refer to the previously submitted documentation on this subject, in addition to our related responses to each of Staff's prior Notice of Incomplete Application Letters. The previously submitted documentation and related maps clearly document all measures undertaken to 1) complete systematics surveys of the property and thereby identify the location, boundaries, and the significance of cultural resources on the property, 2) identify potential worst-case project footprint impacts (A&R and development plan footprints) to documented cultural resource sites, 3) implement development plan revisions proposed to avoid impacts to known cultural resources, and 4) identify appropriate mitigation measures that ensure potential impacts to both known and unknown cultural resource are avoided or mitigated to the maximum extent feasible.

As a supplement to the collective body of information specifically addressing cultural resources previously submitted, and in response to Staff's request that we explore methods of removal of oil field infrastructure that would have the least impact to any known or unknown buried archaeological resources, we note the additional measures contained in Section 4, Site Assessment and Investigation, 4.2 Ground-Truthing of the RAP, are responsive to Staff's request. The RAP measures include assessing the already established potential worst-case impact areas by performing a detailed on-the-ground review, to be conducted on foot using predominantly visual methods but may be supplemented with soil sampling and laboratory analyses (if needed), to evaluate if the A&R work is in fact necessary in the field reconnaissance areas. The ground-truthing efforts may reveal some impact areas that do not actually contain either infrastructure items (including gravels, road materials, and crude oil asphaltic materials) or crude oil operations impacts (those constituents required to be remediated per the approved RAP criteria), in which case the areas would be reclassified as no impact, and the actual boundaries of the historic oil operation areas would be updated. This process will document areas where actual

impacts can be reduced over those assumed in the original, worst-case impact analysis.

To clarify that the ground-truthing measures contained in the RAP are equally applicable to avoiding/minimizing impacts to biological and cultural resources (as previously identified in Exhibits 7-8 and 14 of the Newport Banning Ranch Oil Field Abandonment Plan (October 22, 2014), Section 4, Site Assessment and Investigation, 4.2 Ground-Truthing of the RAP has been revised as follows:

Ground-Truthing of Historical Impacts

As part of the CCC CDP permitting application for the overall Project, an analysis was conducted by the project biology team and City Archaeological Consultant to evaluate the impacts of the Project to Site vegetation and sensitive resources. In estimating these potential biological and cultural resource impacts, it was assumed that the entirety of the Historic Oil Field Operations Areas shown on Figure 4 would require remediation in some way by the A&R work. This worst case assumption was developed by aggregating each of the areas used by the oil operations during the 70-year oil field history including: roads, well pads, facilities, and work areas. The assumption was made that surface areas were at some time covered with oil sands, asphalt, gravel, or other oil operation materials and that those areas would require remediation in some way in the A&R work. The current vegetation and/or sensitive resources in these areas were then considered to be the worst case potential impacts when the A&R work was carried out, though the actual impacts would likely be less. Some of these surface work areas were more likely always bare dirt and eventually were re-vegetated thus not requiring actual A&R work or impacts.

To further define the boundaries and limits of the required A&R work, a process to ground-truth the assumed impacts will be the first field activity performed. This activity will include assessing potential worst case impact areas by performing a detailed on-the-ground review. This review will be conducted on foot using predominantly visual methods but may be supplemented with soil sampling and laboratory analyses (if needed) to evaluate if the A&R work is in fact necessary in these field reconnaissance areas. The ground-truthing efforts may reveal some impact areas that do not actually contain either infrastructure items (including gravels, road materials, and crude oil asphaltic materials) or crude oil operations impacts (those constituents required to be remediated per the approved RAP criteria). These areas would therefore be reclassified as no impact, and the actual boundaries of the historic oil operation areas would be updated.

This process, to be conducted by Geosyntec personnel with support from the project biology team and consulting Archaeologist, will document areas where actual impacts can be reduced over those assumed in the original analysis. While a requirement of the Abandonment Process is to remove infrastructure and historical impacts, there is expected to be some historical use areas where vegetation has simply overgrown once bare dirt and where no materials were ever placed or left.

7. *Biology*

We have requested re-mapping done by Dudek of the "disturbed" vegetation and mapping of prickly pear cactus patches onsite, both in-person on site visits and in meetings with NBR, and NBR has agreed to provide it. While it is not a filing requirement, please provide the revised mapping of the disturbed areas and mapping of the prickly pear cactus categories as soon as possible. As analysis continues there will be additional information needed in order for staff to have a complete data set to work with, for both the seasonal features onsite as well as the vegetation. Please note that additional requests for biological information will be made in the future, as needed and staff expects that NBR will provide it.

Please clarify if features 24b, 49a and 49b are still present on the site. If so, please assign them seasonal feature IDs and provide data regarding the presence of cysts and the type of vegetation found in the features.

While we understand USFW has not required protocol level surveys for San Diego Fairy Shrimp in every identified feature onsite, Wetlands and Environmentally Sensitive Habitat Areas are defined under the Coastal Act as areas that may contain endemic invertebrates. In order to make these determinations through the CDP process, staff requires information for the presence of fairy shrimp (listed or not) in all features on the site. Most of this information has already been provided, with the exception of: features RR, SS, TT. We understand that this may be unlikely Fairy Shrimp Habitat, but should be subject to a survey, particularly since these features may be subject to degradation due to proposed remediation activities. As an alternative to additional wet season surveys, please provide soil sample data for the presence of cysts in these features: RR, SS, TT, and include data for QQ.

Response:

As noted in the May, 2013 Jurisdictional Determination of Seasonal Features, a total of three seasonal features (named 24b, 49a, and 49b by the Banning Ranch Conservancy) were purportedly observed by the Banning Ranch Conservancy, but they were not observed during 2011 GLA surveys. Accordingly, the features are not on site and no additional survey information or seasonal feature identification is provided.

Feature QQ, previously identified by the Banning Ranch Conservancy as feature 39, was subject to dry season surveys in 2011 and 2012, during which no fairy shrimp cysts were detected (relevant dry season survey reports prepared by GLA and ERS attached). In addition, the feature did not exhibit ponding in 2011/2012, and as such, no fairy shrimp were detected (Report of 2011/2012 Wet-Season Survey for Listed Branchiopods Conducted for Oil Field Features at the 401-acre Newport Banning Ranch Property, GLA).

Features RR, SS, TT are currently being monitored as part of this year's wet season protocol surveys; however, none of these features have ponding during this year's rain events. Per our discussion, NBR will complete a dry season survey for these

features pursuant to Staff's requests. We understand this information is not required for filing the application, but will be provided to Staff when available.